

# Charter Township of Kalamazoo

1720 Riverview Drive  
Kalamazoo, Michigan 49004-1099  
Tele: (269) 381-8080  
Fax: (269) 381-3550  
www.kalamazootownship.org

## Board of Trustees Regular Meeting Agenda April 25, 2016

The "**Regular Meeting**" of the Board of Trustees of the *Charter Township of Kalamazoo* will be held at 7:30 p.m., on Monday, April 25, 2016, in the *Charter Township of Kalamazoo* Administrative Offices, 1720 Riverview Drive, Kalamazoo, Michigan 49004-1099 for the purpose of discussing and acting on the below listed items and any other business that may legally come before the Board of Trustees of the *Charter Township of Kalamazoo*.

### 1 – Call to Order

### 2 – Pledge of Allegiance

### 3 – Roll Call of Board Members

### 4 – Addition/Deletions to Agenda

(Any member of the public, board, or staff may ask that any item of the consent agenda be removed and placed elsewhere on the agenda for full discussion. Such requests will be automatically respected.)

### 5 – Public Comment on Agenda and Non-agenda Items

(Each person may use three (3) minutes for remarks. If your remarks extend beyond the 3 minute time period, please provide your comments in writing and they will be distributed to the board. The public comment period is for the Board to listen to your comments. Please begin your comments with your name and address.)

### 6 – Consent Agenda

(The purpose of the Consent Agenda is to expedite Business by grouping non-controversial items together to be dealt with in one Board Motion without discussion.)

#### Approval of:

- A. Board of Trustees Work Session Meeting Minutes of April 11, 2016
- B. Board of Trustees Regular Meeting Minutes of April 11, 2016
- C. Request for Police Chief Bourgeois to attend Michigan Association of Chiefs of Police Professional, MACP Development Conference at Boyne Highlands June 18-22, 2016
- D. Payment of Bills in the amount of \$40,353.21

#### Receipt of:

- A. Kalamazoo County Land Bank 2015 Annual Report
- B. Transportation Research Center for Livable Communities 2015 Annual Report

### 7 – Public Hearings

- A. None at this meeting

### 8 - Unfinished Business

- A. None at this meeting

## 9 – New Business

- A. Request for approval of resolution for sale of property at 2105 Burdick and to sign listing agreement
- B. Request for approval to sign Conflict of Interest Recognition and Waiver from Bauckham, Sparks, Thall, Seeber and Kaufman
- C. Request to purchase replacements for three patrol cars
- D. Request to replace speed measurement devices
- E. Request to purchase Live Scan device replacement and purchase mobile fingerprint readers
- F. Request for authorization for the chief of police to hire a candidate for the open non-sworn part-time service officer pending background investigation and physical examination
- G. Request for board members to attend one Eliminating Racism & Claiming/Celebrating Equality (ERACCE) workshop

## 10 – Items removed from Consent Agenda

## 11 – Committee Reports

- Election Commission / Street Light Committee - Clerk Thall
- County Brownfield / KABA / Dispatch Authority - Treasurer Cochran
- Metro Transit LAC / CCTA / Public Media – Trustee Goodacre
- Planning Commission / Brownfield Redevelopment – Trustee Leuty
- Fire Department / Noxious Weeds / Highway Commissioner – Trustee Martin
- Parks and Recreation / Zoning Board of Appeals – Trustee Miller
- Police Dept. / Policy and Admin. / KATS / COG / KRWWWC – Supervisor Reid

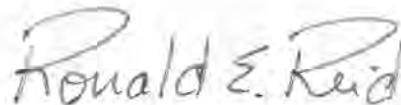
## 12 – Attorney Report

## 13 – Public Comments

## 14 – Board Member Comments

## 15 – Adjournment

Posted: April 22, 2016



**Ronald E. Reid, Supervisor**  
**Charter Township of Kalamazoo**

**CHARTER TOWNSHIP OF KALAMAZOO**  
**BOARD OF TRUSTEES - WORK GROUP SESSION**  
**Monday, April 11, 2016**

The Board of Trustees of the *Charter Township of Kalamazoo* held a Work Group Session on **Monday, April 11, 2016**, at **5:30 p.m.** in the Board Room of the Charter Township of Kalamazoo Administration Building, 1720 Riverview Drive, Kalamazoo, Michigan 49004-1099, for the purpose of discussing Work Session Agenda items, and any other business that may legally come before the Board of Trustees of the Charter Township of Kalamazoo, Kalamazoo County.

**PRESENT:** Supervisor Ronald Reid, Clerk Donald Thall, Treasurer George Cochran, Trustees Pamela Brown Goodacre, Donald Martin, Mark Miller and Steven Leuty.

**ABSENT:** None

**ALSO PRESENT:** (2) audience members

Supervisor Reid called the meeting to order at 5:30 p.m.

**Item 1 – REVIEW STRATEGIC PLAN**

The Board Members reviewed the Strategic Plan in detail. There was extensive discussion on topics with several proposed changes to the plan. Specifically, the Board inquired as to how to revive interest in community and neighborhood associations. The updated plan will be presented to the Board at a future time for further consideration and adoption.

**Item 2 – DISCUSSION REGARDING WATERS & COMPANY MEETING**

The Board further discussed their meetings with Waters & Company. It was suggested that the Board should consider a “policy governance” approach to help define roles with the new township manager.

**Item 3 – DISCUSSION REGARDING ITEMS ON THE REGULAR AGENDA**

There was a concern expressed about the Metro Act Right-of-Way Telecommunications permit request with Fiber Technologies Network, LLC. It was recommended that this agenda item is removed from the regular Board meeting.

**Item 4 – PUBLIC COMMENT**

There was no public comment.

**Item 5 – ADJOURNMENT**

Supervisor Reid moved to adjourn the Work Session at 7:18 p.m.

Respectfully submitted,

---

Donald Z. Thall, Clerk,  
Charter Township of Kalamazoo

**CHARTER TOWNSHIP OF KALAMAZOO  
BOARD OF TRUSTEES MEETING  
April 11, 2016**

The regular meeting of the Board of Trustees of the Charter Township of Kalamazoo, Kalamazoo County, was held at 7:30 p.m., Monday, April 11, 2016, at the Charter Township of Kalamazoo Administrative Offices, 1720 Riverview Drive, Kalamazoo, Michigan 49004-1099.

**Item 1**            **CALL TO ORDER**

Supervisor Reid called the meeting to order at 7:30 p.m.

**Item 2**            **PLEDGE OF ALLEGIANCE**

Trustee Martin led the Pledge of Allegiance.

**Item 3**            **ROLL CALL OF BOARD MEMBERS**

All Board Members were present.

**Item 4**            **ADDITIONS AND DELETIONS TO 04/11/2016 AGENDA**

Trustee Martin moved, seconded by Treasurer Cochran, to remove Item A, Consideration of request for METRO Act Right-of-Way Telecommunications permit with Fiber Technologies Network, LLC, from the agenda, and to accept the modified agenda. Motion carried.

**Item 5**            **PUBLIC COMMENT ON AGENDA AND NON-AGENDA ITEMS**

Nicolette Leigh, 3306 Nazareth; Jeremy Hathcock, 1302 Foster; and Alicia Dunifin-Fawley, 622 Stassen; announced they are running for the position of Kalamazoo Township Trustee. In addition, Sherine Marie Miller, 609 Stassen, announced that she is running for Kalamazoo Township Treasurer.

Nicolette Leigh inquired about the language in the new draft zoning ordinance. It indicates the height requirement for fences are 4 ft versus 6 ft.

**Item 6**            **CONSENT AGENDA**

Trustee Miller moved, seconded by Treasurer Cochran, to approve the consent agenda which included action on the following items:

Approval of:

- A.    **Board of Trustees Special Work Session Meeting Minutes of March 28, 2016**
- B.    **Board of Trustees Regular Meeting Minutes of March 28, 2016**
- C.    **Payment of Bills in the amount of \$67,273.65**

Receipt of:

- A.    **March 2016 Budget Report**
- B.    **March 2016 Check Disbursement Report**
- C.    **March 2016 Planning & Zoning Department Report**
- D.    **March 03 and 30, 2016 Draft Planning Commission Minutes**
- E.    **March 2016 Kalamazoo Area Building Authority Reports**
- F.    **Notice of Kalamazoo County MTA Workshop Day, April 26, 2016, Kalamazoo County Expo**
- G.    **W.E. Upjohn Institute for Employment Research 30 Year Building Permit Report**
- H.    **Road Commission of Kalamazoo County Spring/Summer 2016 Newsletter**
- I.    **Miss Dig March 2016 Report**
- J.    **Public Media Network 2015 Annual Report**

Motion carried.

**Item 7**            **PUBLIC HEARINGS**

There were no public hearings.

**Item 8**            **UNFINISHED BUSINESS**

There was no unfinished business.

**Item 9**            **NEW BUSINESS**

**Item 9B**           **CONSIDERATION OF REQUEST TO AMEND ORDER FOR 1805 GULL ROAD**

Township Attorney Roxanne Seeber gave an overview of the Kalamazoo Charter Township Order Regarding 1805 Gull Road, the former Clark Gas Station. David Shafer, representative for the property owners Attorney, Joseph McCully, inquired about the existing canopy on the property, and indicated that the property is currently on the market and that the owner is soliciting estimates to tear down the building.

**Clerk Thall moved, seconded by Treasurer Cochran, to postpone action until the next scheduled Board Meeting in 14 days. Motion failed.**

**Trustee Martin moved, seconded by Trustee Leuty, to adopt the 1<sup>st</sup> Amended Order of the Township Board to enforce Hearing Officer Bruce Fletcher's January 15, 2016 Order to Raze the structures located on the property addressed as 1805 Gull Road within the Township and the property addressed as 1805 Gull Road shall be demolished and the debris created thereby removed within 60 days of April 11, 2016. Motion Carried. (see attached Order)**

**Item 10**           **ITEMS REMOVED FROM CONSENT AGENDA**

There were no items removed from the Consent Agenda.

**Item 11**           **COMMITTEE REPORTS**

Trustee Leuty said that the Planning Commission has reviewed the new proposed zoning map. He also updated the Board on the approval of a wood fire drive-through pizzeria on Sprinkle Road pending conditions, as well as an oversized pole barn on Warren Place pending conditions. He also encouraged everyone to attend the Zoning Ordinance Open House on April 13, 2016, from 3:00 p.m. to 7:00 p.m. at the Kalamazoo Township Hall, 1720 Riverview Drive.

Trustee Martin reported that the Road Commission of Kalamazoo County (RCKC) and the Township of Kalamazoo are in the process of setting the April meeting dates for the public to attend and that these dates, as well as the locations, will be posted on the Township's website.

**Item 12**           **ATTORNEY'S REPORT**

There was no Attorney's report.

**Item 13**           **PUBLIC COMMENTS**

There were no public comments.

**Item 14**           **BOARD MEMBER COMMENTS**

Treasurer Cochran reported that the Kalamazoo County Chapter of the MTA is hosting a Workshop at the Kalamazoo County Expo Center on April 26, 2016.

**Item 15**      **REQUEST FOR CLOSED SESSION**

Supervisor Reid moved that the Township Board go into closed session with Attorney Timothy Ferrand, Director Rich Pierson and Assistant Director Tim Hudson of the Kalamazoo Regional Water/Wastewater Commission, and Attorney Roxanne Seeber pursuant to the Open Meetings Act and MCL 15.268(e) to discuss trial strategy and pending litigation in the matter of Gull Lake Sewer and Water Authority, et al v. City of Kalamazoo, Case No. 2014-0225-CK.

The motion was seconded by Clerk Thall. A roll call vote was held on the motion and the motion passed unanimously.

Meeting recessed at 8:20 p.m.

**Item 16**      **RE-OPEN TO REGULAR MEETING**

The Board reconvened to open session at 9:30 p.m.

**Item 17**      **ADJOURNMENT**

There being no further business to come before the Board, the meeting was adjourned at 9:34 p.m.

**BOARD MEMBERS PRESENT:**

Supervisor Ronald E. Reid  
Clerk Donald Z. Thall  
Treasurer George E. Cochran  
Trustee Pamela Brown Goodacre  
Trustee Steven C. Leuty  
Trustee Donald D. Martin  
Trustee Mark E. Miller

Respectfully submitted,

\_\_\_\_\_  
Donald Z. Thall, Clerk

**ABSENT:**

Attested to by,

**ALSO PRESENT:**

Attorney Seeber

\_\_\_\_\_  
Ronald E. Reid, Supervisor

Date: April 18, 2016  
To: Supervisor Ronald E. Reid, Police Commissioner & the Charter Township of Kalamazoo Board of Trustees  
From: Police Chief Tim Bourgeois *TJB*  
Re: Michigan Association Police Association of Chiefs of Police Summer Professional Development Conference

I am requesting permission to attend the 2016 MACP Summer Professional Development Conference at Boyne Highlands June 18-22, 2016. In addition to the attached educational programming, I will also have an executive board meeting as well as a meeting of the West Michigan Association of Chiefs of Police. The conference is \$255 and lodging is \$632. Funds have been budgeted in the 2016 police budget for this expenditure.

# 2016 Summer Conference Professional Development Session Descriptions

## THE SIGNAL AND THE NOISE: MAKING SENSE OF FINANCIAL REALITY

*Presenter:*

**Leon LaBrecque** - *Managing Partner, LJPR*

Confused by the volatility of the market? Wonder how the Fed affects your retirement? Russia? Oil? Politics? Then you won't want to miss this session as we cut through the noise and find out the realities of market economics and investing. Leon LaBrecque JD, CPA, CFP®, CFA is the financial manager of the MACP investments, an expert in police and fire retirement, as well as other economic, political and financial issues. A frequent presenter at the MACP conferences, Leon's sessions are always engaging, informative and comedic. This year, we challenged Leon to compress this two-hour presentation to 30 minutes. You won't want to miss Leon on steroids!

## MACP STATE ACCREDITATION - IT'S HERE!

*Presenter:*

**Neal Rossow** - *Director of Professional Development, MACP*

After almost one year of preparation, the MACP Law Enforcement Accreditation Program is being implemented. This session will address all aspects of the accreditation process including the Standards, Application, Process Manual, Glossary of Terms, Accreditation Manager and Fees. Also covered will be a discussion of the By-laws and the establishment of the Michigan Law Enforcement Accreditation Commission. Accreditation is a progressive and time-proven way of helping agencies improve overall performance and enhancing professionalism. The time is now!

## MICHIGAN'S SEXUAL ASSAULT EVIDENCE KIT SUBMISSION ACT - IS YOUR DEPARTMENT OUT OF COMPLIANCE?

*Presenter:*

**Lore Rogers** - *Staff Attorney, Michigan Domestic & Sexual Violence Prevention and Treatment Board*

The Sexual Assault Evidence Kit Submission Act ("SAEKSA") became effective in March 2015. It requires law enforcement agencies to retrieve sexual assault evidence kits from hospitals and deliver them to the lab within set deadlines. Unfortunately, many departments are not yet meeting these deadlines.

This presentation will tell you what your officers need to do, and when they need to do it, to make sure your department isn't targeted by the media for stockpiling kits. Plus, you will learn about new tools and processes being recommended for the state that will (1) alert the public and policymakers when departments are out of compliance and (2) enable you to monitor your department to ensure it is handling sexual assault evidence kits correctly.

## CONTEMPORARY ISSUES IN POLICE LIABILITY

*Presenter:*

**Eric Daigle** - *Attorney, Daigle Law Group, LLC*

**Sponsored by: PowerDMS**

This seminar focuses on legal analysis, guidance and interpretation of current laws addressing supervisory/municipal liability and current police practices. In today's society it is common for police personnel and organizations to be involved in litigation. Law enforcement command must understand how

# Professional Development Session Descriptions

court decisions and general accepted police practices affect their personnel and daily departmental operations. Failure to follow acceptable guidelines can have serious monetary consequences and even expose individual personnel to criminal sanctions.

This training will review the legal standards applicable to Federal Civil Rights Law 42 U.S.C. §1983 by examining the legal standards applicable to Agency Liability pursuant to the holding of the United States Supreme Court in *Monell v. Department of Social Services*. This training will review the manner in which supervisory liability is established and the importance of understanding the Deliberate Indifferent standard, along with the Court's interpretation of the same. A portion of the training is specific to the use of force standards across the United States, as they apply to use of force interpretation.

## FOOT PURSUIT POLICIES: THE RUNNING DEBATE\*

*Presenter:*

**Robert Stevenson** - Retired Chief,  
Executive Director, MACP

Police foot pursuits have come under increased scrutiny in recent years and law enforcement officials have begun to argue that foot pursuits, like vehicular pursuits, present a heightened risk of harm to officers, suspects and bystanders. The IACP's Foot Pursuit Policy calls for the use of safer tactics (such as containment) and the implementation of more restrictive policies to limit the circumstances under which officers may pursue fleeing suspects on foot.

Despite these recommendations, very few police agencies have adopted a foot pursuit policy or included foot pursuits

in their training curriculum. This class will examine what the limited research has revealed regarding the injuries to officers and suspects involved in foot pursuits, what tactics can be used to increase the likelihood of a safe and successful foot pursuit and examples of foot pursuit policies. In addition, we will review actual foot pursuits that resulted in the deaths of Michigan Police Officers. Attend this session to seriously examine the question: Should a Foot Pursuit Policy be implemented in my department?

\*Note: Due to the sensitive nature of the case reviews, only credentialed law enforcement officers will be admitted to this session.

## ALLOWING DEVIANT BEHAVIOR AND ITS PREDICTABLE NEGATIVE CONSEQUENCES ON YOUR DEPARTMENT

*Presenters:*

**Audrey Forbush & Gene King** - Michigan  
Municipal League

Allowing deviant behavior leads to highly predictable consequences, impacts fair and impartial policing and damages your department's reputation. This session will explain what happens when officers do not follow established policy and protocol leading to highly predictable outcomes which the courts have clearly said can be a source of liability. Discussion will include the definition of deviant behavior, the damage it can do, what to do about it and how to establish protocol to help identify and address situations that are discovered.



# Professional Development Session Descriptions

the past, the recent resurgence of their use and the concern for the development of even more deadly agents provide the mandate to develop and deploy chemical countermeasures. The expansion of a countermeasures strategy is the ultimate goal of any law enforcement organization as it safeguards our global community.

Participants attending this session will learn about these specific threats, their effects and be able to recognize their signs and symptoms. They will learn how best to prepare for such events and how to enhance their current response plans.

## CRIME GUN INTELLIGENCE

*Presenter:*

**Roland Herndon** - Supervisory Special Agent, Bureau of Alcohol, Tobacco, Firearms and Explosives

This class will show police chiefs why their departments should use the ATF Crime Gun Intelligence Center to assist in fighting crime and identifying the source of firearms affecting the State of Michigan. Three programs will be highlighted:

### 1. National Integrated Ballistic Information Network (NIBIN)

Crimes are solved by law enforcement following up on intelligence information from ballistic imaging technology. Since the 1990s, the ATF has worked with our law enforcement partners to place the capabilities of the NIBIN Network where it can help incarcerate armed violent offenders plaguing our communities. Today, the ATF has the capability to share ballistics intelligence with Michigan agencies making law enforcement resources more effective. The NIBIN Program automates ballistics evaluations and provides actionable investigative leads

in a timely manner. NIBIN is the only interstate automated ballistic imaging network in operation in the United States and is available to most major population centers in the United States.

### 2. Firearms Tracing

Firearms tracing is the systematic tracking of the movement of firearms recovered by law enforcement officials from its first sale by the manufacturer or importer through the distribution chain (wholesaler/retailer) to the first retail purchaser. Comprehensive firearms tracing is the routine tracing of every crime gun recovered within a geographic area or specific law enforcement jurisdiction.

### 3. What is eTrace?

eTrace is a paperless firearm trace submission system that is readily accessible through the internet that provides the necessary utilities for submitting, retrieving, storing, and querying all firearms trace-related information relative to the requestor's agency.

## HOW MUCH FORCE IS TOO MUCH FORCE? SAYS WHO?

*Presenter:*

**Ken Wallentine** - Special Agent, Utah Attorney General

*Sponsored by:* Lexipol

The most common external legal challenge your agency is likely to face is a federal civil rights lawsuit, alleging that unreasonable force was used by your officers. Is there an actual increase in civil rights litigation for police use of force? Among law enforcement circles, there is a persistent perception that officers are being sued successfully with greater frequency. What is the real world perspective when facing such a challenge?

Recently, the Police Executive Research

# Professional Development Session Descriptions

Forum (PERF) released a set of theories for substantial nationwide changes to police critical incident procedures. Among other things, PERF urges that agencies nationwide adopt policies and practices that would:

- Hold officers to a more stringent standard for using force than the “objective reasonableness” test of *Graham v Connor*;
- Require officers to ask themselves, “How would the general public view their actions?” in a threatening encounter;
- Explore the use of a Critical Decision-Making Model based on practices in the United Kingdom for determining an appropriate force response;
- Eliminate from their policies and training all references to the so-called “21-foot rule”

regarding suspects armed with an edged weapon, and;

- Make de-escalation a “core theme” of training.

How realistic are the PERF theories? Can U.S. cops simply be “more British” in their response to violent crime? The presenter draws on his experience of over 34 years as a use-of-force litigator, police chief, street cop, investigator, force policy consultant, use of force expert witness, and special master in a federal civil rights consent decree, to give a reality check to current police critics and to offer real world strategies for managing force as well as risk.



## Register Now

**Regular registration ♦ April 1 to May 22**

MACP Members Full Conference Price • \$255.00

NON-MACP Members Full Conference Price • \$305.00

**Late registration ♦ Begins May 23**

MACP Members Full Conference Price • \$275.00

NON-MACP Members Full Conference Price • \$325.00



Enter the Vehicle-of-the-Year Contest! Full Conference registration is required.

[Boyne  
Reservations](#)



Inv Num Inv Ref#	Vendor Description GL Distribution	Inv Date Entered By	Due Date	Inv Amt	Amt Due	Status	Jrnalized Post Date
Vendor 000900 - ALL-PHASE - MICHIGAN DIVISION:							
3505-515631							
13661	ALL-PHASE - MICHIGAN DIVISION BALLASTS	04/21/2016 MONICAK	04/26/2016	165.28	165.28	Open	N 04/21/2016
	101-265-931.00	Maint. - Building		165.28			
	Total for vendor 000900 - ALL-PHASE - MICHIGAN DIVISION:			165.28	165.28		
Vendor 001230 - APOLLO FIRE EQUIPMENT:							
45407							
13677	APOLLO FIRE EQUIPMENT SEAT BELT	04/21/2016 MONICAK	04/26/2016	296.00	296.00	Open	N 04/21/2016
	206-336-939.00	Maint. - Vehicle		296.00			
	Total for vendor 001230 - APOLLO FIRE EQUIPMENT:			296.00	296.00		
Vendor 006672 - CONSUMERS ENERGY:							
601009261267							
13646	CONSUMERS ENERGY ACCT #1000 0038 0319	04/21/2016 MONICAK	04/26/2016	1,777.31	1,777.31	Open	N 04/21/2016
	101-200-921.00	Utilities - Electric		1,777.31			
	Total for vendor 006672 - CONSUMERS ENERGY:			1,777.31	1,777.31		
Vendor 013007 - FARM "N" GARDEN, INC.:							
149596							
13655	FARM "N" GARDEN, INC. BROADLEAF CONTROL	04/21/2016 MONICAK	04/26/2016	481.60	481.60	Open	N 04/21/2016
	101-265-932.00	Maint. - Grounds		481.60			
	Total for vendor 013007 - FARM "N" GARDEN, INC.:			481.60	481.60		
Vendor 013428 - I.T. RIGHT:							
20147748							
13657	I.T. RIGHT RECOVER EMAIL/UPLOAD PDF	04/21/2016 MONICAK	04/26/2016	67.50	67.50	Open	N 04/21/2016
	101-200-811.00	Purchased Service		67.50			
	Total for vendor 013428 - I.T. RIGHT:			67.50	67.50		
Vendor 013500 - CHARTER COMMUNICATIONS:							
041416							
13647	CHARTER COMMUNICATIONS ACCT #0614877	04/21/2016 MONICAK	04/26/2016	183.92	183.92	Open	N 04/21/2016

INVOICE REGISTER REPORT FOR CHARTER TOWNSHP OF KALAMAZOO  
 EXP CHECK RUN DATES 04/26/2016 - 04/26/2016  
 BOTH JOURNALIZED AND UNJOURNALIZED OPEN AND PAID  
 BANK CODE: POOL

Inv Num Inv Ref#	Vendor Description GL Distribution	Inv Date Entered By	Due Date	Inv Amt	Amt Due	Status	Jrnalized Post Date
	101-200-811.00	Purchased Service		183.92			
	Total for vendor 013500 - CHARTER COMMUNICATIONS:			<u>183.92</u>	<u>183.92</u>		
<hr/>							
Vendor 013866 - FIRE SAFETY USA, INC.:							
88415 13676	FIRE SAFETY USA, INC. LITEBOX	04/21/2016 MONICAK	04/26/2016	142.50	142.50	Open	N 04/21/2016
	206-336-747.00	Small Tools & Equipment		142.50			
	Total for vendor 013866 - FIRE SAFETY USA, INC.:			<u>142.50</u>	<u>142.50</u>		
<hr/>							
Vendor 017017 - GOODYEAR TIRE/RUBBER CO.:							
207456 13674	GOODYEAR TIRE/RUBBER CO. TIRES	04/21/2016 MONICAK	04/26/2016	264.70	264.70	Open	N 04/21/2016
	207-301-939.00	Maint. - Vehicle		264.70			
	Total for vendor 017017 - GOODYEAR TIRE/RUBBER CO.:			<u>264.70</u>	<u>264.70</u>		
<hr/>							
Vendor 022170 - INTEGRITY BUSINESS SOLUTIONS, LLC:							
1368514-0 13638	INTEGRITY BUSINESS SOLUTIONS, LLC OFFICE SUPPLIES	04/21/2016 MONICAK	04/26/2016	41.30	41.30	Open	N 04/21/2016
	101-200-727.00	Office Supplies		41.30			
1363963-0 13639	INTEGRITY BUSINESS SOLUTIONS, LLC OFFICE SUPPLIES	04/21/2016 MONICAK	04/26/2016	405.37	405.37	Open	N 04/21/2016
	101-200-727.00	Office Supplies		365.39			
	101-400-727.00	Office Supplies		39.98			
1371989-0 13640	INTEGRITY BUSINESS SOLUTIONS, LLC OFFICE SUPPLIES	04/21/2016 MONICAK	04/26/2016	203.09	203.09	Open	N 04/21/2016
	101-209-727.00	Office Supplies		203.09			
C1363963-0 13641	INTEGRITY BUSINESS SOLUTIONS, LLC CREDIT MEMO	04/21/2016 MONICAK	04/26/2016	(23.97)	(23.97)	Open	N 04/21/2016
	101-200-727.00	Office Supplies		(23.97)			
	Total for vendor 022170 - INTEGRITY BUSINESS SOLUTIONS, LLC:			<u>625.79</u>	<u>625.79</u>		

Vendor 026047 - KAL. COUNTY TREASURER:

Inv Num Inv Ref#	Vendor Description GL Distribution	Inv Date Entered By	Due Date	Inv Amt	Amt Due	Status	Jrnalized Post Date
040816 13691	KAL. COUNTY TREASURER 1ST QTR SUBPOENA BY MAIL 207-301-782.00	04/21/2016 MONICAK	04/26/2016	97.25	97.25	Open	N 04/21/2016
	Investigative Operations			97.25			
	Total for vendor 026047 - KAL. COUNTY TREASURER:			<u>97.25</u>	<u>97.25</u>		

Vendor 026062 - MLIVE MEDIA GROUP:

0007580322 13680	MLIVE MEDIA GROUP NOTICES 101-400-903.00	04/21/2016 MONICAK	04/26/2016	365.42	365.42	Open	N 04/21/2016
	WEEDS			365.42			
0007581450 13681	MLIVE MEDIA GROUP NOTICES 101-400-903.00	04/21/2016 MONICAK	04/26/2016	442.18	442.18	Open	N 04/21/2016
	HENS			442.18			
0007600561 13682	MLIVE MEDIA GROUP NOTICES 701-000-240.00	04/21/2016 MONICAK	04/26/2016	184.30	184.30	Open	N 04/21/2016
	BORGESS/HENSON			184.30			
0007595523 13683	MLIVE MEDIA GROUP NOTICES 701-000-240.00	04/21/2016 MONICAK	04/26/2016	200.73	200.73	Open	N 04/21/2016
	2120 SPRINKLE PC			200.73			
0007616091 13684	MLIVE MEDIA GROUP NOTICES 701-000-240.00	04/21/2016 MONICAK	04/26/2016	365.42	365.42	Open	N 04/21/2016
	929 WARREN ZBA			365.42			
	Total for vendor 026062 - MLIVE MEDIA GROUP:			<u>1,558.05</u>	<u>1,558.05</u>		

Vendor 027623 - LONGS AUTO SALES:

030716 13675	LONGS AUTO SALES TOWING/STORAGE 207-301-782.00	04/21/2016 MONICAK	04/26/2016	225.00	225.00	Open	N 04/21/2016
	Investigative Operations			225.00			
	Total for vendor 027623 - LONGS AUTO SALES:			<u>225.00</u>	<u>225.00</u>		

Vendor 028652 - ZEMLIK OFFICE PRODUCTS:

0143502-001 13635	ZEMLIK OFFICE PRODUCTS AIR PURIFIER	04/21/2016 MONICAK	04/26/2016	239.99	239.99	Open	N 04/21/2016
----------------------	--	-----------------------	------------	--------	--------	------	-----------------

Inv Num Inv Ref#	Vendor Description GL Distribution	Inv Date Entered By	Due Date	Inv Amt	Amt Due	Status	Jrnlized Post Date
	101-200-956.00	Unclassified		239.99			
0142677-001 13665	ZEMLUCK OFFICE PRODUCTS PAPER 101-200-727.00	04/21/2016 MONICAK Office Supplies	04/26/2016	559.80 559.80	559.80	Open	N 04/21/2016
	Total for vendor 028652 - ZEMLUCK OFFICE PRODUCTS:			<u>799.79</u>	<u>799.79</u>		

Vendor 028669 - ELECTION SYSTEMS &:

961639 13636	ELECTION SYSTEMS & MAINTENANCE CONTRACT 101-191-811.00	04/21/2016 MONICAK Purchased Service	04/26/2016	1,662.00 1,662.00	1,662.00	Open	N 04/21/2016
	Total for vendor 028669 - ELECTION SYSTEMS &:			<u>1,662.00</u>	<u>1,662.00</u>		

Vendor 031520 - AUTO VALUE KALAMAZOO:

260-1296956 13686	AUTO VALUE KALAMAZOO BULBLS 207-301-939.00	04/21/2016 MONICAK Maint. - Vehicle	04/26/2016	38.97 38.97	38.97	Open	N 04/21/2016
260-1296527 13687	AUTO VALUE KALAMAZOO MISC SUPPLIES 207-301-740.00	04/21/2016 MONICAK Operating Supplies	04/26/2016	20.46 20.46	20.46	Open	N 04/21/2016
	Total for vendor 031520 - AUTO VALUE KALAMAZOO:			<u>59.43</u>	<u>59.43</u>		

Vendor 031998 - MICHIGAN ELECTION RESOURCES:

35737 13666	MICHIGAN ELECTION RESOURCES ELECTION SUPPLIES 101-191-727.00	04/21/2016 MONICAK Office Supplies	04/26/2016	609.86 609.86	609.86	Open	N 04/21/2016
	Total for vendor 031998 - MICHIGAN ELECTION RESOURCES:			<u>609.86</u>	<u>609.86</u>		

Vendor 032016 - MI POLICE EQUIPMENT:

165251 13649	MI POLICE EQUIPMENT AMMUNITION 266-320-960.00	04/21/2016 MONICAK POLICE TRAINING	04/26/2016	659.50 659.50	659.50	Open	N 04/21/2016
	Total for vendor 032016 - MI POLICE EQUIPMENT:			<u>659.50</u>	<u>659.50</u>		

Vendor 032020 - MICHIGAN MUNICIPAL POLICE:

INVOICE REGISTER REPORT FOR CHARTER TOWNSHP OF KALAMAZOO  
 EXP CHECK RUN DATES 04/26/2016 - 04/26/2016  
 BOTH JOURNALIZED AND UNJOURNALIZED OPEN AND PAID  
 BANK CODE: POOL

Inv Num Inv Ref#	Vendor Description GL Distribution	Inv Date Entered By	Due Date	Inv Amt	Amt Due	Status	Jrnlized Post Date
1820 13642	MICHIGAN MUNICIPAL POLICE BRAKE REPAIR 207-301-939.00	04/21/2016 MONICAK Maint. - Vehicle	04/26/2016	240.38 240.38	240.38	Open	N 04/21/2016
1823 13643	MICHIGAN MUNICIPAL POLICE OIL CHANGE/RADIATOR 207-301-939.00	04/21/2016 MONICAK Maint. - Vehicle	04/26/2016	398.25 398.25	398.25	Open	N 04/21/2016
1824 13644	MICHIGAN MUNICIPAL POLICE OIL CHANGE/WIPER 207-301-939.00	04/21/2016 MONICAK Maint. - Vehicle	04/26/2016	115.77 115.77	115.77	Open	N 04/21/2016
Total for vendor 032020 - MICHIGAN MUNICIPAL POLICE:				<u>754.40</u>	<u>754.40</u>		

Vendor 032659 - MCCI. LLC:

00008588 13654	MCCI. LLC WEBLINK RENEWAL 101-200-742.00	04/21/2016 MONICAK Software Programs/Fees	04/26/2016	1,000.00 1,000.00	1,000.00	Open	N 04/21/2016
00008525 13667	MCCI. LLC IMAGED PAGES 101-200-903.00	04/21/2016 MONICAK Notices and Publications	04/26/2016	12.00 12.00	12.00	Open	N 04/21/2016
Total for vendor 032659 - MCCI. LLC:				<u>1,012.00</u>	<u>1,012.00</u>		

Vendor 032669 - MCKENNA ASSOCIATES, INC.:

040816 13662	MCKENNA ASSOCIATES, INC. PROJECT #21520 - ZONING ORD 101-400-811.00	04/21/2016 MONICAK Purchased Service	04/26/2016	5,890.00 5,890.00	5,890.00	Open	N 04/21/2016
Total for vendor 032669 - MCKENNA ASSOCIATES, INC.:				<u>5,890.00</u>	<u>5,890.00</u>		

Vendor 033829 - RIDGE COMPANY:

968906 13685	RIDGE COMPANY SOCKETS 206-336-939.00	04/21/2016 MONICAK Maint. - Vehicle	04/26/2016	22.48 22.48	22.48	Open	N 04/21/2016
969748 13688	RIDGE COMPANY MOTOR OIL	04/21/2016 MONICAK	04/26/2016	24.87	24.87	Open	N 04/21/2016

Inv Num Inv Ref#	Vendor Description GL Distribution	Inv Date Entered By	Due Date	Inv Amt	Amt Due	Status	Jrnalized Post Date
	206-336-939.00	Maint. - Vehicle		24.87			
	Total for vendor 033829 - RIDGE COMPANY:			47.35	47.35		
<hr/>							
Vendor 045016 - RJ'S PRINTING & ADVERTISING LLC:							
14047 13634	RJ'S PRINTING & ADVERTISING LLC ENVELOPES 101-200-727.00	04/21/2016 MONICAK Office Supplies	04/26/2016	184.20 184.20	184.20	Open	N 04/26/2016
	Total for vendor 045016 - RJ'S PRINTING & ADVERTISING LLC:			184.20	184.20		
<hr/>							
Vendor 048101 - PEOPLEFACTS, LLC:							
2016020277 13672	PEOPLEFACTS, LLC CREDIT PROFILE 207-301-812.01	04/21/2016 MONICAK Background Investigation	04/26/2016	41.67 41.67	41.67	Open	N 04/21/2016
2016030260 13673	PEOPLEFACTS, LLC CREDIT PROFILE 207-301-812.01	04/21/2016 MONICAK Background Investigation	04/26/2016	41.67 41.67	41.67	Open	N 04/21/2016
	Total for vendor 048101 - PEOPLEFACTS, LLC:			83.34	83.34		
<hr/>							
Vendor 048229 - CORE TECHNOLOGY CORPORATION:							
65880 13668	CORE TECHNOLOGY CORPORATION SUPPORT - TALON 207-301-853.01	04/21/2016 MONICAK Lein Billing	04/26/2016	830.00 830.00	830.00	Open	N 04/21/2016
	Total for vendor 048229 - CORE TECHNOLOGY CORPORATION:			830.00	830.00		
<hr/>							
Vendor 048727 - STATE OF MICHIGAN:							
MPSCS-INF1607 13671	STATE OF MICHIGAN TOWER MONITORING FEE 270-301-850.00	04/21/2016 MONICAK Expenditures	04/26/2016	6,591.86 6,591.86	6,591.86	Open	N 04/21/2016
	Total for vendor 048727 - STATE OF MICHIGAN:			6,591.86	6,591.86		
<hr/>							
Vendor 048769 - STATE OF MICHIGAN:							
551-464736 13650	STATE OF MICHIGAN LIVESCAN FEES 217-301-956.00	04/21/2016 MONICAK LIVESCAN EXPENSE	04/26/2016	671.25 671.25	671.25	Open	N 04/21/2016

Inv Num Inv Ref#	Vendor Description	Inv Date Entered By	Due Date	Inv Amt	Amt Due	Status	Jrnalized Post Date
	GL Distribution 206-336-939.00	Maint. - Vehicle		24.87			
	Total for vendor 033829 - RIDGE COMPANY:			47.35	47.35		
<hr/>							
Vendor 045016 - RJ'S PRINTING & ADVERTISING LLC:							
14047 13634	RJ'S PRINTING & ADVERTISING LLC ENVELOPES 101-200-727.00	04/21/2016 MONICAK Office Supplies	04/26/2016	184.20 184.20	184.20	Open	N 04/26/2016
	Total for vendor 045016 - RJ'S PRINTING & ADVERTISING LLC:			184.20	184.20		
<hr/>							
Vendor 048101 - PEOPLEFACTS, LLC:							
2016020277 13672	PEOPLEFACTS, LLC CREDIT PROFILE 207-301-812.01	04/21/2016 MONICAK Background Investigation	04/26/2016	41.67 41.67	41.67	Open	N 04/21/2016
2016030260 13673	PEOPLEFACTS, LLC CREDIT PROFILE 207-301-812.01	04/21/2016 MONICAK Background Investigation	04/26/2016	41.67 41.67	41.67	Open	N 04/21/2016
	Total for vendor 048101 - PEOPLEFACTS, LLC:			83.34	83.34		
<hr/>							
Vendor 048229 - CORE TECHNOLOGY CORPORATION:							
65880 13668	CORE TECHNOLOGY CORPORATION SUPPORT - TALON 207-301-853.01	04/21/2016 MONICAK Lein Billing	04/26/2016	830.00 830.00	830.00	Open	N 04/21/2016
	Total for vendor 048229 - CORE TECHNOLOGY CORPORATION:			830.00	830.00		
<hr/>							
Vendor 048727 - STATE OF MICHIGAN:							
MPCS-INF1607 13671	STATE OF MICHIGAN TOWER MONITORING FEE 270-301-850.00	04/21/2016 MONICAK Expenditures	04/26/2016	6,591.86 6,591.86	6,591.86	Open	N 04/21/2016
	Total for vendor 048727 - STATE OF MICHIGAN:			6,591.86	6,591.86		
<hr/>							
Vendor 048769 - STATE OF MICHIGAN:							
551-464736 13650	STATE OF MICHIGAN LIVESCAN FEES 217-301-956.00	04/21/2016 MONICAK LIVESCAN EXPENSE	04/26/2016	671.25 671.25	671.25	Open	N 04/21/2016

INVOICE REGISTER REPORT FOR CHARTER TOWNSHP OF KALAMAZOO  
 EXP CHECK RUN DATES 04/26/2016 - 04/26/2016  
 BOTH JOURNALIZED AND UNJOURNALIZED OPEN AND PAID  
 BANK CODE: POOL

Inv Num Inv Ref#	Vendor Description GL Distribution	Inv Date Entered By	Due Date	Inv Amt	Amt Due	Status	Jrnlized Post Date
551-464095 13689	STATE OF MICHIGAN LIVESCAN FEES 217-301-956.00	04/21/2016 MONICAK	04/26/2016	44.75	44.75	Open	N 04/21/2016
	LIVESCAN EXPENSE			44.75			
	Total for vendor 048769 - STATE OF MICHIGAN:			<u>716.00</u>	<u>716.00</u>		
Vendor 050010 - THE SPIRIT SHOPPE:							
12469 13678	THE SPIRIT SHOPPE JACKETS 206-336-811.00	04/21/2016 MONICAK	04/26/2016	45.00	45.00	Open	N 04/21/2016
	Purchased & Maint. Service			45.00			
	Total for vendor 050010 - THE SPIRIT SHOPPE:			<u>45.00</u>	<u>45.00</u>		
Vendor 057233 - WATERS & COMPANY INCORPORATED:							
012285.100-1 13663	WATERS & COMPANY INCORPORATED PROGRESS BILLING - EXEC RECRUITMEN 101-200-811.00	04/21/2016 MONICAK	04/26/2016	7,350.00	7,350.00	Open	N 04/21/2016
	Purchased Service			7,350.00			
	Total for vendor 057233 - WATERS & COMPANY INCORPORATED:			<u>7,350.00</u>	<u>7,350.00</u>		
Vendor 058020 - WILLIAMS & WORKS:							
79117 13656	WILLIAMS & WORKS PLANNING/ZONING ADMIN 101-400-821.00	04/21/2016 MONICAK	04/26/2016	6,000.00	6,000.00	Open	N 04/21/2016
	Planning Consultant			6,000.00			
	Total for vendor 058020 - WILLIAMS & WORKS:			<u>6,000.00</u>	<u>6,000.00</u>		
Vendor 500154 - DENOYER CHEVROLET:							
522270 13645	DENOYER CHEVROLET REPAIR 207-301-939.00	04/21/2016 MONICAK	04/26/2016	41.44	41.44	Open	N 04/21/2016
	Maint. - Vehicle			41.44			
	Total for vendor 500154 - DENOYER CHEVROLET:			<u>41.44</u>	<u>41.44</u>		
Vendor 500280 - OTTEN TROPHIES & AWARDS, LLC:							
13270 13679	OTTEN TROPHIES & AWARDS, LLC ENGRAVING 206-336-740.00	04/21/2016 MONICAK	04/26/2016	114.00	114.00	Open	N 04/21/2016
	Operating Supplies			114.00			
	Total for vendor 500280 - OTTEN TROPHIES & AWARDS, LLC:			<u>114.00</u>	<u>114.00</u>		

INVOICE REGISTER REPORT FOR CHARTER TOWNSHP OF KALAMAZOO  
 EXP CHECK RUN DATES 04/26/2016 - 04/26/2016  
 BOTH JOURNALIZED AND UNJOURNALIZED OPEN AND PAID  
 BANK CODE: POOL

Inv Num Inv Ref#	Vendor Description GL Distribution	Inv Date Entered By	Due Date	Inv Amt	Amt Due	Status	Jrnlized Post Date
Vendor 500285 - GALESBURG FORD:							
26016444 13669	GALESBURG FORD OIL CHANGE 207-301-939.00	04/21/2016 MONICAK Maint. - Vehicle	04/26/2016	43.98 43.98	43.98	Open	N 04/21/2016
25010333 13670	GALESBURG FORD WHEEL NUTS 207-301-939.00	04/21/2016 MONICAK Maint. - Vehicle	04/26/2016	13.34 13.34	13.34	Open	N 04/21/2016
Total for vendor 500285 - GALESBURG FORD:				57.32	57.32		
Vendor 500344 - ROSE PEST SOLUTIONS:							
120390561 13664	ROSE PEST SOLUTIONS CLIENT #120007379 101-200-811.00	04/21/2016 MONICAK Purchased Service	04/26/2016	70.00 70.00	70.00	Open	N 04/21/2016
Total for vendor 500344 - ROSE PEST SOLUTIONS:				70.00	70.00		
Vendor 500527 - KERKSTRA PORTABLE RESTROOM:							
90295 13658	KERKSTRA PORTABLE RESTROOM STROUD PARK 101-751-740.00	04/21/2016 MONICAK Operating Supplies	04/26/2016	80.00 80.00	80.00	Open	N 04/21/2016
90294 13659	KERKSTRA PORTABLE RESTROOM WILSON PARK 101-751-740.00	04/21/2016 MONICAK Operating Supplies	04/26/2016	80.00 80.00	80.00	Open	N 04/21/2016
Total for vendor 500527 - KERKSTRA PORTABLE RESTROOM:				160.00	160.00		
Vendor 500552 - KUSTOM SIGNALS, INC.:							
526309 13653	KUSTOM SIGNALS, INC. REPAIR 207-301-934.00	04/21/2016 MONICAK Maint. - Machine	04/26/2016	193.68 193.68	193.68	Open	N 04/21/2016
Total for vendor 500552 - KUSTOM SIGNALS, INC.:				193.68	193.68		
Vendor 500646 - MILLER, CANFIELD, PADDOCK:							

INVOICE REGISTER REPORT FOR CHARTER TOWNSHP OF KALAMAZOO  
 EXP CHECK RUN DATES 04/26/2016 - 04/26/2016  
 BOTH JOURNALIZED AND UNJOURNALIZED OPEN AND PAID  
 BANK CODE: POOL

Inv Num Inv Ref#	Vendor Description GL Distribution	Inv Date Entered By	Due Date	Inv Amt	Amt Due	Status	Jrnlized Post Date
1314865 13690	MILLER, CANFIELD, PADDOCK LEGAL SUPPORT 207-301-827.00 Legal	04/21/2016 MONICAK	04/26/2016	102.50 102.50	102.50	Open	N 04/21/2016
Total for vendor 500646 - MILLER, CANFIELD, PADDOCK:				102.50	102.50		
Vendor 500720 - ONE WAY PRODUCTS, INC.:							
609194 13660	ONE WAY PRODUCTS, INC. MISC SUPPLIES 101-265-740.00 Operating Supplies	04/21/2016 MONICAK	04/26/2016	107.75 107.75	107.75	Open	N 04/21/2016
Total for vendor 500720 - ONE WAY PRODUCTS, INC.:				107.75	107.75		
Vendor 500926 - TELEGRATION, INC.:							
040116 13637	TELEGRATION, INC. SERVICE 207-301-853.00 Telephone	04/21/2016 MONICAK	04/26/2016	20.89 20.89	20.89	Open	N 04/21/2016
Total for vendor 500926 - TELEGRATION, INC.:				20.89	20.89		
Vendor 500982 - TRANSUNION RISK AND ALTERNATIVE:							
040116 13648	TRANSUNION RISK AND ALTERNATIVE ACCT ID #299323 207-301-782.00 Investigative Operations	04/21/2016 MONICAK	04/26/2016	4.00 4.00	4.00	Open	N 04/21/2016
Total for vendor 500982 - TRANSUNION RISK AND ALTERNATIVE:				4.00	4.00		
Vendor 550660 - MCDONALD'S TOWING:							
628521 13651	MCDONALD'S TOWING TOWING 207-301-782.00 Investigative Operations	04/21/2016 MONICAK	04/26/2016	173.00 173.00	173.00	Open	N 04/21/2016
628990 13652	MCDONALD'S TOWING TOWING 207-301-782.00 Investigative Operations	04/21/2016 MONICAK	04/26/2016	129.00 129.00	129.00	Open	N 04/21/2016
Total for vendor 550660 - MCDONALD'S TOWING:				302.00	302.00		

INVOICE REGISTER REPORT FOR CHARTER TOWNSHP OF KALAMAZOO  
 EXP CHECK RUN DATES 04/26/2016 - 04/26/2016  
 BOTH JOURNALIZED AND UNJOURNALIZED OPEN AND PAID  
 BANK CODE: POOL

Inv Num Inv Ref#	Vendor Description GL Distribution	Inv Date Entered By	Due Date	Inv Amt	Amt Due	Status	Jrnalized Post Date
# of Invoices:	57	# Due:	57	Totals:	40,377.18		40,377.18
# of Credit Memos:	1	# Due:	1	Totals:	(23.97)		(23.97)
Net of Invoices and Credit Memos:					<u>40,353.21</u>		<u>40,353.21</u>

--- TOTALS BY FUND ---

101 - GENERAL	27,954.60	27,954.60
206 - FIRE	644.85	644.85
207 - POLICE	3,035.95	3,035.95
217 - LIVESCAN/SOR	716.00	716.00
266 - LAW ENFORCEMENT TRAINING	659.50	659.50
270 - 911 WIRELESS	6,591.86	6,591.86
701 - TRUST & AGENCY	750.45	750.45

--- TOTALS BY DEPT/ACTIVITY ---

000 -	750.45	750.45
191 - ELECTION	2,271.86	2,271.86
200 - GENERAL SERVICES_ADMIN	11,827.44	11,827.44
209 - ASSESSOR	203.09	203.09
265 - MAINTENANCE	754.63	754.63
301 - POLICE	10,343.81	10,343.81
320 - STATE TRAINING MONEY	659.50	659.50
336 - FIRE	644.85	644.85
400 - PLANNING/ZONING	12,737.58	12,737.58
751 - RECREATION	160.00	160.00



KALAMAZOO COUNTY  
**LANDBANK**  
2015 Annual Report

*Repurpose. Renew. Reconnect.*

# A Message from the Board

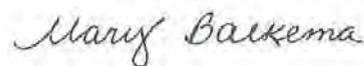
Now in our sixth year, the Kalamazoo County Land Bank Authority continues to be a community and economic development tool for all of Kalamazoo County. We are a governmental authority that manages tax foreclosed properties in Kalamazoo County with the end goal of returning the properties back to productive use and creating vibrant communities. Every year, we receive a new inventory of tax foreclosed parcels through the Kalamazoo County Treasurer. Our work includes managing blight, stabilizing, renovating and selling properties, establishing community gardens and revitalizing the neighborhoods that surround our properties.

In 2015, the Land Bank reached another milestone and completed the redevelopment of the former Riverside Greenhouse. This previously foreclosed and abandoned structure was transformed into a community jewel. We are very proud of the work, the partnerships, and the community who encouraged us with their vision and financial support.

This past year we completed our senior housing development, known as Prairie Gardens. This project sits on the site of the severely blighted former Tuberculosis Sanitarium on Blakeslee Street. It was a dream of community leaders that this beautiful site would be re-developed. The complex is now 100% occupied with a community of seniors who have the opportunity to live in comfortable, affordable housing. We would like to thank MSHDA for making this project possible, and the design and build teams at Byce & Associates and Glas Associates for their excellent work and partnership with the Land Bank.

Thank you for your interest in the work we are doing. We continue to believe this is important and necessary work that makes good use of public dollars. Finally, I offer my sincere gratitude for the board, staff, funders and the community who make all of this work happen.

With Gratitude,



Mary Balkema  
Chair, Board of Directors

## THANK YOU!

We couldn't continue repurposing, renewing and reconnecting vacant spaces in Kalamazoo without the Kalamazoo County Board of Commissioners, who so generously support the work of the Land Bank.



Mary Balkema  
Board Chair

## BOARD OF DIRECTORS

Mary Balkema, Board Chair  
Kalamazoo County Treasurer

Terry Dorgan, Secretary/Treasurer  
Community President  
Huntington National Bank

Becky Fulgoni  
Retired Vice President  
Landscape Forms

Alberta Griffin  
President  
AGS Data Analytics Consulting LLC

Jerome Kisscorni, Vice Chair  
Executive Director  
City of Kalamazoo  
Economic Development Corporation

Carl Roberts  
Retired Vice President of Engineering  
BorgWarner Thermal Systems

Chuck Vlieg  
Program Vice President  
Local Initiatives Support Corporation



Kelly Clarke  
Executive Director

## STAFF

Michelle Tombro Tracy  
Assistant Director

Sarah Frame  
Communications, Operations  
& Grants Manager

Kenn Hartmann  
Assets & Construction Manager

Karma Hassell  
Program Coordinator

Tammy Lahman  
Finance Manager

Amanda Wilholt  
Administrative Assistant

In 2015, the Land Bank moved our offices into Riverview Launch – a newly renovated community asset transformed from a blighted and foreclosed greenhouse. While speaking about early work on this site, Gordon Evans of WMUK asked "Was your initial goal to take an impossible task and move it from impossible to difficult?"

This question is indicative of the challenges we face in Kalamazoo and in cities across the state that share a common legacy of blight. Residents on blocks with foreclosed and abandoned properties struggle with declining property values, health and safety issues, and trash dumping. Long abandoned commercial and industrial structures drain community confidence. At first glance, the task of creating something brighter from this legacy of decline often seems impossible.

At the same time, academics, community activists, residents, business leaders, public sector leaders and non profits are talking now more than ever about what makes great urban places – places that inspire, promote the outdoors, and increase connectivity between and amongst the diverse set of people that make up communities.

We are continuously reminded of the resilience and creativity of our community. When invited, hundreds have participated in transforming previously vacant spaces to community places while bringing their ideas, talents, time, leadership, energy and enthusiasm. We have highlighted many of these stories in the annual report and extend our sincere thanks to a big-hearted community that makes all of this work possible.

Best regards,



Kelly Clarke  
Executive Director



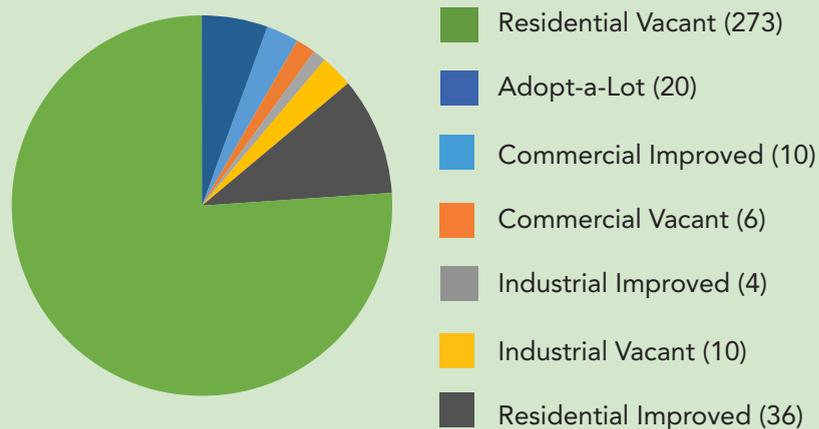
1523 Riverview Drive, Suite A  
Kalamazoo, MI 49004  
269.762.6191  
landbank@kalamazoolandbank.org

# Progress by the Numbers

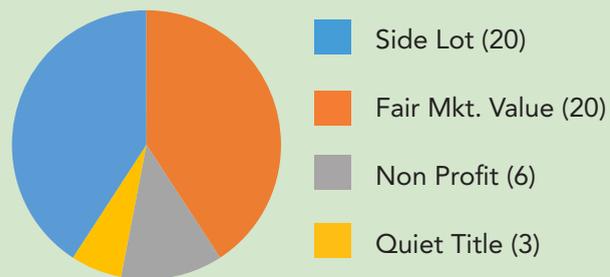
In 2015, the Land Bank worked to repurpose vacant, abandoned, foreclosed, and blighted properties. A total of 49 properties were returned to productive use in 2015.

The Land Bank acquired 77 parcels through the tax foreclosure process in 2015, handled 20 Fair Market Value sales, 6 Non Profit sales, and 3 Quiet Title transactions.

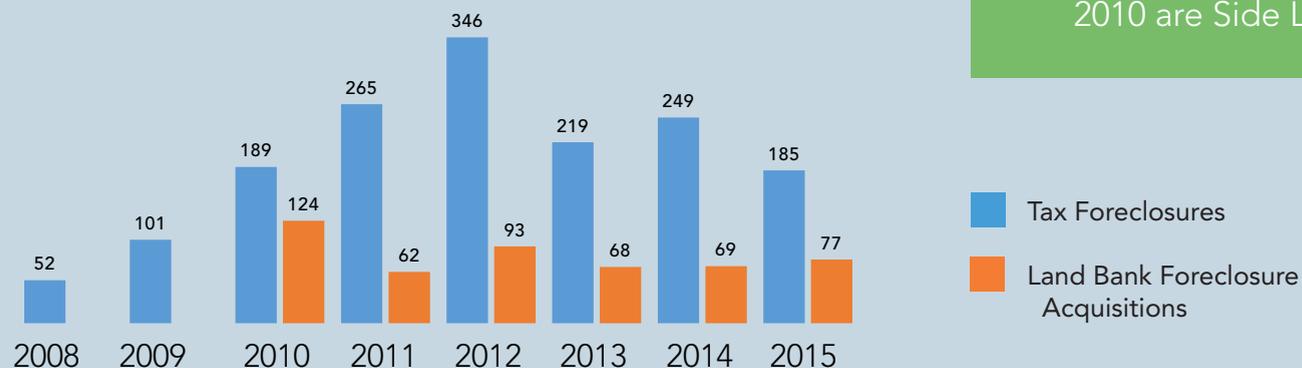
## Year End Inventory



## Disposition



## Kalamazoo County Tax Foreclosures & Acquisitions



### Did You Know...?

Nearly half of all properties sold by the Land Bank since 2010 are Side Lots

# Washington Square

## 1315 PORTAGE - VACANT TO VIBRANT

Washington Square gained momentum in 2015 and is moving toward vibrancy once again thanks to the efforts of the Land Bank and our partners, who worked to bring empty spaces like the one at 1315 Portage Street back to active use.

The Irving S. Gilmore Foundation supported the renovation of 1315 Portage Street, which enabled the opening of the Washington Square Market. This partnership with the People's Food Co-op team gave artisans and local entrepreneurs a beautiful space to display and sell their goods, and room for performers like Rootead African Dance & Drums to showcase their talents.

In 2016, the Land Bank and People's Food Co-op team will be working together to transition the suite at 1315 Portage to a permanent tenant who will utilize the space for offices or a retail shop.

Down a few doors from the Washington Square Market is 1301 Portage, a cornerstone space that was once a bank, drug store, and host to numerous other businesses over the years. The once blighted facade received a makeover that was completed in 2015, thanks to funding from the City of Kalamazoo. Exciting things are in store for this space in 2016, as the Land Bank and partners work to give it new life.

*"The People's Food Co-op team was excited about the possibilities for activating this space in 2015 and connecting the vendors we work with to a pop-up space for local artisans, right around the corner from the Kalamazoo Farmers' Market. We can't wait to see what's next for Washington Square."*

— Chris Dilley  
General Manager, People's Food Co-op



# Washington Square

## BRIGHTENING THE STREETS

Washington Square looked brighter in 2015 thanks to a fresh new streetscape, with overhead building lights, shop signs, and a more pedestrian-friendly street and sidewalk. The City of Kalamazoo repaved Portage Street and installed traffic calming measures to make it easier to walk and bike through the area.



*"Community Promise opened its doors for the first time in Washington Square and is committed to this neighborhood. We have been actively involved in the various Art Hop events, joining the business community in welcoming people back to this area. As a financial organization that helps people who aren't served by traditional banking institutions, we've seen the positive effects of community engagement in this neighborhood; it helps raise awareness of our services and brings people together to celebrate the changes happening here."*

— Angela Brown  
CEO, Community Promise Federal Credit Union

## HOLIDAYS IN THE SQUARE

Washington Square rang in the 2015 holiday season with a collaborative Art Hop event, complete with lights, shopping, art, music and dance performances. Every business in the Square participated by hosting artists, musicians, or vendors. Tremolo Guitar Shop invited a jazz trio to play and hosted the youngest ever Art Hop artist, seven-year-old Lily Moaiery.

The Edison Neighborhood Association opened a pop-up thrift shop in a neighboring storefront that had been vacant. The shop volunteers decked the halls with lots of lights, ornaments and holiday cheer, creating a bright and welcoming space for neighborhood residents to find some gently used items, and explore Washington Square.



## ART HOP

In May, August, October, and December of 2015, the Square was hopping with interesting activities, art, music, and crowds of people excited to join in. Art Hop in Washington Square brought everything from pumpkins and scarecrows to bagpipers, hula hoopers and unicycles to the formerly vacant spaces on this block. Activities ranged from the fun and silly, like riding in the Big Banana Car, to jamming with the soulful blues band, Groove Platter; Art Hop showcased the exciting energy that's created when people come together to make something brighter in their neighborhood.

*"We celebrated Edison Month in August with a full schedule of community-oriented activities, including Art Hop in Washington Square, and Saturdays in the Square events, which brought residents and visitors together to celebrate the amazing diversity and vibrancy of the Edison neighborhood."*

— Tammy Taylor, Executive Director  
Edison Neighborhood Association

*"Rootead had such a great time drumming and dancing at Washington Square, we were invited back two more times. We love to share African roots and culture with our community. We're grateful for the opportunity to spread the love!"*



— Kama Mitchell  
Rootead African Dance & Drumming

# Riverview Launch

## NEW BEGINNINGS

The grand opening of Riverview Launch in September was a joyful, fun-filled celebration of the the vision, the years of hard work, and the strength of the partnerships that have made this project successful. Over 250 people joined the party and explored the newly renovated spaces - indoors and out - that were made possible by the generosity of the donors on the opposite page, as well as the many volunteers who dug into the work of making this community place beautiful again.

In June, the Land Bank and Open Roads moved into their new home at Riverview Launch, bringing new life to this formerly vacant space. In just three years, the community has rallied to volunteer their time and talent, participate by the hundreds in placemaking events, and raise over \$1.9 million to make this a vibrant place called Riverview Launch.

*“Moving into Riverview Launch has increased our capacity to serve youth. In 2015, we were able to host over 160 kids at our new workshop space. Youth from surrounding neighborhoods attended weekly bike repair clinics, Earn-a-Bike programs, and Youth Advisory board meetings in our new space. We were even able to hire a youth Apprentice to help run our new retail shop! Finally having a permanent space has enabled us to host more community members as well as a growing staff and volunteer base. We are incredibly thankful to have a home at Riverview Launch.”*

— Erin Denay, Executive Director, Open Roads



## RIVERVIEW LAUNCH CAPITAL CAMPAIGN

### SYCAMORE

Irving S. Gilmore Foundation  
Kalamazoo Community Foundation  
Kalamazoo County  
Kalamazoo County Land Bank  
Local Initiatives Support Corporation  
Michigan Economic Development Corporation  
Northwood Foundation  
State of Michigan Land Bank  
Stryker Johnston Foundation

### HERON

Chemical Bank Foundation  
Consumers Energy Foundation  
Dorothy Dalton Foundation  
Harold & Grace Upjohn Foundation  
Jim Gilmore, Jr. Foundation  
Title-Check, LLC  
Tyler Little Family Foundation & Boroughs Corp.

### IRIS

Briarwood Farm Foundation  
The Burdick-Thorne Foundation  
Environmental Action Fund  
Fabri-Kal Foundation  
Fleis & VandenBrink  
Glas Associates  
Havirmill Foundation  
The Home Depot  
The H.P. & Genevieve Connable Fund  
InForm Architecture, LLC  
Landscape Forms  
Tim & Joy Light  
George & Clare Todd  
Tom & Kristy VanderMolen

### MONARCH

A-1 Refrigeration  
Byce & Associates  
City of Kalamazoo  
John Kittredge  
Michigan Municipal Risk Management Authority  
Naylor Landscape Management  
OCBA Landscape Architects  
Old National Bank Foundation  
Reliable Glass Installers  
Roberts Commercial Interiors  
Spirit of Community Environment Fund  
Warner, Norcross & Judd

### PAINTED TURTLE

Arcadia Brewing Company  
Mary Balkema  
Larry Bell  
Fritz & Marisa Brown  
Central Tile & Terrazzo  
Kelly Clarke & Thomas Crothers  
Cutting Edge  
Division 5 Metalworks  
Division 7 Contractor  
DLZ  
Douglas Plumbing  
Envirologic Technologies  
Esper Electric LTD  
Becky & John Fulgoni  
Handley's Tree Service  
Hazelhoff Builders  
Integrated Exteriors  
Keystone Community Bank  
Lam & Associates  
McKinney Whitmore  
Newhouse Excavating  
Old National Bank  
Martha Parfet  
PMV Custom Finishes

Marc Schupan  
James & Lynn Spurr  
Martha Todd  
Chuck & Peggy Vlieg  
Vlieg Family Fund  
Wolthuis Brothers Concrete

### HONEY BEE

Dale Abbott & Tomme Maile  
Anne Arbetter  
Fischell & Family  
Herb Ayres  
BDO Accounting  
Mayor Bobby J. Hopewell  
Mike & Catie Boring  
Josie Boucher  
Sherwood & Kathryn Boudeman  
Matthew Burian & Karen Mazei  
Kevin Davis

Jim & Sherry DeDitius  
Bob & Mary Doud  
Fran Dwight  
Kimberly Fletcher  
Matthew Fletcher  
Samuel Fletcher  
Thomas M. & Sandra L. George Family Fund  
Jack & Martha Gesmundo  
Chris & Jennifer Haenicke  
Phil Harbert  
Jeff Hawkins  
Jim & Martha Hilboldt  
HRM Innovations  
The Isacksen Family  
Pam & Mark Jackson  
Conrad Kaufman & Rebecca Boase  
Ian Kennedy  
Barbara Kreuzer  
Charles Kruienza  
Aaron & Elizabeth Lane-Davies  
Brenda Longman  
Nancy Malcomson  
Connable Fund



Ken Peregon  
PlazaCorp Realty Advisors  
Ronald Reid  
Betsy Rice  
Willard Rose  
Todd & Amy Sanford  
Sheri Smith Miller  
Endowment Fund  
Carol Snapp  
Things of Steel  
Edie Todd & Esme  
Doezema Todd  
Chris Tracy & Michelle Tombro Tracy  
Amy Upjohn & Brad VandenBerg  
Perry & Anne Wolfe

### FIREFLY

James Balkema  
Amy Bruursema  
Anne & Tommy Crothers  
Maeve & Gus Crothers  
Pat Crowley  
Melody Daacon  
Michelle Davis  
Michael DeDitius  
Karen A. Douglas  
Violet & Miles Drost  
Eppinga  
Sarah Frame & Dan Altenritter  
Karl Freed  
Philip Goff  
Darlene Gray

Sharon Hunter  
Intentional Yoga  
Kathy Jennings  
Tammy & Jeff Lahman  
Brian Lam  
Paul & Elizabeth Lyke  
Gail Lyons  
Jamie McCarthy  
Parchment Garden Club  
Senator Margaret O'Brien  
Krysta Parmelee  
Marc Pineda  
Tom & Stephanie Renuart  
Robyn Richardson  
Kathy Roberts  
Pat Taylor  
Tammy Taylor  
Patricia Timmerman  
Robert & Patricia Townsend  
David Tunk  
Greg Vlietstra  
The Wester Family  
Stelle D'Oro Williams  
Holly Wolfe  
Laurel Wolfe  
Marjorie Wolfe  
Brian & Deb Wood

## JOIN THE COMMUNITY

You can still be a part of the Riverview Launch community by supporting this project!  
[www.Fundly.com/Riverview-Launch](http://www.Fundly.com/Riverview-Launch)

# Riverview Launch

## EVENTS

Riverview Launch was alive with events ranging from the Grand Opening to the Kalamazoo Water Festival, which brought over 800 people to the site for fun and educational activities centered around the importance of our water resources. Hosted in partnership with the Kalamazoo River Watershed Council and the Kalamazoo County Drain Commissioner, Pat Crowley, the Water Festival was held on a bright Saturday in September. This event was a perfect realization of the vision for this site - people and families from all over Kalamazoo enjoying the outdoors and each other in a beautiful, revitalized space.

Pedal to Your Mat returned to Riverview Launch for the second year in a row, allowing over ninety people to enjoy an early morning bike ride on the KRVT and a refreshing yoga session on the lawn.

Go Places also returned to Riverview in 2015 with a showing of the documentary "Landscapes of Longevity" and an in-depth discussion with the filmmakers Asa Eslocker and Harriett Jameson about the intersections between place and health.



Did You Know...?  
 Riverview Launch facilities are available for event rentals. Find out more at: [www.RiverviewLaunch.com](http://www.RiverviewLaunch.com)

## COMMUNITY GARDENING

Working with friends and partners in the Common Ground community gardening collaboration, the Land Bank helped organize the 2015 Plant Start Giveaway and Community Garden Tour. The Community Garden Shed kept busy with gardeners borrowing tools to use in creating and maintaining their gardens.

In May, the Kalamazoo Nature Center kicked off the Plant Start Giveaway by providing a wide variety of plant starts of heirloom tomatoes, peppers, herbs, and lettuce for sixteen gardeners to use in their community gardens around Kalamazoo.

In July, twenty five people boarded a trolley and another fourteen set off on their bikes for the 4th Annual Community Garden Tour. The tour highlighted the hard work of community gardeners all over the area, from Fruit of the Vine, in Kalamazoo's Vine neighborhood, to the Kfirst Community Garden in Portage. In its first three years, Kfirst's team of volunteer gardeners have harvested over 12,000 lbs of fresh produce, which was donated to local ministries who serve people in need.



# Common Ground



# Land Bank Programs

## SIDE LOT



The Side Lot Program gives neighbors and community members the opportunity to purchase vacant lots that result from recent demolitions. Since 2010, 138 lots have been sold through the Side Lot program. In 2015, twenty lots were repurposed to expand yards, improve quality of life in Kalamazoo neighborhoods, and contribute to the tax base.



*"I have big plans for this yard. After finishing the fence, I plan on putting in a nice lawn, flowers, and landscaping this area so my family can enjoy being outside and my daughter can play in a safe area."*

— Juan Nunez

Edison Neighborhood Resident & Side Lot Owner

## ADOPT-A-LOT

Adopt-a-lots are vacant land leased to a neighbor or community group who agrees to care for the land, and in return uses the lot to create a garden or enjoy more green space in their neighborhood. In 2015, twenty vacant lots were adopted out for community or individual use, reducing the burden of maintenance on the Land Bank, and allowing neighbors to make vacant spaces in their community a little brighter.

The Ranney-Orborne garden is an Adopt-a-lot in the Vine neighborhood, brought back to life in 2015 as a part of the revitalization efforts of a group who have worked to make an positive impact in a targeted section

*"The Ranney-Osborne resident action group, initiated by Building Blocks of Kalamazoo, has sustained resident-driven development efforts since 2012. We've found that energetic and collaborative efforts between residents and agencies within a neighborhood are linked to sustainable improvements in the quality of neighborhood life. We are excited, inspired, and encouraged by the work of groups such as Ranney-Osborne and hope to continue similar initiatives in Kalamazoo."*

— Carrie Drake, Executive Director, Building Blocks of Kalamazoo



## RESPONSIBLE DISPOSITION

The Land Bank had thirty six vacant homes in its inventory in 2015, many of which needed significant investments to become liveable again. In order to keep these properties from continuing the cycle of blight and decline, the Land Bank sells the houses through the Responsible Disposition program to buyers who have shown they have the capacity and a solid plan to revitalize the home.



Cesar and Angelica Garcia purchased a house on Courtlandt Street, on Kalamazoo's northeast side, through the Responsible Disposition program in 2014. They were ready to make it into their dream home, and have spent the past year rebuilding and transforming it from broken to beautiful. It's hard to recognize the home now, since they added a second story, took down the dilapidated garage, and completely renovated it, inside and out. Without the Garcia's hard work and willingness to see potential in a rough exterior, this house might still be blighted and vacant, instead of the wonderful home they created.

3521 Duke Street has seen a lot of changes over the past year. This property was tax foreclosed in 2012 and became a rental property until it was sold through the Land Bank's Responsible Disposition program in 2015. The purchaser, Scott Shepard, invested over \$30,000 for interior renovations to every room in the house. He sold this freshly rehabbed home within six months to a first time homeowner.

*"I saw potential in this property and was happy to have the opportunity to make this a house a home that's an asset to the South Westnedge neighborhood. I'm already making plans with the Land Bank for my next project house."*

— Scott Shepard



# Blight Elimination

The Land Bank remains committed to reducing blight in Kalamazoo County, which helps prevent property value decline in surrounding homes, reduces health and safety risks to residents, and improves quality of life in struggling neighborhoods. In 2015, the Land Bank participated for the third year in a partnership between local governments in Kalamazoo County. Tax foreclosed properties that were blighted were demolished, with

funding coming in equal parts from the Kalamazoo County Treasurer and the property's municipality. The Land Bank joined this partnership to manage the demolition process. Sixteen blighted properties were demolished in 2015 thanks to this local collaboration. An additional thirteen demolitions were funded by the Kalamazoo County Treasurer, bringing the total to twenty nine unsafe structures demolished in 2015.



## 1787 Colby, Cooper Township

Kalamazoo County and Cooper Township participated in a 50/50 partnership to fund the demolition of this blighted home on Colby Ave. The Land Bank managed the demolition of this building, and sold the vacant lot to a neighbor through the Side Lot program.

*"The Kalamazoo County Land Bank is an awesome partner serving the Kalamazoo community. We work side by side with the Land Bank and Treasurer on 50/50 cost sharing in the elimination of blighted properties, improving the quality of life for the people in our Kalamazoo Strong community!"*

— Jeff Sorensen, Cooper Charter Township Supervisor

## 910 Staples, City of Kalamazoo

This burned out home in Kalamazoo's Northside neighborhood was demolished in 2015 in partnership with the Kalamazoo County Treasurer. The vacant lot was then sold to neighbor Rosalinda Olivarez through the Land Bank's Side Lot Program.



## PHASE II

In 2014, the Michigan State Housing Development Authority awarded \$1.4 million to the Land Bank for development of Phase II of Prairie Gardens, a senior housing development on Blakeslee Street in Kalamazoo's Fairmount neighborhood. This area once held a long-vacant Tuberculosis Sanitarium, an unsafe structure that attracted crime to the neighborhood. It was demolished through a partnership with the City of Kalamazoo and Western Michigan University. The Land Bank completed Phase I in 2013; fourteen senior residents, 55 and older, moved into their newly-built accessible and affordable homes. Throughout 2015, the Land Bank worked with construction managers, Byce & Associates and builders, Glas Associates, to complete five additional 1 or 2 bedroom, cottage-style duplexes. In total, there are now twenty four units, and the newest residents have been welcomed into the Prairie Gardens community.



*"For 53 years, I lived and raised a family in my house on Douglas Street, just a few blocks away from here. It was time to say goodbye to the house, but I wanted to stay in this neighborhood that has been my home for so long. After two years on the waiting list, I was thrilled to find out I would get to live at Prairie Gardens. It's such a quiet, beautiful place, and I feel lucky to have the chance to make a new home here."*

— LaVonna Trowbridge  
Prairie Gardens Resident

# Thank You Partners!

## COMMUNITY/ EVENT VOLUNTEERS & OTHER PARTNERS

Dale Abbott & Tomme Maile  
Bellydance Kalamazoo  
BenJammin Educational Music  
BDO Volunteers  
Better Than Cake  
Angela Brown  
Tom Brown  
Byce & Associates  
Ursula Chapman  
City of Kalamazoo Parks & Recreation  
Coffee Rescue  
Community Promise  
Federal Credit Union  
Lydia Cook  
Crepes by the Lakes  
Crescendo Fiddlers  
Cutting Edge  
Diva of DomesticaShon  
Fran Dwight Photography  
Holly Eakes  
Fresh Food Fairy  
Ilse Gebhard  
Glas Associates  
Mason Gordon  
Calvin Green  
Groove Platter  
Howard's Party Store  
Improv Effects  
Intrepid Professional Group  
Pam Jackson  
Jaqua Realtors  
Jersey Giant SUBS!  
James Jones  
Kalamazoo College  
Student Volunteers  
Kalamazoo County Drain Commissioner  
Kalamazoo County Parks & Recreation  
Kalamazoo Department of Public Safety  
Conrad Kaufman  
K-D Sales  
Ryan Koziatek

La Guatemalteca Tacos  
Monique Lisowski  
Main Street East  
Mamaleelu Coffee  
James McKee  
Michigan State Housing Development Authority  
Michigan Statewide LISC  
AmeriCorps  
Millennium Restaurant Group  
Lily Moaiery  
MSU Extension Master Gardeners  
Naylor Landscape Management  
Ian Nielson  
The Northern Fires  
OCBA Landscape Architects  
Jenn Park  
Pfizer Volunteers  
Alyssa Prince  
River Street Flowerland  
Rootead African Drum & Dance  
Chuck & Kathy Ryzenga  
Roger & Ryan Schmidt  
Sheila Shubnell  
Singh Cruisin' Cuisine  
Sloppy's Food Truck  
Soil Friends Farm  
Soul Springs  
Permaculture  
Kallerine Strazdas  
Stryker Volunteers  
Stumbling Grace Farms  
Matthew Tanksley  
Kristie & Daniel Tellier  
Too Clean  
Tree of Life School  
Tremolo Guitar Shop  
Trybal Revival Gardens  
Van Kal Permaculture  
Scarlet & Olivia Vasquez  
Jean Walker  
Washington Square Market  
Greg Wells  
Wenke Greenhouses  
Linda Whitlock  
Wild Ones - Kalamazoo

Area Chapter  
Tammy Wilson  
Deb & Loretta Yoder  
Zia Dolci Kalamazoo  
**RIVERVIEW LAUNCH CAPITAL CAMPAIGN CABINET**  
Matthew Burian (co-chair)  
Josie Boucher  
Kelly Clarke  
Becky Fulgoni  
Chris Haenicke  
Jeff Hawkins  
Phillip Heasley  
Ian Kennedy  
Jerome Kiscorni  
John Kittredge (co-chair)  
Ken Peregón  
Dave Rachowicz  
Lynn Spurr  
Tim Surprise  
Martha Todd  
Perry Wolfe (chair)

## Advisory Panel

Mary Balkema  
Pat Crowley  
Mayor Bobby Hopewell  
Ronald Reid  
Bill Rose  
Chris Tracy  
Chuck Vliet

## MUNICIPAL PARTNERS

City of Kalamazoo  
City of Parchment  
City of Portage  
Comstock Township  
Cooper Township  
Kalamazoo County  
Kalamazoo Township  
Oshtemo Township  
Schoolcraft Township  
Texas Township  
Village of Climax  
Village of Schoolcraft  
Village of Vicksburg

## 2015 LEADERSHIP CIRCLE

5/3 Bank

Pitsch Companies

PNC Bank

*The Leadership Circle is a dedicated group of civic-minded businesses that support the Land Bank's mission to create vibrant communities.*

## VIBRANT KALAMAZOO BOARD OF DIRECTORS

Mary Balkema, Chair  
Kelly Clarke, Ex-Officio  
Becky Fulgoni  
Heather Isch  
Paul Valentin  
Andy Wilkerson

## NON-PROFIT & FOUNDATION PARTNERS

Boys & Girls Clubs of Greater Kalamazoo  
Building Blocks of Kalamazoo  
CEDAM  
Center for Community Progress  
Eastside Neighborhood Association  
Edison Neighborhood Association  
Fair Food Matters  
Fire Historical & Cultural Arts Collaborative  
Friends of the KRVT  
Irving S. Gilmore Foundation  
Jim Gilmore, Jr. Foundation  
Kalamazoo Arts Council  
Kalamazoo Community Foundation  
Kalamazoo Nature Center  
Kazoo School  
Kalamazoo Neighborhood Housing Services  
Kalamazoo Valley Habitat for Humanity  
Local Initiatives Support Corporation

Michigan Association of Land Banks  
Michigan Land Bank Fast Track Authority  
Michigan Municipal League  
Northside Neighborhood Association  
Kalamazoo County MSU Extension  
Kalamazoo County Parks Foundation  
Kalamazoo Farmers Market  
Kalamazoo Public Library  
Kalamazoo River Watershed Council  
Kalamazoo Valley Community College  
Mt. Zion Baptist Church  
National Community Stabilization Trust  
Northside Ministerial Alliance  
Open Roads  
People's Food Co-op  
Pretty Lake Camp  
Stuart Area Restoration Association  
Urban Alliance  
Vine Neighborhood Association  
Volunteer Kalamazoo



# Transportation Research Center

*for Livable Communities*

2015 ANNUAL REPORT



## Table of Contents

Messages from the Director and Representatives.....	1
TRCLC Mission and Objectives.....	2
Center Personnel .....	3
Research Investigators .....	4-5
Consortia .....	6-7
Our Research .....	8
List of Research Projects.....	9
Highlighted Projects .....	10-19
Technology Transfer and Outreach Activities .....	20-23
Student Awards .....	24
Upcoming Events .....	25



## Messages from the Director and Representatives



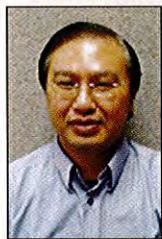
**Jun-Seok Oh, Director of TRCLC,  
Western Michigan University**

It has already been more than two years since the Transportation Research Center for Livable Communities (TRCLC) was born. During the years, TRCLC was able to support its members on 25 research projects. I am happy to present this annual report summarizing TRCLC research activities. TRCLC researchers in the five consortium universities have worked hard to bring technological advances to aid the development of livable communities. We have examined, tested and investigated various technologies to foster multimodal transportation systems and overcome barriers and obstacles delaying the onset of livable communities. I appreciate our members' efforts and contribution, especially from TRCLC university representatives. Without their thoughtful collaboration, TRCLC could not have achieved such success in such a short timeframe. I would also like to thank center advisory board members, research advisory members, and collaborative partners for their continuous cooperation. Their support and encouragement have brought great motivation for us to develop new research agenda. Most importantly, I would like to thank the U.S. Department of Transportation for this opportunity. We will continue to strive to achieve U.S. DOT's strategic goals by collaborating with TRCLC members.



**Stephen Mattingly, TRCLC Representative,  
University of Texas at Arlington**

The Transportation Research Center for Livable Communities has helped increase the recognition of the importance of transportation in creating and sustaining communities. On campus, the center has helped foster new research collaborations between civil engineering, urban planning, public affairs, computer science and social work. Within the community, we have connected with the local metropolitan planning organization, North Central Texas Council of Governments (NCTCOG), to extend some of the center's research to address their needs. Furthermore, the collaboration with NCTCOG has connected our research activities with governmental agencies and advocacy organizations throughout the region. We look forward to continuing the work of the center for many years to come.



**Anthony Chen, TRCLC Representative,  
Utah State University**

Utah State University's transportation research center is actively collaborating with the Transportation Research Center for Livable Communities in multi-modal transportation research, particularly focusing on modeling non-motorized and public transportation. Recent studies have examined the design of pedestrian environments for heterogeneous populations of individuals with and without disabilities, bicycle modeling and network analysis tool, and innovative park-and-ride facilities and transit services.



**Joe Hummer, TRCLC Representative,  
Wayne State University**

Wayne State University is pleased to be part of the TRCLC. We contribute in civil engineering in safety and pedestrian accommodation and in industrial engineering in systems for livable communities. We have two ongoing projects. Our industrial engineers are working on "Community-Aware EV Charging Station Network Design," which is developing a decision support system (DSS) for city/community planning agencies to strategically design electric vehicle (EV) charging station networks for communities. Meanwhile, our civil engineers are working on "Prediction of Pedestrian and Bicyclist Crashes Using Behavioral Proxies," investigating the relationship between pedestrian and bicyclist crashes and motorist behavior when encountering non-motorized users.



**Deo Chimba, TRCLC Representative,  
Tennessee State University**

The research at Tennessee State University (TSU) has been focused on pedestrian operations and safety. Our first research developed a framework to identify bicycle and pedestrian high crash locations for safety improvement prioritization focusing on population, demographic and socioeconomic spectra with the state of Tennessee as a case study. The second study focused on the impact of access management to pedestrian safety with the fact that poor access management has been linked to certain types of crashes. The study establishes the relationship between access management features and crash frequency, crash rates and injury severities through statistical modeling. Overall, the UTC funding has expanded transportation-related research here at TSU, has improved recruitment of graduate students especially those interested in the transportation engineering and planning field, and has given the participating faculties and students an avenue to publish from the research findings.

## TRCLC Mission and Objectives

In retrospect, poorly balanced transportation systems in the United States have led to auto-dependent communities. Over the past several decades our communities have become less walkable, less bikeable and less accessible to public transit. Studies reveal that the percentage of students who walk or bicycle to school has dropped from 48 percent in 1969 to 15.7 percent in 2012. Recent estimates from the American Community Survey also show that nearly nine in 10 (86 percent) of Americans commute to work by car, more than three-quarters (76.1 percent) drive to work alone and only 5 percent use transit to get to work. And while 71 percent of older households want to live within walking distance of transit, only 53 percent of Americans have access to any form of public transportation.

The central mission of this Center is to engage in research that helps to achieve more balanced, affordable and environmental sustainable transportation systems for all. Such systems will foster the development of livable communities where people can enjoy their daily lives without having to drive a car. In particular, the Center concentrates on “bringing technological advances into livable communities” by coordinating efforts between researchers, practitioners and advocates. Toward this end, the TRCLC aims to achieve three objectives, including:

- **Improve public transit systems and alternative transportation modes;**
- **Provide better and safer pedestrian and bicycle networks; and**
- **Enhance transportation accessibility for people with disabilities, older adults, and lower income populations.**

## Center Personnel



**Jun-Seok Oh, Ph.D., PE**  
*Director*  
**Western Michigan University**

Research interests: Transportation systems modeling, non-motorized transportation, traffic safety, intelligent transportation systems, traffic simulation



**Valerian Kwigizile, Ph.D., PE**  
*Associate Director*  
**Western Michigan University**

Research interests: Traffic safety, non-motorized transportation, traffic enforcement, traffic data analysis



**Osama Abudayyeh, Ph.D., PE**  
*Center Advisory Council*  
**Western Michigan University**

Research interests: Bridge and infrastructure management, rapid bridge construction



**Kay Mortellaro**  
*Center Coordinator*  
**Western Michigan University**



**Zhanbo Sun, Ph.D.**  
*Assistant Professor, Civil and Construction Engineering*  
**Western Michigan University**

Research interests: urban traffic modeling using advanced sensing technologies, traffic control and operations, connected and autonomous vehicles, privacy in transportation, vehicular emissions modeling, livable communities

# Research Investigators



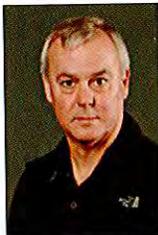
**Ala Al-Fuqaha, Ph.D.**  
*Professor, Computer Science*  
 Western Michigan University

Research interests: System simulation and modeling, wireless communications, mobile computing, VANETS



**Upul Attanayake, Ph.D.**  
*Associate Professor*  
 Western Michigan University

Research interests: Bridge engineering, condition assessment and health monitoring of structures, finite element applications



**Charles Emerson**  
*Professor, Department of Geography*  
 Western Michigan University

Research interests: Geographic Information Systems, remote sensing and spatial analysis



**Robert Wall Emerson, Ph.D.**  
*Professor, Blindness & Low Vision Studies*  
 Western Michigan University

Research interests: Long cane biomechanics, quiet vehicles, mobility of people who are blind



**David Guth**  
*Professor Emeritus, Blindness & Low Vision Studies*  
 Western Michigan University

Research interests: Street crossing risk, roundabout access for persons who are blind, perceptual cues for wayfinding at complex intersections



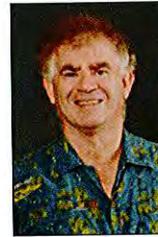
**Dae Shik Kim, Ph.D.**  
*Associate Professor, Blindness & Low Vision Studies*  
 Western Michigan University

Research interests: Long cane biomechanics, quiet vehicles, mobility of blind people



**Paula D. Kohler**  
*Associate Vice President of Research, Special Education and Literacy Studies*  
 Western Michigan University

Research interests: Effectiveness of secondary education and evaluation of implementation strategies



**David Lemberg**  
*Professor, Department of Geography*  
 Western Michigan University

Research interests: Urban transportation planning, tourism, landscape and ecology



**Yang Li, Ph.D.**  
*Professor, Computer Science*  
 Western Michigan University

Research interests: Database management



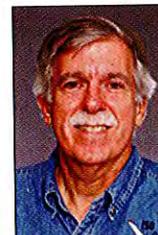
**Richard Long**  
*Professor Emeritus, College of Health and Human Services*  
 Western Michigan University

Street crossing risk, roundabouts access for persons who are blind, perceptual cues for wayfinding at complex intersections



**C. Scott Smith, Ph.D.**  
*Assistant Professor, Department of Geography*  
 Western Michigan University

Research interests: Urban planning, community development, transportation planning, environmental health justice



**Dr. Ron Van Houten**  
*Professor, Department of Psychology*  
 Western Michigan University

Research interests: Human factors, traffic safety analysis, pedestrian behavior analysis



**Deo Chimba, Ph.D.**  
*Associate Professor, Civil and Architectural Engineering*  
 Tennessee State University

Research interests: Highway safety analysis, traffic operations and analysis, simulation, bicycle, and pedestrian studies, application of statistics in transportation, public/transit transportation, traffic demand forecasting and modeling, emerging technologies in transportation engineering, land use growth management



**Kimberly L. Triplett, PhD, MPA**  
*Assistant Professor, Sociology, Social Work, and Urban Professions*  
 Tennessee State University

Research Interests: Environmental Justice, transportation equity, public involvement, race and ethnicity, regionalism, social inequality, social justice, urban development, urban politics, historic development (metropolitan), and urban planning and policy

# Research Investigators



**Anthony Chen**  
*Professor, Transportation Division Head, Civil and Environmental Engineering*  
 Utah State University

Research Interests: Transportation systems modeling, transportation planning, sensor location, network reliability, non-motorized transportation, evacuation behavior, bicycle network analysis



**Saravanan Venkatachalam, Ph.D.**  
*Assistant Professor, Industrial & Systems Engineering Department*  
 Wayne State University

Research Interests: Supply chain management, transportation and logistics, energy, large scale optimization



**Keith M Christensen**  
*Landscape Architecture and Environmental Planning*  
 Utah State University

Research Interests: Social integration of individuals with disabilities, health and well-being disparities of individuals with disabilities, transportation access, equitable emergency evacuations, and socially inclusive environments



**Timothy Gates, Ph.D.**  
*Associate Professor, Civil and Environmental Engineering*  
 Michigan State University

Research interests: traffic engineering, traffic operations, traffic safety, driver behavior, and transportation economics



**Ziqi Song**  
*Assistant Professor, Civil and Environmental Engineering*  
 Utah State University

Research Interests: Transportation network modeling, sustainable transportation systems, travel demand management, traffic operations and safety, and transportation asset management



**Siamak (Sia) A. Ardekani, P.E.**  
*Professor, Department of Civil Engineering*  
 University of Texas at Arlington

Research Interests: Traffic flow theory, traffic surveillance systems, intelligent transportation systems, managed lane operations, roadway pricing, emergency transportation management, and public transportation design and operations



**Ratna Babu Chinnam, Ph.D.**  
*Professor & Graduate Chair, Industrial & Systems Engineering Department*  
 Wayne State University

Research Interests: Supply chain management, intelligent transportation, analytics, big data



**Colleen Casey**  
*Associate Professor, Department of Public Affairs*  
 University of Texas at Arlington

Research Interests: Community engagement, public participation, and cross-sector coordination and collaboration especially around the issues of health and transportation



**Joseph E. Hummer, Ph.D., PE**  
*Professor and Chair, Department of Civil and Environmental Engineering*  
 Wayne State University

Research Interests: Specialties in highway safety, highway design, and traffic operations. In particular, he is a leader in the area of alternative intersections and interchanges. He has also worked extensively in pedestrian and bicycle safety and operations and traffic control devices



**Jianling Li**  
*Professor, Department of Planning and Landscape Architecture*  
 University of Texas at Arlington

Research Interests: Organizational collaboration for transportation planning, economic returns from transportation investments, and the impacts of transportation planning and policies on travel behavior, health outcomes, and social equity



**Ekrem Alper Murat, Ph.D.**  
*Associate Professor & Undergraduate Chair, Industrial & Systems Engineering Department*  
 Wayne State University

Research Interests: Supply chain management, logistics and transportation, healthcare analytics, big data



**Stephen P. Mattingly**  
*Associate Professor, Department of Civil Engineering*  
 University of Texas at Arlington

Research Interests: Decision and risk analysis, transportation and public health, institutional studies and analysis, transportation planning, connected autonomous vehicles, operations research/logistics, network optimization, intelligent transportation systems, aviation, public transit, bicycle and pedestrian behavior and safety and transportation safety



**Stephen Remias, Ph.D.**  
*Assistant Professor, Department of Civil and Environmental Engineering*  
 Wayne State University

Research Interests: traffic operations, traffic signals, transportation mobility, performance measurement, connected infrastructure, and using large data sets to solve relevant transportation problems



**James C. Williams, P.E.**  
*Professor, Department of Civil Engineering*  
 University of Texas at Arlington

Research Interests: Traffic engineering, traffic signals, traffic operations

# Consortia

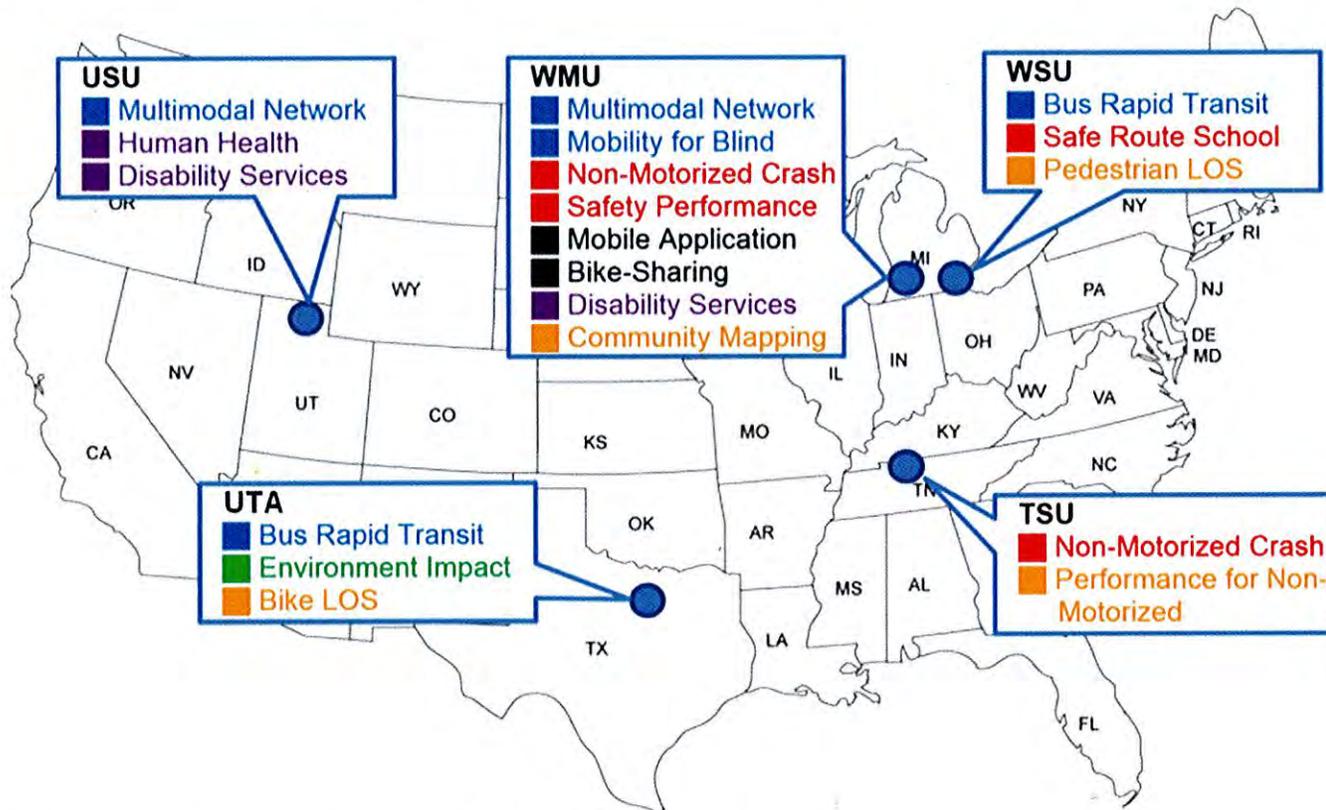
The TRCLC is composed of consortium universities and collaborative partners, including public agencies, interest groups and industry representatives. Collectively, the personnel involved in the Center represent multiple communities of practice. Together, Center participants form a community of interest defined by their collective concern with the resolution of transportation problems and the enhancement of transportation mobility and accessibility for socially- and economically-sensitive populations through multi-modal networks. By developing effective interdisciplinary, industry-university and inter-sectoral partnerships, the TRCLC will help facilitate the development of livable communities. The figures below graphically depict the five consortium member universities: Western Michigan University (WMU), University of Texas, Arlington (UTA), Utah State University (USU), Wayne State University (WSU) and Tennessee State University (TSU) and their participating departments.



WMU	UTA	USU	WSU	TSU
<ul style="list-style-type: none"> <li>• Civil and Construction Engineering</li> <li>• Computer Science</li> <li>• Blindness &amp; Low Vision Studies</li> <li>• Psychology</li> <li>• Geography, Urban Planning</li> <li>• Special Education</li> </ul>	<ul style="list-style-type: none"> <li>• Civil Engineering</li> <li>• Public Affairs</li> <li>• Urban Planning</li> </ul>	<ul style="list-style-type: none"> <li>• Civil and Environmental Engineering</li> <li>• Landscape, Architecture &amp; Environmental Planning</li> </ul>	<ul style="list-style-type: none"> <li>• Civil and Environmental Engineering</li> <li>• Industrial/Systems Engineering</li> </ul>	<ul style="list-style-type: none"> <li>• Civil Engineering</li> <li>• Sociology and Urban Professions</li> </ul>

Each of the five institutions in the TRCLC consortium has its own expertise within the theme of livable communities. Western Michigan University has expertise and strong research capabilities in the areas of mobility for those with disabilities and in non-motorized safety. The University of Texas, Arlington's strengths are in analyzing environmental impact and multi-modal levels of service. Utah State University members have strengths in both network analysis and transportation services for individuals with disabilities. Wayne State University specializes in bus rapid transit and pedestrian safety. Tennessee State University members have strengths in safety and performance measures (see figure below).

The TRCLC is a collaboration that will be of benefit to all five institutions, their surrounding communities and for sustainable transportation research, more generally.



## Public Agencies, Industry and Interest Groups

Listed below are the public agencies, industry and interest groups that are actively supporting the Center by reviewing research proposals, identifying transportation problems and/or research opportunities, actively participating in the Center's seminar series, providing research funding and/or other financial support, and/or engaging in collaborative research.

ASCE of Michigan  
 City of Dallas, TX  
 City of Kalamazoo, MI  
 City of Portage, MI  
 Complete Streets Coalition of Kalamazoo  
 ITE of Michigan  
 ITS of Michigan  
 Kalamazoo Area Transportation Study (KATS), MI  
 Kalamazoo County Road Commission (KCRC)  
 Kalamazoo County Transportation Authority (KCTA), MI  
 League of Michigan Bicyclists

Michigan Association of Planning  
 Michigan Department of Transportation (MDOT)  
 Michigan Office of Highway Safety Planning (OHSP)  
 Nokia Americas  
 Oshtemo Township, MI  
 Scenaria  
 Southeast Michigan Council of Governments (SEMCOG)  
 Southwest Michigan Planning Commission (SWMPC)  
 Tennessee DOT  
 Texas DOT  
 URS Corporation

## Our Research

The TRCLC aims at not only promoting public transit and non-motorized transportation systems for commuters, but also for children, older adults, individuals with disabilities, and low income people. Our research includes planning, design, maintenance and technologies for public transit and non-motorized transportation. The TRCLC's research falls into six categories of benefits: mobility, safety, environment, accessibility, health and performance. To help foster livable communities, TRCLC members deal with the following transportation-related needs:

- **Technologies for communities' safety and mobility;**
- **Performance measures for community walkability and bikeability;**
- **Transportation services and human health and safety;**
- **Safe routes to school and transportation education for the next generation;**
- **Multimodal level of services and complete streets;**
- **Bus rapid transit and transit information systems;**
- **Transit-oriented development;**
- **Technologies for individuals with disabilities;**
- **Rapid construction to minimize negative impacts for commuters; and**
- **Infrastructure monitoring and information services.**

## Research Themes

The TRCLC has identified four research thrusts as suggested by the research advisory committee, including:

- **Behavioral and cultural research that addresses all users of transportation systems, including drivers, bicyclists, pedestrian, elderly, blind and low vision individuals.**
- **System and network, planning, design, and simulation for improving transportation services.**
- **Decision making models/policies that address competing transportation priorities and needs.**
- **Education and training on all aspects of transportation.**

# List of Center Research Projects

Project	Project Title	Institute	PI
14-1	Explorations into the Equity Dimensions of US Bicycle Sharing System	WMU	<i>C. Scott Smith</i>
14-2	Developing Performances Measures to Capture the Effects of Transportation Facilities On Multiple Public Health Outcomes	UTA	<i>Colleen Casey</i>
14-3	Developing Performances Measures to Capture the Effects of Transportation Facilities On Multiple Public Health Outcomes: A Case in Michigan	WMU	<i>Jun-Seok Oh</i>
14-4	Conditions that Influence Drivers' Yielding Behavior at Uncontrolled Crossings and Intersections with Traffic Signal Controls	WMU	<i>Robert Emerson</i>
14-5	Development of Decision Support Tools to Assess Pedestrian and Bicycle Safety: Development of Safety Performance Functions	WMU	<i>Valerian Kwizile</i>
14-6	Development of Decision Support Tools to Assess Pedestrian and Bicycle Safety: Field Evaluation of Driver Behavior and Traffic Operations	WSU	<i>Timothy Gates</i>
14-7	Development of Decision Support Tools to Assess Pedestrian and Bicycle Safety: Focus on Population, Demographic and Socio-economic Spectra	TSU	<i>Deo Chimba</i>
14-8	Big Data Analytics to Aid Developing Livable Communities	WMU	<i>Li Yang</i>
14-9	Alternatives for Providing a Safe Passage for Non-Motorized Traffic across an Existing Highway Bridge	WMU	<i>Upul Attanayake</i>
14-10	Innovative Park-and-Ride Management for Livable Communities	USU	<i>Ziqi Song</i>
14-11	Innovative Park-and-Ride Management for Livable Communities	WMU	<i>Dae Kim</i>
14-12	Capacity Analysis of Pedestrian Facilities Involving Individuals with Disabilities	USU	<i>Keith Christensen</i>
15-1	Effect of Cycling Skills on Bicycle Safety and Comfort Associated with Bicycle Infrastructure and Environment	WMU	<i>Jun-Seok Oh</i>
15-2	Development and Assessment of Performance Measures for Evaluating and Improving Regional Transit Coordination Using GTFS Data	WMU	<i>Jun-Seok Oh</i>
15-3	Real Time Bicycle Simulation Study of Bicyclists' Behaviors and their Implication on Safety	WMU	<i>Valerian Kwizile</i>
15-4	Travel Behavior of Blind Individuals before and after Receiving Orientation and Mobility Training	WMU	<i>Dae Kim</i>
15-5	Infrastructure and Technology for Sustainable Livable Cities	WMU	<i>Upul Attanayake</i>
15-6	Integrated Crowdsourcing Platform to Investigate Non-Motorized Behavior and Risk Factors on Walking, Running, and Cycling Routes	WMU	<i>Ala Al-Fuqaha</i>
15-7	App-Based Crowdsourcing of Bicycle and Pedestrian Conflict Data	UTA	<i>Stephen Mattingly</i>
15-8	Community-Aware Charging Station Network Design for Electrified Vehicles in Urban Areas: Reducing Congestion, Emissions, Improving Accessibility, and Promoting Walking, Bicycling, and use of Public Transportation	WSU	<i>Ratna Babu Chinnam</i>
15-9	Impact of Access Management Practices to Pedestrian and Bicycle Operations and Safety	TSU	<i>Deo Chimba</i>
15-10	Development of Multi-Class, Multi-Criteria Bicycle Traffic Assignment Models and Solution Algorithms	USU	<i>Anthony Chen</i>
15-11	Development of a New Combined Modal Split and Traffic Assignment Model for Evaluating Transit Oriented Development Strategies	USU	<i>Anthony Chen</i>
15-12	Analysis of Walking Facility Performance Guidelines for Individuals with Disabilities	USU	<i>Keith Christensen</i>
15-13	Exploring Bicycle Route Choice Behavior with Space Syntax Analysis	USU	<i>Ziqi Song</i>

\* completed projects are highlighted in green.

# Highlighted Projects

## TRCLC 14-1: Explorations into the Equity Dimensions of US Bicycle Sharing System

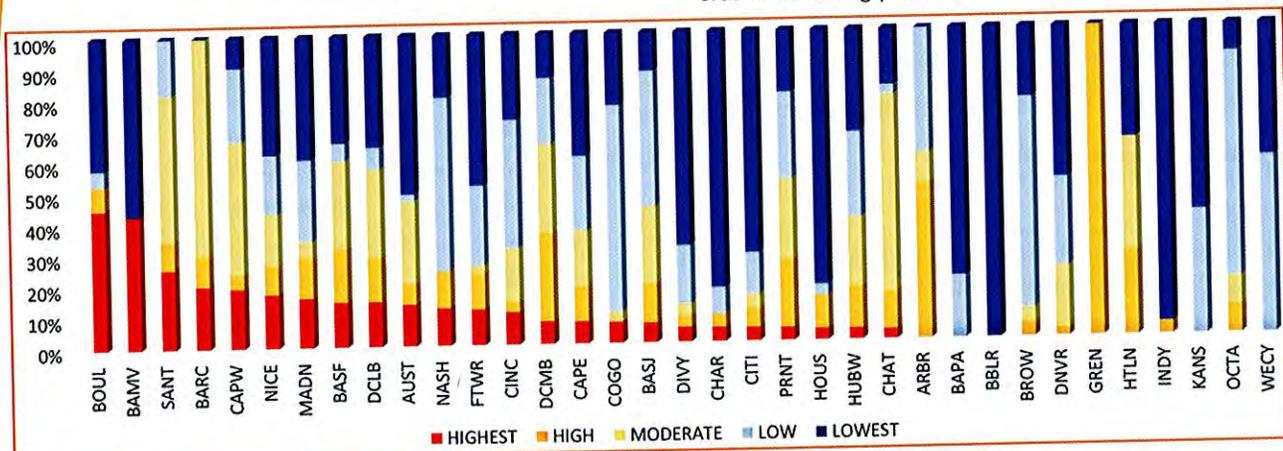
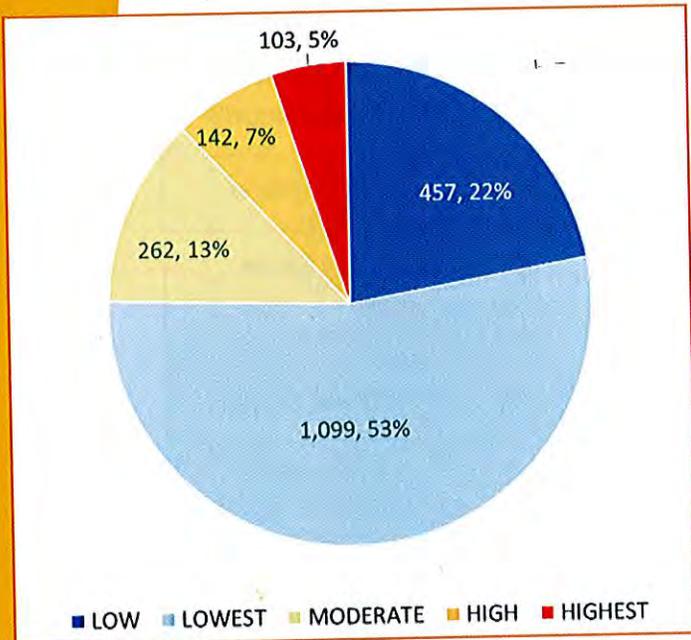
PI: C. Scott Smith – Western Michigan University

*The researchers found that the conventional factors used to site most bike sharing infrastructure—i.e., population density; job density; points of interest density; land use characteristics; transit connectivity; commute mode share; station visibility; and topography—have translated into radically inequitable distributions of BSS with respect to economic hardship.*

Research over the past several decades has made it increasingly clear that livable communities are inextricably linked to the provision of opportunities for active (i.e., non-motorized) transportation. Coinciding with these realizations are technological and demographic trends in the US and elsewhere—e.g., toward shared use mobility and (re)urbanization—that are dramatically changing the way people and non-human objects cooperate and interact within urban environments. A compelling example of the above realizations and trends is the rapid adoption of public bicycle sharing systems (BSS) across the country. Such systems allow individuals to use bicycles on an as-needed basis without the costs and responsibilities of bicycle ownership.

Alongside celebrations of the early successes of US bicycle sharing systems, have been criticisms that these systems have not been adequately integrated into lower-income communities; a pattern that mirrors transportation injustices—both past and present—that have burdened lower-income while simultaneously advantaging middle to higher-income communities. This study examined 35 bicycle sharing systems across the US spanning 72 municipalities and consisting of 2,063 stations and 39,394 bicycle docks. The systems were evaluated with regard to their spatial arrangements and, more specifically, whether lower-income communities experienced differential access to bicycle sharing infrastructure (i.e., stations).

The researchers found that the conventional factors used to site most bike sharing infrastructure—i.e., population density; job density; points of interest density; land use characteristics; transit connectivity; commute mode share; station visibility; and topography—have translated into radically inequitable distributions of BSS with respect to economic hardship. Indeed, more than three quarters (75.4 percent) of bike-sharing stations across the US are located in communities with relatively low economic hardship while only 245 or 11.9 percent are located in communities with higher economic hardship. Spatial regression results also showed that both race and economic hardship were significant predictors in explaining variations in access to bike sharing infrastructure, even when controlling for the more conventional factors considered in the siting process.



## Highlighted Projects

### TRCLC 14-2: Developing Performances Measures to Capture the Effects of Transportation Facilities On Multiple Public Health Outcomes

PI: Colleen Casey – University of Texas at Arlington

**The research team is working on developing tools and applications that can help inform critical decisions as to the transportation infrastructure investments necessary to create healthy, livable communities.**

A collaborative team of researchers from the Civil Engineering department and the Department of Public Affairs at the University of Texas at Arlington (UTA) are working on research to foster the development of healthy and livable communities. Specifically, the research team is working on developing tools and applications that can help inform critical decisions as to the transportation infrastructure investments necessary to create healthy, livable communities.

**Green Means Go For Safety.** Safe Routes to Schools (SRTS) and other programs aim to encourage schools and communities to enhance the safety of the routes children travel to school, which can also lead to other public health benefits such as increased physical activity, reduced dependency on car trips, and an overall improvement in the public health of children. However, to be effective and maximize the impact of such programs, decision makers must be able to weigh the consequences of investing in different options—which can be a challenging task as priorities may conflict. For example, is it better to invest in widening a sidewalk, installing a midblock crossing, or are both necessary in order to actually realize an improvement in the safety of the route? Likewise, how is the location of the route impacted by air quality? To address this problem, the research team is producing a decision making tool that mimics a stoplight by signifying “red”, “yellow”, or “green” to indicate the best options for safe routes. The data that informed the development of the tool was collected from surveys of experts in the field, field observation and inventories. The indicators identify the types of transportation investment options that will be most likely to promote safety and public health, considering the goals of safety, physical activity and air quality. Red means potentially an unsafe decision, yellow means some concerns still remain and green means “go”—it’s a safe choice.



**Improving Student Awareness of Balanced Transportation Systems.** In fall of 2015, the research team engaged undergraduate, junior-level engineers in field research to study and analyze the features of the transportation environment that foster or impede safety for bicyclists and pedestrians. This is important because, historically, the transportation-engineering curriculum has emphasized motorized vehicles over nonmotorized vehicles, such as bicyclists and pedestrians, providing students with less exposure to the transportation infrastructure needs of a balanced system. The findings from the project indicate that project-based learning can increase the awareness of engineering students about the needs of a balanced transportation system. The team recently presented the research on the project-based learning initiative at the 2016 Transportation Research Board Annual Meeting in Washington, DC.

### TRCLC 14-4: Conditions that Influence Drivers' Yielding Behavior at Uncontrolled Crossings and Intersections with Traffic Signal Controls

PI: Robert Emerson – Western Michigan University

**Pedestrians who are blind might positively influence driver yielding in different travel situations. The behaviors of holding up an outstretched hand and taking a single step into the street had the largest impact on yielding.**

There is a dearth of studies on how pedestrians who are blind might positively influence drivers yielding in different travel situations. This project assessed common pedestrian behaviors (head turning, holding a cane, taking a step, holding up a hand, exaggerated cane movement, standing without a cane) on yielding rates for right turning traffic at lighted intersections as well as at entry and exit lanes at roundabouts. Each pedestrian behavior was exhibited in each travel situation to determine yielding rate. Data demonstrated how common head and gaze related behaviors compared to previous results on cane and larger body movements impact yielding. By collecting data at both lighted intersections and roundabouts, we were able to assess relative merits of pedestrian behaviors for free flowing and stopped traffic. In replication of previous work, the behaviors of holding up an outstretched hand and taking a single step into the street had the largest impact on yielding. Simply displaying a cane was not statistically different from simply standing at the corner (very low yielding). The variety of head turning and gaze behaviors did not appreciably increase yielding rates beyond displaying the cane. The outcomes have major implications for O&M instruction. Orientation and mobility instructors can train blind pedestrians to safely take a single step in situations where they are concerned about vehicles yielding in order to reduce risk. This is a huge potential benefit for pedestrians who are both deaf and blind. These pedestrians often cannot reliably see or hear traffic and so must rely on their behavior to consistently impact traffic in a set manner.



# Highlighted Projects

## TRCLC 14-6: Development of Decision Support Tools to Assess Pedestrian and Bicycle Safety: Field Evaluation of Driver Behavior and Traffic Operations

PI: Timothy Gates – Wayne State University

*This research investigated the relationship between pedestrian and bicyclist crashes and motorist behavior when encountering non-motorized users, in addition to geometric and exposure related factors.*



Safety performance functions (SPFs) provide a promising approach for quantifying the level for pedestrian crashes at midblock crossing facilities. The Highway Safety Manual currently provides an aggregate non-motorist SPF, which is based upon land use characteristics. Research is limited in terms of disaggregate-level studies considering the effects of motor vehicle/bicycle/pedestrian volumes, roadway geometry, and other factors on pedestrian and bicycle crashes, due in large part to the relative infrequency at which such crashes occur. To address these issues, research is currently being conducted investigating the relationship between pedestrian and bicyclist crashes and motorist behavior when encountering non-motorized users, in addition to geometric and exposure related factors.

Data were collected using covertly positioned high-definition video cameras at greater than 150 midblock, unsignalized, and signalized pedestrian crossing locations within Detroit, East Lansing, and Kalamazoo. The sites were selected to provide a broad range of road user volumes and geometric characteristics in order to identify the effects of the various behavioral, exposure, and geometric characteristics on traffic crashes.

The data are currently being extracted using a manual review of the videos. The characteristics that are extracted for each site include behavior of drivers when encountering a crossing pedestrian or bicyclist, evasive actions taken by the road users during such encounters, motor vehicle volume counts, pedestrian crossing counts, bicyclist counts, traffic control devices, and cross-sectional characteristics of the roadway. Upon completion of the data extraction, the data will be prepared for integration with the SPF development to examine how the effects of certain geometric, volume, behavior, and traffic control features affect safety performance.

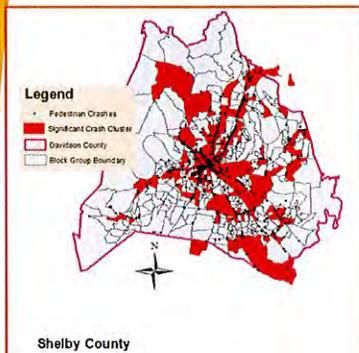
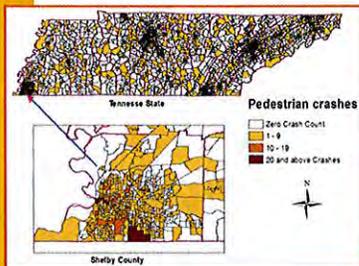
behavior, and traffic control features affect safety performance.

Various interactions between pedestrian, bicyclists, and motorists are depicted in the screen captures in pictures to the left.

## TRCLC 14-7: Development of Decision Support Tools to Assess Pedestrian and Bicycle Safety

PI: Deo Chimba and Kimberly Triplett – Tennessee State University

*The motivation of our research stems from the observations that, pedestrian and bicycle safety is falling for neighborhoods inhabited by groups more likely to be vulnerable such as low-income populations and racial minorities. These sociodemographic groups are also overrepresented among bicycle and pedestrian crash injuries and fatalities.*



The goal of this research was to develop a framework to identify bicycle and pedestrian high crash locations for safety improvement prioritization focusing on population, demographic and socioeconomic spectra with the state of Tennessee as a case study. This research comprised of in-depth analysis using existing data, conducts Geographical Information Systems (GIS) cluster analysis and statistical modeling to examine and identify bicycle and pedestrian high crash locations. A combination of Geographical Information Systems (GIS) cluster analysis and statistical analysis methodology was used to identify pedestrian and bicycle high crash locations and associated factors using 2008-2012 state wide crash data collected in Tennessee. Crash analysis was conducted at neighborhood levels of census block group and county. Neighborhood sociodemographic characteristics constituted the study's independent variables, while the dependent variable was the number of crashes. Cluster analysis identified high crash locations, and using statistics, the study identified the associated factors. From the identified factors, this research developed a criterion for identifying pedestrian and bicycle high crash locations and framework to prioritize allocation of safety improvement resources. The research concluded that sociodemographic and socioeconomic factors can assist to explain the variation of bicycle and pedestrian crashes. Population density, commuting to work by walking/bicycling, non-white populations and households without vehicles were positively correlated with pedestrian and bicycle crashes. Median household income, commuting to work by private cars and white population were negatively correlated with pedestrian and bicycle crashes. The overall milestone of this research was developing an access based decision support tool that predicts the number of bicycle and pedestrian crashes of a neighborhood. The tool allows input for the varying sociodemographic factors within a neighborhood and gives resulting number of crashes. This tool can act as a framework to allocate safety enforcement resources and assist in development of effective safety countermeasures to reduce crashes.

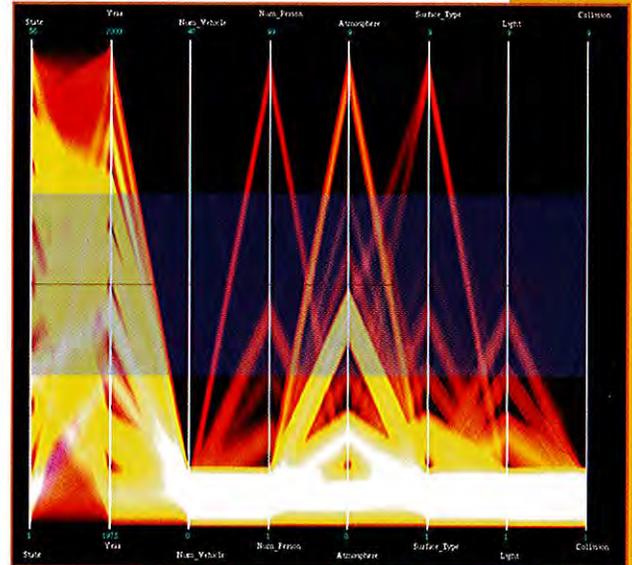
## TRCLC 14-8: Big Data Analytics to Aid Developing Livable Communities

*PIs: Li Yang, Hyunkeun Cho, and Jun-Seok Oh – Western Michigan University*

**We proposed to aggregate transportation data at multiple resolutions and to explore the data at various resolutions to balance between accuracy and speed.**

In transportation, ubiquitous deployment of low-cost sensors combined with powerful computer hardware and high-speed network makes big data available. USDOT defines big data research in transportation as a number of advanced techniques applied to the capture, management and analysis of very large and diverse volumes of data. Data in transportation are usually well organized into tables and are characterized by relatively low dimensionality and yet huge numbers of records. Therefore, big data research in transportation has unique challenges on how to effectively process huge amounts of data records and data streams.

The purpose of this study is to conduct research on the problems caused by large data volume and data streams and to develop applications for data analysis in transportation. To process large number of records efficiently, we have proposed to aggregate the data at multiple resolutions and to explore the data at various resolutions to balance between accuracy and speed. Techniques and algorithms in statistical analysis and data visualization have been developed for efficient data analytics using multiresolution data aggregation. Results will be helpful in setting up a primitive stage towards a rigorous framework for general analytical processing of big data in transportation.

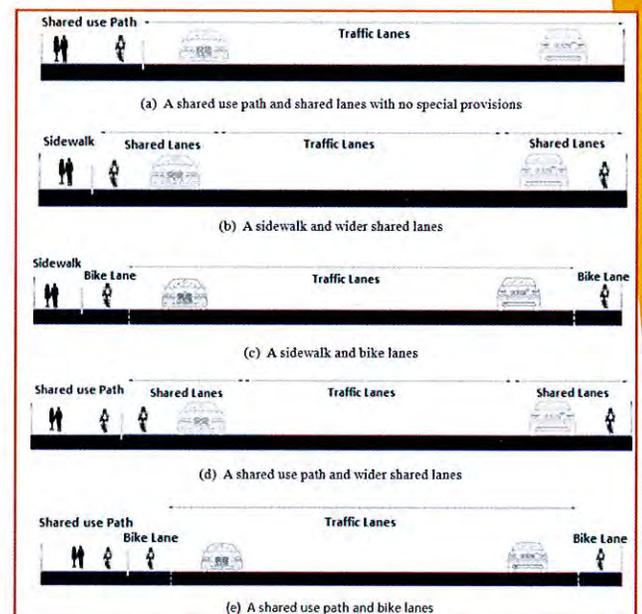


## TRCLC 14-9: Alternatives for Providing a Safe Passage for Non-Motorized Traffic across an Existing Highway Bridge

*PI: Upul Attanayake – Western Michigan University*

**A decision-support tool was developed to evaluate possible alternatives for providing a Safe Passage for Non-Motorized Traffic across an Existing Highway Bridge.**

Non-motorized transportation increases mobility choices, relieves congestion, promotes local economy, reduces greenhouse gas emission, promotes a healthy lifestyle, and improves quality of life. Recently, there is an emphasis on developing integrated transportation systems with off-road shared use paths and on-road facilities. A majority of highway bridges that are located on the planned or existing non-motorized paths have become bottlenecks for non-motorized traffic. Therefore, there is a need to evaluate the bridges on non-motorized paths to identify safe passage alternatives to non-motorized traffic. The owner agencies need to have access to a methodological process to evaluate a site for the best possible alternatives and develop accurate cost estimates for funding proposals. As shown in the accompanying chart, five different alternatives for providing a safe passage within a bridge were identified. Also, a decision-support tool was developed using Excel/Visual Basic to evaluate possible alternatives for a given site. This tool is made available to highway agencies through the center website at <http://www.wmich.edu/transportationcenter>. The tool provides an opportunity for the user to customize the specification/guideline requirements and cost data to adapt them to the business practice of an agency.



## Highlighted Projects

### TRCLC 14-10: Innovative Park-and-Ride Management for Livable Communities

PIs: Ziqi Song and Kevin Heaslip – Utah State University

***An integrated planning framework was developed to strategically locate P&R facilities and optimize transit service frequency.***



Since its first introduction in Detroit in the 1930s, Park-and-Ride (P&R) has been recognized as an effective way to promote public transportation and reduce traffic externalities in urban areas. P&R describes an operation in which commuters, traveling by private vehicles, gather at a common site that enables them to transfer to public transportation. P&R management has become increasingly important because the country has been investing more than ever in high-quality transit services. Well-planned and managed P&R facilities are critical to the success of such high-quality transit services. Although the design and operations of P&R facilities have been extensively investigated, there is a lack of theoretically sound guidance for where to locate them, an important aspect of P&R planning.



Dr. Ziqi Song of the Department of Civil and Environmental Engineering at Utah State University (USU) proposed an integrated planning framework to strategically locate P&R facilities and optimize transit service frequency. P&R users' route choice behavior is explicitly considered and a link-based multimodal user equilibrium model is established. The optimal P&R facility and transit service design problem is formulated as a mathematical program, and an effective solution algorithm is developed. Dr. Song employed a numerical example in a multimodal transportation network and demonstrated that the optimal design shifts commuters from the automobile mode to transit and P&R modes and, hence, improves the net social benefit dramatically.

This study is timely and much needed as many states are expanding their public transportation options dramatically. The proposed modeling framework provides practitioners with an effective tool to determine the optimal locations of P&R facilities as well as transit frequency.

### TRCLC 14-11: Travel in Adverse Winter Weather Conditions by Blind Pedestrians

PI: Dae Kim – Western Michigan University

***The roller ball tip was ranked as the most preferred cane tip for visually impaired people to travel on a snow-covered surface.***



Winter weather creates many orientation and mobility challenges for people who are visually impaired. Snow cover obscures familiar tactile clues, makes it more difficult to manipulate the long cane, and alters one's cane-based perception of the surroundings. Getting the cane tip stuck is one of the noticeable challenges when traveling in snow, particularly when the walking surface is covered in deep snow. In this study, we found that cane users experienced significantly more sticking on a snow-covered surface when using the metal glide tip than when they used the roller ball, bundu basher, or marshmallow roller tip. The roller ball tip was ranked as the most preferred cane tip for travel on snow, while the metal glide tip was the least preferred. Cane users may want to consider these results when determining which cane tip to use on a snow-covered surface.

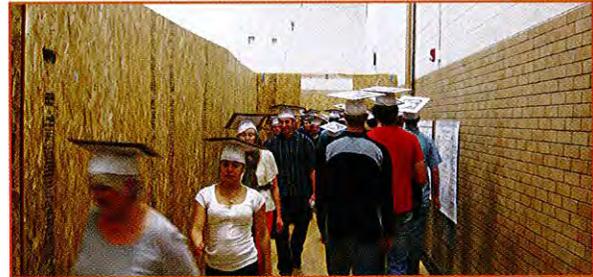
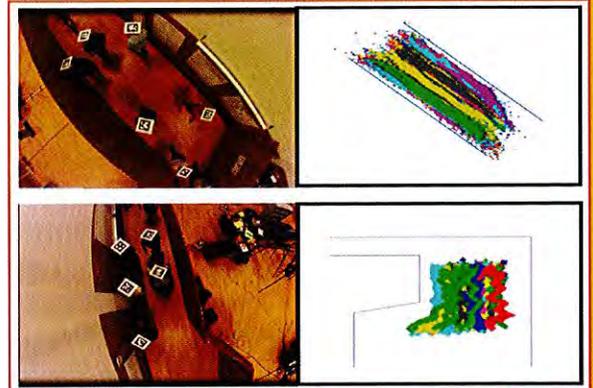
## Highlighted Projects

### TRCLC 14-12: Capacity Analysis of Pedestrian Facilities Involving Individuals with Disabilities

• *PIs: Keith Christensen and Anthony Chen – Utah State University*

***A probability-based framework was developed to model time headway between different individuals, including people with disability.***

Walking facilities must be designed to accommodate the behavior of pedestrians in order to be effective. The heterogeneity of pedestrians is one important factor generally overlooked in walking facility design guidelines. In particular, individuals with disabilities are often overlooked due to lack of available data on their pedestrian behaviors. A controlled, large-scaled walking experiment involving individuals with disabilities was conducted at Utah State University to observe individual pedestrian behaviors in various walking facilities. Using this data a framework was developed to model time headway between these different individuals using a mixed distribution model, and to estimate passageway and bottleneck capacities to identify individuals with disabilities' influences on capacity estimations. The study's findings are currently under review for publication and will improve walking facility level-of-service guidelines and best-practices for the design of walking facilities for heterogeneous populations.



### TRCLC 15-2: Effect of Cycling Skills on Bicycle Safety and Comfort Associated with Bicycle Infrastructure and Environment

*PIs: Jun-Seok Oh, Kapseong Ro, and Valerian Kwigizile– Western Michigan University*

***An instrumented probe bicycle (IPB) is designed and constructed in this project to collect necessary motion critical data of a human-bicycle dynamic system.***

The level of cycling skills will be determined based on physical characteristics and comprehensive surveys of participating riders, and the correlation between the level of cycling skills and bicycle safety and comfort will be investigated associated with bicycle infrastructure and environment. A tangible analytical model of bicycle dynamics will be developed based on necessary physical principles, and a numerical simulation model will be constructed using the bicycle data specific to the IPB. This research will also develop an instrumentation system for the IPB including a set of design guidelines for the future standalone unit for IPB applications. A structured survey based assessment method will be developed not only to differentiate the level of cycling skills but also the perceptions on bicycle safety and comfort based on trial rides on given bicycle infrastructure. The survey based data will then be compared to the system dynamic data from IPB, and the effect cycling skills on the perceptions on bicycle safety and comfort will be studied.



## Highlighted Projects

### TRCLC 15-3: Real Time Bicycle Simulation Study of Bicyclists' Behaviors and their Implication on Safety

PIs: Valerian Kwigizile, Pavel Ikonomov, and Jun-Seok Oh – Western Michigan University

*This research develops a special 3D space motion platform with attached bicycle, interfaced with virtual reality (VR) simulation and sensors to provide bicyclists with simulation experience closely resembling the real situations.*

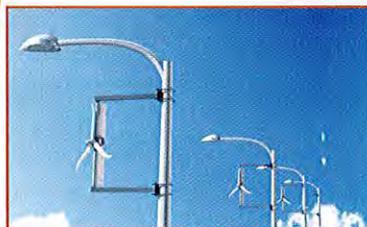


There has been a measurable increase in bicycle use in the United States for both recreational and purposeful trips. As the popularity of bicycles has increased, so has the need to develop methods that can assist transportation engineers and planners in analyzing the performance of bicycle facilities. Understanding how bicyclists interact with other road users is among the imperative needs. This research develops a special 3D space motion platform with attached bicycle, interfaced with virtual reality (VR) simulation and sensors to provide bicyclist with simulation experience closely resembling the real situations. The main goal is to understand behavioral characteristics of bicyclists and pedestrians in different situations and their reaction to changing travel environment. The research will also discern bicyclists and pedestrian risk behaviors (such as not following traffic rules) to understand how they are likely to cause collisions. One of the methods used to collect bicyclist and pedestrian behavior information is with interview questionnaires completed by participants after completion of each simulation run. Another method to investigate the riders' behavior is based on encephalogram reading using special Brain Computer Interface -Emotiv. The position coordinate in space, time, velocity, turns, force effort, applying breaks, riders' field and direction of view will be collected and together with all input and output of the VR system, including (virtual) collisions and near miss, will be analyzed to understand riders' behavior.

### TRCLC 15-5: Alternatives for Providing a Safe Passage for Non-Motorized Traffic across an Existing Highway Bridge

PI: Upul Attanayake – Western Michigan University

*This research is proposed to synthesize infrastructure and technology that can be used to improve access to non-motorized traffic and mobility within cities while enhancing sustainability.*



Providing access and mobility for key installations and businesses located in cities has become a challenge. This is mainly due to limited public transport and non-motorized facilities. The challenges are significant in cities that are subjected to severe winter weather conditions. Sixty two percent (62%) of millennials indicated that they prefer to live in urban centers, while 74% prefer to live in small cities with improved mobility. Also, 49% prefer to live in walkable, technology-enabled cities where they have affordable and convenient transportation options regardless of the size of the city. Lack of mobility can significantly affect the small and medium size cities economically due to migration of millennials to larger cities around the country. Many cities around the world, ranging from large to small, have utilized infrastructure and technology to promote mobility and sustainability. Understanding the critical need, this research is proposed to synthesize infrastructure and technology that can be used to improve access to non-motorized traffic and mobility within cities while enhancing sustainability. Infrastructure and technology implementation policies, procedure, cost, associated risks, case studies, implementation challenges, and successes and lessons learned will be documented. Bike sharing plan and an implementation example for a small city will be presented. The ultimate goal is to develop a 'catalog of infrastructure and technology' that can be used by the city planners to select appropriate infrastructure and technology for a

specific city. A few examples documented from various sources are shown in the above left figures.

## Highlighted Projects

### TRCLC 15-7: App-Based Crowd Sourcing of Bicycle and Pedestrian Conflict Data

PI: Stephen Mattingly – University of Texas at Arlington

*The team is creating an app-based crowdsourcing tool to identify the safety issues encountered by pedestrians and bicyclists.*

A collaborative team of researchers from the Department of Civil Engineering, Computer Science and the Department of Public Affairs is using technology to improve the quality of the bicyclist and pedestrian safety data available to local governments. The team is creating an app-based crowdsourcing tool to identify the safety issues encountered by pedestrians and bicyclists. The benefit of the app-based crowdsourcing tool is that it can capture localized and context-sensitive information, such as the nature and types of vehicle conflicts bicyclists and pedestrians encounter, about dangerous road segments. The app captures data on near-miss incidents that occur, i.e. those conflicts that happen but do not result in a collision, which is important because this type of data is not captured in the primary data sources available to local governments. The availability and quality of this data can help local governments better address road and safety conditions. The research team is working closely with bicyclist and pedestrian groups as well as local government officials to gather their input to make sure the app is both easy to use and provides data that can help local governments and agencies identify areas of high safety concern.



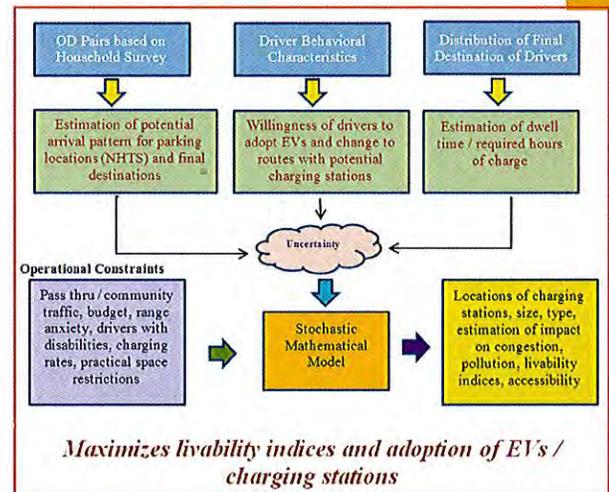
### TRCLC 15-8: Community-Aware Charging Station Network Design for Electrified Vehicles in Urban Areas: Reducing Congestion, Emissions, Improving Accessibility, and Promoting Walking, Bicycling, and use of Public Transportation

PI: Ratna Babu Chinnam – Wayne State University

*We have developed a stochastic mathematical optimization model to perform network design for EV charging stations while considering various aspects of livability for a community.*

The aim of the project is to develop methods, and eventually decision support tools, to aid planning agencies in promoting livability within communities through careful design of charging station networks for electrified vehicles (EVs). We have developed a stochastic mathematical optimization model to perform network design for EV charging stations while considering various aspects of livability for a community. The major components used for the stochastic model include: 1) origin - destination (OD) traffic volume within a community, and the destination information includes parking location, and final destination (office, shopping, restaurant, hospital, etc.) of the drivers, 2) walking behavior of the drivers based on the demographics of a community and final destination of the drivers, 3) arrival pattern of EVs to parking locations, state of charge (SOC) and estimated dwell time, and 4) impact on congestion, pollution, charging rates and other livability indices.

*Modeling framework for improving community livability indices and adoption of EVs and charging stations*

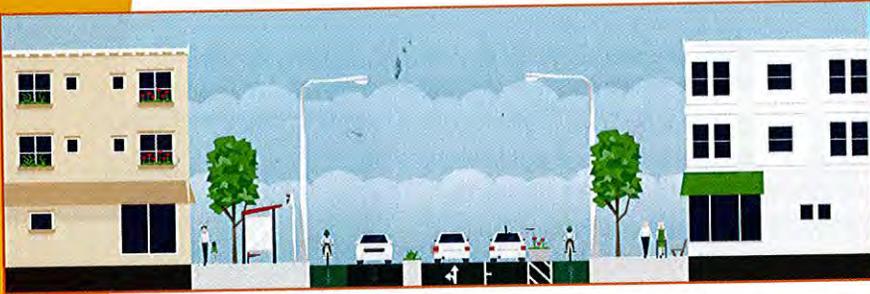


The project uses data from National Household Travel Survey (NHTS), and extant studies about general walking behaviors/preferences of people. Based on the inputs from major components and user specified parameters from an analyst in a planning agency, the stochastic mathematical model with an objective to maximize the livability indices and adoption of EVs proposes an optimal network for charging stations. Furthermore, pricing schemes are utilized to estimate the return on investments from the proposed network design in a post-optimization analysis. For any further details of the project, please contact Dr. Ratna Babu Chinnam (Ratna.Chinnam@wayne.edu), Wayne State University.

## Highlighted Projects

### TRCLC 15-10: Development of Multi-Class, Multi-Criteria Bicycle Traffic Assignment Model and Solution Algorithm

PI: Anthony Chen - Utah State University



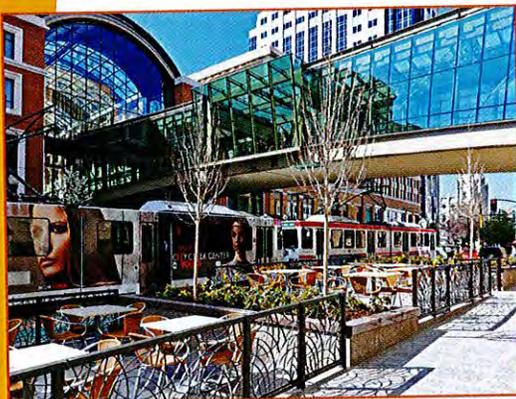
The surge in non-motorized mode share in recent years can be credited to municipal efforts to promote alternative transportation. Bicycles are especially popular because of their health, environmental, and economical benefits. However, current practices to model bicycle trips in a network are rudimentary. Existing bicycle network modeling tools are based only on the all-or-nothing (AON) assignment method using single attributes such as distance, safety, or a composite measure of safety multiplied by distance. This research addresses

this problem by developing a more user-oriented bicycle traffic assignment model that explicitly considers multiple user classes and multiple criteria affecting cyclist route choice decisions for estimating bicycle volumes on a transportation network.

This research develops a multi-class, multi-criteria bicycle traffic assignment model that not only aims to model different types of cyclists, but also relevant factors that may affect each user class's behavior in making route choice decisions. The overall procedure for developing the model follows a two-stage process. The first stage develops the multiple objective shortest path problem based on relevant key attributes by generating a set of non-dominated (or efficient) routes based on relevant criteria for each user class. The path-size logit (PSL) stochastic traffic assignment method is then adopted in the second stage to determine the flow allocations in a network. Numerical experiments will be conducted on real networks to demonstrate the two-stage approach for the multi-class, multi-criteria bicycle traffic assignment.

### TRCLC 15-11 Development of a New Combined Modal Split and Traffic Assignment Model for Evaluating Transit Oriented Development Strategies

PIs: Anthony Chen and Ziqi Song – Utah State University



Mixed-Use Development in Downtown Salt Lake City  
(Source: Utah Governor's Office of Economic Development  
<http://business.utah.gov/publications/transportation-2/>)

Transit oriented development (TOD) has emerged in recent years as a promising paradigm to promote public transportation, increase active transportation usage, mitigate congestion, and alleviate air pollution. Typical TODs share some core features: moderate- to high-density development, mixed land use, and high-quality transit services. Studies have shown that travelers' mode choice behavior is heavily influenced by alternatives that are available to them. Failing to consider differences in feasible travel options available to different groups of travelers may lead to inaccurate representations of travelers' mode choice behavior. For example, captive travelers have no choice but to rely on one specific travel mode due to limited mode accessibility/availability. In addition, route overlapping is one of the major concerns in the route choice models used in the traffic assignment problem for predicting traffic pattern in the transportation network. Therefore, it is critically important to develop a better behavioral model to predict the modes and routes that trips will take, resulting in traffic forecasts for the highway system and ridership forecast for the transit system.

Dr. Anthony Chen and Dr. Ziqi Song of the Department of Civil and Environmental Engineering at Utah State University (USU) are developing a new combined modal split and traffic assignment (CMSTA) problem that explicitly considers captive travelers in mode choice and route overlapping in route choice under congested networks. This new model has the potential to enhance the realism of modeling of captive travelers, and to assist in quantitatively evaluating the effectiveness of TOD strategies.

Results from this research are expected to help State Department of Transportations (DOTs), Metropolitan Planning Organizations (MPOs), and transit agencies in evaluating the effectiveness of TOD strategies for their communities, and prioritizing public resources to achieve the planning goals of a region to promote green transportation and livable communities.



An Example of a Captive Traveler  
(Source: Utah Transit Authority)

# Highlighted Projects

## TRCLC 15-12: Analysis of Walking Facility Performance Guidelines for Individuals with Disabilities

*PI: Keith Christensen – Utah State University*

Walking facilities are important infrastructure in a community's transportation systems. It is imperative to design and evaluate the effectiveness of these facilities to meet the walking needs of diverse pedestrian groups, including individuals with disabilities who represent a significant number of the population. The Highway Capacity Manual (HCM) defines walking facility performance using a qualitative measure describing operational conditions, or level of service (LOS). However, pedestrian LOS thresholds do not account for bi-directional flows, pedestrian/environment spacing, or heterogeneous pedestrian characteristics as there is little research on diverse pedestrians' walking behavior. As a result, how closely pedestrian LOS thresholds correspond to actual conditions have been shown to be inaccurate.



**Pedestrian experiment simulating level of service thresholds.**

The purpose of this study is to compare individuals with disabilities' perceptions of quality of service and observed walking behavior with existing walking facility guidelines. The results will improve the guidelines used to assess walking facility performance, ultimately improving the design of walking facilities for heterogeneous populations which include individuals with disabilities.

## TRCLC 15-13 Exploring Bicycle Route Choice Behavior with Space Syntax Analysis

*PIs: Ziqi Song and Anthony Chen – Utah State University*

Cycling provides an environmentally friendly alternative mode of transportation. It improves urban mobility, livability and public health, and it also helps with reducing traffic congestion and emissions. Although the mode share of bicycle accounts for a relatively small percentage of all trips taken in the United States, cycling is gaining popularity both as a recreational activity and a means of transportation. Therefore, to better serve and promote bicycle transportation, there is an acute need to understand the route choice behavior of cyclists.

Compared to the route choice model for private motorized vehicles, route choice behavior for bicycles is much more complex as there are many influential factors affecting cyclists' route choice decisions. Empirical studies on bicycle route choice analysis indicate that cyclists choose routes based on a number of criteria that may include distance, number of intersections, road grade, bicycle facility, and safety. Nevertheless, existing studies tend to be based on observable quantities associated with the street segments themselves, but overlook a fundamental issue, travelers' cognitive understanding of the street network topology. Space syntax theory is a spatial analysis technique that is based on human cognition and behavior. It focuses on the topological relationship of the network rather than physical distance. This theory has been used by architects and urban planners to model a wide range of traffic flow patterns, especially pedestrian flow.

Dr. Ziqi Song and Dr. Anthony Chen of the Department of Civil and Environmental Engineering at Utah State University (USU) are conducting an exploratory study with the goal of understanding cyclists' route choice decisions and evaluating the applicability of the space syntax theory in the context of bicycle route choice.

Results from this research are expected to help state Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) in understanding and forecasting cyclists' route choice behavior. It will also provide them a tool to evaluate the impact of different designs and planning scenarios of bicycle facilities, e.g., bicycle lane, on cyclists. Ultimately, the study will help transportation agencies better serve and promote bicycle transportation, and thus achieve more livable communities by encouraging the use of green transportation.



**Protected bike lane in Salt Lake City**  
(Source: Salt Lake City Transportation Division)



**Space syntax analysis of Logan, UT**

# Technology Transfer and Outreach Activities

## TRCLC Holds 2nd Summer Conference on Livable Communities



The Transportation Research Center for Livable Communities (TRCLC) held the 2nd Summer Conference on Livable Communities July 23-24, 2015, at Western Michigan University in Kalamazoo, Michigan. This conference brought together more than 80 transportation researchers, practitioners, and public agencies from around Michigan and the country to share current practices, ongoing research projects, and interesting ideas regarding transportation and livable communities.



During this event, 21 podium presentations and 13 poster presentations were made, which covered topics pertaining to non-motorized transportation, transportation services for people with disabilities, transportation and human health, transportation data crowd-sourcing, visualization, and big data analytics. Dr. Jennifer Dill, director of the National Institute for Transportation and Communities at Portland State University gave a keynote speech that highlighted the findings that can increase bicycle usage for everyday transportation. Student best poster awards and PE credits were offered in this conference.

### Mobile App Showcase

The Transportation Research Center for Livable Communities (TRCLC) at Western Michigan University invited high-school students to participate in the 1st Livable and Sustainable Community Mobile App Challenge, which aims to address the nation's critical transportation challenges through the prism of livable communities. The participating high school teams designed and developed mobile applications that help to improve sustainable transportation options for communities in Michigan with special attention paid to non-motorized travel, public transit, traffic safety, energy saving, safe routes to school and "smart" transport technologies.

Two groups of students from Portage Central High School were awarded the Winners of the Mobile App Challenge. The winning teams received awarding certificates and cash prizes (\$1000 for first place; \$500 for second place).

- *First place team: Kzoo Biking Buddy*
- *Second place team: Plug and Go (Electric Car Charging Solution)*

The 2nd Livable and Sustainable Community Mobile App Challenge is under way and TRCLC is soliciting mobile app ideas from Michigan high school students.

# Technology Transfer and Outreach Activities

## TRCLC - Great Lakes International Symposium

TRCLC sponsored the “Great Lakes International Symposium: Interdisciplinary Research in Data Science” together with the Department of Statistics. This event was held on February 26, 2016 at the Fetzer Center, Western Michigan University. Seven invited speakers from various areas presented their data needs and analysis techniques. The symposium sheds light on future research needs and multidisciplinary collaborations. Student research posters were exhibited during this event.



## International Collaboration

TRCLC agreed with the Center for Medical Humanities and Convergent Contents at Aju University, South Korea, to establish a formal linkage to foster international cooperation in education and research on February 26, 2016.



## Seminar Series

The Transportation Research Center for Livable Communities (TRCLC) Seminar Series brings leading local, national, and international researchers to a public forum at TRCLC to speak about the latest advances in transportation planning. The Series helps advance TRCLC's workforce development and technology transfer objectives by giving students, professionals and researchers an opportunity to hear from and interact with experts in their fields. It is free and open to the public.

**R. Jayakrishnan, Ph.D., Professor, Department of Civil and Environmental Engineering & Institute of Transportation Studies, University of California at Irvine.**

*“Peer-to-Peer Sharing of Supply in Transportation: Possibilities and Algorithms.”*

Newer technologies and high market penetration of personal communication systems bring up many new possibilities for different paradigms of operation in transportation systems. The users can consume transportation supply with more complete information and significantly more peer-to-peer (P2P) communication. Several possibilities exist in such a world of shared economy, with regard to using road and vehicle space in a temporally efficient manner. Car-sharing and ride-sharing are two of the more well-known systems in this regard. Autonomous vehicles bring up another dimension in terms of shared ownership as well. There are also possibilities in using P2P communication for collaborative, competitive or negotiated consumption of other elements of transportation supply such as signal timings and lane space availability. This presentation focuses on the possibilities, and discusses recent research into shared-ride systems for passenger transport and auction-based mechanisms for signal and lane usage. The presentation also lays out newer frameworks for supply, demand, and performance of transportation systems under these new paradigms and discusses algorithmic and mechanism-based details in solving real-world problems in ride-sharing and signal systems.



## Seminar Series

**Wansoo Im, Ph.D., President of VERTICES**

*"Latest GIS Technology to Promote Citizen Engagement for Livable Communities."*



Geospatial science has begun to play an essential role in the fields of transportation planning and public health. With greater interoperability between diverse software and hardware, geospatial data integration and sharing have become simpler and more affordable than ever before. With an increasing number of content providers offering downloadable GIS data layers and web map services, GIS data is also becoming easier to acquire, customize, and integrate into interactive mapping applications. Additionally, technology allows for field data to be easily collected and updated by the public or project participants to complement and enhance existing databases, while promoting citizen engagement. The amount of information that can be discovered and shared through web-oriented and crowdsourced geospatial technology is immeasurable. In this presentation, case studies with the latest GIS technology for livable communities are presented, and the discussion is followed by how various research needs can be met with new GIS technology.

**Cheol Oh, Ph.D., Professor of Transportation and Logistics Engineering, Hanyang University, Korea**

*"A Novel Method to Monitor Bicycling Environments."*



A bicycle is a promising human-powered and emission-free transportation mode to address growing transportation and environmental problems. Bike-friendly environments should be constructed to innovatively increase the use of bicycles as a significant transportation mode. From this perspective, the scientific and effective monitoring of bicycling environments is of keen interest. An important technical challenge for monitoring is to evaluate the performance of bicycling environments. This study proposes a novel monitoring method that can be used for evaluating bicycle performance in terms of safety and mobility. An instrumented probe bicycle (IPB), which is equipped with a set of sensors including a global positioning systems (GPS) receiver, accelerometer, and gyro sensor, was used to develop the proposed monitoring method. The IPB provides useful bicycle maneuvering data for identifying longitudinal, lateral, and vertical maneuverings of the bicycle, which are affected by envi-

ronmental factors such as heavy vehicle volume, surface conditions, grade, crossings, humps and curbs. Regarding safety monitoring, an index to predict bicyclists' perceived safety and comfort with the predictors derived from the measurements by the IPB was developed. A questionnaire survey was conducted to obtain actual responses from bicyclists for perceived safety and comfort during the field experiment. In addition, a method to evaluate the bicycle mobility using GPS speed data was devised. Then, a fault tree analysis (FTA) technique, which is a well-known technique for risk analysis, was adopted to integrate safety and mobility monitoring. As a result, the bicycling monitoring index (BMI) was proposed. Data obtained from the proposed method will be useful in developing various bicycle-related policies.

**Keechoo Choi, Ph.D., Director of Transportation Research Center and Professor of Transportation Systems Engineering, Ajou University, Korea**

*"Transit-Oriented Development with High-Speed Urban Express Railway System."*

This study presents the recent development of a high-speed urban railway system in conjunction with the transit-oriented development (TOD) in Korea. The system, called GTX (Gyeonggi Train eXpress), will run between a new town and Seoul downtown at a commercial speed of 100 km per hour. Three parameters of TOD, such as density, diversity and design, are dependent on the speed of the GTX system. This study not only addresses design issues associated with the transit-oriented development, but also compares and contrasts the TOD system with those of foreign countries. Some limitations and future agenda will be addressed in this presentation.



**Byungkyu Brian Park, Ph.D., Professor, Department of Civil and Environmental Engineering, University of Virginia**

*"Algorithms and Assessment Tools for Connected and Automated Vehicles."*

Connected Vehicle (CV) technology and automated vehicles have emerged and are expected to provide unprecedented improvements in mobility. This talk will present two algorithms developed for connected and/or automated vehicle applications. The first algorithm focuses on cooperative vehicle intersection control (CVIC) and its implementation at a corridor with multiple intersections. It evaluates sustainability aspects of the Cooperative Vehicle Intersection Control (CVIC) system by applying surrogate safety assessment model (SSAM) and VT-Micro model to measure safety and environmental impacts, respectively. A simulation-based case study is performed on a hypothetical arterial consisting of four intersections with eight traffic congestion cases covering low to high volume conditions. When compared to the coordinated actuated control, the CVIC system outperforms the existing actuated control. The second algorithm deals with speed harmonization for automated vehicles. The objective function is to minimize changes in accelerations while maintaining safe distance. An example case study on a freeway basic segment with a speed reduction zone indicated that the proposed algorithm outperforms the base case. Additional discussion on the use of connected and automated vehicles evaluation tools assessing (i) latencies in connected vehicle communications and (ii) surrogate safety under connected and automated vehicle applications, are to be made if time permits.



## Student Awards



**WMU graduate student Lusanni Acosta received a 2015 Institute of Transportation Engineers (ITE) Scholarship. Lusanni is now working on traffic safety-related projects funded by MDOT and the Michigan Office of Highway Safety Planning.**

Lusanni Acosta, a graduate student in transportation engineering, was one of four winners of a \$3,000 scholarship from the Michigan section of the Institute of Transportation Engineers. Scholarships were for both undergraduate and graduate students. Applicants had to submit a paper titled "My Future in Transportation," describing their goals in the transportation field as well as their potential contributions to the area.

When asked what winning the scholarship meant to her Acosta said, "I am very proud of the academic institution I attend, Western Michigan University, and it is an honor to represent it with this award. For me this scholarship not only helps in alleviating my academic expenses but in confirming, strengthening and building more confidently my path in transportation engineering."



**WMU graduate student Richard Boateng took first place in the ITE Great Lakes District Student Paper Competition for the paper titled "Evaluating the effectiveness of countdown pedestrian signals on the safety of the older drivers in the state of Michigan."**

For this achievement, Richard was awarded \$1,000 and a certificate of achievement. His paper was also forwarded to International ITE for consideration in the 2015 Daniel B. Fambro Student Paper Award. Richard is currently working on the association of Michigan's older adult crashes with roadway features, which is sponsored by Michigan DOT.

Richard is expected to complete his master's studies in April 2016 with his master thesis titled "Comprehensive Evaluation of the Effectiveness of Pedestrian Countdown Signals on Drivers and Pedestrians."



**Matthew L. Clark received the "24th Annual Outstanding Student of the Year Awards" sponsored by USDOT.**

Matt has shown outstanding performance in his research. He led a research project on the cost and benefit of intelligent transportation systems. In this research, Matthew successfully constructed a spatial database in ArcGIS relating freeway segments with ITS device locations and operation dates, traffic data, NAVTEQ's minute-by-minute travel time data, police-reported accident frequency, and incidents reported by traffic operation centers. The database was utilized to perform statistical modeling and analysis on the benefits of ITS regarding freeway incident management, as well as other ongoing research projects at the TRCLC. Additionally, through traffic microsimulation models, Matthew depicted the impact of ITS devices on freeway incident management and presented his work at the 2014 Michigan ITE Technical Session in October. Matthew presented his research paper, "Perception of Advanced Traveler Information by Active Users," at the 2015 TRB annual meeting.



**Brenda C. Burdick received the "25th Annual Outstanding Student of the Year Awards" sponsored by USDOT.**

Brenda Burdick is a graduate student at Western Michigan University and will graduate in December 2016 with a master's degree in civil engineering, majoring in transportation engineering. Brenda is currently working as a graduate research assistant in WMU's Transportation Research Center for Livable Communities (TRCLC) as well as a graduate teaching assistant in the Department of Civil and Construction Engineering. As an undergraduate student, Brenda was accepted into the accelerated degree program to pursue her master's at WMU. Brenda's academic achievements also have been recognized by various organizations. This past year, Brenda was awarded a scholarship from the ITE Michigan section as well as the Sharon D. Banks Memorial Undergraduate Scholarship from the Women in Transportation Foundation. As a master's student, she has shown outstanding performance in her research. Last year, Brenda assisted in a research project pertaining to engineering improvements and their effect on older drivers. The research was funded by the Michigan Department of Transportation. Also, she has been working on another research project funded by the Michigan Office of Highway Safety Planning to analyze overtime traffic enforcement performance of law enforcement agencies. Currently, she is leading a research project focusing on analyzing pedestrian and bicycle crashes in Michigan to determine potential countermeasures.

### **TRCLC hosts the Summer Conference on Livable Communities, June 21-22, 2016**

The TRCLC is hosting its 3rd Annual Summer Conference on Livable Communities June 21-22, 2016 at Western Michigan University in Kalamazoo, Michigan. Transportation researchers, practitioners, and public agencies are invited to attend this event to share their ideas and thoughts by presenting research findings related to transportation and livable communities. This year's theme is "Multi-modal and Non-Motorized Transportation for Various Users." Please refer to our center website (<http://www.wmich.edu/transportationcenter>) for updates on this event. Topics in the conference include:

- Non-motorized transportation promotion and safety
- Transportation services for elderly and people with disabilities
- Impact of transportation on human health
- Enhancing public transit services
- Transportation services for livable communities

### **TRCLC hosts the International Workshop on Sustainable Transportation Systems together with Tongji University, Hong Kong Polytechnic University and Ajou University, July 5, 2016**

International Workshop on Sustainable Transportation Systems will be held on July 5, 2016, Lecture Hall 103, School of Transportation Engineering Building, Tongji University (Jiading Campus). This workshop will provide a platform for communication among experts and scholars in transportation science and technology from China, Korea and the U.S. It will be a unique opportunity for the participants to keep up-to-date with research on sustainable transportation systems and the latest progress in the world.

- Non-motorized transportation (walk and/or bicycle)
- Public transportation systems
- Travel demand forecasting modeling
- Transit-oriented development (TOD) research
- Other topics on sustainable transportation systems

### **TRCLC sponsors the Symposium: Meeting the Challenges of Safe Transportation in an Aging Society together with ATLAS and ASAP, September 14-15, 2016**

The call for presentations is now open for the Conference on Meeting the Challenges of Safe Transportation in an Aging Society, to be held in Ann Arbor, Michigan on September 14-15, 2016. The conference is sponsored by: Center for Advancing Transportation Leadership and Safety (ATLAS Center), University of Michigan Transportation Research Institute (UMTRI), Elsevier Ltd, Center for Accessibility and Safety for an Aging Population (ASAP), and Transportation Research Center for Livable Communities (TRCLC). Topics of special interest include but are not limited to: advanced technologies including autonomous and connected vehicles; infrastructure and engineering countermeasures; licensing and other policy issues; health-related challenges; training; and driver assessment. Research should focus on older adults themselves, the modes of transportation they use, or the roadway environment within which they function. Students are encouraged to submit for a student poster session and awards will be given. See the following URL for more information: <http://www.atlas-center.org/symposium-call-for-presentation-abstracts/>.

Visit The Transportation Research Center on Livable Communities website at [wmich.edu/transportationcenter](http://wmich.edu/transportationcenter), for more information including the center's objectives, purposes, and functions.



"Like" us on Facebook - [facebook.com/TRCLC](https://facebook.com/TRCLC)

**Contact us:**

Transportation Research Center for Livable Communities

1903 W. Michigan Ave., Kalamazoo, MI 49008-5316

Tel: 269.276.3203

Fax: 269.276.3211

Email: [trc-info@wmich.edu](mailto:trc-info@wmich.edu)

The Transportation Research Center for Livable Communities is funded by a grant from the U.S. Department of Transportation's University Transportation Centers Program

*Charter*  
***Township***  
*of Kalamazoo*

TO: Kalamazoo Township Board  
FROM: Supervisor Ronald E. Reid  
RE: Sale of property at 2105 North Burdick Street  
DATE: 20 April 2016

Attached is an email from Jeff Chrystal of Signatures Associates with a proposed listing agreement for 2105 North Burdick Street.

I have asked George to verbally report to you at Monday night's meeting the history of the property and answer any questions.

The proposed lease agreement has been reviewed by your attorney and found to be acceptable. Our attorney reminded me that the Board must authorize *by resolution* (and a roll call vote) the sale of any and all township real estate.

I recommend that a motion be made to adopt the following resolution:

Resolved, that the Charter Township Board of Trustees authorize the sale of 2105 North Burdick Street, Kalamazoo, Michigan and further approve entering into a listing agreement with Signatures Associates to accomplish the sale of the property at 2105 North Burdick Street, Kalamazoo, Michigan.

**From:** Jeff Chrystal [<mailto:jchrystal@signatureassociates.com>]  
**Sent:** Wednesday, April 20, 2016 6:59 AM  
**To:** Ron Reid <[supervisor@ktpw.org](mailto:supervisor@ktpw.org)>  
**Cc:** George Cochran <[treasurer@ktpw.org](mailto:treasurer@ktpw.org)>  
**Subject:** 2105 N. Burdick

Good Morning Ron and George,

Attached is the Listing Agreement for the property on Burdick Street. Please note that after some further thought, I have priced it at \$67,500 to be more marketable. Therefore, we aren't stretching for absolute top dollar and may miss some opportunities to sell the property.

As per our conversation, if you want to exclude any parties from the listing, please let me know.

Please call if you have any questions or concerns.

Good luck today with your conversations with Georgia Pacific. I am still having trouble with getting access to the Georgia Pacific site. I could not get that key to open any of the locks. I will drop the key off sometime later today. Maybe then you might be able to give me some feedback from your conversation with GP.

**Jeff Chrystal**  
Associate Broker

d: 1 (269) 569 8619  
m: 1 (269) 207 5431  
e: [jchrystal@signatureassociates.com](mailto:jchrystal@signatureassociates.com)

**SIGNATURE ASSOCIATES**  
950 Trade Centre Way, Suite 140, Kalamazoo, MI 49002, USA



SALE AGENCY AGREEMENT (PROPERTIES FOR SALE)

1. CONSIDERATION AND TERMS OF CONTRACT. In consideration of Broker's agreement to list the real Premises and all equipment, fixtures, and/or personal property appurtenant to and currently used in connection with the improvements thereon except office furniture and office equipment described below in the Commercial Alliance of REALTORS® Multiple Listing Service (hereinafter "MLS") and to pay the fee therefore and to cause the listing information to be distributed to the participating members in the MLS and in further consideration of Broker's agreement to use Broker's best effort to find a Buyer, Seller hereby grants Signature Associates, the Broker, from April 20, 2016 (date) to 12:00 midnight on April 20, 2017 (date) the exclusive irrevocable right and privilege to sell the Premises located in the City Township Village of Kalamazoo Kalamazoo County, Michigan, commonly known as: 2105 N. Burdick and legally described as:

PP# 06-10-190-022. Seller understands that any real estate agents who show the property may not be acting as Seller's agent; therefore, Seller understands that Seller should not disclose confidential information to any salesperson that Seller would not disclose to a Buyer. Approx. lot size and/or acreage: 1.26 acres; Approx. building square footage offered: 4,718

2. PRICE, TERMS AND BROKERAGE FEE. Seller agrees to sell the Premises for the sum \$67,500 payable as follows (terms of purchase shall be as indicated by "X" below; check all that apply): [X] CASH [X] NEW MORTGAGE [ ] MORTGAGE ASSUMPTION [ ] ASSIGNMENT OF LAND CONTRACT [ ] OTHER-- please specify: [ ] LAND CONTRACT. The Buyer shall pay the full purchase price to the Seller pursuant to the terms and conditions stated in the Commercial Alliance of REALTORS® Land Contract or a Purchase Money Mortgage. The Land Contract shall provide a down payment of \$ and payment of the balance \$ in installments of \$ per or more, at Buyer's option, including interest at the rate of % per annum computed monthly or with Seller's consent for a lesser sum or on other terms. Interest shall commence on the agreed upon date of closing. Seller understands that consummation of the sale or transfer of the Premises shall not relieve Seller of any liability that Seller may have under the mortgage(s) to which the Premises are subject, unless otherwise agreed to by the lender or required by law or regulation.

OR with Seller's consent for a lesser sum or other terms, WHICH PRICE INCLUDES ALL ENCUMBRANCES, TAXES, ASSESSMENTS, AND BALANCES OWING ON ALL EQUIPMENT. The term "sale" shall be deemed to include any direct or indirect exchange, trade, or transfer of any direct or indirect interest in the above-listed Premises to which Seller consents, or the exchange, trade or transfer of a controlling interest in any entity with an interest in the Premises. The term "Premises" shall be deemed to include the above-listed Premises and any direct or indirect interest therein. In the event of a sale, if applicable, Seller will convey, or agree in writing to convey by warranty deed, a good and marketable title to said Premises to the Buyer thereof. Further, Seller will furnish a policy of title insurance.

Seller agrees to pay Broker a brokerage fee of Eight (8%) Percent of the sales price due and payable if: there is a sale or trade by Broker or by Seller or anyone else during the listing period (including sales occurring after the listing period pursuant to options granted or contracts executed during the listing period); or a prospective Buyer ready, willing and able to purchase the Premises on the terms specified herein or other terms acceptable to Seller is produced by Broker or any agent or person during the listing period; or there is a sale within 12 months after expiration of the listing period (including sales pursuant to options granted or contracts executed within that period following expiration) to a Buyer who had been introduced to or provided information regarding the Premises during the listing period by Broker or Seller or any other agent or person, except that this provision shall not apply if the Premises is sold pursuant to a valid listing agreement entered into with another member of an Association of REALTORS subsequent to the expiration of the listing period of this agreement.

The brokerage fee may be shared by the Broker with any cooperating broker who participates in the sale per the following compensation schedule: Subagent (of the Seller) Four (4%) Percent of the sale price or Buyer's Agent Four (4%) Percent of the sale price or Transaction Coordinator N/A of the sale price. Participation in the MLS requires cooperation with at least one type of relationship as listed above.

If, during the listing period, the Premises is leased by Broker or Seller or anyone else, or if within N/A months after the expiration of said period, a lease is made to any person who has been introduced to or provided information regarding the property during said listing period by Broker or Seller or anyone else, Seller agrees to pay Broker a brokerage fee of N/A of the total Rent and/or other consideration paid, except that this provision shall not apply if the Premises is leased pursuant to a valid listing agreement entered into with another member of an Association of REALTORS subsequent to the expiration of the listing period of this agreement. The total brokerage fee owed pursuant to this Paragraph shall be paid upon execution of a lease for the Premises, renewal brokerage fees shall be paid upon tenant's exercise of renewal option. Brokerage fees shall not be otherwise affected by a later breach or termination of such lease by Landlord or Tenant. This brokerage fee shall be paid in full promptly after it is earned, but not later than any applicable closing.

Seller represents and warrants that: (i) there are no obligations to pay brokerage fees to any person or entity except as specified in this Agreement; and (ii) there are no rights of first refusal or options to lease or purchase applicable to the Premises. If these representations and warranties prove to be inaccurate, no such obligation shall diminish the obligation to pay the brokerage fee specified herein. Seller and Broker agree that Broker shall be entitled to payment of reasonable attorney's fees and costs incurred by Broker to collect any commission owed under the terms of this Agreement. Seller agrees that interest shall accrue, and be paid to Broker, at highest rate allowed by law on any unpaid balance, compounded monthly until paid.

Property Address 2105 N. Burdick

Seller's Initials

- 3. **REFERRAL.** Seller agrees to refer to Broker all inquiries received concerning the Premises during the period of this listing.
- 4. **INDEMNIFICATION.** Seller shall indemnify and hold Broker and Broker's agents and subagents harmless from any and all liability for any reason as a result of injury to a person(s) or damage or loss to Premises arising out of a showing of the Premises pursuant to this listing.
- 5. **OPTIONS.** In the event Seller grants an option to purchase or lease the property, other than an option which is part of a lease, Seller agrees that the running of the term of this listing shall automatically be suspended for the duration of the option and, upon the expiration of the option, shall automatically recommence and continue for the remainder of said term so that the listing period before and after the option will total the original term of this listing.
- 6. **POSSESSION.** Possession to be given Immediate subject to rights of tenants, if any.
- 7. **MARKETING.** Broker is hereby authorized to photograph the Premises and publish pictures, place a marketing sign on said Premises and to remove all other marketing signs. Broker is also authorized to have access to said Premises and all parts thereof for the purposes of showing same at reasonable hours and to promote the Premises in any media it deems necessary
- 8. **OFFERS.** Broker shall present all offers to Seller unless otherwise agreed in writing with Broker, except for an accepted offer that prohibits solicitation or consideration of other offers during the period that the resulting Purchase Agreement is in effect.
- 9. **PRICE AND TERMS.** Seller acknowledges that the purchase price will be disclosed by the Commercial Alliance of REALTORS® in the ordinary conduct of its business.
- 10. **NON-DISCRIMINATION.** Broker and Seller acknowledge that discrimination because of religion, race, color, national origin, age, sex, marital status, disability, or familial status in connection with the offer, sale or lease of the real estate is prohibited by law.
- 11. **HEIRS AND SUCCESSORS.** This contract binds Seller, Broker, their personal representatives and heirs, and anyone succeeding to their interest in the property.
- 12. **COST OF SERVICES OF PRODUCTS OBTAINED FROM OUTSIDE SOURCES.** Broker will not obtain or order products or services from outside sources (e.g. surveys, environmental tests, title insurances, inspections, etc.) without the prior consent of Client, and Client agrees to pay all costs of products or services obtained.
- 13. **ATTORNEY'S FEES.** In the event of litigation arising from the failure or alleged failure of either party to perform its obligations under this Agreement, the party prevailing in that litigation (including appeals of all levels) shall be entitled to collect its court costs and reasonable attorneys' fees incurred in connection with such litigation from the other party. The provisions of this Section shall survive Closing or termination of this Agreement.
- 14. **CONFIDENTIAL INFORMATION.** Broker acknowledges that Seller may disclose confidential information to Broker in connection with performance of services under this Agreement, and Broker agrees to preserve such information in confidence and not to disclose any such information to the detriment of Seller in connection with any transaction described herein. Similarly, Seller acknowledges that Broker may have received confidential information in the past from a party on the opposite side of a proposed transaction with Seller, and Seller agrees that Broker's faithful maintenance of such information in confidence will not be a breach of any duty to Seller.
- 15. **ENVIRONMENTAL DISCLOSURE.** Michigan environmental law provides that a person who has knowledge that his/her real property is a "facility" may not transfer an interest in that real property (including by sale or lease) unless the person provides written notice to the purchaser or lessee. The notice should state that the real property is a facility and disclose the general nature and extent of the release of contamination. A "facility" is any property where contamination in excess of certain concentrations has been released or otherwise exists. An owner should seek legal and technical counsel from experienced professionals if the owner is concerned whether their property is a facility.
- 16. **OTHER CONDITIONS.**  
Purchase price does not include contents
- 17. **MISCELLANEOUS.** This contract contains all of the terms and conditions of the Agreement between the parties with respect to its subject matter, and there are no representations, warranties, conditions, or promises except those expressly set for in this contract. This contract may be modified only by a writing signed by the parties. If Seller is an entity, the undersigned represents that he/she has the legal authority to execute this instrument on behalf of the Seller and that Seller has full power and authority to enter into and perform this contract including the conveyance of title as specified. Each of the undersigned individuals who have signed this instrument on behalf of Seller represent and warrant that he/she is authorized to sign this instrument on behalf of such party and to bind such party to the requirements of this instrument. Seller hereby acknowledges receipt of a completed copy of this contract. This Agreement shall be governed by Michigan law.  
**Seller acknowledges that if a commission is owed under a prior agreement, execution of this agreement will not eliminate the prior agreement.**

**SELLER**

Listed by: Signature Associates  
Broker

Through \_\_\_\_\_  
Agent

Entity: Charter Township of Kalamazoo

By: \_\_\_\_\_  
(Note: Please sign as you wish your name to appear on the final documents.)

Printed Name of Signatory: \_\_\_\_\_

Its: \_\_\_\_\_

Entity: \_\_\_\_\_

By: \_\_\_\_\_  
(Note: Please sign as you wish your name to appear on the final papers.)

Its: \_\_\_\_\_

Printed Name of Signatory: \_\_\_\_\_

Type of Ownership:  Sole  Joint  Other \_\_\_\_\_  
(Please specify)

*Charter*  
***Township***  
*of Kalamazoo*

TO: Kalamazoo Township Board  
FROM: Supervisor Ronald E. Reid  
RE: Attorney Conflict of Interest Understanding  
DATE: 20 April 2016

Attached is a conflict of interest recognition and waiver that our law firm, Bauckham, Sparks, Thall, Seeber and Kaufman has prepared, stating our understanding, in situations where the firm may be representing other township clients at the same meeting(s).

The genesis of the request is a “growing pain” matter with the Kalamazoo Area Building Authority (KABA). Oshtemo Township is considering options to sever its relationship with KABA. Other members of KABA – Comstock, Cooper & Kalamazoo may require legal assistance with this potential transition.

I am comfortable that with the high ethical standards of the firm, we are well served to agree to waive any conflict of interest arising out of, and that we will not object to, their representation of each municipality in the matter described above.

I recommend that a motion be adopted to authorize the Supervisor’s signature on the conflict of interest recognition and waiver form.

**CONFLICT OF INTEREST  
RECOGNITION AND WAIVER  
CHARTER TOWNSHIP OF KALAMAZOO  
KALAMAZOO COUNTY, MICHIGAN**

*Bauckham, Sparks, Thall, Seeber and Kaufman (“BSTSK”) is pleased to act as general counsel for the Charter Township of Kalamazoo, for the Charter Township of Comstock, and for several other municipal entities in Kalamazoo and surrounding counties. The firm also provides ordinance enforcement legal support to some Kalamazoo and surrounding county municipal entities.*

*Although the interests of the Charter Township of Kalamazoo, the Charter Township of Comstock and the other municipal entities served by BSTSK, are generally consistent, it is recognized and understood that differences may exist or become evident during the course of our representation. Notwithstanding these possibilities, the Charter Township of Kalamazoo, by and through its Board of Trustees, has determined that it is in the best interests of the Township to continue BSTSK’s representation of the Township of Kalamazoo in a matter involving a potential disruption of a joint municipal undertaking in Kalamazoo County, at least until such time as it is apparent that the interests of the mutual clients are at such a differential as to require BSTSK to withdraw from representation of both clients.*

*Accordingly, this confirms the agreement of the Charter Township of Kalamazoo and the execution of a mirror agreement by the Charter Township of Comstock that BSTSK may represent each of them in the identified matter so long as the interests of these entities do not conflict with each other or in such a matter as to cause BSTSK to withdraw from representation of both clients. In such event, BSTSK will notify both clients that it must withdraw from representation of both and advise each to seek independent special legal counsel for that matter until it is concluded. It is understood that notwithstanding any conflict for which withdrawal may become necessary, BSTSK shall remain general legal counsel to both entities.*

*This will also confirm that the Charter Township of Kalamazoo and the Charter Township of Comstock have each agreed to waive any conflict of interest arising out of, and that it will not object to, our representation of each municipality in the matter described herein.*

*It is further understood and agreed that BSTSK may freely convey necessary information provided to us by one client to the other, and that there will be no information that is not subject to disclosure to the other client unless both of you expressly agree to the contrary.*

*If you need to edit the terms of this letter, or wish to discuss any related issues, please contact us at your earliest convenience. However, if you agree that the foregoing accurately reflects our understanding, please sign and return a copy of this letter.*

*Date:* \_\_\_\_\_

\_\_\_\_\_  
*Charter Township of Kalamazoo  
By: Ronald E. Reid, Supervisor*

*Acknowledged by:*

*Date:* \_\_\_\_\_

\_\_\_\_\_  
*Bauckham, Sparks, Thall, Seeber  
& Kaufman, PC  
By: Roxanne C. Seeber, Attorney*

Date: April 20, 2016

To: Supervisor Ronald E. Reid, Police Commissioner & the Charter Township of Kalamazoo Board of Trustees

From: Police Chief Tim Bourgeois *TJB*

Re: Purchase of patrol vehicles

**Information**

We need to replace three of our patrol vehicles due to mileage and condition. We have examined the available police patrol package vehicles and determined our best option is the Ford Interceptor Utility all-wheel drive vehicle. It is based on a cross-over SUV and is smaller than a Chevrolet Tahoe. It will fit well in the mix of vehicles we operate and offers the best combination of size, performance, price and current availability. Ford also is the industry leader in pre-wiring their police package cars to accommodate equipment we need to add. Not only is it more economical, but we have less maintenance issues with factory installed wiring.

We obtained bids from Signature Ford in Owosso, Gorno Ford in Woodhaven and Galesburg Ford. Signature holds the Macomb County contract and Gorno holds the contract for the State of Michigan. We have done business with all three firms in the past and have received excellent service from each of them. The bids for similarly appointed vehicles are:

Signature	\$31,928
Gorno	\$32,180
Galesburg	\$33,984

We recommend purchasing from Signature. The three patrol vehicles we are replacing will be sold after the new ones are in service. Funds for this purchase will come from the Police Capital Improvement account.

**Request**

That the Charter Township of Kalamazoo Board of Trustees purchase three Ford Interceptor Utility police patrol vehicles from Signature Ford for \$95,784 and authorize the supervisor to sign on behalf of the Township.

Options	Signature Ford 2017 Ford Interceptor Utility	Gorno Ford 2017 Ford Interceptor Utility	Galesburg Ford 2017 Ford Interceptor Utility
Base price	\$24,856.00	\$25,145.00	\$26,944.00
Eco boost engine	\$3,152.00	\$3,000.00	\$3,100.00
Ready for the road light package	\$3,415.00	\$3,500.00	\$3,415.00
Rear window delete	\$25.00	Unknown	\$25.00
Dark car feature	\$20.00	\$30.00	\$20.00
Dual LED spot lamps	<del>\$620.00</del>	Unknown	<del>\$620.00</del>
Dual incandescent spot lamps	\$350.00	\$370.00	unknown
Heated mirrors	\$60.00	\$60.00	\$60.00
Keyless entry	<del>\$260.00</del>	unknown	<del>\$260.00</del>
Keyed alike	\$50.00	\$50.00	\$50.00
Headlight prep	N/C	<del>\$125.00</del>	N/C
taillight prep	N/C	<del>\$60.00</del>	N/C
Visor light	\$1,115.00	\$1,115.00	\$1,115.00
<b>Price with options desired</b>	<b>\$31,928.00</b>	<b>\$32,180.00</b>	<b>\$33,984.00</b>

Estimate because no price given for rear window delete

Estimate because no price given for dual incandescent spot lamps

Items in red will not be ordered

Items in green may be ordered on one or more vehicles to be utilized as semi marked cars.

**Macomb County Bid Price**  
 (Bid #71-15, MY2016) in the  
**State of Michigan**  
**2016 Utility Police Interceptor**  
**Major Standard Equipment**

**MECHANICAL**

- Alternator – 220-Amp
- Axle Ratio – 3.65 (AWD), 3.39 (FWD)
- Battery – H.D. maintenance-free 78A/750-CCA
- Brakes – 4-Wheel Heavy-Duty Disc w/H.D. Front and Rear Calipers
- Column Shifter
- Drivetrain – All-Wheel-Drive
- Electric Power-Assist Steering (EPAS) – Heavy-Duty
- Engine – 3.7L V6 Ti-VCT
- Engine Hour Meter
- Engine Oil Cooler
- Fuel Tank – 18.6 gallons
- Suspension – independent front & rear
- Transmission – 6-speed automatic

**EXTERIOR**

- Antenna, Roof-mounted
- Cladding – Lower bodyside cladding (Black)
- Door Handles – Black (MIC)
- Exhaust True Dual
- Front Door-Lock Cylinders (Front Driver / Passenger / Liftgate)
- Glass – 2nd and 3rd Row Privacy Glass
- Grille – Black
- Headlamps – Headlamps – LED Low Beam; Incandescent (Halogen) High Beam
- Liftgate – Manual 1-Piece – Fixed Glass w/Door-Lock Cylinder
- Mirrors – Black Caps (MIC), Power Electric Remote, Manual Folding with Integrated Spotter (integrated blind spot mirrors not included when equipped with BLIS®)
- Spare – Full size 18" Tire w/TPMS
- Spoiler – Painted Black
- Tail lamps – LED
- Tailgate Handle – Painted Black
- Tires – 245/55R18 A/S BSW
- Wheel-Lip Molding – Black (MIC)
- Wheels – 18" x 8.0 painted black steel with wheel hub cover
- Windshield – Acoustic Laminated

**INTERIOR/COMFORT**

- Cargo Hooks
- Climate Control – Single-Zone Manual
- Door-Locks
  - Power
  - Rear-Door Handles and Locks Operable
- Floor – Flooring – Heavy-Duty Thermoplastic Elastomer
- Glove Box – Locking/non-illuminated
- Grab Handles – (1 – Front-passenger side, 2-Rear)
- Liftgate Release Switch located in overhead console (45 second timeout feature)
- Lighting
  - Overhead Console with sunglass holder
  - 1st row task lights (driver and passenger)
  - Dome Lamp – 1st row (red/white)
  - 2nd/3rd row overhead map light

**INTERIOR / COMFORT (continued)**

- Mirror – Day/night Rear View
- Particulate Air Filter
- Power-Adjustable Pedals (Driver Dead Pedal)
- Powerpoints – (2) First Row
- Scuff Plates – Front & Rear
- Seats
  - 1st Row Police Grade Cloth Trim, Dual Front Buckets
  - 1st Row – Driver 6-way Power track (fore/aft. Up/down, tilt with manual recline, 2-way manual lumbar)
  - 1st Row – Passenger 2-way manual track (fore/aft. with manual recline)
  - Built-in steel intrusion plates in both driver/passenger seatbacks
  - 2nd Row Vinyl, 60/40 Split Bench Seat (manual fold-flat, no tumble) – fixed seat track
- Speed (Cruise) Control
- Speedometer – Calibrated
- Steering Wheel – Manual / Tilt, Urethane wheel finish w/Silver Painted Bezels) with Speed Controls and Redundant Audio Controls
- Sun visors, color-keyed, non illuminated
- Universal Top Tray – Center of I/P for mounting aftermarket equipment
- Windows, Power, 1-touch Up/Down Front Driver/Passenger-Side with disable feature

**SAFETY/SECURITY**

- AdvanceTrac® w/RSC® (Roll Stability Control™) w/Hydraulic Brake Assist
- Airbags, 2nd generation driver & front-passenger, side seat, Roll Curtain Airbags and Safety Canopy®
- Anti-Lock Brakes (ABS) with Traction Control
- Belt-Minder® (Front Driver / Passenger)
- Child Safety Locks (capped)
- LATCH (Lower Anchors and Tethers for Children) system on rear outboard seat locations
- Seat Belts, Pretensioner/Energy-Management System w/adjustable height in 1st Row
- SOS Post-Crash Alert System™
- Tire Pressure Monitoring System (TPMS)

**FUNCTIONAL**

- Easy Fuel® Capless Fuel-Filler
- Front door tether straps (driver/passenger)
- MyFord®
  - AM/FM / CD / MP3 Capable / Clock / 6 speakers
  - 4.2" Color LCD Screen Center-Stack "Smart Display"
  - 5-way Steering Wheel Switches, Redundant Controls
- Power pigtail harness
- Rearview Camera with Washer
- Recovery Hooks, Rear Only
- Simple Fleet Key (w/o microchip, easy to replace)
- Two-way radio pre-wire
- Windows – Rear Defroster
- Wipers – Front Speed-Sensitive Intermittent; Rear Dual Speed Wiper

**Police Interceptor Utility Base Prices**

<input checked="" type="checkbox"/>	<b>Utility All Wheel Drive (3.7L V6 FFV, 305 HP, 131 MPH) K8A/500A</b>	<b>\$24,856.00</b>
<input type="checkbox"/>	<b>Utility All Wheel Drive (3.5L V6 GTDI EcoBoost, 365 HP, 148 MPH, 99T/44C) K8A/500A</b>	<b>\$28,008.00</b>

## Payment Terms: Net 10 days

VEHICLE BRAND AND MODEL: Ford Utility Police Interceptor

**BID PRICE EXPIRES: TBD.**

Subject to change without notice by Ford Motor Company

VEHICLE COLOR: Order Code	Interior Trim Color Charcoal Black	
	- 9W -	
Arizona Beige Clearcoat Metallic	[E3]	[ ]
Medium Brown Metallic	[BU]	[ ]
Dark Toreador Red Clearcoat Metallic	[JL]	[ ]
Dark Blue	[LK]	[ ]
Norsea Blue Clearcoat Metallic	[KR]	[ ]
Royal Blue	[LM]	[ ]
Light Blue Metallic	[LN]	[ ]
Ultra Blue Clearcoat Metallic	[MM]	[ ]
Smokestone Clearcoat Metallic	[HG]	[ ]
Silver Grey Metallic	[TN]	[ ]
Ingot Silver Clearcoat Metallic	[UX]	[ ]
<b>Black Clearcoat</b>	<b>[G1]</b>	<b>[ x ]</b>
Oxford White Clearcoat	[YZ]	[ ]
Kodiak Brown Metallic	[J1]	[ ]
Deep Impact Blue	[J4]	[ ]
Sterling Grey Metallic	[UJ]	[ ]
Medium Titanium Clearcoat Metallic	[YG]	[ ]
Fire Engine Bright Red (Extra Cost Paint \$1050)	[11R13]	[ ]

### INTERCEPTOR OPTIONAL FEATURES:

#### Flooring/Seats

	<u>Code</u>	<u>\$Cost</u>
<input type="checkbox"/> 1st and 2nd row carpet floor covering	16C	125.00
<input type="checkbox"/> 2nd Row Cloth Seats	FW/ 88F	60.00
<input type="checkbox"/> Power passenger seat (6-way) w/manual recline and lumbar	87P	325.00
<input type="checkbox"/> Rear Console Plate (Not available with Interior Upgrade Pkg – 65U)	85R	35.00
<input checked="" type="checkbox"/> <b>Interior Upgrade Package</b>	<b>65U</b>	<b>390.00</b>
• 1st and 2nd Row Carpet Floor Covering		
• Cloth Seats - Rear		
• Center Floor Console less shifter w/unique Police console finish plate – Includes Console Top Plate – Finish 3 (incl. 2 cup holders)		
• Floor Mats, front and rear (Carpeted)		
<b>Note:</b> Not available with (67G), (67H) & (67U)		

#### Lamps

<input checked="" type="checkbox"/> <b>Dark Car Feature – Courtesy lamp disable when any door is opened</b>	<b>43D</b>	<b>20.00</b>
<input type="checkbox"/> Auto Headlamps	86L	115.00
<input type="checkbox"/> Daytime Running Lamps	942	45.00
<input checked="" type="checkbox"/> <b>Side Marker Lights in Skull Caps</b>	<b>63B</b>	<b>290.00</b>
<input checked="" type="checkbox"/> <b>Rear Quarter Glass Side Marker Lights</b>	<b>63L</b>	<b>575.00</b>
<input checked="" type="checkbox"/> <b>Front Warning Auxiliary Light (Driver side – Red / Passenger side – Blue)</b>	<b>21L/60A</b>	<b>600.00</b>
<input type="checkbox"/> Forward Indicator Pocket Warning Light – Warn, Park, Turn (Driver side Red/ Passenger side – Blue)	21W/60A	690.00
<input checked="" type="checkbox"/> <b>Dome Lamp – Red/White in Cargo Area</b>	<b>17T</b>	<b>50.00</b>
<input type="checkbox"/> Pre-wiring for grille lamp, siren, and speaker	60A	50.00
<input type="checkbox"/> Spot Lamp – Driver Only (Incandescent Bulbs)	51Y	215.00
<input type="checkbox"/> Spot Lamp – Driver Only (LED Bulbs)	51R	395.00
<input type="checkbox"/> Spot Lamp – Dual (driver and passenger) (Incandescent Bulbs)	51Z	350.00
<input checked="" type="checkbox"/> <b>Spot Lamp – Dual (driver and passenger) (LED Bulbs)</b>	<b>51S</b>	<b>620.00</b>

#### Body

<input type="checkbox"/> Glass – Solar Tint 2nd and 3rd Row (Deletes Privacy Glass)	92G	120.00
<input type="checkbox"/> Glass – Solar Tint 2nd Row Only (Deletes Privacy Glass)	92R	85.00
<input type="checkbox"/> Roof Rack Side Rails – Black	68Z	155.00
<input type="checkbox"/> Deflector Plate	76D	335.00

### Wheels

<input type="checkbox"/>	Wheel Covers (18" Full Face Wheel Cover)	64B	60.00
<input type="checkbox"/>	18" Painted Aluminum Wheel	64E	475.00

### Misc

<input type="checkbox"/>	Engine Block Heater	41H	90.00
<input type="checkbox"/>	License Plate Bracket – Front	153	N/C
<input type="checkbox"/>	Badge Delete (Police Interceptor Badge Only)	16D	N/C
<input type="checkbox"/>	100 Watt Siren/Speaker (includes bracket and pigtail)	18X	300.00
<input type="checkbox"/>	Aux Air Conditioning	17A	548.00
<input checked="" type="checkbox"/>	<b>Noise Suppression Bonds (Ground Straps)</b>	<b>60R</b>	<b>100.00</b>
<input type="checkbox"/>	My Speed Fleet Management	43S	60.00

### Audio/Video

<input type="checkbox"/>	Rear View Camera (Includes Electrochromic Rear View Mirror – Video is 87R displayed in rear view mirror)		N/C
	<b>Note: This option would replace the camera that comes standard in the 4" center stack area.</b>		
<input type="checkbox"/>	SYNC® Basic (Voice Activated Communication System)	53M	295.00
<input type="checkbox"/>	Remappable (4) switches on steering wheel	61R/61S	155.00

### Doors/Windows

<input type="checkbox"/>	Hidden Door Lock Plunger	52H	140.00
<input type="checkbox"/>	Hidden Door Lock Plunger and Rear Door Handle Inoperable	52P	160.00
<input type="checkbox"/>	Rear Door Handles Inoperable/Locks Operable	68L	35.00
<input type="checkbox"/>	Rear Door Handles Inoperable/Locks Inoperable	68G	35.00
<input checked="" type="checkbox"/>	<b>Windows-Rear window power delete, operable from front driver side switches</b>	<b>18W</b>	<b>25.00</b>
<input type="checkbox"/>	Lock system; Single Key/All Vehicles Keyed Alike	59	50.00
	Keyed Alike 1284x= <b>59B</b> Keyed Alike 1294x= <b>59C</b> Keyed Alike 0135x= <b>59D</b>		
	Keyed Alike 1435x= <b>59E</b> Keyed Alike 0576x= <b>59F</b> Keyed Alike 0151x= <b>59G</b>		
	Keyed Alike 1111x= <b>59J</b>		

### Safety & Security

<input type="checkbox"/>	Ballistic Door Panels – Driver Front Door Only	90D	1585.00
<input type="checkbox"/>	Ballistic Door Panels – Driver & Pass Front Doors	90E	3170.00
<input type="checkbox"/>	BLIS® – Blind Spot Monitoring with Cross Traffic Alert	55B/54Z	545.00
<input checked="" type="checkbox"/>	<b>Mirrors– Heated, Non BLIS</b>	<b>549</b>	<b>60.00</b>
<input type="checkbox"/>	Lockable Gas Cap for Easy Fuel Capless Fuel-Filler	19L	20.00
<input type="checkbox"/>	Perimeter Anti-Theft Alarm – Activated by Hood, Door, or Decklid	593/595	380.00
<input checked="" type="checkbox"/>	<b>Remote Keyless Entry w/2 Key Fobs (w/o Keypad) (N/A w/Keyed Alike)</b>	<b>595</b>	<b>260.00</b>
<input type="checkbox"/>	Extra Key \$3.00x__=	Parts	5.00 ea
<input type="checkbox"/>	Extra Remote Key Fob \$50.00x__=	Parts	60.00 ea
<input type="checkbox"/>	Remote Starter (Must Order Keyless Entry <b>595</b> )	Parts	550.00
<input type="checkbox"/>	Reverse Sensing	76R	275.00
<input type="checkbox"/>	Trailer Hitch and Wiring	OHP	455.00
<input type="checkbox"/>	Gun Vault (Not Available with (17A) Aux Air Conditioning)	63V	245.00
<input type="checkbox"/>	<b>Front Headlamp/Police Interceptor Housing Only</b>	<b>86P</b>	<b>125.00</b>
	– Pre-drilled hole for side marker police use, does not include LED installed lights (eliminates need to drill housing assemblies)		
	– Pre-molded side warning LED holes with standard twist lock sealed capability (does not include LED installed lights)		
	<b>Note: Not available with options: 66A and 67H</b>		
<input type="checkbox"/>	<b>Front Headlamp Lighting Solution</b>	<b>66A</b>	<b>850.00</b>
	– Includes base LED Low beam/Incandescent (Halogen) High beam headlamp with High Beam Wig-wag function and two (2) white rectangular LED side warning lights		
	– Includes pre-wire for grille LED lights, siren and speaker (60A)		
	– Wiring, LED lights included. Controller "not" included		
	<b>Note: Not available with option: 67H</b>		
<input type="checkbox"/>	<b>Police Wire Harness Connector Kit – Front</b>	<b>47C</b>	<b>105.00</b>
	• For connectivity to Ford PI Package solutions includes:		
	• (2) Male 4-pin connectors for siren		
	• (5) Female 4-pin connectors for lighting/siren/speaker		
	• (1) 4-pin IP connector for speakers		
	• (1) 4-pin IP connector for siren controller connectivity		
	• (1) 8-pin sealed connector		
	• (1) 14-pin IP connector		
	<b>Note: See Upfitters guide for further detail <a href="http://www.fordpoliceinterceptorupfit.com">www.fordpoliceinterceptorupfit.com</a></b>		

<p>[ ] <b>Tail lamp/Police Interceptor Housing Only</b>          – Pre-existing holes with standard twist lock sealed capability (does not include LED installed lights) (eliminates need to drill housing assemblies)  <b>Note:</b> Not available with options: 66B and 67H</p>	86T	60.00
<p>[ ] <b>Tail Lamp Lighting Solution</b>          – Includes base LED lights plus two (2) rear integrated hemispheric lighthouse white LED side warning lights in taillamps          – LED lights only. Wiring, controller "not" included  <b>Note:</b> Not available with option: 67H</p>	66B	425.00
<p>[ ] <b>Police Wire Harness Connector Kit – Rear</b>          • For connectivity to Ford PI Package solutions includes:          • (1) 2-pin connector for rear lighting and (1) 2-pin connector          • (6) Female 4-pin connectors and (6) Male 4 pin connectors          • (1) 10-pin connector  <b>Note:</b> See Upfitters guide for further detail <a href="http://www.fordpoliceinterceptorupfit.com">www.fordpoliceinterceptorupfit.com</a></p>	21P	130.00
<p>[ ] <b>Rear Lighting Solution</b>          – Includes two (2) backlit flashing linear high-intensity LED lights (driver's side red / Passenger side blue) mounted to inside liftgate glass          – Includes two (2) backlit flashing linear high-intensity LED lights (driver's side red / Passenger side blue) installed on inside lip of liftgate (lights activate when liftgate is open)          – LED lights only. Wiring, controller "not" included  <b>Note:</b> Not available with option: 67H</p>	66C	455.00
<p>[ ] <b>Ultimate Wiring Package</b>          – Rear console mounting plate (85R) – contours through 2nd row; channel for wiring          – Pre-wiring for grille LED lights, siren and speaker (60A)          – Wiring harness I/P to rear (overlay)            o Two (2) light cables – supports up to six (6) LED lights (engine compartment/grille)            o Two (2) 50-amp battery and ground circuits in RH rear-quarter            o One (1) 10-amp siren/speaker circuit engine cargo area          – Rear hatch/cargo area wiring – supports up to six (6) rear LED lights            o Recommend Police Wire Harness Connector Kits 47C and 21P  <b>Note:</b> Not available with options: 65U, 67G, 67H</p>	67U	550.00
<p>[ ] <b>Police Interceptor 24 – Cargo Wiring Upfit Package</b>          – Rear console plate (85R) – contours through 2nd row; channel for wiring          – Wiring overlay harness with lighting and siren interface connections          – Vehicle Engine Harness:            o Two (2) light connectors – supports up to six (6) LED lights (engine compartment)            o Two (2) grille light connectors            o Two (2) 50 amp battery ground circuits in right hand rear-quarter power distribution junction block            o One (1) 10-amp siren/speaker circuit (engine to cargo area)          – Whelen Lighting PCC8R Control Head          – Whelen PCC8R Light Relay Center (mounted behind 2nd row seat)          – Light Controller / Relay Center Wiring (jumper harness)          – Whelen Specific Cable (console to cargo area) Connects PCC8R to Control Head          – Pre-wiring for grille LED lights, siren and speaker (60A)          – Does "not" include LED lights            o Recommend Police Wire Harness Connector Kits 47C and 21P  <b>Note:</b> Not available with options: 65U, 67H and 67U</p>	67G	1340.00
<p>[x] <b>Ready for the Road Package All-in Complete Package</b>  <b>Includes Police Interceptor Packages 66A, 66B, 66C plus:</b>          – Whelen Cencom Light Controller Head with dimmable backlight          – Whelen Cencom Relay Center / Siren / Amp w/Traffic Advisor (mounted behind 2nd row seat)          – Light Controller / Relay Cencom Wiring (wiring harness) w/additional input/output pigtails          – High current pigtail          – Whelen Specific WECAN Cable (console to cargo area) connects Cencom to Control Head          – Pre-wiring for grille LED lights, siren and speaker (60A)          – Rear console plate (85R) – contours through 2nd row; channel for wiring          – Grille linear LED Lights (Red / Blue)          – 100-Watt Siren / Speaker          – Hidden Door-Lock Plunger / Rear-Door Handles Inoperable (52P)          – Wiring Harness:            o Two (2) 50 amp battery and ground circuits in RH rear-quarter  <b>Note:</b> Not available with options: 66A; 66B; 66C; 67G, 67U</p>	67H	3415.00

**VINYL WRAP OPTIONS**

<input type="checkbox"/> <b>Two-Tone Vinyl Package #1</b>	91A	840.00
• Roof Vin		
• RH/LH Front Doors Vinyl		
• RH/LH Rear Doors Vinyl		
<input type="checkbox"/> <b>Two-Tone Vinyl Package #3</b>	91C	700.00
• Roof Vinyl		
• RH/LH Front Doors Only Vinyl		
<input type="checkbox"/> <b>Two-Tone Vinyl Package #8</b>	91H	490.00
• Roof Vinyl (Vinyl Wrap in Police White (YZ) Only)		
<input type="checkbox"/> <b>Two-Tone Vinyl Package #9</b>	91J	305.00
• RH/LH Front Doors Only Vinyl (Vinyl Wrap in Police White (YZ) Only)		
<input type="checkbox"/> <b>Vinyl Word Wrap</b>	91D	795.00
- "POLICE" located on LH/RH sides of vehicle ("White" lettering)		
<input type="checkbox"/> <b>Reflective Vinyl Word Wrap</b>	91E	795.00
- "POLICE" located on LH/RH sides of vehicle ("Black" lettering)		
<input type="checkbox"/> <b>Reflective Vinyl Word Wrap</b>	91F	795.00
- "POLICE" located on LH/RH sides of vehicle ("White" lettering)		
<input type="checkbox"/> <b>Vinyl Word Wrap</b>	91G	795.00
- "SHERIFF" located on LH/RH sides of vehicle ("White" lettering)		

**Extended Warranty Options for Police Interceptor Utility**

**Extended Warranty Option's (\$100.00 Deductible) 100,000 Mile Coverage**

<input type="checkbox"/> 5-Year Premium Care Warranty (500 Plus Components Coverage)	2150.00
<input type="checkbox"/> 4-Year Premium Care Warranty (500 Plus Components Coverage)	2110.00
<input type="checkbox"/> 3-Year Premium Care Warranty (500 Plus Components Coverage)	2080.00
<input type="checkbox"/> 5-Year Extra Care Warranty (113 Essential Components Coverage)	1955.00
<input type="checkbox"/> 4-Year Extra Care Warranty (113 Essential Components Coverage)	1925.00
<input type="checkbox"/> 3-Year Extra Care Warranty (113 Essential Components Coverage)	1905.00
<input type="checkbox"/> 5-Year Base Care Warranty (84 Major Components Coverage)	1860.00
<input type="checkbox"/> 4-Year Base Care Warranty (84 Major Components Coverage)	1840.00
<input type="checkbox"/> 3-Year Base Care Warranty (84 Major Components Coverage)	1820.00

**Total Price \$30,871.00 ea**

# GORNO FORD

## 2016 MACP WINTER SHOW @ AMWAY GRAND

### 2016 FORD F150 CREW CAB POLICE TRUCK 4 x 4

5.0L 385 HP V8, , PRIVACY GLASS, REAR DEFROSTER, AM/FM CD, TOW PKG, , L/S, STEP BOARDS, CHROME EXT PKG, BEDLINER, POWER GROUP, FLOOR MATS CODE 3 2100 SERIES ALL LED LIGHT BAR, CODE 3 100 WATT SIREN /SPEAKER, CODE Z-3 SIREN/LIGHTING COMNTROLLER

RETAIL 45,000.00 +                      SHOW PRICE                      \$35,995.00

2016 FORD INTERCEPTOR AWD UTILITY  
READY FOR ROAD PKG & NEW VISOR BAR  
AVAILABLE FOR DEMO

2016 FORD INTERCEPTOR SEDAN AWD  
BASE

\$23,295.00



2016 FORD INTERCEPTOR UTILITY AWD  
BASE

\$25,145.00

\$ 3,500.00 Tight package

#### CHANGES AVAILABLE

SPOT LIGHT ✓	245.00 ✓
DUAL SPOTS	370.00
COURTEST LIGHTS IN-OP ✓	30.00 ✓
HEATED MIRRORS ✓	60.00 ✓
HEADLIGHT PREP ✓	125.00 ✓
TAILLIGHT PREP ✓	60.00 ✓
FLEET KEY ✓	50.00 ✓
SYNC	395.00
TRAY (SEDAN)	240.00

IN BOUND, MANY INTERCEPTOR UTILITIES, CALL ➔

CONTACT EDDIE WILLIAMS                      or  
CELL 313-319-3431 OR 734-231-4747  
WP 734-671-4893.  
FAX 734-671-4375  
E mail [eddiewilliams@gornoford.com](mailto:eddiewilliams@gornoford.com)

BOB ALDERMAN  
WP 734-671-4017

FAX 734-671-4375  
e mail [ralderman@gornoford.com](mailto:ralderman@gornoford.com)

27,000



10150 E. Michigan Avenue • P.O. Box 459 • GALESBURG, MI 49053  
 Phone (269) 665-7015 • Fax (269) 665-4445  
 www.galesburgford.com

Thanks for being our customer!

DEAL # \_\_\_\_\_

CUST # \_\_\_\_\_

DATE / /

PURCHASER Top of Belmont DOB \_\_\_\_\_ SSN# \_\_\_\_\_  
 CO-PURCHASER \_\_\_\_\_ DOB \_\_\_\_\_ SSN# \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_ COUNTY \_\_\_\_\_

HOME PHONE \_\_\_\_\_ WORK PHONE \_\_\_\_\_

INSURANCE COMPANY \_\_\_\_\_ POLICY NUMBER \_\_\_\_\_

AGENT \_\_\_\_\_ AGENT PHONE \_\_\_\_\_

INSURANCE ADDRESS \_\_\_\_\_

DRIVERS LICENSE # \_\_\_\_\_ SALESPERSON \_\_\_\_\_

CO-DRIVERS LICENSE # \_\_\_\_\_

E-MAIL ADDRESS \_\_\_\_\_

NEW  USED YEAR 17 MAKE Ford MODEL/BODY Explorer COLOR Black  
 VEHICLE IDENTIFICATION NUMBER \_\_\_\_\_ ODOMETER \_\_\_\_\_  
 STOCK # \_\_\_\_\_ WEIGHT FEE CAT. \_\_\_\_\_ DELIVERY DATE/TIME \_\_\_\_\_

VEHICLE DESCRIPTION / EQUIPMENT

K8A	26944.00
67H Road Ready Pkg.	3415
17T Cargo Lamp	50
186W RR Windows Del.	25
214 Front Bump Lite	550
43D Courtesy Disable	20
515 Dual Led Lamps	620
549 Power Mirrors	60
595 Keyless w/0 Pad	260
60R Noise Suppress	100
63B Side Marker Lites	290
63L QTR Glass Lite	575
66A Front Head Lamp Pkg	N/C
66T RR Tail Lamp Housing	N/C
86W FR T Visor Lite	115
<b>Dist</b>	<b>38734</b>
	<b>945</b>

DESCRIPTION OF TRADE-IN

YEAR \_\_\_\_\_ MAKE \_\_\_\_\_ MODEL \_\_\_\_\_ COLOR \_\_\_\_\_  
 V.I.N. \_\_\_\_\_ APPRAISAL \_\_\_\_\_  
 ODOMETER \_\_\_\_\_ BALANCE OWED TO \_\_\_\_\_ PAYOFF \$ \_\_\_\_\_  
 PAYOFF ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_  
 GOOD UNTIL \_\_\_\_\_ PER DIEM \_\_\_\_\_ ACCT. NO. \_\_\_\_\_ QUOTED BY \_\_\_\_\_

IF THIS IS FOR A USED CAR OR LIGHT TRUCK THE INFORMATION YOU SEE ON THE FEDERAL TRADE COMMISSION WINDOW FORM (BUYER'S GUIDE) IS PART OF THIS AGREEMENT. INFORMATION ON THE WINDOW FORM SUPERCEDES ANY CONTRARY PROVISIONS IN THE CONTRACT OF SALE.  
 THIS AGREEMENT IS NOT BINDING UPON EITHER PARTY THE PURCHASER OR THE DEALER UNTIL SIGNED BY EACH PARTY, AND SHALL NOT BE BINDING UPON DEALER OR PURCHASER UNTIL ALL CREDIT TERMS, IF APPLICABLE, ARE APPROVED AND ACCEPTED BY ALL PARTIES: DEALER, PURCHASER, LENDING INSTITUTION. IF CREDIT TERMS ARE NOT ACCEPTED, FULL DEPOSIT WILL BE REFUNDED TO PURCHASER. AGREEMENT BASED ON AVAILABILITY OF VEHICLE. PURCHASER AFFIRMS THAT HE/SHE IS OF LEGAL AGE IN MICHIGAN  
 I HAVE READ THE TERMS AND CONDITIONS OF THIS AGREEMENT AND HAVE RECEIVED A COMPLETED COPY OF THIS AGREEMENT.

PURCHASER SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

CO-PURCHASER SIGNATURE \_\_\_\_\_ DATE 4/18/16  
 DEALER OR AUTHORIZED REPRESENTATIVE \_\_\_\_\_ DATE \_\_\_\_\_

1. PRICE OF VEHICLE (INCLUDING FREIGHT & ACCESSORIES) .....	38734.00
2. DOCUMENTATION FEE .....	210.00
3. TOTAL TAXABLE PRICE .....	34989.00
4. a) SALES TAX .....	N/A
b) LICENSE OR TRANSFER FEE .....	N/A
c) TITLE FEE .....	15.00
5. LABOR OR OTHER NON-TAX CHARGES .....	
6. TOTAL DELIVERED PRICE .....	35004.00
7. REBATE .....	
8. CASH ON DEPOSIT .....	
9. CASH DUE ON DELIVERY .....	
10. TRADE ALLOWANCE .....	
11. Less LIEN .....	
12. TOTAL DOWN PAYMENT .....	
13. BALANCE DUE .....	
14. ENVIRONMENTAL PROTECTION PACKAGE .....	
15. EXTENDED SERVICE AGREEMENT .....	
16. TOTAL AMOUNT OF THIS AGREEMENT .....	

*Dist.*  
*Delivery Fee*

Date: April 20, 2016

To: Supervisor Ronald E. Reid, Police Commissioner & the Charter Township of Kalamazoo Board of Trustees

From: Police Chief Tim Bourgeois 

Re: Replacement of speed measurement devices

**Information**

We use both RADAR and LIDAR (laser) devices to measure motorists' speed for traffic enforcement. We need to replace one RADAR unit and two LIDAR units.

The RADAR unit is 14 years old and has needed repair recently. In addition, it does not physically fit in the newer patrol vehicle configuration. In reviewing the units available through the MiDeal state purchase contract, the best available option for us is a Kustom Signals Golden Eagle II for \$1,539. It has a three year warranty.

The LIDAR units are the original ones we purchased and are also 14 years old. Likewise, they have become very maintenance intensive and purchasing replacements makes better economic and operational sense. In reviewing the available options through the MiDeal state purchase contract, the best option for us is the Kustom Signals Prolaser 4 LIDAR for \$2,517 each, for a total of \$5,034. They have three year warranties.

Funds for this purchase will come from the Police Capital Improvement account

**Request**

That the Charter Township of Kalamazoo Board of Trustees purchase one Kustom Signals Golden Eagle II RADAR and two Kustom Signals Prolaser 4 LIDARs from Kustom Signals, Inc. through the MiDeal state extended purchase program for \$6,573 and authorize the supervisor to sign on behalf of the Township.



# Quotation

## KUSTOM SIGNALS, INC.

9652 Loiret Blvd, Lenexa, KS 66219-2406  
913-492-1400 Fax 913-492-1703  
sales@kustomsignals.com www.kustomsignals.com

Date 04/06/2016

To... LARRY HAYNOR  
KALAMAZOO TWP POLICE DEPT  
  
1720 RIVERVIEW DR  
KALAMAZOO MI 49004-1099

Quote # 1365994013931NE  
Terms Net 30  
This Quote Expires on 07/05/2016  
Phone 269-567-7523  
Fax 269-381-8523

Qty	Product Description	UnitPrice	SubTotal
0	Michigan State Contract #071B4300045 effective 11/27/13 - 11/26/16	\$0.00	\$0.00
0	Shipping and handling included in Contract	\$0.00	\$0.00
1	Golden Eagle II dual antenna, Ka-Band DCM w/TruTrak	\$1,539.00	\$1,539.00
1	**Includes 27 month warranty**	\$0.00	\$0.00
0		\$0.00	\$0.00
0	Options below available but NOT included in total cost on quote	\$0.00	\$0.00
0	Display Separation Kit & Plates - separates the display face from the counting unit	\$60.00	\$0.00
0	Year 3- Radar Extended Warranty This Warranty INCLUDES: Phone Support, Technical Support (Help Desk), Hardware Changes, Software Updates, Parts, Labor & Return Shipping to agency.	\$175.00	\$0.00
0	Year 4- Radar Extended Warranty This Warranty INCLUDES: Phone Support, Technical Support (Help Desk), Hardware Changes, Software Updates, Parts, Labor & Return Shipping to agency.	\$175.00	\$0.00
0	Year 5- Radar Extended Warranty This Warranty INCLUDES: Phone Support, Technical Support (Help Desk), Hardware Changes, Software Updates, Parts, Labor & Return Shipping to agency.	\$175.00	\$0.00
0		\$0.00	\$0.00
		<b>Total</b>	<b>\$1,539.00</b>

Interested in a lease-to-own option? Contact Kustom Signals today at 800-458-7866 or [teamos@kustomsignals.com](mailto:teamos@kustomsignals.com) for a detailed quote and to lock in a rate. Benefits of Leasing:

- Flexible repayment terms structured to meet your budget
- Significantly faster, less complicated and less expensive than other forms of public debt
- 100% financing and immediate ownership of equipment
- Municipal leasing is cash flow friendly

Signature

If applicable sales tax not included, sales and/or freight could be subject to current rates based on your State, County, or City requirements. Seller may charge Buyer a 25% restocking fee.



Toll Free 800-4KUSTOM (800-458-7866)



# Quotation

## KUSTOM SIGNALS, INC.

9652 Loiret Blvd, Lenexa, KS 66219-2406  
913-492-1400 Fax 913-492-1703  
sales@kustomsignals.com www.kustomsignals.com

Date 04/06/2016

To... LARRY HAYNOR  
KALAMAZOO TWP POLICE DEPT  
  
1720 RIVERVIEW DR  
KALAMAZOO MI 49004-1099

Quote # 1365994008533NE  
Terms Net 30  
This Quote Expires on 07/05/2016  
Phone 269-567-7523  
Fax 269-381-8523

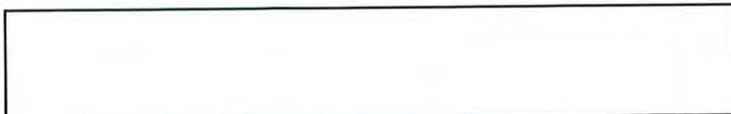
Qty	Product Description	UnitPrice	SubTotal
0	Michigan State Contract 071B4300045 effective 11/27/13 - 11/26/16	\$0.00	\$0.00
0	Shipping & handling included in contract	\$0.00	\$0.00
1	ProLaser 4 bundle includes a Hogue grip, 8 AA rechargeable batteries with charger (4 of which are spares), USB to PC interface cable, 12 VDC to USB adapter, hard carry case and industry leading three (3) year warranty.	\$2,517.00	\$2,517.00
0		\$0.00	\$0.00
0	Options below available but NOT included in total cost on quote	\$0.00	\$0.00
0	ProLaser 4 Tripod kit with adapter	\$122.00	\$0.00
0	ProLaser 4 collapsible and adjustable shoulder stock	\$130.00	\$0.00
0	ProLaser 4 tripod adapter only (tripod sold separately)	\$35.00	\$0.00
0	AA battery charger with 4 AA NiMH rechargeable batteries	\$30.00	\$0.00
0	AA battery charger	\$75.00	\$0.00
0	ProLaser 4 HUD Magnification	\$295.00	\$0.00
0	Bluetooth printer kit	\$550.00	\$0.00
0	Certification notification with optional lockout until recertified	\$99.00	\$0.00
0	Year 4- Laser Extended Warranty This Warranty INCLUDES: Phone Support, Technical Support (Help Desk), Hardware Changes, Software Updates, Parts, Labor & Return Shipping to agency.	\$275.00	\$0.00
0	Year 5- Laser Extended Warranty This Warranty INCLUDES: Phone Support, Technical Support (Help Desk), Hardware Changes, Software Updates, Parts, Labor & Return Shipping to agency.	\$400.00	\$0.00
0		\$0.00	\$0.00
<b>Total</b>			<b>\$2,517.00</b>

Interested in a lease-to-own option? Contact Kustom Signals today at 800-458-7866 or [tcamos@kustomsignals.com](mailto:tcamos@kustomsignals.com) for a detailed quote and to lock in a rate. Benefits of Leasing:

- Flexible repayment terms structured to meet your budget
- Significantly faster, less complicated and less expensive than other forms of public debt
- 100% financing and immediate ownership of equipment
- Municipal leasing is cash flow friendly

Signature

If applicable sales tax not included, sales and/or freight could be subject to current rates based on your State, County, or City requirements. Seller may charge Buyer a 25% restocking fee.



Toll Free 800-4KUSTOM (800-458-7866)

**KUSTOM SIGNALS, INC.**  
**TERMS AND CONDITIONS**

1. **APPLICABILITY.** Unless otherwise specified in a written bid, quote or contract, the following terms and conditions shall apply.

2. **PRICES AND TAXES.** Prices will be Kustom Signals, Inc.'s ("Seller") prices in effect on the date a purchase order is accepted by Seller, and Seller may change its prices at any time, in its sole discretion. All prices will be F.O.B. Chanute, Kansas, and net of any duties, sales, use or similar taxes, fees or assessments, and do not include shipping, packaging or any insurance costs, all of which are Buyer's responsibility.

3. **PAYMENT.** Unless otherwise provided on the face of the invoice, payment is due 30 days after invoice date in US dollars. Partial payments are not permitted unless authorized in writing. Partial payments will be treated as non-payment. Each invoice is independent from shipping sequence and disputes relating to other invoices. Failure to pay an invoice within 30 days will be considered a default.

4. **DELIVERY AND PERFORMANCE** Delivery dates are approximate. Seller disclaims all liability for late or partial delivery. Seller may deliver in such lots and at such times as is convenient for Seller.

5. **LOSS IN TRANSIT.** Risk of loss will pass to Buyer upon delivery of the goods to the carrier. In case of breakage or loss in transit, Buyer will have notation of same made on expense bill before paying freight. Seller may reject claims for shortages not made within 15 days of Buyer's receipt of the goods.

6. **TERMINATION, RESTOCKING CHARGES**  
Buyer may terminate this purchase order for its convenience, in whole or in part, by written, faxed or telegraphic notice at any time. If Buyer terminates this purchase order for convenience, Buyer will be liable to Seller for Seller's reasonable costs incurred in the performance of this purchase order that Seller cannot mitigate. Unless otherwise agreed upon in advance in writing by Seller, Seller may charge Buyer a 25% restocking fee, if: (a) upon approval by Seller, the Buyer returns any non-defective goods covered by this invoice; or (b) prior to shipment, but after the goods are produced by Seller, Buyer cancels the order for the subject goods.

7. **WARRANTY.** Seller's warranty is provided separately.

8. **LIMITATION OF LIABILITY** SELLER IS NOT LIABLE FOR ANY CONSEQUENTIAL, INDIRECT, OR INCIDENTAL DAMAGES, OR ANY LOSS OF PROFITS OR LOSS OF SAVINGS, EVEN IF A SELLER REPRESENTATIVE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSS, DAMAGES, CLAIMS OR COSTS, NOR IS SELLER LIABLE FOR ANY CLAIM BY ANY THIRD PARTY. SELLER'S AGGREGATE LIABILITY UNDER OR IN CONNECTION WITH THIS PURCHASE ORDER IS LIMITED TO THE AMOUNT PAID FOR THE GOODS.

9. **INDEMNIFICATION.** Seller and Buyer shall each indemnify the other against any and all liability, damages, costs and expenses, including without limitation reasonable attorney's fees, made against or sustained by such Party arising from the other Party's gross negligence, willful misconduct or failure to comply with applicable laws in connection with the performance of this Agreement; provided, that, in no event shall either Party be responsible to the other for any compensation, reimbursement or damages on account of the loss of prospective profits or anticipated sales or for any expenditures in investments, lease commitments, property improvements or other commitments made by a Party in connection with this Agreement.

10. **EXPORT RULES.** Exports and re-exports of the goods may be subject to United States export controls and sanctions administered by the U.S. Department of Commerce Bureau of Industry and Security under its Export Administration Regulations ("EAR"). Buyer shall comply with all laws, rules and regulations applicable to the export or re-export of goods including but not limited to EAR which includes, among other things, screening potential transactions against the U.S. Government's (i) list of prohibited end users, and (ii) list of prohibited countries. Buyer represents and warrants that (i) it has not been charged with, convicted of, or penalized for, any violation of EAR or any statute referenced in EAR §766.25, and (ii) it has not been notified by any government official of competent authority that it is under investigation for any violation of EAR or any statute referenced in EAR §766.25.

11. **MISCELLANEOUS.** These terms and conditions, together with any other written agreement between Buyer and Seller, if any: (i) are the exclusive statements of the parties with respect to the subject matter and supersede any prior or contemporaneous communications; (ii) may not be amended except in writing executed by the parties and will prevail in any case where the terms of Buyer's purchase order or other communication are inconsistent; (iii) will be interpreted and enforced in accordance with the laws of the State of Kansas, without giving effect to principles of conflicts of law. These terms and conditions are: (1) solely for the benefit of the parties, and no provision of these terms and conditions will be deemed to confer upon any other person any remedy, claim, liability, reimbursement, cause of action or other right. Each party consents to the exclusive personal jurisdiction of the state and federal courts located in the State of Kansas for purposes of any suit, action or other proceeding arising out of this Agreement, waives any argument that venue in any such forum is not convenient and agrees that the venue of any litigation initiated by either of them in connection with this Agreement will be in either the District Court of Johnson County, Kansas, or the United States District Court, District of Kansas. If any provision of these terms and conditions is unenforceable, the remaining provisions will remain in effect. No waiver (whether by course of dealing or otherwise) is effective unless it is made in writing and signed by the party to be charged with such waiver. Unless otherwise specified in writing, notices must be given in writing by registered or certified mail, return receipt requested, addressed to:

Kustom Signals, Inc.  
Attn: Sales Dept.  
9652 Loiret Boulevard  
Lenexa, KS 66219

Date: April 19, 2016

To: Supervisor Ronald E. Reid, Police Commissioner & the Charter Township of Kalamazoo Board of Trustees

From: Police Chief Tim Bourgeois 

Re: Replacement of Live Scan device & purchase of mobile fingerprint readers

### Information

The Michigan State Police (MSP) operates the Live Scan fingerprint system in Michigan. It is also connected to a national system operated by the Federal Bureau of Investigation. These systems electronically record and transmit fingerprints for arrestees and applicants. We currently use a first-generation Identex brand Live Scan fingerprint device obtained in 2002 via a federal grant. We paid an annual maintenance fee of \$6,000 until 2012 when I discontinued it in favor of a time and materials approach. This device is behind several generations in technology and we have been informed manufacturer support for this unit will end soon.

MSP has approved six Live Scan devices for use on the system. Members of our staff had the opportunity to test each device and to ask questions of their staff and other users of the various devices.

They found two units worthy of our final consideration. One is from IDNETWORKS for \$19,585 and the other is from DataWorks for \$20,657. Our staff recommends the DataWorks unit because it is more versatile and programmable for our specific needs. In the selection and evaluation process, DataWorks was far superior in customer service and support, an opinion confirmed by their current customers. In my judgement, the extra \$1,072 is well worth it, particularly considering the expected service life of the device. All necessary training and one year of maintenance and support is included in the purchase price. Subsequent years of support are \$2,367 each. I recommend we purchase a second year of support at this time. This would bring the price to \$23,024.

Technology now exists for small portable automated fingerprint readers that can be used in the field. They allow officers to immediately confirm or deny identity during investigations. MSP has extensively field tested these units and found them to be invaluable in identifying fugitives who attempt to hide their identities and avoid capture. They are used by agencies in several states with similar results.

DataWorks makes this mobile fingerprint scanner. The cost for two is \$6,453. All necessary training and one year of maintenance and support is included in the purchase price. (There is a \$485 discount for a multiple unit purchase.) Subsequent support is \$903 per year and I recommend we purchase a second year at this time. This would bring the price to \$7,356.

We have saved Live Scan applicant fingerprint fees for a number of years in anticipation of replacing this hardware. We have sufficient funds for these purchases in the Live Scan fund.

**Recommendation**

That the Charter Township of Kalamazoo Board of Trustees purchase one Live Scan Plus and two portable Positive Identification SAF-ID devices from DataWorks, Inc. for a total of \$30,281 and authorize the supervisor to sign on behalf of the Township.

## Pricing

Description	Unit Price	Qty	Extended Price
<b>Livescan Plus system w/Palms</b>			
LiveScan Hardware and Software			
Desktop PC w/19" Flat Screen Monitor (includes UPS)			
FBI Certified Tenprint Card Printer			
Livescan Transaction Monitoring Software			
User Interface Screen Customization			
On-Site Installation and Training			
One Year Standard Warranty			
<b>Total</b>	<b>\$ 16,912.75</b>	<b>1</b>	<b>\$ 16,912.75</b>
<b>Maintenance</b>			
Maintenance 24/7 Year Two	\$ 2,367.00	1	\$ 2,367.00
<b>Mugshot Option</b>			
PhotoManager Mugshot Capture w/auto eye find and NIST QA	\$ 250.00	1	\$ 250.00
Digital SLR Camera w/mount	\$ 495.00	1	\$ 495.00
NIST Compliant 3-point lighting	\$ 400.00	1	\$ 400.00
NIST Compliant 18% gray scale backdrop	\$ 100.00	1	\$ 100.00
* Note maintenance is 14% of cost for optional items			
<b>Options</b>			
Ruggedized Cabinet	\$ 2,500.00	1	\$ 2,500.00
Optional cabinet camera mount (uplift)	\$ 200.00	1	\$ 200.00
DS 6707 2D Bar Code Reader	\$ 337.50	1	\$ 337.50
22" Touch Screen Monitor	\$ 707.00	1	\$ 707.00
* Note maintenance is 14% of cost for optional items			

**Pricing**

<b>Positive Identification w/SAF-ID</b>			
<b>Two Unit Configuration</b>	<b>Unit Cost</b>	<b>Qty</b>	<b>Total Cost</b>
CrossMatch Verifier MW, SAF-ID Client Access License	\$ 2,875.00	2	\$ 5,750.00
Remote Installation Services	\$ 396.00	2	\$ 792.00
Remote Installation and "Train-the-Trainer" Training	\$ 396.00	1	\$ 396.00
Includes Installation Training, Device Pairing			
One Year Warranty	Incl.		Incl.
Multiple Product Discount			\$ (485.00)
<b>Total w/Two Fingerprint Readers</b>			<b>\$ 6,453.00</b>
<b>24/7 Maintenance Year Two</b>			<b>\$ 903.00</b>
Notes:			
Licenses to be paired to MDC's, the use of Android Smart Phones or other portable devices requires additional software.			
Kalamazoo Township is responsible for all network connectivity to the State Police including any CJIS requirements. The use of LGNet is required.			

Prices Good Until July 1, 2016

Date: April 20, 2016

To: Supervisor Ronald E. Reid, Police Commissioner & the Charter Township of Kalamazoo  
Board of Trustees

From: Police Chief Tim Bourgeois

Re: Service officer

**Information**

We are in the final part of our hiring process for a non-sworn part-time service officer to replace one who left. The candidate is currently undergoing a background investigation. We anticipate completing the process prior to the next board meeting. We are requesting approval to hire pending successful completion of the background investigation and physical examination. We will provide the candidate's name to the Board when the process is complete.

**Request**

For the Charter Township of Kalamazoo to authorize the chief of police to hire a candidate for the open non-sworn part-time service officer position pending successful completion of a background investigation and physical examination.

*Charter*  
***Township***  
*of Kalamazoo*

TO: Kalamazoo Township Board  
FROM: Supervisor Ronald E. Reid  
RE: ERACCE Training Opportunities  
DATE: 19 April 2016

Attached is information about workshops available from Eliminating Racism & Claiming/Celebrating Equality (ERACCE) for the balance of 2016. ERACCE offers a 2.5-day Understanding & Analyzing Systemic Racism Workshop (May 12-14, September 22-24, & December 1-3) and its 1-day Introduction to Systemic Racism Workshop (August 18 & October 15). Registration for the 2.5-day event is \$425 and the 1-day event is \$150.

Board member participation in one of these workshops implements a component of the strategy to educate the board on diversity as part of Goal 4 (Diverse and inclusive neighborhoods and governmental services) of our 2015 Strategic Plan.

The ERACCE staff do not recommend only one person from an organization attend the 2.5-day workshop alone. Having two or more people attend together adds to the dynamic nature of the workshop. Trustee Goodacre and I attended the 2.5-day Understanding & Analyzing Systemic Racism Workshop last year.

It is recommended that a motion be adopted to authorize board members to participate and register for at least one ERACCE workshop during 2016.



EVENT REGISTRATION >>  
MAKE PAYMENT >>  
DONATE >>

HOME OUR FOCUS TRAINING EVENT CALENDAR RESOURCES WHO WE ARE

## Understanding, Analyzing, and Dismantling Systemic Racism.



## TRAINING

ERACCE sponsors and hosts quarterly regional 2.5-day Understanding and Analyzing Systemic Racism workshops (see description below) in Kalamazoo, MI. To attend one of these workshops, please see our upcoming training details and dates. This workshop, like all other workshops below, can be sponsored by and tailored for specific institutions.

A team consisting of one Person of Color and one White Person facilitates all ERACCE trainings, as our experience reveals that a mixed-race training team creates a safe and more liberating space for participants. We also strive to maintain gender balance between co-facilitators when possible.

ERACCE utilizes group a facilitation/presentation approach that includes interactive discussion, small group discussions, multi-sensory engagement, reflection, and video.

All workshops are conducted in an atmosphere of mutual respect, caring and safety, and are not based on confrontation, guilt, blame,

“ERACCE training invited me to explore racialization in my own life and realize it affects us all.”

To learn more about our trainings, check out our [workshop menu](#). To see our upcoming training events, please visit our [events page](#). If your organization is interested in hosting or participating in training, please [contact us](#) for additional information.

or judgment.

The participant cap for all workshops is 45, however, in our experience 30-35 participants allows for a balanced and fully participatory experience for everyone.

Most workshops are available bilingually - Spanish/English. [Please inquire](#) to learn more.

## WORKSHOPS

### Critical Cultural Competency Workshop - 1 day

This one-day workshop is designed to help participants create the spaces to be self-reflective about our cultural shaping as individuals and institutions, understand the power dynamics in society that impact us, develop the skills to interrupt old patterns and inequitable practices that limit access and exclude some people from our institutions, build trust and clear communication, and begin to understand how to make decisions based on multiple perspectives where all people can be heard and represented. View our [event calendar](#) for all upcoming Critical Cultural Competency Workshops.

### Introduction to Systemic Racism Workshop - 1 day

This one-day training for those who understand multicultural diversity, but are not yet familiar with systemic racism. This workshop is helpful for beginning the development of a common language necessary for having productive conversations about race and systemic racism. View our [event calendar](#) for all upcoming Introduction to Systemic Racism Workshops.

### Understanding & Analyzing Systemic Racism Workshop - 2.5 days

Stay informed with ERACCE  
E-NEWS!

SUBSCRIBE



You like this



"Maybe you can't change the world if you have your hands tied, but, as so many teachers showed me, reading a book is a long way."



The purpose of this ERACCE-hosted, Crossroads-facilitated training event is to provide an opportunity for the participants to develop shared language for talking effectively about systemic racism, explore an introductory analysis of systemic racism, and examine basic strategies for dismantling racism within their organization. This in-depth workshop includes discussion of the socio-historic development of institutional racism; the definition of racism, how racism and racist institutional values have been legally codified and institutionally perpetuated throughout U.S. history; how racism manifests on individual, cultural, and institutional levels; and how long-term organizing informed by antiracist values can lay the path toward institutional antiracist transformation. View our [event calendar](#) for all upcoming Analyzing and Understanding Systemic Racism.

### Introduction to Food Justice Workshop – 1 day

One-day training for those who want to explore their understanding of the connections between food justice, the food system, systemic racism and oppression, and antiracism. View our [event calendar](#) for all upcoming Introduction to Food Justice Workshops.

### Introduction to Anti-bias, Antiracism Education Workshop – 1 day

One-day workshop that provides an introductory process for developing greater understanding and awareness of how systemic racism and bias affect children and youth. This workshop will introduce the four goals of anti-bias and anti-racism (ABAR) education and look at some basic steps to bring these goals into classrooms and schools. View our [event calendar](#) for all upcoming Introduction to Anti-bias, Antiracism Education Workshops.

### Anti-Bias, Antiracism Education Workshop (ABAR) – 10 day

The 10-day Anti-Bias, Antiracism Education Organizing Workshop (ABAR) is designed to develop educator capacity to create ABAR classroom and school spaces and integrate ABAR goals into their curriculum and pedagogical practices. The ABAR workshop builds upon a systemic analysis of racism and further develops this analysis in the context of our education system. Specific focus is given to racism's impact on teaching and learning, the development of racial identity and prejudice, and how we can effectively interrupt and transform the production of racialized inequality as transacted through our schools. Participants will have the opportunity to learn from and connect with regional and national leaders in the movement for ABAR educational transformation. View our [event calendar](#) for all upcoming Introduction to Anti-bias, Antiracism Education Workshops.

## TEAM DEVELOPMENT

### Antiracism Transformation Team Development

Because racism is a systemic problem structured into institutions, the antidote needs to be structured into institutions as well. As such, ERACCE, in partnership with Crossroads, offers an innovative process for creating Antiracism Teams made up of institutional leaders, employees, and other stakeholders. This strategy is recommended for institutions committed to long-term transformation with a vision 15-30 years into the future. Teams receive training to organize inside their institutions, working to shape awareness of systemic racism and identifying internal barriers to change. They then create strategies to dismantle racism on all levels, help develop a new cultural identity based on antiracist values, and redesign structures that share power in ways accountable to People of Color and other oppressed groups. Once trained, ERACCE remains a committed partner and offers ongoing support to Teams. This includes assigning a lead organizer to answer

questions and help with continued strategizing, offering advanced workshops to deepen critical organizing skills (see below), and connecting teams to regional and national networks of institutions doing movement work.

Creating an Antiracism Team is an intentional process that requires the support and endorsement of institutional leadership in order to move from a small group of people interested in a more racially diverse and just organization, to full implementation of a Strategic Plan created by the Antiracism Team. The time from initial inquiry to the beginning of Team Training varies widely from institution to institution, and can take anywhere from six months to two years. Please [contact us](#) for more details on the steps to creating an Antiracism Team.

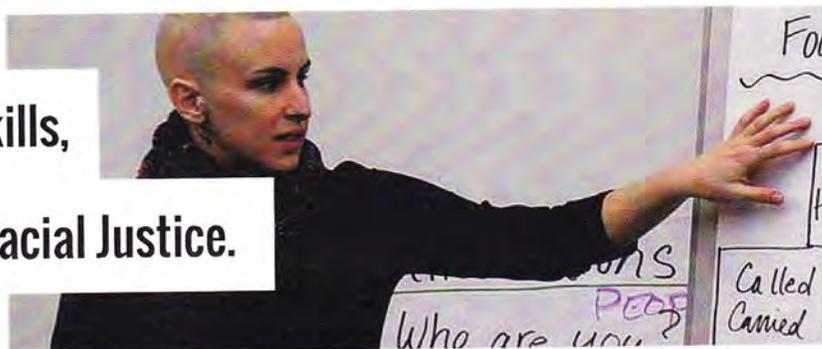
### On-going Team Support & Capacity Building

In partnership with Crossroads, ERACCE is able to coordinate and host workshops designed to assist teams in deepening their antiracism organizing and training skills within the context of their institution.

### Leadership Development Institute

An annual national leadership development and capacity building conference hosted by Crossroads for institutions and individuals interested in deepening their analysis of institutional racism and oppression and building their capacity using Crossroads' model for internal institutional organizing and transformation.

## Developing Awareness, Skills, and Leadership for Racial Justice.



## EVENT CALENDAR

**MAY 12 - 14, 2016** ANALYSIS WORKSHOP

### 2.5-day Understanding & Analyzing Systemic Racism Workshop:

- **WORKSHOP SCHEDULE:** Thurs. 6-9:30pm, Fri. 8:30am-6pm, & Sat. 8:30am-5pm. Full participation is important as each part builds on the previous ones. Lunch and snacks are provided.
- **LOCATION:** Wesley Foundation 810 Rankin Rd
  - near campus of Western Michigan University

**REGISTRATION:** [Please register here](#). Workshop fee is \$425. Please make checks payable to "ERACCE" and mail to ERACCE 525 E. Kalamazoo Ave. Kalamazoo, MI 49007 or [pay online](#). Payment secures your spot in the training.

"This training helped me find myself, love myself, respect myself, and feel stronger as a woman of color."

To learn more about our trainings, check out our [workshop menu](#). To see our upcoming training events, please visit our [events page](#). To inquire about organizing a tailored workshop for your organization or business, please

- 16.5 Social Worker CE: \$75 additional cost to be paid at the start of the workshop.
- 16.5 Educator SCECH's: \$75 additional cost to be paid at the start of the workshop.

## AUGUST 18, 2016 INTRODUCTORY WORKSHOP

### Introduction to Systemic Racism:

- WORKSHOP SCHEDULE: 8:30am-4:30pm. Full participation is important as each part builds on the previous. Lunch will be provided.
- LOCATION: YWCA of Kalamazoo 353 E. Michigan, Kalamazoo, MI 49007
- REGISTRATION: [Please complete this form](#) and fax to 269-345-8230 or mail along with \$150 workshop fee (payable to "YWCA") to: Attn: Sherry Brockway YWCA of Kalamazoo 353 E. Michigan Kalamazoo, MI 49007.

## SEPTEMBER 22 - 24, 2016 ANALYSIS WORKSHOP

### 2.5-day Understanding & Analyzing Systemic Racism Workshop:

- WORKSHOP SCHEDULE: Thurs. 6-9:30pm, Fri. 8:30am-6pm, & Sat. 8:30am-5pm. Full participation is important as each part builds on the previous ones. Lunch and snacks are provided.
- LOCATION: Wesley Foundation 810 Rankin Rd
  - near campus of Western Michigan University
- REGISTRATION: [Please register here](#). Workshop fee is \$425. Please make checks payable to "ERACCE" and mail to ERACCE 525 E. Kalamazoo Ave. Kalamazoo, MI 49007 or [pay](#)

[contact us.](#)

Stay informed with ERACCE

E-NEWS!

SUBSCRIBE



ERACCE, Eliminating Systemic Racism & Inequality  
803 likes



You and 19 other friends like this



ERACCE, Eliminating and Claiming/Celebrating Equality

April 16 at 9:41pm

"Maybe you can't change the world, but you can change the way you think. Maybe rigid curricula and standards have your hands tied, but, as so many teachers showed me, reading a book is a long way."



[online](#). Payment secures your spot in the training.

- 16.5 Social Worker CE: \$75 additional cost to be paid at the start of the workshop. 16.5 Educator SCECH's: \$75 additional cost to be paid at the start of the workshop.

## OCTOBER 15, 2016      INTRODUCTORY WORKSHOP

### Introduction to Systemic Racism:

- WORKSHOP SCHEDULE: 8:30am-4:30pm. Full participation is important as each part builds on the previous. Lunch will be provided.
- LOCATION: YWCA of Kalamazoo 353 E. Michigan, Kalamazoo, MI 49007
- REGISTRATION: [Please complete this form](#) and fax to 269-345-8230 or mail along with \$150 workshop fee (payable to "YWCA") to: Attn: Sherry Brockway YWCA of Kalamazoo 353 E. Michigan Kalamazoo, MI 49007.

## DECEMBER 1 - 3, 2016      ANALYSIS WORKSHOP

### 2.5-day Understanding & Analyzing Systemic Racism Workshop:

- WORKSHOP SCHEDULE: Thurs. 6-9:30pm, Fri. 8:30am-6pm, & Sat. 8:30am-5pm. Full participation is important as each part builds on the previous ones. Lunch and snacks are provided.
- LOCATION: Wesley Foundation 810 Rankin Rd
  - near campus of Western Michigan University
- REGISTRATION: [Please register here](#). Workshop fee is \$425. Please make checks payable to "ERACCE" and mail to ERACCE 525 E. Kalamazoo Ave. Kalamazoo, MI 49007 or [pay](#)

**online.** Payment secures your spot in the training.

- 16.5 Social Worker CE: \$75 additional cost to be paid at the start of the workshop. 16.5 Educator SCECH's: \$75 additional cost to be paid at the start of the workshop.

---

©2016 ERACCE