

**VIRTUAL MEETING OF THE MULTI-MODAL TRANSPORTATION BOARD
THURSDAY, MAY 7, 2020**

**<https://zoom.us/j/93483721344> or dial: 877 853 5247 US Toll-free,
Meeting ID: 934 8372 1344**

1. Roll Call
2. Introductions
3. Review of the Agenda
4. Approval of Minutes, Meeting of **February 6, 2020**
5. **Lincoln & Adams Signal Improvements**
6. **Brown Street Intersections Study**
7. **Signage for Scooter Use Downtown**
8. Meeting Open to the Public for items not on the Agenda
9. Miscellaneous Communications
10. Next Meeting – **June 4 , 2020**
11. Adjournment

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**CITY OF BIRMINGHAM
NOTICE OF VIRTUAL MEETING**

NOTICE DATE: April 27, 2020
MEETING DATE/TIME: May 7, 2020
MEETING PLACE: Virtual Meeting

PLEASE TAKE NOTICE that the regularly scheduled City Commission meeting for the City of Birmingham will be conducted online using a virtual meeting format. Meetings will be conducted virtually in light of health concerns surrounding the COVID-19 pandemic and in accordance with the Governor of Michigan's Executive Orders that emphasize safety and limiting large gatherings.

Multi-Modal Transportation Board Meeting Invitation

Topic: MMTB Meeting

Time: May 7, 2020 06:00 PM Eastern Time (US and Canada)

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DRAFT

**CITY OF BIRMINGHAM MULTI-MODAL
TRANSPORTATION BOARD
Thursday, March 5, 2020
City Commission Room
151 Martin Street, Birmingham, Michigan**

Minutes of the regular meeting of the City of Birmingham Multi-Modal Transportation Board held Thursday, March 5, 2020.

Chairwoman Johanna Slanga convened the meeting at 6:03 p.m.

1. ROLL CALL

Present: Chairwoman Johanna Slanga; Vice-Chairwoman Lara Edwards; Board Members Amy Folberg, Tom Peard, Doug White

Absent: Board Members Daniel Rontal, Katie Schafer, Joe Zane

Administration: Jana Ecker, Planning Director
Scott Grewe, Police Commander
Austin Fletcher, Assistant City Engineer
Laura Eichenhorn, Transcriptionist

MKSK: Brad Strader

2. Introductions

None.

3. Review Agenda

No changes.

4. Approval of MMTB Minutes of February 6, 2020

Police Commander Grewe expressed concern that the line "Police Commander Grewe presented the item" under Section 5 of the February 6, 2020 minutes did not sufficiently indicate that all three parts of stop sign warrant studies item were presented to the Board. He also asked that the minutes be updated to indicate that there were no Board questions or comments regarding the latter two stop sign warrant studies which recommended signs at Bennaville and Edgewood and Bennaville and Grant.

The February 6, 2020 minutes were subsequently amended to reflect these changes, per Police Commander Grewe's request and the Board's approval.

Motion by Ms. Edwards

Seconded by Mr. White to approve the MMTB Minutes of February 6, 2020 as amended.

Motion carried, 5-0.

VOICE VOTE

Yeas: Edwards, White, Folberg, Peard, Slanga

Nays: None

5. Review of Draft Master Plan

Planning Director Ecker presented the item.

Mr. Peard said it would be helpful to the general public if the intent of public works projects like the Neighborhood Loop or the Circulator were stated in the plan.

Ms. Edwards cautioned that promoting a more dense, mixed-use, urban environment in the long-term is often in conflict with the short-term preferences residents have for on-street parking in their neighborhoods. She said that allowing each block to determine its own parking restrictions from the four recommended options in the draft may only exacerbate the clash between residents' short-term preferences and the City's long-term planning goals.

Ms. Folberg said the parking section should be clarified. She said the current draft wording seemed to indicate that these decisions would be made at the neighborhood level for the entire neighborhood, rather than at the street level by the residents on that street.

Planning Director Ecker said that clarification could be added.

Chairwoman Slanga suggested that the master plan could offer some guidelines to determine what kind of parking restrictions would be appropriate or reasonable for a given street.

Mr. White agreed with Chairwoman Slanga, saying that guidelines would help minimize the number of streets that pursue unnecessarily restrictive parking limitations.

Police Commander Grewe told the Board that the Police Department currently goes through a vetting process with residents who want to pursue parking limitations for their street. He explained that if the complaint is simply about wanting street parking available in front of their house, residents are advised that parking cannot be limited in that way. If there are larger concerns, the resident(s) have to provide documentation of the issues and the Police Department helps them craft an appropriate petition to take to the neighbors. He said the main goal is to leave parking open as much as possible, while removing the negative parking issue at hand.

In reply to Chairwoman Slanga, Police Commander Grewe confirmed that if the draft's more limited parking ordinances are approved and instituted then the City would begin a review process of the current parking ordinances. He said different geographical areas would be discussed for parking ordinance simplification, and input from the residents would be solicited.

Mr. Strader defined universal design as standards, defined by the National Access Board, that

provide more accessibility than Americans with Disabilities Act standards.

Planning Director Ecker explained that universal design, as used in the draft, is primary in regards to a goal for the City's parks.

In reply to a request by Chairwoman Slanga for further clarification in the draft, Planning Director Ecker said the intent to provide 'universal access to all parks' could be clearly stated.

Planning Director Ecker explained that a 35 m.p.h. limit for Woodward would have to be pursued through legislative means because Woodward is a state-owned road and Birmingham has no direct say over the speed limit. She explained that if Birmingham were to do a speed study for the section of Woodward that runs through the City, the speed limit would then have to be set at the speed that 85% of drivers are doing, which would undoubtedly be faster than the desired 35 m.p.h.

Mr. Stader explained that when cities take over responsibility for streets from the state they are able to set their own speed limits. He said that Kalamazoo has pursued that option and Lansing is considering the same thing. He also said there is a movement to have safety and context considered in addition to the speed of 85% of vehicles, which might be a good way for Birmingham to advocate for lower speeds on Woodward.

Ms. Edwards said that even though the Woodward-Bowers intersection is the best Woodward intersection in Birmingham, it should not be left off the list of potential Woodward intersection improvements. She said any chance the City has to make pedestrian crossings safer and more comfortable should be pursued.

Mr. Peard said this was another area where the draft would benefit from clearly stating the intent of the proposed changes. He said it would help residents understand what goals the City is pursuing in recommending various improvements.

Mr. Strader explained that micro-mobility and micro-transit could refer to scooters, small shuttles, or other ways to get around very locally.

Ms. Edwards said a broader recommendation to explore options and placement for electric vehicle charging stations could be beneficial.

After Board discussion, Mr. Strader suggested language could be added to the draft stating that Birmingham intends to "be a leader in preparation for changes in transportation technology and infrastructure to accommodate autonomous vehicles, electric vehicles, micro-transit and other forms of mobility."

The Board voiced approval of Mr. Strader's suggested language.

Ms. Folberg and other Board members expressed concern about lowering the speed limit to 20 m.p.h. on residential streets. They said that without the data that indicates that 20 m.p.h. is more than an arbitrary number, they would be hesitant to include that specific recommendation in the plan.

Planning Director Ecker explained that if the recommendation is included in the final plan it would still be reviewed and studied before implementation.

Ms. Folberg said that language pointing to the intention to slow traffic, rather than choosing a specific speed limit without study, would be more appropriate for the master plan. Ms. Folberg suggested the City could pursue the creation of infrastructure that encourages lower driving speeds or could undertake a review of residential speed limits.

Planning Director Ecker suggested the plan could support slowing traffic in neighborhoods through design and planning.

The Board voiced approval of Planning Director Ecker's recommendation.

Ms. Folberg said she felt very strongly that bicycle lanes on higher-speed roads, such as Woodward, must be protected lanes. She said data indicates that most fatalities resulting from bicycle-vehicle crashes happen on high speed roads.

Chairwoman Slanga said that in addition to supporting more wayfinding along the Booth Trail and better connections between the Booth Trail and the Birmingham Museum, she would also support better connections and wayfinding between the Quarton Lake Trail, the Booth Trail, the Linden Park Trail, and the Fairway Trail.

The Board said they wanted language in the draft that would encourage the use of permeable, eco-friendly, universally accessible surfaces for City parks and trails.

Planning Director Ecker clarified for Chairwoman Slanga that the plan's recommendation to expand the Oakland - S. Old Woodward pocket park proposes to remove the paved area to the south of the pocket park, rather than the southbound lane of the intersection.

At the Board's request, Planning Director Ecker said the language would be changed clarify that the recommendation is actually to remove excess width along Oakland, since it is not actually a lane that would be removed.

6. Review of SEMCOG Regional Bike Plan

Planning Director Ecker explained the item.

Chairwoman Slanga noted that there are not many opportunities for bicycle connection between Birmingham and its immediate neighbors.

Chairwoman Slanga and Ms. Edwards both said it would be beneficial if more could be done to connect Birmingham trails to more actively used bicycle trails outside the City.

Planning Director Ecker summarized that the Board wanted the plan to provide better connections between urban communities and from urban communities to the trails that go out to the rural trails.

7. Meeting Open to the Public for items not on the Agenda

8. Miscellaneous Communications

Police Commander Grewe notified the Board that the City Commission approved the ordinance change to restrict bicycles, scooters, and similar transportation means from sidewalks in the central business district. He confirmed there would be signs, and that the restriction would be enforced from Woodward to Southfield and from Oak to Brown.

9. Next Meeting – April 2, 2020

10. Adjournment

No further business being evident, the board members adjourned at 7:15 p.m.

Jana Ecker, Planning Director

Austin Fletcher, Assistant City Engineer



MEMORANDUM

DATE: May 1, 2020

TO: Multi-Modal Transportation Board

FROM: Jana L. Ecker, Planning Director
Cmdr. Scott Grewe, Police Department
Austin Fletcher, City Engineer

SUBJECT: Lincoln & Adams Signal Improvement

INTRODUCTION:

City staff has received complaints from various members of the public about various aspects of the operations on Adams Rd. F&V was asked to study two areas where there may be room for improvement:

- Traffic signal timing coordination, so that through traffic driving through the corridor do not have to stop at several different intersections.
- Review of the timing and geometrics of the Lincoln Ave. intersection, given the frequent level of backups that occur in this area.

BACKGROUND:

On January 2, 2020, the MMTB reviewed and approved traffic signal coordination along the Adams Road Corridor including the intersections with Derby, Buckingham and Bowers.

With regards to the Adams and Lincoln intersection, on January 2, 2020 the MMTB also directed F&V to prepare a cost estimate, accident data and synchro models for the proposed implementation of a new protected left turn phase at the Lincoln Ave. intersection and to look into restriping and enforcement of the hatched area in front of 1170 E. Lincoln.

Please see attached report from F&V containing the requested cost estimate, a review of accident data, and a review and recommendations with regards to the hatched area near the intersection of Lincoln and Adams. In addition, SYNCHRO/SIMTRAFFIC simulations will be available for presentation at the virtual meeting on May 7, 2020.

ATTACHMENTS:

1. Report to MMTB from January 2, 2020 meeting containing all background information;
2. F&V Report, dated November 27, 2019; and
3. F&V Report, dated May 1, 2020.

SUGGESTED RESOLUTION:

The Multi-Modal Transportation Board recommends the following:

1. The addition of a new protected left turn phase at the intersection of Lincoln and Adams Road to provide protected northbound left-turns and protected westbound

- left-turns; and
2. The relocation of the no parking sign currently located at the start of the taper on Lincoln further east to the end of the existing taper to ensure that vehicles do not park in the taper lane.

**Multi-Modal Transportation Board Minutes
January 2, 2020**

5. Adams Road Corridor Traffic Signal Coordination

City Engineer O'Meara and Mr. Rose presented the item. Mr. Rose stated that if the cost estimate were approved for the left turn phasing at Adams and Lincoln then F&V would analyze the intersection at both off peak and on peak times.

Motion by Dr. Rontal

Seconded by Mr. Zane to recommend, regarding the Adams Rd. corridor: a. Implementing traffic signal coordination of the Derby Rd., Buckingham Rd., and Bowers St. intersections. b. Directing F&V to prepare a cost estimate, accident data and synchro models for the proposed implementation of a new protected left turn phase at the Lincoln Ave. intersection; and, c. Look into restriping and enforcement of the hatching in front of 1170 E. Lincoln.

Motion carried, 7-0.

ROLL CALL VOTE

Yeas: Rontal, Zane, White, Edwards, Folberg, Slanga, Schafer

Nays: None



MEMORANDUM

Engineering Dept.
Planning Dept.
Police Dept.

DATE: November 27, 2019

TO: Multi-Modal Transportation Board

FROM: Jana Ecker, Planning Director
Scott Grewe, Police Commander
Paul O'Meara, City Engineer

SUBJECT: Adams Rd. Corridor – North City Limit to Woodward Ave.

City staff has received complaints from various members of the public about various aspects of the operations on Adams Rd. F&V was asked to study two areas where there may be room for improvement:

- Traffic signal timing coordination, so that through traffic driving through the corridor do not have to stop at several different intersections.
- Review of the timing and geometrics of the Lincoln Ave. intersection, given the frequent level of backups that occur in this area.

HISTORY & FUTURE PLANS

The pavement history on Adams Rd. can be split into two segments, north and south of Madison Ave.:

a. South of Madison Ave. to Woodward Ave.:

A 36 ft. wide pavement was installed on this section in 1953. Although the plans are not clear, it appears that the original intent was to provide for two traffic lanes with parking on both sides. Over time, traffic demands for this corridor increased, and parking was eventually eliminated. The pavement width allowed for four 9-foot wide lanes, which is less than what is considered appropriate for a high-volume street. In the 1980's, a City-wide master traffic plan was prepared. The plan recommended reconstructing all of Adams Rd. to be five lanes wide. The City Commission never endorsed this proposal, and it was never built.

In 2003, a new trunkline sewer was installed to help drain the neighborhoods to the east and west. The pavement was replaced at that time. The City Commission was still not in favor of a five lane alternative, but also knew that the current narrow four-lane option was not a good option either. Although no traffic study was conducted, staff was directed to install a three-lane road using the same width as the original street.

b. CN Railroad Bridge to South of Madison Ave.:

This segment was built as a 40 ft. wide pavement in 1957. It was built as a four lane road, and has been maintained and resurfaced since in this configuration. The Multi-Modal Master Plan has recommended modifying this segment to three lanes with bike lanes on both sides. Federal funding has been secured to resurface this segment in 2021. In the coming year, F&V will study the corridor, particularly at the Derby Rd. intersection, to confirm that a three-lane option can be recommended in this area. The changes that are recommended below are separate from the three-lane conversion proposal, and their implementation does not change the feasibility of that proposal in any way.

F&V RECOMMENDATIONS

a. Traffic Signal Coordination

Traffic signal coordination can be implemented to improve the driving experience for motorists using Adams Rd. Not only can it reduce travel time, it can reduce noise and improve efficiency by not making vehicles start and stop so often. Once motorists understand the coordination, it can also encourage driving at the speed limit, as driving faster just results in more stopping.

As outlined in the memo, there are already coordinations operating on the Maple Rd. and Woodward Ave. corridors. Both of those streets carry significantly more vehicles than Adams Rd., therefore, we cannot recommend interrupting what is operating there for the benefit of Adams Rd. Further, the traffic signal at Lincoln Ave. must also be coordinated with Woodward Ave. in order to reduce the chance of traffic backups into Woodward Ave., given its close proximity. That said, the minor signals of Derby Rd., Buckingham Rd., and Bowers St. can be coordinated so that the chance of being stopped (when traveling Adams Rd.) is reduced. When considering this option, note that:

- The timings of the three impacted signals would not be changed, therefore this does not impact the Level of Service at each intersection.
- The only cost of coordination is the time it takes for a technician to reprogram the operating clocks at each intersection so that they become coordinated. If, over time, the coordination drifts off because the clocks are not all operating exactly at the same rate, a wireless monitor can be installed that connects the clocks by GPS, at a cost of \$1,500 per intersection. That is not recommended at this time, but may be needed in the future.

Given the above, staff recommends that coordination of the Derby Rd., Buckingham Rd., and Bowers St. intersections proceed, in order to attain the benefits noted above.

b. Adams Rd. & Lincoln Ave. Intersection

1) Timing

It is acknowledged that this intersection has notoriously operated with frequent traffic delays during the AM and PM peak hours. As noted in the F&V report, given the close proximity of Woodward Ave., optimum timing of this intersection cannot be implemented

without creating new problems due to traffic queues backing into Woodward Ave. The one problem that can be reduced is the ongoing perception for southbound vehicles being frustrated because they cannot proceed through the intersection, once the storage lane between Woodward Ave. and Lincoln Ave. (southbound) is full. The current timing “wastes” green time that cannot be used during the peak hours due to this issue. The green time could then be moved to protected left turn phases, assisting westbound and northbound directions in particular.

2) Geometrics

Lincoln Ave. is designed as a four-lane street through this intersection. Given the high volume of left turns for eastbound traffic, the intersection was analyzed to see if it would benefit from having a dedicated lane for left turns, as that would bring potential safety benefits. However, given the close proximity of Woodward Ave., the status of the left lane would have to change west of Woodward Ave., which would then greatly reduce needed traffic capacity at that intersection. Due to that concern, we cannot make this modification. However, to encourage better traffic flow in the eastbound direction, a THRU TRAFFIC KEEP RIGHT sign is recommended just east of Woodward Ave. This is a simple idea that can be implemented immediately.

The only large cost item in this proposal is to provide needed signal upgrades, should the City wish to implement the recommended protected left turn phases. If the Board endorses that proposal, F&V will be directed to provide a cost estimate, and then return for a final recommendation.

SUGGESTED RESOLUTION:

Regarding the Adams Rd. corridor, the Multi-Modal Transportation Board recommends:

- a. Implementing traffic signal coordination of the Derby Rd., Buckingham Rd., and Bowers St. intersections.
- b. Directing F&V to prepare a cost estimate for the proposed implementation of a new protected left turn phase at the Lincoln Ave. intersection.

MEMO

To: Mr. Paul O'Meara
City of Birmingham

From: Justin P. Rose, PE
Julie M. Kroll, PE, PTOE
Fleis & VandenBrink

Date: November 27, 2019

Re: Adams Road Corridor
Birmingham, Michigan
Traffic Signal Optimization Study

INTRODUCTION

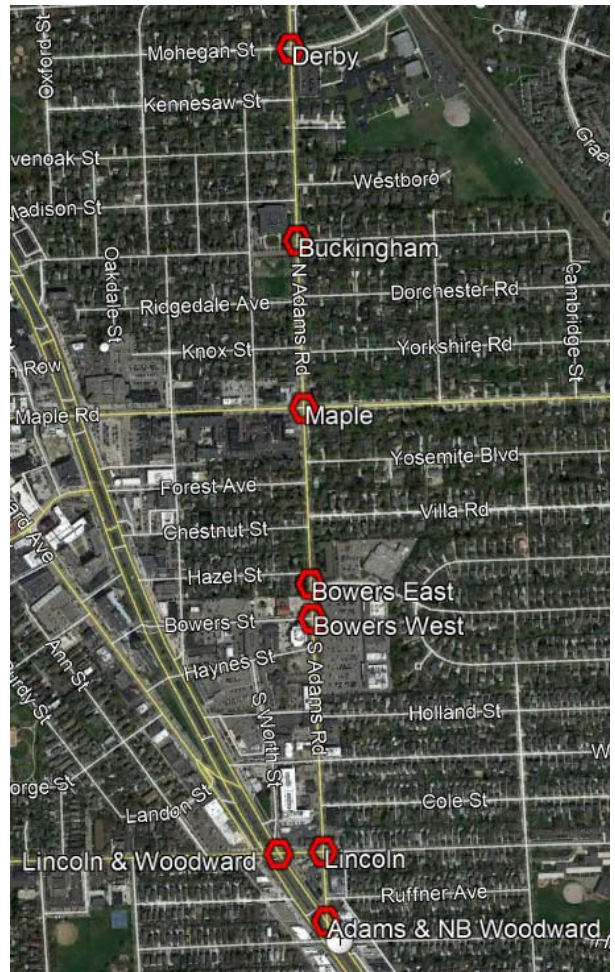
The memorandum presents the results of the evaluation of the signal timings along Adams Road from Derby by Woodward Ave. This study included the evaluation of the existing intersection operations and provides recommendations for signal timing coordination along the corridor at the following study intersections:

- Adams Road & Derby Road
- Adams Road & Buckingham Avenue
- Adams Road & Maple Road
- Adams Road & Bowers Street East
- Adams Road & Bowers Street West
- Adams Road & Lincoln Street
- Adams Road & NB Woodward Avenue
- Lincoln Street & NB Woodward Avenue

DATA COLLECTION

The existing weekday turning movement traffic volume data used in this study for were collected by F&V subconsultant Traffic Data Collection, Inc. (TDC) on Thursday, June 6, 2019, Tuesday, July 9, 2019 and additional data was collected Thursday, October 10, 2019. The turning movement counts were collected during the weekday AM (7:00 AM to 9:00 AM), Off-Peak (11:00 AM to 1:00 PM) and PM (4:00 PM to 6:00 PM) peak periods at the study intersections.

F&V also collected an inventory of existing lane use and traffic controls at the intersection and obtained the existing traffic signal timing information from the Road Commission



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for Oakland County (RCOC). For this study, only the AM and PM peak hours of existing network traffic were considered, and were identified to occur between 7:45 AM to 8:45 AM and 4:30 PM to 5:30 PM, respectively.

These data were used as a baseline to establish the current peak hour traffic volumes for the analysis of existing traffic conditions. During collection of the turning movement counts, pedestrian data and commercial truck percentages were recorded and used in the traffic analysis. Peak Hour Factors (PHFs) were also calculated for each study intersection approach. In addition, a field review of the study intersections was performed during the study periods to verify signal timings, observe traffic operations, and adjust parameters for intersection analysis, as necessary.

CORRIDOR ANALYSIS - ADAMS ROAD (DERBY ROAD TO WOODWARD AVENUE)

Signal Timing Coordination

Existing signal operations were determined using the existing traffic volumes, timing permits, lane use and intersection geometry. The intersections were evaluated using Synchro (Version 10) traffic analysis software and Tru-Traffic traffic analysis software.

Overall, the existing intersection operations currently operate well as isolated locations; however, the corridor as a whole does not operate as a coordinated system. The Tru-Traffic diagrams below show the existing Adams Road coordination (the gray bands represent the amount of green time getting through each intersection from start to finish).

Figure 1: Existing AM Timing Plan

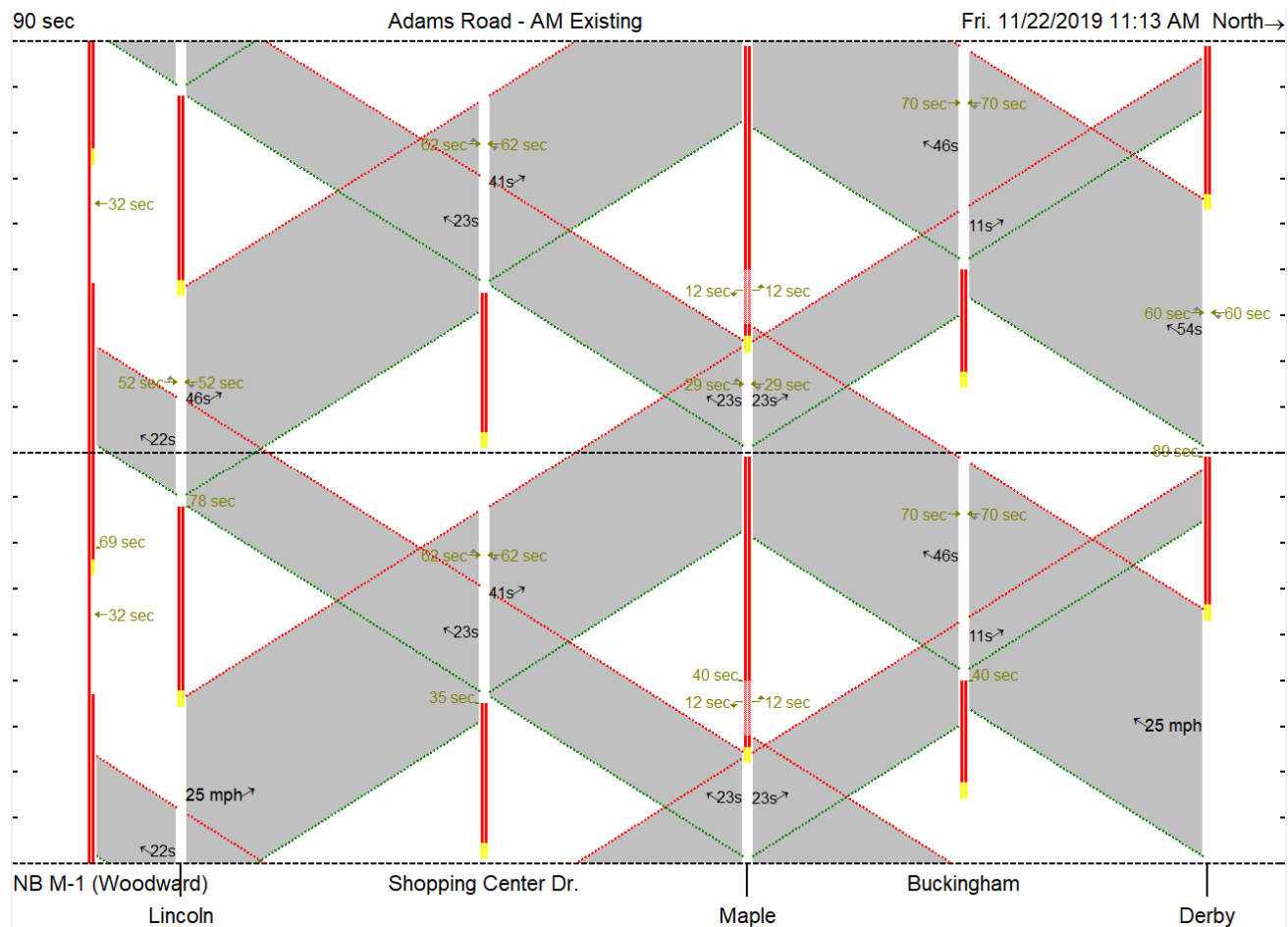
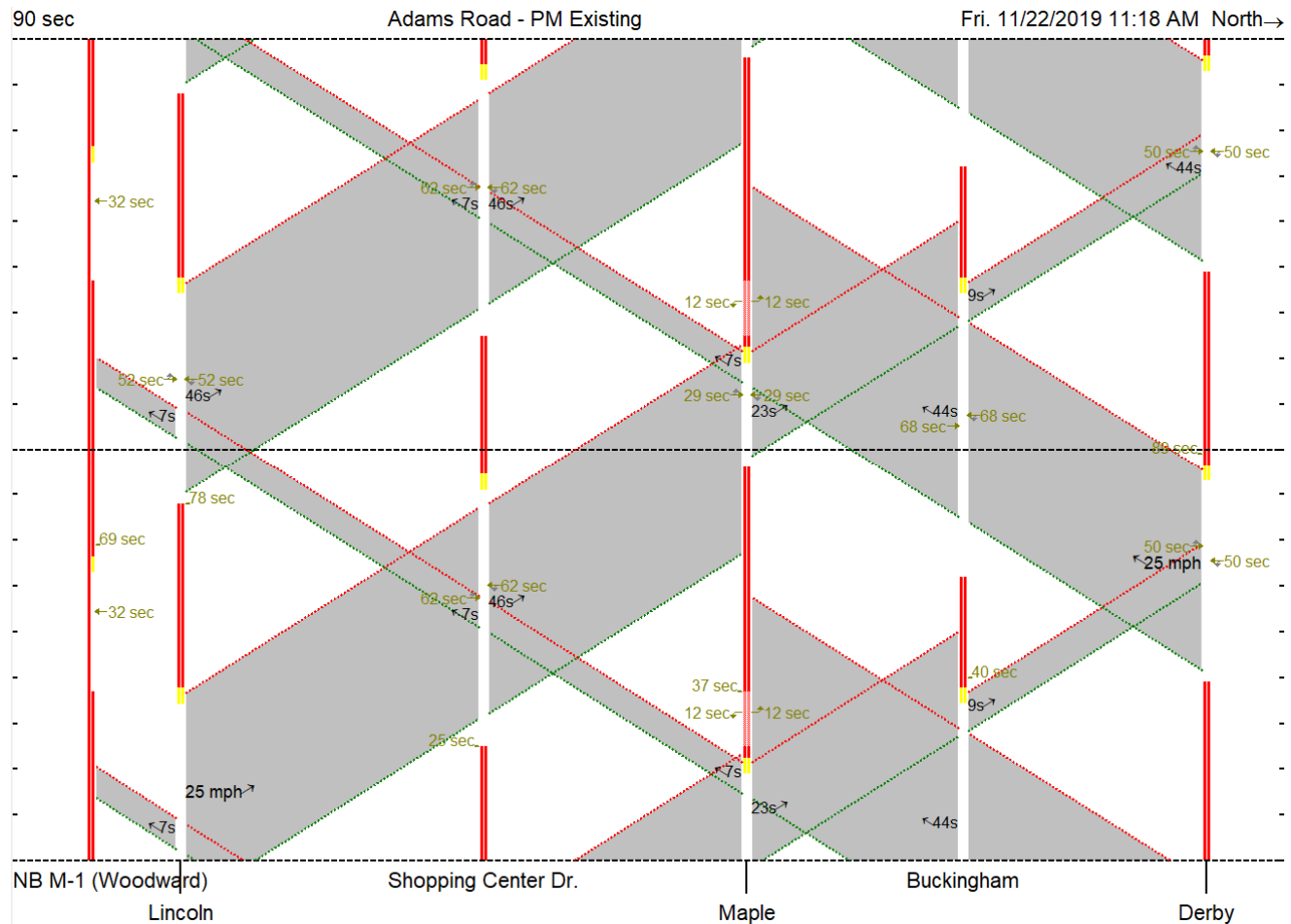


Figure 2: Existing PM Timing Plan



As shown in the figures above, the existing coordination is not optimal, especially in the PM. The timings at Derby and Buckingham are not properly coordinated with the timings at Maple, causing additional unnecessary stops and delays.

The intersections of Derby, Buckingham, and Shopping Center Drive / Bowers Street were all looked at for potential improvements in their offsets for coordination and the recommended changes at Adams and Lincoln are discussed in the next section.

Key factors in this evaluation include:

- Maple Road is currently coordinated with Elm Street and Woodward Avenue, so the offsets were not changed.
- Woodward Avenue is currently coordinated, so that timing was not changed,

The optimized signal timing coordination is illustrated in the Tru-Traffic diagrams **Figures 3 and 4**:

Figure 3: Optimized AM Timing Plan

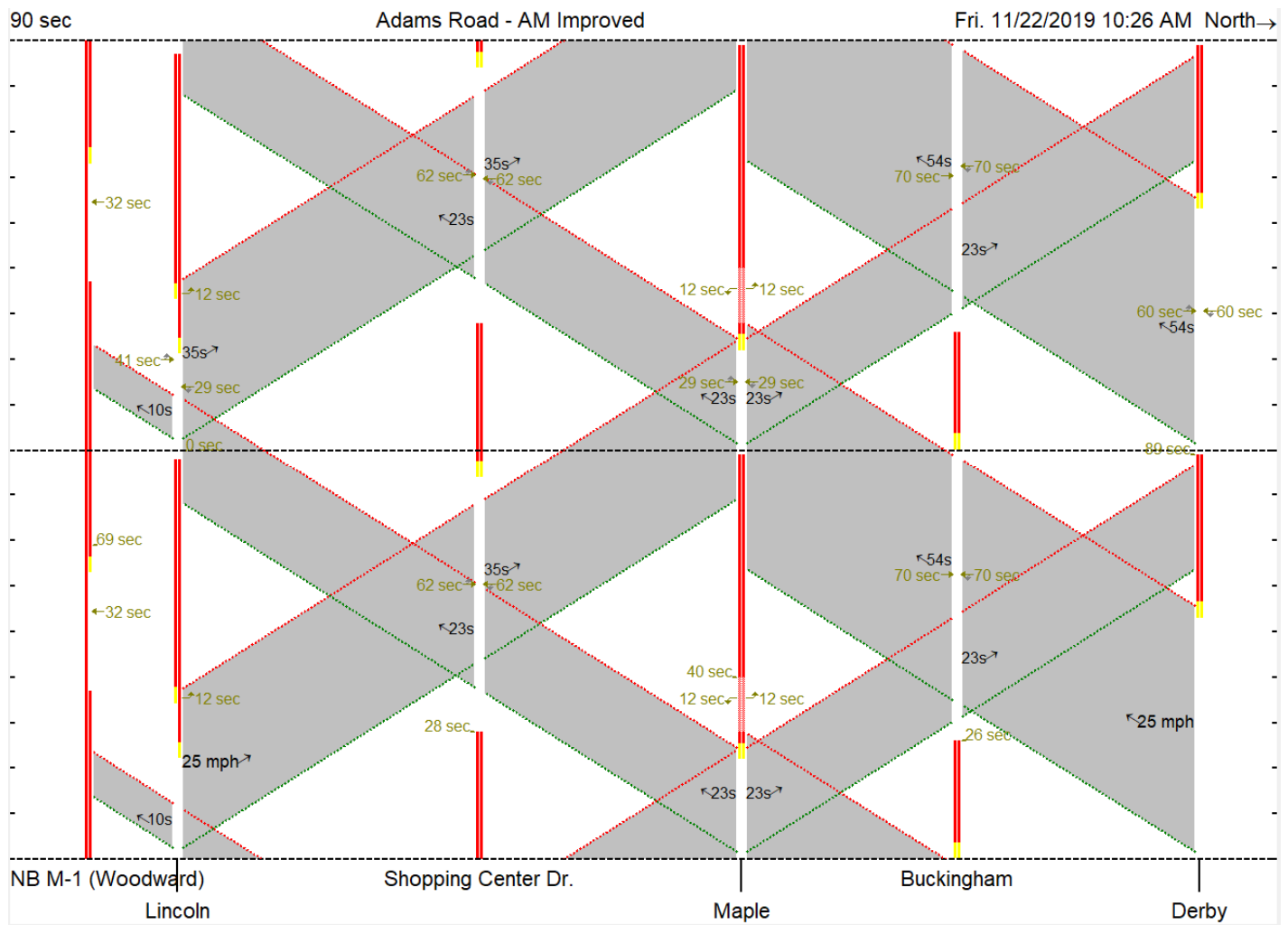
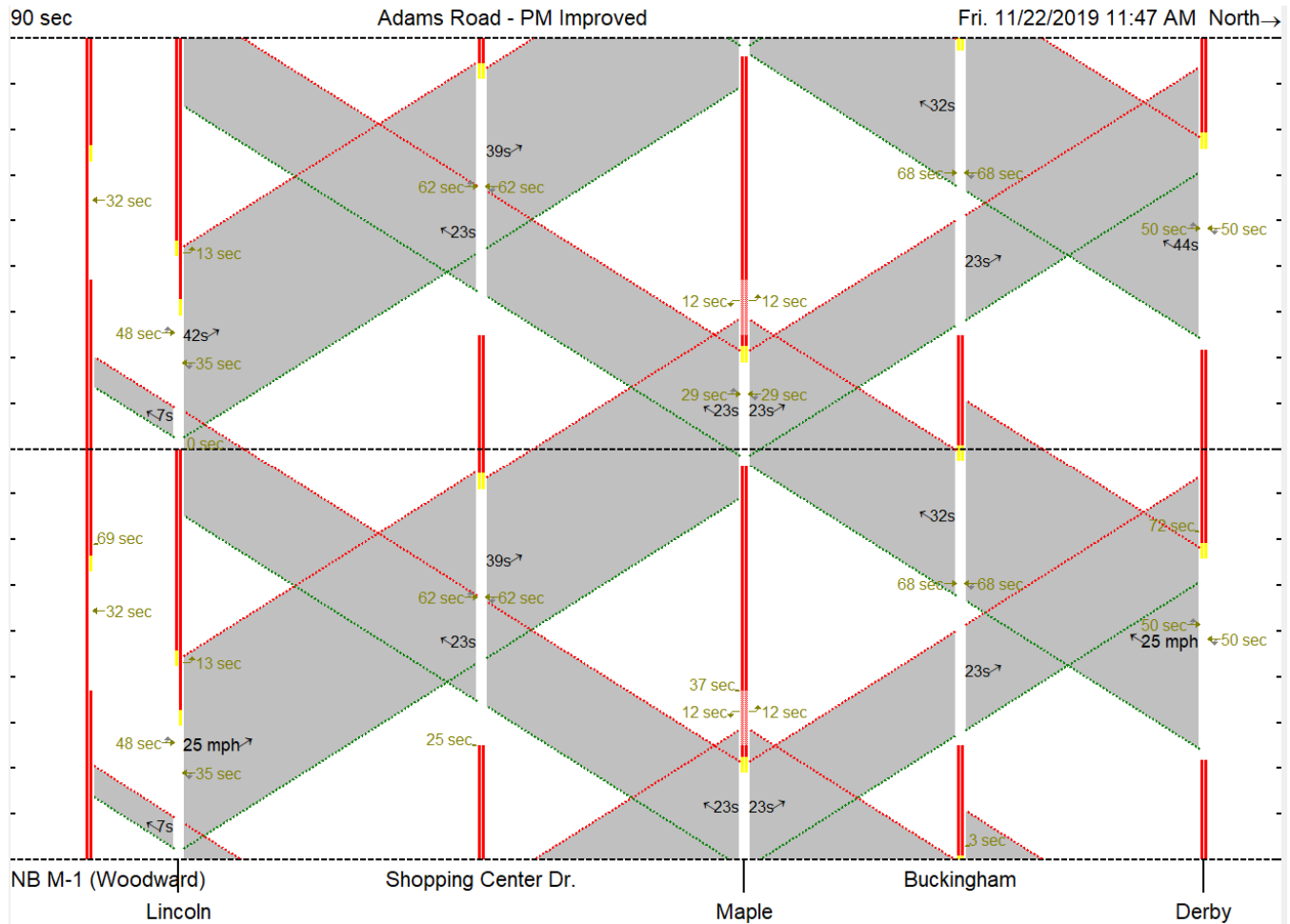


Figure 4: Optimized PM Timing Plan



As displayed in the above figures, the improved timing plans allow for better coordination throughout the Adams Road corridor for both northbound and southbound traffic. **Table 1** below details the offset changes at Derby Road, Buckingham Avenue, and Shopping Center Drive / Bowers Street.

Table 1: Intersection Offset Improvements Summary

Location	AM Offsets		PM Offsets	
	Existing	Optimized	Existing	Optimized
Derby	39	59	89	72
Buckingham	40	3	62	3
Bowers / Shopping	35	28	25	25

INTERSECTION ANALYSIS - ADAMS ROAD & LINCOLN STREET

Signal Timing Operations

Existing vehicle delays and Levels of Service (LOS) were calculated at this intersection for AM peak, MD, and PM peak hours using Synchro (Version 10) traffic analysis software. This analysis was based on the existing lane use, traffic control, existing signal timings, and the methodologies presented in the *Highway Capacity Manual 6th Edition* (HCM6). The simulation model headway factors and vehicle extension times were modified

to more accurately represent the traffic operations based on the field review. The existing signal timing was then optimized for the AM peak, MD, and PM peak hours using Synchro (Version 10) traffic analysis software.

There were several challenges associated with this signal timing optimization:

- The study intersections with Woodward Ave. have pretimed signal plans that are set by MDOT and operated by RCOC. Therefore, any recommended signal timing changes may only occur at the Adams Road & Lincoln Street intersection and need to maintain the progression on Woodward Ave.
- On Lincoln Street there is approximately 165 feet of storage length between Woodward Ave. and Adams Road. The signal timing needs to be coordinated with the Woodward Ave. intersection to ensure that vehicles do not back-up into Woodward Ave.
- The north/south operations on Adams Road conflict with the north/south operations on Woodward Ave. Therefore, the southbound through volumes can only be facilitated when Woodward Ave. is stopped. This north/south movement is then conflicting with the east/west movement on Lincoln Street.

Numerous signal timing alternatives and iterations were considered, including coordinating Adams Road through Woodward Ave, and coordinating Lincoln Street through Woodward Ave.. The implementation of either one of these options caused significant delays for the conflicting street.

One of the perceived problems for motorists occurs when southbound Adams Road receives a green indication, but the Woodward Avenue signal is red. Motorists become exceptionally frustrated when they have a green light and cannot move. As such, one of the recommended signal timing changes is to add a left turn phasing for northbound Adams Road. While appearing counterintuitive, as we would be decreasing the green time for southbound Adams, this would actually appear to be better for motorists, as they wouldn't have an unusable green light for as long a period of time.

Similarly, we are also recommending a westbound left turn phase for Lincoln Street, which prevents the eastbound Lincoln traffic from receiving a green indication while Woodward Avenue is red and they have nowhere to go.

Therefore, the recommended signal timings and operations will theoretically worsen the level of service and queuing at the intersection per our models, however the actual and perceived operations will remain the same or improve to motorists. The proposed changes for the timing are summarized in **Table 2**.

Table 2: Intersection Improvements Summary – Adams Road & Lincoln Street

Peak Period	Approach	Phase Times (s)	
		Existing	With Improvements
AM Peak	EB	38	35
	WB	38	48
	WB Left	N/A	13
	NB	52	42
	NB Left	N/A	13
	SB	52	29
	Offset	78	0
PM Peak	EB	38	35
	WB	38	48
	WB Left	N/A	13
	NB	52	42
	NB Left	N/A	13
	SB	52	29
	Offset	78	0

Geometric Evaluation

The existing intersection geometry and operations on the eastbound Lincoln Street approach at Adams Road were evaluated to determine if changes in the lane assignment would be recommended.



Key findings from this evaluation include:

- The lane reassignment would help to define operations at this intersection, by providing an exclusive left-turn lane and a through lane. However, the improvement in LOS is negligible.
- To provide this lane geometry the tapers and lane assignment would need to occur west of the intersection with Woodward Ave. This would reduce the capacity of eastbound Lincoln Street at SB Woodward Ave.
- In order to help facilitate traffic movements at this intersection, additional signing could be added to the eastbound approach on Lincoln Street at Adams Road. There is a sign on Maple Road between Adams Road and Woodward Ave. "Thru Traffic Keep Right" that could be added at this location to serve the same purpose of directing through traffic to the right lane.

INTERSECTION ANALYSIS - WOODWARD AVE.

The intersections of Lincoln Street and Adams Road & NB Woodward Avenue are under the jurisdiction of MDOT; therefore, changes to the signal timings at these intersections were not included in this evaluation. However, the intersections were evaluated to determine the impact the signal timing changes at Adams Road & Lincoln Street would have on these adjacent intersections. The proposed changes caused negligible differences in the operations for the NB Woodward Avenue intersections. Key findings from the analysis can be found below:

- Occasionally vehicles will get stuck in the median section of Woodward Ave. between NB and SB due to the queues from the adjacent Adams Road & Lincoln Street intersection. The changes in the signal timing reduced the projected queue lengths in the median from 5 vehicles to 1 vehicle, which indicates that the proposed operations at Lincoln Street will have better coordination with the adjacent intersection operations at Woodward Ave.

- The queue lengths on southbound Adams Road at Woodward Ave. increased, which indicates better utilization of the roadway segment on Adams Road between Woodward Ave. and Lincoln Street.

CONCLUSIONS

Adams Road: Derby, Buckingham, and Bowers

- Optimized coordination is recommended at Derby, Buckingham, and Shopping Center Drive / Bowers as follows.

Location	AM Offsets		PM Offsets	
	Existing	Optimize	Existing	Optimize
Derby	39	59	89	72
Buckingham	40	3	62	3
Bowers / Shopping	35	28	25	25

Adams Road & Maple Road

- Maple Road is currently coordinated with Elm Street and Woodward Avenue, so the offsets were not changed.
- The northbound and southbound Adams Road approaches provide permissive-protected left-turns. The volume of left-turns is relatively low. Allowing only permissive left-turn movements on this approach would increase the time for through traffic on Adams Road.

Adams Road & Lincoln Street

- With the recommended signal timing changes is additional time that could be utilized to improve operations for the northbound and westbound left-turn movements. Therefore, it is recommended to provide protected northbound left-turns and protected westbound left-turns. The recommended signal timing changes are summarized below.

Peak Period	Approach	Phase Times (s)	
		Existing	With Improvements
AM Peak	EB	38	35
	WB	38	48
	WB Left	N/A	13
	NB	52	42
	NB Left	N/A	13
	SB	52	29
	Offset	78	0
PM Peak	EB	38	35
	WB	38	48
	WB Left	N/A	13
	NB	52	42
	NB Left	N/A	13
	SB	52	29
	Offset	78	0

- The lane reassignment was evaluated on the westbound Adams Road approach at Lincoln Street to provide an exclusive left-turn lane and a through lane. To provide this lane geometry the tapers and lane assignment would need to occur west of the intersection with Woodward Ave. This would then reduce the capacity of the intersection on Lincoln Street at Woodward Ave.
- The signal timing on Woodward Ave. does not vary by time of day, therefore no time of day changes are recommended at the Adams Road & Lincoln Street intersection.

Attached: Traffic Volume Data
Synchro Results
Tru-Traffic Results

JMK,JPR:jmk

May 1, 2020

VIA EMAIL

Cmdr. Scott Grewe
City of Birmingham
151 Martin Street
Birmingham, MI 48012

**RE: Adams Road and Lincoln Street
Traffic Signal Improvements-Additional Information**

Dear Cmdr. Grewe:

At the January 2020 Multi-Modal Transportation Board (MMTB) meeting, the board requested additional information for consideration in the signal timing optimization study at the Adams Road and Lincoln Street intersection. The purpose of this letter is to provide a summary of the additional information requested.

1. COST ESTIMATE

F&V recommended signal improvements in the memorandum dated November 22, 2019. The MMTB requested additional information regarding the cost of the recommended improvements which include the following:

- Remove the existing traffic signal and install a five-section left turn signal (doghouse) to allow for a protected left turn phase for eastbound Lincoln Street
- Remove the existing case sign and traffic signal and install a five-section left turn signal (doghouse) to allow for a protected left turn phase for northbound Adams Road
- Rewire the existing traffic signal cabinet to allow for new phasing
- Install new proposed traffic signal timings

The estimated cost associated with these options is primarily in the labor, as there are minimal equipment costs.

Traffic Signal Improvements	
Phase	Cost
Removals	\$ 1,500
Equipment	\$ 5,500
Installation	\$ 7,500
Total	\$ 14,500

2. CRASH ANALYSIS

F&V performed a crash analysis at the Lincoln St. & Adams Road intersection using data provided by the Birmingham Police Department. The crash analysis evaluated the data for the last 3 years (April 2017-April 2020) to determine if there is an existing crash pattern that would be impacted by the proposed improvements. The crash data is attached and is summarized below. The majority of crashes at this intersection are rear end and angle crashes which are typical at signalized intersections. Mitigation measures to reduce these types of crashes include:

- Signal timing optimization
- Provide special phase for left-turning traffic

The proposed improvements at this intersection are consistent with the recommended mitigation measures to improve the intersection safety.

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Crash Type	Number of Crashes	Percentage
Rear End	9	35%
Sideswipe-Same	5	19%
Single Vehicle	1	4%
Head-on Left-Turn	3	11%
Angle	8	31%
Total	26	100%

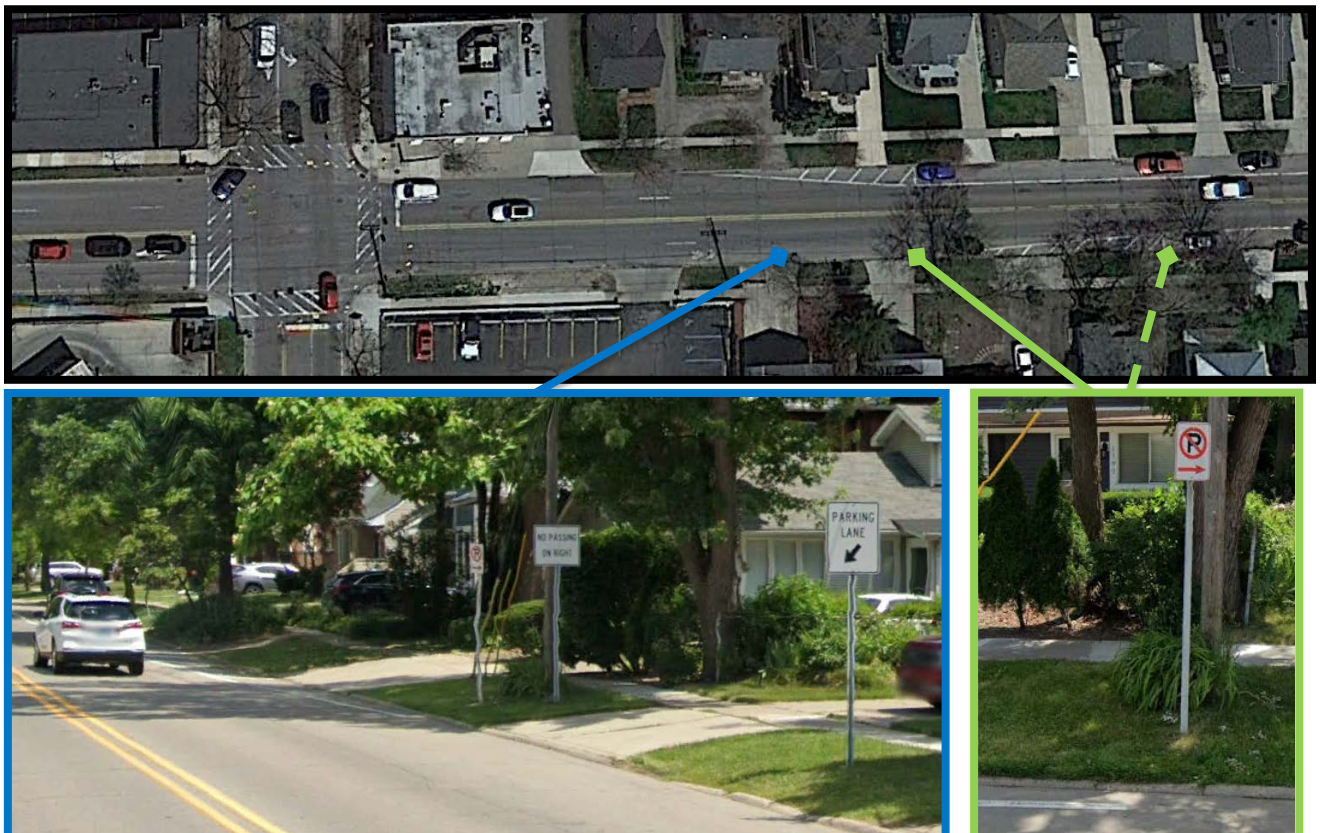
3. SYNCHRO/SIMTRAFFIC SIMULATIONS

F&V has prepared the traffic simulations for the recommended improvements and presented them to the City on April 17, 2020. We are prepared to present the SimTraffic simulations to the MMTB when this topic is reviewed by the board.

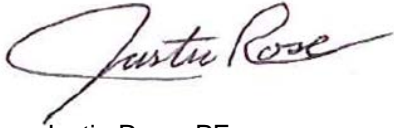
4. 1170 E. LINCOLN STREET ON-STREET PARKING – EAST OF ADAMS

The on-street parking on Lincoln Street was reviewed after a concern was noted from the MMTB that vehicles are parking on-street adjacent to the signalized intersection. Key findings of this review are summarized below and shown on the following exhibits.

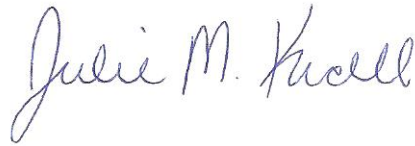
- The taper on eastbound Lincoln Street starts approximately 200 ft east of Adams Road. There is no parking permitted in this area or in the taper.
- The no parking areas are signed and striped. The no parking sign currently located at the start of the taper should be relocated further east to the end of the taper to ensure that vehicles do not park in the taper lane.
- There were no reported crashes within the last five years associated with the taper lane or conflicts with on street parking.



Sincerely,
FLEIS & VANDENBRINK

A handwritten signature in dark ink that reads "Justin Rose". The signature is fluid and cursive, with the first name "Justin" and last name "Rose" clearly legible.

Justin Rose, PE
Traffic Engineer

A handwritten signature in dark ink that reads "Julie M. Kroll". The signature is fluid and cursive, with the first name "Julie", middle initial "M.", and last name "Kroll" clearly legible.

Julie M. Kroll, PE, PTOE
Traffic Engineering Services Manager

Date	Crash Type	Cause of Crash	Injury	Pedestrian/ Bicyclist Involved?	Direction	
					Lincoln	Adams
6/30/2017	Rear End	Failure to Stop	No injury (O)	No	n/a	SB
10/18/2017	Sideswipe-Same	Improper Lane Change	No injury (O)	No	WB	n/a
10/20/2017	Single Vehicle	Distracted Driving	No injury (O)	No	WB	n/a
10/27/2017	Sideswipe-Same	Improper Lane Change	No injury (O)	No	WB	n/a
2/26/2018	Rear End	Failure to Control Veh.	No injury (O)	No	n/a	NB
3/16/2018	Sideswipe-Same	Improper Lane Change	No injury (O)	No	WB	n/a
4/4/2018	Rear End	Failure to Stop	No injury (O)	No	n/a	SB
4/13/2018	Rear End	Improper Lane Change	No injury (O)	No	WB	n/a
10/9/2018	Head-on Left-Turn	Failure to Yield	No injury (O)	No	WB (LT)	n/a
10/9/2018	Angle	Failure to Stop (Red Light)	Possible Minor Injury (C)	No	EB	NB
12/14/2018	Rear End	Failure to Stop	No injury (O)	No	n/a	SB
1/28/2019	Angle	Failure to Stop (Red Light)	No injury (O)	No	WB	NB
1/31/2019	Angle	Failure to Stop (Red Light)	Suspected minor injury (B)	No	WB	NB
2/12/2019	Angle	Failure to Stop (Red Light)	No injury (O)	No	WB	NB
2/25/2019	Rear End	Failure to Stop	No injury (O)	No	WB	n/a
3/21/2019	Head-on Left-Turn	Failure to Yield	No injury (O)	No	WB (LT)	n/a
4/5/2019	Angle	Failure to Stop (Red Light)	No injury (O)	No	EB	SB
4/18/2019	Head-on Left-Turn	Failure to Yield	No injury (O)	No	EB (LT)	n/a
5/2/2019	Sideswipe-Same	Improper Lane Change	No injury (O)	No	WB	n/a
6/24/2019	Rear End	Failure to Stop	No injury (O)	No	n/a	SB
7/1/2019	Angle	Failure to Stop (Emergency Vehicle)	No injury (O)	No	EB	SB
9/19/2019	Sideswipe-Same	Improper Lane Change	No injury (O)	No	EB	n/a
11/13/2019	Rear End	Icy Conditions	No injury (O)	No	n/a	SB
11/27/2019	Angle	Failure to Stop (Red Light)	No injury (O)	No	EB	SB
12/4/2019	Angle	Failure to Stop (Red Light)	No injury (O)	No	EB	SB
3/9/2020	Rear End	Failure to Stop	No injury (O)	No	n/a	SB



MEMORANDUM

DATE: April 28, 2020

TO: Multi-Modal Transportation Board

FROM: Jana L. Ecker, Planning Director
Cmdr. Scott Grewe, Police Department
Austin Fletcher, City Engineer

SUBJECT: Brown Street Review

INTRODUCTION:

The City has received complaints regarding the intersection of Brown and Bates regarding the safety of the intersection for both pedestrians and motorists. One resident on W Brown reports witnessing dangerous situations and hearing screeching tires, and has requested a review to consider installation of a traffic signal or a four way stop.

BACKGROUND:

Currently there is a flashing light above the stop sign on Bates at Brown. This is the only traffic control at this location. There is a traffic light at Pierce and at Southfield, between the two there are no other traffic control devices in place for Brown. During the warmer seasons, a "Yield to Pedestrians" sign is placed in the middle of Brown at the crosswalk of Bates.

F&V and MKSK were contacted and asked to review the intersections on Brown Street from Southfield to Pierce. Since the same conditions exist at Henrietta and Chester, a review of the area was conducted to address similar concerns at intersections in the same area.

SUMMARY:

The report provided by F&V indicates that these intersections do not meet the requirements in the Michigan Manual on Uniform Traffic Control Devices. Therefore, a multiway stop is not warranted and other options have been reviewed.

All three intersections have stop signs for the north south street. The report recommends adding "Cross Traffic Does Not Stop" signs, under the stop signs at these locations to alert drivers it is not a four way stop. The report also recommends adding additional signage at the crosswalks to increase awareness for drivers that pedestrians are crossing in this area.

It should also be noted that due to the Maple Rd. construction, the parking on the south side of Brown has currently been removed. The removal of parking was done to create two eastbound lanes of traffic that are part of the bypass route during Maple Rd. construction.

ATTACHMENTS:

1. F&V report and recommendations.
2. MKSK report and recommendations.
3. Email from resident.
4. Traffic counts.

SUGGESTED RECOMMENDATION:

To install "Cross Traffic Does Not Stop" on Henrietta, Bates and Chester at Brown and install additional "Pedestrian Crossing" signage at Henrietta, Bates and Chester to create a pedestrian gateway condition.

MEMO

VIA EMAIL

To: Cmdr. Scott Grewe, Operations Commander
Birmingham Police

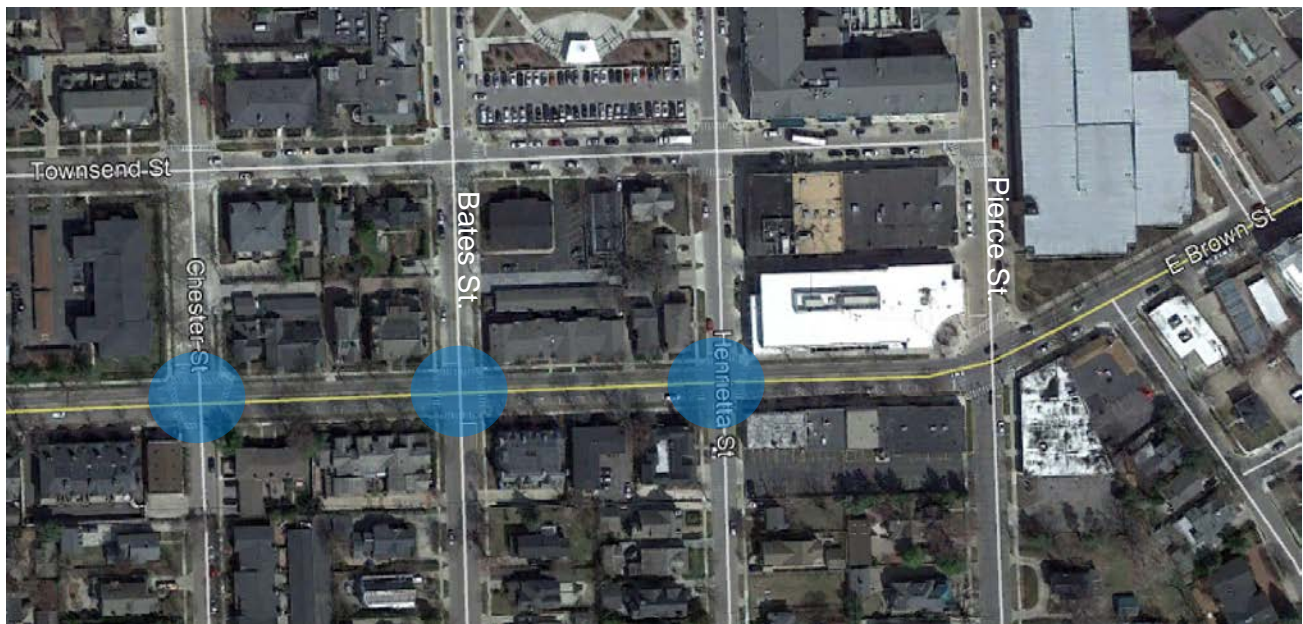
From: Julie M. Kroll, PE, PTOE
Bandhan Ayon
Fleis & VandenBrink Engineering

Date: May 1, 2020

Re: Brown Street Multi-Way Stop Evaluation

Fleis & VandenBrink (F&V) staff is pleased to present this memorandum to the City Birmingham regarding the intersection traffic control measures at the following intersections:

- Brown St. & Henrietta St.
- Brown St. & Bates St.
- Brown St. & Chester St.



This study was performed to determine if additional traffic control measures are warranted and provided recommendations, if any, to improve the operations and safety at these intersections. In addition, it should be noted that Brown Street will be used during the construction season in 2020 as a detour route for Maple Road construction. On-street parking on Brown Street east of Chester will be prohibited during the construction and the south side of Brown Street will be restriped to provide two eastbound lanes from Chester Street to Old Woodward.

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The guidance regarding regulatory traffic measures is provided in the *Michigan Manual of Uniform Traffic Control Devices (MMUTCD)* Sections 2B.04 and 2B.07. Additional information is provided in the American Association of State Highway and Transportation Officials (AASHTO) *Geometric Design of Highway and Streets (Green Book)*. F&V referenced the *MMUTCD* and additional documents to evaluate the existing intersection conditions and develop a recommendation. The results of the analysis and the recommendations are included herein.

INTERSECTION CONTROL ANALYSIS

All three study intersections are four-leg intersection with stop-control on minor approaches (i.e. Bates St., Chester St., and Henrietta St.). The City has received requests for the addition of STOP control on the Brown Street approaches, to provide ALL-WAY stop control at Brown St & Bates St intersection. The City also requested F&V to examine the two other intersections to east and west of Bates St. Section 2B.07 of the *MMUTCD* provides the following criterion to evaluate for the consideration of multi-way stop control at an intersection.

- A. *Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.*
- B. *Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.*
- C. *Minimum volumes:*
 - 1 *The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and*
 - 2 *The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but*
 - 3 *If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.*

Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.

A. TRAFFIC SIGNAL

Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.

Criteria	Brown St. & Chester St.	Brown St. & Bates St.	Brown St. & Henrietta St
A. Traffic Signal	Not Met	Not Met	Not Met

A traffic signal is not warrant or recommended at any of the study intersections.

B. CRASH HISTORY

Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.

Criteria	Brown St. & Chester St.	Brown St. & Bates St.	Brown St. & Henrietta St
B. Crash History	Not Met	Not Met	Not Met

A crash analysis was performed for the study intersections using the most recent 3 years (March 2017 – March 2020) of data. The results of the analysis are presented in following table which show that there is no existing crash pattern (5 or more crashes in 12 months) that would indicate the need to install stop signs on any of these intersections, therefore this criteria is not met.

CRASH ANALYSIS SUMMARY

Intersection	Date	Crash Type	Injury	Pedestrian/ Bicyclist Involved?	Direction	
					Brown	Bates
Brown & Bates	7/20/2017	Angle	Possible injury (C)	No	WB	SB
	10/6/2017	Angle	No injury (O)	No	WB	SB
	10/27/2017	Angle	No injury (O)	No	EB	SB
	4/5/2018	Single Veh.	No injury (O)	No	WB	n/a
	8/1/2018	Angle	No injury (O)	No	WB	NB
	8/2/2018	Angle	No injury (O)	No	EB	SB
	10/9/2019	Angle	Possible injury (C)	No	WB	NB
	2/16/2020	Angle	No injury (O)	No	WB	SB
	3/8/2020	Single Veh.	Minor injury (B)	Yes	WB	NB
Brown & Henrietta	6/12/2017	Angle	Possible injury (C)	No	WB	NB
	2/4/2018	Angle	Possible injury (C)	No	WB	NB
Brown & Chester	5/5/2017	Angle	No injury (O)	No	WB	SB
	5/27/2017	Angle	No injury (O)	No	EB	SB
	3/19/2018	Angle	No injury (O)	No	EB	SB
	5/31/2018	Single Veh.	Possible injury (C)	Yes	WB	NB
	6/29/2018	Rear End	No injury (O)	No	WB	n/a

C. TRAFFIC VOLUMES

1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour (vph), for any 8 hours of an average day.

The average hourly traffic volume data on Brown St. exceeds 300 vph for eight (8) hours of the day.

2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour;

The average hourly traffic volume data on minor approaches (i.e. Bates St., Henrietta St, and Chester St.) is below 200 vph for the same eight (8) hours of the day.

3. If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.

Existing speed data was provided by the Birmingham Police Department shows the 85th percentile speed for both eastbound and westbound Brown Street is 29 mph which is below the 40 mph threshold; therefore, the 70% volume evaluation is not applicable.

Criteria	Brown St. & Chester St.	Brown St. & Bates St.	Brown St. & Henrietta St
C. Traffic Volumes (1)	Met	Met	Met
C. Traffic Volumes (2)	Not Met	Not Met	Not Met
C. Traffic Volumes (3)	n/a	n/a	n/a
Overall	Not Met	Not Met	Not Met

D. 80% CRITERIA

Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are **all** satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition. **Not met.**

Criterion B, C.1 and C.2 were evaluated at 80% of the minimum values and criterion C.2 none of the criterion are met based on these reduced thresholds.

SUMMARY

The results of the analysis are summarized below.

Multi-Way Stop Sign Criterion (MMUTCD Section 2B.07)		Brown St. & Chester St.	Brown St. & Bates St.	Brown St. & Henrietta St
A. Signal	<i>Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.</i>	No	No	No
B. Crashes	<i>Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.</i>	No	No	No
C. Traffic Volumes	<ol style="list-style-type: none"> 1 The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day, AND 2 The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but 3 If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2. 	No	No	No
		No	No	No
D. 80% Criteria	<i>Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.</i>	No	No	No
Multi-Way Stop Control Recommended		No	No	No

RECOMMENDATIONS

Based on the results of this study, Multi-Way Stop Control is **not recommended** at the study intersections. However, based on the crash history at the study intersections, other mitigation measures may be considered. In addition, these improvements can be implemented concurrent with the use of Brown Street at the detour reroute and may provide improved safety and pedestrian visibility during the summer months with increased traffic volumes on Brown Street.

1. Provide a cross Traffic Does Not Stop (W4-4P) warning sign in combination with a STOP signs on minor street approaches to prevent drivers to misinterpreting the intersection as an all-way stop. The stop sign at Bates Street currently provides a flashing beacon, indicating that there was previously a concern of vehicles not stopping at this approach.



2. There is an existing single R1-6 sign on Brown St. at Bates St. as shown in the figure below. A Pedestrian Gateway Treatment is recommended on Brown St. at the Bates St., Henrietta St., and Chester St. intersections. The gateway treatment does not physically narrow the roadway, but visually narrows the roadway helping to decrease speeds. The treatment also increases awareness for drivers that pedestrians are crossing in this area.



If you have any questions or concerns regarding this engineering analysis, please contact our office.

To: Cmdr. Scott Grewe, Operations Commander
Birmingham Police

From: Brad Strader, PTP, MKSK
Ben Palevsky, MKSK

Date: April 24, 2020

MKSK

4219 Woodward Ave
Suite 305
Detroit, MI 48201
313.652.1101

Re: W Brown St. & S Bates St, and Brown St Corridor Overall (draft)

Based on the request to consider a four-way stop or other ideas to ease pedestrian crossings at the Brown/Bates intersection, MKSK and Fleiss & VandenBrink were asked to look at options. During our call, F&V was to take the lead looking at warrants for a four-way stop and other options, including guidance on safe pedestrian crossings referenced by MDOT. We would like to build upon the findings documented in F & V's W Brown St. & S Bates St Draft Memo dated 04-23-2020.

Their memo noted that a four-way stop is not warranted, but suggests changes including additional pedestrian signs, signs alerting motorists that Brown Road traffic does not stop, and removal of on-street parking close to the intersection to improve sight distance for the north- and south-bound approaches. As you know, Brown was previously considered to be part of a "ring-road" or bypass of downtown. With recent changes in the downtown, a design to promote that through traffic priority function may not be as important. Therefore, we had discussed a more comprehensive evaluation of the Brown Street Corridor be considered.

In light of that last recommendation, MKSK offers some ideas for additional improvements for the intersections along Brown St. from Southfield Rd to Old Woodward Ave.

- Determine if a mid-block crossing at Cherry Ct or Stanley Blvd would ease pedestrian crossings. There is 900' between the pedestrian crossings at Southfield Rd and Chester St, compared to 200'-300' between all pedestrian crossings on Brown St east of Chester St.
- Consider installing a second crosswalk across Southfield Rd on the south side of the Southfield & Brown intersection. Observations are that more pedestrians cross on this side. New counts may be needed to determine if the pedestrian volumes support this concept.
- Look at the on-street parking setback at each intersection to determine if the same recommendation for Bates applies elsewhere.
- Consider installing curb extensions at multiple pedestrian crossings along Brown St (in a manner that minimizes the issue discussed associated with landscape maintenance trailers):
 - Locations:
 - South side of the street at all pedestrian crossings across Brown St, including the mid-block crossing between Pierce St and Old Woodward.
 - Chester St intersection: NE corner – northbound traffic may not need two receiving lanes.
 - Bates St intersection: all four corners on Bates St.
 - Push stop bars back on Bates if concern about turning radius.
 - Or, only install bump-outs on upstream side of intersection so vehicles turning right onto Bates will not be affected.
 - Henrietta St intersection: NW and SE corners on Henrietta St.
 - Pierce St intersection: all four corners on Pierce St.
 - Implementation Options:
 - Concrete Bump-Outs ([example](#))
 - Painted Bump-Outs demarcated by delineator/flex posts ([example](#))



Scott Grewe <sgrewe@bhamgov.org>

Traffic Safety Issues at Corner of Brown and Bates

1 message

Hertzberg, Julie <jhertzberg@alvarezandmarsal.com>
To: "sgrewe@bhamgov.org" <sgrewe@bhamgov.org>
Cc: "Hertzberg, Robert S." <Hertzber@pepperlaw.com>

Sun, Mar 1, 2020 at 11:32 AM

Dear Commander Grewe,

Around October 1, 2019, we moved full-time to the SE corner of Brown and Bates at 297 W Brown Street. Since that time, we and our 12 year old daughter have frequently walked around the local streets and between us and our nanny, there is someone at home almost 24 hours per day. What we have observed from a street safety perspective worries us tremendously and that is the reason for this email.

Around our first week living full-time in the house, there was a serious accident which resulted in one car's airbag discharging and most of the car ended up on the sidewalk. Fortunately there were no pedestrians in the area at the time. This accident was directly a result of not having a four-way stop at the Bates/Brown intersection but people assuming there is one due to the street set up on the adjacent streets.

Separately, on a Sunday morning, there was a young boy on a scooter crossing Brown on Bates and even though there was a sign in the middle of the road designating traffic to stop, the boy missed being hit only because he saw the car coming toward him and he dove down on his scooter and the car, at the last minute, cranked it's wheel to drive into oncoming traffic.

Again in the last two or three weeks there was another collision due to the lack of a four way stop. As you can imagine, as parents of a 12 year old and seeing the number of children walking in the area, we have concerns about the safety to everyone as a result of the lack of four-way stops on the street. It is not uncommon to hear brakes screeching multiple times per day, seven days per week. If a larger vehicle is parked in the spots on the SW corner of Brown, there is a significant blind spot pulling into traffic and we have observed too many close calls in our short time since moving in.

In addition, with no stop signs or stop lights, there is nothing to ensure people are adhering to the 25 mph speed limit. We can tell you , with certainty, that they are not and the speeds are well in excess of this. While the new placement of the active speed limit monitoring is raising awareness, it's not enough to mitigate all that we are witnessing regarding these accidents and near accidents.

We would ask that you consider adding an additional traffic light or four way stop at this intersection. The flashing red warning light on Bates approaching Brown clearly is not enough of a deterrent to limit these occurrences.

We are available at your convenience to discuss this further and thank you for your time and consideration of the issue. Sincerely, Julie (734.834.2675) and Bob (248.842.0270) Hertzberg

Julie M. Hertzberg

Managing Director

Birmingham Police Department

Birmingham, MI 48009



Site Code:

Brown
Watkins / Stanley
Latitude: 0' 0.0000 Undefined

Date\Speed (MPH)	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	>65	Lane1 Total
8/20/2019	0	3	3	41	250	374	147	10	1	0	0	0	0	0	829
8/21/2019	0	4	13	113	862	1396	369	38	7	1	1	0	0	0	2804
8/22/2019	0	4	13	127	923	1429	321	34	1	0	1	0	0	0	2853
8/23/2019	0	5	22	152	923	1120	298	16	2	0	0	0	0	0	2538
Lane1 Total	0	16	51	433	2958	4319	1135	98	11	1	2	0	0	0	9024

85 percentile = 29

Date\Speed (MPH)	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	>65	Lane2 Total
8/20/2019	0	1	2	33	291	574	175	14	0	0	0	0	0	0	1090
8/21/2019	0	1	11	81	708	1351	339	22	0	0	0	0	0	0	2513
8/22/2019	0	1	28	133	766	1361	338	24	0	0	0	0	0	0	2651
8/23/2019	0	3	32	142	810	1005	255	13	0	1	0	0	0	0	2261
Lane2 Total	0	6	73	389	2575	4291	1107	73	0	1	0	0	0	0	8515

85 percentile = 29

Date\Speed (MPH)	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	>65	Combined Total
8/20/2019	0	4	5	74	541	948	322	24	1	0	0	0	0	0	1919
8/21/2019	0	5	24	194	1570	2747	708	60	7	1	1	0	0	0	5317
8/22/2019	0	5	41	260	1689	2790	659	58	1	0	1	0	0	0	5504
8/23/2019	0	8	54	294	1733	2125	553	29	2	1	0	0	0	0	4799
Combined Total	0	22	124	822	5533	8610	2242	171	11	2	2	0	0	0	17539

85 percentile = 29

Date\Speed (MPH)	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	>65	Lane1 Total
5/29/2018	0	7	27	32	147	186	49	5	0	0	0	0	0	0	453
5/30/2018	0	11	38	60	186	207	55	3	1	0	0	0	0	0	561
5/31/2018	0	12	29	29	166	199	70	10	0	0	0	0	0	0	515
6/1/2018	0	2	2	9	28	28	7	1	0	0	0	0	0	0	77
Lane1 Total	0	32	96	130	527	620	181	19	1	0	0	0	0	0	1606

85 percentile = 29

Date\Speed (MPH)	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	>65	Lane2 Total
5/29/2018	0	2	38	49	207	267	92	3	1	0	0	0	0	0	659
5/30/2018	0	8	55	71	245	295	101	9	0	0	0	0	0	0	784
5/31/2018	0	8	55	89	239	378	79	21	1	0	0	0	0	0	870
6/1/2018	0	1	0	1	26	20	7	1	0	0	0	0	0	0	56
Lane2 Total	0	19	148	210	717	960	279	34	2	0	0	0	0	0	2369

85 percentile = 29

Date\Speed (MPH)	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	>65	Combined Total
5/29/2018	0	9	65	81	354	453	141	8	1	0	0	0	0	0	1112
5/30/2018	0	19	93	131	431	502	156	12	1	0	0	0	0	0	1345
5/31/2018	0	20	84	118	405	577	149	31	1	0	0	0	0	0	1385
6/1/2018	0	3	2	10	54	48	14	2	0	0	0	0	0	0	133
Combined Total	0	51	244	340	1244	1580	460	53	3	0	0	0	0	0	3975

85 percentile = 29

Date\Speed (MPH)	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	>65	Lane1 Total
7/17/2018	0	3	9	24	7	4	0	0	0	0	0	0	0	0	47
7/18/2018	0	7	11	27	18	3	0	0	0	0	0	0	0	0	66
7/19/2018	0	2	4	9	11	3	1	0	0	0	0	0	0	0	30
7/20/2018	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Lane1 Total	0	12	24	62	36	10	1	0	0	0	0	0	0	0	145

85 percentile = 22

Date\Speed (MPH)	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	>65	Lane2 Total
7/17/2018	0	6	11	13	14	4	0	0	0	0	0	0	0	0	48
7/18/2018	0	5	14	17	13	3	0	0	0	0	0	0	0	0	52
7/19/2018	0	1	9	7	7	1	0	0	0	0	0	0	0	0	25
7/20/2018	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
Lane2 Total	0	13	35	37	34	8	0	0	0	0	0	0	0	0	127

85 percentile = 23

Date\Speed (MPH)	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	>65	Combined Total
7/17/2018	0	9	20	37	21	8	0	0	0	0	0	0	0	0	95
7/18/2018	0	12	25	44	31	6	0	0	0	0	0	0	0	0	118
7/19/2018	0	3	13	16	18	4	1	0	0	0	0	0	0	0	55
7/20/2018	0	1	1	2	0	0	0	0	0	0	0	0	0	0	4
Combined Total	0	25	59	99	70	18	1	0	0	0	0	0	0	0	272

85 percentile = 23

Date\Speed (MPH)	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	>65	Lane1 Total
5/29/2018	0	4	26	73	98	48	8	0	0	0	0	0	0	0	257
5/30/2018	0	4	24	78	137	39	4	0	0	0	0	0	0	0	286
5/31/2018	0	5	22	81	137	64	9	0	0	0	0	0	0	0	318
6/1/2018	0	0	3	12	8	6	0	0	0	0	0	0	0	0	29
Lane1 Total	0	13	75	244	380	157	21	0	0	0	0	0	0	0	890

85 percentile = 25

Date\Speed (MPH)	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	>65	Lane2 Total
5/29/2018	0	2	28	53	76	37	4	0	0	0	0	0	0	0	200
5/30/2018	0	8	31	75	99	44	2	0	0	0	0	0	0	0	259
5/31/2018	0	5	34	75	97	52	5	0	0	0	0	0	0	0	268
6/1/2018	0	0	3	6	9	6	0	0	0	0	0	0	0	0	24
Lane2 Total	0	15	96	209	281	139	11	0	0	0	0	0	0	0	751

85 percentile = 25

Date\Speed (MPH)	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	>65	Combined Total
5/29/2018	0	6	54	126	174	85	12	0	0	0	0	0	0	0	457
5/30/2018	0	12	55	153	236	83	6	0	0	0	0	0	0	0	545
5/31/2018	0	10	56	156	234	116	14	0	0	0	0	0	0	0	586
6/1/2018	0	0	6	18	17	12	0	0	0	0	0	0	0	0	53
Combined Total	0	28	171	453	661	296	32	0	0	0	0	0	0	0	1641

85 percentile = 25

DATE: April 28, 2020

TO: Multi-Modal Transportation Board

FROM: Jana L. Ecker, Planning Director
Cmdr. Scott Grewe, Police Department
Austin Fletcher, City Engineer

SUBJECT: Wheeled Device Restriction Signage Options

INTRODUCTION:

The City Commission recently approved an update to the Skateboarding Ordinance. The new ordinance, 74-6 now includes Skateboards, Bicycling and Electronic Personal Mobility Devices. This ordinance prohibits their use in the Central Business District (CBD).

BACKGROUND:

The previous ordinance 74-6 Skateboarding, has been in place restricting the use of skateboards in the CBD. With the popularity of new devices that use both human and electrical means of propulsion, the City Commission, having concerns for users and pedestrians safety, approved the new ordinance.

In the past, there have been no signs indicating skateboarding is prohibited. Previously, when complaints were received or a person was observed riding in the prohibited area, an officer would request that they stop and advise them of the ordinance. With the enhanced restrictions, a review of possible public notification options has been completed.

SUMMARY:

MKSK was contacted and asked to review what type of signage was currently being used by others and what options the City has for means of notification. See attached report from MKSK.

Staff has reviewed the report and agree that the sign used in Lakewood, CO was a good option that could be placed in key locations around the CBD to give notice of the restricted areas. It was discussed that signage could be placed on streets entering the CBD and if needed, additional signs could be added within the district. See attached CBD map with "x" indicating possible sign locations.



ATTACHEMENTS:

1. MKSK report – Micromobility Signage and Enforcement Strategies.
2. Central Buisness District Map, with proposed signage locations.

Suggested Recommendation:

To install dismount zone signage in the locations identified in the attached map of the Central Business District.

To: Cmdr. Scott Grewe, Operations Commander
Birmingham Police

From: Brad Strader, PTP, MKSK
Ben Palevsky, MKSK

Date: April 24, 2020

MKSK

4219 Woodward Ave
Suite 305
Detroit, MI 48201
313.652.1101

Re: Micromobility Signage and Enforcement Strategies (draft)

Based on the City's request and the discussion at a virtual meeting on April 15, 2020, MKSK has prepared a memo addressing the following "problem statement" regarding the City's regulation of e-scooters and micromobility devices in downtown Birmingham:

The City has had issues with private e-scooter and e-bike owners riding on the sidewalks downtown. The City has just voted to ban riding on sidewalks downtown and has asked multi-modal advisors to explore signage options and regulation strategies to communicate this to riders.

MKSK has conducted research through the following methods:

- Solicited examples of micromobility signage and other management techniques in the ITE Community Forum – received six responses.
- Reached out to Andy Kilpatrick, Public Service Director for City of Lansing, as Lansing has also prohibited scooters from downtown sidewalks.
- Interviewed a former colleague who now works at the scooter provider Lime about different ways e-scooter companies can help regulate and educate riders when they enter a city.
- Online research.

SIGNAGE RECOMMENDATIONS

MKSK recommends that the City deploy signage at all intersections that make up the downtown boundary for which riding on sidewalks is prohibited. Signage deployed within the downtown area should be prioritized along high volume micromobility and non-motorized streets such as Old Woodward, Pierce St and Maple Rd, and around civic destinations such as Shain Park and the public library.

Communities across the country have regulated e-scooter and e-bike usage on sidewalks using a variety of sign types. This memo includes signage examples of different styles and sizes. Some of the examples regulate all wheeled devices whether electric powered or not, while others specifically target scooters. Proactive wording on signs like "dismount zone" or "wheel control zone" is generally encouraged. Some of the examples are specific to e-bikes and e-scooters, and others include regular bikes, scooters, skateboards, roller blades, etc.

Lansing, MI

"Wheel Control Zone" signage was deployed several years ago throughout downtown but removed because the downtown merchants association thought they were not needed. Since then, e-scooters have been banned from riding on sidewalks downtown. City plans to modify the sign design and put them back up again if scooters get redeployed downtown.



Evanston, IL

"No Bikes on Sidewalks" signage is attached to traffic poles at intersections and aligned with pedestrian countdown signals.



Lakewood, CO

Redesigned "Dismount Zone" signage for wheeled devices to include show scooters instead of skateboards.



Durango, CO

City painted same version of edited “Dismount Zone” signage used by Lakewood onto the sidewalk.



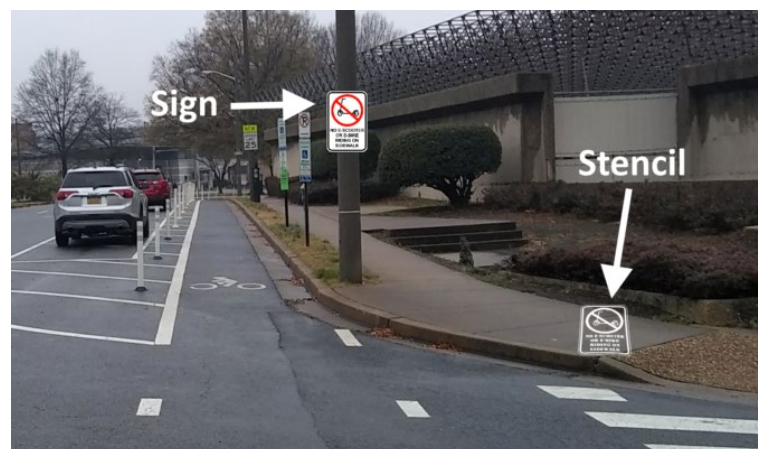
Minneapolis, MN

“No Scooter Riding on Sidewalk” signage deployed on existing poles using zip-ties.



Arlington, VA

“No E-Scooter or E-Bike Riding on Sidewalk” signage and sidewalk stencils. Priority installation locations next to protected bicycle lanes.



Hamilton, ON (Canada)

Signage examples from McMaster University.



ADDITIONAL ENFORCEMENT AND EDUCATION STRATEGIES

Educational programs and campaigns are encouraged to inform riders of new or existing regulations before enforcement begins. These efforts inform residents what is illegal, why it is illegal, and how much they will be fined for disregarding the rules.

- Dissemination of flyers and other printed materials.
- Social media announcement/campaign.
- Advertise in newspapers or newsletters.
- Feature information of City's website.

ELECTRIC SCOOTER PROVIDERS

While the City has not contracted any electric scooter providers to date, the City may be approached by one or multiple of these companies about deploying e-scooters downtown in the near future. There are a few ways scooter companies can help communicate regulations and hold riders accountable for where they ride in the right-of-way. None of these techniques are a golden bullet for scooter enforcement by themselves, but they could increase adherence to rules by an expanding group of micromobility users, and at no cost to the City.

- **Ping Tags:**

Scooter companies often use “ping tags” on the vehicles themselves that are tailor-made for specific jurisdictions. The City of Birmingham would be able to stipulate specific content/rules spelled out on those tags. They have been used in Detroit, Grand Rapids, Minneapolis, and across the country.

- **Enforcement via Geofencing:**

- City can require scooter service provider to geofence specific zones to require lower speeds or prohibit riding altogether – common on campuses, on specific streets or districts with magnified conflicts, etc.
- Current geofencing is not precise enough to differentiate between street and sidewalk. However, Lime is currently piloting two programs that could help to regulate riding on sidewalks. These may be deployed in the near future:
 1. Geofencing is downloaded directly to device instead of being accessed via satellite. This allows the device to update its location every 1s instead of every 30s, which allows geofencing boundaries to be more precise.
 2. The Gyroscope that detects when a scooter is tipped over is now being used to detect change in vibrations when the surface being ridden on changes (e.g. road to sidewalk). Currently being piloted with 95% accuracy differentiating between street and sidewalk, and this accuracy will likely increase as the technology is further refined.

- **Enforcement via Crowdsourcing:**

Many cities, including Portland, have required large print numbers on the back of each e-scooter deployed by a provider so passerby’s can report people riding on sidewalk or breaking other rules to the City, who would then forward to the scooter provider to levy fines on riders.

- **Rules/Regulations Reminder on Service Provider’s App:**

App requires user to read/click through prompts/rules before unlocking a scooter that are specific to the jurisdiction it geolocates them in.





March 13, 2020

SEMCOG

1001 Woodward Avenue, Suite 1400

Detroit, MI 48226-1904

Re: Bicycle & Pedestrian Mobility Plan for SE Michigan – DRAFT March 2020

Thank you for emailing the draft Bicycle & Pedestrian Mobility Plan for SE Michigan (the “Draft Plan”) to metro Detroit communities for public input.

The City of Birmingham established a Multi-Modal Transportation Board (“MMTB”) in 2013 to review and recommend multi-modal improvements for the City. The MMTB reviewed the Draft Plan at their meeting on March 5, 2020, and has the following input.

The Birmingham MMTB is very supportive of a regional bike and pedestrian plan to ensure non-motorized connections are provided in metro Detroit that support quality of life for residents by increasing access to core services, enhancing existing connections to town centers, downtowns and commercial and cultural destinations, and filling in gaps in existing infrastructure.

Figure 8 of the Draft Plan clearly shows the greatest density of town centers, downtowns and other destinations clustered in the central area of SEMCOG’s seven county area. Figure 13 also indicates the greatest bicycle and pedestrian activity within the urban environments within Detroit and the central area of metro Detroit. In addition, figure 17 identifies almost all of the high and moderate demand areas for bicycle infrastructure that do not have bicycle infrastructure within 0.5 miles are located in the same central area with the greatest density of downtowns, destinations, and population density.

Based on the data provided in the Draft Plan, the Birmingham MMTB suggests that the Draft Plan should prioritize and focus on; filling in the gaps in bicycle and pedestrian connections within the urban communities in SEMCOG’s central inner core area; focus on providing better connections between each of these urban centers; and providing connections from the central urban areas to existing rural/exurban recreational trails, prior to expanding the system outwards.

Thank you for your efforts to improve bicycle and pedestrian facilities in metro Detroit. Please feel free to contact me if you have any questions or need assistance in the future.

Yours truly,

Jana Ecker
Planning Director

RE: Public Input on Bicycle & Pedestrian Mobility Plan for SE Michigan

1 message

Pawlik, Brian J <pawlik@semcog.org>

Thu, Mar 26, 2020 at 9:17 AM

To: Jana Ecker <jecker@bhamgov.org>

Cc: "Malmer, Amy" <malmer@semcog.org>, "Stetler, Sue" <stetler@semcog.org>, "Taylor, Stephanie" <taylor@semcog.org>, "Vettraino, Kevin" <vettraino@semcog.org>

Ms. Ecker,

Thank you for your comments on SEMCOG's Bicycle & Pedestrian Mobility Plan for Southeast Michigan.

A major theme of public outreach (both via SEMCOG committees and general public comment) has been to connect and expand the system. As such the first regional action of the first policy (found on page 7 of the plan) is to:

*Expand and enhance bicycle and pedestrian infrastructure to connect regional corridors and in **areas with demand** to improve comfort levels, safety, equity, and accessibility.*

We feel this action item addresses most of your concerns in regards to prioritizing urban centers. "Areas of Demand" include "SEMCOG's central inner core area" and regional corridors help connect these areas together.

Please understand that there are areas of demand outside of "SEMCOG's central inner core area", including town centers and equity populations. Based on other regional policies, we need to plan for these areas too. Furthermore the regional trail system, while sometimes outside of demand areas, will likely provide both (1) transportation between "core areas" and (2) economic development for demand areas as they develop into "trail towns".

Please rest assured that while there are multiple priorities for SEMCOG's Bicycle & Pedestrian Mobility Plan, the intent is fund all of them, where possible. "SEMCOG's central inner core area" is certainly a priority. SEMCOG staff will do its best to help implement any project that falls into its Regional Policies and Action Items.

Should you need help with any project, please feel free to reach out to SEMCOG staff including myself.

Best,

Brian

Brian J. Pawlik

Bicycle & Pedestrian Planner

(313) 324-3426 pawlik@semcog.org

SEMCOG | SOUTHEAST MICHIGAN COUNCIL OF GOVERNMENTS

1001 Woodward Avenue, Suite 1400

Detroit, MI 48226

Main: 313-961-4266

Visit: www.semcog.org

From: Jana Ecker
Sent: Thursday, March 19, 2020 1:38:42 PM (UTC-05:00) Eastern Time (US & Canada)
To: Info Center
Subject: Public Input on Bicycle & Pedestrian Mobility Plan for SE Michigan

Please find attached a letter from the City of Birmingham providing public input on the above draft plan.

Jana L. Ecker

Planning Director

City of Birmingham

248-530-1841