



AGENDA

REGULAR MEETING OF THE BIRMINGHAM MULTI-MODAL TRANSPORTATION BOARD

THURSDAY OCTOBER 5, 2023

151 MARTIN ST., CITY COMMISSION ROOM 205, BIRMINGHAM MI

*******6:00 pm*******

The City recommends members of the public wear a mask if they have been exposed to COVID-19 or have a respiratory illness. City staff, City Commission and all board and committee members must wear a mask if they have been exposed to COVID-19 or actively have a respiratory illness. The City continues to provide KN-95 respirators and triple layered masks for attendees.*

- A. Roll Call
- B. Introductions & Chairpersons Comments
- C. Review of the Agenda
- D. Approval of Minutes, Meeting of September 7, 2023
- E. New Business
- F. Unfinished Business
 - 1. **Arlington Rd. and Shirley Dr.**
- G. Meeting Open to the Public for items not on the Agenda
- H. Miscellaneous Communications
- I. Next Meeting – November 2, 2023
- J. Adjournment

*Please note that board meetings will be conducted in person once again. Members of the public can attend in person at Birmingham City Hall or may attend virtually at

Link to Access Virtual Meeting: <https://us06web.zoom.us/j/88295194746>

Telephone Meeting Access: 929 205 6099 US Toll-free

Meeting ID: 824 7795 4435

City Of Birmingham Multi-Modal Transportation Board
Thursday, September 7, 2023

151 Martin Street, City Commission Room 205, Birmingham, MI

Minutes of the regular meeting of the City of Birmingham Multi-Modal Transportation Board held Thursday, September 7, 2023. Vice-Chair Peard convened the meeting at 6:00 p.m.

A. Rollcall

Present: Vice-Chair Tom Peard; Board Members David Hocker, Victoria Policicchio;
Alternate Board Members Gordon Davies, Patrick Hillberg

Absent: Chair Doug White; Board Members Mark Doolittle, Anthony Long, Joe Zane;
Student Representatives Sophie Hanawalt, Angie Sharma

Staff: Senior Planner Cowan; City Engineer Coatta, Police Captain Kearney

F&V: Julie Kroll

MKSK: Brad Strader

B. Introductions & Chair Comments

Ms. Policicchio provided the Board's introductory comments.

C. Review of the Agenda

D. Approval of MMTB Minutes of May 4, 2023

Motion by Mr. Hocker

Seconded by Ms. Policicchio to approve the MMTB Minutes of May 4, 2023 as amended.

Motion carried, 5-0.

VOICE VOTE

Yeas: Hocker, Peard, Policicchio, Hillberg, Davies

Nays: None

E. Approval of MMTB Minutes of June 1, 2023

Motion by Mr. Hillberg

Seconded by Mr. Hocker to approve the MMTB Minutes of June 1, 2023 as amended.

Motion carried, 5-0.

VOICE VOTE

Yeas: Hocker, Peard, Policicchio, Hillberg, Davies

Nays: None

E. New Business

1. Brandon & Shirley Stop/Yield Sign Review

SP Cowan introduced the item. Ms. Kroll presented the item. Ms. Kroll and SP Cowan answered informational questions from the Board.

Motion by Ms. Policicchio

Seconded by Mr. Hillberg to recommend to City Commission that the City pursue a Minor Street YIELD Control on Brandon Street at the Shirley Road approach.

Motion carried, 5-0.

VOICE VOTE

Yeas: Hocker, Peard, Policicchio, Hillberg, Davies

Nays: None

2. Cole Street Parking Review

SP Cowan introduced the item. PC Kearney and Mr. Strader presented the item. Staff answered informational questions from the Board.

Public Comment

A representative for a landlord on Cole Street made a comment regarding the proposal.

Joe Jacob of Bob Adams Towing made a comment in support of diverting traffic from Cole.

Individual Board comments were as follows:

- The City should pursue some sort of a study to investigate the recommendation made by Mr. Jacob;
- Removing the spots from the south side could be done on a trial basis with the option to re-evaluate if requested by the public. This street as-is has had a relatively high number of accidents, which means it would likely be safer to remove the parking from the south side;
- The data demonstrates that parking on the south side was less than 20% full most of the time. Parking on the north side usually was only 70% utilized. The parking being removed from the south side would solve the safety issue and could be absorbed by the parking on the north side. Creating a new road would be a longer term solution, whereas there was a request before the Board to resolve an issue with Cole presently; and,
- Both sides of the street may be relatively full during certain hours. Even if another road were created, there would still be issues with trucks.

Motion by Mr. Hillberg

Seconded by Ms. Policicchio to remove parking from the south side of Cole Street east of S. Eton Street.

Motion carried, 5-0.

ROLL CALL VOTE

Yeas: Hocker, Peard, Policicchio, Hillberg, Davies

Nays: None

It was noted that over the longer term the City could study connectivity issues in the Rail District.

3. 2024-2025 Capital Improvement Projects Review

SP Cowan introduced the item. Mr. Strader presented the item. Staff and Mr. Strader answered informational questions from the Board.

Board comments were as follows:

- Once Arlington is repaved, the driving speeds would likely increase. Adding a sidewalk to one or both sides of Arlington would have beneficial traffic calming effects;
- Creating a sidewalk on the east side of Arlington would make the most sense since it would link up with the crossing a Maple and Lake Park. It would also connect well to Linden Park;
- The proposal would not be a significant change, and would improve the safety of walking on Arlington. Adding a sidewalk on the east side of Arlington would not involve the removal of any mature trees;
- Staff could solicit resident feedback on the Arlington proposal at the October 2023 Board meeting;
- Investing more in the Maple crossing at Arlington would make sense; and,
- There is a future planned little library at the corner of Fairfax and Maple.

F. Unfinished Business

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

A Board member recommended that using machine learning to control traffic be added to a future agenda.

Another Board member asked that the Parks and Recreation Board (PR Board) present its Trail Improvement Plan to the MMTB so that the MMTB can remain sensitive to the changes the PR Board hopes to make.

H. Miscellaneous Communications

I. Next Meeting

J. Adjournment

No further business being evident, the Board adjourned at 7:14 p.m.



Brooks Cowan, Senior Planner Director

Laura Eichenhorn, City Transcriptionist

DRAFT



MEMORANDUM

Planning Division

DATE: September 29, 2023

TO: Multi-Modal Transportation Board

FROM: Brooks Cowan, City Planning
Ryan Kearney, Police Lieutenant
Melissa Coatta, Engineering Department
With assistance from:
Brad Strader, MKSK
Julie Kroll, Fleis & Vandenbrink

SUBJECT: CIP Projects for Fiscal Year 2024-2025 - Arlington Rd. and Shirley Dr.

INTRODUCTION:

Road construction projects are planned for Arlington Rd. and Shirley Dr. for the fiscal year of 2024-2025. City staff is seeking preliminary input from the MMTB before finalizing construction plans. The City's right-of-way for each road is 50' wide while both roads are currently 33' wide curb-to-curb. City staff also plans on have a meeting with the residents on October 19, 2023 regarding improved vs. unimproved streets.

BACKGROUND:

Arlington Rd. and Shirley Dr. are 33' wide and do not have a sidewalk on either side of the street between W. Maple and Lincoln Ave. The Multi-Modal Transportation Plan categorizes the subject area as a neighborhood where sidewalks should be completed. The City's standard for residential street widths is 28', therefore the existing roads could be narrowed to 28' and a 5' sidewalk could be installed on one side of the street. In this case, the sidewalk curb would be immediately adjacent to the road without a curb lawn. A sidewalk on one side of the street without a curblawn is not typical for Birmingham residential neighborhoods.

On September 7th, 2023, the Multi-Modal Transportation Board held preliminary discussions regarding Arlington Rd. and Shirley Dr. and indicated an interest on pusuing a sidewalk on just one side of the street within the existing 33' curb to curb space in order to avoid disturbing the natural features. A challenge with placing a sidewalk on only one side of the street is deciding which side to place it on. Residents adjacent to new sidewalks are charged the assessment for the new public project, it is not shared amongst both sides of the street. Should the Multi-Modal

Transportation Board choose to pursue placing a sidewalk on only one side of the street, staff recommends that the board clarify their reasoning on choosing one side over another.

The City staff's position is that when there is a 50' right-of-way of City property, the City should work to maximize the health, safety, and welfare of the entire space for the public good. In this case, that would entail finding a way to use all 50' of right-of-way to place sidewalks on both sides of the street that includes a typical curb lawn between the sidewalk and road to act as a buffer between vehicles and pedestrians.

Arlington Rd. and Shirley Dr. have a number of mature trees and in some cases elaborate landscaping in the public right-of-way that may conflict with potential sidewalk placement if the City were to pursue sidewalks on both sides of the street with standard curb lawns. Sidewalks in Birmingham are typically placed in a linear manner along the property line, however there are some cases where a meandering path could be merited, particularly in an area with a number of natural features.

Potential options for discussion and consideration regarding sidewalks on Arlington and Shirley include the following:

1. No sidewalk – maintain as-is
2. Curbed sidewalk on east side of street (no curb lawn)
3. Curbed sidewalk on west side of street (no curb lawn)
4. Curbed sidewalk on both sides (no curb lawn)
5. Traditional sidewalk with curb lawn – could meander around natural features

It is recommended that the MMTB begin to discuss sidewalk installation preferences along Arlington Rd and Shirley Dr.

Arlington Rd. and Shirley Dr. converge into one road at two different locations that currently compose of a wide expanse of pavement. The City has previously dealt with a similar intersection at Latham and Wakefield where the intersection was narrowed. Is it also possible to implement crosswalks at these locations to connect one street from another. **The MMTB may wish to comment on ways to improve such intersections.**

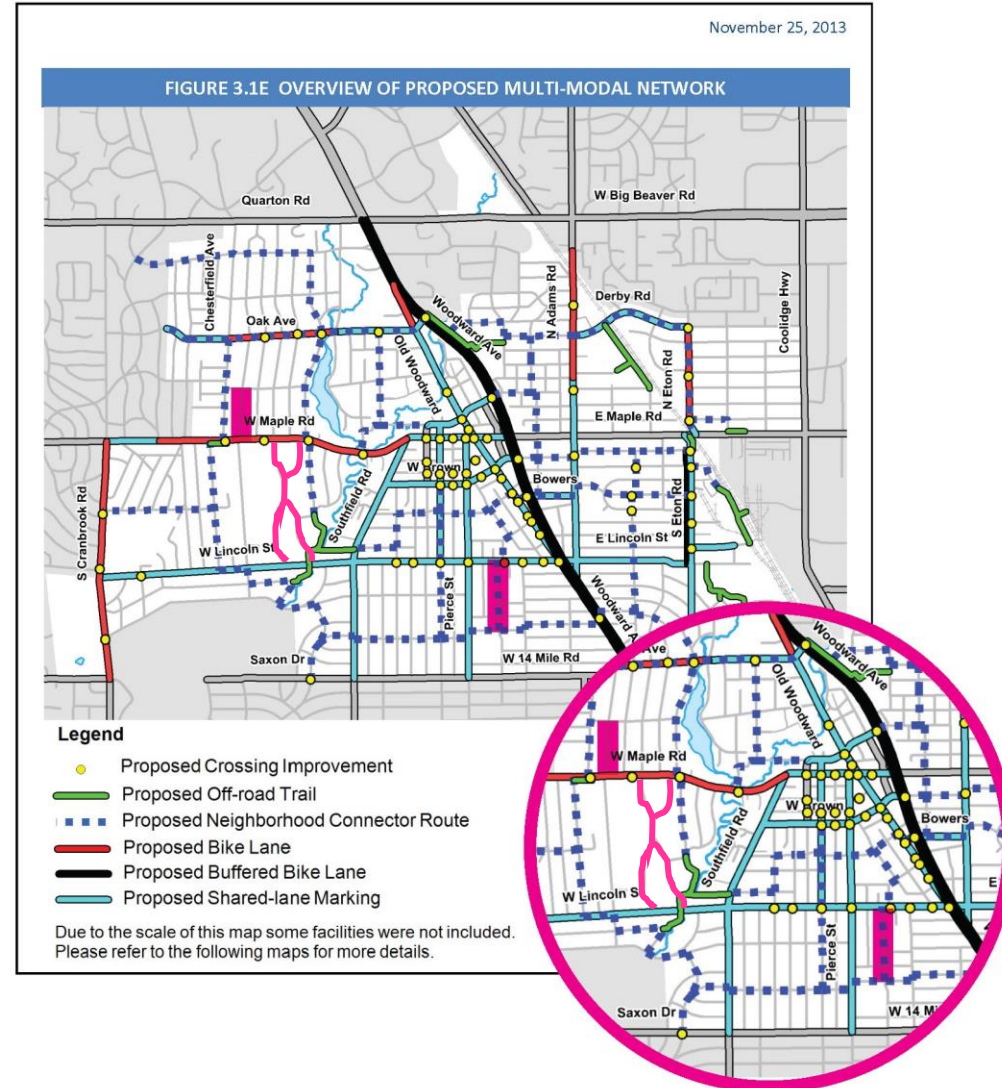
RECOMMENDATION:

To provide feedback to City staff on upcoming construction projects for Shirley and Arlington.

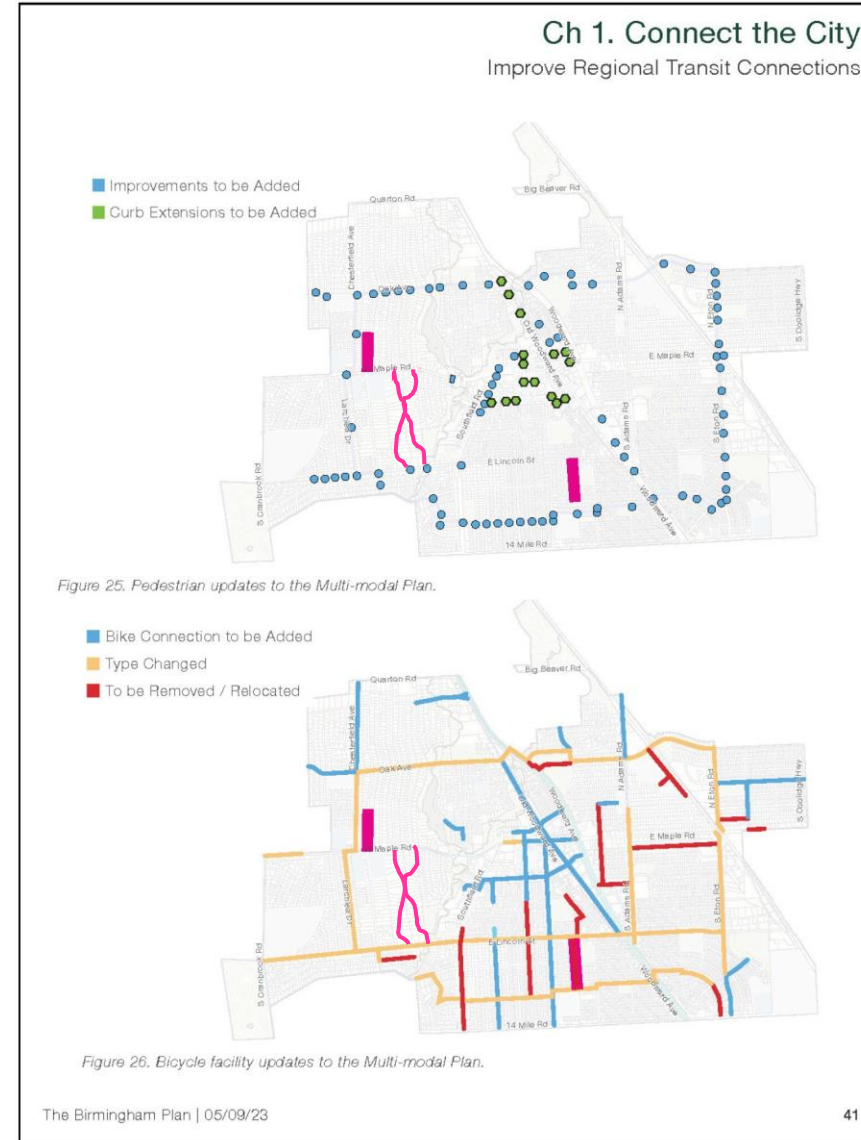
REVIEW OF EXISTING PLANS

Multimodal Transportation Plan and Master Plan

MULTI-MODAL TRANSPORTATION PLAN



MASTER PLAN



Arlington Road Design Options

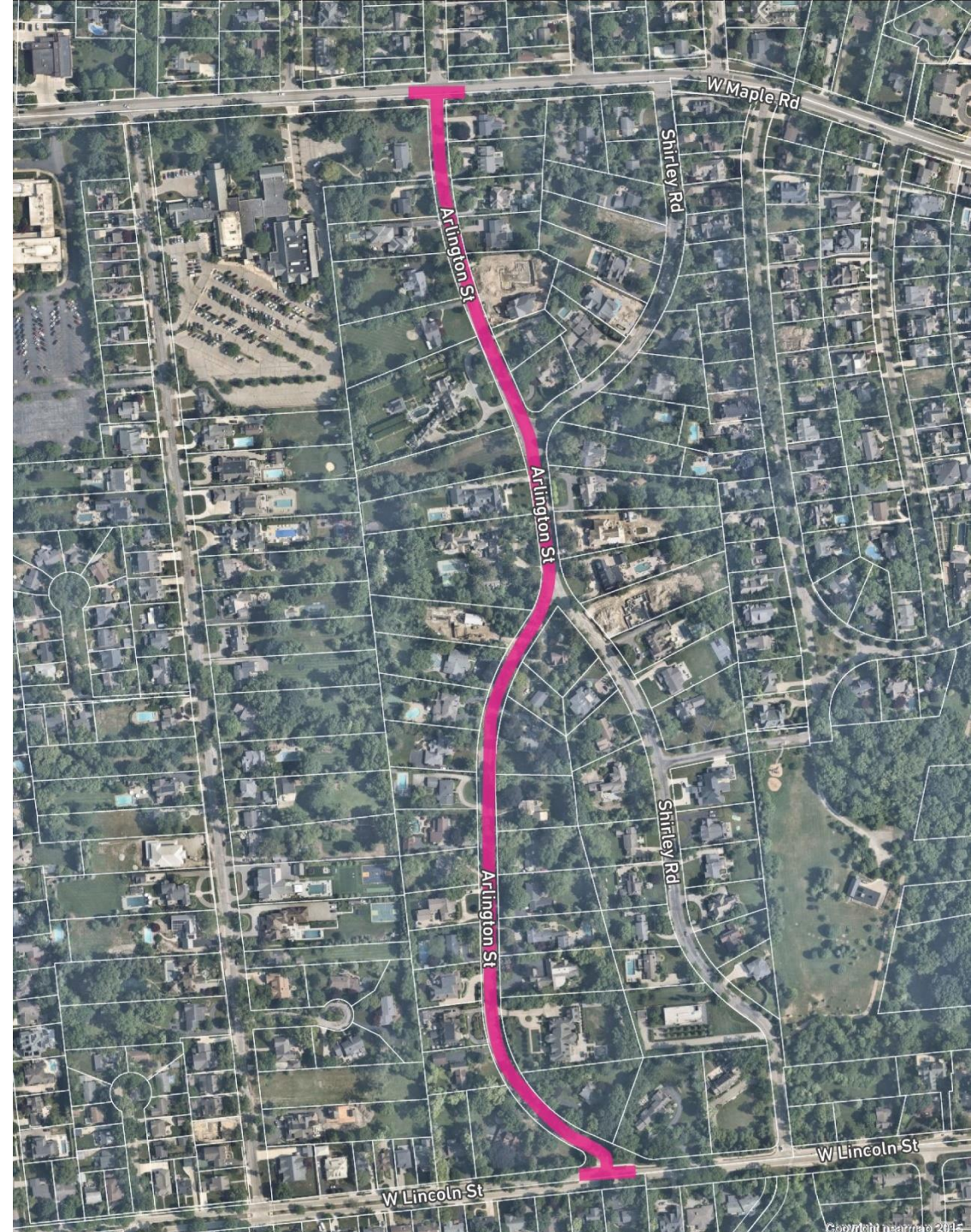
W Lincoln Street to W Maple Road

Master Plan Identifies

- General pedestrian improvements at Arlington/Lincoln Intersection

Multimodal Transportation plan identifies

- Sidewalks
 - Priority 3: add sidewalks to neighborhood
- Curbing Improvements



Shirley Road Design Options

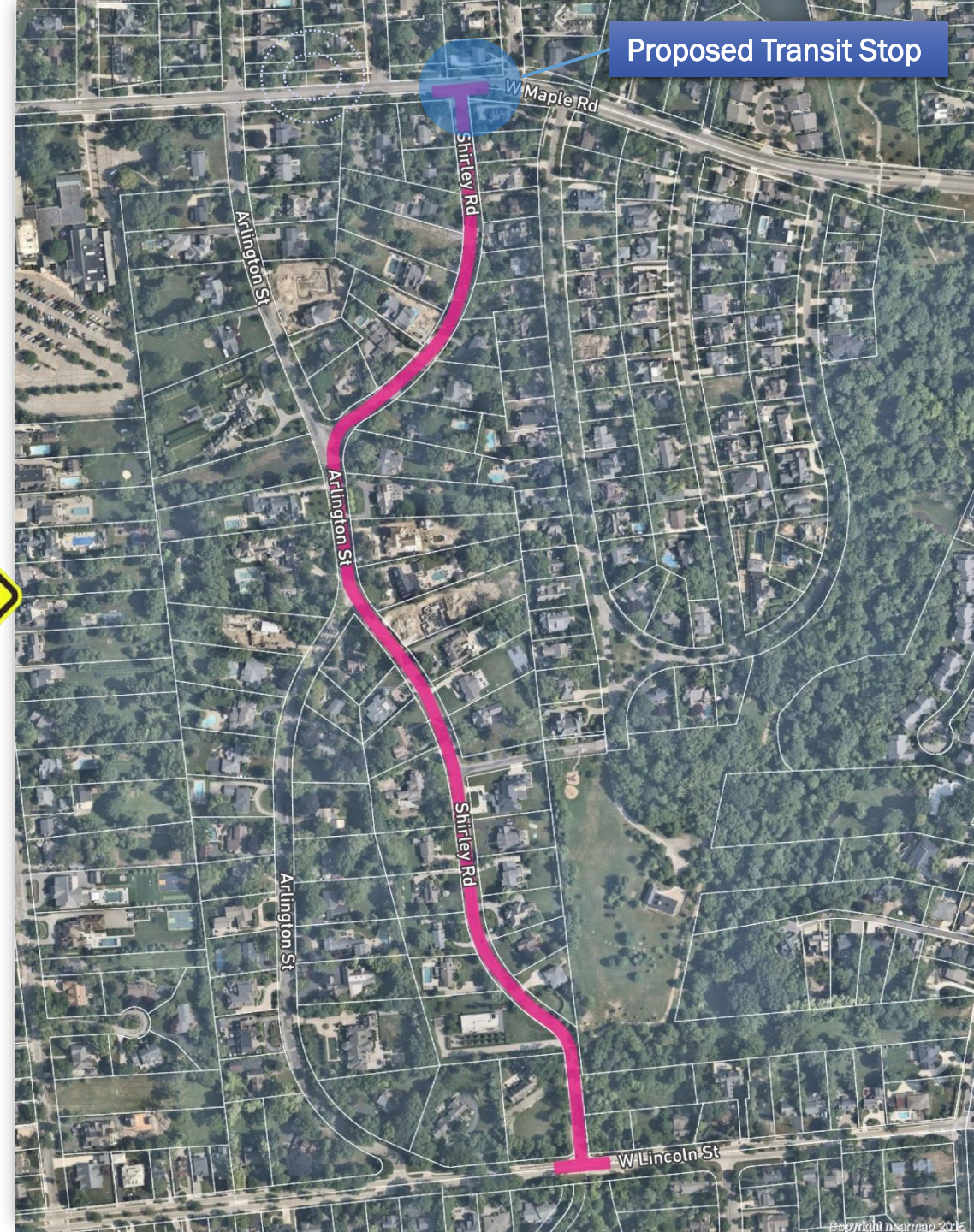
W Lincoln Street to W Maple Road

Master Plan Identifies

- General pedestrian improvements at Shirley/Lincoln Intersection
- Transit Stops be added at Shirley/Maple Intersection

Multimodal Transportation Plan Identifies

- Sidewalks
 - Priority 3: add sidewalks to neighborhood
- Curbing Improvements
 - Shirley/Maple identified as proposed crossing island with RRFB. The placement of an RRFB would be to close to existing signage. An RRFB at Arlington could be considered.



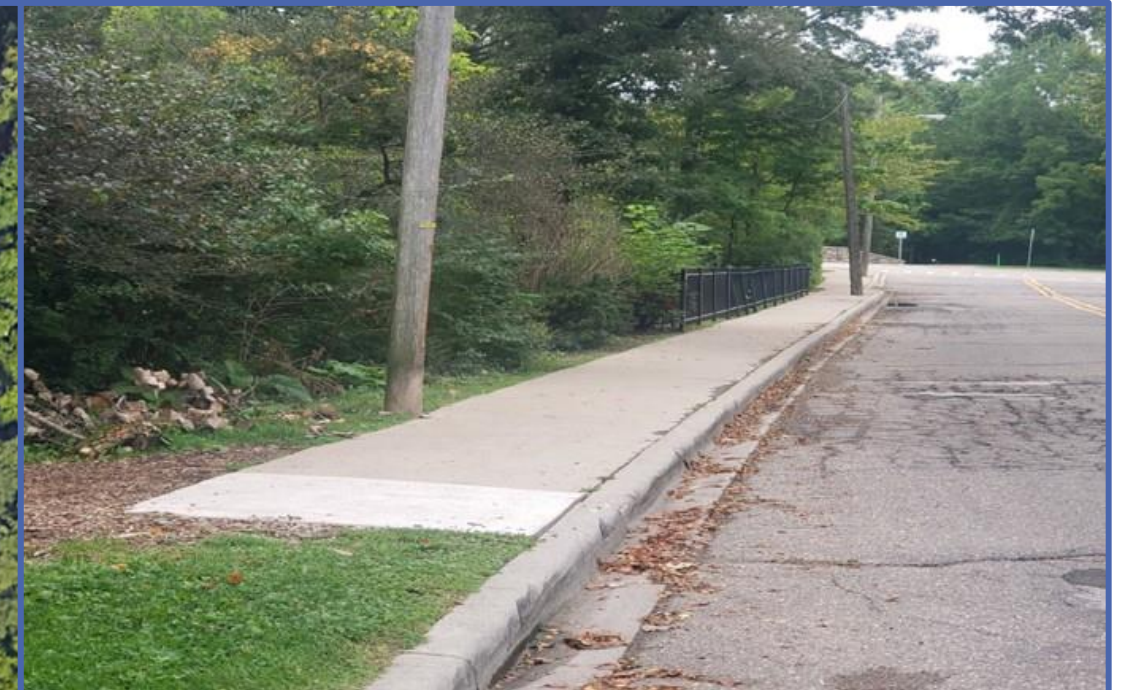
Residential Sidewalks

- Typical Residential Sidewalks have 5'-15' between the curb and the sidewalk



Curbed Edge Sidewalk

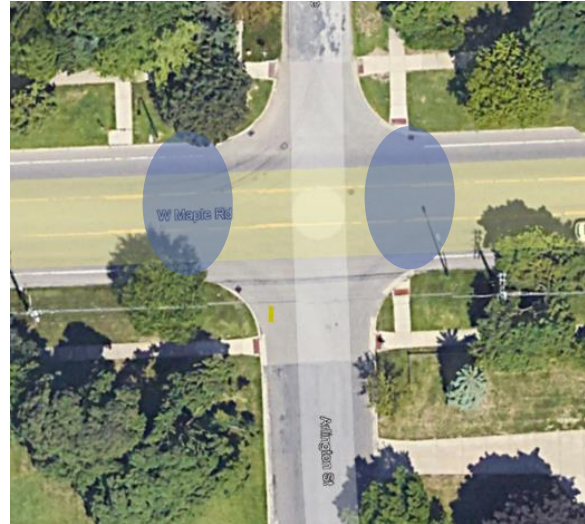
- The proposed residential sidewalk would narrow the roadway and put the sidewalk directly next to the curb



Pedestrian Crossings Arlington and Shirley

(If sidewalks are added)

Intersection at W Maple



Arlington
Add crosswalks near bus stop, and consider traffic calming measures

Intersection at W Lincoln



Arlington
Extend grass median to create a marked crosswalk with a pedestrian refuge



Shirley
Previous plans recommend adding pedestrian crosswalks.

Existing signalized ped crossing 100ft to the east (no new crossing recommended)

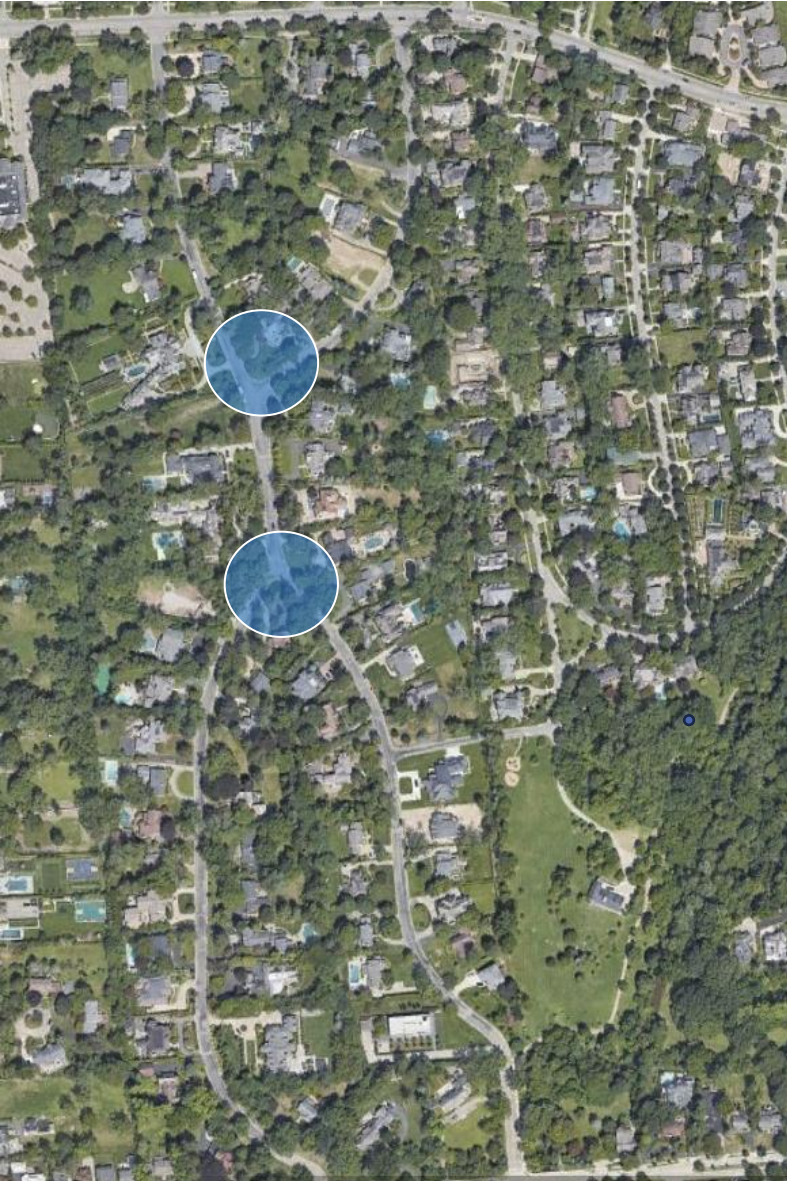


Shirley
Determine if advanced signage is needed

The blue circles indicate where Arlington and Shirley meet. Crosswalks should be considered

Intersection Redesign

Traffic Calming Features

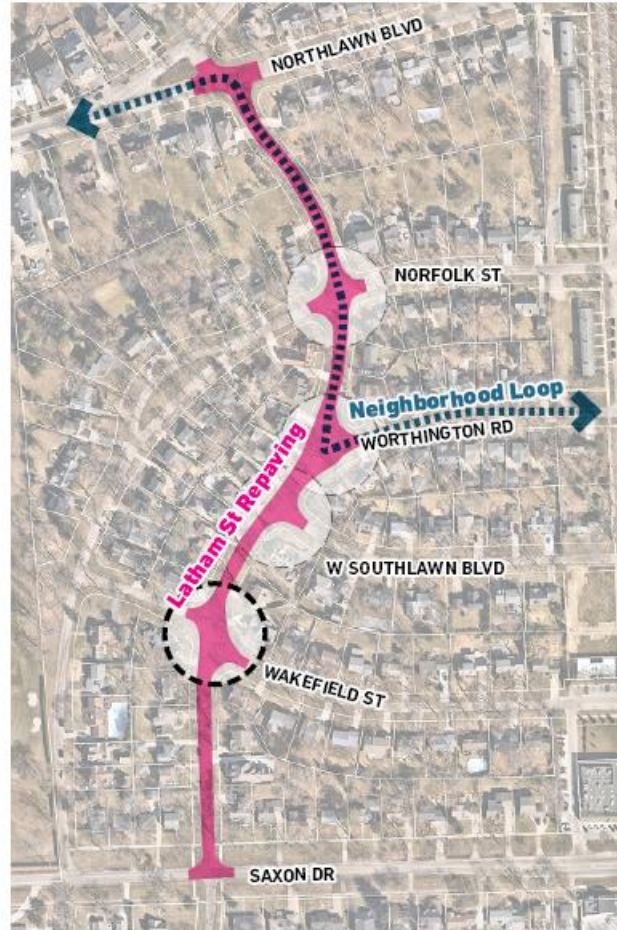
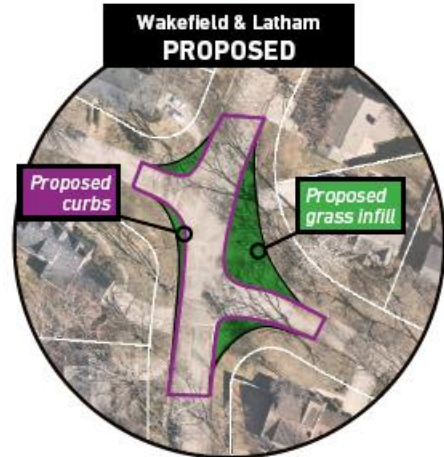
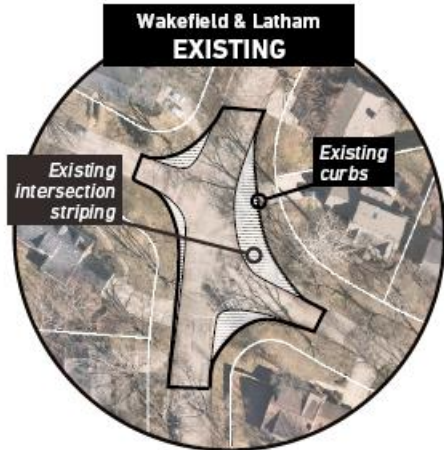


- Reduces the wide expanse of unnecessary pavement
- Reduces stormwater and drainage issues
- Eases Pedestrian Crossings
- Reduces traffic Speeds
- Actual design is dependent on sidewalk alternative

Case Study

Latham St at Wakefield St

Intersection Re-Design Plan



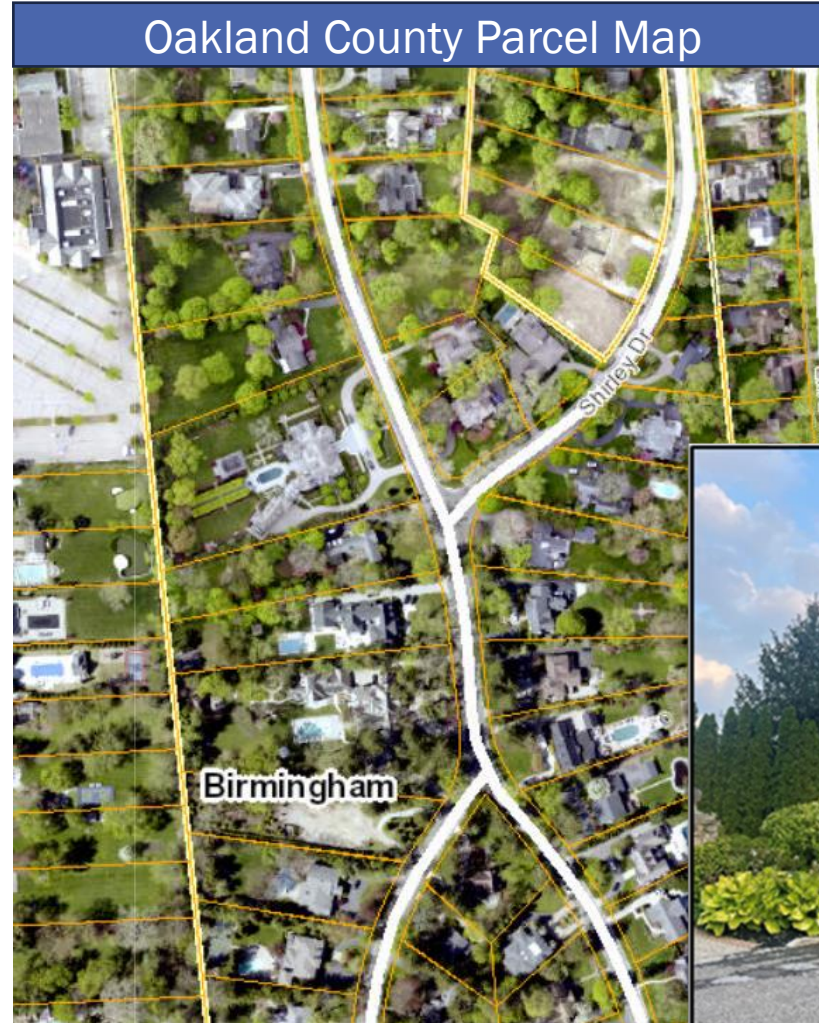
Latham at Wakefield Today



Existing Conditions

Arlington and Shirley

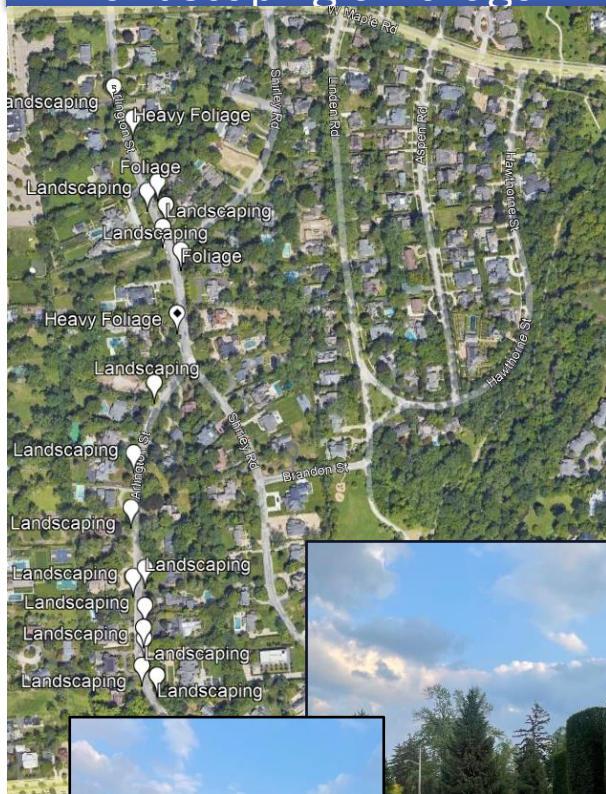
- Arlington and Shirley are approximately 33ft wide (waiting on dimensional survey)
- Right of way (ROW) is 50ft from existing roadway



Arlington Road Context Maps

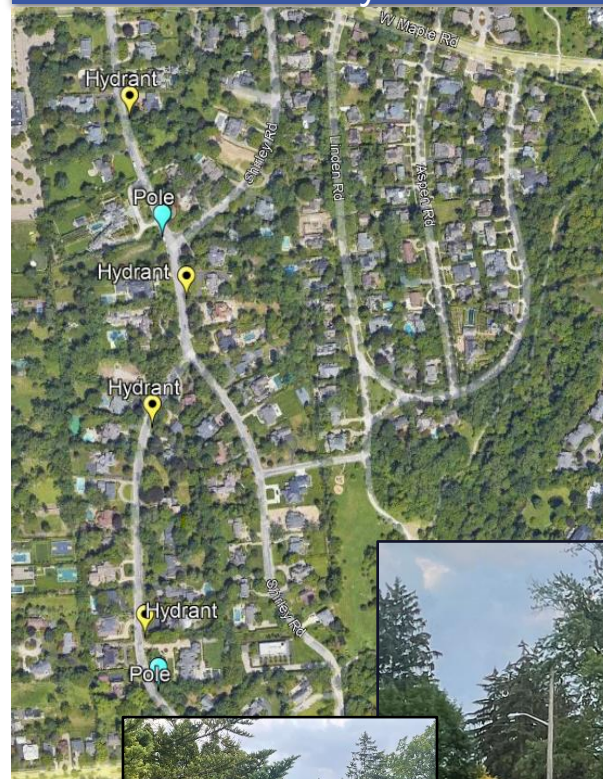
W Lincoln Street to W Maple Road

Landscaping & Foliage

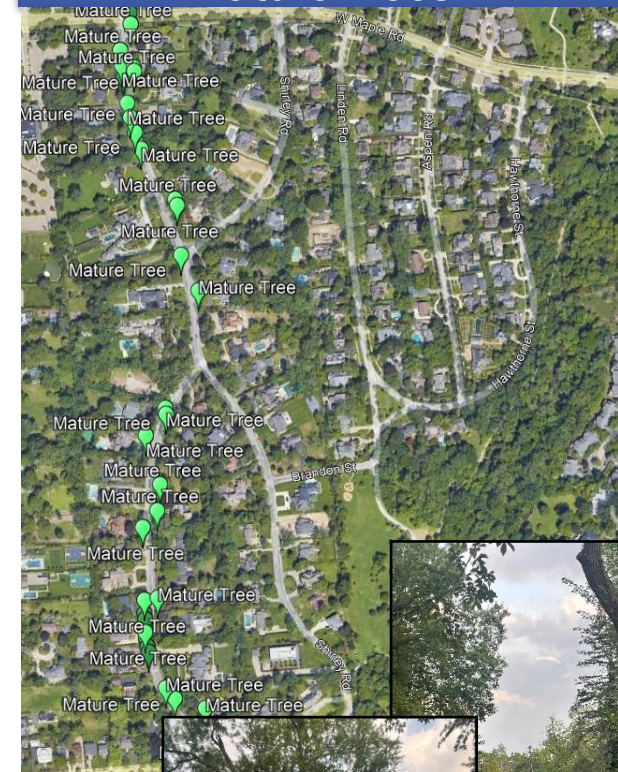


Landscaping
in the Right of
Way

Poles and Hydrants

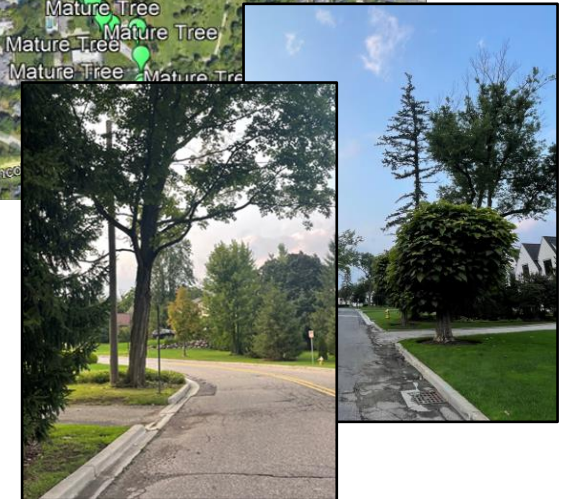
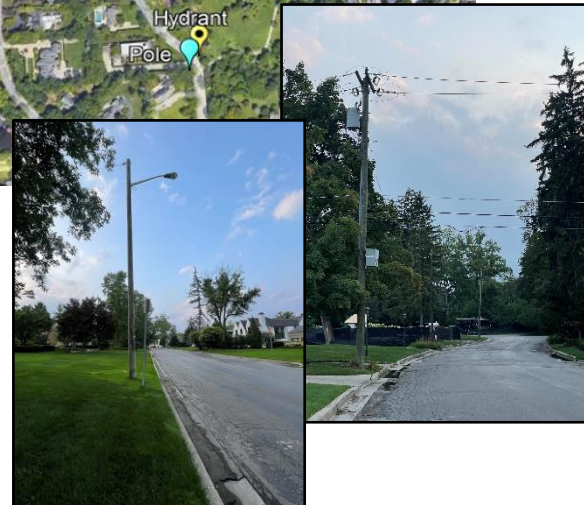
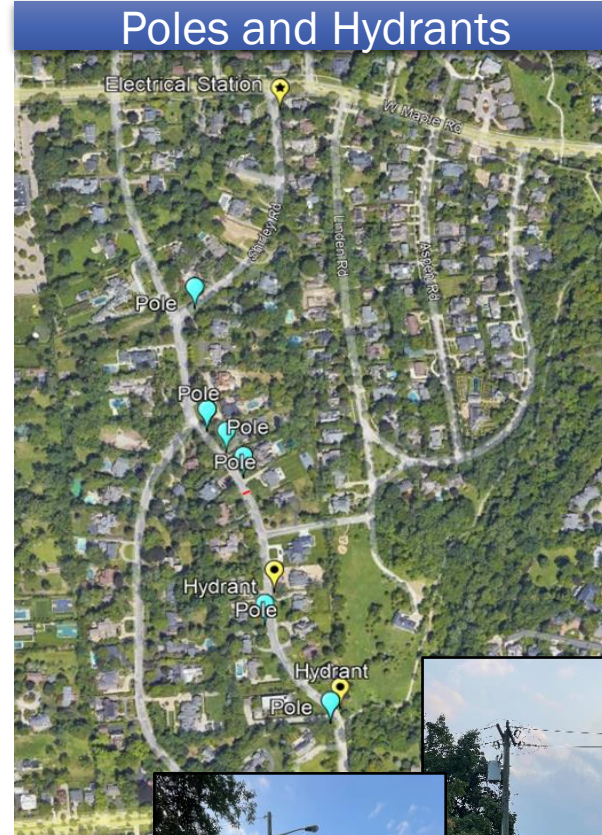
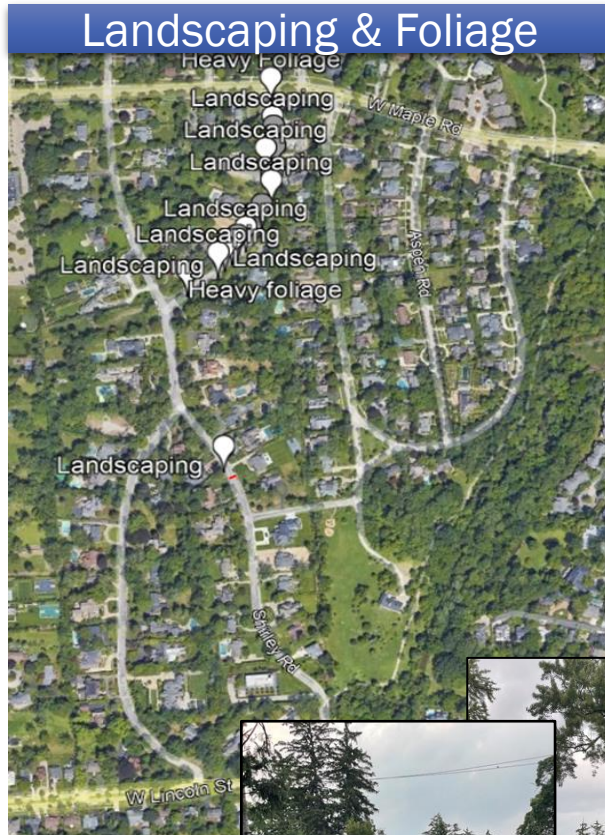


Mature Trees



Shirley Road Context Maps

W Lincoln Street to W Maple Road



Sidewalks vs Pathways

Characteristics

Sidewalks

- Concrete paved path for pedestrians which is more durable and long lasting than asphalt.
- Typically, at least 5' wide located along the roadway or with a buffer (see slide 11)
- Easier to connect
- Can be maneuvered around mature trees.

Pathway

- Paved with Asphalt
- Easier to maneuver around existing obstacles such as mature trees

Aspen Rd Sidewalks

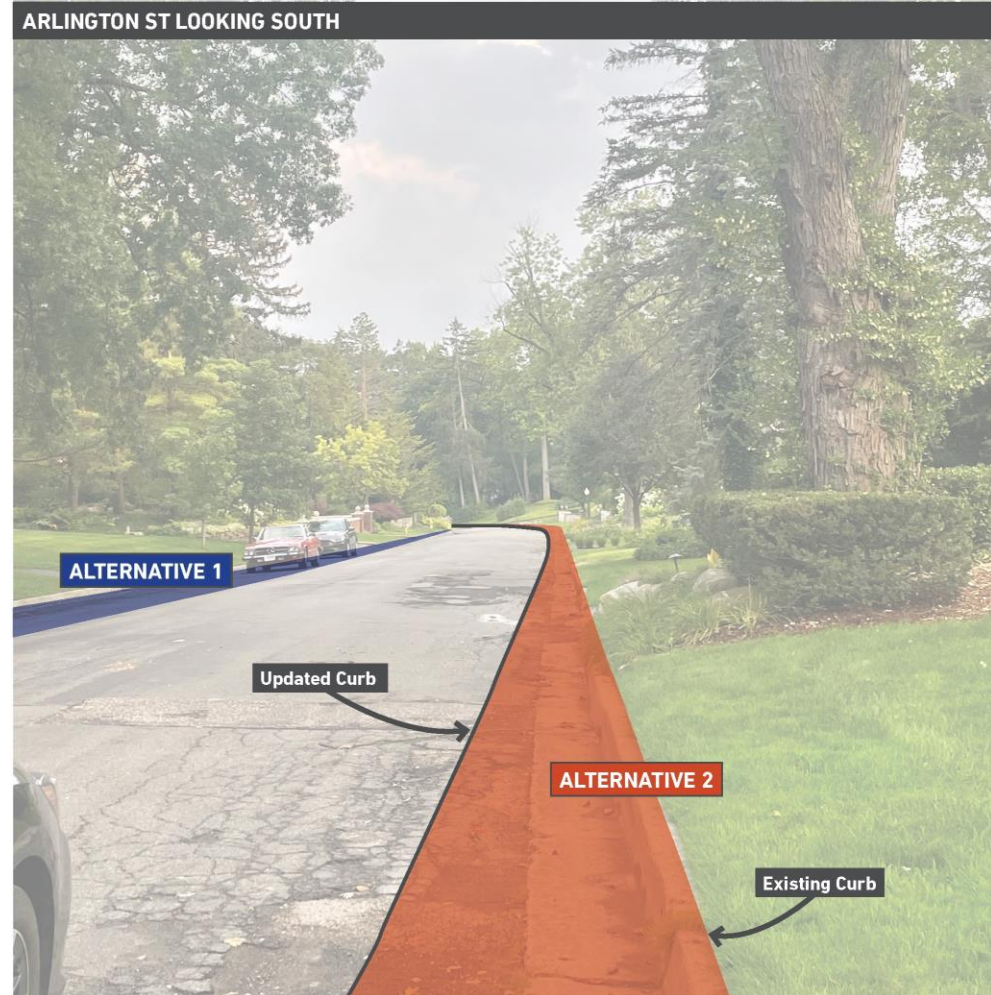
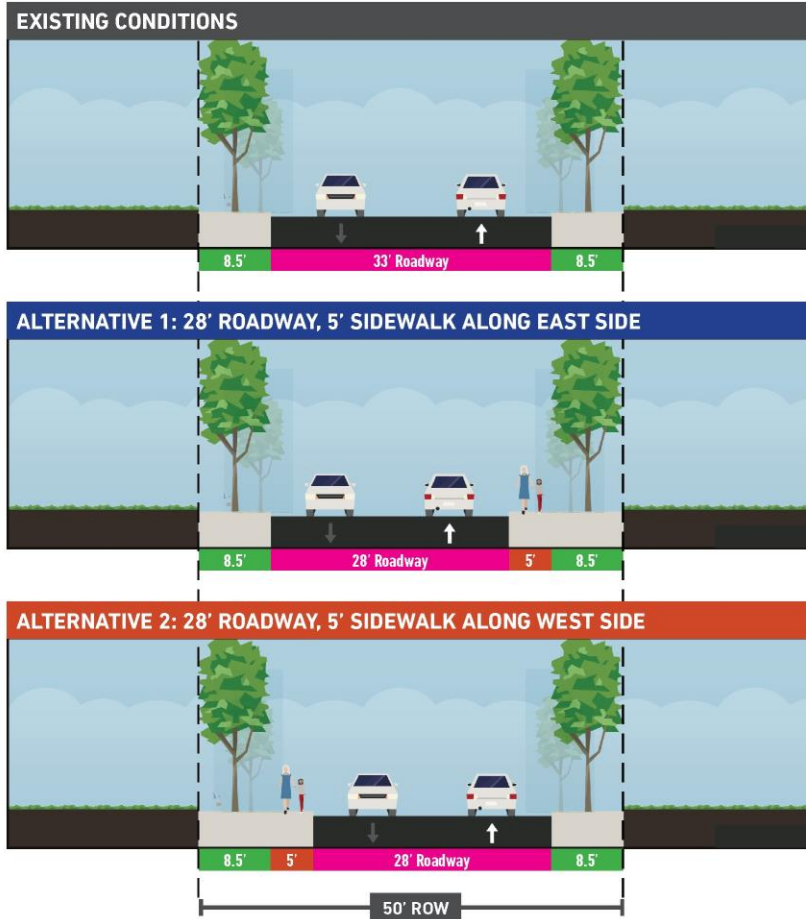


Linden Park trail south of Maple



Arlington Road Sidewalk Alternatives

W Lincoln Street to W Maple Road



Existing signalized pedestrian crossing at Lake Park, just 100 feet east of Shirley



All Alternative measurements are approximate, waiting on dimension survey

Arlington Road Sidewalk Alternatives

W Lincoln Street to W Maple Road

Alternative 3: 27' Roadway 5' Sidewalks along roadway

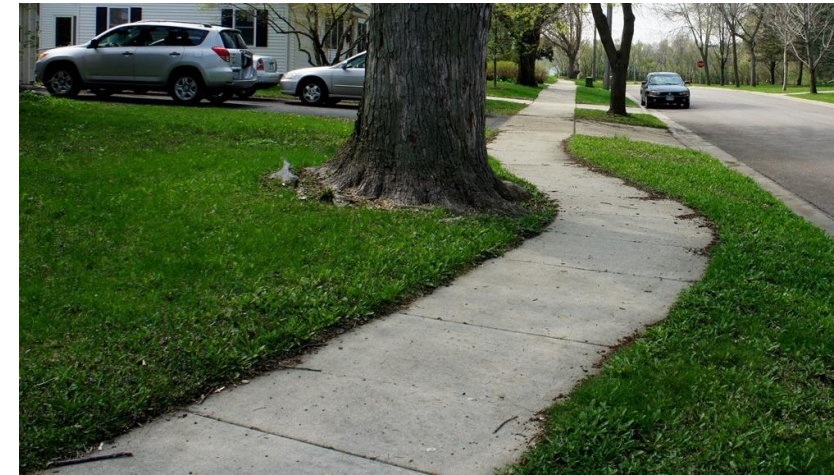


Sidewalk will be 2-3ft beyond the current curb

Alternative 4: 27' Roadway 5' Curblawn and 5' Sidewalks along roadway

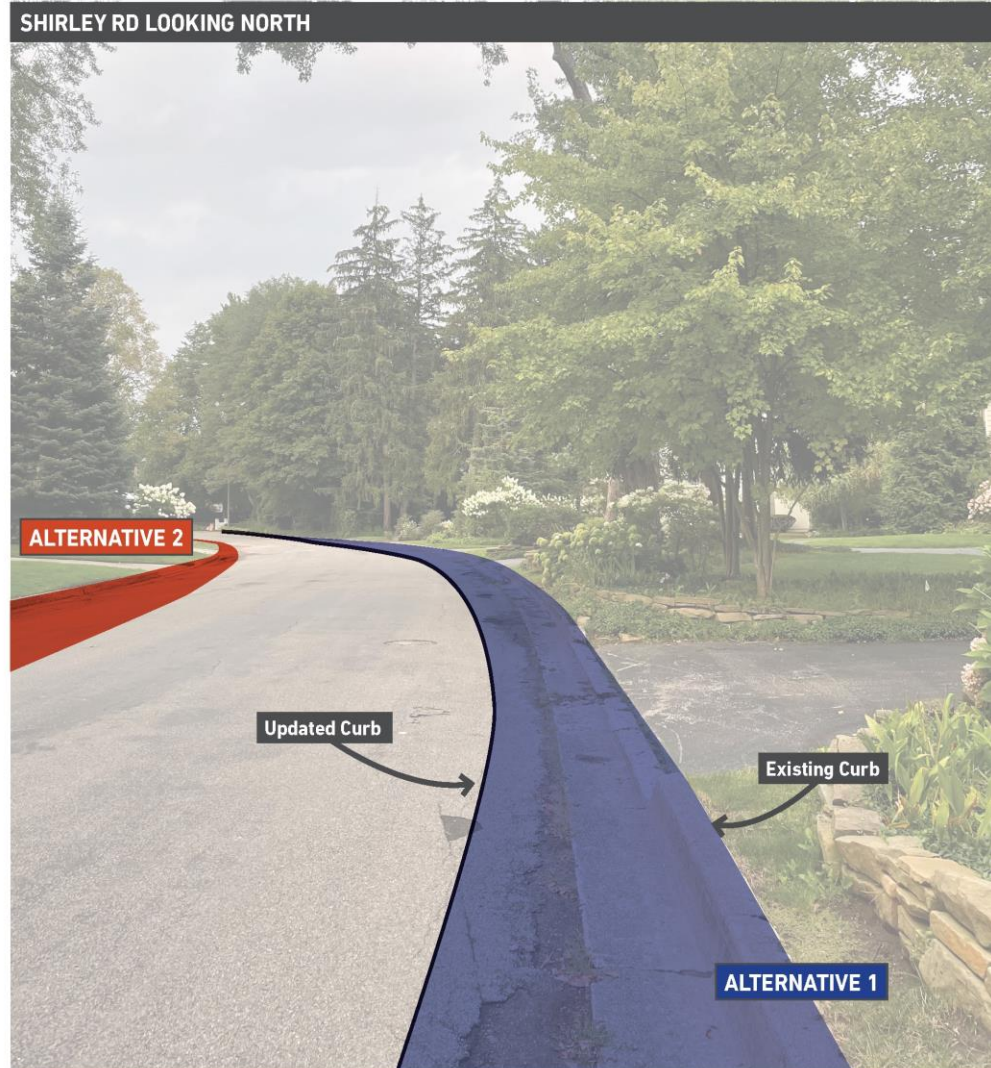
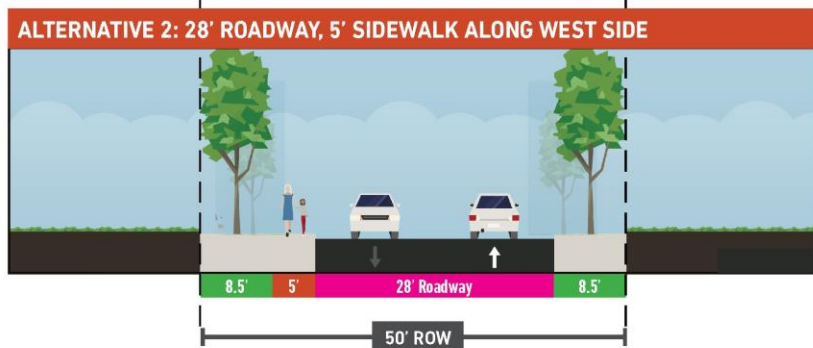
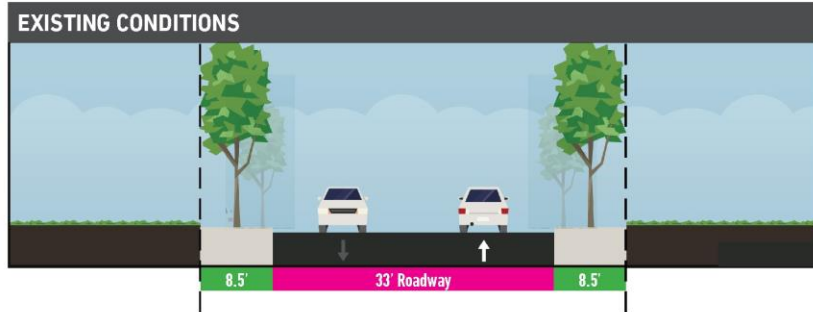


Curblawn buffer and sidewalk will be 7-8ft beyond the current curb



Shirley Road Sidewalk Alternatives

W Lincoln Street to W Maple Road



Existing Sidewalk east side of Shirley between Linden Park and Lincoln



Shirley Road Sidewalk Alternatives

W Lincoln Street to W Maple Road

Alternative 3: 27' Roadway 5' Sidewalks on both sides



Sidewalk will be 2-3 ft beyond current curb

Alternative 3: 27' Roadway 5' buffer and 5' Sidewalks on both sides



Curblawn buffer and sidewalk will be 7-8ft beyond current curb

Arlington/Shirley Recommendations

Arlington and Shirley have mature street trees, and moderate use of on-street parking

Options

- No sidewalk
- Curbed sidewalk on east side
- Curbed sidewalk on west side
- Curbed sidewalks on both sides
- Traditional sidewalk with curb lawn (Could meander around mature trees)

1. Board comments on alternatives
2. Public input
3. Separate meeting with the residents on improved vs unimproved is being scheduled
4. Recommendation to City Commission

3.2 SIDEWALKS

DESCRIPTION

Sidewalks are the unsung heroes of a multi-modal system. They are usually the first facilities to be constructed and provide a backbone to a complete multi-modal network. They are one of the key components to a walkable community and should be completed on both sides of all roads in an urban area.

A community's long term goal should be to provide sidewalks on both sides of the roadway along all roads. Sidewalks are proven to reduce pedestrian crashes and are critical to children safely walking to school, especially in dark conditions. Providing a complete sidewalk network along all roadways is important from a safety and connectivity standpoint and the city should work towards completing its network.

For the most up-to-date guidelines please refer to AASHTO's *Guide for the Planning, Design, and Operation of Pedestrian Facilities*.

All newly constructed and reconstructed sidewalks and shared use pathways should be in compliance with Title II of the Americans with Disabilities Act of 1990 (ADA). Please refer to the *Accessible Public Rights-of-Way: Planning and Designing for Alternatives* guide for more information.



RECOMMENDATIONS

The first priority is to provide sidewalks along all the major roadways. In the near-term the City should focus on completing sidewalk gaps along S Cranbrook Road to connect to the high school and dog park and along S Old Woodard to connect on-street parking to the businesses along the corridor. Please refer to the Network Implementation Plan for more details.

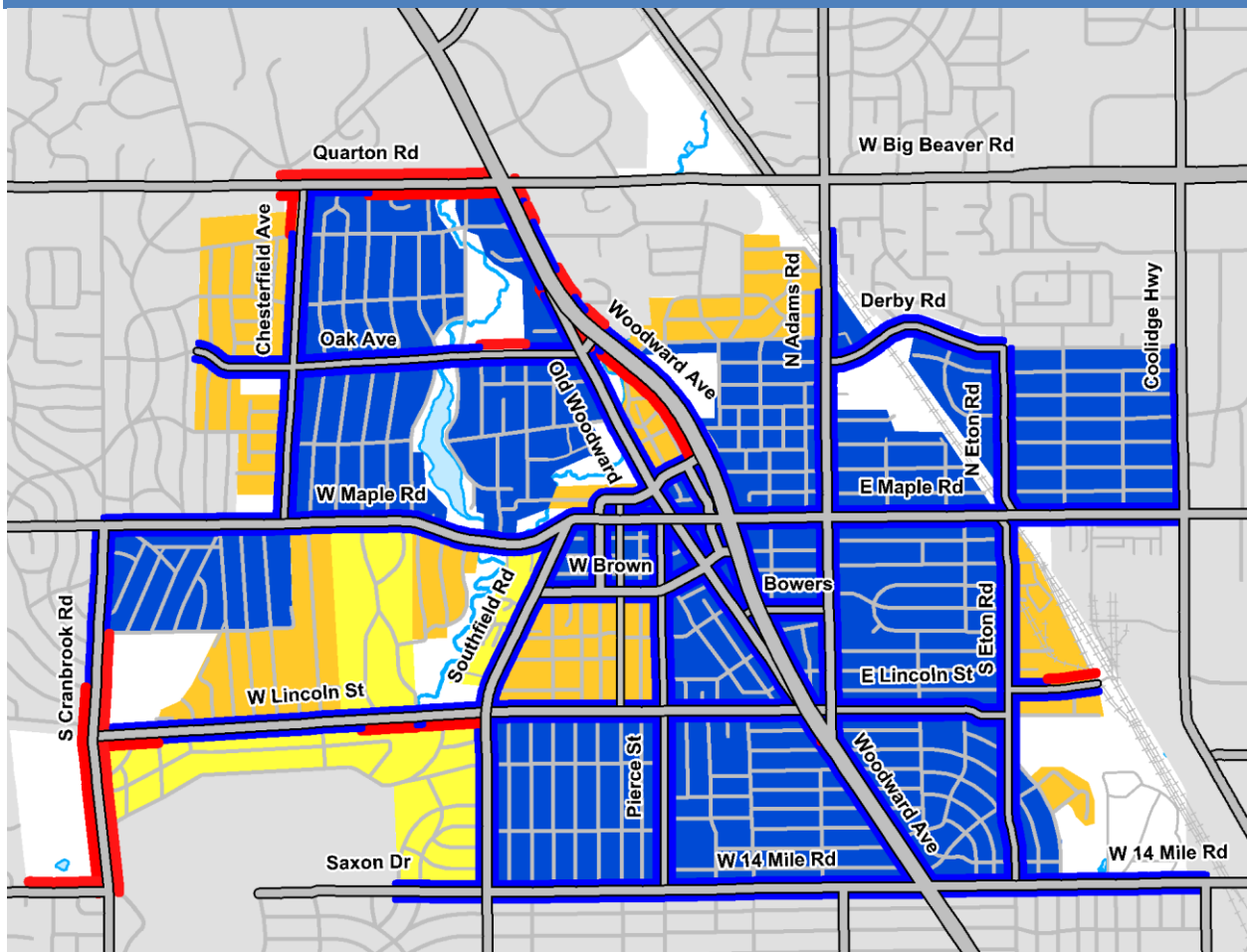
The second priority should be to complete the sidewalk gaps in neighborhoods that already have an existing sidewalk system partially in place.

The third priority should be to complete sidewalks in all neighborhoods.

In general, sidewalks should be installed by developers when constructing or reconstructing buildings or homes and by local city, county or state agencies during a roadway improvement project. Sidewalks should be a minimum of 5' wide. 6' is preferred along Collector roadways and 8' is preferred along Arterial roadways.

Please refer to Fig. 3.2A for a map of the proposed sidewalks.

FIGURE 3.2A PROPOSED SIDEWALKS

**Proposed Sidewalks:**

- Existing Sidewalks
- Priority 1: Complete Sidewalks along Major Roads
- Priority 2: Complete Sidewalk Gaps in Neighborhood
- Priority 3: Add Sidewalks to Neighborhood

APPROXIMATELY 2.5
MILES OF SIDEWALK ARE
PROPOSED ALONG
PRIMARY ROADS IN THE
CITY OF BIRMINGHAM

Web Survey Results:

- About 38% of respondents walk to work and/or the store daily or weekly
- About 80% of respondents walk for fun and/or exercise daily or weekly
- Around 79% of respondents feel a complete sidewalk system is very important to non-motorized trips actually happening in the future



MEMORANDUM

Planning Division

DATE: September 29, 2023

TO: Multi-Modal Transportation Board

FROM: Brooks Cowan, Senior Planner
Ryan Kearney, Police Lieutenant
Melissa Coatta, Engineering Department
With assistance from:
Brad Strader, MKSK
Julie Kroll, Fleis & Vandenbrink

SUBJECT: Communications

1. George & Purdy
 - a. All way stop sign review
2. Penistone & Sheffield
 - a. All way stop sign review
3. Pierce Alley
 - a. Sight Distance Review
 - b. Request to add mirror
4. Hazel & Adams
 - a. Letter from resident
 - b. Ped Crossing Review
 - c. Existing Signage Review
5. Saxon & Lathum
 - a. TWSC Additional Signage
6. Lincoln Street-Truck Traffic
 - a. Dead end turnaround
7. Cole Street Access and Connectivity
 - a. Rail District Plan Recommendations

MEMO

VIA EMAIL: cityengineer@bhamgov.org

To: **Melissa A. Coatta, P.E.**
City Engineer, City of Birmingham

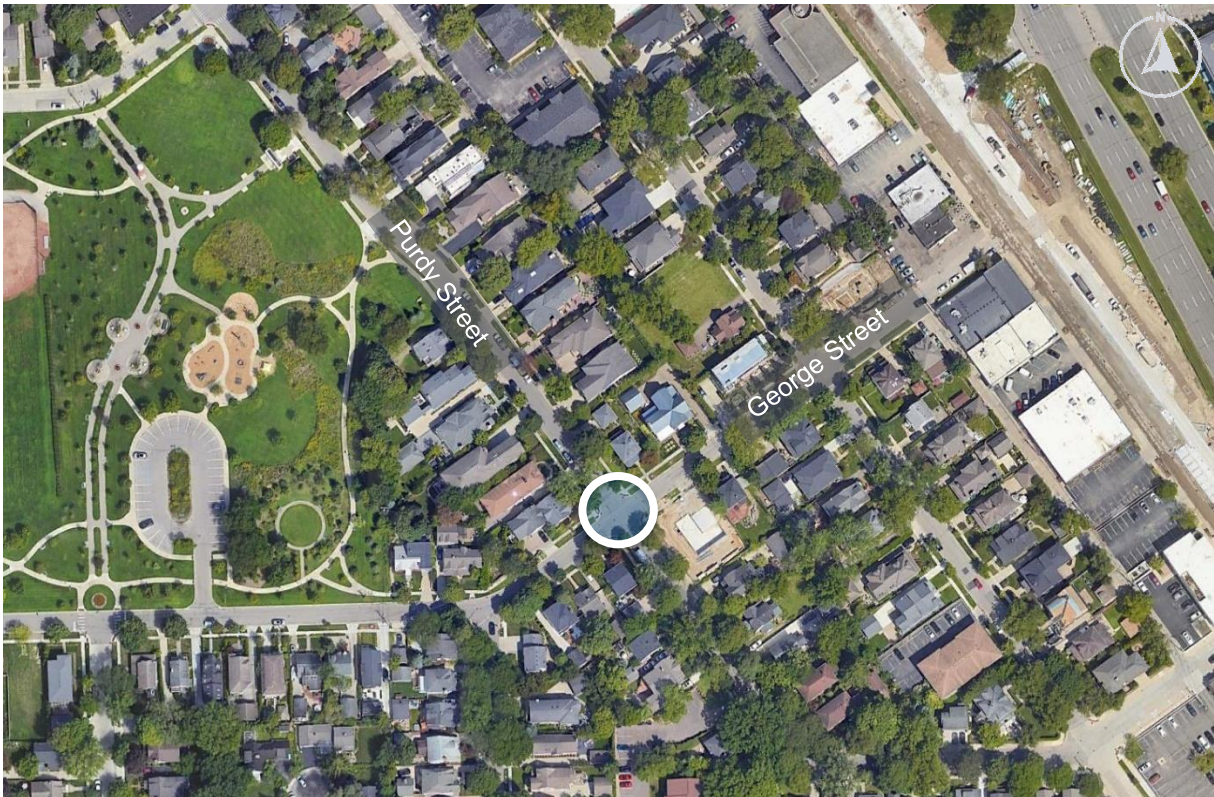
From: **Julie M. Kroll, PE, PTOE**
Fleis & VandenBrink Engineering

Date: **September 28, 2023**

Re: **George Street and Purdy Street
Intersection Evaluation**

Fleis & VandenBrink (F&V) staff is pleased to present this memorandum to the City of Birmingham for your use in evaluating recommended traffic control signing for the intersection of George Street and Purdy Street, shown in Figure 1 below. This study was performed to determine what intersection traffic control measures (if any) should be provided at the study intersection.

FIGURE 1: STUDY INTERSECTION LOCATION MAP



Guidance regarding regulatory traffic measures is provided in the *Michigan Manual of Uniform Traffic Control Devices (MMUTCD)* Sections 2B.04 and 2B.06. Additional information is provided in the American Association of State Highway and Transportation Officials (AASHTO) *Geometric Design of Highway and Streets* (Green

**27725 Stansbury Boulevard, Suite 195
Farmington Hills, MI 48334**

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www.fveng.com

Book). F&V referenced *MMUTCD* and additional documents to evaluate existing intersection conditions and develop a recommendation. Results of the analysis and recommendations are included herein.

FIELD REVIEW

F&V staff performed a field review of the intersection on Tuesday, September 19, 2023, to review the intersection, sight distance and concerns as noted by residents requesting traffic control. The photos taken during the field visit are attached.

Key findings from the field review are summarized below:

- Two-Way Stop control is provided at this intersection, with STOP signs provided on the Purdy Street approaches.
- Numerous vehicles were parked illegally at the intersection on both George Street and Purdy Street
- The vehicles parking within the clear vision triangle were obstructing the sight-distance at the intersection.
- Parking is prohibited adjacent to the north side of George Street.
- Permit parking only is permitted adjacent to the south side of George Street.

Results of the review of the intersection indicate that intersection traffic control is recommended at this intersection. Further analysis was performed to determine the recommended control type at this intersection.

INTERSECTION ANALYSIS-STOP CONTROL

The study intersection of George Street and Purdy Street is a four-leg intersection with two-way stop control on the Purdy Street approaches at George Street. Section 2B.07 of the *MMUTCD* provides a set of criteria to evaluate in order to determine when the installation of multi-way stop should be considered at an intersection. The applicable criterion includes the evaluation of the *Crash History*, *Traffic Volumes*, and *Sight Distance* at the intersection.

A. TRAFFIC VOLUMES

- A. *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.*
- B. *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*
- C. *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.*

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

B. SIGHT DISTANCE

*Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop. **Not Met.***

F&V conducted an evaluation of the corner clearance for the intersection of George Street and Purdy Street and compared existing conditions to the requirements for corner clearance outlined in the *AASHTO Green Book*. The evaluation indicates that the study intersection of George Street and Purdy Street has the necessary intersection corner clearance provided there are no vehicles parked within 30 feet of the intersection on the east side and approximately 50 feet on the west side. Field reviews showed that vehicles are parked illegally at this intersection, obstructing the sight distance.

C. 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. **Not met.***

The Birmingham Police Department (BPD) provided crash data for the last 5 years. The data showed that there was one (1) crash in the vicinity of the intersection, which was related to a parked vehicle. Therefore, there were no crashes reported at the study intersection that were correctable with STOP control on the George Street approach.

SUMMARY

Results of the analysis show that all-way stop control is not warranted. The analysis results are summarized below.

Multi-Way Stop Sign Criterion (MMUTCD Section 2B.07)		Met?
A. Traffic Volumes	<p>A. 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.</p> <p>B. 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</p> <p>C. 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.</p> <p>When no single criterion is satisfied, but where Criteria A, B, and the Crash Criteria are all satisfied to 80 percent of the minimum values. Criterion C is excluded from this condition.</p>	No
B. Sight Distance	Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop.	No
C. Crashes	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.	No
Multi-Way Stop Control Recommended		No

RECOMMENDATIONS

- Provide additional signage and pavement markings on George Street to prohibit parking within 20 feet of the pedestrian crosswalks (per Michigan vehicle code Section 257.674f).
- Increase enforcement and ticketing of vehicles parked illegally and without parking permit.

If you have any questions or concerns regarding this engineering analysis, please do not hesitate to contact our office.

cc: Brooks Cowan, City Planner
Cpt. Ryan Kearney, Birmingham Police Department

Attachments: Intersection Photos



Purdy Street approach at George Street
Looking South



George Street approach at Purdy Street
Looking East



George Street approach at Purdy Street
Looking West



Purdy Street approach at George Street
Looking North

MEMO

VIA EMAIL: RKearney@bhamgov.org

To: Cpt. Ryan Kearney
Birmingham Police Department

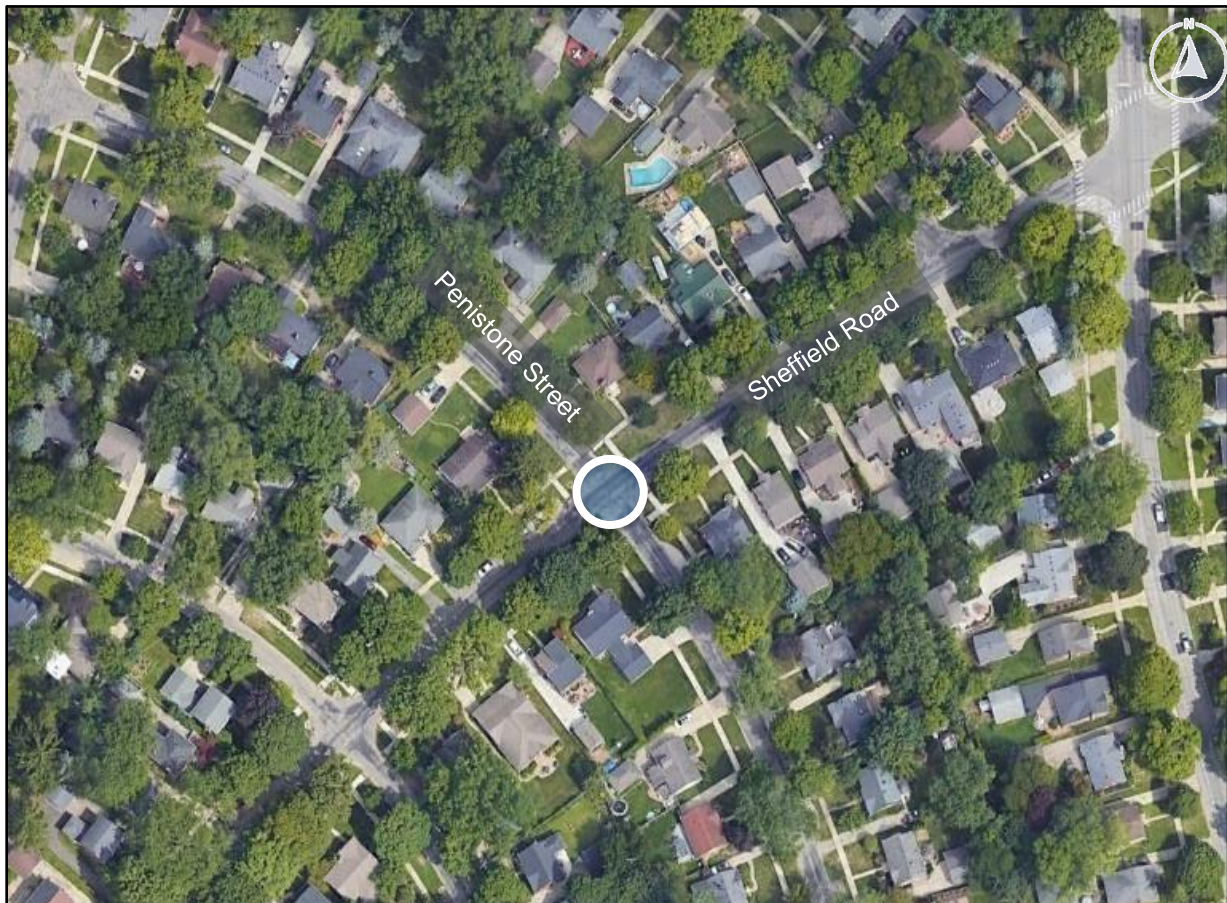
From: Julie M. Kroll, PE, PTOE
Fleis & VandenBrink Engineering

Date: September 28, 2023

Re: Penistone Street and Sheffield Road
Intersection Evaluation

Fleis & VandenBrink (F&V) staff is pleased to present this memorandum to the City of Birmingham for your use in evaluating recommended traffic control signing for the intersection of Penistone Street and Sheffield Road, shown in Figure 1 below. This study was performed to determine what intersection traffic control measures (if any) should be provided at the study intersection.

FIGURE 1: STUDY INTERSECTION LOCATION MAP



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Guidance regarding regulatory traffic measures is provided in the *Michigan Manual of Uniform Traffic Control Devices (MMUTCD)* Sections 2B.04 and 2B.06. 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 *MMUTCD* and additional documents to evaluate existing intersection conditions and develop a recommendation. Results of the analysis and recommendations are included herein.

FIELD REVIEW

F&V staff performed a field review of the intersection on Tuesday, September 19, 2023 to review the intersection, sight distance and concerns as noted by residents requesting traffic control. The photos taken during the field visit are attached.

Key findings from the field review are summarized below:

- Two-Way Stop control is provided at this intersection, with STOP signs provided on the Purdy Street approaches.
- There is adequate intersection and stopping sight distance.
- Sheffield Road is a narrow (20 ft) unimproved road. On-street parking is permitted, however the majority of vehicles that park on-street will park in the area between the travel lane and the sidewalk.

Results of the review of the intersection indicate that intersection traffic control is recommended at this intersection. Further analysis was performed to determine the recommended control type at this intersection.

INTERSECTION ANALYSIS-STOP CONTROL

The study intersection of Penistone Street and Sheffield Road is a four-leg intersection with two-way stop control on the Penistone Street approaches at Sheffield Road. Section 2B.07 of the *MMUTCD* provides a set of criteria to evaluate in order to determine when the installation of multi-way stop should be considered at an intersection. The applicable criterion includes the evaluation of the *Crash History*, *Traffic Volumes*, and *Sight Distance* at the intersection.

A. TRAFFIC VOLUMES

- A. *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.*
- B. *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*
- C. *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.*

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

B. SIGHT DISTANCE

*Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop. **Not Met.***

F&V conducted an evaluation of the corner clearance for the intersection of Penistone Street and Sheffield Road and compared existing conditions to the requirements for corner clearance outlined in the AASHTO *Green Book*. The evaluation indicates that the study intersection of Penistone Street and Sheffield Road has the necessary intersection corner clearance provided there are no vehicles parked within 50 feet of the intersection. Field reviews showed that vehicles are parked illegally at this intersection, obstructing the sight distance.

C. 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. **Not met.***

The Birmingham Police Department (BPD) provided crash data for the last 5 years. The data showed that there was one (1) crash in the vicinity of the intersection, which was related to a parked vehicle. Therefore, there were no crashes reported at the study intersection that were correctable with STOP control on the Penistone Street approach.

SUMMARY

Results of the analysis show that all-way stop control is not warranted. The analysis results are summarized below.

Multi-Way Stop Sign Criterion (MMUTCD Section 2B.07)		Met?
A. Traffic Volumes	<p>A. 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.</p> <p>B. 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</p> <p>C. 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.</p> <p>When no single criterion is satisfied, but where Criteria A, B, and the Crash Criteria are all satisfied to 80 percent of the minimum values. Criterion C is excluded from this condition.</p>	No
B. Sight Distance	Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop.	No
C. Crashes	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.	No
Multi-Way Stop Control Recommended		No

RECOMMENDATIONS

- Provide additional signage on Sheffield Road to prohibit parking within 20 feet of the pedestrian crosswalks at Penistone Street (per Michigan vehicle code Section 257.674f).
- Increase enforcement and ticketing of vehicles parked illegally.

If you have any questions or concerns regarding this engineering analysis, please do not hesitate to contact our office.

cc: Brooks Cowan, City Planner
Melissa Coatta, PE, City Engineer

Attachments: Intersection Photos



Penistone Street approach at Sheffield Road
Looking South



Sheffield Road approach at Penistone Street
Looking East



Penistone Street approach at Sheffield Road
Looking North



Sheffield Road approach at Penistone Street
Looking West

MEMO

VIA EMAIL RKearney@bhamgov.org

To: Lt. Ryan Kearney
Birmingham Police Department

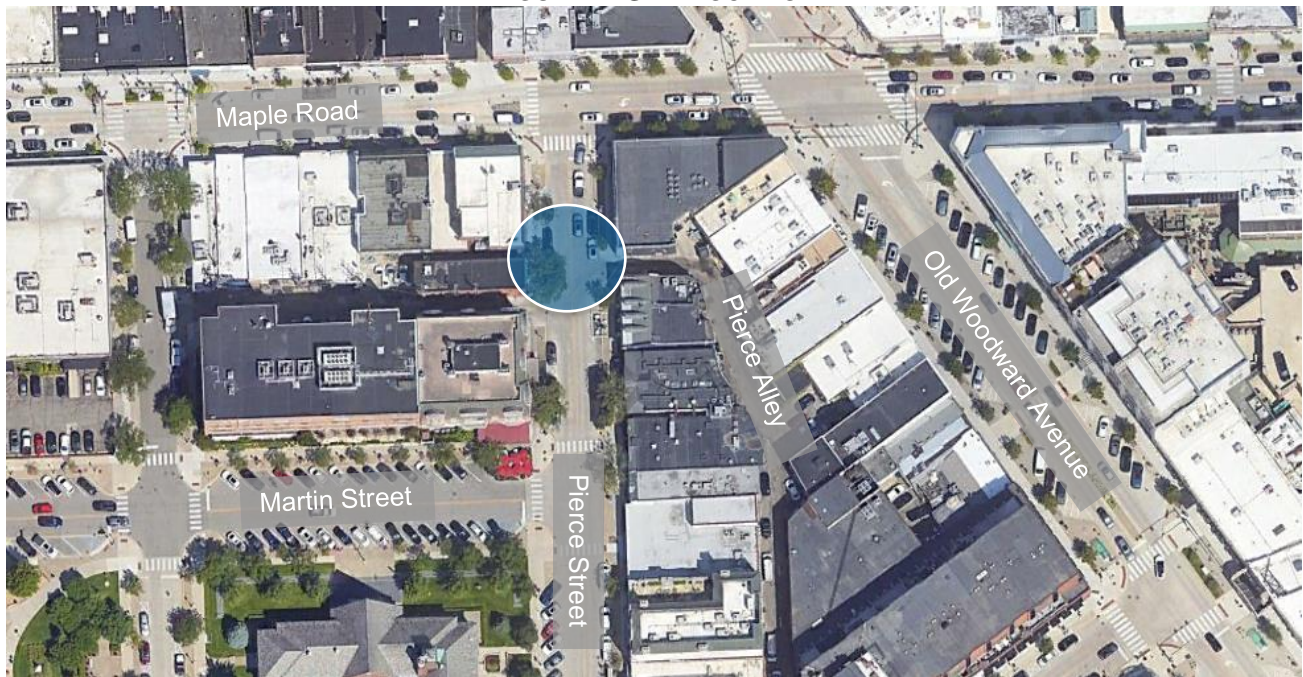
From: Julie Kroll, PE, PTOE
Fleis & VandenBrink Engineering

Date: September 28, 2023

Re: **Pierce Alley – Sight Distance Evaluation**

Fleis & VandenBrink (F&V) staff is pleased to present this memorandum to the City of Birmingham for your use evaluating the intersection of Pierce Alley and Pierce Street intersection. The City of Birmingham has received input a request to provide mitigation measures improve the safety of this alley approach at Pierce Street.

FIGURE 1: SITE LOCATION



FIELD REVIEW

F&V staff performed a field review of the intersection on Tuesday, September 19, 2023, to review the intersection sight distance. The photos taken during the field visit are attached.

Key findings from the field review are summarized below:

- There are sight distance limitations for vehicles exiting the alley to see pedestrians on the sidewalk.
- Once vehicles exit the alley onto the sidewalk approach, there is sufficient sight distance at the intersection.

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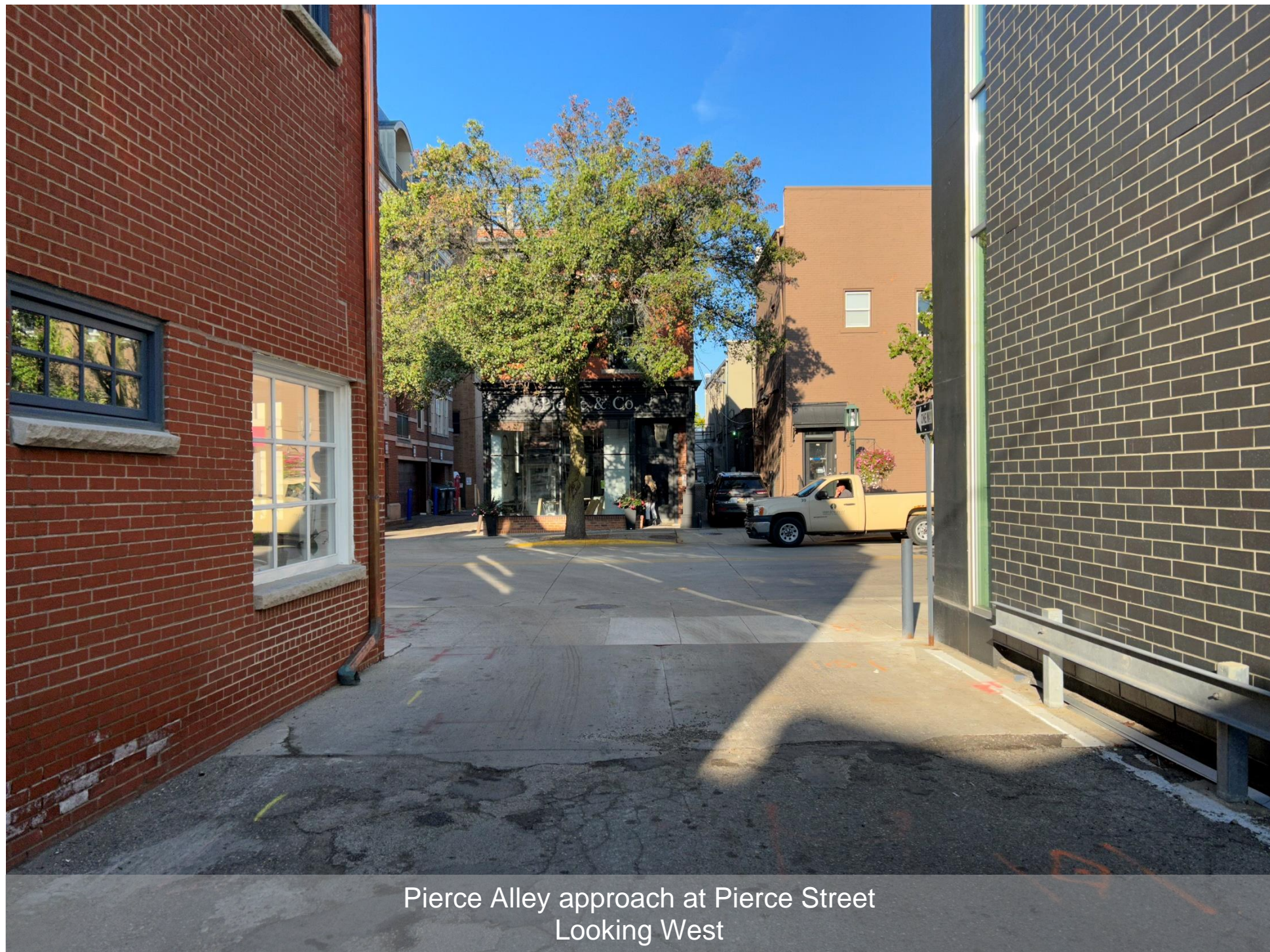
RECOMMENDATIONS

- Install a mirrors on the buildings so vehicles exiting the Pierce Alley can see the pedestrians on the sidewalk.
- Install a “Watch For Pedestrians” sign on the Pierce Alley at Pierce Street

If you have any questions or concerns regarding this engineering analysis, please do not hesitate to contact our office.

cc: Brooks Cowan, City Planner
Melissa Coatta, PE, City Engineer

Attachments: Intersection Photos



Pierce Alley approach at Pierce Street
Looking West



Pierce Alley approach at Pierce Street
Looking North



Pierce Alley approach at Pierce Street
Looking South

MEMO

VIA EMAIL RKearney@bhamgov.org

To: Cpt. Ryan Kearney
Birmingham Police Department

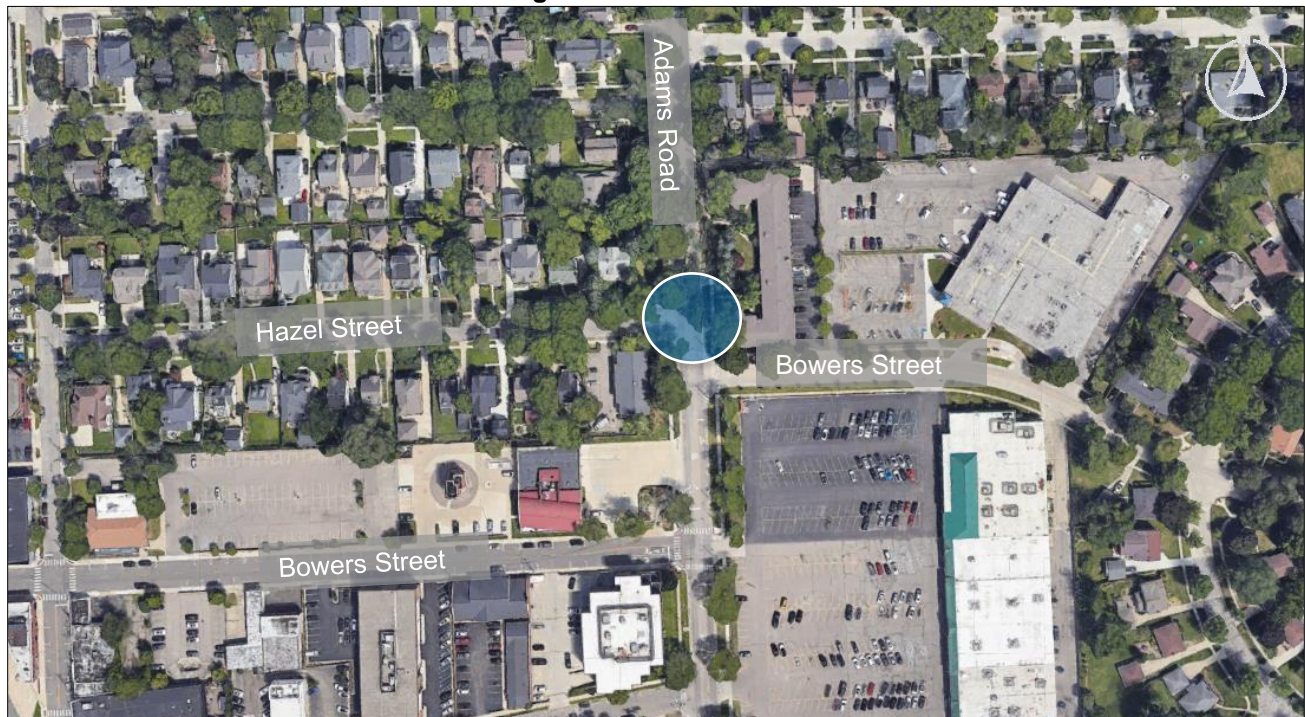
From: Julie M. Kroll, PE, PTOE
Fleis & VandenBrink

Date: September 28, 2023

Re: Hazel Street and Adams Road
Birmingham, Michigan
Pedestrian Crossing Evaluation

Fleis & VandenBrink (F&V) staff is pleased to present this memorandum to the City of Birmingham for your use in evaluating the Hazel Street and Adams Road intersection, as shown in Figure 1. The City of Birmingham has received concerns from neighborhood residents regarding the safety of pedestrian crossing at this intersection and requested an evaluation to determine what additional mitigation measures should be considered.

Figure 1: Site Location



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FIELD REVIEW

F&V staff performed a field review of the intersection on Tuesday, September 19, 2023, to review the intersection operations and the concerns as noted regarding the existing the pedestrian crossings. The photos taken during the field visit are attached.

Key findings from the field review are summarized below:

- There is an existing “Stop Here On Red” (R10-6) sign on southbound Adams Road at Hazel Street.
- The Hazel Street approach at Adams Street is STOP controlled. There is sign posted “Observe Traffic Signal After Turning Right” sign.
- There is a signalized pedestrian crosswalk across Adams Road between the Hazel Street (west) and Bowers Street (east).



RECOMMENDATIONS

Based upon the review of the existing intersection operations, signing, and striping, the following improvements are recommended:

- Update the signal timing to accommodate a 3 second Leading Pedestrian Interval for the east/west crossing on Adams Street. This will allow pedestrians to enter the intersection and begin crossing before vehicles make their turning movements, thus increasing the pedestrian awareness at this intersection.
- Provide a “Turning Vehicles Yield to Pedestrians” (R10-15) on the Hazel Street (west) and Bowers Street (east) approaches

If you have any questions or concerns regarding this engineering analysis, please do not hesitate to contact our office.

cc: Brooks Cowan, City Planner
Melissa Coatta, PE, City Engineer

Attachments: Intersection Photos



Hazel Street approach at Adams Road
Looking East



Adams Road approach at Hazel Street
Looking South



Adams Road approach at Bowers Road
Looking North



Bowers Road approach at Adams Road
Looking West

MEMO

VIA EMAIL RKearney@bhamgov.org

To: Cpt. Ryan Kearney
Birmingham Police Department

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

Date: September 28, 2023

Re: Saxon Drive & Latham Street
Birmingham, Michigan
Two-Way Stop Evaluation

Fleis & VandenBrink (F&V) staff is pleased to present this memorandum to the City of Birmingham for your use in evaluating the existing two-way stop control at the Saxon Drive and Latham Street intersection, as shown in Figure 1. This study was performed to determine what additional intersection traffic control measures should be provided at the study intersection. It should be noted that Saxon Road is shared jurisdictional, with the north side in the City of Birmingham and the south side in the City of Beverly Hills.

FIGURE 1: SITE LOCATION



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FIELD REVIEW

F&V staff performed a field review of the intersection on Wednesday, September 13, 2023. Photos taken during the field review are attached.

Key findings from the field review are summarized below.

- There are existing STOP signs on both the Latham Street and Norchester Street (Beverly Hills) approaches at Saxon Drive. Additionally, there is a stop bar at the STOP sign on Latham Street.
- Pedestrian crossings are provided on all four-legs of the intersection.
- The pedestrian crossing on the east leg of the intersection, across Saxon Drive is an enhanced crossing with a Rectangular Rapid Flashing Beacon (RRFB).
- The STOP sign and stop bar on Latham Street are located past the crosswalk. Both should be located a minimum of 4-feet in advance of the pedestrian crossing.

RECOMMENDATIONS

Based upon the review of the existing intersection operations, signing, and striping, the following improvements are recommended:

1. The existing STOP sign and stop bar should be relocated prior to the pedestrian crossing.
2. The concerns noted by the resident indicated that additional signage be provided to indicate the intersection provides only a two-way stop control. The MMUTCD provides guidance on this and a CROSS TRAFFIC DOES NOT STOP (W4-4P) plaque may be used in combination with a STOP sign when engineering judgment indicates that conditions are present that are causing or could cause drivers to misinterpret the intersection as an all-way stop. Based on the concerns noted, this can be added below the STOP sign on Latham Street.
3. The existing RRFB signage was installed incorrectly. The signs that should be revised are shown circled on the attached photo.
4. The pedestrian crossing with the RRFB should provide an enhanced pedestrian crosswalk.

If you have any questions or concerns regarding this engineering analysis, please do not hesitate to contact our office.

cc: Brooks Cowan, City Planner
Melissa Coatta, PE, City Engineer

Attachments: Intersection Photos



Lathum Street approach at Saxon Drive
Looking South



Saxon Drive approach at Lathum Street
Looking East



Norchester Street approach at Saxon Drive
Looking North



Saxon Drive approach at Lathum Street
Looking West

MEMO

VIA EMAIL RKearney@bhamgov.org

To: Cpt. Ryan Kearney
Birmingham Police Department

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

Date: September 28, 2023

Re: Lincoln Street – Truck Traffic Evaluation

Fleis & VandenBrink (F&V) staff is pleased to present this memorandum to the City of Birmingham for your use in evaluating recommended signing on Lincoln Street, east of S. Eton Street. This section of Lincoln Street does not provide any outlet and provides access only via S. Eton Street. The businesses on Lincoln Street have experienced increased truck traffic utilizing Lincoln Street to by-pass the truck prohibition on S. Eton Street. Trucks have been observed to make u-turns at the east end of the roadway, which is not designed to accommodate this movement. This has resulted in vehicle crashes with the trucks attempting these u-turn maneuvers.

FIGURE 1: SITE LOCATION MAP



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There are two (2) signs on Lincoln Street to indicate that Lincoln Street is not a through street.

Sign 1: “Not a Thru Street” on Lincoln Street at S. Eton intersection.



Sign 2: “No Outlet” on Lincoln Street, east of Commerce Street



RECOMMENDATIONS

Based upon the review of the existing signing, the following improvements are recommended as summarized below and shown on Figure 2.

- At the S.Eton Street intersection replace existing “Not a Thru Street” sign with “No Trucks Except Local Delivery”
- At the intersection with Commerce, add the “No Trucks Except Local Delivery” under the existing “No Outlet” sign.

FIGURE 2: RECOMMENDED SIGNING



If you have any questions or concerns regarding this engineering analysis, please do not hesitate to contact our office.

cc: Brooks Cowan, City Planner
Melissa Coatta, PE, City Engineer



MEMORANDUM

Planning Division

DATE: September 29th, 2023

TO: Multi-Modal Transportation Board

FROM: Brooks Cowan, Senior Planner
Ryan Kearney, Police Lieutenant
Melissa Coatta, Engineering Department
With assistance from:
Brad Strader, MKSK
Julie Kroll, Fleis & Vandenbrink

SUBJECT: Eton Road Corridor Plan – Cole Street

INTRODUCTION:

On September 7th, 2023, The Multi-Modal Transportation Board reviewed parking on Cole Street east of S. Eton which led to discussions of connectivity in the Rail District. Staff indicated they would provide information on recommendations regarding connectivity in the Rail District which is summarized below.

BACKGROUND:

The Eton Road Corridor Plan was approved in 1999 which served as a basis for the City to rezone the former Industrial area to MX-Mixed use which has led to a number of developments over the past 20 years. The plan also recommends road alternatives that create greater north and south connectivity within the Rail District, however only a portion of this has come to fruition in the northern portion which was accommodated with the Crosswinds townhome developments.

The Eton Road Corridor Plan recommends a road connecting Cole Street to Holland Street along the railway. The City does not own this property, nor has the owner come to the City for and type of development or site plan approval, hence the City is legally limited in what can be done for obtaining land for a connection road.

Birmingham

