

**BLOOMINGTON TRAFFIC COMMISSION
AGENDA**

April 24, 2024

**4:30 P.M. –In-person and Virtual Hybrid meeting
City Hall, Council Chambers**

Online link: <https://bloomington.zoom.us/j/6359441221>

Meeting ID: 635 944 1221

Passcode: COBPT

Dial in: +1 312 626 6799 US (Chicago)

- I. Call to Order**
 - A. Election of officers*

- II. Approval of Minutes**
 - A. March 27, 2024

- III. Communications from Commission**

- IV. Public Comment***

- V. Reports from Staff**
 - A. Engineering Traffic Fatality Report – *Andrew Cibor, PE, PTOE, Engineering Department*

- VI. Old Business***

- VII. New Business***
 - A. TC-24-02: 7-Line Project Update and All-Way Stop Control Installation – *Andrew Cibor, PE, PTOE, Engineering Department*

- VIII. Traffic Inquiries:**

- IX. Adjournment:**

Next meeting – May 22, 2024 – City Council Chambers

**Action Requested/Public comment prior to any vote (limited to five minutes per speaker)*

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**BLOOMINGTON TRAFFIC COMMISSION
MINUTES**

March 27, 2024

**4:30 P.M. –In-person and Virtual Hybrid meeting
City Hall, Council Chambers**

I. Call to Order

Field, Ryterband, Moore, Alexander, Burns, Cibor, Love - in person

II. Approval of Minutes

A. January 24, 2023 – Motion: Alexander, Second: Cibor. Voice vote 7-0

III. Communications from Commission

- A. Cibor gave update about High Street public meeting on April 2nd
- B. Cibor gave update about upcoming agenda items for April meeting
- C. Ryterband gave update about SS4A Safety Week
- D. Ryterband informed about Distracted Driver Awareness Month

IV. Public Comment*

V. Reports from Staff

VI. Old Business*

VII. New Business*

VIII. Traffic Inquiries:

- A. Request: Persistent Stop Light Problems Report – *Greg Alexander, Traffic Commissioner*
 - i. Alexander expressed concern about traffic lights at various intersections around the city. Specifically in regards to pedestrian signal timing. An example of 17th and Kinser was given where there are a number of issues that lower the level of service for pedestrians. The issues raised revolved around them being installed wrong, not being pedestrian focused, and fixes and repairs appear to be ad hoc.
 - ii. Love expressed belief that pedestrian buttons are working as intended.
 - iii. Cibor asked for clarification what isn't working. Offer to meet out on site.
 - iv. Alexander said that he was unable to get a north/south signal, despite it appearing to work a month before.
 - v. Alexander gave an example of 2nd and Landmark where 6 months after it's installation it failed to continue to work properly, was fixed, and appeared to break again.
 - vi. Ryterband agreed that there is a need for a report.
 - vii. Field asked if time of day had an effect on cycle length.

1. Cibor responded that can have an effect depending on a number of variables.
- viii. Ryterband asked how walk times are determined, and for who.
 1. Cibor explained how the cross times are determined.
Explaining that walk times should allow for ample time for pedestrians using mobility assistance devices.
- ix. Burns asked for further clarification on Alexander's request, particularly regarding whether stop lights should always include a pedestrian cycle. He expressed concerns that this could potentially disrupt vehicular traffic flow, with only minor benefits in reducing pedestrian wait times.
- x. Ryterband asked for further clarification on if Alexander was asking for a specific recommendation in regard to pedestrian actuated walk cycles.
- xi. Further discussion about timing cycles ensued.

IX. Adjournment: 5:16 pm



**TRAFFIC COMMISSION
STAFF REPORT**

Case #: TC-24-02
Date: April 24, 2024

FROM: Andrew Cibor, PE, PTOE, Engineering Department

REQUEST: 7-Line Project Update and All-Way Stop Control Installation

Location: 7th Street (B-Line Trail to Woodlawn)

Background:

The 7-Line project was one of seven Bicentennial Bond projects approved by the City Council in 2018 and was identified as a Phase 1 priority project in the Transportation Plan adopted by City Council in 2019. The project was envisioned to provide a protected east-west bicycle lane and improved transit corridor to connect the B-Line, downtown, Indiana University campus, and eastside neighborhoods. In August 2020, City Council unanimously approved Ordinance 20-14 with parking and stop sign changes associated with the project. These changes were also supported by the city's Parking, Traffic, and Bicycle & Pedestrian Safety Commissions. Project construction was completed in late 2021.

As a part of the City's effort to monitor the 7th Street corridor after the completion of the 7-Line project, the Engineering Department prepared a report regarding all-way stop control reinstallation that was reviewed and discussed by the Bicycle & Pedestrian Safety Commission and the Traffic Commission at their March 2023 meetings. After reviewing and discussing the report, both Commissions voted to convert the 7th Street and Dunn Street intersection from a one-way stop controlled intersection (southbound traffic on Dunn St was required to stop for traffic on 7th Street) to an all-way (3-Way) stop controlled intersection where all approaching traffic would be required to stop. This recommendation was largely due to a pattern of crashes that were susceptible to correction with the installation of all-way stop control. Due to the pattern of crashes, and consistent with the Commission recommendations, a 180 Day Order was issued on April 10, 2023 and the intersection was converted to all-way stop control on April 12, 2023.

The Bloomington City Council voted to retain the all-way stop control at 7th Street and Dunn Street intersection and directed that three additional all-way stop controlled intersections be reinstalled along 7th Street at the Morton Street, Washington Street, and Lincoln Street intersections on October 4, 2023. However, Mayor Hamilton vetoed Ordinance 23-23 on October 13, 2023 noting, "Additional time, hopefully enough to allow a full year of data since the April 2023 changes, will allow for more robust and meaningful data to inform any significant adjustments."

The intersection of 7th Street and Dunn Street has operated as an all-way stop controlled intersection under a reissued 180 day order since April 12, 2023. This report provides a brief

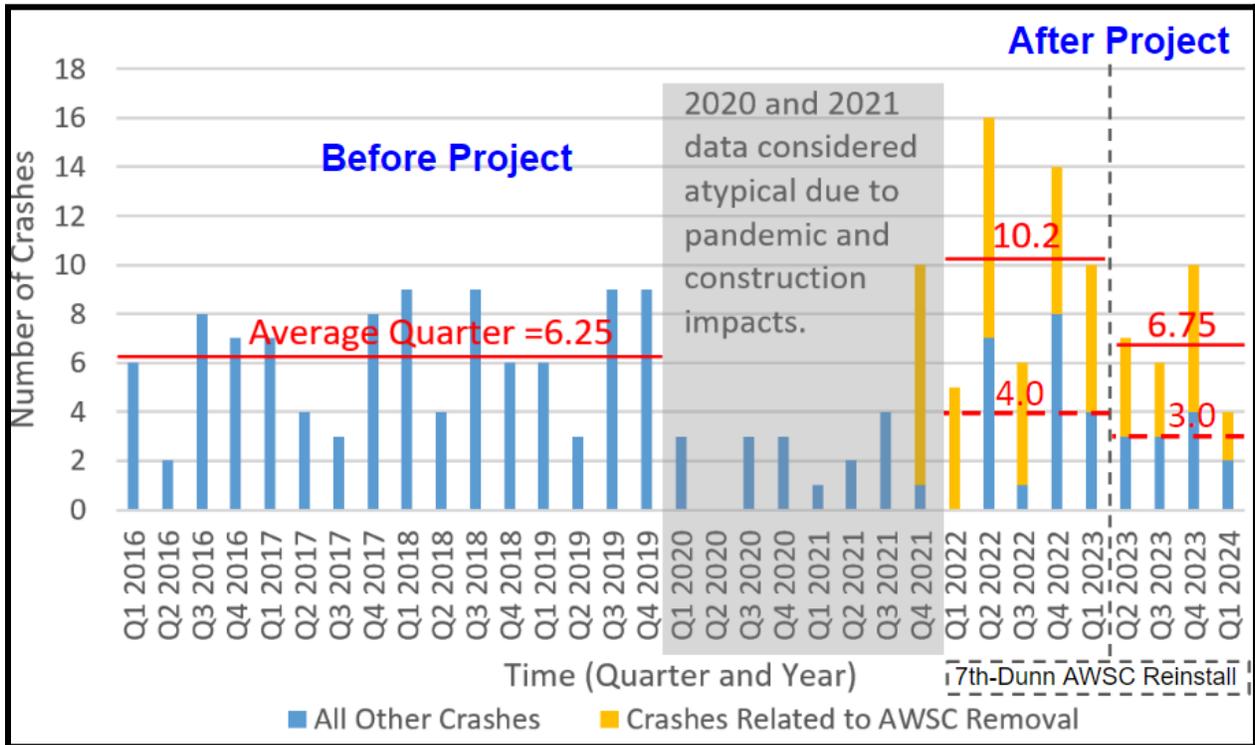
update on the status of the corridor and makes recommendations for updates to several intersections along the corridor.

Data Trend Summary:

Since completion of the 7-Line project in 2021 the following traffic trends have been observed:

- Automobile traffic volumes increased on 7th Street between Walnut and Indiana since the installation of the protected bike lane and removal of stop signs, and traffic volumes on intersecting streets where all-way stop control was removed decreased.
- A majority of vehicles on 7th Street exceed the 25mph regulatory speed limit. Measured 85th percentile speeds are approximately 30mph. Vehicle speeds decreased approximately 2mph in the vicinity of the Dunn Street intersection after the all-way stop was reinstalled.
- After the project, bike lane traffic counts increased approximately 27% to 50% adjacent to the Indiana University campus where the two-way protected bicycle lane replaced standard bicycle lanes. In a block that previously did not have bicycle lanes (Grant to Dunn) bicycle/scooter use increased 259%.
- Limited pedestrian traffic data available indicates more pedestrians are crossing 7th Street. Corridor-wide reported pedestrian crashes decreased since completion of the project.
- Vulnerable road user crash frequency is similar to pre-project rates despite increased vulnerable road user traffic.
- The number of reported crashes resulting in injuries is higher than pre-project rates.
- As illustrated in Figure 1, the corridor averaged 6.25 reported crashes per quarter (3 month period) before the 7-Line project was constructed and intersection traffic control was changed. Since the 7-Line project was completed and the all-way stop was reinstalled at the Dunn Street intersection, the corridor is averaging 6.75 total reported crashes per quarter. More than half of the reported corridor-wide crashes post project are susceptible to correction with the reinstallation of all-way stop control at the one/two-way stop controlled intersections. If all-way stop control is installed at these intersections, then the corridor-wide crash rate is estimated to average between 3 and 4 crashes per quarter.
- The reported crash frequency of the stop controlled intersections that did not change with the 7-Line project (e.g., Indiana Avenue, Woodlawn Ave, etc.) did not see a reported crash rate increase after completion of the project.
- There has only been one reported crash at the intersection of 7th Street and Dunn Street since reinstalling the all-way stop at the intersection and that crash occurred shortly after the all-way stop was reinstalled.

Figure 1 - Reported Corridor Total Crashes



Intersection Traffic Control Analysis:

The data and observations available to date indicate that while the protected bicycle lanes are generally operating as intended, the five intersections where all-way stop control was removed in conjunction with the 7-Line project (7th Street at Morton Street, Washington Street, Lincoln Street, Grant Street, and Dunn Street) would benefit from modifications. The crash data for these intersections indicates that nearly all reported crashes were a result of drivers on the side street failing to yield to drivers on 7th Street. In many of these crash reports, the driver on the side street told the reporting police officer that they mistakenly thought the intersection had all-way stop control. Since 2022 there were also two reported crashes at these intersections involving drivers failing to yield to users of the protected bicycle lane (one scooter at Dunn Street and one bicycle at Washington Street) and one reported crash involving a scooter failing to yield to a driver (southbound scooter on Morton Street). There were no reported crashes involving pedestrians at these five intersections.

Each of these five intersections has visible stop bars on the pavement and a stop sign with a “cross traffic does not stop” plaque (this was true for the Dunn Street intersection prior to the 180 day order). The one-way intersecting streets (Washington Street, Lincoln Street) have these signs located both on the left and right side of the road where it intersects with 7th Street. Additional signs and markings are not expected to be beneficial for clarifying the existing stop control at these intersections.

Installation of all-way stop control was evaluated at these intersections as an option to address the observed crash patterns. The Indiana Manual on Uniform Traffic Control Devices (IN MUTCD) includes four specific criteria to consider when studying whether to install all-way stop

control at intersections. Table 1 summarizes an evaluation of those criteria by subject intersection cross street.

Table 1 - IN MUTCD All-Way Stop Evaluation (2022-current)

Intersection Cross Street	Interim measure for traffic signal installation?	≥ 5 reported crashes susceptible to correction by all-way stop in a 12-month period?	Meets minimum volume threshold?	Meets a combination of thresholds to at least 80% of values?
Morton St	No	No (3)	No	No
Washington St	No	Yes (5)	No	N/A
Lincoln St	No	Yes (7)	No	N/A
Grant St	No	Yes (6)	No	N/A
Dunn St	No	Yes (12)	Yes*	N/A

*The Dunn Street intersection did not meet the minimum volume criteria based on pre-project data, but does meet the criteria using post-project data.

As summarized in Table 1, the Washington Street, Lincoln Street, Grant Street, and Dunn Street intersections meet at least one IN MUTCD criteria for all-way stop control installation; however, the Morton Street intersection does not meet the criteria.

Since October 2012 the IN MUTCD has been the adopted document to be used for evaluation of traffic control in the State of Indiana and is based on the Federal Highway Administration’s (FHWA’s) 10th Edition of the MUTCD that was published in 2009. While not yet adopted by the State, the FHWA published the 11th Edition of the MUTCD in December 2023 which offers some additional insight relevant to this study. Relevant items include:

- The IN MUTCD presents the above-mentioned all-way stop criteria as guidance; whereas, the 2023 MUTCD presents similar criteria as warrants. Both manuals suggest the importance of an engineering study that may include engineering judgment.
- Both MUTCD versions include a criterion related to five or more reported crashes susceptible to correction within a 12-month period; however, the 2023 MUTCD introduces another option related to crash experience if there are six or more reported crashes susceptible to correction within a 36-month period.

The 2023 MUTCD updates do not significantly alter the all-way stop evaluation findings summarized in Table 1; however, the only intersection that does not meet any of the criteria in Table 1 (Morton Street) has experienced 5 reported crashes susceptible to correction by an all-way stop in less than 24 months. If current trends continue, then this intersection is expected to meet the threshold established by the 2023 MUTCD in the coming months.

The IN MUTCD and the 2023 MUTCD also note an all-way stop engineering study may consider other criteria such as sight distance and pedestrian and bicycle movements. Visibility is limited in some locations on the 7th Street corridor. As a result, drivers may pull forward after stopping which can generate conflict with vehicles temporarily blocking crosswalks and/or bike lanes. Additionally, vulnerable road user traffic is generally high along the corridor due to proximity to both downtown and Indiana University campus. Finally, while not specifically listed in the MUTCD, the following additional items may be considered:

- Driver confusion has been observed where traffic on 7th Street will treat an intersection as an all-way stop despite the intersection not being an all-way stop. This behavior is most frequently observed at the Morton Street intersection and is similar to what was previously observed at the intersection of Kirkwood and Madison prior to it being converted to an all-way stop controlled intersection.
- The Morton Street intersection is the location staff perceive as receiving the most public interest in reinstalling an all-way stop (e.g., see the Bloomington Safe Streets & Roads For All ([SS4A](#)) [public feedback survey map](#)), and stakeholders such as the Bloomington Police Department have specifically noted interest in converting this intersection back to an all-way stop.

The majority of crashes are a result of motor vehicle drivers failing to yield to other motor vehicles, but the improvement option of implementing all-way stop control would have the most negative impact to efficiency for transit and users of the protected bicycle lane. The crashes involving motor vehicles are primarily right angle collisions. While the majority of crashes have not resulted in injuries, this crash type has potential to create serious injuries. Additionally, the implementation of all-way stop control can also reduce the potential for crashes involving users of the protected bicycle lanes (there have been some reported crashes involving people on bicycle/scooter, and observations indicate that some bicycle/scooter users must rapidly brake to avoid conflict with turning motor vehicles that failed to properly yield).

Conclusion & Recommendation:

The 7-Line project successfully improved east-west accessibility and mobility for all modes of transportation; however, the removal of all-way stop control at the five subject intersections (Morton, Washington, Lincoln, Grant, and Dunn) resulted in an increase in intersection-related crashes generally unrelated to the two-way protected bike lane.

- Before the removal of the all-way stop controlled intersections the corridor averaged about 25 reported crashes/year.
- Without all-way stop control at the five subject intersections the corridor averaged about 40 crashes/year.
- With the reinstallation of all-way stop at the Dunn St intersection the corridor has been averaging about 30 crashes/year.
- If all five intersections are converted to all-way stop the corridor is expected to average about 15 to 20 crashes/year.

Staff recommends that a Title 15 amendment be forwarded to City Council to reinstall all-way stop control at the five locations listed below. While the data is more compelling for some of these intersections than others, staff believe that all-way stop control installation is appropriate at all five locations and consistent with the City’s recently adopted goal of zero traffic deaths and serious injuries on the City’s roadways by the year 2039.

Title 15 Changes:

In order for all-way stop control to be implemented, Section 15.12.010, Schedule B “Multi-Stop Intersections” would need to be edited with the following changes.

Section 15.12.010, entitled “Stop intersections,” shall be amended by deleting the following from Schedule A Stop Intersections:

Traffic on	Shall Stop for Traffic on
Morton Street	Seventh Street
Washington Street	Seventh Street
Lincoln Street	Seventh Street
Grant Street	Seventh Street
Dunn Street	Seventh Street

Section 15.12.010, entitled “Stop intersections,” shall be amended by adding the following to Schedule B Multi-Stop Intersections:

Seventh Street & Morton Street	4-Way
Seventh Street & Washington Street	3-Way
Seventh Street & Lincoln Street	3-Way
Seventh Street & Grant Street	4-Way
Seventh Street & Dunn Street	3-Way

Attachments:

1. March 22, 2023 Traffic/BPSC Staff Report
2. September 15, 2023 Proposed Ordinance 23-23 Memorandum to City Council
3. October 13, 2023 Mayor Hamilton Veto Message regarding Ordinance 23-23
4. April 3, 2024 City Council Resolution 2024-07
5. April 10, 2024 180 Day Order Extension for All-Way stop at 7th Street and Dunn Street



**TRAFFIC/BPSC
STAFF REPORT****Case #:** TC-23-01
Date: March 22, 2023

FROM: Andrew Cibor, PE, PTOE, Engineering Department**REQUEST:** 7-Line Project Update and All-Way Stop Control Installation

Location: 7th Street (B-Line Trail to Woodlawn)**Description and Purpose:**

The 7-Line project was one of seven Bicentennial Bond projects proposed by Mayor John Hamilton and approved by the City Council in 2018. The project was also identified as a Phase 1 priority project in the Transportation Plan adopted by City Council in 2019. The project was envisioned to provide a protected east-west bicycle lane and improved transit corridor to connect the B-Line, downtown, Indiana University campus, and eastside neighborhoods. In August 2020, City Council unanimously approved Ordinance 20-14 with parking and stop sign changes associated with the project. These changes were also supported by the city's Parking, Traffic, and Bicycle & Pedestrian Safety Commissions. Project construction was completed in late 2021. This report provides a brief update on the overall project after one full year of operation and makes recommendations for updates to the corridor.

Early Trends:

Bicycle Traffic – Based on data from a permanent bicycle counter on 7th Street adjacent to the Indiana University (IU) campus where the two-way protected bicycle lane replaced standard bicycle lanes, bicycle/scooter use has increased 26%. Additionally, a January 2019 (pre-project) peak period (7-9AM and 4-6PM) traffic count was compared with a February 2023 (post-project) traffic count in the block between Dunn Street and Grant Street to assess bicycle traffic change in a block that previously did not have bicycle lanes. While these counts are less robust than the permanent counter because weather and other variables need to be considered, the data shows that bicycle/scooter use in this area of the corridor increased 259%.

Transit Metrics – Quantitative data to compare pre-project and post-project transit travel times, ridership, etc. is not available. Bloomington Transit (BT) has been upgrading technology to better measure these items going forward and has been working to modify their routes, manage changes in travel patterns, etc. Specifically as a part of this project some bus stops were consolidated to assist with travel times, and efficiency along the corridor is assumed to have improved as a result of stop sign removal, removal of on-street parking, and construction of bus stop islands that do not require buses to exit the travel lane. When the street first reopened after construction, BT and IU Campus Bus noted some concern with the width of the road and some turning movements. Minor project modifications were implemented at some intersections to address many of those concerns. Additionally, BT has been actively working to enhance driver training in various road conditions found throughout the city.

Pedestrian Activity – Staff has heard some concern about the level of comfort for pedestrians crossing 7th Street where stop signs were removed within the 7-Line project limits; however, the limited pedestrian data available at this time indicates more pedestrians are crossing the street, corridor-wide reported pedestrian crashes have decreased, and accessibility has been improved (the project constructed 59 accessible curb ramps and removed numerous sidewalk trip hazards).

Motor Vehicle Traffic – Traffic counts on 7th Street have increased by 11% to 27% in the area between Walnut Street and Indiana Avenue since the installation of the protected bike lane and removal of stop signs. The measured average speed in this area is 27mph with an eighty-fifth percentile speed of nearly 32mph. The measured speeds are higher than desired (the speed limit is 25mph) and suggest the majority of drivers are comfortable driving in 10' wide travel lanes. The data indicates no significant change in traffic volumes on 7th Street in the vicinity of Morton Street and a decrease in traffic volumes on some of the intersecting streets where all-way stop control was removed (e.g., Morton Street traffic decreased 5% and Dunn Street traffic decreased 15%). Some drivers have driven into the bicycle lanes, either intentionally to illegally park/load or mistakenly due to confusion. Flexible delineator posts were installed at the entrance to the bicycle lanes at key intersections, and the incidence of this behavior has decreased significantly (the flexible posts were removed over the winter to facilitate snow removal, but will be reinstalled in the spring).

Parking Impact – The majority of on-street parking was removed from 7th Street within the 7-Line project area. As a part of the project, 44 parking spaces were added nearby on Dunn Street. 2019 data showed 35% utilization of parking spaces on 7th Street based on revenue potential (equivalent to 42 parking spaces). Multiple underutilized parking garages nearby the project were also identified during the project planning and development phases. Post-project parking data comparisons are limited given the majority of on-street parking on 7th Street in the project area was removed. Accessible parking spaces that were previously located on 7th Street were relocated on adjacent streets as necessary to maintain ADA compliance.

Crash Data - It is desirable to use multiple years of crash data to make robust evaluations. However, using one year of post-project crash data (2022 calendar year) for this corridor indicates a trend of increased crashes at the intersections where all-way stop control was removed, and a decrease in crashes at mid-block locations and at other intersections where intersection control did not change. This crash trend is further analyzed in the following section.

Enhancement Alternative:

The data and observations available to date indicate that while the protected bicycle lanes are generally operating as intended, the five intersections where all-way stop control was removed (7th Street at Morton Street, Washington Street, Lincoln Street, Grant Street, and Dunn Street) would benefit from modifications. The crash data for these intersections indicates that nearly all reported crashes were a result of drivers on the side street failing to yield to drivers on 7th Street. In many of these crash reports, the driver on the side street told the reporting police officer that they mistakenly thought the intersection had all-way stop control. At these intersections during the 2022 calendar year, there were also two reported crashes involving drivers failing to yield to users of the protected bicycle lane (one scooter at Dunn Street and one bicycle at Washington Street) and one reported crash involving a scooter failing to yield to a driver (southbound scooter on Morton Street). There were no reported crashes involving pedestrians.

Each of these five intersections has visible stop bars on the pavement and a stop sign with a “cross traffic does not stop” plaque. The one-way intersecting streets (Washington Street, Lincoln Street, and Dunn Street) have these signs located both on the left and right side of the road where it intersects with 7th Street. Additional signs and markings are not expected to be beneficial for clarifying the existing stop control at these intersections.

Installation of all-way stop control was evaluated at these intersections as an option to address the observed crash patterns. The Indiana Manual on Uniform Traffic Control Devices (MUTCD) includes specific criteria that should be followed for all-way stop installations. There are multiple reasons that stop signs are only recommended if they meet the MUTCD guidelines:

- Stop signs that do not meet recommended criteria are frequently violated (have low compliance rates). Drivers might come to a full stop initially, but over time they may begin rolling through the stop or even completely ignoring it because they rarely see what they believe to be a reason to stop. This behavior is problematic at the intersection with the all-way stop (for example, a pedestrian crossing the street thinks that traffic will stop at the stop sign, but a driver approaching the stop sign is used to simply slowing down and doesn't notice the pedestrian) and also at other intersections (as drivers lose respect for stop signs in general). There are multiple existing all-way stop intersections in town for which the City regularly receives complaints and safety concerns about drivers who do not stop (*In the context of 7th Street it is likely that many users, particularly people on bicycle or scooter who do not want to lose momentum, will not come to a full stop.*)
- Studies show that stop signs are not an effective tool for reducing speeds. Stop signs generally reduce speeds near the location where they are installed, but do not reduce speeds along the rest of a corridor. In fact, studies show that drivers tend to increase their speed between stop signs. Numerous references, including documents from the Institute of Transportation Engineers (ITE) and the National Association of City Transportation Officials (NACTO), explicitly recommend against using stop signs as a tool for speed reduction. (*If all-way stop control is reinstalled on 7th Street, then the corridor would have stop signs or traffic signals at every block between the B-Line and Indiana Avenue. Speeds on the corridor would likely decrease because the majority of the street would be in close proximity to a stop sign.*)
- Unwarranted stop signs are not conducive to efficient traffic flow for vehicles (including bicycles, cars, and transit), particularly on collector or arterial streets. Stop signs at every single block make a corridor less convenient for vehicular travel. (*Stop control was modified on 7th Street with the explicit goal to “improve east/west connectivity and efficiency for bicyclists and transit users.”*)

MUTCD guidance for all-way stop installations states that intersections should meet one of the following:

- As an interim measure while awaiting installation of traffic signals.
- Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop.
- Minimum volume thresholds.
- Where no single criterion is satisfied, but the location meets a combination of the crash and volume criteria to at least 80% of values.

The following table summarizes these criteria for each subject intersection.

Intersection Cross Street	Interim measure for traffic signal installation?	≥ 5 reported crashes susceptible to correction by all-way stop?	Meets minimum volume threshold?	Meets a combination of thresholds to at least 80% of values?
Morton St	No	No (3)*	No	No
Washington St	No	Yes (5)*	No	N/A
Lincoln St	No	Yes (5)*	No	N/A
Grant St	No	No (4)	No	No
Dunn St	No	Yes (12)	Yes**	N/A

*This criteria uses a rolling 12-month period. For intersections that did not have at least 5 crashes during the 2022 year of crash data (1/1/2022 through 12/31/2022), a subsequent evaluation was performed to search for a higher 12-month period using data available to date (e.g. 2/1/2022 through 1/31/2023). The Morton, Washington, and Lincoln intersections yielded an increase with this evaluation. When looking only at 2022 data, Morton had 2 crashes, Washington had 4 crashes, and Lincoln had 4 crashes.

**The Dunn Street intersection did not meet the minimum volume criteria based on pre-project data, but does meet the criteria using post-project data.

The MUTCD also allows the following optional criteria to be considered as a part of an engineering study regarding all-way stop control:

- The need to control left-turn conflicts (*Not applicable, but stop control may be beneficial for controlling motor vehicle turns across the protected bike lane.*)
- The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes (*Pedestrian use is generally high due to proximity to both downtown and Indiana University campus.*)
- 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 (*Visibility is limited in some locations. Adequate visibility is available if drivers pull forward after stopping, but this action can generate conflict with the pedestrian crosswalks.*)
- An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection (*This consideration is typically applied in fully residential areas, but does have some relevance for 7th Street.*)

The Dunn Street, Washington Street, and Lincoln Street intersections each meet at least one MUTCD criteria for all-way stop control installation. The Grant Street and Morton Street intersections do not meet the primary criteria, but they are close to meeting the crash data criteria and, if unchanged, it is possible that they would fully meet this criteria in a future 12-month period. The Morton Street intersection is currently the furthest from meeting the primary criteria, but anecdotal observations indicate that this intersection potentially experiences the highest level of driver confusion and has the potential for more crashes. The MUTCD's optional criteria provide further support for installation of all-way stop control at each of these intersections.

It is worth noting that the majority of crashes are a result of motor vehicle drivers failing to yield to other motor vehicles, but the improvement option of implementing all-way stop control would have the most negative impact to efficiency for transit and bicycle/scooter traffic. The crashes involving motor vehicles are primarily right angle collisions. While the majority of crashes have not involved any injury, this crash type has potential to create serious injuries. Additionally, the

implementation of all-way stop control can also reduce the potential for crashes involving users of the protected bicycle lanes (there have been some reported crashes involving people on bicycle/scooter, and observations indicate that some bicycle/scooter users must rapidly brake to avoid conflict with turning motor vehicles that failed to properly yield).

Title 15 Changes:

In order for all-way stop control to be implemented, Section 15.12.010, Schedule B “Multi-Stop Intersections” would need to be edited with the following changes.

Section 15.12.010, entitled “Stop intersections,” shall be amended by deleting the following from Schedule A Stop Intersections:

Traffic on	Shall Stop for Traffic on
Morton Street	Seventh Street
Washington Street	Seventh Street
Lincoln Street	Seventh Street
Grant Street	Seventh Street
Dunn Street	Seventh Street

Section 15.12.010, entitled “Stop intersections,” shall be amended by adding the following to Schedule B Multi-Stop Intersections:

Seventh Street & Morton Street	4-Way
Seventh Street & Washington Street	3-Way
Seventh Street & Lincoln Street	3-Way
Seventh Street & Grant Street	4-Way
Seventh Street & Dunn Street	3-Way

Recommendation:

This project has been successful for improving east-west accessibility and mobility for all modes of transportation. All-way stop control implementation is expected to result in an additional positive metric through a reduction of reported crashes along the corridor. Staff recommends that a Title 15 amendment be forwarded to City Council with a positive recommendation to reinstall all-way stop control at the five locations listed above. While the data is more compelling for some of these intersections than others, staff believe that all-way stop control installation is appropriate at all five locations. Implementing this operational change at all five intersections at the same time, as opposed to using an incremental approach, is expected to improve user ability to adapt to the change.

MEMORANDUM

To: Common Council

From: Andrew Cibor, City Engineer

Date: September 15, 2023

Re: Proposed Ordinance # 23-23, to amend Title 15 to change stop signs on Seventh Street

Ordinance #23-23 proposes changes to the Title 15 - Vehicles and Traffic section of the Bloomington Municipal Code that are consistent with recommendations supported by city staff, the Bicycle & Pedestrian Safety Commission, and the Traffic Commission regarding stop sign control at the intersection of Seventh Street and Dunn Street.

As a part of the City's effort to monitor the Seventh Street corridor after the completion of the 7-Line project, the Engineering Department prepared a report that was reviewed and discussed by the Bicycle & Pedestrian Safety Commission and the Traffic Commission at their March 2023 meetings. After reviewing and discussing the report, both Commissions voted to support the conversion of the Seventh Street and Dunn Street intersection from a one-way stop controlled intersection (southbound traffic on Dunn St was required to stop for traffic on Seventh Street) to an all-way (3-Way) stop controlled intersection where all approaching traffic would be required to stop. This recommendation was largely due to a pattern of crashes that were susceptible to correction with the installation of all-way stop control. Due to the pattern of crashes, and consistent with the Commission recommendations, a 180 Day Order was issued on April 10, 2023 and the intersection was converted to all-way stop control on April 12, 2023. The subject 180 Day Order is set to expire on October 9, 2023. Recent crash data confirms that installation of all-way stop control has successfully reduced crashes at this intersection. Staff recommends that this change become a permanent Title 15 update.

The ordinance includes the following changes:

- Section 1:
 - Removes the stop intersection at Dunn Street and Seventh Street. *Traffic Commission, Bicycle & Pedestrian Safety Commission, Engineering Department*
- Section 2:
 - Adds a 3-way stop intersection at Seventh Street & Dunn Street. *Traffic Commission, Bicycle & Pedestrian Safety Commission, Engineering Department*

The proposed ordinance does not have a fiscal impact given the changes have already been implemented. Generally, anticipated expenditures to add or remove signs, posts, etc. are covered within the annual operating budget.

Attachments:

1. March 22, 2023 7-Line Project Update and All-Way Stop Control Installation Staff Report for the Traffic Commission and Bicycle & Pedestrian Safety Commission
2. 180 Day Order 23-01 to Install all-way stop control at the intersection of 7th Street and Dunn Street

To: Bloomington Common Council Members
Cc: Stephen Lucas, Council Administrator/Attorney
Beth Cate, Corporation Counsel
From: Mayor John Hamilton
Date: October 13, 2023
Re: Veto Message re: Ordinance 23-23

Members of the Common Council:

When the new 7-Line protected bicycle lane was opened on 7th Street in late 2021, stop signs were removed at five intersections. This prioritized 7th Street as a desired east-west route for all, especially for bike and transit traffic, consistent with a 2020 ordinance unanimously adopted by City Council.

About a year and a half later, in April 2023, the City Engineer issued a 180-day order to replace stop signs at one intersection, Dunn and 7th Street, to address a measurable trend of crashes at that location. This action was consistent with recommendations from both the Bicycle and Pedestrian Safety and the Traffic Commissions after they reviewed a report on the corridor's traffic and crash data since the 7-Line project was completed.

On Wednesday, October 4, 2023, the Bloomington City Council voted to retain the three-way stop sign at 7th and Dunn Streets as requested by the administration and consistent with the earlier recommendations of the resident commissions. The Council also by amendment that evening directed that three additional stop signs be reinstalled along 7th Street and the 7-Line protected bicycle lane, at the intersections of Morton, Washington, and Lincoln streets. The vote was 5 in favor, 4 against.

Pursuant to state and local laws, I am vetoing this ordinance and sending it back for Council consideration, for several reasons.

Safety, use of data, and process are all important in making traffic management decisions. Changes in traffic patterns are always a safety concern, and monitoring results generally should allow sufficient time for adjustment to new patterns. The public is becoming familiar with the new traffic patterns along 7th Street, including the replacement of the Dunn Street signs six months ago. Frequent changes along one corridor can cause greater concerns. The Council vote to revert three intersections to the pre-2021 condition, with the possibility of it being changed again in a few months, can cause more confusion and directly presents public safety concerns. Additional time, hopefully enough to allow a full year of data since the April 2023 changes, will allow for more robust and meaningful data to inform any significant adjustments.

In addition, a primary rationale described by some council members in support of the amendment to the ordinance was regarding concerns about pedestrian safety or level of comfort. Since its re-opening, the 7th Street corridor has seen an improvement in pedestrian safety with a decrease in pedestrian-involved crashes.

Process matters are concerning as well. The amendment to adjust three more intersections was proposed in a way that did not allow for any significant notice to or input from the public, including particularly the resident commissions charged with advising on any changes.

I appreciate the interests and commitment of all to sustaining and improving our safe and efficient multi-modal transportation system, recognizing that there can be different judgments made about how best to accomplish those shared goals. Consistent with city ordinances, the City Engineer has implemented a second 180-day order to preserve the status quo with the stop signs at 7th and Dunn, and to allow additional public review, data gathering, and discussions that can inform any decisions by the City Administration and Council by or before April 2024.

Respectfully,

A handwritten signature in black ink that reads "John Hamilton". The signature is written in a cursive, flowing style.

John Hamilton
Mayor, City of Bloomington

RESOLUTION 2024-07

ESTABLISHING THE GOAL OF REDUCING TRAFFIC DEATHS AND SERIOUS INJURIES ON THE CITY'S ROADWAYS TO ZERO IN THE CITY BY THE YEAR 2039

- WHEREAS, the life and health of all persons living and traveling within the City of Bloomington are our utmost priority, and no one should die or be seriously injured while traveling on our city streets; and
- WHEREAS, according to data from the National Highway Traffic Safety Administration, each year approximately 40,000 people are killed in traffic collisions in the United States and almost 1,000 within Indiana, and traffic crashes are among the leading causes of deaths in the United States¹; and
- WHEREAS, 14 people in the City of Bloomington lost their lives to traffic deaths in the five year period between 2018 and 2022; and
- WHEREAS, the City of Bloomington's transportation infrastructure serves an increasing number of vulnerable road users such as pedestrians and cyclists; and
- WHEREAS, according to data provided by the Indiana State Police through the years 2018 and 2022, pedestrians were involved in 2.5 percent of collisions and account for 28.6 percent of traffic deaths in the City of Bloomington; and
- WHEREAS, according to data provided by the Indiana State Police through the years 2018 and 2022, bicyclists and scooter riders were involved in 1.9 percent of collisions and account for 7.1 percent of traffic deaths in the City of Bloomington; and
- WHEREAS, between 2018 and 2022, the serious injury rate for pedestrians involved in collisions was approximately 28.5 percent and the serious injury rate for bicyclists and scooter riders involved in collisions was approximately 22.3 percent; and
- WHEREAS, speed is recognized as a major determining factor of survival in a crash²; and
- WHEREAS, the City of Bloomington will work toward reducing vehicle speeds because the likelihood of a pedestrian surviving a crash is 10 percent when hit by a vehicle traveling at 40 mph, 50 percent when hit by a vehicle traveling at 30 mph, and 90 percent when hit by a vehicle traveling at 20 mph³; and
- WHEREAS, children, older adults, people of color, people with disabilities, people who are unhoused, and people with low income face a significantly disproportionate risk of traffic injuries and fatalities⁴; and
- WHEREAS, making streets safer for all people using all modes of transportation will encourage people to travel on foot, by bicycle, and by public transit, which reduces environmental pollution; and
- WHEREAS, the City of Bloomington has already adopted the 2018 Comprehensive Plan, the Transportation Plan, and Traffic Calming & Greenways Program, which seek to promote roadway safety for all users.

¹ NHTSA: Overview of Motor Vehicle Crash Traffic Crashes in 2021. <https://crashstats.nhtsa.dot.gov/Api/Public/Publication/813435>.

² Institute of Transportation Engineers; Road to Zero Coalition; and RTZ Safe System Working Group. Safe System. Institute of Transportation Engineers. Website: <http://ite.org/technical-resources/topics/safe-systems/>

³ Ferrier K., Landmark national study urges safety over speed. Vision Zero Network website: visionzeronetwork.org/safety-over-speed. July 25, 2017.

⁴ Fox J, Shahum L., Vision Zero Equity Strategies for Practitioners. Oakland, CA: Vision Zero Network; 2017. Website: https://visionzeronetwork.org/wp-content/uploads/2017/11/VisionZero_Equity_FINAL.pdf

NOW THEREFORE, BE IT HEREBY ORDAINED BY THE COMMON COUNCIL OF THE CITY OF BLOOMINGTON, MONROE COUNTY, INDIANA, THAT:

SECTION 1. The City of Bloomington adopts the goal of zero traffic deaths and serious injuries by 2039, stating that no loss of life or serious injury is acceptable on our streets.

SECTION 2. The City of Bloomington desires a comprehensive and holistic approach to achieving this goal.

SECTION 3. The City of Bloomington shall adopt a Safe Streets and Roads for All (SS4A) Action Plan which will be used to guide future investments and infrastructure improvements in our roadways.

PASSED by the Common Council of the City of Bloomington, Monroe County, Indiana, upon this 03 day of April, 2024.



ISABEL PIEDMONT-SMITH, President
Bloomington Common Council

ATTEST:



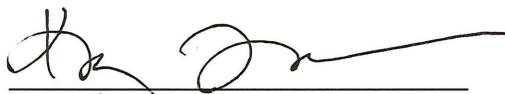
NICOLE BOLDEN, Clerk
City of Bloomington

PRESENTED by me to the Mayor of the City of Bloomington, Monroe County, Indiana, upon this 09 day of April, 2024.



NICOLE BOLDEN, Clerk,
City of Bloomington

SIGNED and APPROVED by me upon this 9 day of April, 2024.



KERRY THOMSON, Mayor
City of Bloomington

SYNOPSIS

This resolution establishes the goal of zero traffic deaths and serious injuries on the City of Bloomington's roadways by the year 2039, outlines the City's intention to pursue a comprehensive approach to achieve this objective, and requires the adoption of a Safe Streets and Roads for All (SS4A) Action Plan.

Distributed to: Clerk, Council Attorney, Mayor, Planning and Transportation, and Legal.

180-DAY ORDER

Pursuant to Bloomington Municipal Code § 15.08.040 I hereby issue this 180-Day Order, the details of which are described in detail below, for the following reason(s):

- To make and enforce temporary regulations;
- To make and enforce experimental regulations;
- To make and enforce regulations necessary to deal with emergencies; and/or
- To make and enforce regulations necessary to deal with special conditions.

In the fall of 2021, all-way stop control was removed from the intersection of 7th Street and Dunn Street in coordination with the multimodal 7-Line project. In the new configuration, 7th Street is free-flow and only Dunn Street has a stop sign. This Request originated from a review of crash data along the corridor and a 7-Line project status report that was requested by the City's Bicycle & Pedestrian Safety Commission, Traffic Commission, and other community members. The crash data for the intersection of 7th Street and Dunn Street shows a significant increase in intersection related crashes that are susceptible to correction with the installation of all-way stop control. In order to reduce crash risk at this intersection, it will be converted back to all-way stop control. Implementation of this change requires installation of appropriate pavement markings and signs. This proposed change was supported by the Bicycle & Pedestrian Safety Commission and Traffic Commission at their March 2023 meetings. After careful review and consideration the Request has been granted and the following actions will be implemented:

Install all-way stop control at the intersection of 7th Street and Dunn Street.

Questions regarding this Order shall be directed to the City Engineer.



Signature of City Engineer



Date

Effective Date: 4/12/2023

Expiration Date: 10/3/2024

**Reissued on 4/10/2024 to extend expiration from 4/6/2024 to 10/3/2024 under the 180-day Orders Policy.*

Case Number: 23-01