



Neighborhood Traffic Calming
A Guide for the City of Minneapolis

An application, evaluation, and procedural guide for the City of Minneapolis Department of Public Works to determine priorities among eligible city-owned streets for neighborhood traffic calming.

July 2022 | Version 2

WHAT IS TRAFFIC CALMING?

“Traffic calming is the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for non-motorized street users”. Source: Traffic Calming: State of the Practice (ITE/FHWA, 1999)

WHAT IS THE GOAL OF THIS NEIGHBORHOOD TRAFFIC CALMING?

Access to livable, efficient, and pleasant streets is the overall goal.



Minneapolis Public Works seeks to make street changes that support slower and safer traffic speeds and/or discourage cut-through traffic on our urban neighborhood streets¹.

Minneapolis Public Works is committed to adding more traffic calming across the city in support of the City’s updated speed limits and Vision Zero traffic safety goals. Traffic calming and traffic improvements are also aligned and informed by other city policies and plans

such as the Transportation Action Plan², Street Design Guide¹, Complete Streets Policy³, and Vision Zero Action Plan⁴.

Key objectives for safety, fairness, equity, transparency and efficiency are presented in Appendix C.

HOW TO REQUEST TRAFFIC CALMING

Traffic calming requests are managed through an application process. The demand for traffic calming exceeds the resources and ability to construct traffic calming, so Public Works will use this process to consider and prioritize community requests for traffic calming and other traffic

¹ <https://sdg.minneapolismn.gov/>

² <http://go.minneapolismn.gov/>

³ <https://www2.minneapolismn.gov/government/departments/public-works/tpp/complete-streets-policy/>

⁴ <https://www.minneapolismn.gov/government/programs-initiatives/visionzero/>

safety improvements with a data-driven and transparent process. This process is outlined in this document and further details are described in the appendices.

STREETS ELIGIBLE FOR THIS TRAFFIC CALMING PROCESS

Most urban neighborhood (local residential) streets in Minneapolis are eligible for traffic calming through this process. Eligible streets are identified on the map in Appendix A, which is also available on the city website.

Streets that are *not* eligible for traffic calming through this process include:

- **Streets identified as [High Injury Streets](#)** are not eligible for this process. These are busier streets with the most severe and fatal traffic crashes and the City is prioritizing them for safety improvements through the Vision Zero program. You can share traffic safety concerns related to High Injury Streets [here](#).
- **Streets that are Municipal State Aid (MSA) funded** are not currently eligible for this process. These streets are often busier, but more importantly, have resources available for improvements that most urban neighborhood streets do not.
- **Streets that are owned by other agencies** such as Minnesota Department of Transportation, Hennepin County, Minneapolis Park and Recreation Board, University of Minnesota, or privately owned streets are not eligible through this City-led process because these streets are not owned/controlled by the City.
- **Streets under active construction**, or issues on adjacent streets resulting from a construction project, are not eligible for this process. These issues should go directly to the construction Project Manager. See link for projects and contact information.
<https://www.minneapolismn.gov/government/projects/>

ANNUAL TRAFFIC CALMING PROCESS

The annual traffic calming process is illustrated below and described on the following pages.

| | |
|--|--|
| Application | <ul style="list-style-type: none"> • Due September 1 • Steps 1 |
| Screening & Preliminary Scoring | <ul style="list-style-type: none"> • September • Steps 2-3 |
| Data Collection & Design Recommendation | <ul style="list-style-type: none"> • October-January • Steps 4-5 |
| Final Scoring & Final Design | <ul style="list-style-type: none"> • February-May • Steps 6-7 |
| Implementation | <ul style="list-style-type: none"> • June-October • Step 8 |

The Traffic Calming Process flowchart on page 7 presents the detailed 8 steps that will allow the applicant and neighborhood to understand and follow along with their request.

APPLICATION (DUE SEPTEMBER 1ST)

Applications can be submitted at any time; however **September 1 is the deadline** for consideration for the following year. Step 1 can also be seen in the process flowchart on page 7.

WHO CAN APPLY?

Any community member in Minneapolis can apply for neighborhood traffic calming. Community members include residents, property owners, business owners, neighborhood and business organizations.

HOW TO APPLY?

The traffic calming application is available on the [city website](#) and in Appendix B of this document. The application is used to identify the location of the request and the specific traffic concerns. The application can be completed by any community member and should take less than 30 minutes.

The applicant can submit the application to Public Works through the [online form](#), by sending it to Traffic.Calming@minneapolismn.gov, or by mailing to:



Minneapolis Public Service Building
505 4th Avenue South
Room 410 – Traffic Calming
Minneapolis, MN 55415

Additional application items to note:

- The application does not ask the applicant to select a traffic calming treatment because that will be determined by Public Works through a technical evaluation.
- This traffic calming process is not for requesting stop signs, alley speed bumps, nor speed display trailers. Please make these requests by calling 311 (or 612.673.3000).
- No funding is required from the applicants and/or the neighborhood. This traffic calming process is annually funded by the Minneapolis Department of Public Works.
- No data gathering is required from the applicants and/or the neighborhood. Public Works will collect data as appropriate in later steps.

SCREENING & PRELIMINARY SCORING (SEPTEMBER)

Public Works will screen then score the traffic calming applications based primarily on two criteria: Traffic Conditions and Community Context. Other factors may be taken into consideration, such as recent and future street improvements. Steps 2-3 can also be seen in the process flowchart on page 7. More on criteria and other factors can be found in Appendix E.



Public Works will perform an Initial Screening of all applications to check that the location meets a minimum threshold that identifies a need for traffic calming.

Preliminary Scores will be applied to applications that pass the initial screening. Applications that receive high preliminary scores will move to the Data Collection & Design Recommendation phase and be considered for implementation the following year. Funding availability will determine how many applications continue to the next

phase. After screening, Public Works will contact each applicant to let them know the status of their application. Applications which pass the initial screening but are not selected for implementation in their first year will be reconsidered in the following second year. If the application is not selected the second year, the applicant will need to resubmit the application in year three for it to continue to be considered. If a location is selected for a traffic calming

treatment or has had other traffic safety measures installed, applications for the same location will not be considered for five years following installation.

DATA COLLECTION & DESIGN RECOMMENDATION (OCTOBER – JANUARY)

For the applications that score the highest, Public Works will host a community meeting to get more input from the neighborhood on their traffic safety concerns. The neighborhood organization and applicant will be asked to help promote the meeting. At this point the neighborhood will be asked to provide five or more signatures from other households or businesses that show support for the application, to move forward to the data collection phase.

Public Works will collect necessary data, finalize the evaluation of the location and develop recommended traffic calming improvements. Recommended improvements will generally come from the traffic calming toolkit in Appendix F of this guide. Steps 4-5 can also be seen in the process flowchart on page 7.

FINAL SCORING & FINAL DESIGN (FEBRUARY – MAY)

Public Works will apply the data collected in the previous steps to establish a final score, priority, and tentative implementation timeline for each application.

Public Works will host second community meeting with the top-scoring applications to share and get feedback on the recommended traffic calming improvements and implementation timelines. Often there is more than one treatment that could be successful, and neighborhoods will have input on which of the recommended treatments will be installed.

If there is community support for the recommended traffic calming improvement, Public Works will work to finalize designs and implement within 6-12 months. Project timelines will be prioritized based on the final scoring outlined in Appendix E of this guide.

If there is not community support for the recommended improvement, Public Works may not implement the traffic calming or may decide to adjust the recommendation based on feedback. Public Works may also suggest implementing a pilot project as a test so that it can be removed or adjusted.

Steps 6-7 can also be seen in the process flowchart on page 7.



IMPLEMENTATION (JUNE – OCTOBER)

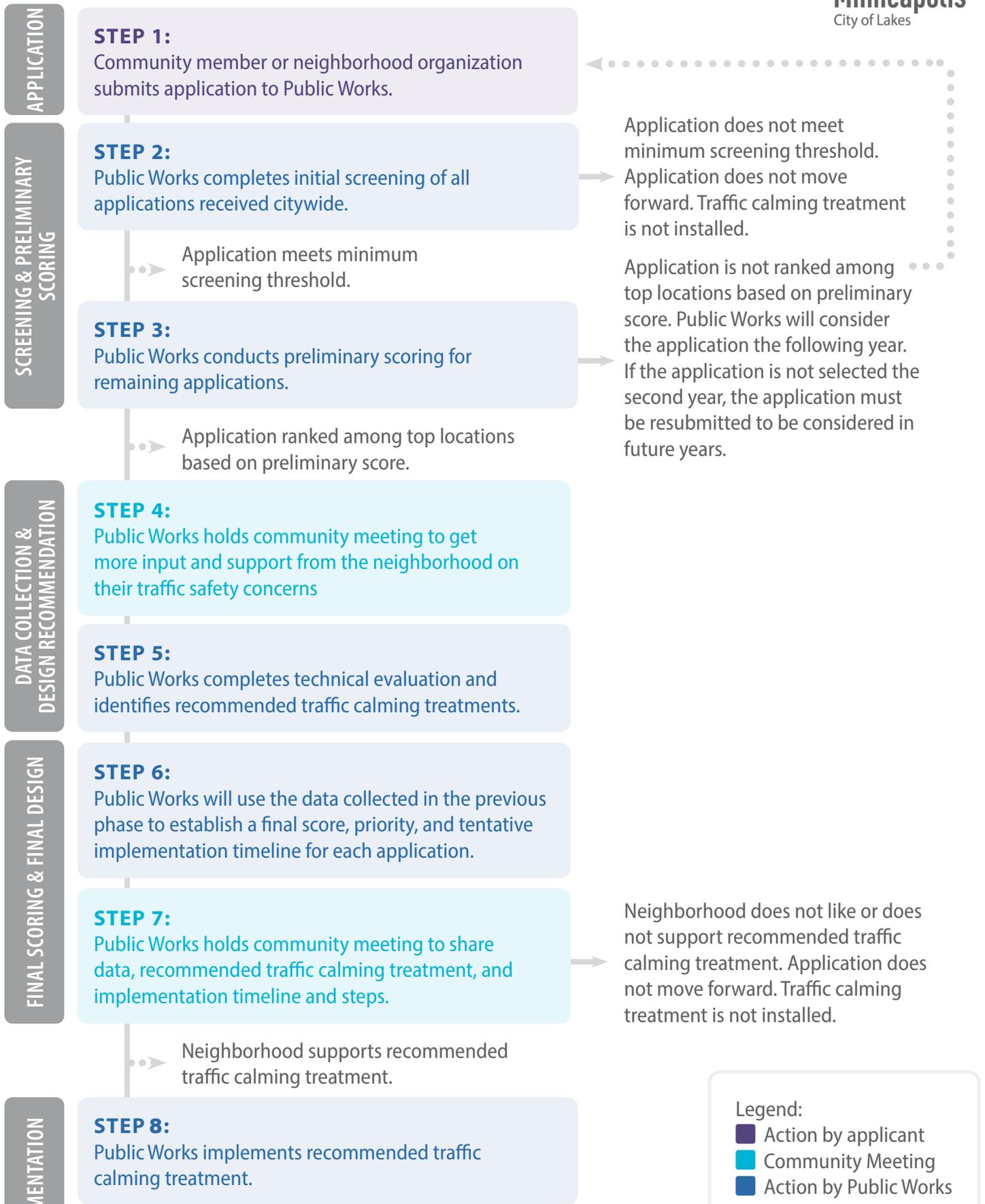
Prior to installation, Public Works will communicate with the applicant and people who participated in community meetings on the timeline and details for traffic calming implementation. After installation, Public Works will monitor installations and may adjust if necessary.

Some treatments (for example bollard bump outs) may be implemented with low-cost materials. The life of treatments implemented with low-cost materials is about five years – at which time Public Works may determine whether to reinstall the traffic calming treatment with low cost materials, install the treatment with permanent materials (for example concrete), or re-evaluate the treatment.

If the installation is a pilot, Public Works will clearly communicate how long the pilot will be in place, how community members can share feedback on the pilot, and future steps for evaluation.

Step 8 can also be seen in the process flowchart on page 7.

TRAFFIC CALMING PROCESS



Implementation Notes:

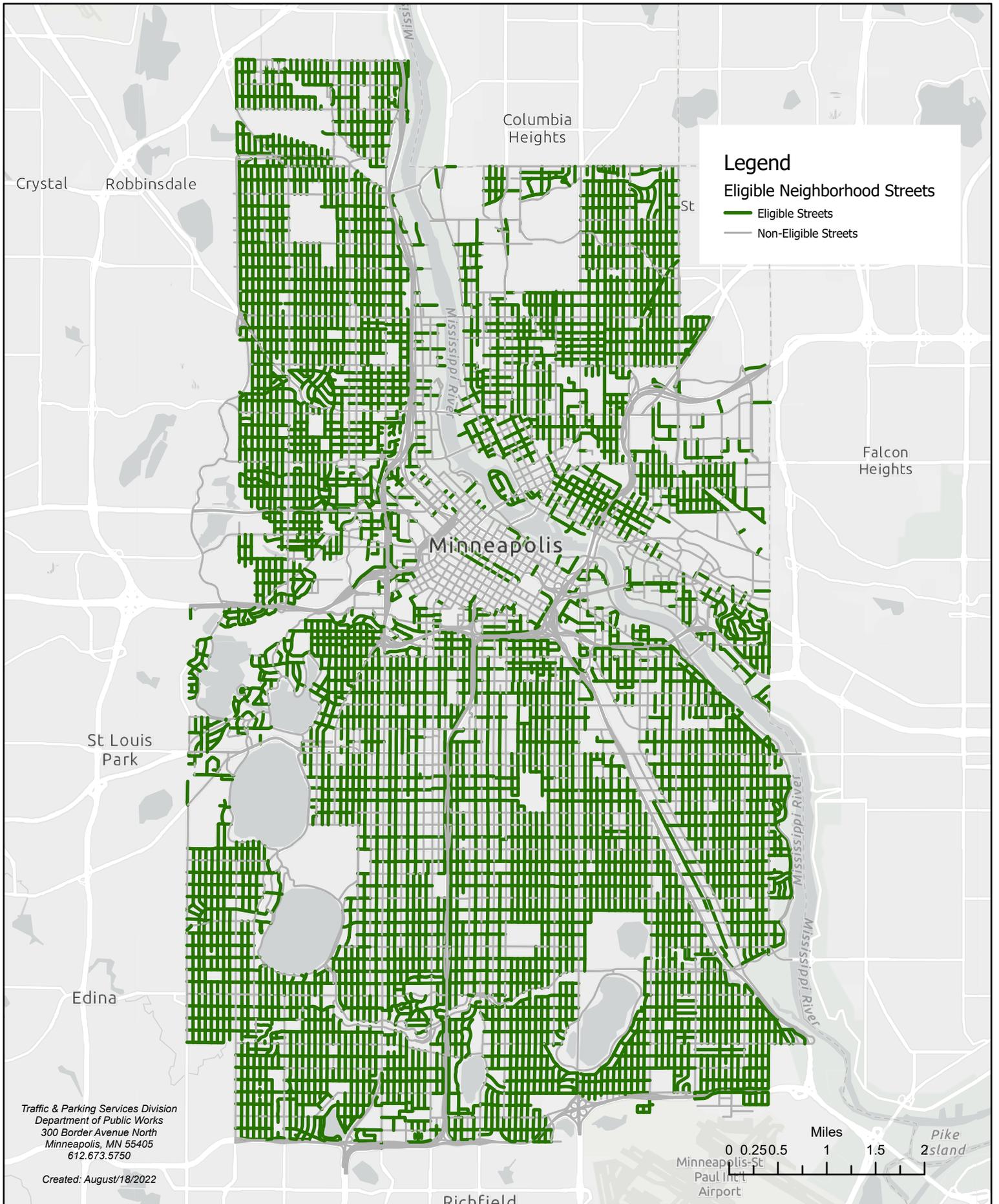
Public Works may determine that a pilot installation is needed based on the scope and type of treatments. After installation, Public Works will confirm that the treatment is working as intended and may make adjustments to the installation if needed.

Appendix Table of Contents

| | |
|--|------------|
| APPENDIX A: STREETS ELIGIBLE FOR TRAFFIC CALMING | A-1 |
| APPENDIX B: APPLICATION | B-1 |
| APPENDIX C: GOAL & OBJECTIVES OF THIS PROCESS | C-1 |
| APPENDIX D: NEIGHBORHOOD ORGANIZATION GUIDANCE | D-1 |
| APPENDIX E: SCREENING & SCORING | E-1 |
| Transportation Criteria | E-4 |
| Community Criteria..... | E-7 |
| APPENDIX F: TRAFFIC CALMING TOOLBOX | F-1 |
| Traffic Calming Treatments..... | F-2 |
| Street Pavement Markings | F-2 |
| Speed Hump..... | F-3 |
| Raised Pedestrian Crossing..... | F-4 |
| Curb Extension | F-6 |
| Pinch Point | F-7 |
| Traffic Circle | F-8 |
| One-Way Street | F-9 |
| Additional Supporting Strategies | F-11 |
| Speed Display Trailer or Sign | F-11 |
| On-Street Parking..... | F-12 |
| Yard Signs..... | F-12 |
| Marked Crosswalk..... | F-13 |
| Crosswalk Pedestrian Paddle | F-13 |
| Speed Limit Sign..... | F-14 |
| Alley Speed Bump | F-15 |

APPENDIX A: STREETS ELIGIBLE FOR TRAFFIC CALMING

Map on next page or link to online map available [here](#).



Neighborhood Traffic Calming Eligible Streets



APPENDIX B: APPLICATION

Traffic Calming Application

Please use this form to request traffic calming for your street.
Note that neighborhood support is required prior to the data collection phase.

Contact Information

Name:

Phone:

Address:

Email:

Request Location

1. Please identify the location of your concerns. No more than two streets should be included on one application.

➤ Intersection or Street Block/Blocks

➤ Intersection or Street Block/Blocks

Traffic Concerns

2. Where is your traffic concern located?

At an intersection
 Between intersections
 Both

3. Indicate and prioritize the issues you hope to address through traffic calming.

| Most important | | ←—————→ | | | Less important | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|--|--|
| 1 | 2 | 3 | 4 | 5 | | | |
| <input type="radio"/> | | Vehicle speeds | |
| <input type="radio"/> | | Drivers not yielding to pedestrians | |
| <input type="radio"/> | | Traffic volumes or cut-through traffic | |
| <input type="radio"/> | | Crashes | |
| <input type="radio"/> | | Difficult to bike | |
| <input type="radio"/> | | Other (describe below) | |

4. What times of the day or days of the week do these problems occur?

5. What additional factors do you think should be considered in the evaluation? For example, any unique conditions or circumstances.

6. Other information regarding your concern. Please attach photos, sketches, or other supporting information about the problem.

**Submit completed application to Traffic.Calming@minneapolismn.gov
or mail to:**

Minneapolis Public Service Building
505 4th Ave S, Room 410 - Traffic Calming
Minneapolis, MN 55415

APPENDIX C: GOAL & OBJECTIVES OF THIS PROCESS

Access to livable, efficient, and pleasant streets is the overall goal of this Traffic Calming Process.

The objectives of this process are:

- **Supporting more effective safety improvements.** Although Public Works cannot immediately address each of the thousands of traffic calming requests received annually, this process will allow more effective use of limited resources to make valuable safety improvements.
- **Fairness.** A data-driven process will be used to evaluate and prioritize all applications.
- **Equity.** Racial and economic data will be used as part of the evaluation and prioritization of improvements. Additionally, Public Works will work to make the program process accessible to all.
- **Transparency.** Public Works will communicate directly with neighborhoods and requesters on the status of requests, share the details of how requests are evaluated, and be clear about available traffic calming resources.
- **Efficiency.** This process is intended to be as easy as possible for community members, their neighborhood organizations, and city employees that are implementing it.

APPENDIX D: NEIGHBORHOOD GUIDANCE

Public Works requires that applications are supported by more than a few people, so the applicant is asked to gather neighborhood support. Prior to traffic calming data collection, applicants must provide signatures from at least five other households or businesses that show support for the application. Please include the name, email, and address of the individuals that are supporting the application.

The role of the neighborhood in the traffic calming process is to:

- Help gather input so Public Works can better understand the issues that community members want to address with traffic calming
- Affirm that traffic calming treatments make sense for the neighborhood and are supported by more than a few people
- Provide input on the traffic calming treatments recommended by Public Works
- Help schedule and promote the community meetings regarding the application/improvements

Public Works will be responsible for all the data collection and evaluation. The neighborhood will be asked for input at the start of the technical evaluation and after potential traffic calming recommendations have been identified.

APPENDIX E: SCREENING & SCORING

The City of Minneapolis has developed a set of criteria for prioritizing traffic calming projects that have a traffic safety focus. These criteria are intended to capture the key characteristics of a location.

- **Traffic Conditions** capture the key traffic characteristics of a location.
 - How many cars are using the street?
 - How fast are the cars driving?
 - Have there been crashes on the streets?
- **Community Conditions** considers the characteristics of the people that live in the neighborhood
 - Who are the people that use the street and what are their needs?
 - community demographics
 - located in a cultural district
 - vehicle availability
 - Who will use the street in the future?
 - potential users of the street
 - What community attractions like schools and parks are on or near the street?
 - proximity to people generators

Each traffic calming application is evaluated by Public Works using these considerations and prioritized based on its needs. The quantitative criteria were selected based on data that reflected transportation needs and community priorities, as well as data that were readily available and easy to understand.

- **Other Factors:** In addition to the quantitative analysis, there are qualitative considerations in evaluating the traffic calming applications.
 - Are there future planned improvements on the street? Traffic calming and safety treatments may best be implemented through an upcoming street reconstruction or safety improvement project.
 - Is there an existing or planned on-street bicycle facility planned for the street? Streets where people on bikes are expected regularly may have a higher need for traffic calming.
 - Do other agencies or utilities have projects that should be coordinated with this work? Coordinating projects can result in a better design for the street.
 - Are traffic calming treatments likely to reduce speeding and/or cut-through traffic at the location? Public Works uses engineering judgment to determine how to best address the concerns.

The preliminary and final scoring for all traffic calming applications are summarized in **Table E-1** and **Table E-2**. Each criterion and its scoring are described in more details on the following pages. Public Works will reevaluate the criteria and scoring annually and make adjustments.

- **Initial Screening** is used by Public Works to check that the location meets a minimum threshold that identifies a need for traffic calming.
 - The minimum threshold is 24 points in the Transportation category. Most streets in Minneapolis will meet this threshold, but streets with low traffic and little or no history of crashes in the last 5 years will not.
 - Applications that have a transportation score lower than the minimum threshold would not move to the next step in the technical evaluation.
- **Preliminary Scoring** is used by Public Works to prioritize all the remaining applications. The applications with the highest scores move to the next step in the process. Public Works will only move forward as many applications as can potentially be funded in the following year. The exact number of applications that move forward will depend on available resources but is anticipated to be about 10 or 20 per year.
- **Final Scoring** is completed by Public Works to prioritize the implementation timeline for the top-scoring applications. Additional data about the number and speed of cars on the street are collected as part of this step.

Table E-1. Initial Screening (Transportation Only) and Preliminary Scoring

| Category | Criteria | What is Measured | Maximum Number of Points |
|-----------------------|-------------------------|---|--------------------------|
| Transportation | Traffic Conditions | Traffic Volume | 48 |
| | Safety | Crashes (5 years) | 24 |
| | Transportation Subtotal | | 72 |
| Community | Equity | Non-White Majority | 12 |
| | | Low Income Population | 16 |
| | | Vehicle Availability | 8 |
| | | Potential Users | 6 |
| | People Generators | Proximity to Schools, Parks, Libraries, LRT or BRT stations | 8 |
| Community Subtotal | | 50 | |
| TOTAL | | | 122 |

Table E-2. Final Scoring for Project Selection/Prioritization

| Category | Criteria | What is Measured | Maximum Number of Points |
|-----------------------|-------------------------|---|--------------------------|
| Transportation | Traffic Conditions | Traffic Volume | 20 |
| | | Traffic Speed | 28 |
| | Safety | Crashes (5 years) | 24 |
| | Transportation Subtotal | | 72 |
| Community | Equity | Non-White Majority | 12 |
| | | Low Income Population | 16 |
| | | Vehicle Availability | 8 |
| | | Potential Users | 6 |
| | People Generators | Proximity to Schools, Parks, Libraries, LRT or BRT stations | 8 |
| Community Subtotal | | 50 | |
| TOTAL | | | 122 |

Transportation Criteria

These criteria consider the traffic and safety characteristics of the street.

Traffic Volume

- What is measured: The number of vehicles driving on a street per day.
- Data source: On busier streets, Public Works routinely counts traffic volumes, and these existing counts will be used. On other, a software tool that uses a sampling of smart devices is used to estimate traffic volumes for the preliminary scoring. For the final scoring, Public Works would complete traffic counts on the local streets.

| Criteria | | Points Awarded | |
|------------------------|---------------------------------|---------------------|-----------|
| | | Initial/Preliminary | Final |
| Collector/ Arterial | AADT > 5,000 vehicles/day (vpd) | 48 points | 20 points |
| | 3,000 vpd < AADT ≤ 5,000 vpd | 36 points | 15 points |
| | 1,000 vpd < AADT ≤ 3,000 vpd | 24 points | 10 points |
| | AADT ≤ 1,000 vpd | 12 points | 5 points |
| Local | Volume ≥ 1,200 | 48 points | 20 points |
| | 800 ≤ Volume < 1,200 | 32 points | 15 points |
| | 400 ≤ Volume < 800 | 16 points | 10 points |
| | Volume < 400 | 0 points | 0 points |

Traffic Speed

- What is measured: The amount of speeding vehicles on the street.
- Data source: Public Works would measure vehicle speeds as part of the final scoring.

| Criteria | Points Awarded | |
|---|----------------|-----------|
| | Preliminary | Final |
| Average speed > 15 mph over posted speed | N/A | 28 points |
| Average speed 10.1-15 mph over posted speed | N/A | 21 points |
| Average speed 5.1-10 mph over posted speed | N/A | 14 points |
| Average speed 0.1-5 mph over posted speed | N/A | 7 points |
| Average speed at or below posted speed | N/A | 0 points |

Crashes

- What is measured: The total number of crashes in the past 5 years.
- Data source: Minnesota Department of Transportation (MnDOT) Crash Mapping Analysis Tool (CMAT2). This tool is to be used by traffic safety professionals only.

| Criteria | | Points Awarded (Preliminary and Final) |
|------------------------|-------------------------------------|--|
| Collector/ Arterial | Crashes > 5/intersection or 2/block | 24 points |
| | Crashes > 2/intersection or 1/block | 12 points |
| | Crashes > 1/intersection or 1/block | 6 points |
| Local | Crashes > 2/intersection or 2/block | 24 points |
| | Crashes > 1/intersection or 1/block | 12 points |

Community Criteria

These criteria consider the characteristics of the people that live in the neighborhood.

Non-White Majority

- What is measured: The percentage of residents that identify as a minority.
- Data source: Block group level estimates from the U.S. Census Bureau, American Community Survey 5 Year Estimate. This criterion combines both race and ethnicity: the percent persons of color is calculated as the number of non-white people plus the number of white Hispanics divided by the total population.
- The scoring of this criteria is the same as for the [20 Year Streets Funding Plan](#), which is used to guide street project prioritization in the city's Capital Improvement Program.

| Criteria | Points Awarded |
|---|----------------|
| Street in area with $\geq 50\%$ of residents being persons of color | 12 points |
| Street in area with $\geq 30\%$ to $< 50\%$ of residents being persons of color | 4 points |
| Street in area with $< 30\%$ of residents being persons of color | 0 points |

Low Income Population

- What is measured: Percentage of residents with family income less than 185% of the federal poverty threshold. In 2021, 185% of the federal poverty threshold is \$49,025 for a family of four or \$23,828 for an individual living alone.
- Data source: Block group level estimates from the U.S. Census Bureau, American Community Survey 5 Year Estimate.
- The scoring of this criteria is the same as for the [20 Year Streets Funding Plan](#), which is used to guide street project prioritization in the city’s Capital Improvement Program.

| Criteria | Points Awarded |
|--|----------------|
| Street in area with $\geq 40\%$ of residents having family income $< 185\%$ of the federal poverty threshold | 16 points |
| Street in area with $\geq 30\%$ to $< 40\%$ of residents having family income $< 185\%$ of the federal poverty threshold | 5 points |
| Street in area with $< 30\%$ of residents having family income $< 185\%$ of the federal poverty threshold | 0 points |
| Street ≤ 1 block away from people generator | 6 points |
| Street 1-2 blocks away from people generator | 4 points |
| Street > 2 blocks away from people generator | 0 points |

Vehicle Availability

- What is measured: Number of household vehicles per resident over age 16 (census block group).
- Data source: Block group level estimates from the U.S. Census Bureau, American Community Survey 5 Year Estimate.
- The scoring of this criteria is the same as for the [20 Year Streets Funding Plan](#), which is used to guide street project prioritization in the city’s Capital Improvement Program.

| Criteria | Points Awarded |
|--|----------------|
| Street in area with vehicle availability of <0.50 household vehicles per driver-age resident | 8 points |
| Street in area with vehicle availability of 0.51-0.75 household vehicles per driver-age resident | 4 points |
| Street in area with vehicle availability of ≥ 0.76 household vehicles per driver-age resident | 0 points |
| Street ≤ 1 block away from people generator | 6 points |
| Street 1-2 blocks away from people generator | 4 points |
| Street > 2 blocks away from people generator | 0 points |

Potential Users

- What is measured: Population density (residents per acre).
- Data source: Block group level estimates from the U.S. Census Bureau, American Community Survey 5 Year Estimate.
- The scoring of this criteria is the same as for the [20 Year Streets Funding Plan](#), which is used to guide street project prioritization in the city’s Capital Improvement Program.

| Criteria | Points Awarded |
|--|----------------|
| Street in area with >20 housing units per acre | 6 points |
| Street in area with 10.1-20 housing units per acre | 4 points |
| Street in area with 5.1-10 housing units per acre | 2 points |
| Street in area with 0-5 housing units per acre | 0 points |

Proximity to People Generators

- What is measured: How close the street is to people generators such as schools, parks, libraries, and light rail or bus rapid transit stations.
- Data source: MapIT Minneapolis

| Criteria | Points Awarded |
|--|----------------|
| Street directly adjacent to people generator | 8 points |
| Street ≤ 1 block away from people generator | 6 points |
| Street 1-2 blocks away from people generator | 4 points |
| Street > 2 blocks away from people generator | 0 points |

Cultural Districts

- What is measured: How close the street is to city-designated cultural districts.
- Data source: [Minneapolis Cultural Districts Maps](#).
- Scoring of this criterion may be adjusted in the future to be consistent with the [20 Year Streets Funding Plan](#).

| Criteria | Points Awarded |
|---|----------------|
| Street within cultural district | 8 points |
| Street 1-2 blocks away from cultural district | 4 points |
| Street > 2 blocks away from cultural district | 0 points |

APPENDIX F: TRAFFIC CALMING TOOLBOX

Minneapolis uses different treatments to reduce speeding and/or cut-through traffic. This section provides an overview of the different kinds of available traffic calming treatments available. Public Works will select treatments based on the needs and context of a particular street. When possible, proven low-cost/ high-impact treatments will be applied first. The specific devices presented in this toolkit may change as Public Works continues to research new ideas from other cities and test new solutions where appropriate.

The treatments included in this toolkit may be used individually or a combination of several may be recommended. The cost of each traffic calming treatment has been categorized using the following tiers:

- Low cost: Less than \$2,000
- Medium cost: \$2,000 up to \$10,000
- High cost: \$10,000 up to \$25,000
- Very High cost: More than \$25,000

The costs above reflect the initial implementation cost. Traffic calming treatments also may have ongoing maintenance costs. In some cases, community members may take on maintenance responsibilities such as landscaping.

TRAFFIC CALMING TREATMENTS

Street Pavement Markings

Pavement markings can be used to narrow traffic lanes. The intent is to reduce the comfort level of the driver, which typically results in lower speeds. This traffic calming treatment is most applicable on streets where the driving lanes are.



Figure F-1. Pavement Markings for Traffic Calming

| Advantages | Disadvantages |
|---|--|
| Low cost | May not be as effective as other physical treatments |
| Delineates parking lane from driving lane | Possible loss of parking |
| | Pavement markings typically need to be repainted every 1-2 years |

Speed Hump

A speed hump is a rounded, raised area of pavement that is designed to slow vehicles down. They are installed midblock and two are typically installed per block. Speed humps are only used on urban neighborhood streets and normally they are not installed on streets that have steep uphill or downhill grades. Warning signs are installed in advance and at the speed humps.

The placement of speed humps needs to consider spacing from other features. The table below shows typical spacing between a speed hump and other street features.

| Feature | Minimum Distance from Speed Hump to Feature |
|------------------------------------|---|
| Intersections | 100 ft |
| Driveways/Alleys | 20 ft |
| Curves/Hills affecting sight lines | 200 ft |
| Railroad crossing | 200 ft |



Figure F-2. Speed Hump

| Advantages | Disadvantages |
|--|--|
| Reduces vehicle speeds in the vicinity of the speed hump | May create noise particularly if there are loose items in the vehicle or trailer traveling over the speed hump |
| Self-enforcing | May result in increased volumes on surrounding streets |
| Medium cost | May impact emergency response times |

Raised Pedestrian Crossing

Raised crosswalks combine a speed hump with a pedestrian or bicycle crossing point. They are used at intersections to slow vehicles down at an intersection and prioritize the pedestrian crossing. Raised crosswalks are only used across urban neighborhood streets and are typically not considered at traffic signals. Drainage challenges may limit the feasibility of a raised crossing. Warning signs are installed in advance and at the raised crosswalk.

| Advantages | Disadvantages |
|--|---|
| Reduces vehicle speeds at the intersection | May create noise if there are loose items in the vehicle or trailer traveling over the speed hump |
| Prioritizes pedestrian crossing | May result in increased traffic volumes on surrounding streets |
| Self-enforcing | May impact intersection drainage |
| Medium to high cost | May impact emergency response times |



Figure F-3. Raised Crossing

Median Refuge Island

Median refuge islands are protected spaces placed in the center of the street to facilitate bicycle and pedestrian crossings. Crossings of two-way streets are facilitated by allowing bicyclists and pedestrians to navigate only one direction of traffic at a time.



Figure F-4. Median Refuge Island

| Advantages | Disadvantages |
|---|---|
| Shortens crossing distance and improves visibility of pedestrians | Can conflict with on-street bike lanes |
| Can slow down vehicles at the intersection | Minor reduction in on-street parking |
| Low cost for bollard installations | High to very high cost for concrete installations |
| Concrete installations may provide space for additional greening | Concrete installations may impact drainage |

Curb Extension

Curb extensions, also known as bump outs, are an extension of the sidewalk zone or curb line into the street at intersections or mid-block locations. Curb extensions are intended to reduce vehicle speeds, make pedestrians and bicycles more visible at an intersection, and reduce the crossing distance. Typically curb extensions are used on streets that have on-street parking or a shoulder.

Curb extensions can be used on all types of streets. They are typically installed with bollards but may be installed in concrete as part of a street reconstruction, intersection improvement, or other capital project.



Figure F-5. Temporary Curb Extensions



Figure F-6. Permanent Curb Extensions

| Advantages | Disadvantages |
|---|---|
| Shortens crossing distance and improves visibility of pedestrians | Can conflict with on-street bike lanes |
| Can slow down vehicles at the intersection | Minor reduction in on-street parking |
| Low cost for bollard installations | High to very high cost for concrete installations |
| Concrete installations may provide space for additional greening | Concrete installations may impact drainage |

Pinch Point

A pinch point is a narrowing of the street at multiple locations along a block, typically two per block. This is done by installing concrete blocks or other barricades on each side of the street to narrow the travel lanes, slowing traffic. Additional signage is installed alerting drivers of the street narrowing.

| Advantages | Disadvantages |
|---|--|
| Reduces vehicle speeds in the vicinity of the pinch point | Temporary treatment that is removed prior to snow plowing operations |
| Self-enforcing | May result in increased volumes on surrounding streets |
| Low to Medium cost | May impact emergency response times |



Figure F-7. Pinch Points using Concrete Blocks



Figure F-8. Pinch Points using Barricades

Traffic Circle

Traffic circles are used at the intersection of urban neighborhood streets. They reduce vehicle speeds by causing drivers to alter their path through the intersection and are typically installed without changes to the existing curbs at the intersection.

Traffic circles can be more difficult for trucks to traverse. Public Works will size the traffic circle to maintain emergency vehicle access. They are typically installed with bollards but may be installed in concrete as part of a street reconstruction, intersection improvement, or other capital project.



Figure F-9. Temporary Traffic Circle



Figure F-10. Temporary Traffic Circle in Winter



Figure F-11. Permanent Traffic Circle

| Advantages | Disadvantages |
|--|--|
| Reduces speed at intersection | May be difficult to navigate for larger vehicles. |
| Can slow down vehicles at the intersection | May result in increased traffic volumes on surrounding streets |
| Low cost for bollard installations | May impact emergency response times |
| Concrete installations may provide space for additional greening | High cost for concrete installations |
| | Concrete installations may impact drainage |

One-Way Street

Converting a two-way street to a one-way street is typically used to reduce traffic volume or cut-through traffic. The conversion needs to consider the length of the one-way segment, access to homes and businesses, and whether a pair of one-way streets needs to be created.

Cul-de-sacs or dead-end streets will not be considered as a part of this Traffic Calming process. Additionally, they are not typically implemented in Minneapolis because of the city’s goal to maintain and improve the grid street network.



Figure F-12 One-Way Street

| Advantages | Disadvantages |
|--|--|
| Reduces the number of vehicles on the street | May result in increased traffic on adjacent streets due to vehicle circulation |
| Can increase space for on-street parking on narrow streets | May impact emergency response time |
| Low to Medium cost | Vehicle access to homes and businesses may be less convenient |
| | May lead to more speed |
| | Short on-way segments can be confusing for drivers unfamiliar with the area |

Two-Way Street



Figure F-13. Two-Way Street

Converting a one-way to a two-way street is typically used to reduce vehicle speeding and increase access to homes and businesses. The surrounding street network should be considered when proposing changing a one-way operation to a two-way operation.

| Advantages | Disadvantages |
|--|-------------------------------|
| Reduces vehicle speeds | Increased traffic volume |
| Provides better access and circulation | Increased cut-through traffic |
| Low to Medium cost | |

ADDITIONAL SUPPORTING STRATEGIES

The following strategies can be used with the other traffic calming treatments described in this section.

Speed Display Trailer or Speed Display Sign

The speed display trailer is a mobile, speed monitoring device that displays the posted speed limit and advises drivers of their current speed. It is a temporary tool, and the speed display trailer does not provide speed enforcement capabilities. The speed display signs have the same capabilities but are used in areas that trailers cannot be deployed such as No Parking zones, bike lanes etc. The city moves the trailers to new locations throughout the city about once a week, and signs about every two to four weeks.

To request a speed display trailer on a certain street, please contact 311 or [submit a request on the city's website](#). A traffic calming application does not need to be completed. The speed display trailers and signs are typically used between the months of April and November.



Figure F-14. Speed Display Trailer



Figure F-15. Speed Display Sign

On-Street Parking

When parked vehicles line the street, they take up space and tend to result in drivers slowing down. It is considered a passive traffic calming treatment.



Figure F-16. On-Street Parking

Yard Signs

Yard signs can be placed on any street to encourage drivers to drive slower. Minneapolis often has “20 is Plenty, Slower is Safer” yard signs available for community members. Please contact 311 or visionzero@minneapolismn.gov to see if there are currently yard signs available.



Figure F-17. Yard Sign

Marked Crosswalk

Pedestrians have the right of way at all legal crossings (all legs of an intersection) unless signs or signals say otherwise. A painted crosswalk at a legal crossing, often with signage placed in advance and next to the crosswalk, can provide more visibility to the crossing. However, research has shown that crosswalks and signs alone do not improve pedestrian safety. The City considers factors such as pedestrian volumes, school routes, the number of traffic lanes, and the intersection control to determine whether a crosswalk should be painted.



Figure F-18. Painted Crosswalk

Crosswalk Pedestrian Paddle

In limited situations, a crosswalk pedestrian paddle may be used within a crosswalk during specific days and times. The paddle reminds drivers that it is required by law to stop for pedestrians in the crosswalk. They are typically used at a public facility that generates significant pedestrian traffic, such as a school. The paddle is placed, removed, and maintained by the staff of the public facility.

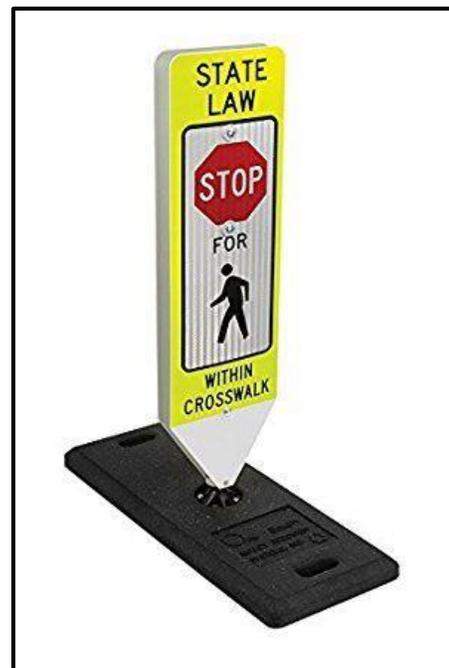


Figure F-19. Crosswalk Pedestrian Paddle

Speed Limit Sign

Speed limit signs are placed systematically throughout the City to reinforce the maximum speed allowed on that roadway. When the speed limit transitions due to road authority or road type a speed limit sign will be placed to remind motorist of the speed limit change. The current speed limit is 20 mph unless otherwise signed.



Figure F-20. Speed Limit Sign

Alley Speed Bump

Alley speed bumps can be requested when speeding or cut-through traffic is a concern in the alley by calling 311. It is the responsibility of the affected block to pay the cost. Initial installation of the speed bumps is installed by the City of Minneapolis. From there, the affected block is responsible for the removal, storage, and placement of the devices annually.



Figure F-22. Alley Speed Bump



Figure F-21. Sign for Alley Speed Bump