



# Neighborhood Traffic Calming Program

December 2024



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Prepared by:





# Town of Timnath

## Neighborhood Traffic Calming Program (NTCP)

### Introduction

Traffic in residential areas is a concern throughout the Town of Timnath, as well as in most other communities across the nation. Traffic in neighborhoods can affect the quality of life for residents, bicyclists, pedestrians as well as drivers.

For these reasons, the Neighborhood Traffic Calming Program (NTCP) is available to help residents work with the Town to implement various traffic calming elements. The program emphasizes the partnership between residents and the Town and is set up to objectively respond to reports of speeding or excessive volumes on residential and collector streets. Under this program, traffic calming implies the use of education, enforcement, and/or visual and physical engineering.

### Goals of the Program

The Town of Timnath adopted an updated Transportation Master Plan in the spring of 2024. The community's transportation vision in that document is: ***A well-planned transportation network that supports a thriving community by offering safe and convenient mobility options and reliable regional connections.*** There are also accompanying goals, one of which is: ***A family-friendly transportation system that is focused on the elimination of traffic-related injuries and fatalities.***

The Traffic Calming program works within the overall Town vision and goals and has established the following guiding principles:

The Vision of the traffic calming program is to

- Improve neighborhood livability and create safe and comfortable conditions.

There are several sub-goals to accomplish the vision:

- Improve compliance with speed limits, stop signs, etc.
- Educate residents and encourage resident involvement in solutions.
- Offer a toolbox of options and implement various calming measures.
- Collaborate with enforcement.
- Ensure consistent, fair, and efficient use of Town resources.

### Program Overview and Funding

Program elements fall within four categories: education, tier 1 engineering – visual elements, tier 2 engineering – vertical elements, and enforcement. These categories are intended to be utilized in a sequential process with the least complex and costly elements to be applied first. The use of tier 2 elements should only be undertaken when lesser actions have not produced the desired results, the



road is deemed eligible through data and prioritization, and when supported by the preponderance of residents in the area.

Education The first step in addressing traffic issues, especially on local residential roads, is to provide awareness of neighborhood concerns. This includes yard signs, brochures, answers to frequently asked questions (FAQs), staff outreach, neighborhood meetings, and more.

Tier 1 Engineering – Visual Elements After education actions have been undertaken and ongoing concerns remain, residents can request further countermeasures. Following a staff evaluation, items may include speed limit signs, pavement markings (including crosswalks where appropriate), delineators to visually narrow roadways (with potential of street art) or the placement of temporary driver feedback signs.

Tier 2 Engineering – Physical Elements This is the most costly and complex countermeasure in the traffic calming program. If previous steps have not been satisfactory, residents may choose to apply for these Tier 2 elements. Implementation of physical elements includes altering the roadway using such as parking changes or vertical tools, such as speed tables, that result in lower vehicle speeds and/or volumes. The process requires an engineering evaluation for appropriateness, a consensus building process within the neighborhood to support the proposal, and prioritization amongst other requests if needed due to available funding.

The program also includes an evaluation component that summarizes the number of requests and what was completed within each tier. Feedback from residents will be welcomed, and for tier 2 implementations, a before and after study will identify the effectiveness in addressing the issues.

Enforcement Enforcement is also an important component of traffic calming. This step involves Town Public Works staff coordinating with the Police Department. Locations where there are consistent and ongoing concerns by residents will be identified and data will be shared with law enforcement such that targeted enforcement can be completed when staff are available. The enforcement element is somewhat separate from the Education, Tier 1, and Tier 2 elements since it is a partnership with another Town department (Police Department) and is dependent on available staff.

### **Program Funding**

The program is funded through the Town of Timnath Public Works Department. There is no cost to residents for the application or implementation of any traffic calming features. If more applications for physical construction elements are approved then funding is present for implementation, a prioritization process is used to determine which projects are constructed first.



## Program Intent and Limitations

Traffic calming implementation combines data-based details such as travel speeds and volumes and a general sense of comfort or livability in a neighborhood. Therefore, the calming program seeks context sensitive solutions that are specific to a street and surrounding neighborhood. What is appropriate or needed on a local internal street may be very different than what applies to a higher speed or higher volume collector street.

Intent The overarching intent of the program is to support residents in their interests by offering a wide range of tools. These tools will be implemented in an appropriately phased and escalating plan of action. All residents and all streets are eligible for some type of countermeasure.

For residents in neighborhoods that escalate to Tier 2 physical elements, it is critical to first understand the conditions and context of a given street to then undertake a stepped approach. Only after less costly and complex actions have been exhausted should the physical elements be considered given their cost, disruption, and permanence – and then only with the support of the preponderance of nearby residents.

Limitations While traffic calming is a town-wide interest, there are limitations to where elements can be implemented and the outcomes that various countermeasures will produce. Those requesting action should have realistic expectations as to what can be achieved.

This program focuses on local, residential neighborhood streets, or collector roadways within/between neighborhoods with characteristics that place them most at risk from adverse motor vehicle speeds and volumes. (See **Appendix E** for explanation of classifications.) There are some roads that, due to their function within the roadway system (such as main arteries or primary emergency response routes), are not eligible for Tier 2 – Engineering Physical elements. Similarly, some collector roadways may be ineligible for Tier 2 – Engineering Physical elements due to the roadway function and area context that it serves.

Sometimes, what may seem like obvious solutions are not viable due to accepted traffic regulations, codes, and/or sound engineering practices. The Town must abide by local, state, and federal requirements and cannot approve signing, markings, or infrastructure that are not permitted under such standards.

It is also important to recognize that the implementation of some of these tools may not be viewed as universally positive and can have unintended consequences such as a shift in traffic volumes to surrounding streets, noise, sign clutter, elimination of parking, etc. That is why a data-based, measured, and informed approach is the hallmark of this program.

Finally, there are limitations to funding and other resources required for the implementation of traffic calming elements. Depending on the availability of resources, implementation may need to be prioritized against other calming requests.



## Detailed Neighborhood Traffic Calming Program Process

The general program process, steps, and timeframes are shown as a flowchart at the end of this section, and in **Appendix A**. It reinforces the important partnership between residents and the Town and identifies what each group does through the various program components. Examples of the typical elements in the toolbox are also included. A more detailed toolbox is included in **Appendix B**. As noted previously, the program is set up to be completed in a sequential approach that utilizes the least complex and costly tools to address concerns. When concerns are not addressed, additional measures and program elements can be considered.

### Education

Residents can contact the Timnath Public Works Department via email or phone with concerns about traffic in their neighborhoods. Staff will explain the traffic calming program and offer immediate options for educational awareness for the neighborhood.

This includes:

- Information on the Town website.
- Brochures with information and explanation of the program.
- Yard signs available for pick up free of charge. (Signs must be placed on private property).
- Sample communication that residents can send out to the neighborhood via HOA or other means.

These materials and resources are available free of charge for all residents in all neighborhoods. The encouragement for residents to pick up yard signs and distribute them in the neighborhood for placement on private property (such as front yards) supports the concept of resident awareness and their actions being an important component for addressing concerns. In many neighborhoods, most vehicular trips are made by residents. In some locations, speeding concerns can be alleviated by an awareness campaign.

### Tier 1 Engineering - Visual Elements

If concerns persist following an education campaign, residents can request the use of Tier 1 Engineering – Visual Elements. These tools include items such as signs, pavement markings (striping), temporary delineators, and driver feedback signs to provide motorists with visual indicators that support traffic calming.

#### 1. Tier 1 Engineering – Application

Any single resident can contact the Town via phone or email with concerns regarding traffic in their neighborhood. If educational elements have been utilized for at least one month, then the resident can submit an application that details the concern. The application is entered into a database at the Town for consideration of Tier 1 – Visual Elements.

#### 2. Staff completes a cursory review of the neighborhood and existing data to determine eligibility for Tier 1 tools. Existing data may include but is not limited to the following:

- Roadway classification
- Traffic volume – from previous counts or estimated



- Speeds – if available or estimated based on classification, road width, etc.
  - Crash history – number of crashes in the most recent 3 – 5 years
  - Enforcement – history of traffic enforcement, citations written, etc.
  - Current inventory of signs and markings
3. Identify eligibility for driver feedback signs
- Volume of at least 500 vehicles per day. The volume can be previously collected data or estimated based on the number of houses utilizing that roadway for access and the ITE trip generation values.
  - If eligible, add to a rotating list for deployment.
  - Feedback signs (or trailers) will be deployed for approximately 1-2 weeks at a time. They may be utilized to collect volume and speed data and, in some instances, left in 'dark' mode for a few days to collect speed data before being turned on.
  - Requests can be made to redeploy the signs to the same location every six months. Residents need to make a new request for the signs to get back on the list. The actual timeline for deployment will depend on the weather and the number of current requests.
4. Identify the need for other Tier 1 – Engineering Visual Elements
- Staff will review the neighborhood for the potential of:
    - Speed limit signs
    - Other signs
    - Markings such as edge lines, stop bars, bike lanes, etc.
    - Temporary delineators to narrow roadways at crossing locations.
  - Roadway changes that do not change roadway functionality such as loss of travel lanes or parking will be completed by staff and do not require a neighborhood petition.
  - Roadway changes that do change roadway functionality such as loss of travel lanes or parking are Tier 2 tools and must utilize that process of neighborhood consensus before implementation.

Staff will communicate with the resident who submitted the request with the findings of the evaluation and any next steps. The implementation of Tier 1 Engineering – Visual elements is done free of charge for residents. If no Tier 1 elements are appropriate for the neighborhood, Timnath staff will direct the resident to available options within the educational elements of the program.

### **Tier 2 Engineering - Physical Elements**

If concerns persist following the educational elements and Tier 1 review, the residents are then welcome to pursue physical construction options. These are called Tier 2 Engineering Physical elements and include items such as speed tables and other horizontal or vertical features built into the road to support slower travel speeds.

1. **Application.** Tier 2 Engineering – Application

A resident can apply to the Tier 2 program by filling out an application and submitting it to the Town.

- The application should detail the neighborhood, roadways, and the concern.



- The application MUST be signed by a lead resident (and main contact for the submittal) and at least three other sponsors from different households in the neighborhood.
- Applications without four sponsors will be returned for additional sponsors. If a resident cannot gather four sponsors, the neighborhood will be entered into the Tier 1 Engineering – Visual element program.

2. **Eligibility.** Timnath staff will review the request for basic Tier 2 eligibility.

- Roadways of concern must be classified as a local, residential street, or minor collector street. (Roadways classified as major collectors will be reviewed as Town initiated projects. See **Appendix E** for classifications.) There is a need to balance the goals of reduction in travel speed for all vehicles against the importance of efficient emergency response. Roadways classified as arterials are not eligible for Tier 2 elements.
- Speed limit of 30 mph or less. (Major collector roadways with speed limits of 35 mph will be evaluated as Town-initiated projects.)
- Number of lanes is two (one in each direction) or three (one in each direction and a center turn lane). Four lane roads are not eligible for Tier 2 elements unless combined with restriping to three lanes if appropriate.
- Known or estimated daily traffic volumes should be between 500 and 5,000 vehicles per day. Roads with less than 500 vehicles per day are not anticipated to carry enough traffic to be good candidates and competitive in the prioritization process, and roads with more than 5,000 vehicles per day are considered to be functioning much as arterials and are not eligible.
- Review of primary emergency services or transit routes. Major emergency routes are not eligible for physical calming devices.
- Roads that meet basic eligibility are then moved to Step 3. Roads that are not deemed eligible are entered into the Tier 1 or educational program options.

**Basic Tier 2 Eligibility**

- Classification as local or minor collector road
- Speed limit of 30 mph or less.
- Number of lanes is 2 or 3
- Volume of 500 to 5,000 veh/day
- Review emergency routes
- (Major collectors with speed limits of 35 mph will be reviewed as Town-initiated projects.)

3. **Engineering Study.** Timnath staff will complete a traffic engineering study to identify issues and provide data to make determinations for potential mitigation. This evaluation includes:

- The classification, geometrics, and characteristics of the roadway
  - Roadway classification
  - Length and width of roadway, number of travel lanes, presence of parking and/or bike lanes
  - Roadway design speed
  - All signs and markings including stop signs and crosswalks
- Traffic operations of the roadway
  - Traffic volumes
  - Traffic speed and percentage of vehicles traveling above the posted speed limit
  - Transit stops (if applicable)
  - Intersections along the roadway under consideration
  - Presence of potential for cut-through traffic





- Safety data
  - Crash history
- Area land use
  - Number of driveways along the roadway
  - Pedestrian generators such as trails, retail, bus stops, senior housing etc.
  - School zones
  - Nearby schools, parks, and places of worship
- Previously completed projects or mitigation.

4. **Severity Index.** Timnath staff will then calculate a "severity index". This is an evaluation that assigns points to all of the gathered data based on criteria such as adjacent land use, access points, vehicle volumes and speeds, safety data, presence of pedestrians and more. The higher the total number of points, the greater the level of need for traffic calming. The total number of points can be compared to other locations of interest for physical calming to identify those locations that are anticipated to be good candidates to receive physical calming elements.

#### **Severity Index**

The severity index is a calculated number based on a list of items evaluated during the engineering study.

A point system is used to identify those locations with highest level of concern for prioritization.

5. **Mitigation Plan.** If the roadway is a good candidate for physical mitigation, a mitigation plan is created. This is a basic plan with a map that identifies the type and location of proposed mitigation.
6. **Neighborhood Petition.** Because physical mitigation tools are not universally supported and sometimes generate opposition in a neighborhood, the town requires neighborhood consensus before moving forward. A petition packet is created that includes a cover letter, a map with petition boundaries and the proposed location of mitigation devices, petition signature sheets, details on mitigation devices (such as the speed table design), and the traffic study evaluation report. The petition boundary is determined by the Town and will generally include those properties most directly impacted by the installation of the physical measures. The packet is sent to the lead sponsor of the application.

One signature from each household will count towards the signature requirement. For townhomes, condos, or apartment buildings, one signature per unit counts. Either renters or owners may sign the petition. If there are known differing views on the petition between an owner and renter, the owner's signature (or lack thereof) is valid.

The petition requires a super majority of support (at least 2/3 or more than 66% of the households in the petition area must be in favor), and 100% support from those properties immediately adjacent to a planned physical device. If mitigation is supported in the neighborhood, but a homeowner immediately adjacent to a proposed device is opposed, the Town will work with the neighborhood to adjust the mitigation plan. The responsibility for the petition rests with the neighborhood, and completed petitions are then returned to the Town.



The petition must be returned within one (1) year of the Town sending it to the sponsor. If a petition is turned in without adequate community consensus, the sponsors of the petition will be notified and they can continue to gather additional signatures until the requirements are met, or until the petition has exceeded the one-year time limit. A new petition can be attempted after a one-year waiting period.

7. **Location Prioritization and Construction Scheduling.** Each year towards the end of the calendar year, the Town will take all the successful petitions and prioritize them based on the severity index shown in the traffic evaluation study (see details on the annual schedule on subsequent pages). The funding for the upcoming construction season is allocated based on the priority list. If there isn't enough funding to accommodate all successful petitions, the remaining neighborhoods will be rolled over into the following year's program. Petitions that are turned in after the deadline at the end of the year will be considered for that year's construction only if funding remains or they will be prioritized for the following year's workplan.
8. **Construction.** All successful applications are intended to be bundled together for construction each year – generally in the summer or early fall. Timnath staff will notify the neighborhood sponsors of construction scheduling and provide a sample construction notice to send to the neighborhood. Note that exact dates for construction are often not available as timelines can change due to workload, weather, etc.
9. **Post Project Evaluation.** Once the construction is complete, the Town will complete a post project evaluation, typically 6-12 months after installation. This will provide data for the effectiveness of physical elements.

Roadways that are not selected for Tier 2 elements – either because they do not meet minimum eligibility criteria, are not prioritized because of other locations with higher severity indexes, or because of an unsuccessful petition – will still be supported. These neighborhoods may choose to participate in educational or Tier 1 elements of the traffic calming program, or if the petition was not successful, the neighborhood may choose to try again with a new petition after a one-year waiting period.

### **Device Replacement or Removal**

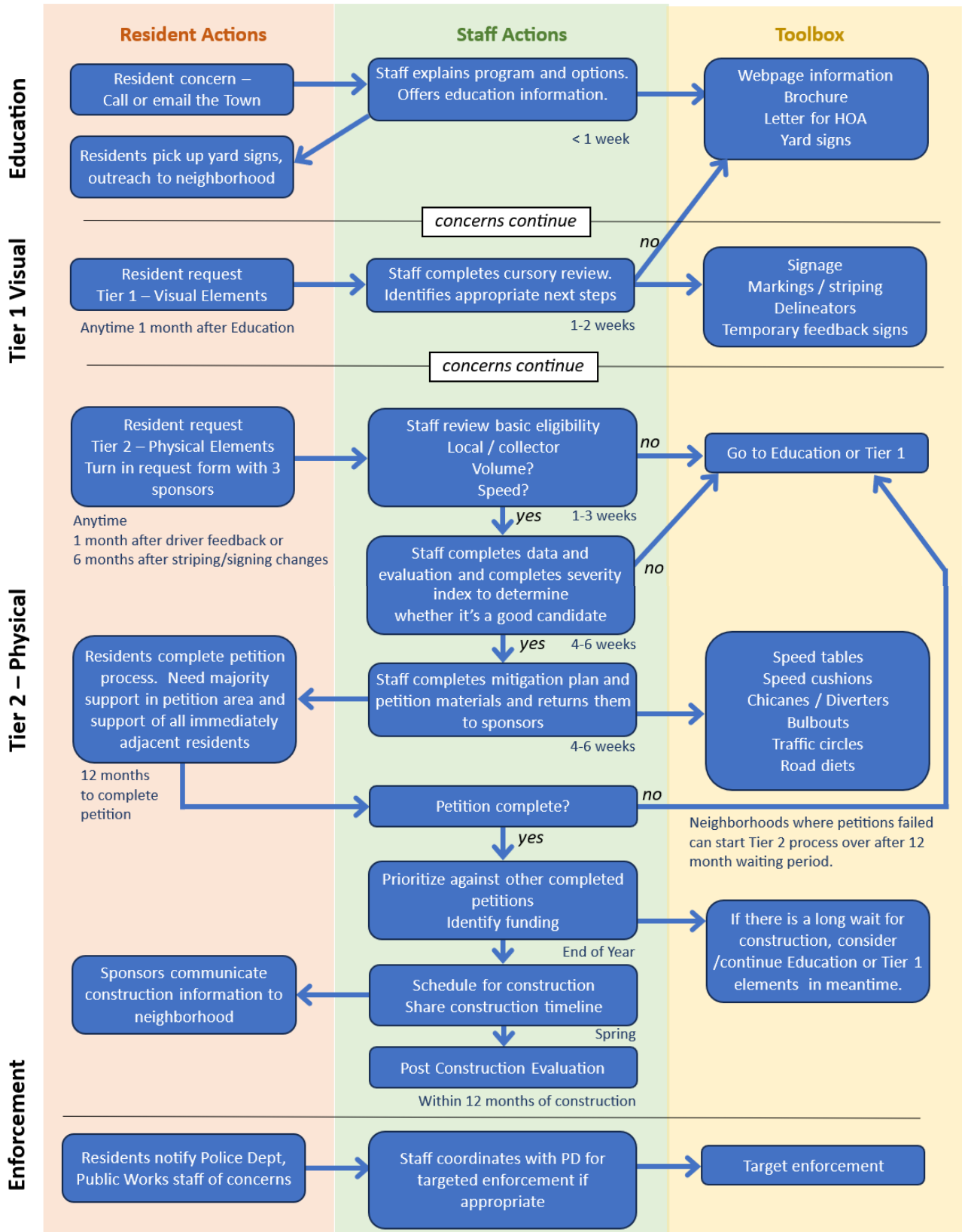
Tier 2 – Physical Elements that are constructed through the Neighborhood Traffic Calming Program will be reconstructed as needed by the Town through regular maintenance activities (i.e. if a roadway has speed humps and is scheduled for an overlay, the humps will be replaced). For Town initiated projects, unless Town staff have identified a safety, operations, emergency response or maintenance issue, traffic calming devices are generally not eligible for removal.

If a resident wants to have traffic calming that was installed through a neighborhood process removed, they should contact Timnath staff. The request will be reviewed and would require a similar process to approving installation, including requiring multiple neighborhood champions, and a petition process with a required super majority (66%) neighborhood support for removal. If the removal is approved, it will occur as Town staff and construction resources are available. The cost for removal may be covered by the Town if the roadway is being resurfaced or will be charged to the neighborhood if no overlay maintenance is scheduled.





## Town of Timnath Neighborhood Traffic Calming Program Process



### **Enforcement Coordination**

Enforcement of travel speeds is also an available element in a traffic calming program as the Police Department is a partner in transportation safety. Public Works staff will coordinate and communicate with PD on the various requests to determine if targeted enforcement are options. Consideration of enforcement priorities at a particular location will include:

- History of concern
- Available speed data (from previous studies or driver feedback signs or trailers)
- Volume of vehicles on the roadway
- Crash history
- Availability of enforcement staff

### **Town Initiated Projects**

Roadways that are classified as major collectors and have a speed limit of 35 mph will be reviewed for potential mitigation and managed as Town initiated projects. (See **Appendix E** for classifications.) The evaluation is similar to resident requested Tier 2 evaluation. If mitigation is appropriate, it can move forward without the need for a neighborhood petition as these roadways are less neighborhood streets and more a part of the community wide transportation system.

## **Annual Schedule for Traffic Calming Program**

The NTCP is an ongoing program, and residents can utilize the program at any time. Educational materials and Tier 1 Visual elements (including the driver feedback signs) are available year-round. Note that installation of striping in Tier 1 mitigation may need to be done during warmer weather months.

The Tier 2 program can be initiated at any time, and if a neighborhood is eligible and approved to move through the process, the mitigation plan and the petition will be initiated as soon as possible. The petition needs to be turned in within 12 months.

Completed petitions are collected throughout the year for a single prioritization process that occurs shortly after the end of the calendar year. This process is necessary since construction for calming throughout the Town is typically done with a single contract. Each year at the end of the year, the Town will take all the successful petitions and prioritize them based on the severity index. The funding for the upcoming construction season is allotted based on the priority list. If there isn't enough funding to accommodate all successful petitions, the remaining neighborhoods will be rolled over into the following year's program. Petitions that are returned after the end of the year will be held for the subsequent year (unless funding is available and construction coordination is possible).



**Annual Schedule for Calming Program**

	Year 1												Year 2						
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July
<b>Educational Materials</b>	Available Year Round																		
<b>Tier 1 Visual Elements</b>	Available Year Round																		
<b>Tier 2 Physical Elements</b>	Anytime During Year																		
Inquiry / program initiation																			
Mitigation plan followed by petition																			
Due date for petitions																			
Completed Petitions Prioritized																			
Final construction list based on \$\$																			
Contracting under single contract																			
Construction																			

Program inquiry, mitigation, petitions etc. begin for following year.

**Toolbox**

The toolbox of the most frequently used elements for Timnath is included in **Appendix B**. The appendix includes the following:

- The types of tools for each program area (Education, Enforcement, Tier 1 Visual elements, and Tier 2 Physical elements)
- A photo or diagram showing what each tool looks like
- Discussion on applicability or considerations for each tool
- General cost related to the physical Tier 2 elements

Note that these tools represent commonly used elements for Timnath. There could be other options that might be appropriate for a specific location. The appendix provides information on national resources, most specifically FHWA’s Traffic Calming ePrimer website. Staff are aware of these options and will be diligent in considering them if appropriate.

**Frequently Asked Questions (FAQs)**

Frequently asked questions and their answers are included in **Appendix D**.

**Appendix A – NTCP Program Process Flow Chart**

**Appendix B – Toolbox**

**Appendix C – Typical Speed Table and Speed Cushion Designs**

**Appendix D – FAQs**

**Appendix E – Roadway Classifications / Eligibility**



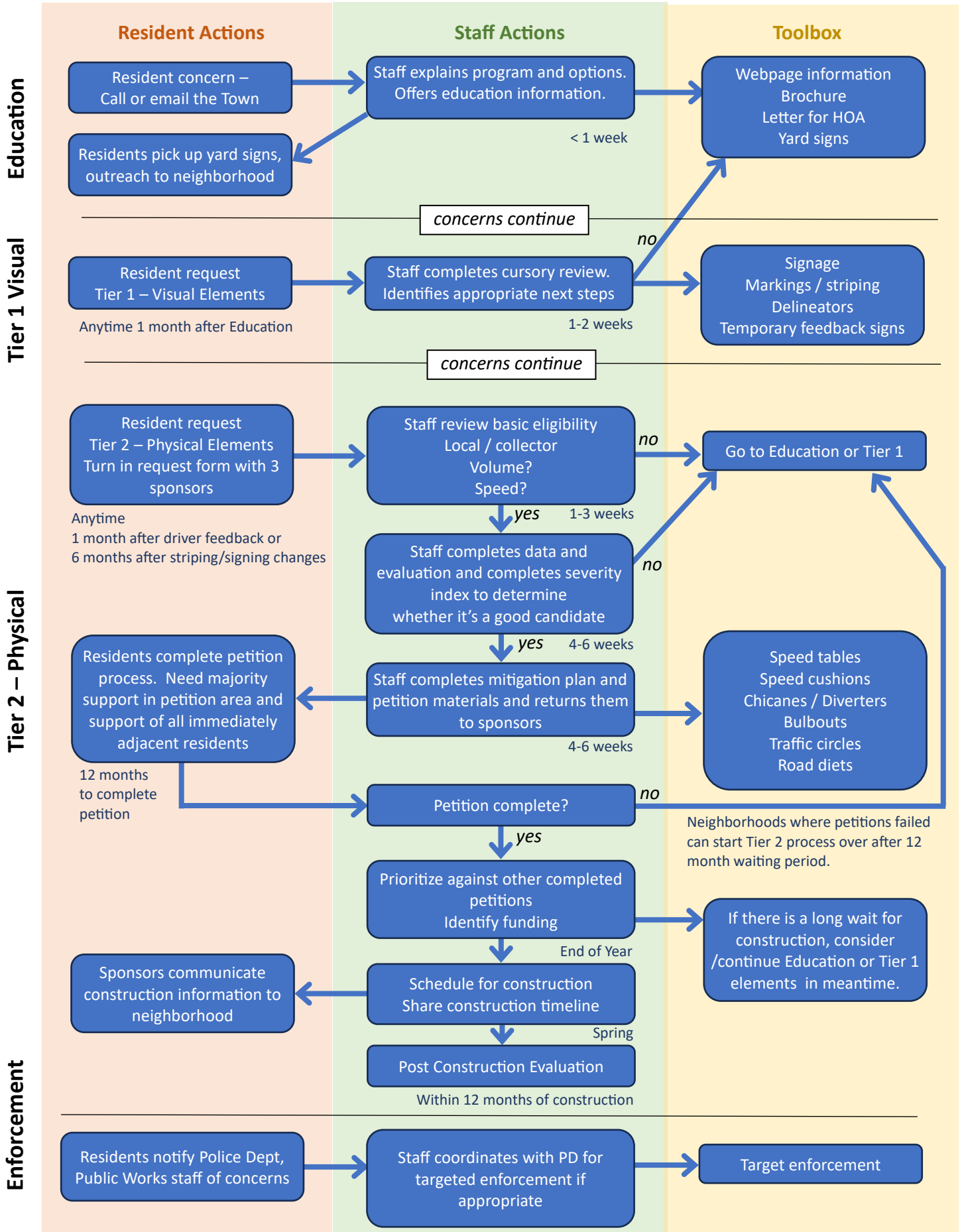
# Appendix A

## NTCP Process Flow Chart





# Town of Timnath Neighborhood Traffic Calming Program Process



# Appendix B

## Traffic Calming Toolbox





# Town of Timnath

## Neighborhood Traffic Calming Program

### Toolbox

The Town of Timnath Traffic Calming Program (NTCP) is available for residents to work with the Town to implement various traffic calming elements to support safety and make their neighborhood streets more livable. The program is set up to be completed in a sequential approach that utilizes the least complex and costly tools to address concerns - employing Educational Materials first, then Tier 1 tools, and if needed then Tier 2 tools. This toolbox provides basic information on typical tools in each category.

### Resources

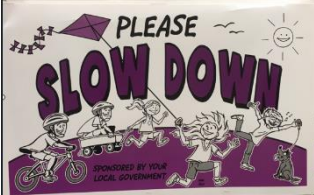
Many of these elements and a comprehensive resource for traffic calming toolbox details are maintained by the Federal Highway Administration on a webpage called Traffic Calming ePrimer. The link is provided and the resource should be consulted for details on measures, design, issues, and anticipated outcomes. Visit: <https://highways.dot.gov/safety/speed-management/traffic-calming-eprimer>

Another source of information is the Design Guidance from the National Association of City Transportation Officials (NACTO). Visit: <https://nacto.org/program/design-guidance/>

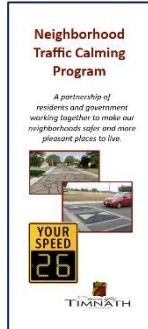
The Town of Timnath may choose to employ any, all, or other tools as those listed below.

### Educational Materials

Educational materials are the starting point for the program, available immediately for anyone. These materials support educational awareness of concerns in a neighborhood.




Available Materials	Details
Web Information	The Town maintains a comprehensive website with traffic calming information, including program details, processes, elements, etc. Visit <a href="https://timnath.org/neighborhood-traffic-calming-program/">https://timnath.org/neighborhood-traffic-calming-program/</a>
Yard Signs	 <p>Yard signs are available free of charge and can be picked up at the Town of Timnath Public Works Department anytime. They should be placed on private property.</p>
Neighborhood Mailer – sample communication	Sample text is available from the Town for residents to use in sending out materials via postcard, newsletter, email, or online (such as Nextdoor). The materials are friendly reminders about the role that residents can play in minimizing traffic concerns.





<p>FAQs</p>	<p>A list of Frequently Asked Questions (FAQs) is available on the webpage at <a href="https://timnath.org/neighborhood-traffic-calming-program/">https://timnath.org/neighborhood-traffic-calming-program/</a> that answers questions and provides details to frequent inquiries.</p>
<p>Brochure</p>	<div data-bbox="516 352 662 678" style="display: inline-block; border: 1px solid black; padding: 5px;">  <p style="text-align: center;"><b>Neighborhood Traffic Calming Program</b></p> <p style="text-align: center;"><small>A partnership of residents and government working together to make our neighborhood safer and more pleasant places to live.</small></p> <p style="text-align: center;"><b>YOUR SPEED 26</b></p> <p style="text-align: center;"><small>TIMNATH</small></p> </div> <p>A brochure is available on the website that provides information and an explanation of the Timnath Neighborhood Traffic Calming Program.</p>

### Tier 1 – Engineering Visual Elements

If concerns persist following an education campaign, a neighborhood can request the use of Tier 1 – Engineering – Visual Elements to support traffic calming. These are tools that are relatively quick and easy to implement based on an evaluation by Town Staff. They do not require completion of any type of neighborhood petition process.

Treatment	Applicability, Considerations, and Cautions
<p>Speed Limit Signs</p> 	<p>The addition of speed limit signs can serve as a good reminder of the appropriate speed in a neighborhood and support enforcement efforts.</p>
<p>Longitudinal Striping to narrow lanes, and designate bike lanes and/or parking</p> 	<p>This countermeasure uses striping to reduce the effective width of travel lanes. Includes the addition of bike lanes, buffers, parking, etc. <i>Note that striping must be compliant with the national standard Manual on Uniform Traffic Control Devices (MUTCD).</i></p>
<p>Other markings or signs</p> 	<p>The Town will evaluate the area for the appropriateness of other markings such as crosswalks and stop bars, or signage such as curve warning signs. <i>Note that striping must be compliant with the national standard Manual on Uniform Traffic Control Devices (MUTCD).</i></p>





<p>Temporary Delineators</p>		<p>Delineators can narrow the effective road width. They can be placed to allow for bike lanes on either side, at corners to reduce pedestrian crossing distance, etc. Maintenance and snow plowing are challenges. Their use is best for temporary conditions with permanent curb extensions planned in the future.</p>
<p>Temporary Driver Feedback Signs</p>		<p>These are typically pole mounted but can also be trailer mounted. Neighborhoods can request the placement of feedback signs once every six months. They will be left in place for 1-2 weeks.</p>






### Tier 2 – Engineering Physical Elements

Tier 2 elements are the most costly and complex countermeasures in the traffic calming program. They involve physical changes to the roadway through construction to support slower speeds.

The consideration of these tools should be undertaken after both educational and Tier 1 elements have been previously employed. The Town will complete data collection and an evaluation to determine whether a location is a good candidate, and if so, the neighborhood is asked to complete a petition process to ensure majority support before the project moves forward. Prioritization of various approved applications may be needed based on funding availability.

Treatment	Applicability, Considerations and Cautions	Cost
Vertical Elements		
<p>Speed Tables</p>	 <p>Speed tables (also called speed humps) are most appropriate on local roads. They should be tapered at the road edges to allow for drainage. Construction requires precise work, with small variations significantly impacting effectiveness.</p>	<p>\$\$</p>
<p>Speed Cushions</p>	 <p>Speed cushions are similar to speed tables but allow for emergency vehicles such as fire engines to traverse them at higher speeds as the wider wheelbase straddles the cushions. Rubber cushions pinned into the ground may require frequent maintenance.</p>	<p>\$\$</p>



<p>Raised Crosswalk</p>		<p>Raised crosswalks combine a speed table with a pedestrian crossing. They should only be placed where a marked crosswalk is appropriate. Drainage should be carefully reviewed.</p>	<p>\$\$</p>
<p>Horizontal Elements</p>			
<p>Corner Extensions or Bulbouts</p>		<p>Can be done at intersections or mid-block to reduce road width. Can retain drainage features if needed and be landscaped or hardscaped. Helpful in reducing pedestrian crossing distances.</p>	<p>\$\$\$</p>
<p>Traffic Circles</p>		<p>Much smaller than roundabouts. Consider accommodations for large vehicles – the island may need to be fully mountable. Speed limit 30 mph or less.</p>	<p>\$\$\$\$</p>
<p>Chicanes or Lateral Shift</p>		<p>Can be done in urban or suburban settings, best in locations with curb and gutter (not rural). Used midblock. Can retain drainage features. Speed limits 35 mph or less Maximum ADT of 3,500 veh/day</p>	<p>\$\$\$\$</p>
<p>Medians Islands</p>		<p>Median islands can serve as a narrowing feature to reduce travel speeds. They can be employed where there is a center turn lane and can help create refuge islands for crossing pedestrians. Caution is needed to determine their impact on left turning vehicles.</p>	<p>\$\$\$</p>



Re-allocation of Road Space			
<p>Road Diet (Road Reshaping)</p>		<p>Typically used to go from 4 lanes (2 in each direction) without a center turn lane to 3 lanes (1 in each direction with a center turn lane). Can also be used to narrow (or eliminate) travel lanes to create comfortable bike lanes. Use for ADT up to 15,000 vehicles / day. May negatively impact traffic operations.</p>	<p>\$</p>
<p>Parking Changes</p>		<p>Use parking to alter the nature of the street. The addition of parking can narrow effective road width and/or parking elimination can allow for the striping of bike lanes.</p>	<p>\$</p>
Route Restrictions			
<p>Diagonal Diverter</p>		<p>This is an element detailed in the NACTO guide and is intended to limit vehicular through traffic. Bicycle and pedestrian crossings are allowed in all directions, while vehicles must make right turns.</p>	<p>\$\$\$</p>
<p>Half Closure</p>		<p>Restricts entering traffic at some intersections. Bicycle and pedestrian crossings are allowed in all directions. Some vehicular traffic is rerouted.</p>	<p>\$\$\$</p>
<p>Full Closure</p>		<p>Full closure of roadways can be utilized to limit vehicular traffic, especially through traffic. Bicycle and pedestrian access are typically maintained. Closures can be temporary or permanent. Caution is needed to accommodate vehicle turnarounds.</p>	<p>\$ - \$\$\$</p>

## Enforcement

The enforcement tools in Timnath’s traffic calming program are somewhat separate from the Education, Tier 1, and Tier 2 elements since they are partnerships with the Town’s Police Department and are dependent on available staff. This involves coordination between Timnath Public Works staff with the Police Department. Locations where there are consistent and ongoing concerns by residents can be identified and data shared with enforcement staff such that targeted enforcement can be completed when staff is available.



# Appendix C

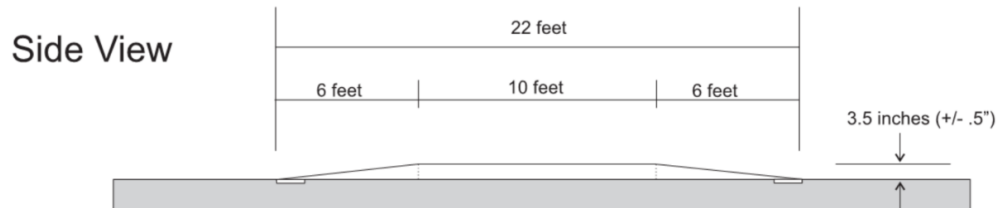
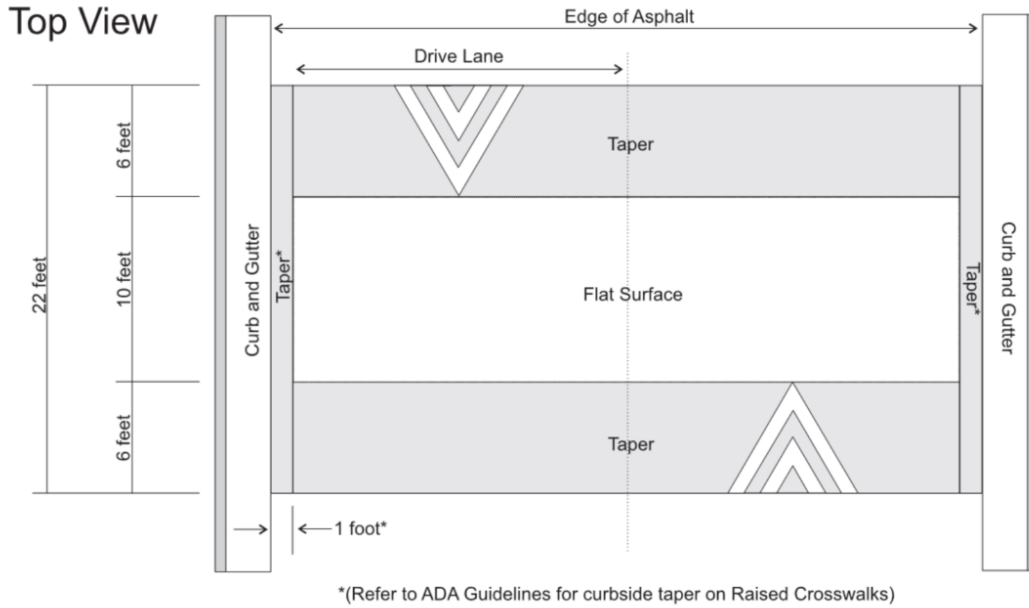
## Typical Speed Table and Speed Cushion Designs





## Town of Timnath Speed Table Design

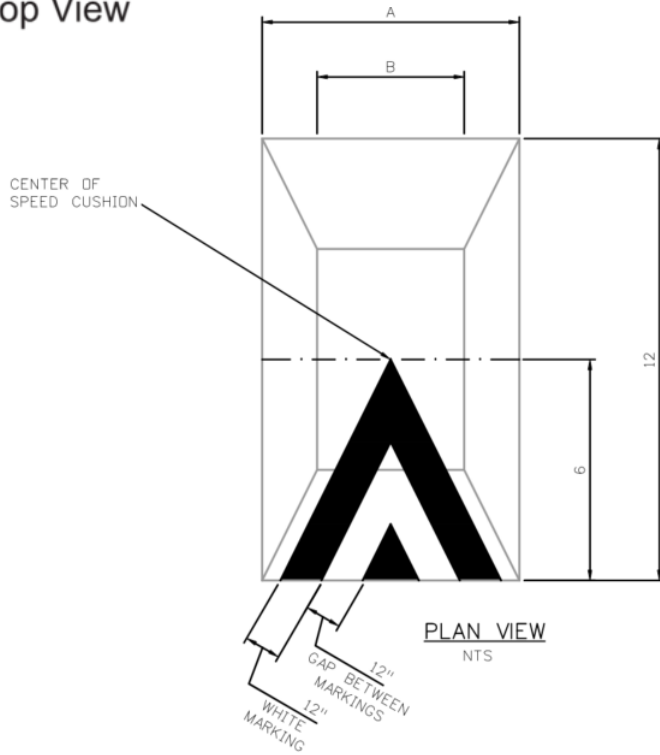
The speed table design being used in Timnath is based on the research and design from Portland Oregon. It is considered one of the best practices across the nation in its design.



## Town of Timnath Speed Cushion Design

The speed cushion design being used in Timnath is the same as is currently used in Aurora, Colorado and Adams County Colorado. General information is shown below.


### Top View



SPEED CUSHION SIZE (FT.)	DIMENSION (FT.)	
	A	B
7	7	4
8	8	5
9	9	6
10	10	7




SIGNS



W17-1

AHEAD

  
 W16-9p  
  



  
 W16-7P(L)



# Appendix D

## Frequently Asked Questions





## Timnath Neighborhood Traffic Calming Program Frequently Asked Questions (FAQs)

### 1. Who do I contact with my concerns?

*The Timnath Public Works Department responsible for the Traffic Calming Program can be reached at 970-224-3211 or by email at [traffic@timnathgov.com](mailto:traffic@timnathgov.com).*

### 2. What is the program and how does it work?

*The Traffic Calming program is the Town of Timnath's approach to addressing concerns regarding vehicle speeds and volumes in neighborhoods. The approach utilizes four elements, including education, enforcement, Tier 1 Visual, and Tier 2 Physical. The elements are applied to concerns in a phased, and if needed, escalating plan of action meaning that educational outreach is completed before more impactful and costly options are considered.*

*The Tier 1 and Tier 2 elements require some level of data collection and evaluation to determine the most appropriate course of action, and if needed prioritization of projects. The implementation of Tier 2 physical measures (such as speed tables) requires strong neighborhood support.*

### 3. How do I know if my neighborhood/street is eligible for calming options?

*All neighborhoods in Timnath are eligible for the Educational options in the traffic calming program. A review of specific concerns and data evaluation will identify whether additional elements such as visual tools (striping, driver feedback) or physical tools (such as speed tables) can be considered for a specific roadway. Note that major regional roadways known as arterials are not eligible for physical calming elements. A map with roadway classifications that details eligibility is available at <https://timnath.org/neighborhood-traffic-calming-program/>*

### 4. Is there a cost to the program or do neighborhoods have to pay for calming measures?

*There is no cost to the residents for the application or implementation of any traffic calming features. If more applications for physical construction elements are approved than funding is present for implementation, a prioritization process is used to determine which projects are constructed first.*

### 5. Can a STOP sign be added to slow people down?

*This is a common request. STOP signs are traffic control devices and are not speed control devices. Therefore, STOP signs are not appropriate for use as a traffic calming tool. When STOP signs are installed as a 'nuisance' or 'speed breaker', studies have shown that unwarranted STOP signs result in poor compliance (i.e., motorists can sense that the sign is unneeded, and will tend to disregard it). This creates a safety hazard at the intersection and may result in motorists speeding up between STOP signs to make up for lost time.*

*If you believe that a STOP sign is needed for traffic control, contact Timnath staff at 970-224-3211 or by email at [traffic@timnathgov.com](mailto:traffic@timnathgov.com) and the request will be evaluated separately from the calming program.*



**6. How are speed limits set and can the speed limit be reduced?**

*Speed limits are set on a variety of factors. Local roadways are set at a standard 25 mph, and school zones at 20 mph. Roadways that carry more volume than residential or local streets are set based on a variety of factors including type of road, number of lanes, curvature, slope, adjacent land use, and the prevailing speed (the speed under which most people travel). The overall purpose of the Town's calming program is to cause vehicular traffic to slow down to meet the existing speed limit in a residential area.*

*Requests to reduce the existing speed limit will be evaluated separately from the calming program. Note that studies show that most motorists drive at the speed that they consider safe and reasonable. Arbitrarily lowering the speed limit without consistent enforcement has little effect on travel speeds. An engineering study can be completed to determine whether the posted speed limit is appropriate.*

**7. Can we get speed limit signs posted in our neighborhood?**

*Speed limit signs are one item in the toolbox of options for Tier 1 Visual Elements. Upon request, Timnath staff will evaluate whether the installation of speed limit signs is appropriate.*

**8. Can crosswalks be painted?**

*Painted crosswalks are most effective when they are placed in locations where pedestrians are present. An overuse of crosswalks in locations with few pedestrians results in driver expectancy of no pedestrians, and subsequent lack of awareness for them. A crosswalk evaluation through an engineering study with data can determine whether crosswalk striping is appropriate.*

**9. Can we get a speed bump?**

*The Timnath calming program is set up to be implemented in a phased, and if needed, escalating plan of action. The intent is to undertake an education effort, and visual calming tools in a neighborhood to raise awareness before considering the higher cost, disruption, permanence, and (at times) opposition to physical devices such as speed bumps (or speed tables). If the concerns persist, and the Public Works Department has completed an evaluation that indicates the roadway is a good candidate for bumps, then the neighborhood must reach a consensus through a petition process that shows the majority of the neighborhood in support of the bumps before installation will occur.*

**10. Who is eligible to sign a petition for speed tables or other physical calming elements?**

*Only one signature per household will count towards the signature requirement in a petition. For townhomes or apartments, one signature per unit counts.*

**11. Who determines the petition area?**

*The Timnath staff will determine the area for the petition. It will generally include the properties most affected by the proposed physical elements.*

**12. Do signers of a petition need to be property owners, or can they be renters?**

*The petition can be signed by either an owner or a renter. Only one signature per property is allowed. If an owner and a renter have known differing views on the petition, the owner's signature (or lack thereof) will be valid.*



**13. What if the petition process is not successful?**

*The petition process for Tier 2 Physical elements can be completed anytime within one (1) year of the petition materials being provided by the Timnath staff to the neighborhood. If a petition is turned in without adequate community consensus (majority support), the sponsors of the petition will be notified and they can continue to gather additional signatures until the needed signatures are gathered, or until the petition is 12 months old. If the petition is not successful, the neighborhood is referred to the Tier 1 or Educational elements of the calming program. A new petition can be attempted after a one year waiting period.*

**14. Are traffic calming programs effective?**

*A program can be successful. The level of success depends on the measures that are implemented, and the degree to which the neighborhood is willing to support the program (through education, awareness, community encouragement to slow down, and support for physical mitigation measures).*

**15. Do traffic calming programs make neighborhood streets safer?**

*Thankfully, reported traffic crashes along local neighborhood streets are very rare. Therefore, it can be difficult to pinpoint a measurable reduction in crashes due to a calming program. However, vehicle speeds affect the quality of life for adjacent residents, and significantly impact the sense of safety for pedestrians and bicyclists. A successful calming program can improve livability and level of comfort within a neighborhood.*

**16. If an approved project is delayed due to funding limitations and other higher priorities, can a neighborhood pay for the installation to complete it sooner?**

*No. All the construction related to the traffic calming program will be completed with Town funding. To maintain an equitable approach across the Town, neighborhoods are not required to fund any improvements, nor are they allowed to fund improvements in order to get to the top of the list.*



# Appendix E

## Roadway Classifications / Eligibility

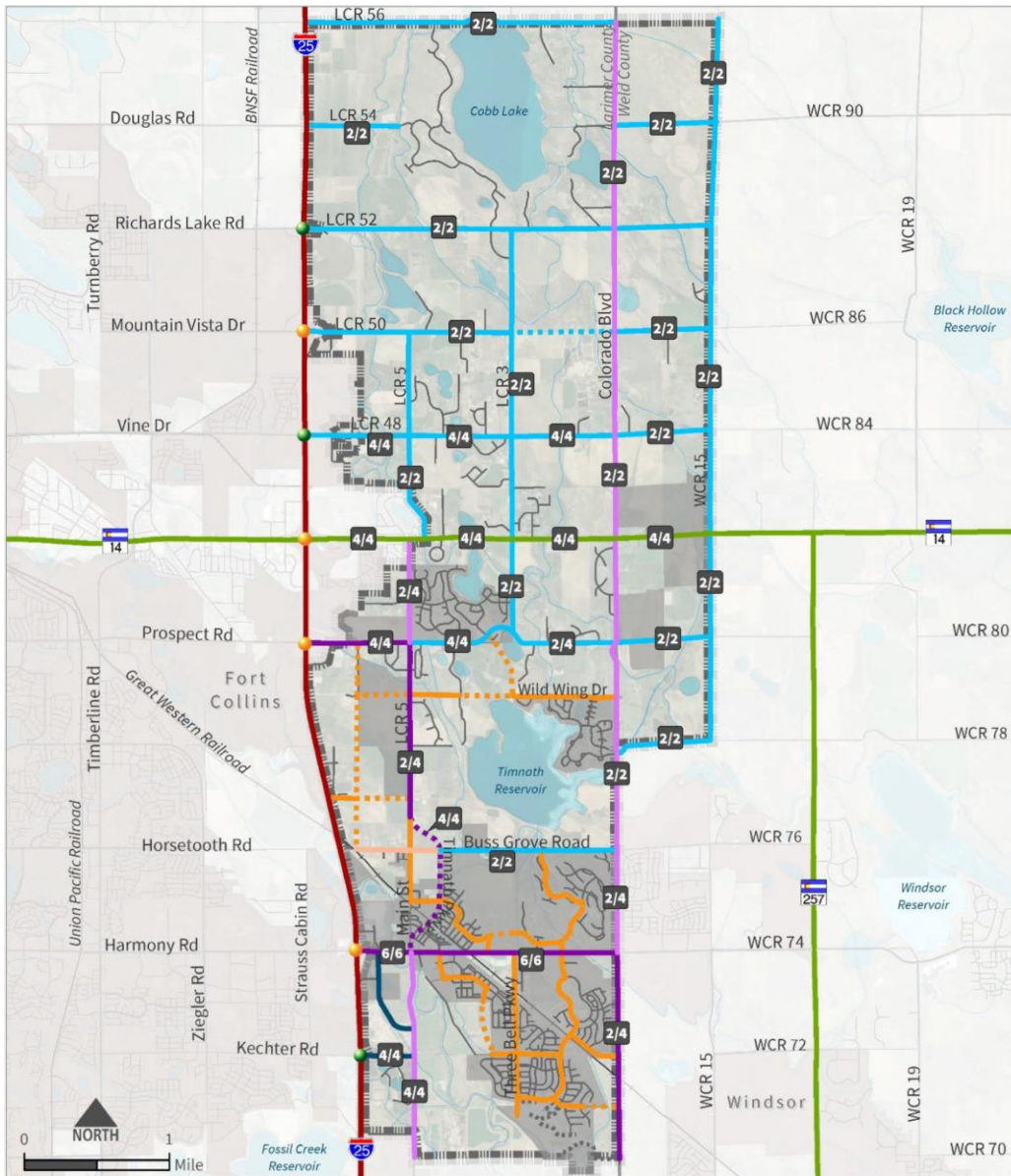




# Town of Timnath Road Classification

Classification of roadways is based on Timnath's Master Streets Plan, as shown in the Timnath Transportation Master Plan. The classification map is reproduced below.

Roadways eligible for physical calming efforts (Tier 2) initiated by neighborhood residents are minor collectors or local roads. Any consideration of Tier 2 physical calming on major collectors would be a Town initiated project. State highways and arterials are not eligible for physical calming measures.



Eligible for resident initiated physical calming (Tier 2)

— Minor Collector/Local

Eligible for Town initiated physical calming (Tier 2)

— Rural Major Collector

— Urban Major Collector

**Not** eligible for physical calming (Tier 2)

— Freeway

— State Highway

— Rural Principal Arterial

— Urban Principal Arterial

— Rural Minor Arterial

— Urban Minor Arterial

Legend				
2045/Future (Beyond 2045) Lane Requirement	Freeway	Rural Principal Arterial	Urban Minor Arterial	Minor Collector/Local
Grade Separation	State Highway	Urban Principal Arterial	Rural Major Collector	Future Road Connection
Interchange	Rural Minor Arterial	Urban Major Collector	Timnath Town Limits	Growth Management Area

Note: Location of future routes are conceptual only. Exact location will be determined later by separate study

