Watsonville
CALIFORNIA

NEIGHBORHOOD TRAFFIC MANAGEMENT PLAN

City of Watsonville

CONTACT THE CITY

Public Works and Utilities Department

(831) 768 - 3100

Police Department

Traffic Enforcement

(831) 768 - 3315

Non - Emergency Dispatch

(831) 471 - 1151

Residents are encouraged to contact the Public Works - Engineering Division regarding traffic operations and traffic calming concerns. The Police Department - Traffic Enforcement unit is also available but requests for traffic calming improvements will be initiated by the Public Works - Engineering Division.

Table of Contents

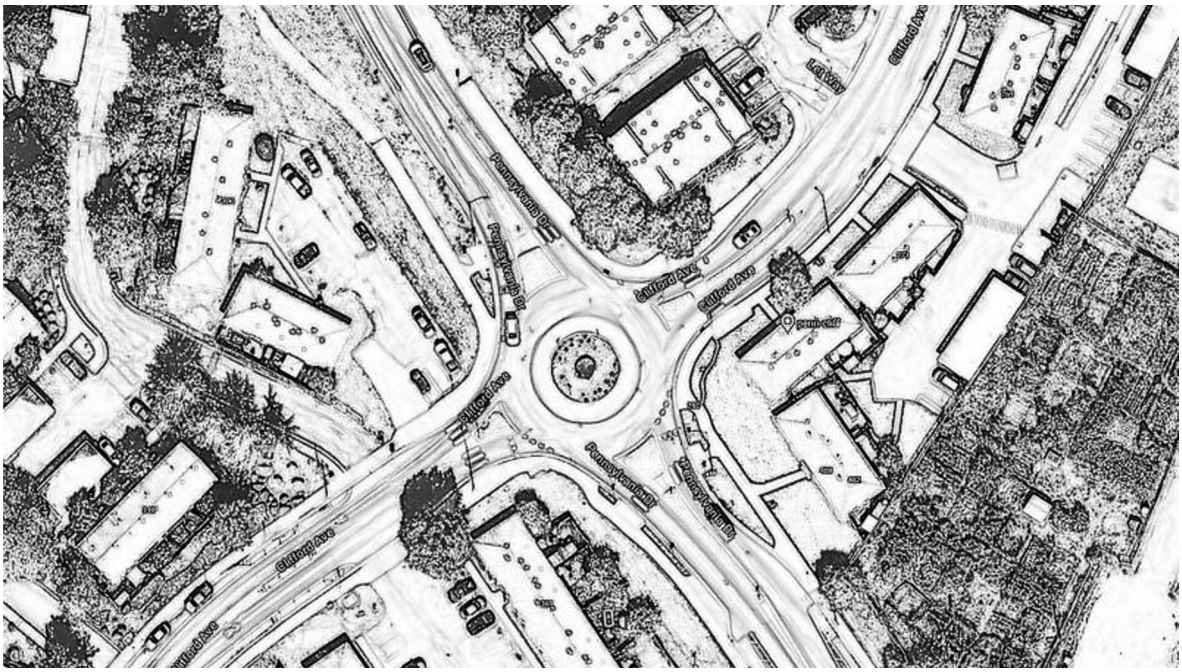
CONTENTS

INTRODUCTION

The Neighborhood Traffic Management Program (NTMP) identifies the process that the City of Watsonville follows in response to resident requests for minor traffic operations improvements or larger traffic calming infrastructure projects.

Typical requests for improvements on local neighborhood streets focus on concerns regarding speeding or commute cut-through traffic. The city's intent through the NTMP is to identify and separate quick fix traffic operations improvements that can be implemented using local resources from larger traffic calming projects that typically require significant infrastructure changes to the roadway network and that also require a longer policy approval and funding process.

Residents that seek to request improvements in response to neighborhood traffic operations can reference this document to help in understanding the city's response process.



5 E'S - ENGINEERING, ENFORCEMENT, EDUCATION, ENCOURAGEMENT & EVALUATION

The 5 E's are used to advise, implement, and manage neighborhood traffic improvements including the traffic calming planning and implementation process. Below is a summary of the 5 E's and how each task advises the NTMP process.

Engineering

Engineering analysis is the first step in the NTMP process. An engineer evaluates field conditions to determine if a street is signed and striped to Best Practice standards. When appropriate, immediate traffic operations improvements are implemented in response to resident requests. Traffic Data Collection and analysis is required for minor and major traffic calming improvements.

Enforcement

Enforcement is led by the Watsonville Police Department with target enforcement during periods of the day when motorists are not respecting the Rules of the Road. Police Department staff also advise the NTMP process by providing historical enforcement and target engineering improvements.

Education

Education supports the NTMP process through programmatic efforts to advise motorists, bicyclists, and pedestrians regarding Rules of the Road and preferred traffic patterns.

Encouragement

Encouragement plays a key role in the the NTMP process by promoting behavior change to improve roadway operations and safety. Encouragement is achieved through programmatic messaging regarding residential neighborhood protection and respecting sharing of the road with bicyclists and pedestrians.

Evaluation

Evaluation of NTMP improvements is achieved through follow-up Traffic Data Collection, field observations, and resident surveys. Evaluation will also advise consistency in future NTMP improvements.

TRAFFIC OPERATIONS VS TRAFFIC CALMING IMPROVEMENTS

Traffic Operations Improvements

Traffic Operations Improvements focus on quick-build field improvements to ensure a street is signed and striped to engineering best practices while traffic calming targets behavior change through physical roadway improvements. Quick-build traffic operations improvements target minor signage and striping and curb management improvements and can be implemented within 3 months of an engineering investigation.

Signage Improvements

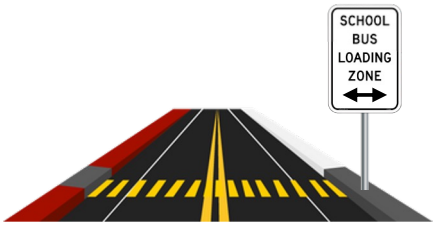
- Speed Limit Signs
- Crosswalks
- Curve Warnings
- Bicycle “Share the Road”

Minor Roadway Markings Improvements

- Refreshing or New Crosswalks
- Advisory “Speed Limit” Pavement Messages
- Street Centerline Striping
- Parking Lane Striping
- STOP Signs (May Take Up to 6 Months due to Study Requirements)

Curb Management

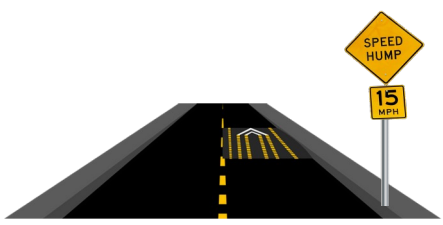
- Red Curb



Traffic Calming Improvements

Speed Humps

- Speed Humps include physical improvements in the roadway to target speed reduction but impact all motorists including Emergency Vehicles.



Stage 1
Traffic Operations Improvements

Traffic calming projects focus on community engagement to build consensus around preferred infrastructure projects. The city's practice is to consider Traffic Operations Improvements first and monitor if "quick fix" treatments that focus on signage and striping and curb management improvements, along with police enforcement, are sufficient enough to create behavior change in motorists to improve roadway safety. These minor changes also help to ensure that a street is signed and striped to engineering best practices, a requirement before any traffic calming improvements can be considered.

Stage 1 - Traffic Operations Improvements will follow the process outlined below beginning with an engineer investigation to identify appropriate engineering best practice improvements. Stage 2 - Minor Traffic Calming Improvements and Stage 3 - Major Traffic Calming Improvements can be considered in parallel with Stage 1.

Stage 2
Minor Traffic Calming Improvements

Minor Traffic Calming Improvements focus on the implementation of technology-based solutions to improve awareness of roadway conditions and typically require coordination with larger projects for signage and striping improvements. Goals for Stage 2- Minor Traffic Calming Improvements include:

- Bicycle and Pedestrian Awareness:
  Improvement of bicycle lane facilities and marked crosswalks.
- Vehicle Speed Reductions:
  Encourage self-compliance with speed limits by using speed feedback signs.
- Intersection Traffic Control Compliance
  Install technology solutions that highlight intersection controls such as STOP signs for pedestrian safety.

Stage 2 - Minor Traffic Calming will typically follow the implementation of Stage 1 - Traffic Operations Improvements but can be considered in parallel with Stage 1 improvements while additional Traffic Data Collection and community engagement take place.

Minor Traffic Calming Project

The city will identify appropriate low-cost (<$20,000) improvements that can be implemented within a one-year period pending funding constraints and priority with other similar projects.

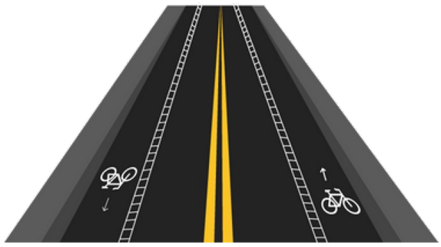
Examples of Minor Traffic Calming Projects include installation of:

- Vehicle Speed Feedback Signs
- Pedestrian-Activated Flashing Beacon Systems

Larger signage and striping projects that may require alignment with a larger project such as the Annual Citywide Street Resurfacing Program may also be appropriate for improvements such as:

- Bike Lane Installations
- Parking Lane Installations

Buffered Bike lanes



Flashing Stop Sign

Vehicle Speed Feedback Sign

Minor Traffic Calming Project

Vehicle Speed Feedback Sign

PROS

- 3-4 MPH Reduction Over Time.
- Cost Effective.
- Quick Implementation.

CHANGES

- Visual Sign Pollution.
- Nighttime Light Pollution.
- On-Going City Operations Cost.

Flashing Signs

PROS

Pedestrian RRFB Light Bar and Signs

- Highlight Pedestrian Presence
- Flashing Only Pedestrian Presence
- Cost Effective

PROS

Flashing LED STOP Sign

- Emphasize Intersection Controls
- Time of Day Flash
- Cost Effective

CHANGES

Pedestrian RRFB Light Bar and Signs

and Flashing LED STOP Sign

- Visual Sign Pollution
- Nighttime Light Pollution
- On-Going City Operations Cost

Stage 3
Major Traffic Calming Improvements

Major Traffic Calming Improvements focus on physical changes to the roadway to help reduce vehicle speeds when all other Stage 1 and Stage 2 improvement options are exhausted.

Stage 3 – Major Traffic Calming Improvements also require an extensive community engagement process that is led by and initiated by Resident Champion(s) through the collection of signatures on a petition. City staff will assist the Resident Champion(s) in identifying the petition streets and limits; the petition process may require additional streets to be surveyed to engage residents impacted by traffic calming measures.
Following a community engagement process city staff will administer a Silent Survey to determine final community support for traffic calming improvements.

Stage 3 - Major Traffic Calming Improvements projects target:

- Preserve Emergency Vehicle Access
- Vehicle Speed Reductions
  Physical street improvements where self-compliance measures are not working.
- Neighborhood Protection from Cut-Through Traffic
  Only streets hat serve as a cut-through route between two or more major collector or arterial streets qualify for Stage 3 - Major Traffic Calming Improvements in effort to maintain emergency vehicle access to residential streets.

Stage 1 - Traffic Operations Improvements may be implemented in parallel with the Stage 3 - Major Traffic Calming review process.

Major Traffic Calming Project

Major Traffic Calming Projects include anything that changes the profile of a roadway. These projects require a Resident Champion(s) to initiate and move projects forward. The Resident Champion(s) is the party that takes the lead in surveying and soliciting petition signatures from neighbors. The city requires 50% of households in a designated area to sign the petition to demonstrate strong neighborhood interest in a traffic calming project.

Examples of Large Traffic Calming Projects include installation of:

- Speed Humps or Speed Tables
- Changes to Horizontal Alignment of the Roadway
- Lane Reduction Projects

Slotted Speed Humps

Half Street
Speed Hump

Roundabout

Major Traffic Calming Project

Slotted and Half Street Speed Humps

PROS

- Reduces All Vehicle Speeds to 15-20 MPH
- Permanent Speed Reduction
- Cost Effective

CHANGES

- Longer Emergency Vehicle Response
- Noise Pollution
- Impacts All Residents

Traffic Circle

PROS

- Local Control at Intersection
- Neighborhood Beautification Opportunity
- Medium Cost

CHANGES

- Impacts All Residents
- 3-5 Year Design and Construction
- Grant Funds Required

Roundabouts

PROS

- Transformation Opportunity
- Arterial Street Appropriate
- Large Cost

CHANGES

- Impacts all Residents
- 5-7 Year Design and Construction
- Grant Funds Required

Traffic Data Collection

Traffic Data Collection and analysis is required during the Stage 1 - Minor Traffic Calming and Stage 2 - Major Traffic Calming review process.

Traffic Data Collection focuses on the use of the tube counters to collect vehicle volume and speed data to measure the actual versus perceived traffic impacts in a neighborhood. It is considered normal for vehicle speed to be as high as 10-MPH over the posted speed limit. In most cases, enforcement or Stage 2 - Minor Traffic Calming measures using technology solutions are sufficient to lower vehicle speeds.

The 85th percentile speeds of a roadway are used to measure impacts and to set targets for traffic calming projects.

DATA COLLECTION

Tube Counters for Speed and Volume

DATA ANALYSIS

Speed Limits are typically set at or near the measures 85th percentile speed of a roadway. In this stage the street is surveyed to determine how close to, or above, motorists travel during different periods of the day in relation to the posted speed limit.

When surveyed, 85th percentile speeds up to 10 MPH above the posted speed limit may be considered normal. Surveyed speeds of 15 MPH or more may require infrastructure improvements to further encourage compliance through Stage 3 - Major Traffic Calming Improvement measures.

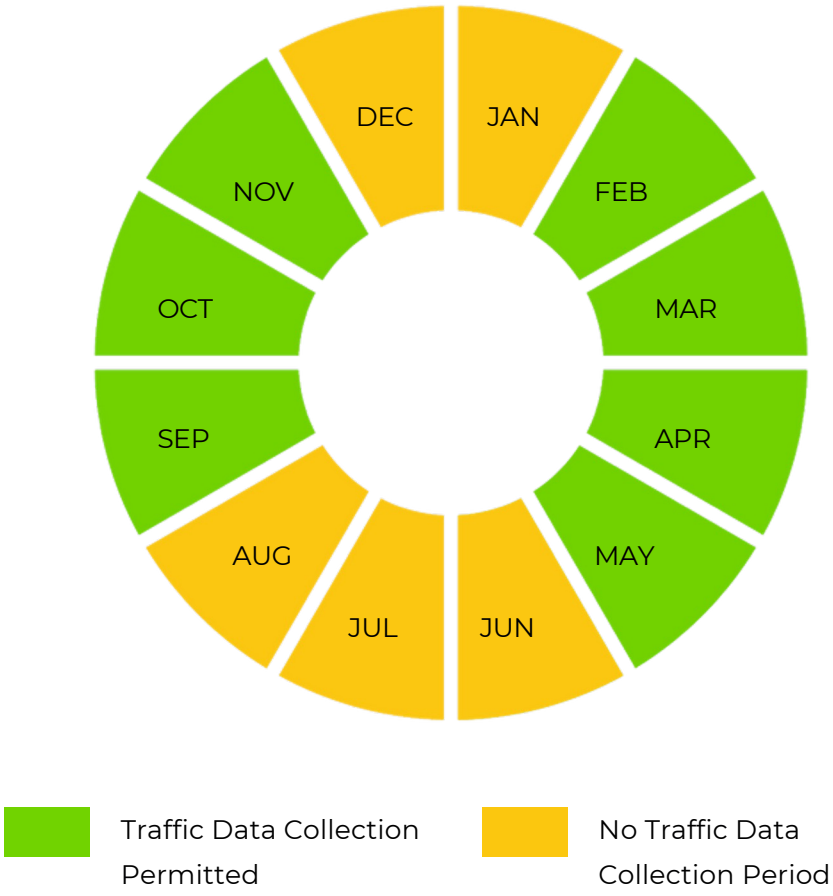
Traffic Volumes

Traffic volumes are typically collected during typical weekday and weekend conditions. Collecting and analyzing data from this period helps to measure the effect of cut-through traffic or other roadway conditions that may cause resident stress.

The Traffic Data Collection and analysis process may take up to 4-months so residents should be patient during the data collection process. Traffic Data Collection can only take place during “normal” traffic conditions which schools are in session. Traffic calming studies that are initiated at the start of summer for example, would require a temporary delay in Traffic Data Collection until the Fall when schools are back in session. Rain and inclement weather may further delay Traffic Data Collection during winter months.

Traffic Data Collection during normal roadway conditions ensures that the traffic analysis accounts for both local and regional influences in roadway operations. Where grant funding may be required to build-out Traffic Calming Improvements, Traffic Data Collection during normal periods will better support grant applications.

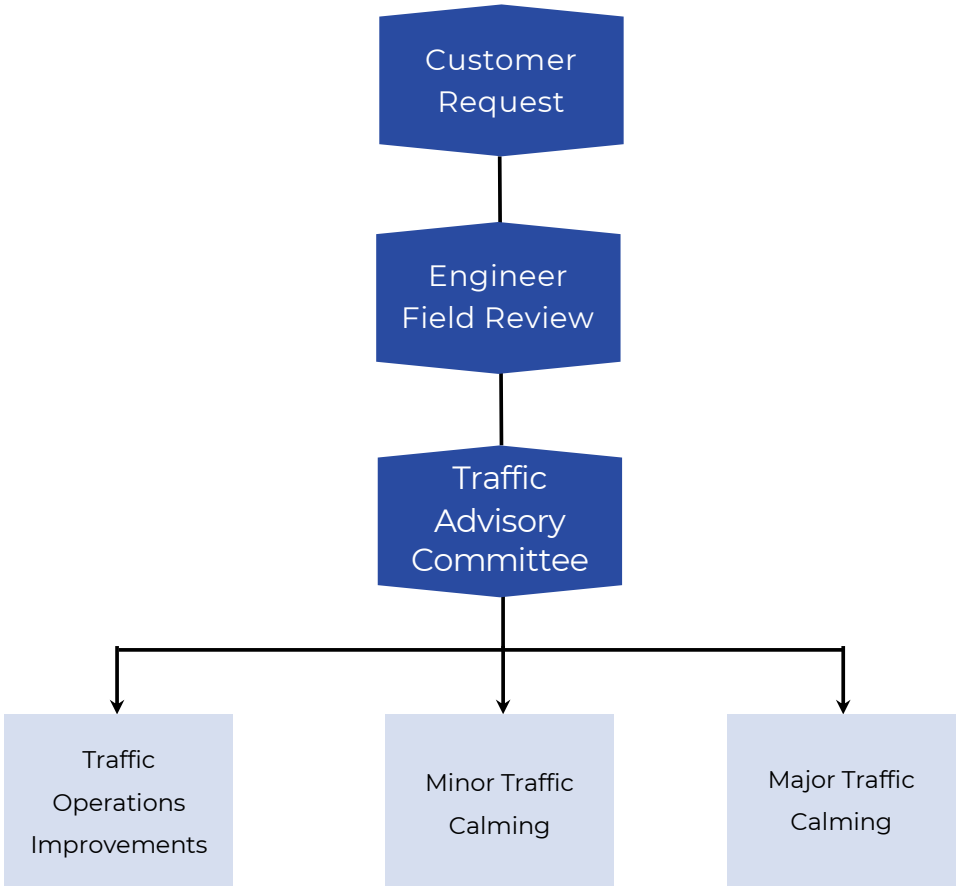
Data Collection Throughout the Year



Community Engagement

Once the Traffic Data Collection analysis is complete, the city will organize a focused neighborhood meeting around the area of initial concern. The focused neighborhood meeting will serve as an initial discussion opportunity for the city to present the findings of the data analysis and to better understand overall community concerns regarding traffic safety. More detailed information about the resident engagement process, including the steps involved, can be found in a subsequent section.

Depending on the traffic data findings and community input, the city's response to the request will follow one of three paths following initial review by the the city's Traffic Advisory Committee.



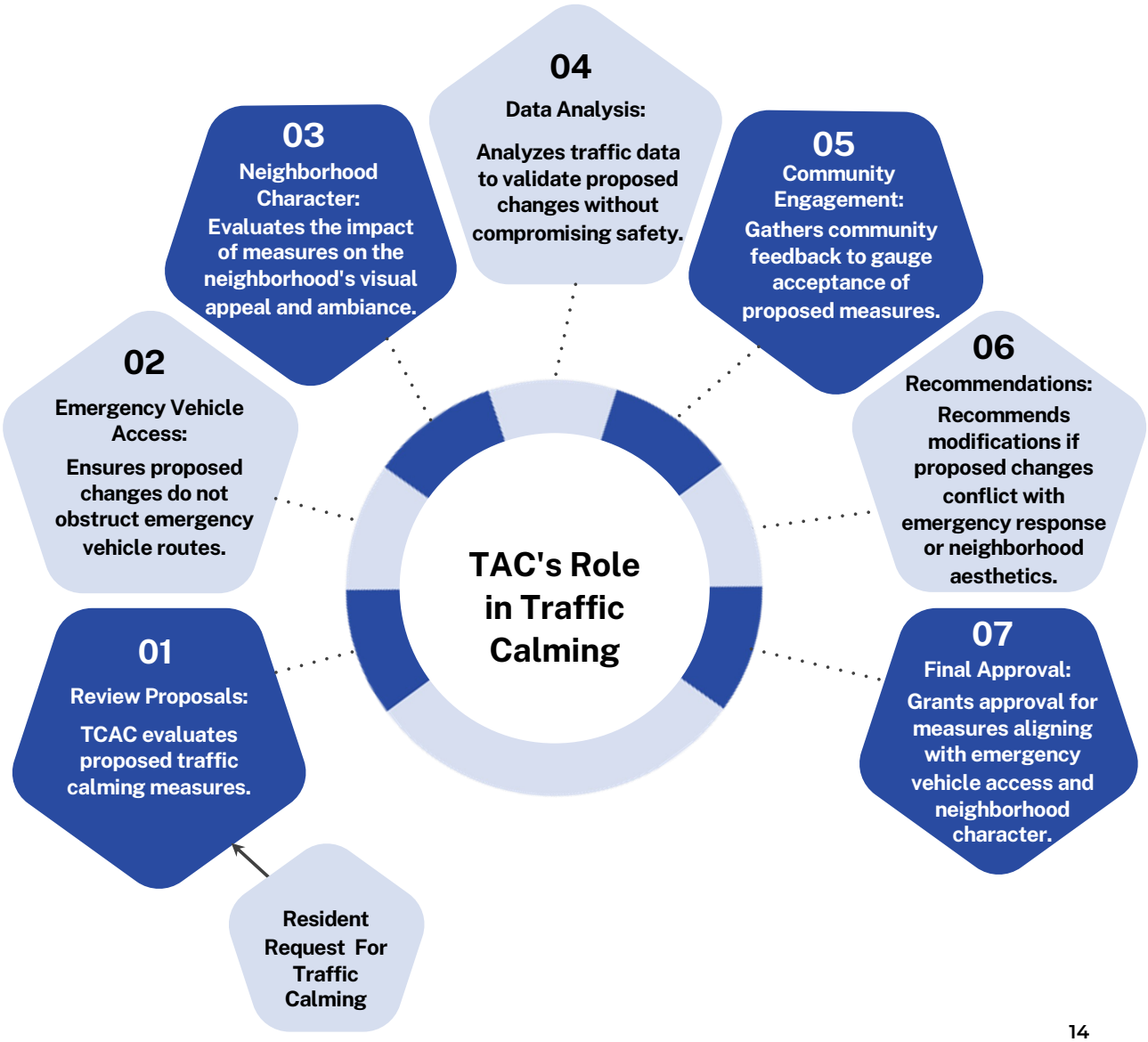
Completion of Request

If community concerns do not align with that of the original requestor the analysis is completed.

Traffic Advisory Committee

The city's Traffic Advisory Committee may consist of city council members, police and fire emergency staff, and city staff. The committee will review and discuss all traffic calming projects requested by the community in a public forum for residents to participate. The committee will receive quarterly updates on community requests, actions taken by staff, and serve as an advisory committee on implementation of projects that move into the Minor and Major Traffic Calming phase.

The committee will help to ensure transparency and consistency in the review of public requests for traffic calming improvements and help to ensure that future traffic calming projects do not negatively impact the city or neighborhood character where improvements are considered.



NEIGHBORHOOD TRAFFIC MANAGEMENT - IMPLEMENTATION SAMPLE

NTMP: Implementation Process Timeline

Major Traffic Calming Projects are transformative to the character of a local residential street so that city has a stringent process that must be followed to ensure that such projects are supported by the surrounding neighborhood. Major Traffic Calming Projects impact all motorists including emergency response vehicles so strong community support by residents is required.

While a single or minority group may bring forward an initial traffic calming request, the surrounding neighborhood may not be in alignment with the request. The following process is used by the City of Watsonville to ensure that any major traffic calming project consideration has strong neighborhood support following the implementation of Phase 1 - Best Practice Traffic Operations improvements.

01 Resident Champion(s) – Work with city staff to initiate a Major Traffic Calming Project Petition. City staff will identify all streets appropriate for the Resident Champion(s) to survey for petition signature. While the Resident Champion(s) may be concerned about one particular street, adjacent streets that may be impacted by traffic calming treatments must also be surveyed by the Resident Champion(s) to get a better understanding regarding interest in improvements from the larger neighborhood. For example, cul-de-sac streets that connect to a street where traffic calming is being considered should be included in the petition process because residents of the cul-de-sac streets will also be impacted by potential traffic calming improvements.

The city requires at least 50% of households on identified “Petition Streets” to sign the petition. It is the responsibility of the Resident Champion(s) to walk and solicit petition signatures, not city staff. City staff will aid in the development of the petition to assist Resident Champion(s). A sample Petition is included in the Exhibit section of this report and is intended to serve only as an example survey petition. The Resident Champion(s) should work with city staff to develop a site-specific survey for circulation.

If the Resident Champion(s) are not able to secure the signature of at least 50% of the Petition Streets, the traffic calming process will be terminated due to insufficient neighborhood support. Best Practice Traffic Operations Improvements or Minor Traffic Calming Improvements may still be considered.

02 Upon receipt of a successful petition the city will organize a neighborhood community meeting and present traffic data findings and project concept plans for discussion with residents. Several concept plans may be presented to help residents envision how traffic calming treatments may transform a neighborhood street.

Residents will be asked to provide feedback on preferred traffic calming treatments for further consideration. A final plan will be developed based on the resident input for presentation to the Traffic Advisory Committee to ensure the plan would not impact emergency response or future street improvements. The plan may require a second community meeting later depending on plan complexity.

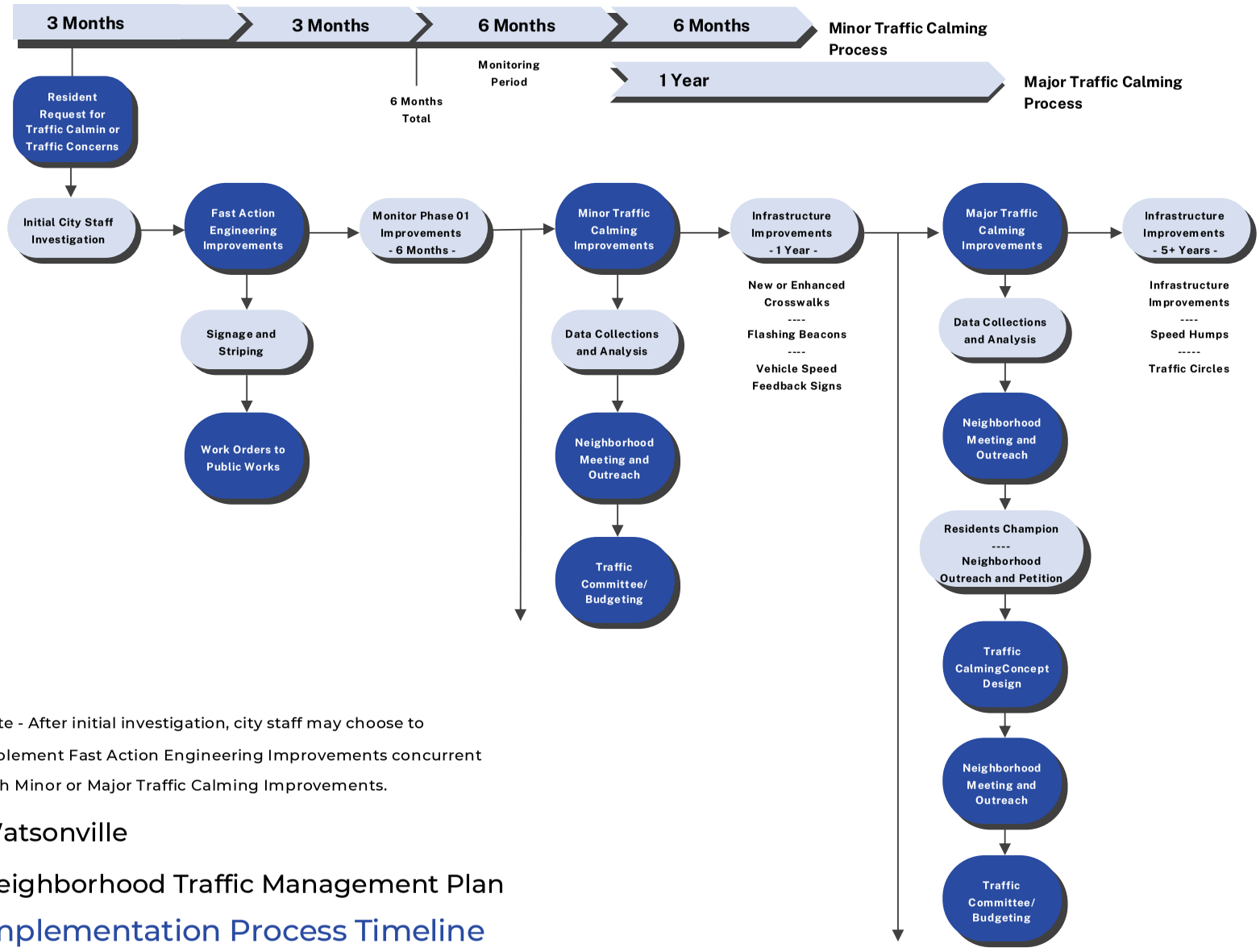
03 Upon approval of a preferred traffic calming plan by the Traffic Advisory Committee, the city will administer a ”silent petition" for the same streets initially petitioned by the Resident Champion(s).
The silent petition will include a copy of the final traffic calming plan and serve as an opportunity for each household to express their support for the traffic calming project. Only one vote per household will be accepted, and the city requires 65% support from the silent vote of all households for the major traffic calming project to advance to policy and funding approvals. Households that do not respond to the silent petition will be considered as NO votes.

04 The results of the silent petition will be presented at a 3rd and final community meeting. If the silent petition fails to receive 65% support the project terminates. Minor traffic calming improvements may still be considered.

05 Upon policy approval of the project the traffic calming project will need to acquire funding for implementation. A combination of local and grant funding may be required limiting implementation for up to 5 to 7 years.

Implementation of a modified project using interim treatments that are in the spirit of the project supported by the neighborhood may be feasible including temporary roadway striping changes and other temporary infrastructure elements.

The Traffic Operations and Traffic Calming Program implementation process is outlined in the Flow Chart in Figure A.



Note - After initial investigation, city staff may choose to implement Fast Action Engineering Improvements concurrent with Minor or Major Traffic Calming Improvements.

Watsonville

Neighborhood Traffic Management Plan

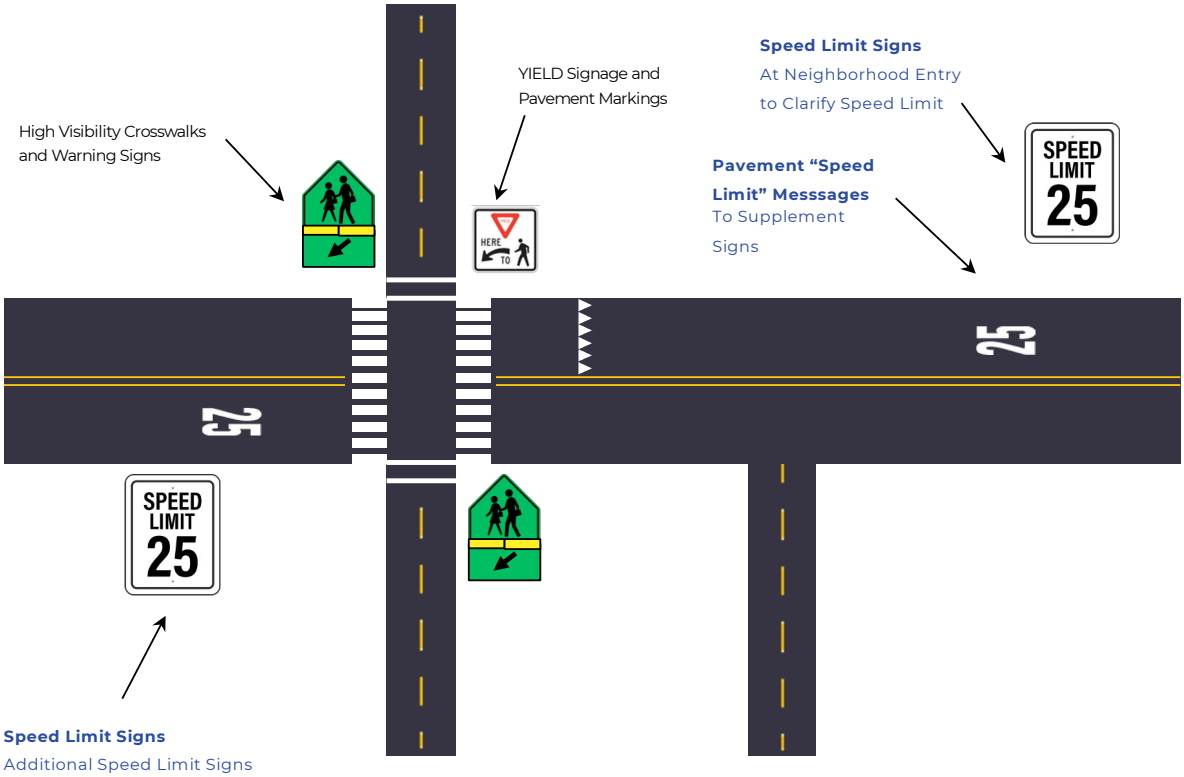
Implementation Process Timeline

NEIGHBORHOOD TRAFFIC MANAGEMENT - IMPLEMENTATION SAMPLE

Best Practice Traffic Operations Improvements – Street Sample

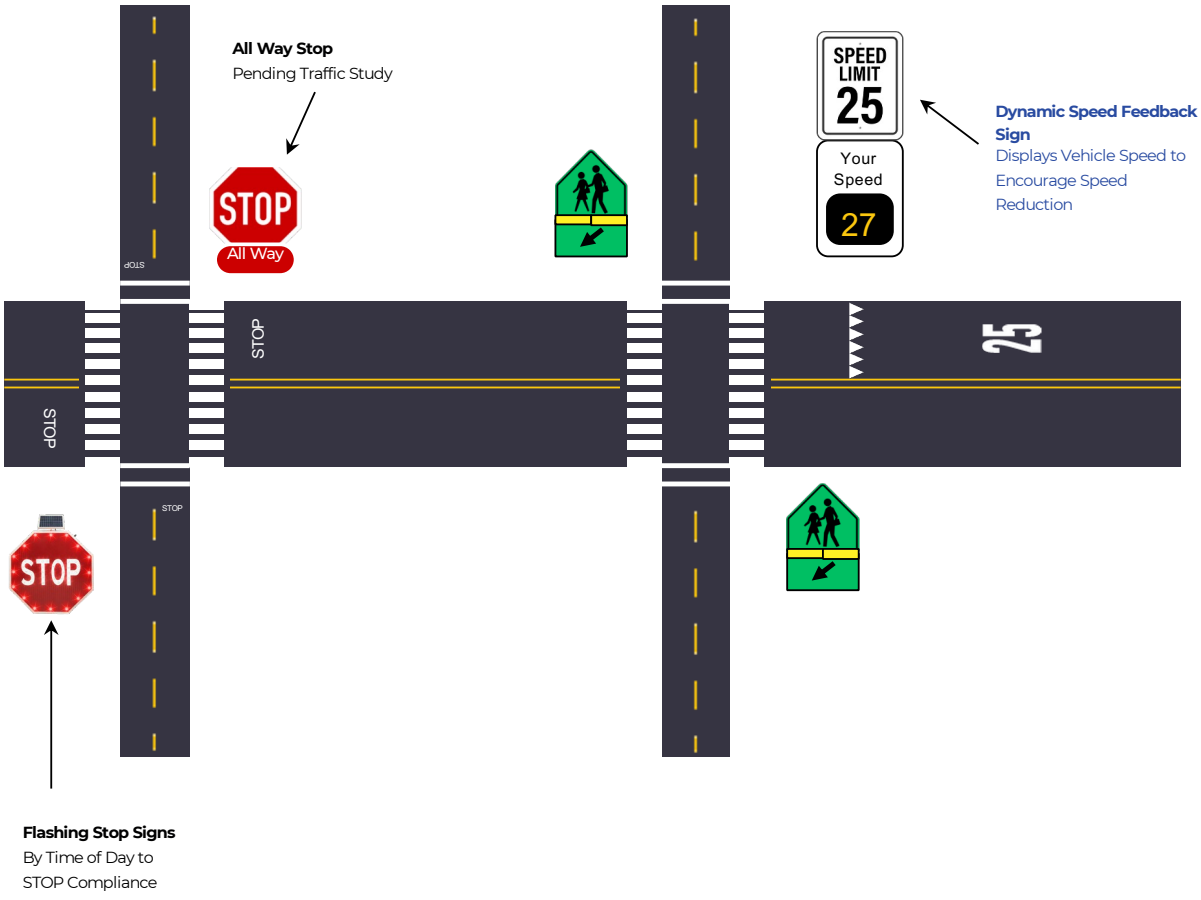
Upon the initial request for traffic calming improvements the city will conduct a site survey to determine if the street is currently signed and stripped to current engineering “best practice” standards. If not, the city may initiate improvements built by city staff for completion as fast as three months. Implementation may take longer if coordination with a larger project, such as the city’s Annual Street Resurfacing Program, is appropriate as some roadway marking improvements may require new pavement surface treatments.

Below is a sample of Best Practice treatments on a typical residential street.



Minor Traffic Calming Improvements – Sample Street

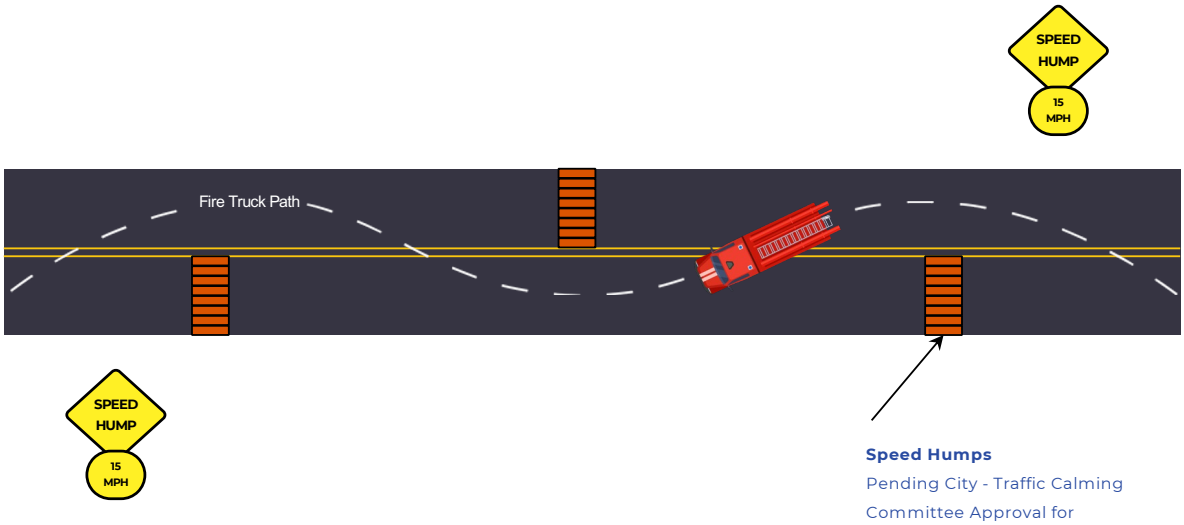
Minor traffic calming improvements can be implemented following a community engagement process. Sample improvements can include new All Way STOPs, Bike Lanes for further narrow roadways, and installation of Dynamic Speed Control elements such as Vehicle Speed Feedback Signs, and Flashing STOP Signs.



Major Traffic Calming Improvements – Sample Street

Major traffic calming improvements require a strict neighborhood advocacy and support process that requires Resident Champion(s) to lead the petition process for installation of treatments such as speed humps.

A neighborhood “silent petition” is required with a minimum of 65% support from surveyed households. Review by the Traffic Advisory Committee is also required to ensure treatments such as speed humps do not impact emergency vehicle response times for residents.



Speed Humps
Pending City - Traffic Calming Committee Approval for Emergency Vehicle Response Compliance

ATTACHMENT: REQUEST FORUM

Neighborhood Petition
Traffic Calming Improvements

This petition is being led by residents of the _____ neighborhood to request that the city initiate a study process to consider traffic calming along the following streets:

_____ _____

_____ _____

We are requesting the city consider the installation of speed humps or other treatments in efforts to reduce vehicle speeds along the above streets. Following a data collection period, the city will organize a community meeting to present data findings and discuss appropriate traffic calming measures with the neighborhood.

NAME	ADDRESS	EMAIL