



Neighborhood Traffic Management Program (NTMP)

City of Richmond
City Council Informal Meeting



December 12, 2022

Agenda

- Program Goals
- Program Background
- Program changes from 2004 to 2022
- Planning process
- Prioritization process
- Strategies
- Budget and implementation

Program Goals

- Improve the safety and livability of the City's neighborhoods
 - Encourage resident participation in the program's planning process
 - Prioritize the program elements
 - Secure funding from the City to support the program and implementation and identify alternative funding sources





"When successfully implemented, these programs can result in improved traffic conditions and enhance the character of a neighborhood for residents, businesses, and other travelers, whether walking, biking, rolling, driving, taking transit, or moving goods."

The Impact on Emergency Response

- Traffic calming strategies could delay emergency service vehicles' response time
- All physical traffic calming initiatives will require (by VAC 13.5.50 and City Code Sec. 46.1-26) the review and approval of the Richmond Fire Department (RFD) before implementation
- Certain traffic calming measures will not be implemented on RFD's key emergency response routes



2022 Program Background

- Original 2004 Program adopted by City Council on through Resolution No. 2004-R177-184
 - Developed to address the numerous traffic related requests and concerns.
- This work is an update to the 2004 document and will present new guidelines for the current state of practice.
- DPW receives more than 1,000 traffic calming related requests and speeding concerns every year.
- Speeding and unsafe driving practices are concerns for residents and the government agencies which promote public safety.
- The City's Vision Zero Action Plan includes speed management to reduce traffic related fatalities and serious injuries (mainly on High Injury Street Network).
- Vision Zero Task Force and Safe and Healthy Streets Commission provided input and recommended the 2022 update of NTMP for approval.



Major changes between 2004 and 2022

- Up to date traffic calming designs and standards.
- More in alignment with National Association of City Transportation Officials (NACTO) principles and practices.
- Presents new guidelines to provide understanding of the current state of practice that can be used to impact speeding on local, residential streets.
- Provides updated criteria for considering the development of a traffic calming plan and a description of the process from identified speed management concern to implementation.
- Establishes a consistent approach to addressing neighborhood concerns that can be applied uniformly throughout the City on local residential streets.
- 2022 NTMP report: <https://www.rva.gov/public-works/new-engineering-transportation>

The Planning Process

- Request Initiation
 - RVA 311
 - Richmond Police Department (RPD)
 - City Council Representative, Council Liaison, public, etc.
- Preliminary Assessment
 - Analyze the speeding problem
 - Site visit
 - Review crash history
 - Pull existing data on traffic and speeds
 - Operational Studies
- Full Assessment (if needed)
- Recommendations for Improvements





RVA311

DEPARTMENT OF CITIZEN
SERVICE AND RESPONSE

- Submit non-emergency service requests via RVA311 by calling 3-1-1 or 804-646-7000 or via RVA311.com or the RVA311 mobile app (Apple or Android Stores)
 - Requests for traffic calming analysis can be submitted in RVA311 via the “Request New Road Feature” request with subtype “New Speed Control”
 - Report concerns about neighborhood speeding to RPD using the “Report Speed Violations in Community” request in the “Request Investigation” category

Neighborhood Engagement

- Engagement leads to the success of reducing speeds and addressing traffic safety concerns
- Engagement with neighbors, community groups and leaders, and elected officials is critical for understanding the issues and for gaining support for the implementation of strategies and measures
- Many council members speak for the neighborhoods

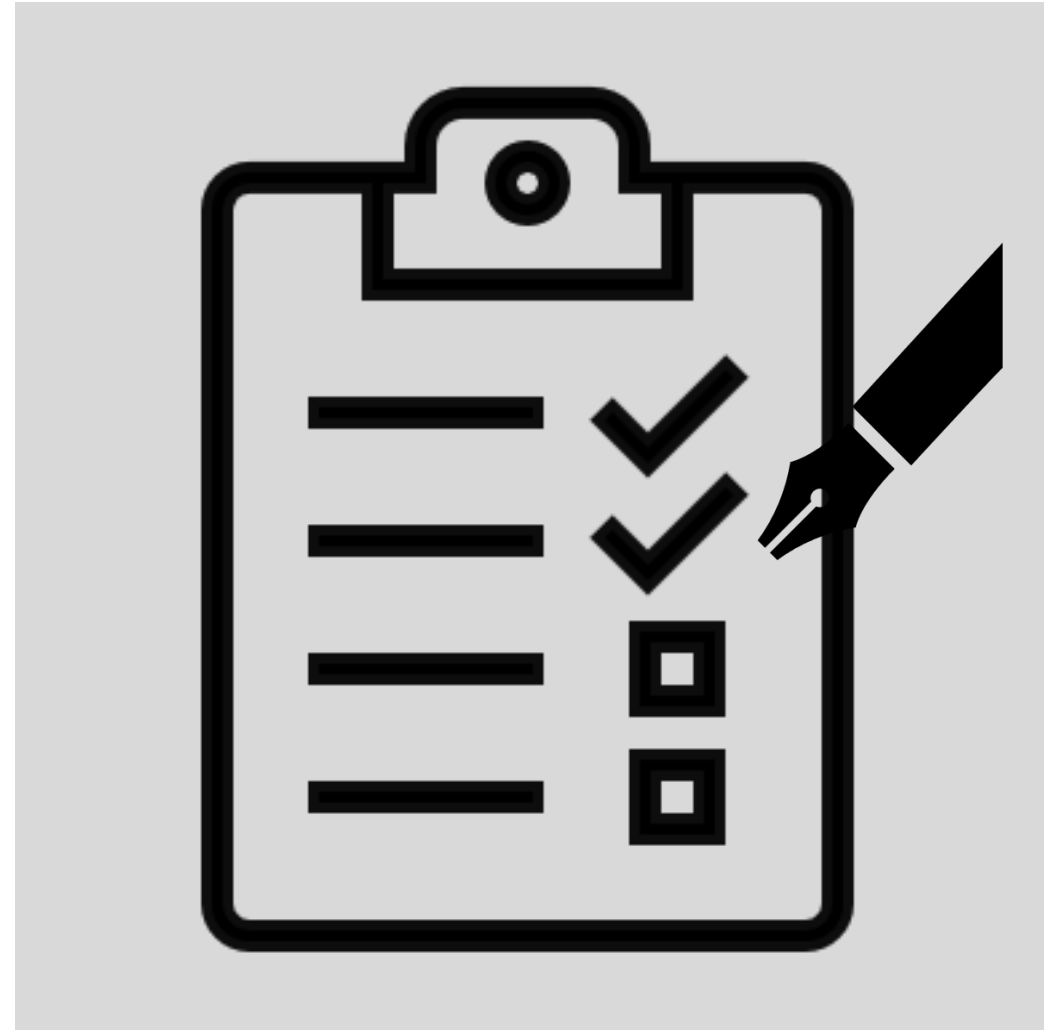
Qualifying Streets

- Local Residential Streets
- Minimum traffic volumes
- Minimum street section length (~1200 feet nationally used as best practice)
- Documented need for speed management
 - Speed samples are used to measure overall driver compliance with the speed limit.
 - Not just the 85th percentile speed
 - Street alignment, number of driveways, on-street parking, crash history and pedestrian and bicycle activity are considered.



Prioritization Process

- Primary factors are:
 - Crash History
 - Traffic Volumes
 - The speed profile of the roadway
 - Not just the 85th percentile speed
 - The length of the roadway segment
 - Minimum length of 1200'
 - The distance to the nearest traffic control device or traffic calming measure



Prioritization Process Cont'd

- Additional factors for project prioritization are:
 - Proximity to neighborhood attractors (schools, parks, libraries, etc.)
 - Adjacent land use
 - Presence of bicycle and pedestrian infrastructure
 - Distance to the nearest GRTC bus stop or other transit facility



The Strategies

- Level 1 Strategies (Non-physical improvements)
 - Education
 - Enforcement
- Level 2 Strategies (Permanent improvements)
 - Engineering



Level 1: Education & Enforcement

— Education: *Low Cost*

- First step to address speeding concerns.
- Goals of education programs are:
 - Work collectively to grow a safety culture
 - Increase driver awareness
 - Promote safe driving practices by educating drivers about the posted speed limit
- Vision Zero commercial advertisement: *Medium Cost*

— Enforcement: *Low-Medium Cost*

- Enforcement can also be a first step to address speeding concerns.
- RPD can assist enforcement using various techniques to influence driver speeds.
 - Speed feedback trailer
- Enforcement programs target specific problem streets and **are** most effective with community support.
- Photo speed enforcement at schools and work zones



Level 1: Signing & Enhanced Speed Fine Program

— Signing: *Low–High Cost*

- Informs drivers of speed limits and includes the installation of warning and regulatory signs (*Low Cost*)
- Installation follows Manual on Uniform Traffic Control Devices (MUTCD) and the NACTO design guides.
- Also includes flashing beacons to alert of pedestrian crossings / speed feedback signs (*Medium–High Cost*)

— Enhanced Speed Fine Program: *Low Cost*

- Available for local residential streets, where there is a documented speeding problem
- Adopted by City Council as code section 27-163, requires City Council approval
- Most effective when coupled with enforcement

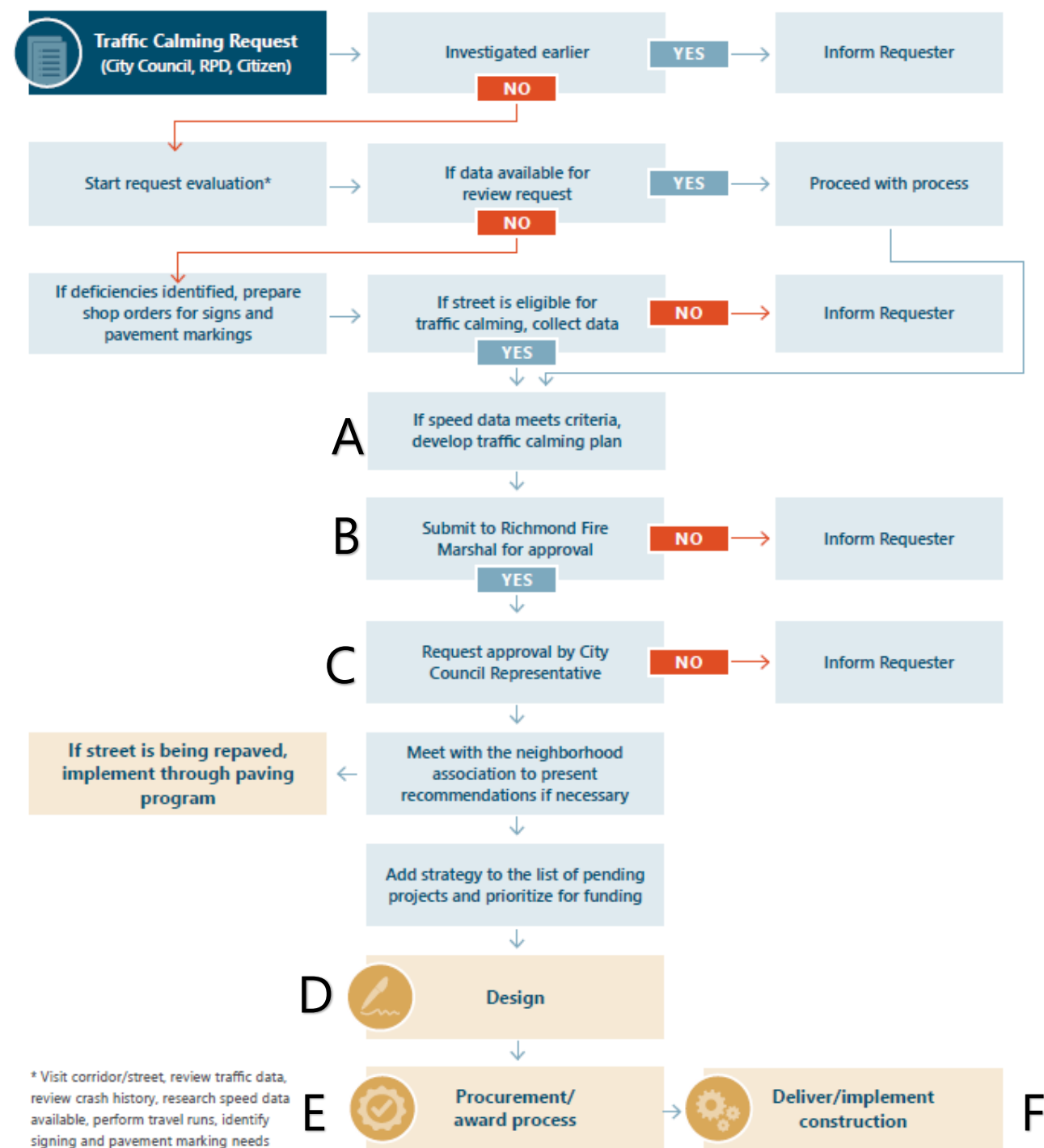


Special Note: Unwarranted Stop signs as traffic calming measures

- Research by the Institute of Transportation Engineers show that unwarranted stop signs have not been found to be effective for use as speed control devices. Unwarranted stop signs create problems at both the intersection and along the roadway by:
 - Encouraging motorists to drive faster between intersections in order to save time.
 - Encouraging violation of traffic laws.
 - Encouraging the use of alternate routes.
 - Increasing the chance that drivers will disregard conflicting vehicle and pedestrian traffic, which raises the risk of collisions.
 - Delays in emergency response time
- The Manual on Uniform Traffic Control Devices (MUTCD) sets forth standards for all traffic control devices such as stop signs. All States have officially adopted the MUTCD.
- The City Council's Safe and Healthy Streets Commission adopted by Resolution on January 16, 2019 to follow Federal and State Requirements found in the MUTCD.
- **Unwarranted stop signs increase risk and liability to the City.**

Level 2: Implementation Process for traffic calming requests

- A. Engineering survey/Analysis
- B. Fire Marshal Approval
- C. City Councilmember Notice
- D. Design
- E. Procurement
- F. Construction



Level 2: Physical and Permanent Improvements

- Speed Tables
- Raised Crosswalks (@ intersections)
- Neighborhood Traffic Circles
- Curb Extensions/Bulb-Outs
- Roadway Reconfiguration/Road Diet
- Traffic Signal Retiming



Level 2: Speed Tables & Raised Crosswalks

- Speed Tables: *Medium – High Cost*
 - Typically seen as a mid-block, raised section of roadway with a flat section in the middle.
 - Designed to reduce travel speed
- Raised Crosswalks: *Medium – High Cost*
 - Typically seen at the intersection, where the flat middle section is marked as a crosswalk with striping.



Level 2: Neighborhood Traffic Circles & Curb Extensions

- Neighborhood Traffic Circle: *High Cost*
 - A small, raised island, placed in the middle of an intersection, that require vehicles to travel through the intersection in a counterclockwise direction around the island.
 - Different to roundabouts by the size, lack of curb extensions and splitter islands
- Curb extensions/Bulb-Outs: *High Cost*
 - Visually and physically narrow the roadway, slowing down drivers, and creating shorter crossings for pedestrians.
 - Typically placed adjacent to on-street parking



Level 2: Roadway Reconfiguration & Traffic Signal Retiming

- Roadway Reconfiguration / Road Diet: *High Cost*
 - Removes travel lanes from a roadway and repurposes the space for other uses or travel modes.
 - Impacts user behavior, safety, access, mobility for all road users, and increases the livability of the roadway by providing a 'complete streets' environment.
- Traffic Signal Retiming: *Medium Cost*
 - Changes in signal coordination may be implemented to better manage speeds through a corridor.
 - Can be coordinated with adjacent intersections to provide optimal signal progression



Budget and Implementation Schedule

- CIP history – Typically \$200,000 a year
- CIP Complete Streets – Varies based upon transportation needs and tied to resurfacing program
- Once all approvals are given by the Fire Marshal and notified to Neighborhood and Council Representative
 - Design time ~ Four months
 - Construction time
 - ~ Four months with the DPW on-call contractor
 - ~ Six to seven months if the project needs to go through the Procurement Office

Traffic calming assets since 2004

- Calming measures installed City-wide **up to 09.30.22** = 346
- Calming measures installed City-wide in the **last three years** = 92 (CIP and paving)
- Calming measures currently **under design** via the FY23 CIP = 15
- Calming measures planned with the **FY23 paving program** = 38
- Calming measures with all approvals but **unprogrammed** = 87

FY23 Speed Table Locations (8/1/22)

City of Richmond,
Virginia



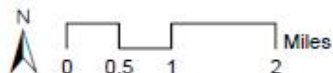
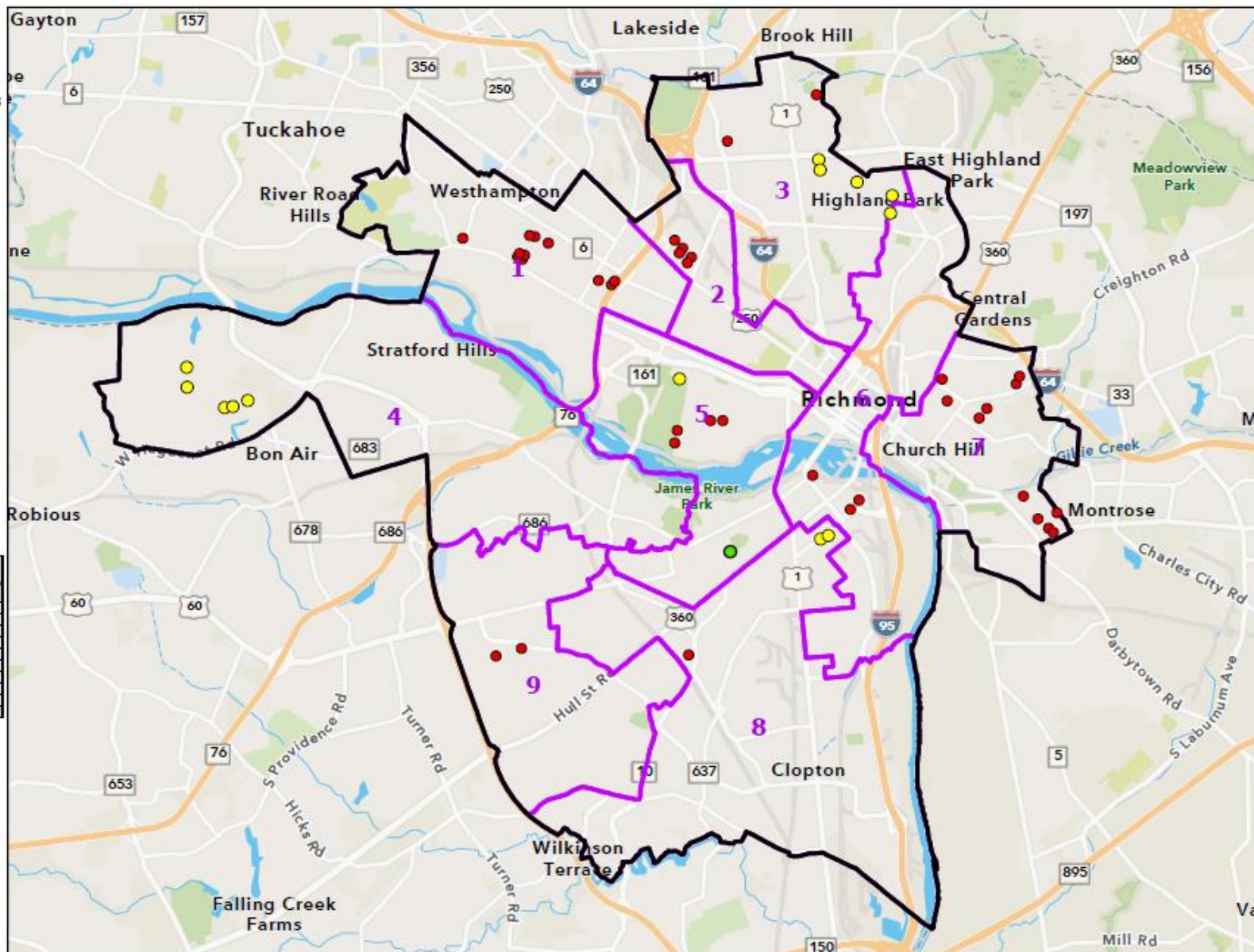
- Traffic Calming Measure
- Speed Tables Traffic Calming
- Speed Tables Paving Program
- City Boundary
- Council Districts

| Council District | Speed Tables from Paving Program | Speed Tables from Traffic Calming Program |
|------------------|----------------------------------|---|
| 1 | 11 | 0 |
| 2 | 5 | 0 |
| 3 | 2 | 5 |
| 4 | 0 | 5 |
| 5 | 4 | 1 |
| 6 | 3 | 0 |
| 7 | 11 | 0 |
| 8 | 1 | 2 |
| 9 | 2 | 0 |
| Total | 39 | 13 |

Location Reference



Disclaimer:
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Printed by
GIS TEAM
8/1/2022

Study Completed on 126 corridors

- Filtered by:
 - Minimum street section of 1200'
 - Minimum average daily traffic
 - Crash history
 - Speed samples
 - Street typical section
 - Bicycle and pedestrian usage
 - Driveways
 - Proximity to
 - Existing and planned traffic calming measures
 - Stop signs
 - Traffic signals
- DPW has completed review and had approval from the Fire Marshall on 87 Speed Tables.
- Recommended 87 Speed Tables not in program (costs \$750k if implemented with Paving Program; & \$1.5mil if as a standalone project)

Leveraged Approach with Paving Program

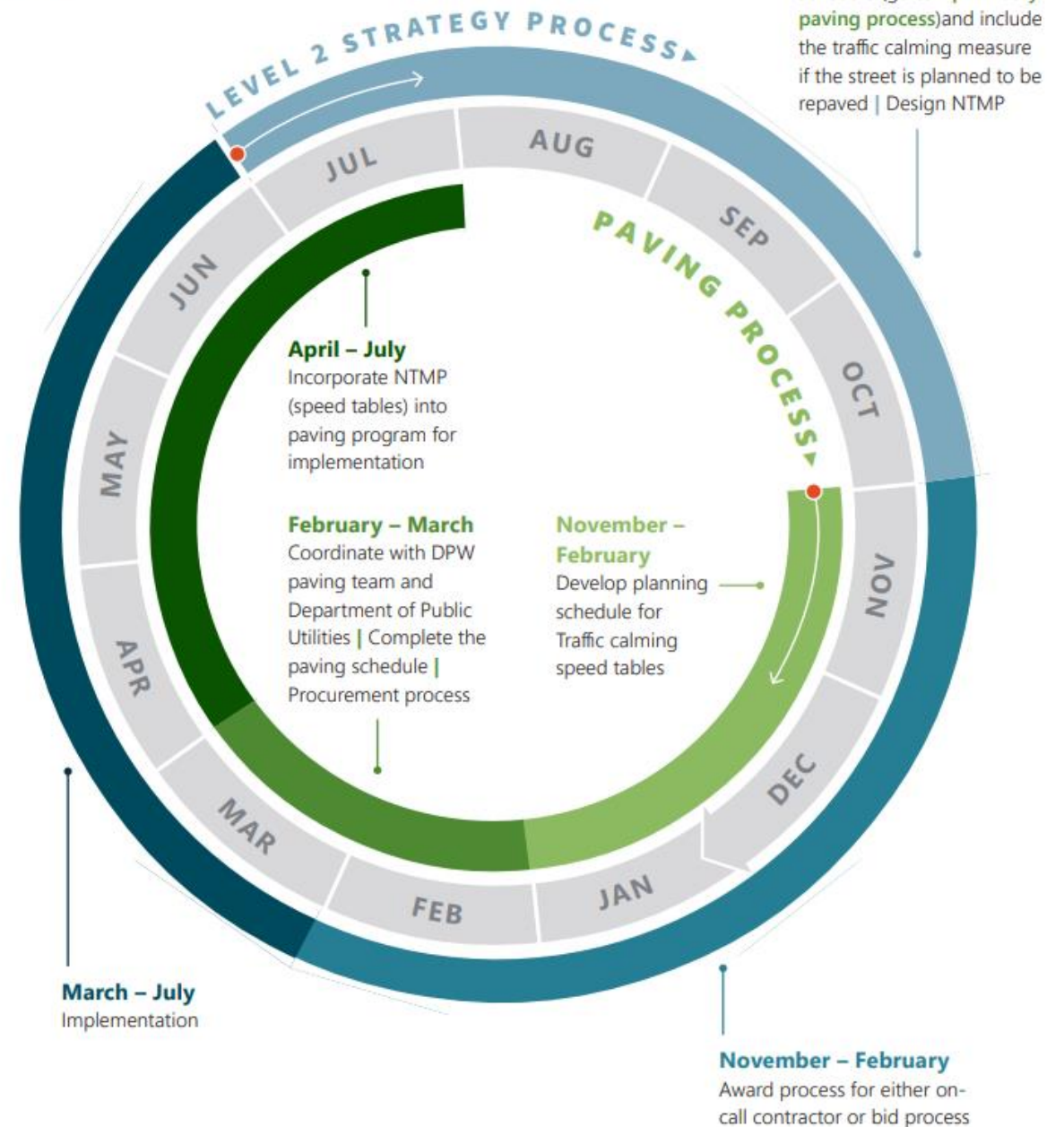
- Plan
- Coordinate
 - Fire Marshal Approval
- Incorporate
 - Based upon paving schedule
- Speed table cost savings:
 - \$8,500 with paving
 - \$17,000 stand alone contract

KEY

Paving Process Schedule - in green.

Level 2 Strategy Process - in blue.

Start here: ●





Questions