

Neighborhood Traffic Management Program – Proposed Revisions

Public Works Department

Infrastructure & Mobility Committee
August 10, 2023

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ISSUE

1. The City receives numerous requests to install speed humps each year (nearly 100 requests were received during 2019 and over 120 requests in 2022).
2. The Public Works Department was requested to re-examine its practice of not installing speed humps.



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BACKGROUND

1. The Neighborhood Traffic Management Program(NTMP) includes a wide array of traffic calming tools for a variety of road types.
2. The last major revision to the NTMP occurred in 2008.
3. Speed humps are low-profile (often 3.5" in height) and gradual rises in the roadway profile intended to slow traffic by creating discomfort at higher speeds.



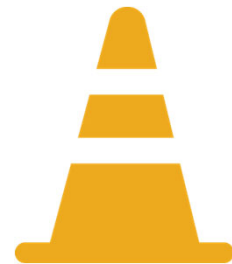
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BACKGROUND CONTINUED

1. In 2011, the last new speed hump project was implemented.
2. In 2014, the Public Works Director discontinued the use of speed humps within the City at their discretion, based on engineering judgement of the tool:
 - Diversion of Traffic & Driver Behavior;
 - Noise;
 - Cost (Minimum estimated \$18,000 per street for 2 speed humps); and
 - Potential Delays to Emergency Services.



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2008 NTMP REVISIONS

The 2008 revisions to the NTMP included:

1. Eliminating the requirement for residents to fund a portion of the costs for implementation of speed humps;
2. Solutions defined as "Secondary Solutions" to be considered at the discretion of the Public Works Department and that traffic volumes, speed data, and/or field observations would be the basis for identification of solutions; and
3. Changing the speed hump process which had required Fire Department approvals prior to considering speed hump projects to consulting the department on an as needed basis.



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CONSIDERATION OF REINSTATEMENT

1. The City received nearly 100 requests for speed hump installations in 2019 and over 120 requests in 2022.
2. If only $\frac{1}{4}$ of requesting locations were to receive speed humps each year, minimum estimated costs for 30 projects in 2022 would be \$540,000 to \$1,080,000 annually (based on minimum 2 humps to 4 humps per location) for installations alone not including maintenance;
3. If use of speed humps is reinstated, installations may shift traffic and speeding concerns to adjacent streets creating ongoing demand for speed humps.



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DISADVANTAGES OF SPEED HUMPS

The following are disadvantages of speed humps:

1. Diversion of traffic – installation of speed humps often results in speeding traffic diverting to adjacent local roadways
2. Noise – speed humps generate additional noise as a result of vehicles braking and traversing the humps
3. Motorist tendency to speed in between speed humps
4. Expense – installation estimated at \$9,000 per hump, with a minimum of 2 humps or \$18,000 minimum per location plus maintenance costs (humps cannot withstand heavy vehicles)
5. Impacts to emergency vehicle response times.



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PREVIOUS SPEED HUMP QUALIFYING CRITERIA

Prior criteria for the installation of speed humps include:

1. Roadway Characteristics: 25 MPH local streets with two travel lanes, and with a grade of less than 8%
2. Traffic Conditions: Minimum 24-hour traffic volumes of 500 vehicles less than 2,000 vehicles, with at least 30% of total traffic exceeding the speed limit by greater than 5 MPH
3. Petition Requirements: Minimum of 70% of all property owners or residents on the street where the humps are being considered and 100% within 100 feet of the proposed speed hump locations must sign the petition in support of installation



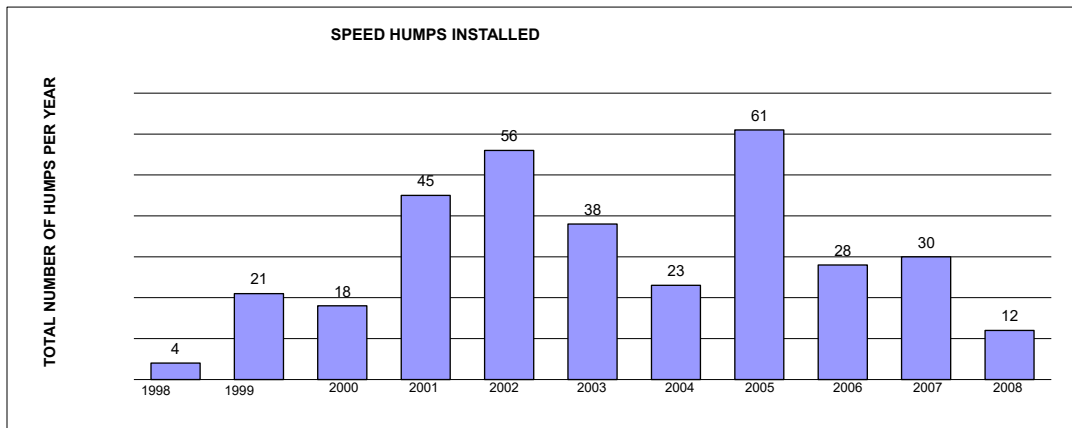
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HISTORIC SPEED HUMP INSTALLATION TOTALS

Historic installation totals show several peak years where high numbers of speed humps were installed under previous qualifying criteria.



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NTMP : LOCAL STREET INITIAL OPTIONS

NTMP initial traffic mitigation measure options to address speeding on local streets include:

1. Deployment of the radar speed feedback trailer;
2. Changeable message board display;
3. RPD enforcement; and/or
4. Speed limit sign installation.



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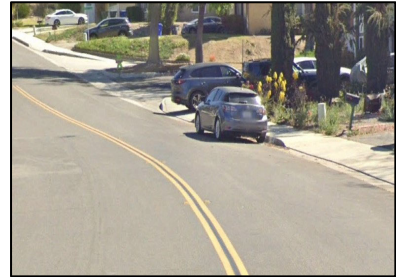
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NTMP : LOCAL STREET SECONDARY OPTIONS

Common secondary mitigation measure options include:

1. Striping / Street Narrowing (centerline striping, raised reflective pavement markers, parking lane, edgeline);
2. Stop signs;
3. Curve warning or Chevron signs;
4. Speed feedback signs (primarily grant funded); and/or
5. Turn or truck prohibition signs.



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OTHER ALTERNATIVES: MAJOR IMPROVEMENTS

Other alternatives may be considered for local streets where initial and secondary NTMP solutions are unsuccessful, where deemed appropriate, and if funding has been identified including:

1. Flashing LED edge lit Stop signs (primarily grant funded); and/or
2. Flashing LED lit Curve warning or Chevron signs (primarily grant funded);
3. Speed limit pavement legend; and/or
4. Neighborhood traffic circles (grant funded).



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PROPOSED REINSTATEMENT OF SPEED HUMP USE WITH MODIFICATIONS TO QUALIFYING CRITERIA

In response to ongoing resident requests for speed humps, increased cut-through traffic due to elevated use of navigation tools, changes in driver behavior, and device effectiveness Public Works is proposing reinstatement of speed hump use as a potential secondary mitigation measure with modifications to qualifying criteria.



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NEED FOR MODIFICATIONS TO QUALIFYING CRITERIA

1. To restore speed hump use and manage related costs modifications to the "Traffic Conditions" component of the qualifying criteria are necessary.
2. Budget constraints and increases in materials and installation costs over the years do not support sustaining historic levels of speed hump installations.
3. Modifying speed hump qualifying criteria to focus utilization of speed humps on the streets with high traffic volumes and significant speeding allows for restoration of speed hump while maintaining annual project costs at a viable level.



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PROPOSED SPEED HUMP QUALIFYING CRITERIA

Proposed modified speed hump qualifying criteria includes:

1. Roadway Characteristics: 25 MPH local streets with two travel lanes and a grade of less than 8% (unchanged)
2. Traffic Conditions: 24-hour traffic volumes of at least 750 vehicles and less than 2,000 vehicles with a combined 85th% speed of 37 MPH or greater
3. Petition: Signed showing support by a minimum of 70% of property owners or residents on the street where humps are being considered and 100% of residents within 100 feet of proposed speed hump locations (unchanged)



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SPEED HUMP INSTALLATION OPTIONS

Options for speed hump installation include:

1. Installation by City Streets Division staff with estimated costs at \$9,000 per speed humps; and/or
2. Scheduling installation as part of upcoming or future Capital Improvement Project (CIP) as part of future repaving projects which may:
 - a. Defer speed hump installation costs until roadway paving is scheduled;
 - b. Result in minor cost savings as the result of larger scale CIP projects;
 - c. Create delays with changes in residents at time of installation versus when the qualifying speed hump petition is signed.



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PROPOSED TEMPORARY ART CROSSWALKS & PAVEMENT MURAL PILOT PROGRAM AS NTMP SECONDARY MITIGATION MEASURE

Public Works is also proposing the addition of a temporary art crosswalk and pavement mural pilot project as an NTMP secondary mitigation measure option:

1. For use on local roadways; and
2. Locations would be subject to selection criteria.



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PRIMARY BENEFITS OF ART CROSSWALKS & PAVEMENT MURALS

Addition of an Art Crosswalk and Pavement Mural Pilot Project to the NTMP would:

- Expand the City's vision of enhancing resident and visitor art and cultural experiences;
- Inspire community input, involvement, and engagement;
- Increase visibility of pedestrian and bicyclist public spaces;
- Elevate motorist awareness which may improve safety;
- Promote alternate modes of transportation by enhancing walking/cycling environments and user comfort levels; and
- Advocate collaboration, beautification, and the safe sharing of roadways.



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PROPOSED ART CROSSWALKS & PAVEMENT MURALS PILOT PROGRAM – SELECTION CRITERIA

Proposed pilot projects will focus on locations which have the following key features:

- Existing marked pedestrian crosswalks and ADA ramps;
- Existing street lighting at or in close proximity to the marked crossings;
- High levels of pedestrian and bicyclist crossing activity;
- Are on routes to schools, libraries, or other key cultural or Downtown locations; and/or
- Include evaluation of collision history



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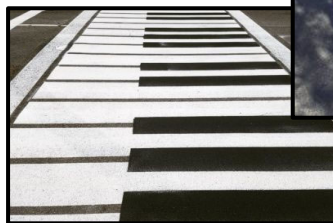
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LOCAL AGENCY PRIOR ART CROSSWALK & PAVEMENT MURAL PROJECT INFORMATION

Public Works reached out to several agencies who have implemented either Art Crosswalk and/or Pavement Mural projects in the recent past (some as part of either a SCAG Go Human Grant or a Bloomberg Philanthropies Asphalt Art Initiative Grant) to obtain relevant project information. Southern California cities which have participated in these types of projects include:

- The City of Rancho Cucamonga;
- The City of Pasadena;
- The City of Azusa;
- The City of Imperial, and
- The City of Long Beach.



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SO-CAL LOCAL AGENCY PRIOR ART CROSSWALK & PAVEMENT MURAL PROJECT INFORMATION

The City of Rancho Cucamonga shared the following information regarding their project experiences:

- The initial project was funded via a 2018 SCAG GoHuman Mini-Grant that installed a temporary pavement mural within the intersection of Baker Ave. & E. 9th St.;
- The selected intersection serves as a crossing point for Los Amigos Elementary School students and the project was the culmination of collaborative efforts by the city, school, area residents, community partners, and a local graphic artist;
- The chosen design was chalked out by the artist and students, residents, and community members were invited to participate in the actual painting of the mural which promoted a strong sense of community involvement and pride; and
- A 2nd 2021 SCAG Grant awarded to a non-profit partner, Music Changing Lives, included repainting of the pavement mural and adding art to the sidewalks as well as roadway striping aimed at lowering traffic speeds along 9th Street between Grove and Vineyard.



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PAVEMENT MURAL & ART CROSSWALK DESIGN SAMPLES



CITY OF RANCHO CUCAMONGA
BAKER AVE. AT EAST 9TH ST.



CITY OF LONG BEACH
JUNIPERO AVE. & BROADWAY

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BLOOMBERG PHILANTHROPIES ASPHALT ART INITIATIVE GRANT OPPORTUNITY

Public Works has identified a grant opportunity through Bloomberg Philanthropies Asphalt Art Initiative which focuses on art crosswalk and/or pavement mural projects.

Grant specifics include:

- Maximum grant amount of \$25,000;
- Funding may be requested for project data collection;
- No local funding match required;
- Project is considered temporary due to longevity of art materials, however, cost for maintenance and/or removal may be incorporated into funding request; and
- If awarded project construction to occur in 2024.



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STRATEGIC PLAN ALIGNMENT



Strategic Priority 2 – Community Well-Being

Goal 2.4 – Support programs and innovations that enhance community safety, encourage neighborhood engagement, and build public trust

Cross-Cutting Threads



Community Trust



Fiscal Responsibility



Sustainability & Resiliency



Equity



Innovation



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RECOMMENDATIONS

That the Mobility & Infrastructure Committee review and provide recommendation to the City Council regarding proposed revisions to the Neighborhood Traffic Management Program (NTMP) including:

1. Reinstatement of the use of speed humps as a local street secondary mitigation measure option under the Neighborhood Traffic Management Program with modifications to the "Traffic Conditions" qualifying criteria; and
2. Establishment of a new Temporary Art Crosswalk and Pavement Mural Pilot Program as a local street secondary mitigation measure option under the Neighborhood Traffic Management Program.



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