

TO: HONORABLE CITY COUNCIL

FROM: CITY MANAGER

**DEPARTMENT: PLANNING AND
COMMUNITY ENVIRONMENT**

DATE: MARCH 22, 2004

CMR:180:04

**SUBJECT: PLANNING AND TRANSPORTATION COMMISSION
RECOMMENDATION TO CITY COUNCIL TO INSTALL NEW
PERMANENT TRAFFIC CALMING PROJECT IN DOWNTOWN
NORTH**

RECOMMENDATION

The Planning and Transportation Commission (PTC) recommend the following Council actions:

1. End the current Downtown North trial traffic calming plan;
2. Adopt the attached resolution which:
 - a) approves a mitigated negative declaration for permanent implementation of the Downtown North Modified Mixed Measures traffic calming plan;
 - b) approves permanent implementation of the Recommended Plan including performance measures and improvement actions; and
 - c) authorizes the Director of Planning to implement improvement actions as necessary to achieve the Plan's performance measures.

Staff recommends one modification to the PTC recommendation: implementation of a left-turn restriction from Middlefield Road to Everett Avenue, from 7 a.m.-10 a.m. weekdays.

BACKGROUND

A traffic calming project was installed in the Downtown North neighborhood in June 2003 for a six month trial. The project consists of seven street closures, three neighborhood gateways and one intersection bulbout. Staff evaluated the project and presented it to the PTC on January 21, 2004. Due to some problems with the current trial plan, staff recommended to the PTC that a modified plan be permanently implemented. The modified plan is described in Attachment B of the attached PTC report dated February 25, 2004.

PLANNING AND TRANSPORTATION COMMISSION REVIEW AND RECOMMENDATIONS

Commissioners Burt and Bialson thought that less aggressive traffic calming measures should have been tried before resorting to street closures. They had concerns about the policy, practical and safety issues of closing streets. Many Commissioners were concerned about various safety impacts, including emergency vehicle access and impacts on Johnson Park, as well as impacts on the retail business Stanford Electric (corner of High and Everett). Some Commissioners requested that parking be prohibited in front of the closure openings because they have seen parked cars blocking the emergency access area. Some Commissioners thought that driver visibility of the traffic calming measures, especially the bulbout and gateways, could be improved by installation of vertical elements. Some Commissioners thought that traffic signal progression and timing on Lytton between Middlefield and Alma should be improved more than it has been.

Commissioners Packer, Holman and Cassel believed that some version of the current traffic calming plan should be preserved. Discussion ensued about staff's proposed Mixed Measures Plan and another plan—Modified Mixed Measures Plan--proposed by staff as an "improvement action" in case the Mixed Measures Plan were not successful. Those Commissioners were in favor of keeping the street closures on Palo Alto Avenue. Commissioner Holman believed that the traffic circle proposed for the corner of Hawthorne and Webster (in both the Mixed Measures and Modified Mixed Measures Plans) should instead be at the corner of Hawthorne and Byron, where residents have complained about drivers running the Hawthorne stop signs.

The PTC voted 3-2 for the Modified Mixed Measures Plan, but without the proposed turn restrictions on Middlefield and Alma at Everett, and with removal of the existing closure next to Stanford Electric as soon as possible. The approved plan includes consideration of painting or colorizing the street surface of the four blocks bordering Johnson Park as a traffic calming and safety measure. The PTC voted 5-0 to recommend adoption of the mitigated negative declaration, but with a change in Performance Measure 6 (no crashes directly attributable to the traffic calming plan) making it more flexible; and a change allowing staff to consider installing a speed hump or table if a street closure had to be removed. It voted 3-2 in favor of the draft resolution adopting the mitigated negative declaration and the Mixed Measures Plan, with the understanding that modifications were required to reflect the Commission's recommended plan.

DISCUSSION

Staff-Recommended Change to Commission-Recommended Plan

Staff supports the Commission's recommended traffic calming plan described above, but with one modification: keep the 7–10 a.m. no right turn restriction into Everett from southbound Middlefield as staff had originally proposed. This will provide more protection against volume increases on that block of Byron than the current trial plan. Staff's traffic

volume data did not actually show any volume increase on Byron, but a number of Byron residents have complained to the contrary. Staff recommends that the paint/colored asphalt element of the project not be implemented immediately, giving staff time to research the methods, costs, maintenance, visual impacts and other issues, as well as to ensure public involvement. A report and recommendation can be made at a later date to the PTC on that element. Assuming that some traffic calming elements will remain, staff will consider incorporation of vertical elements in the closure design/redesign, with due regard for cost, maintenance, aesthetics, sight distance, and residents' desires. No Parking Any Time signs will be added to the closures to prohibit parking in front of the opening. The Commission's recommended traffic calming plan with staff's recommended modification can be described as follows, and is illustrated in Figure 1.

- Retain four street closures from the current trial plan and add one new street closure: Everett west of Bryant (new location); Palo Alto Ave west of Middlefield; Palo Alto Ave west of Bryant; Hawthorne west of Cowper; Everett west of Byron.
- Retain the existing neighborhood gateway (part of current trial plan) located on Hawthorne east of High and add new speed table between the gateway elements.
- Add two traffic circles—at Hawthorne/Webster and Everett/Emerson intersections.
- Add weekday “no left turn” restrictions 7–10 a.m. and 3–6 p.m. from southbound Alma to eastbound Hawthorne.
- Add weekday “no right turn” restrictions 7 a.m.–10 a.m. from southbound Middlefield to eastbound Hawthorne and eastbound Everett.
- Retain the existing bulbout on Waverley south of Hawthorne (part of current trial plan).
- Remove two neighborhood gateways on Hawthorne and Everett west of Middlefield (part of current trial plan).
- Remove three street closures (part of current trial plan): Everett east of Waverley; Hawthorne west of Bryant; Everett between High and Emerson (the latter to be removed as soon as possible).

Revised Performance Measures and Improvement Actions

Following is a revised list of the performance measures and associated improvement actions that would be undertaken by City staff, for the recommended plan described above. These measures and actions are derived from those for staff's original recommendation to the PTC (Mixed Measures Plan) as stated on pages 5–8 of the February 25, 2004 staff report to the PTC. Staff and Commission recommend approval of these performance measures and improvement actions as an integral part of permanent implementation of the recommended traffic calming plan described above.

Through Traffic Reduction (project goal; non-CEQA measure)

1. Through traffic will be reduced by an average of at least 55 percent compared to the February 2003 “before trial” condition. The Downtown North neighborhood cordon count of average daily traffic (sum of daily counts at all neighborhood access streets along Middlefield, Lytton and Alma) will be the basis for this calculation.

Improvement action for performance measure 1: Increase hours of weekday turn restrictions into the neighborhood to 7 a.m.–6 p.m. on either or both Alma and Middlefield. This action reduces the amount of through traffic entering the neighborhood, and can be fine-tuned.

Diversion of Traffic to Other Streets (CEQA mitigation)

2. On local and collector streets with “before” counts of less than 2500 vehicles per day (vpd) in the Downtown North and Lytton neighborhoods, no average daily vehicle count at a peripheral or internal location will increase by more than 25 percent of the “before” count. On local streets, the addition will not cause the volume to exceed 2500 vpd \pm 10 percent.

Improvement actions for performance measure 2:

- 2a. Install the following additional traffic calming measures to the recommended plan on street segments or at ends of street segments where the diversion standard is exceeded: one speed hump per block and/or traffic circle at intersections where stop signs are not present. This action increases the travel time and adds inconvenience to the problem street segments, thus slightly decreasing through trips.
- 2b. Move or remove one or more of the street closures in the recommended plan to address the specific problem and consider installing one speed hump or table in the same block where a closure is removed.

3. On local streets with a “before” count of 2500 vpd or greater in the Downtown North and Lytton neighborhoods, no average daily traffic count at a peripheral or internal location will increase by more than 10 percent of the “before” count.

Improvement actions for performance measure 3: same as items 2a and 2b listed above.

4. The AM or PM peak hour level of service (LOS) at the Lytton/Alma and Lytton/Middlefield intersections will not degrade to less than LOS D.

Improvement actions for performance measure 4:

- 4a. Change signal phasing and/or timing. This action is can be used to fine tune the allotment of green time, thus increasing signal efficiency and slightly improving LOS.
- 4b. Reduce, change or remove totally weekday peak hour turn restriction hours. This action can be used to incrementally reduce the forced use of the arterial streets during peak hours, thus decreasing volumes passing through the intersections and improving LOS.

Speed Reduction (non-CEQA measure)

5. Speeding was not a documented problem in the evaluation of the trial project, so it is not a performance measure for the recommended plan. If speeding becomes a documented problem once the Modified Mixed Measures plan is implemented, the PTC or Council could establish speed-reduction as a performance measure, with the following associated improvement action:

Install the following additional traffic calming measures on street segments or at ends of street segments where speeding becomes a problem: one speed hump per block and/or traffic circle at intersections where stop signs are not present. (This action would reduce speeds within specific blocks.)

Crashes (non-CEQA measure)

It is usually not possible to identify a statistically significant pattern of crashes on local streets in a four-month period, due to low traffic volumes. Crash trends on low volume streets are usually only discernable after several years.

6. There will be no reported injury crashes directly attributable to the traffic calming plan elements in the Downtown North neighborhood during the monitoring period. The following crashes and/or primary causal factors will not be considered in evaluating this measure: property damage only, driving under the influence, failure to obey rules of the road (California Vehicle Code violation) or mechanical failure. If sufficient data

is available, the crash rate in the neighborhood and on the three surrounding arterials should be compared to that before the measures were installed.

Improvement action for performance measure 6: Move, remove or redesign one or more of the traffic calming elements in the recommended plan to address the specific problem, and consider installing one speed hump or table in the same block where a closure is removed.

7. At the Middlefield/Everett and Middlefield/Hawthorne intersections, there will be no more than two crashes during the monitoring period at one of these intersections caused by vehicles entering or crossing Middlefield from the west leg of Everett or Hawthorne.

Improvement action for performance measure 7: Install right turn only restrictions on Hawthorne and Everett at Middlefield for time periods as indicated by crash analysis. (This action can be used to fine-tune the reduction of outbound left turns and through movements, which are the primary crash-prone movements. Both streets must be included to keep drivers from moving from one street to the other.)

Fire and Police Responses (CEQA mitigation)

8. The travel times for Fire and Police Department calls within and near the Downtown North neighborhood will not exceed the Departments' mission goals for travel time of 4 minutes for 90 percent of fire and basic medical responses, 6 minutes for 90 percent of advanced medical responses (paramedics), and 3 minutes for police calls—attributable to implementation of the traffic calming plan.

Improvement actions for performance measure 8:

- 8a. Install flexible, break-away or automatic retractable bollards at one or more closure locations deemed to be problem(s) by the Fire or Police Department. (This action allows Fire Department vehicles to traverse the closures with only minimal delay.)
 - 8b. Move or remove one or more of the street closures in the recommended plan to address the specific problem, and consider installing one speed hump or table in the same block where a closure is removed.
9. There will be no serious impediments in any emergency activities, including identifiable trends in increases in travel times during the monitoring period, of the Fire and Police Departments within and near the Downtown North neighborhood attributable to the traffic calming plan. This includes Fire Department access to Lytton Gardens and Webster House.

Improvement actions for performance measure 9: same as items 8a and 8b above.

Citizens' Observations and Incident Reports to Police Department (non-CEQA measure)

10. Citizens' reports of safety problems within and near the Downtown North neighborhood attributable to the traffic calming plan will be compiled. Any reports or calls for service to the Police Department (other than crashes reported above) will be evaluated. This measure does not have a specific performance goal.

Neighborhood Acceptance (non-CEQA measure)

11. A neighborhood opinion survey will not be conducted for the recommended plan.

Other Issues (non-CEQA measure)

12. Impacts attributable to the traffic calming plan as reported by City departments, PASCO, the Post Office, transit operators, and any other public agencies serving the neighborhood (including bordering arterials) will be compiled and evaluated. This measure does not have a specific performance goal.

Lytton Avenue Traffic Signals

The Downtown North trial traffic calming project has diverted some traffic to Lytton Avenue. Even before the trial project started, many residents believed that traffic signal coordination on Lytton needed improvement and this would be even more important with the neighborhood street closures. The need to improve signal coordination on Lytton was expressed regularly during the trial, as well as by some Commissioners in their recent review of the trial. Before the trial project was installed, staff implemented signal improvements at both ends of Lytton in the downtown area—at Alma and at Middlefield. These changes have been effective, were needed even without any traffic calming project, and will remain. Beyond those substantial improvements, staff was able to make minor changes in signal progression between those two endpoints as the trial got underway. Around mid-February of this year, staff discovered that the Waverley/Lytton signal was not functioning properly as part of the downtown system. This was fixed, resulting in an improvement in flow. More improvement is expected in the next couple of months as the new citywide traffic signal hardware and software control system, including new signal timing patterns, are implemented. Staff expects that this will result in some (but not dramatic) improvement in Lytton traffic flow, as current signal timing patterns handle existing vehicle flows fairly well. Even now, during peak hours, staff finds that traffic flow on Lytton between Middlefield and Alma, while progressing at average speeds less than 25 mph, nevertheless progresses acceptably in the context of the typical traffic conditions in most downtown areas, including other streets in Downtown Palo Alto.

Farther in the future, staff plans to implement “adaptive” signal technology along the arterial corridors, including Middlefield from Menlo Park southward--resulting in some travel time savings. This will include the Middlefield/Lytton intersection. Adaptive technology would

not result in improvement in vehicle progression within the closely-spaced fixed-time signal grid in downtown Palo Alto (including along Lytton), and will not be used there.

POLICY IMPLICATIONS

California Vehicle Code (CVC) Section 21101(f) allows cities to use traffic barriers (a.k.a. street closures) and other design features to implement the circulation element of the general plan. The Palo Alto Comprehensive Plan contains criteria for closing street to through traffic in Policy T-33 (“overwhelming through traffic” and “no acceptable alternatives”). The Transportation element contains other goals and policies that promote traffic calming. The requirements of Policy T-33 are not quantitative. Therefore, in CMR:440:00, which was prepared for the December 11, 2000 Council public hearing, staff interpreted “overwhelming through traffic” as comprising at least 60 percent or more of all traffic. Also at the December 11, 2000 Council meeting, based on the Dowling Associates study for the Downtown North project in 1999, the neighborhood residents’ statements at various neighborhood meetings and in surveys in 1999-2000, and staff’s knowledge of other neighborhood projects, the City Council approved staff’s recommendation in CMR:440:00 that “acceptable through traffic reduction for this project could only be attained by street closures”.

One of the biggest points of public discussion in the Downtown North trial project has been the appropriateness of using street closures for traffic calming. The PTC discussed this topic extensively during its October 2000 discussion about implementing the trial plan, in several meetings in 2000-2002 about the City’s local street traffic calming program, and in its recent February 25, 2004 review of the evaluation of the current trial plan. This issue has been discussed extensively in prior reports for the Downtown North project, including:

- October 11, 2000 Transportation Division staff report to Commission, pp 4-7
- December 11, 2000 CMR:440:00, pp 3-8
- January 21, 2004 Transportation Division staff report to Commission, pp 9–10
- February 25, 2004 Transportation Division staff report to Commission, p 9

RESOURCE IMPACTS

The cost to construct the Modified Mixed Measures Plan (with or without turn restrictions on Everett and Middlefield) is approximately \$76,000. This includes removal of the existing traffic calming measures as well as conducting a new round of before-after traffic volume counts. Not included in this cost estimate are two additional Commission recommendations for the traffic calming plan—(i) consideration of incorporating vertical elements in the design of the traffic calming elements; and (ii) consideration of painting or colorizing the street surface of the four blocks bordering Johnson Park. The cost of both of these recommendations is not known at this point and would need to be developed through appropriate processes referred to in the Discussion section of this report. There is \$85,000 in the Transportation Division FY 2003/04 operating budget for this project, which would need to be carried over to FY 2004/05. The cost for Public Works Operations to maintain the

traffic calming measures in the Modified Mixed Measures Plan is approximately \$8,000 annually, mostly for manual street sweeping. This extra maintenance requirement is not funded. In the near future, when the PTC and Council consider staff's proposed revisions to the Neighborhood Traffic Calming Program, staff will propose that funding for annual maintenance of new traffic calming measures be taken from the Traffic Calming Program CIP.

Four months after implementation of any new or modified traffic calming plan, staff would conduct an evaluation similar to that for the current trial plan, as stated in the Discussion and Environmental Analysis sections of this report. That evaluation would require approximately 140 hours of staff time. The cost of gathering traffic data is already included in the \$76,000 cost estimate for the project. Assuming that the new plan performs as expected, no further monitoring or additional expenditures would be required. However, if the new plan fails to meet any of the performance measures or environmental standards, one or more improvement actions would need to be implemented, as stated in the Discussion section of this report and in the mitigated negative declaration. The actions range in cost from \$800 for new or modified turn restriction signs to \$10,000 to relocate a street closure, and up to \$30,000 for an automatic retractable bollard for improved emergency access. An approximate surplus of \$9,000 would remain in the Transportation Division budget after implementing the Modified Mixed Measures Plan (\$85,000-\$76,000), which could be used for any needed improvement actions. Additional funds would have to be secured for any more extensive implementation of improvement actions. Improvement actions would also trigger another, but more limited, round of evaluation estimated at about 80 hours of staff time. Staff's effort in implementation and follow-up for the Modified Mixed Measures Plan may potentially result in deferral of one planned local and collector street traffic calming project under the Council-authorized Neighborhood Traffic Calming Program (CMR:105:01).

ALTERNATIVES

The attached staff reports to the PTC identify several alternatives to the current trial plan. Attachment D of the January 21, 2004 report identifies five options, including two with no street closures. For reasons explained on pages 8 – 9 of that report, staff believed that the Mixed Measures Plan was the only good choice out of those five alternatives. The Modified Mixed Measures Plan, which the PTC and staff now recommend (with one change), was not identified in the January 21 report. The February 25, 2004 report identifies two more non-closure options—a traffic circle-only and a speed hump-only option on pages 1-2 of Attachment C. Staff does not recommend either of those plans. Both require a much larger number of traffic calming measures than the recommended plan to provide similar through traffic reduction. Both plans would be much more expensive than the recommended plan, especially the traffic-circle plan. Early in the study process, residents expressed their dislike of speed humps and requested that speed humps not form the basis of the traffic calming plan. Of all traffic calming measures, speed humps cause the most problem for the Fire

Department, so the speed hump-only plan with over 30 speed humps would potentially be unacceptable to the Fire Department.

ENVIRONMENTAL ANALYSIS

A mitigated negative declaration (MND) was prepared for the Downtown North Traffic Calming project and released for public comment on February 24, 2004. The comment period ended on March 15, 2004. Comment letters, responses to comments and edits to the MND are included in Attachment B. After considering the MND, the PTC recommended that the Modified Mixed Measures Plan (instead of the Mixed Measures Plan originally recommended by staff) be implemented, but without the turn restrictions at either end of Everett.

The MND analyzed various options for the traffic calming project including the Mixed Measures Plan originally recommended, and certain improvement actions including the Modified Mixed Measures Plan, installation of breakaway bollards, etc., as well as the potential for adding, removing, or altering some traffic calming measures. The Modified Mixed Measures Plan contains one additional street closure beyond those recommended in the Mixed Measures Plan. The MND has not been significantly altered and provides a foundation for the City Council's adoption of the Modified Mixed Measures Plan. A map of the Modified Mixed Measures Plan has been added for clarification, as well as some minor text updates throughout the MND/initial study and performance measures as outlined in Attachment B.

The MND specifies mitigation measures (including so-called "performance measures") to reduce potential environmental impacts of the traffic calming project and variations to a less than significant level in the areas of traffic, public services, air quality, cultural resources and noise. The monitoring of the project to ensure compliance with the performance measures that are CEQA mitigation measures will begin four months following installation. In the event that these performance measures are being exceeded, the Director of Planning and Community Environment will take steps based on recommendations of the Transportation Division to modify the traffic calming measures so the performance measures are met and no significant impacts occur. The edits to the MND, comment letters, comment responses, and the mitigation measures comprise the final MND to be considered by Council as part of the adoption of the Downtown North Traffic Calming Project.

PUBLIC NOTICE

Notification of this Council meeting and the availability of the City Manager's Report were mailed on March 8 to each household, business and non-resident property owner in the area described in Attachment B of the January 21, 2004 staff report to the PTC.

ATTACHMENTS

- A. Revised resolution
- B. Comments, Reponses and Edits for Mitigated Negative Declaration (Council Only)
- C. January 21, 2004 PTC report and meeting minutes
- D. February 25, 2004 PTC report and draft meeting minutes

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DTNNA representatives (Dan Lorimer, Chas Pavlovic, Mike Liveright, Josh Mogal)
Unblock representatives (Joe Durand, Dana DeNault, Pat Markevitch, Steve Kutner)
Lytton neighborhood representatives (Alan and Bonnie Luntz)
Palo Bicycle Advisory Committee Members
City of Menlo Park Transportation Division