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MEMORANDUM

TO: Mayor and Town Council

FROM: Wayne Pein, Chair
            Bicycle and Pedestrian Advisory Board

SUBJECT: Traffic Signal Activation Loops

DATE: December 12, 2003

At its November 18, 2003 meeting the Bicycle and Pedestrian Advisory Board members considered a proposed petition on the subject of Traffic Signal Activation Loops drafted by Board member Nick Lurie. (Please see attached petition). The Board resolved to endorse the petition and send it to the Town Council:

Vote: 8 – 0.

        Aye: Wayne Pein (Chair), Kate Millard, Heidi Perry, Nicholas
                Lurie, Alice Neebe, Debby Freed, Jed Dube and Claire
   Millar

MEMORANDUM

To: **Town Council**

From: **Bicycle and Pedestrian Advisory Board**

Date: **November 18, 2003**

RE: **Traffic Activation Loops for Bicycles**

The bicycle and pedestrian advisory board would like to request the council to direct town staff to explore the possibility of: (1) marking existing traffic activation loops for bicycles, (2) ensuring that existing loops are set to detect bicycles, and (3) using bicycle-friendly loops in future construction projects.

Many of the traffic signals in the town are activated by traffic-actuated signals (loops). Loop detectors are triggered by the metal mass of vehicles moving over them. A loop is unlikely to be activated by a bicycle unless the bicycle is located directly over the loop. This means that cyclists may spend a long time at certain intersections in Chapel Hill without the light ever turning green.

(1) Marking of loops for bicycles
Loops should be marked so that cyclists know where to place their bicycles to trigger the loop. The standard way to mark such loops is shown in the figure below.
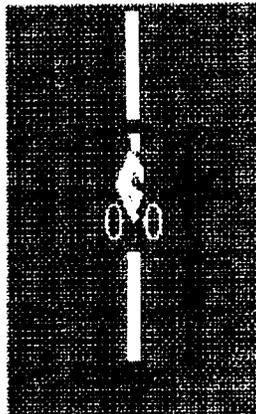
We recommend initially marking loops at the following locations:
- Ransom Street at Cameron
- McCauley at Pittsboro Street
- McCauley at South Columbia Street

As part of the comprehensive bicycle and pedestrian plan, the bicycle and pedestrian advisory board will prepare a more extensive list of locations to be marked.

(2) Setting loops to detect bicycles
Loops should be set to detect bicycles. Many loops are set at the minimum level to detect cars and are thus unlikely to detect bicycles. Instead, they should be set at the maximum sensitivity level possible without being triggered by cars in adjacent lanes. See www.humantransport.org/bicycledriving/library/signals/detection.htm.

(3) Using bicycle-friendly loops in future construction projects
There are certain types of loops that are more sensitive to bicycles. These include "quadrupole" loops for bike lanes and "diagonal quadrupole" loops for traffic lanes. See www.bikeplan.com/signal.html. The town should use such loops where appropriate in future construction projects.