

TRAFFIC DIVISION 37478473 PHONE NO. JUN. 06 1997 10:34AM P01

340-M-021

ATTN: MARCE S.

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To: William J. Bray, Deputy Director of Public Works

From: Thomas A. Errico, P.E., Senior Traffic Engineer

Date: June 4, 1997

Subject: Fence Issue at the Corner of 33 Homestead Avenue and Arthur Street

Copy: Lucie Cote, Associate Engineer

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MEMORANDUM

In response to a request from Lucie Cote, I have performed an evaluation relative to an existing fence located on the property of 33 Arthur Street. Specifically, my evaluation assessed the impact of the fence on traffic conditions at the Homestead Avenue/Arthur Street intersection and at the driveway servicing 33 Homestead Avenue. The results are summarized below.

- The primary issue related to whether the fence is a traffic hazard at the Homestead Avenue/Arthur Street intersection is the possible restriction of sight distance for vehicles turning from Arthur Street onto Homestead Avenue. A field survey was performed, assuming a vehicle stops on Arthur Street 10-15 feet from the edge of travel way, and the height of eye of the driver is approximately 3.5 feet above the road surface. Based upon the survey, over 300 feet of sight is available in the direction of the fence. Standards contained in the publication Access Management Improving the Efficiency of Maine Arterials, Maine Department of Transportation, indicates the minimum acceptable sight distance for a road with speeds of 25 mph is 250 feet. Accordingly, the existing fence at 33 Arthur Street does not appear to contribute to a safety hazard at the Homestead Avenue/Arthur Street intersection.
- A second issue is related to sight obstruction, caused by the fence at 33 Arthur Street, for vehicles backing out of the driveway servicing 33 Homestead Avenue. Measurements were taken in the field indicating the fence on 33 Arthur Street is located approximately 12 feet from the pavement edge on Homestead Avenue. Based upon national standards, for a vehicle that is 19 feet long, the drivers sight is approximately 12 feet from the rear end of the vehicle. Based upon this data, the rear of the vehicle will be located approximately at the edge of pavement on Homestead Avenue, at the point when sight is no longer obstructed by the fence. Considering the street is 30 feet wide (6 feet wider than the City's residential standard), and the volume of traffic on Homestead Avenue is low, no significant traffic impact appears to exist as a result of the fence.