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(54) Title: TRAFFIC PREEMPTION SYSTEM WITH HEADWAY MANAGEMENT

(57) Abstract: A traffic-preemption system and method that communicates an identification code from vehicles to a traffic location. Traffic light control equipment, such as a receiver and traffic light circuit at each intersection of a controlled area, is used to manage headway in mass-transit systems as well as to provide traffic light pre-emption for emergency vehicles. Each traffic light circuit in the controlled area has a receiver located at a traffic location and adapted to receive an identification code from a mass-transit vehicle. A decoding circuit responds to the received identification code by attempting to identify the mass-transit vehicle and determine the timing on the identified route that improves an identified vehicle's headway and/or route timing. In response to determining the timing, a traffic-preemption command is generated for a traffic light on the identified route.

WO 2006/138393 A3