



Virtual Priority Proposal

## **Virtual Priority – City of Gainesville, FL**

**Thursday, January 17, 2008**

## **Executive Summary**

Emergency vehicles need to respond quickly to incidents under all traffic conditions. Studies have shown that emergency vehicle priority systems can reduce response times<sup>1</sup> and improve emergency vehicle safety<sup>2</sup>. The Naztec Priority Vehicle Routing system proposes to implement an emergency vehicle priority system by integrating automatic vehicle location with our proven ATMS technology. The result will achieve reduced emergency response time, greater emergency vehicle safety, and lower cost of implementation than other solutions available<sup>3</sup>.

### **Achieve Faster Emergency Response Time**

The Naztec Priority Vehicle Routing System gives traffic flow priority to vehicles traversing a route between an origin and an incident. Traffic flow priority enables vehicles to move through signalized intersections under a green light, thus eliminating delay time caused by moving through intersections under a red light.

### **Maximize Emergency Vehicle Safety**

The Naztec Priority Vehicle Routing system creates a natural-feeling green light for emergency vehicles. A green light for emergency vehicles that appears normal and natural to all other traffic reduces the risk of accidents for all concerned.

### **Minimize Impact to Surrounding Traffic**

The Naztec Priority Vehicle Routing system works with our ATMS technology to maintain coordinated traffic flow on right of ways adjacent to the emergency route. Coordinated traffic flow results in minimal impact to cross streets even as emergency vehicles experience green lights en route to an incident. As traffic signal timing is dynamically adjusted, drivers on adjacent and oncoming right of ways operate normally without disruption. By keeping drivers in a non-disruptive road condition, drivers are less likely to interfere with emergency vehicles.

### **Leverage Existing Infrastructure while Planning for the Future**

The Naztec Priority Vehicle Routing system is built using proven technology that Palm Beach County has already deployed. The Priority Vehicle Routing integrates Naztec ATMS controllers with the Computer Aided Dispatch application to provide an effective yet cost-efficient solution.

### **How It Works**

The Naztec Priority Vehicle Routing system integrates the capabilities of ATMS.now, vehicle-based GPS units, and the Computer Aided Dispatch (CAD) application. GPS units installed on emergency vehicles send vehicle location data back to a central office. Dispatchers work with the CAD application to record incidents and generate routes for emergency vehicles to reach the scene. Naztec's ATMS communicates with the CAD application to coordinate traffic along the emergency route to the scene. Using the route information, the ATMS adjusts the signal coordination in favor of the emergency vehicles. The result is fluid traffic movement for the emergency vehicles and a natural flow for all other traffic in the area.

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<sup>1</sup> [Emergency Response Management Study. Houston Metropolitan Transit Authority. April 1991.](#)

<sup>2</sup> [Emergency Vehicle Accident Study. Department of Fire and Safety Services, St. Paul, MN. 1977.](#)

<sup>3</sup> [Department of Transportation, Unit Costs \(Adjusted\) of Equipment for Roadside Control.](#)

## Operation Details

- The rescue vehicle will not receive a guaranteed green so that the coordination will be maintained.
- Traffic queues will be reduced along the route during response, therefore; side street queues will be increased.
- Optionally, pedestrian movements may be eliminated to decrease traffic saturation during the duration of the response.

## Task Summary

- Develop Interface to City of Gainesville's CAD system
- Site Testing
- Full Deployment
- Training

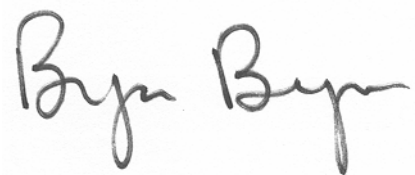
## Cost

One time cost of \$1,200,000 for the application with five (5) years of free support.

- Naztec will be paid only when the test site is operational.
- Naztec will provide the city \$300,000 worth of Naztec equipment for FREE on your next phase, if the system is not successful.

Annual support cost of \$65,000 a year after year five (5).

Sincerely,



Bryan Beyer  
Systems Manager