

MEMORANDUM

State of Alaska

Department of Transportation & Public Facilities
Design and Engineering Services – Southeast Region
Preconstruction / Design

TO: Mark OBrien
Chief Contracts Officer

DATE: August 20, 2013

THRU: Albert H. Clough
AKU Regional Director

TELEPHONE NO: 465-4439

THRU Vanda Randolph *VR*
SE Region Contracts Officer

FAX NUMBER: 465-4414

25-14-004-PIF

FROM: Chuck Tripp, P.E. *CT*
Engineering Manager

SUBJECT: Approval to Utilize Wavetronix
SmartSensor radar-based traffic
detection products on JNU Egan
Drive Pavement Rehabilitation
Project

The upcoming Juneau Egan Drive Pavement Rehabilitation Project (68129) intends to specify the use of Wavetronix SmartSensor radar-based traffic detection products. The SmartSensor equipment is new, radar-based technology that Southeast Region has successfully used on a limited basis at two other intersections (Loop and Atlin in Juneau, and South Tongass and Dock in Ketchikan).

A public interest finding was prepared that outlines the reasons for the use of SmartSensor equipment on this project. As outlined in the Public Interest Finding, we believe that it is in the State's best interest for the specification of the proprietary SmartSensor equipment and that this request is in accordance with 23 CFR 635.411 and as required by Policy and Procedure 10.02.013.

By signing below, the parties agree that the use of SmartSensor equipment is in the State's best interest.

Recommended:

Albert H. Clough

Albert H. Clough, CPG, Regional Director

8/20/2013
Date

Approved:

Mark OBrien

Mark OBrien, Chief Contracts Officer

8-28-13
Date

PUBLIC INTEREST FINDING
68129 JNU – Egan Drive Pavement Rehabilitation Project
Juneau, Alaska

Introduction

This Public Interest Finding is to allow the Department of Transportation & Public Facilities to use Wavetronix SmartSensor radar-based traffic detection equipment on the JNU Egan Drive Pavement Rehabilitation Project.

Purpose:

The intent is to use to deploy Wavetronix SmartSensor HD and SmartSensor Advance traffic detection at the Salmon Creek Channel Drive intersection in conjunction with the previously referenced project. The existing in-pavement detection sensors will be removed at that intersection when Egan Drive is ground and repaved through that intersection and consequently new detection equipment will need to be installed at that intersection.

The SmartSensor line of equipment is new, radar-based technology that Southeast Region has successfully used on a limited test basis at two other intersections (Loop and Atlin in Juneau, and South Tongass and Dock in Ketchikan). The region desires to move from conventional in-pavement loop detectors and video detection to newer technology that is not subject to difficult-to-resolve physical failure and weather-based interference. The only other radar detection equipment available on the market of which we are aware combines radar and video detection technology. Video detection has been tried in Juneau and has failed to perform acceptably when water and ice are present on the pavement, as glare from headlights and highway illumination tend to induce the video cameras to detect vehicles when none are present (i.e., "false calls"). The result is excessive traffic delay. We have found the Wavetronix equipment to not be susceptible to such weather-induced conditions. Furthermore, being free of in-pavement components, radar detection equipment is superior to detector loops. When loops fail and must be replaced, pavement must be disturbed and traffic is impacted. The radar detection equipment is mounted on existing light poles and/or mast arms, and is easier to maintain with minimal traffic impacts and no need to dig up pavement.

The Department, by virtue of having used Wavetronix equipment in the past, already owns software necessary to operate the system. By approving this Public Interest Finding, software costs associated with a different system would be avoided.