

**Geographic Information System (GIS) Development  
(IWAYS)****FY2013 Request: \$1,000,000**  
**Reference No: 41539****AP/AL:** Allocation**Project Type:** Information Technology /  
Systems / Communication**Category:** Transportation**Location:** Statewide**House District:** Statewide (HD 1-40)**Impact House District:** Statewide (HD 1-40)**Contact:** Pat Kemp**Estimated Project Dates:** 07/01/2012 - 06/30/2019**Contact Phone:** (907)465-3900**Appropriation:** Surface Transportation Program**Brief Summary and Statement of Need:**

This project aims to develop the Highway Analysis System - Geographic Information System (HAS-GIS) concept of operations, systems architecture, and long-term systems deployment. Project work includes road centerline/inventory data collection and processing, business process development (data quality, linear reference system, highway data warehouse, HAS-GIS Interface), a spatial geodatabase, GIS software, network systems, GIS tools, a highway data warehouse, training, and technical support.

<b>Funding:</b>	<b>FY2013</b>	<b>FY2014</b>	<b>FY2015</b>	<b>FY2016</b>	<b>FY2017</b>	<b>FY2018</b>	<b>Total</b>
Fed Rcpts	\$1,000,000						\$1,000,000
<b>Total:</b>	<b>\$1,000,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,000,000</b>

<input checked="" type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input checked="" type="checkbox"/> Phased - underway	<input type="checkbox"/> On-Going
9% = Minimum State Match % Required		<input type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

**Operating & Maintenance Costs:**

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
<b>Totals:</b>	<b>0</b>	<b>0</b>

**Additional Information / Prior Funding History:**

\$1,000,000 - Ch 5 FSSLA 2011 Sec 1 Pg 112 Ln 12; \$250,000 - Ch 43 SLA 2010 Sec 7 pg 47 In 13;  
\$287,750 - Ch 29 SLA 2008 Sec 13 pg 169 In 24; \$531,300 - Ch 30 SLA 2007 Sec 4 pg 114 In 4;  
\$300,000 - Ch 82 SLA 2006 Sec 1 pg 100 In 25; \$700,000 - Ch 159 SLA 2004 Sec 1 pg 44 In 17;  
\$750,000 - Ch 82 SLA 2003 Sec 1 pg 48 In 18.

**Project Description/Justification:**

This is a fairly large effort that covers many different aspects of our GIS development and implementation. This project is being handled as a multi-year effort due to the scope and complexity of the tasks. Timelines and or phases are difficult to define as this project builds on itself and one effort helps define the next.

As the Geographic Information System (GIS) and the Enterprise Geodatabase (EGDB) is developed, implemented and becomes established the effort will continue by integrating data from other databases and sources such as the Highway Analysis System (HAS) our outdated Mainframe legacy database. One of the initial integration efforts will be that of the Highway Performance Monitoring System (HPMS). We are faced with a new Federal Highway Administration (FHWA) requirement to submit HPMS in GIS format, the scope of this project includes meeting this requirement by integrating

State of Alaska Capital Project Summary

Department of Transportation/Public Facilities

FY2013 Governor Amended

Reference No: 41539

3/8/12 1:58:30 PM

Page 1

Released March 8th, 2012

**Geographic Information System (GIS) Development  
(IWAYS)**

**FY2013 Request: \$1,000,000**  
**Reference No: 41539**

HPMS into the GIS/GDB. On the heels of HPMS will be the need to integrate the Traffic data/system, this is then followed by the Crash data/system. The end goal would be a full transition out of HAS and into a GIS/GDB - Highway Data Warehouse (HDW) Solution. We also need to expand this integration effort to other databases such as the Maintenance Management System (MMS) and the Bridge Database. This is crucial for improving efficiency, data sharing and to reduce duplications of effort. The GIS/GDB is also being developed to support Federal Highway Administration and State mandated programs, such as the various Transportation Plans, Highway Safety, Pavement Management, 511, Environmental, Road Network Services, etc.

Also reflected in this project is our Data Collection Activities. This is the PhotoLog project that provides us a digital representation of our transportation network and the data necessary to capture road centerlines, features and assets.

Ultimately the decision was made to treat this project as an ongoing effort due to the scope and complexity of developing an Enterprise GIS/GDB, integrating data, supporting various programs, system transitions and the supporting data collection activities. It is anticipated that the duration of this effort to be from 5 to 10 years.

This project contributes to the Department's Mission by reducing injuries, fatalities and property damage and by improving the mobility of people and goods.