

Alabama Statewide Freight Study and Action Plan: Interim Reports 1 and 2 Summary

The Alabama Department of Transportation (ALDOT) has initiated a study of the statewide multimodal freight network to address current and future transportation needs. The intent is to identify improvements to the state's transportation system that will facilitate mobility and support economic development initiatives at the state and local level. The study will analyze multimodal freight movements into and out of the state, analyze the condition, operations and safety of the multimodal system, identify constraints and consider improvements. The study effort will address truck, rail, air and water freight movements.

Interim Report 1: Data Collection

It is difficult to incorporate freight information into transportation models and plans. Many types of freight data are considered proprietary by private companies and the release of that data is seen as detrimental to their competitive position. While national freight data are more readily available, there are challenges associated with the high level of aggregation in these databases. Understanding these limitations, the researchers have used additional data sources to supplement, disaggregate and validate the data from the highly aggregated sources. This report allocates freight volumes in smaller, sub-state zones from freight traffic volumes provided by highly aggregated national databases.

The study uses data from the Freight Analysis Framework Version 2 (FAF2), ALDOT 2008 Traffic Counts, Alabama Rail Plan and Rail Directory, and US Army Corps of Engineers Waterway data. Data from the FAF2 database were used to analyze freight volumes involving Alabama highways, railroads, and waterways. ALDOT Counts were used for validation of the FAF2 volumes, as well as for percentages for heavy vehicles.

The results of the study are intended to support the modeling effort associated with the study by providing a reasonable estimation of the current usage levels for the infrastructure in the State. The next report utilizes the data to model 2035 freight in order to begin the process of identifying congested locations and specifying potential big-picture solutions.

Interim Report 2: Deficiencies Analysis

In this report, data on commodities flow, transportation operations, and economic growth is utilized to determine the areas of greatest concern related to the transportation system, enabling ALDOT and its public and private freight partners to proactively coordinate in the development of improvements to mitigate adverse impacts. Interim Report 2 documents the approach, methodology, and findings of the deficiencies analysis activities.

Areas with high VC (volume to capacity ratios) and high intensity values were determined on both interstates and non-interstate roadway segments.

The findings concerning potential current and future (2035) deficient locations for transporting commodities on the Alabama transportation system can be summarized as follows:

- Interstate truck shipments are most likely to be involved in congested conditions on I-59 or I-65 around Birmingham and Montgomery.
- Off-interstate truck movements show that the most problematic areas of the state for freight are **US 431** and **US 280**. These locations show a large amount of trucks operating on roadways with a high level of congestion.
- Approximately 10 percent of 2003-2006 crash fatalities involving trucks and 14 percent of all crashes involving trucks occurred in or are within one mile of the selected roadway segments based on either VC ratio or trucks per lane thresholds.

Interim Report 3 will compare the identified potentially deficient locations to safety improvement segments in ALDOT's 2010-2035 work plan. State roadway system corridors will be identified where underlying commodity flows or their origin-destination patterns indicate a possible alternate management or operational strategy could be considered.

Both of these reports can be found in their entirety at:

<http://cpmsweb2.dot.state.al.us/TransPlan/FreightStudy/Default.aspx#>. Other information, including a short line rail study, can be found on the website as well.