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JAMES R. DeSANA, DIRECTOR

April 30, 2000

LH 0-0 (3/98)

The Honorable Philip Hoffman, Chair
Senate Appropriations Subcommittee on Transportation
Michigan State Senate
P. O. Box 30036
Lansing, Michigan 48909

The Honorable Judith L. Scranton, Chair
House Appropriations Subcommittee on Transportation
Michigan House of Representatives
P. O. Box 30014
Lansing, Michigan 48909

Dear Senator Hoffman and Representative Scranton:

Enclosed is the report which addresses the requirement of Section 509 in Enrolled Senate Bill No.372, the Fiscal Year 2000 Appropriations Bill for the Michigan Department of Transportation, as signed into law by Governor Engler on July 27, 1999.

Sec. -509 requires for fiscal 2000:

"(1) Each county road commission shall prepare, and present to the department, a map illustrating the all-season county road network under its jurisdiction. The county road commissions shall record this information on an official county highway map provided to them by the department. The department shall provide each county road commission with 3 official copies of their county road highway map on or before October 1, 1999.

"(2) After compiling this information for all Michigan counties, the department shall prepare a report on the current all-season road network in the state. This report shall illustrate the current all-season road network understate and county control, identify contiguity gaps in this network, and suggest ways to improve connectivity on the current all-season network. This report shall be presented to the house and senate appropriations subcommittees on transportation and house and senate fiscal agencies on or before May 1, 2000. "

The report is submitted to you in fulfillment of this requirement. If you have any questions, please do not hesitate to contact either me or Louis Lambert, Deputy Director, Bureau of Transportation Planning at 517-373-0343.

Sincerely,

Greg Rosine
Chief Administrative Officer

Enclosure

cc: W. Hamilton, House Fiscal Agency
C. Thiel, Senate Fiscal Agency

BTP:TPS:slb:of

bcc: L. Lambert T. Horsfall
S Mortel J. Kraus

MICHIGAN
ALL-SEASON ROAD NETWORK

SECTION 509 REPORT

TO

SENATE APPROPRIATIONS SUBCOMMITTEE ON TRANSPORTATION
HOUSE APPROPRIATIONS SUBCOMMITTEE ON TRANSPORTATION

Prepared by

MICHIGAN DEPARTMENT OF TRANSPORTATION

April 2000

Submitted by





James R. DeSana, Director
Michigan Department of Transportation

Introduction

This report is filed in response to Sec. 509, PA 136, of 1999, otherwise known as the Michigan Department of Transportation (MDOT) Appropriations bill (Enrolled Senate Bill No. 372).

Sec. 509:

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MDOT and the county road commissions have worked cooperatively to identify a connected and continuous all-season road network since at least 1987. In that year, the Transportation Economic Development Fund (TEDF) was created by P.A. 23 1. TEDF Categories D and F are directed at improving eligible county roads and city streets to the all-season standard such that routes "begin and end at an existing all-season road or highway or point of loading origin" (from the TEDF Operating Guidelines for Category D).

Progress has been made over the past 13 years to achieve the goal of the TEDF for Categories D and F, that is, "to serve development by establishing and integrating a local secondary all-season road system with the state trunkline system" (TED F program guidelines, page 8). Fulfilling the requirements of Section 509 provides another step toward reaching this goal. All 83 county road commissions have complied with the requirement to provide all-season county road information to the department. The department, in turn, is compiling this information with existing map data developed in connection with TEDF, Category D, and in cooperation with the county road commissions.

The map attached as page 4 of this report illustrates the county and city (non-trunk-line) portion of the current all-season road network, as well as the all-season portion of the state trunkline system, based on information compiled to date. The map shows that while contiguity gaps exist in the total statewide all-season network, there are many instances of all-season systems which are complete within individual regions of the state. Suggested strategies toward completing the goal of a statewide, all jurisdiction (state, county, city), integrated, connected all-season network are provided in the Recommendations section of this report, below.

Background

A road is considered all-season if it is constructed to a standard that allows it to carry legal loads year-round. If a road is not constructed to the all-season standard, it is considered "seasonal." During the spring thaw, "seasonal" roads must be posted with signs warning of seasonal load limitations or weight restrictions. In Michigan, as in other "frost-belt" states, the freeze/thaw cycle causes a seasonal instability in the ground which surrounds and supports roads. Essentially, an all-season road is distinguished from a "seasonal" road by having a thicker base. This thicker base allows the all-season road to absorb heavy loads (up to legal limits) without significant damage, even when the ground is unstable. If these same heavy loads were permitted on "seasonal" roads during spring thaws, damage could result. Posting of seasonal load limitations or weight restrictions on "seasonal" roads is intended to prevent damage and to extend pavement life.

Commercial trucking, logging, and heavy agricultural vehicles require a continuous and **connected system of all-season** roads, between point of loading (or unloading) origin and ultimate destination. Statewide and regional economies are

adversely affected by a road system which requires truckers to drive many extra miles so as to avoid "seasonal" roads during the spring thaw each year. On the other hand, the needs of the commercial trucking industry can be met by an all-season road network which is a sub-system of all public roads. In other words, there is no need for every highway, road, and street to be built to the all-season standard. In addition, weight restrictions are in effect a relatively short period of time -typically from mid to late February until sometime in April. This varies across the state, and by system. For example the state trunkline system is typically built to a higher standard than the county system. Therefore, counties implement weight restrictions independently of the state.

Section 509 focuses on that portion of the county road system which is all-season, so as to identify contiguity gaps once these routes are combined with the all-season portion of the state trunkline system. However, an important jurisdictional element is missing from the Section 509 requirements: that portion of the city street system which is all-season. There have been recent efforts in the direction of realigning jurisdictional responsibility for a priority commercial network which is all-season. Nevertheless, Michigan roads of nearly all types and functions are under the responsibility of three different governmental entities -the state, the county road commissions, and the incorporated cities and villages. Freeways are the exception to this rule, since all Interstate and other freeways in Michigan are under state jurisdiction.

Recommendations

It is the conclusion of this report that the appropriate network of all-season roads can be identified, that the contiguity gaps can be measured, and that the investment level to reach the Section 509 goal of an improved, connected all-season road network can be estimated. The following recommendations are made toward this end:

information from maps returned by the county road commissions in response to Section 509 is being compiled with existing information utilized in the administration of TEDF, Categories D and F. In turn, this information is being added to a Geographic Information System, or GIS. This process should **continue, with** an estimated completion date of December 31, 2000.

incorporated cities and villages should be included in the process of submitting information about all-season streets under their jurisdiction. This information should also be added to the GIS.

- Information should be added to the GIS identifying specific points of loading origin (factories, land fills, gravel pits, ~~etc (etern))~~). **Essential commodity haul routes should be identified in the GIS by predominant commodity type, such as mining, forestry, agricultural, industrial, or manufacturing.**
- The GIS should be used to identify contiguity gaps in the entire all-season road network. These gaps should then be ranked in terms of the economic impact of the point of loading origin being inadequately served or commodities being inefficiently hauled.
- The following draft recommendation from the Act 51 Transportation Funding Study Committee should be supported: "The Committee recommends that the asset management process include standards, criteria, and performance measures for the designation of an all-season road system, serving all significant points of loading origin and essential commodity haul routes, and composed of routes from all jurisdictions as needed for connectivity and continuity."
- Once the identification and ranking of the contiguity gaps in the all-season road network has occurred and the asset management approach has been adopted, we will be able to estimate the investment level needed to attain the goal of an improved, connected all-season road network.

