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TRANSPORTATION; MAINTENANCE DEFINITION & ASSET MANAGEMENT PROGRAM

House Bill 5383 (Substitute H-3)
Sponsor: Rep. Thomas George

House Bill 5396 (Substitute H-4)
Sponsor: Rep. Larry Julian

First Analysis (12-4-01)
Committee: Transportation

THE APPARENT PROBLEM:

The Public Act 51 Transportation Funding Study Committee members' report entitled "Transportation Funding for the 21st Century" (issued on 6-1-00), made recommendations to change both the manner and purpose of funding the state transportation system. According to the House Fiscal Agency, the principal recommendations concerned asset management, and in particular, that "a long-term planned asset management process be extended to statewide use for transportation facilities." See *BACKGROUND INFORMATION* below. The study committee's report is in keeping with industry standards and practices throughout the nation.

In 1996, the Federal Highway Administration and the American Association of State Highway and Transportation Officials began to study the application of asset management concepts to transportation systems, including highways, bridges, and airports. Several reports have been issued, and an Asset Management Guide will be published in April 2002, for use by member agencies.

Further, the Governmental Accounting Standards Board (GASB), a private nonprofit organization formed nearly 20 years ago to develop and improve accounting and financial reporting standards for state and local governments, issued Statement No. 34 in June 1999. Among other things, the new standard requires reporting on "infrastructure assets" in financial statements. In keeping with GASB standards, Michigan's Uniform Budgeting and Accounting Act (Public Act 2 of 1968) was recently amended (Public Act 493 of 2000) to require that local units of government comply. Specifically, Statement No. 34 requires that government officials maintain an inventory of infrastructure assets, including a condition assessment at least every three years, and also estimates of the annual amounts

needed to maintain the assets. The requirements are intended to identify disinvestment in public infrastructure assets, and they signal a new turn in public sector budgeting.

According to the House Fiscal Agency, systematic asset management, as applied to publicly-owned infrastructure, is a set of practices borrowed recently from private sector managers whose chief concern is profitability. Life-cycle cost analyses—generally supported by computer databases and decision-modeling systems—are among the analytic tools used by private sector asset managers, enabling them to include return-on-investment analyses within their budget decision-making processes. Limited trials of these practices by local government agencies have demonstrated their usefulness in the public sector where managers' chief concerns are customarily efficiency, effectiveness, and equity, rather than profitability.

In brief, asset management systems provide companies or government agencies with a rational basis for determining how best to maintain, repair, and replace capital assets. They help decision-makers prioritize the allocation of limited resources by exploring the relationships between several options, and at both the project and system (or network) levels of the operation: for example, costs can be arrayed in ways that reveal when and how much to invest in a new factory vs. when to improve or close an old factory; whether to build or buy or lease needed equipment in light of a project's duration; and how much to budget for maintenance given the differing ages of vehicles in a fleet or pieces of equipment in a production process. These priorities can then be described in written plans, so that trade-offs can be discussed publicly, and decisions can be made in light of other investment

House Bills 5383 and 5396 (12-4-01)

options available for action. In order to undertake these comparisons and to utilize well-understood methods of evaluation, a set of uniform definitions is needed to establish conceptual categories. Then those who undertake and use the findings from the evaluations understand the characteristics of the conceptual category in explicit and measurable ways, ways that provide stability during the assessment to reveal meaningful differences (as opposed to mere distinctions).

Asset management evaluations are not possible unless there are changes in government accounting practices. The House Fiscal Agency notes that customarily, publicly-owned infrastructure assets have not been considered “assets” on governmental financial statements. Instead, state and local government officials have generally relegated the long-term assets to separate capital improvement or capital outlay budgets. Since the long-term assets have gone unreported by accountants, the balance sheets of governmental financial statements have shown only short-term assets, such as cash and cash equivalents, accounts receivable, and inventory. Meanwhile, the expenditures for capital infrastructure, such as roads, bridges, public buildings, and water and sewer systems have been just that—expenditures—with no recognition of the replacement value (both cost and benefit) of the long-term structures and systems in the monthly and quarterly financial statements of governments. Without systematic reports, policy-makers have been unable to consider trade-offs when making decisions to allocate resources, and sometimes the systems deteriorate as policies of disinvestment—often unintended—unfold.

In order to implement a recommendation of the Public Act 51 Study Committee, and to comply with GASB Statement No. 34, as well as to enhance the quality of financial information available to policy-makers, legislation has been introduced to require that a program of asset management be adopted by the Department of Transportation and local road agencies.

THE CONTENT OF THE BILLS:

The bills would establish uniform definitions of “preservation,” “maintenance” (both “reactive” and “routine”), and “preventive maintenance,” in order to create an asset management program in the Department of Transportation. A detailed explanation of the bills follows.

House Bill 5383 would amend Public Act 51 of 1951, the Michigan Transportation Fund Act (MCL 247.651b, 247.660c, 247.661, and 247.662), to provide for a uniform definition of maintenance.

Currently under the law, the maintaining of state trunk line highways includes (but is not limited to) snow removal, street cleaning and drainage, seal coating, patching and ordinary repairs, erection and maintenance of traffic signs and markings, freeway lighting for traffic safety in cities and villages having a population of less than 30,000 people, and the trunk line share of the erection and maintenance of traffic signals. The law specifies that “maintaining” does not include street lighting, resurfacing, new curb and gutter structures for widening, and (beginning January 1, 1970) freeway lighting for traffic safety. House Bill 5383 would eliminate this provision.

The bill also would eliminate the definitions of “maintenance” and “maintaining” that appear in the act. (See Note, below.) Instead of the current definitions, House Bill 5383 would establish two categories of maintenance: the first, called “*maintenance*” would include two subcategories called a) “reactive maintenance,” and b) “routine maintenance”; and then also a second category (without subcategories) that would be called “*preventive maintenance*.” Further, the bill would define “preservation” (to include among other things, both kinds of maintenance).

The definitions read as follows:

“Preservation” means an activity undertaken to provide and maintain serviceable roadways. Preservation does not include new construction of highways, roads, streets, or bridges; a project that increases the capacity of a highway facility to accommodate that part of traffic having neither an origin nor destination within the local area; widening of more than a lane width; adding turn lanes of more than ½ mile in length; or improvements to buildings owned or operated by the department, a county road commission, a county department of public works, or a city or village. Preservation includes, but is not limited to, one or more of the following: (i) maintenance; (ii) preventive maintenance; (iii) grading; (iv) safety projects; (v) reconstruction; (vi) resurfacing; (vii) restoration; (viii) rehabilitation; (ix) any road or bridge project that is eligible for federal highway funds.

“Maintenance” means reactive maintenance, routine maintenance, or both reactive and routine maintenance. Maintenance does not include

preventive maintenance, resurfacing, reconstruction, restoration, rehabilitation, or the upgrading of aggregate surface roads to hard surface roads.

“Reactive maintenance” means action performed in response to uncontrollable events upon the condition of a highway, road, street, or bridge. Reactive maintenance includes, but is not limited to, one or more of the following: (i) snow and ice removal; (ii) pothole patching; (iii) unplugging drain facilities; (iv) replacing damaged sign and pavement markings; (v) replacing damaged guardrails; (vi) repairing storm damage; (vii) repair or replacement of damaged traffic signals; (viii) emergency environmental clean-up; (ix) emergency repairs; and (x) emergency management of road closures that result from uncontrollable events.

“Routine maintenance” means actions performed on a regular or controllable basis in order to keep a highway, road, street, or bridge safe and fit for travel. Routine maintenance includes, but is not limited to, one or more of the following: (i) cleaning streets and associated drainage; (ii) installing traffic signs and signals; (iii) mowing roadside; (iv) control of roadside brush and vegetation; (v) cleaning roadside; (vi) repairing lighting; (vii) grading shoulders; and, (viii) upgrading traffic signals.

“Preventive maintenance” means a planned strategy of cost-effective treatments to an existing roadway system and its appurtenances that preserve assets by retarding deterioration and maintaining functional condition without significantly increasing structural capacity. Preventive maintenance includes but is not limited to, one or more of the following: (i) pavement crack sealing; (ii) micro surfacing; (iii) chip sealing; (iv) concrete joint resealing; (v) concrete joint repair; (vi) filling shallow pavement cracks; (vii) patching concrete; (viii) shoulder resurfacing; (ix) concrete diamond grinding; (x) dowel bar retrofit; (xi) bituminous over lays of thickness less than 1½ inches; (xii) restoration of drainage; (xiii) bridge crack sealing; (xiv) bridge joint repair; (xv) bridge seismic retrofit; (xvi) bridge scour counter-measures; (xvii) bridge painting; (xviii) pollution prevention; and, (xix) new treatments as they may be developed.

House Bill 5383 would require that a governmental unit use the definitions of “maintenance” and “preventive maintenance” to describe its duties in all contracts between the governmental unit and the department, a county road commission, a city, a village, or a township, for maintenance, preventive

maintenance, or both maintenance and preventive maintenance.

In addition, the bill would eliminate references to the definition of “maintenance” that the bill proposes to strike, and would substitute the new definition of “preservation,” within those provisions that require 90 percent of state revenue be used for road maintenance and repair as opposed to new construction. Specifically, the bill would insert the new definition of “preservation” in place of “maintenance” in section 11 of the law. That section requires that at least 90 percent of the state revenue appropriated annually to the State Trunkline Fund be expended by the state transportation department for maintenance (as opposed to new construction). The same change would be made to section 12 of the act. That section requires that at least 90 percent of the state revenue returned annually to the county road commissions from the Michigan transportation fund be expended for maintenance (as opposed to new construction), and in addition, that at least 90 percent of the federal revenue distributed to county road commissions for highways, roads, streets and bridges be used for maintenance (with exceptions). Further, whenever exceptions to the ‘90-10 requirement’ are currently allowed in order to enable the expenditure of funds on ‘other than “maintenance,”’ the bill would retain those exceptions but state that the funds could be used for ‘other than “preservation.”’

Under the bill, the new definition of “maintenance” would be inserted in lieu of the current definition of “maintenance” within the section of the law that requires competitive bidding on all of the department’s projects whose cost exceeds \$100,000 for construction or maintenance. In addition, the current definition of “maintenance” would be eliminated in the section of the law that concerns one-year county road maintenance contracts entered into by a board of county road commissioners (in a county having a population of 500,000 or more), and a township board (of a township having a population of 40,000 or more).

House Bill 5383 also would modify the section of the act concerning the procedure which is followed when a county primary road that lies within the corporate limits of a city or village is placed under the jurisdiction of that city or village. The bill would retain the transfer protocol now established under the law, but extend it to govern circumstances in which a transferred road could be returned to its original jurisdiction. In particular, the bill specifies that in a county with a population over 1,000,000, the board of county road commissioners could request that the

governing body of a city or village transfer jurisdiction of a road that had once been under the road commission's jurisdiction back to the road commission, if the board of county road commissioners made both of the following determinations: a) the road had been blocked for more than six months without a legitimate reason; and, b) for purposes of health, safety, and welfare, the road should not be blocked. The bill would require that the request for a transfer of jurisdiction be made in writing, and addressed to the governing body of the city or village having jurisdiction over the road. However, if within 90 days after a written request had been received the governing body had not consented to transfer of jurisdiction, or had not articulated a legitimate reason for blocking the road, the board of county road commissioners could petition the state transportation commission for a hearing.

Finally, House Bill 5383 would update a reference in the act concerning the maximum rate of interest permitted by the Municipal Finance Act on bond sales. The bill would retain that provision, but extend it to also include the bond sale maximum rate of interest permitted by the Revised Municipal Finance Act (Public Act 34 of 2001), whichever applied.

Note: The current definitions that would be eliminated by the bill read as follows: (a) "Maintenance" and maintaining means snow removal, street cleaning and drainage, seal coating, patching and ordinary repairs, erection and maintenance of traffic signs and markings, safety projects, and the preservation, reconstruction, resurfacing, restoration, and rehabilitation of highways roads, streets, and bridges. For the purposes of this section, maintenance and maintaining shall not be limited to the repair and replacement of a road but shall include maintaining the original intent of a construction project. If traffic patterns indicate that this intent is no longer being met, the department may expend funds to take corrective action and continue to fulfill its obligation of maintaining the department's original objective for the construction project. However, maintenance and maintaining do not include projects which increase the capacity of a highway facility to accommodate that part of the traffic having neither origin nor destination within the local area. (b) "Maintenance" and "maintaining" include widening less than lane width, adding auxiliary turning lanes of ½ mile or less, adding auxiliary weaving, climbing, or speed change lanes, and correcting substandard intersections. (c) "Maintenance" and "maintaining" do not include the upgrading of aggregate surface

roads to hard surface roads. (d) "Maintenance" and "maintaining" include the portion of the costs of the units of the department performing the functions assigned on January 1, 1983, to the bureau of highways expended for the purposes described in subdivision (a) and (b).

House Bill 5396 would amend Public Act 51 of 1951, the Michigan Transportation Fund Act (MCL 247.659a), to create an asset management system. The bill would establish an asset management council, and prescribe its duties. A more detailed explanation of the bill follows.

Transportation Asset Management Council. Under the bill, the Transportation Asset Management Council would be created within the state Transportation Commission, in order to provide a coordinated, united effort by the various roadway agencies. The council would be charged with advising the commission on a statewide asset management strategy, and the processes and necessary tools needed to implement the strategy, beginning with the federal aid-eligible highway system, and once completed continuing on with the county road and municipal systems, in a cost-effective and efficient manner. (The bill specifies that nothing would prohibit a local road agency from using an asset management process on its non-federal-aid eligible system.)

Council membership. The 11-member council would consist of eight voting members and three ex-officio members, appointed by the state Transportation Commission. It would include two members from the County Road Association of Michigan, two members from the Michigan Municipal League, two members from the state planning and development regions, and two members from the Department of Transportation. Further, three ex-officio members would represent the Michigan Townships Association, the Michigan Association of Counties, and the agency or officer selected as the location for central data storage.

Council appointments. The bill specifies that each agency with voting rights would submit a list of two nominees to the state Transportation Commission, and from each list the group's two representative members would be appointed. The Michigan Townships Association and the Michigan Association of Counties representatives would be selected from those associations' respective single nominees. Names would be submitted within 30 days after the effective date of the bill. Then the state Transportation Commission would make the

appointments within 30 days after receiving the lists of nominees.

The bill further specifies that the positions for the Department of Transportation would be permanent. The ex-officio position of the central data storage agency would last as long as the agency continued to serve as the data storage repository. The member from the Michigan Townships Association would be initially appointed for two years. Of the members first appointed from the County Road Association of Michigan, the Michigan Municipal League, and the state planning and development regions, one member of each two-member group would be appointed for two years, and the second member of each group would be appointed for three years. At the end of the initial appointment, all terms would be for three years. However, an individual could not serve more than six years.

Council leadership and staffing. The bill specifies that the chairperson would be selected from among the voting members of the council. However, the department representative would not be eligible for election to that position. Under the bill, the department would be required to provide qualified administrative staff, and the state planning and development regions would be required to provide qualified technical assistance to the council.

Council duties. Under the bill the council would be required to develop and present to the state Transportation Commission for approval, within 90 days after the date of the first meeting, a report that described the procedures and requirements necessary for the administration of the asset management process. At a minimum, the report would be required to address the areas of training, data storage and collection, reporting, development of a multi-year (defined to mean “three-year”) program, budgeting and funding, and other issues related to asset management that could arise. The bill would require that all quality control standards and protocols be, at a minimum, consistent with existing federal requirements and regulations, as well as with government accounting standards.

Multi-year plan. The bill would require that beginning October 1, 2003, the department, as well as each county road commission, and city and village annually prepare and publish a multiyear program, based on long-range plans, and developed through the use of the asset management system. The bill specifies that the projects contained in each agency’s annual multiyear program be consistent with the goals and objectives of the agency’s long-range plan,

and that any project funded in whole or part with state or federal funds be included in any local road agency’s multiyear plan.

Council funding. The bill specifies that funding necessary to support the activities of the council would be provided by an annual appropriation from the Michigan Transportation Fund to the state Transportation Commission.

Record-keeping and reporting. The bill specifies that the Department of Transportation and each local road agency would have to keep accurate and uniform records on all road and bridge work performed, as well as on funds expended for the purposes of the bill, according to procedures developed by the council. Under the bill, each road agency and the department would annually report to the council the mileage and condition of the road and bridge system under its jurisdiction, and the receipts and disbursements of road and street funds, in the manner prescribed by the council and consistent with any current accounting procedures.

Under the bill, an annual report would be prepared by the council’s staff to describe the results of activities conducted during the preceding year, as well as the expenditure of funds related to the processes and activities identified by the council. That report also would include an overview of the activities identified for the succeeding year. The report would be submitted to the state Transportation Commission, the legislature, and the transportation committees of the House and Senate by May 2 of each year.

Definitions. The bill would define “asset management” to mean an ongoing process of maintaining, upgrading, and operating physical assets cost-effectively, based on a continuous physical inventory and condition assessment. The bill also defines seven other terms used in the act: “bridge,” “central storage data agency,” “council” (the transportation asset management council), “department,” “federal-aid eligible,” “local road agency,” and “multi-year program” (a compilation of road and bridge projects anticipated in a three-year period).

Finally, the bill would eliminate out-dated provisions of the act that created a study committee appointed by the governor in 1998, and also a citizen advisory committee whose members made recommendations to the members of the study committee. The two groups worked to prepare a report before July 1, 2000. The report was the subject of public hearings, and the basis upon which members of the study

committee made recommendations to alter both the formulae for transportation funding, and the distribution of transportation responsibilities that sustain Michigan's road system.

BACKGROUND INFORMATION:

House Fiscal Agency report. To read more about asset management, see the legislative briefing report entitled "Transportation: Asset Management" published in February 2001, one in the periodic series of reports published by the House Fiscal Agency Fiscal Forum. The report is available at the agency's web site: www.house.state.mi.us/hfa/asset.pdf.

Definition of asset management. The Federal Highway Administration Office of Asset Management defines the term as follows: A business process and decision-making framework that covers an extended time horizon, draws from economics as well as engineering, and considers a broad range of assets. The asset management approach incorporates the economic assessment of trade-offs between alternative investment options, both at the project level and at the network or system level, and uses this information to help make cost-effective investment decisions.

FISCAL IMPLICATIONS:

The House Fiscal Agency notes that to the extent House Bill 5396 requires the Department of Transportation to provide staff and technical assistance to support the asset management council, there would be an increase in state costs. Since the appropriation for those costs would come from the Michigan Transportation Fund (MTF), the amount of any cost increase would be passed on through a reduction in MTF revenue available to the State Trunkline Fund (35 percent of incremental MTF revenue), to local road agencies (55 percent of incremental MTF revenue) and to the Comprehensive Transportation Fund (10 percent of incremental MTF revenue).

In the long-term, the implementation of a statewide asset management process could result in more cost-effective transportation investment decisions by both state and local government. (11-29-01)

With regard to House Bill 5383, the House Fiscal Agency reports that the bill has no apparent fiscal impact on the state or local governments. (12-3-01)

ARGUMENTS:

For:

It makes sense to apply the principles of asset management—the systematic process of maintaining, upgrading, and operating physical assets cost-effectively—to the transportation infrastructure of this state. As the House Fiscal Agency notes, the transportation system, in particular, is well-suited for this decision-making approach for at least five reasons: completion of the interstate highway system a generation ago has shifted the focus of federal and state transportation agencies from construction and expansion to maintenance and preservation; the condition of the system requires ample funds for maintenance, repair or reconstruction in order to avoid obsolescence; state-level transportation resources are limited; citizens now demand more efficiency and accountability when government services are delivered; and, the information technology and advanced management systems are now available to enable asset management systems (which rely on computer databases and decision-modeling systems).

Against:

House Bill 5383 should be amended to ensure that local units of government such as towns, villages, and townships will not be required to pay more money for local road repair. Currently if local road repairs are designated as "maintenance," then local road commissions match the cost of the repair at 50 percent or more. Under this bill many of those services would fall out of the customary "maintenance" definition. Instead, those services would fall into a newly defined category of capital improvements that entails light construction—a category called "preventive maintenance"—that includes pavement crack sealing; micro surfacing; chip sealing; concrete joint resealing and repair; filling shallow pavement cracks; patching concrete; shoulder resurfacing; concrete diamond grinding; dowel bar retrofit; bituminous overlays of thickness less than 1½ inches; restoration of drainage; bridge crack sealing, joint repair, seismic retrofit, scour countermeasures, and bridge painting; pollution prevention; and, new treatments as they may be developed.

Opponents of this change in the definition note that local road agencies could withdraw their financial support for local road repair projects in this category, arguing that they are no longer properly understood as "maintenance." Further, they point out that some road agency employees (for example, those in Wayne

and Oakland counties) currently provide these services in-house, and they fear they might be prohibited from doing so, or from bidding to perform the services, since the money customarily set aside for “maintenance” could be differently restricted, and, consequently, earmarked for other categories of work. To preserve the current work arrangements for all employees in all road agencies, and to eliminate the possibility that the new definition is a move to further privatization of road work, those who would preserve the status quo argue that House Bill 5383 should be amended so that the new definition of “preventive maintenance” is included within the definition of “maintenance.”

Response:

County road agency employees are free to bid for work defined in the category “preventive maintenance.” House Bill 5383 was amended in committee to require governmental units to use the definitions of “maintenance” or “preventive maintenance” to describe their duties in contracts between the governmental unit and the department, a county road commission, a city, a village, or a township, for maintenance, preventive maintenance, or both.

However, the category “preventive maintenance” is a distinct category of services—sometimes called light construction services—and it should remain distinct from “routine maintenance” (performed regularly) and also from “reactive maintenance” (performed in response to uncontrollable events such as weather, vehicle accidents, or environment spills). Indeed, in order to put asset management programs in place at both the state and local levels of the transportation system, a uniform set of definitions must be used by all who work throughout the system. Without uniform definitions and a shared understanding of the concepts comprising the various categories of work, rigorous evaluation will be impossible.

Against:

One county road commission manager testified that House Bill 5383 should be amended to eliminate the restrictions on local spending that are described in section 12 subsection 16, which requires that at least 90 percent of the state revenue returned annually to the county road commission be expended for “maintenance” (or as proposed by the bill, be expended annually for “preservation”). [This subsection of the law is sometimes referred to as the Padden amendment, after the name of the representative who sponsored the legislative change in policy nearly 20 years ago.] Instead, the managing director of the road commission argues that county

road commissions generally should be allowed more discretion in how they expend their funds, and if necessary, they should be able to use more of their funds for new construction. Further, he argues that the authorization and reporting requirements under this subsection are unnecessarily onerous.

Response:

Those who favor the 90 percent requirement for maintenance argue that the ‘maintenance first’ policy is as logical today as it was when it was first adopted nearly two decades ago: constructing new roads is unwise if the existing road system deteriorates as a result. They argue that capacity expansion should be allowed, but that expansion should “come out of the 10 percent side.” They point out that while this requires policymakers to set priorities and delay a few projects, it is a very small price to pay for better roads all across the state. They ask: If we can’t afford to take care of the roads we have, why would we build more?

Reply:

House Bill 5383 retains the so-called Padden amendment; the 90 percent expenditure requirement for road maintenance or repair would continue under these proposed changes to the law. Although the bill inserts a new term, “preservation”, and removes the term “maintenance,” committee members amended the definition of “preservation” to clarify that “preservation” does not include new construction.

Response:

Although the committee members adopted an amendment to clarify that “preservation” does not include new construction, the list of nine services that are included in the definition of “preservation” includes one category called “any road or bridge project that is eligible for federal highway funds.” This category of services sometimes includes new construction.

POSITIONS:

The Department of Transportation supports the bills. (11-28-01)

The Michigan Road Builders Association supports the bills. (11-28-01)

The Michigan Townships Association supports the bills in concept. (11-28-01)

The Michigan Road Preservation Association (six light construction companies) supports the bills. (11-28-01)

The Michigan Environmental Council supports the bills. (11-28-01)

The Michigan Municipal League supports House Bill 5396 and would support House Bill 5383 with amendments. (11-28-01)

The Kalamazoo County Road Commission opposes House Bill 5383 without amendment. (11-28-01)

Wayne County supports House Bill 5396 conceptually and has House Bill 5383 under review. (11-28-01)

The American Federation of State, County and Municipal Employees-Council 25 opposes House Bill 5383 unless it is amended to include the definition of “preventive maintenance” within the definition of “maintenance.” (11-28-01)

Analyst: J. Hunault

■ This analysis was prepared by nonpartisan House staff for use by House members in their deliberations, and does not constitute an official statement of legislative intent.