

1 HB730
2 141107-1
3 By Representative McCutcheon
4 RFD: Transportation, Utilities and Infrastructure
5 First Read: 19-APR-12

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8 SYNOPSIS: Existing law does not require the Department
9 of Transportation to conduct a life-cycle cost
10 analysis for each major infrastructure project
11 prior to the Legislature appropriating funding.

12 This bill would make such requirement.

13
14 A BILL

15 TO BE ENTITLED

16 AN ACT

17
18 Relating to transportation; to require the
19 Department of Transportation to conduct a life-cycle cost
20 analysis for each major infrastructure project prior to the
21 Legislature appropriating funding.

22 BE IT ENACTED BY THE LEGISLATURE OF ALABAMA:

23 Section 1. As used in this act, the following terms
24 shall have the following meanings:

25 (1) ALTERNATE DESIGN/ALTERNATE BID (AD/AB). A
26 process under which a state agency determines from engineering
27 and economic analysis that at least two project designs,

1 utilizing different construction materials and methods and
2 their forecasted performance and life-cycle costs, are
3 comparable or similar enough to warrant solicitation of bids
4 for each material on a project.

5 (2) BASELINE STRATEGY. A set of defined maintenance
6 and rehabilitation strategies that describe the activities,
7 maintenance, user, reconstruction, rehabilitation,
8 restoration, resurfacing, etc., and timing, year that the
9 activities are performed, to maintain a given pavement type at
10 acceptable performance levels over the 50-year analysis
11 period.

12 (3) LIFE-CYCLE COST ANALYSIS (LCCA). A process for
13 evaluating the total economic worth of an infrastructure
14 project by analyzing initial construction costs as well as
15 discounted future costs of maintenance, user (as incurred by
16 the public [e.g., drivers, residents] as an aggregation of
17 three separate components: Vehicle Operating Costs (VOC),
18 Crash Costs, and User Delay Costs), reconstruction,
19 rehabilitation, restoring, and resurfacing costs over a
20 50-year period.

21 (4) MAJOR INFRASTRUCTURE PROJECT. Highway, transit,
22 rail, high-speed rail, airport, seaport, public housing,
23 energy, water, bridge, and military construction projects for
24 which the state's total cost estimate, including the cost of
25 materials, is not less than three million dollars
26 (\$3,000,000).

1 (5) MECHANISTIC-EMPIRICAL PAVEMENT DESIGN GUIDE

2 (MEPDG) AND THE DARWIN-ME DESIGN PROGRAM. The pavement design
3 guide and software developed under National Cooperative
4 Highway Research Program Project 1-37A and implemented by
5 American Association of State Highway and Transportation
6 Officials (AASHTO), providing a uniform basis for the design
7 of rigid, flexible, and composite pavements using
8 mechanistic-empirical models.

9 Section 2. (a) No later than six months after the
10 effective date of this act, the Department of Transportation
11 shall conduct a LCCA for each major infrastructure project
12 prior to obligating state funds. The life-cycle cost analysis
13 required by this act may be obtained from state government or
14 private sector entities and shall be conducted over a 50-year
15 analysis period. The department shall develop a baseline
16 strategy for each payment type based on the historical
17 performance of existing pavements. The department shall modify
18 the baseline strategies to take into account improvements in
19 design methods, specifications, and materials technology;
20 taking into consideration pavement performance of existing
21 pavements having similar design and use; or predicted
22 performance utilizing the AASHTO Mechanistic-Empirical
23 Pavement Guide/DARWin-ME design procedures. The LCCA shall use
24 actual material and maintenance cost data, including the use
25 of material-specific escalation rates to reflect changes in
26 relative commodity prices.

1 (b) No later than 12 months after the effective date
2 of this act, the department shall utilize the
3 Mechanistic-Empirical Pavement Design Guide (MEPDG) and its
4 companion software, DARWin-ME for the design of all highways
5 in major infrastructure projects.

6 (c) No later than 12 months after the effective date
7 of this act, the department shall utilize the Alternate
8 Design/Alternate Bid process for all major infrastructure
9 projects.

10 Section 3. This act shall become effective on the
11 first day of the third month following its passage and
12 approval by the Governor, or its otherwise becoming law.