CONCURRENCE IN SENATE AMENDMENTS
AB 978 (Hoover)
As Amended July 1, 2025
Majority vote

SUMMARY

Updates existing requirements for local agencies' use of recycled materials in streets and highways.

Senate Amendments
1) Allows a person bidding on a contract to supply recycled materials subject to specifications, to request the local agency provide a reason for determination via email correspondence.

COMMENTS

In California, there are approximately 350,000 miles of roads, 87% of which local governments such as cities and counties operate and maintain. Extensive design, engineering, and analysis goes into determining which types of materials to use in pavement. In 2017, Caltrans projects used more than one million cubic yards of concrete, which involved approximately 325,000 tons of Portland cement, more than four million tons of hot mix asphalt, and one million cubic yard of aggregate.

According to Caltrans' 2015 Concrete Pavement Guide, factors that contribute to optimum pavement use and design include: climatic effects, applied traffic loads, and subgrade quality. This means temperature, precipitation, freeze-thaw cycles, accurate estimations of traffic flow, and uniform support from underlying structural layers of the road are among the pillars of reliable pavement use and design. The quality of materials determine layer thickness and capacity. Accurate characterization of each pavement structure layer's condition and structural capacity is critical to design and performance, especially when it comes to maintenance and rehabilitation strategies. Cracking, erosion, poor durability, curling, and warping can occur on pavement without the correct materials and design.

Caltrans maintains the Pavement Standard Plans and Specifications (PSPS), which are documents that implement the standards, policies, and best practices for pavements on California highways. PSPS contain the standard requirements for bidding, constructing, and administering Caltrans' contracts. Caltrans' Pavement Program also maintains non-standard plans and specifications (NSSPs) for special circumstances.

This bill requires cities and counties, as specified, and when feasible and cost effective, to adhere to certain PSPS specifications for recycled construction materials in road base, pavement, and minor concrete applications when designing and maintaining pavement.

Recycled materials in pavement: According to the Department of Resources Recycling and Recovery construction and demolition materials make up approximately 29% of California's disposed waste stream, or approximately 11.6 million tons. Asphalt and concrete represent over 977,000 tons of disposal, or around 2.4%. This material, produced through road rehabilitation, maintenance, and demolition, is itself a source of recycled aggregate that can serve as new road base and subbase, the weight-bearing foundations of a road.

Aggregate consists of hard, graduated fragments of inert mineral materials, including sand, gravel, crushed stone, slag, rock dust, or powder; inert solid waste is concrete, asphalt, dirt, brick, and other rubble. Recycled aggregate is produced by crushing concrete, and sometimes asphalt, to reclaim the aggregate. Asphalt refers to the bituminous substance used to bind aggregate together to make asphalt concrete (AC). RAP is used AC pavement that has been processed. Recycled asphalt concrete is the product of mixing RAP with new aggregates, asphalt and/or recycling agent. A recycling agent is used to soften and rejuvenate the existing asphalt pavement.

According to Caltrans' Greenhouse Gas (GHG) Emissions and Mitigation Report 2020, the most promising additional GHG reduction opportunity for Caltrans for asphalt pavements appears to be a greater use of RAP. For concrete pavements, the greatest additional GHG reduction opportunity appears to be greater use of supplemental cementitious materials. However, the net effect of different pavement options is complex and often dependent on the project context. For example, RAP may not be advantageous if the recycled material is not locally sourced.

The National Asphalt Paving Association notes that use of RAP reduced carbon dioxide (CO_2) emissions by 2.4 million metric tons in 2019 nationwide. The National Center for Asphalt Technology reports that RAP at 25% of the asphalt mix reduces CO_2 emissions by 10-11%, and RAP at 40% reduces CO_2 emissions by 16-18%, compared to use of virgin materials. A U.S. EPA study on asphalt shingles in pavement found a 6-14% reduction of CO_2, when reclaimed asphalt shingles are added to an asphalt mix, depending on different proportions. A study conducted by Climate Earth on the Environmental Impacts of Recycled Plastic Concrete shows that recycling plastic concrete results in a 15.3% reduction in carbon footprint and 16.2% reduction in embodied energy.

Locals and recycled pavement: SB 1 (Beall), Chapter 5, Statutes of 2017 provides additional funding to address deferred maintenance on the state highway system and local streets and roads. Caltrans and cities and counties are encouraged to use advanced technologies and material recycling techniques where possible and cost effective when maintaining and rehabilitating the streets and highways with monies from the RMRA.

According to the 2023 California Statewide Local Streets and Roads Needs Assessment, sponsored by the League of California Cities, California State Association of Counties, Regional Transportation Planning Agencies, and the Rural Counties Task Force, the impact of sustainable paving technologies such as cold-in-place recycling have construction cost savings of 28% compared to conventional treatments and as much as 26% savings for full-depth reclamation. Since 2012, the number of agencies that employ some form of recycling has more than doubled, and this trend is expected to continue.

This bill maintains and extends existing requirements for locals to use the minimum state standards for recycled material, to the extent feasible and cost effective. If these standards cannot be met, this bill requires the local agency to provide an explanation, upon request.

According to the Author
"As California continues to adopt sustainable and cost-saving practices, we must encourage local agencies to do the same. Technological advances with reclaimed (recycled) asphalt pavement (RAP) offer us the opportunity to produce cost-effective and reliable roads. Public and private roadwork jobs use recycled materials with notable success. AB 978 brings local agencies in line with state and national trends as we pursue progress in sustainability."

Arguments in Support
Granite Construction writes, "Granite Construction is pleased to Sponsor and "support" AB 978 by Assemblymember Hoover, which builds on existing law and would require a local agency that has jurisdiction over a street or highway to allow for the use of recycled materials in road paving projects. It does not require the agency to use these recycled materials; it merely limits the agency's ability to reject a bid that proposes to use recycled materials."

Arguments in Opposition
None on file.

FISCAL COMMENTS

According to the Senate Committee on Appropriations:

"Negligible state costs pursuant to Senate Rule 28.8"

VOTES:

ASM TRANSPORTATION: 16-0-0
YES: Wilson, Davies, Aguiar-Curry, Ahrens, Carrillo, Harabedian, Hart, Hoover, Jackson, Lackey, Lowenthal, Macedo, Papan, Ransom, Rogers, Ward

ASM APPROPRIATIONS: 14-0-1
YES: Wicks, Sanchez, Arambula, Calderon, Caloza, Dixon, Elhawary, Fong, Mark González, Hart, Pacheco, Solache, Ta, Alanis
ABS, ABST OR NV: Pellerin

ASSEMBLY FLOOR: 69-0-10
YES: Addis, Aguiar-Curry, Ahrens, Alanis, Alvarez, Ávila Farías, Bains, Bauer-Kahan, Bennett, Berman, Bonta, Bryan, Calderon, Caloza, Castillo, Chen, Connolly, Davies, DeMaio, Dixon, Elhawary, Ellis, Fong, Gabriel, Garcia, Gipson, Mark González, Hadwick, Haney, Harabedian, Hart, Hoover, Jackson, Kalra, Krell, Lackey, Lee, Lowenthal, Macedo, McKinnor, Muratsuchi, Nguyen, Ortega, Pacheco, Papan, Patel, Patterson, Pellerin, Petrie-Norris, Quirk-Silva, Ramos, Ransom, Michelle Rodriguez, Rogers, Blanca Rubio, Schiavo, Schultz, Sharp-Collins, Solache, Soria, Stefani, Ta, Tangipa, Valencia, Ward, Wicks, Wilson, Zbur, Rivas
ABS, ABST OR NV: Arambula, Boerner, Carrillo, Flora, Gallagher, Jeff Gonzalez, Irwin, Celeste Rodriguez, Sanchez, Wallis

UPDATED

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