

ARTBA Proprietary Products Task Force Findings and Recommendations

Background

Deploying innovation, technology and process improvements to deliver transportation projects in a safer, less costly, and faster manner has been a major U.S. Department of Transportation priority for more than 20 years. The Bush Administration initiated its Highways for LIFE Program in 2004 to “Creat[e] a culture within the highway community that invites innovation and rapidly adopts new practices...to get things done better, faster, safer and cheaper.” The Obama Administration launched Every Day Counts (EDC) in 2010 “to identify and rapidly deploy proven but underutilized innovations to shorten the project delivery process, enhance roadway safety, reduce congestion and improve environmental sustainability.”

In contrast to these well intentioned and meaningful efforts, a decades-old regulation (23 CFR 635.411) prohibiting the expenditure of federal highway funds on proprietary products remains a fixture of Federal Highway Administration (FHWA) policy. Since many new technologies — particularly those that mark a significant advance in quality, performance, or durability — incorporate intellectual property protected by patents or proprietary processes, 23 CFR 635.411 inevitably impedes the development and deployment of those same innovations that various Congressional and USDOT/FHWA initiatives are intended to foster.

The regulation does provide several avenues for limited exceptions to the general prohibition and the FHWA issued guidance to its division administrators in 2011 confirming these opportunities to use patented or proprietary products on federal-aid projects. Unfortunately, a number of logistical and human factors stemming from this regulation continue to unnecessarily obstruct product innovations that could enhance the safety and efficiency of the U.S. surface transportation network.

Impediments to Innovation

Inconsistent Application among the States

One of the biggest hurdles with the implementation of 23 CFR 635.411 is that states can have different processes in terms of utilizing the exceptions under the rule. For example, some states may require a moderate level of documentation to analyze a Public Interest Finding, others may require much more. Furthermore, the FHWA has encouraged the use of proprietary products through EDC, such as Ultra-High Performance Concrete, but some FHWA regional offices still insist a Public Interest Finding is necessary to deploy this product. These inconsistencies and the perceived resistance at both the state and federal level to utilizing

proprietary products suggests the need for a cultural awareness of the benefits of pursuing innovations as opposed to a focus on process impediments.

State Resistance to Initiate Public Interest Findings

States may petition an FHWA Division Administrator for an approval that it is in the public interest to allow the contracting agency to require the use of a specific material or product even though other equally acceptable materials or products are available. Unfortunately, many states are reluctant to initiate such a process due to concerns about personnel time and increased cost. Unwillingness to seek out improvements to the status quo can deny the public needed improvements in roadway safety and more durable transportation infrastructure facilities.

The Fallacy of Competition

23 CFR 635.411 is predicated on preserving competition, but ensuring a level playing field should not lead to pursuit of the lowest common denominator or glorification of the status quo. Inhibiting the opportunity for innovation on federal-aid highway and bridge construction projects ultimately serves to squelch competition and favors protection. Further, it is contradictory to the very intent of the patent system as defined in Article 1, Section 8, of the United States Constitution, which states:

“The Congress shall have Power...To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”

The goal of any true commercial competition should be to identify a product, process or service that is the best. If a patented or proprietary product is not better than its competition or its cost outweighs its benefits, it will not be rewarded in the marketplace. However, this determination should be made through competition—not regulation.

The Benefits of Patented Products

Patents or proprietary products can bring about innovation, opportunity and competition. As noted in a recent joint report from the Economic and Statistics Administration and the U.S. Patent and Trademark Office (attached): “Innovation protected by IP rights is key to creating new jobs and growing exports. Innovation has a positive pervasive effect on the entire economy, and its benefits flow both upstream and downstream to every sector of the U.S. economy.” Furthermore, the report notes the following significant points about the impact that Intellectual Property (IP) has on the overall economy:

- By focusing on relevant data and various statistical measures, this report identified 75 industries (from among 313 total) as IP-intensive. These IP-intensive industries directly accounted for 27.1 million American jobs, or 18.8 percent of all employment in the economy, in 2010.
- IP-intensive industries accounted for about \$5.06 trillion in value added, or 34.8 percent of U.S. gross domestic product (GDP), in 2010.

It is also important to point out that when a state outright disallows a patented or proprietary product, they may be preventing a transformative solution to a serious problem from taking place in a timely manner. For example, every great paradigm shift in the bridge world originated from a patented idea or “Intellectual Property” (IP), generally marketed as a proprietary product.” 23 CFR 635.411, and its current implementation, prohibits innovation and agencies may be forced to settle for products that perform marginally at best which is absolutely contrary to public expectations, the safety and efficiency needs of the U.S. surface transportation network and the goals of the U.S. IP system .

Recommendations

Include Proprietary Products as Part of Every Day Counts (EDC) Program

Given the stated goal of the EDC Program, deployment of innovations from proprietary products should be a natural priority of this initiative. Unfortunately, FHWA has explicitly stated proprietary technologies – regardless of their merit – will not be included in the upcoming round of EDC initiatives (“EDC-4”) now being finalized. We believe this policy unduly narrows the field of potential technologies that would further the objectives of this important program. Further, we believe including an initiative called “Implementation of Proprietary Products” under the EDC-4 – or the following EDC – umbrella could provide owner agencies a better insight into changes in the regulations and to better educate/inform them that private industry has and continues to provide innovative and effective solutions. This would also harmonize the EDC program with the agency’s guidance on proprietary products issues in 2011, a key purpose of which was to “clarif[y] that additional approvals are not required when proprietary products are being evaluated in FHWA-sponsored programs such as Highways for LIFE, the Innovative Bridge Research and Deployment Program, and the Innovative Pavement Research and Deployment Program.”

Publicize a Proprietary Products Best Practices

A number of states have demonstrated the value of utilizing proprietary products. Each state is a laboratory for others seeking new and better ways to address unique and growing transportation challenges. As such, the proprietary product successes in one state can and

should serve as a guide for others to follow. The FHWA should seek to highlight through conferences, publications, and on-line tools how different states are deploying innovations from proprietary products to deliver transportation improvements. FHWA issued guidance in 2011 “provides for the Internet posting of FHWA's approval of public interest findings on FHWA's website and encourages the posting of State DOT certifications on the AASHTO Product Evaluation List (APEL) website.” FHWA may very well be doing this, but it is not easily searchable or well known to the industry.

Link APEL and National Public Interest Finding

Albeit limited, there is also a precedence set by FHWA for a “National Public Interest Finding (PIF)” for technologies that which precludes the need for individual states to seek out a PIF specific to a project. In lieu of an actual certification of a product by FHWA, an opportunity exists to utilize the APEL not only as a database for products that have been successfully evaluated, but also to establish a compilation of technologies that could be categorized as satisfying a national PIF. In this context, one alternative would be to consider that if a product listed on the APEL has been successfully deployed in five independent states, then it would automatically qualify as having a national PIF and states would not have to process any additional paperwork to be compliant with 23 CFR 635.411 in order to specify the product.

Reform/Repeal 23 CFR 635.411

There must be a middle ground between preventing unfair or illegal contracting practices and allowing new technologies, practices and products to be utilized in federal-aid highway and bridge construction. Right now, however, the current regulation errs heavily on preserving a one-sided definition of competition. Ideally 23 CFR 635.411 should be repealed and states should be given the flexibility to decide whether or not to use proprietary products on federal-aid eligible projects. Alternatively, FHWA should consult with other federal agencies (Department of Defense and NASA) to determine how they strike a balance between ensuring competition while taking full advantage of innovations.

For example, a 2014 U.S. Government Accountability Office report found in FY 2013 the Department of Defense awarded contracts for about \$308 billion for products and service, of which 43 percent was awarded without competition through a process known as “class justifications” that detail in writing the exception to full and open competition. According to the report, “About 90 percent (59 of 65) of the class justifications in our sample cited only one responsible source as the exception to competition, generally because the contractor’s ownership of proprietary technical data or expertise prevented the ability to compete for the contract.”

One possibility is to add an additional provision as an amendment to 23 CFR 645.411 that qualifies a proprietary technology for a “National Public Interest Finding” as long as it has been successfully deployed on a federal-aid project in at least five independent states.

Another possibility is to create an innovation partnership between FHWA and private industry for the development and certification of new technologies. Companies would still be required to provide the initial proof of concept, that which includes compliance with the design criteria of existing codes to ensure public safety. Federal research dollars that are typically channeled through the Transportation Research Board (TRB) and Turner Fairbanks could be allocated for independent third party validation by either a university or FHWA research staff, resulting in a certification from FHWA. This certification could be added as a fourth caveat for compliance with 23 CFR 635.411. This would create an incentive for companies to invest in product development by removing the barrier to deployment on federally funded projects. It may also serve as a more efficient utilization of federal research funds to promote innovation by leveraging investment by industry rather than just providing problem statements for academia and hoping for a successful solution.