

LAPM-Friendly Options for Procuring Materials and Equipment at the Best Cost

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Abstract

The paper discusses Moreno Valley's experience with separating material and installation by competitively bidding certain materials and supplying them to the contractor, who is in turn selected through competitive bidding. The method is referenced to the Caltrans Local Assistance Procedures Manual. Advantages and disadvantages of the procurement method are discussed.

Case Study

Some readers may have been in this situation: A grant-funded project with specific scope of work is bid for construction, and all bids are over budget and over the engineer's cost estimate. Project delivery is delayed while additional funds are located and/or bids are rejected and the project is re-bid after changes are made to the bid documents to assure on-budget delivery. This is the situation Moreno Valley found itself in when it needed to deliver an HSIP-funded safety improvement to install emergency vehicle pre-emption equipment at more than 100 intersections.

The project was bid three times. The first time, the bid was pulled before bid opening due to a protest by an excluded vendor. The second time, bids were over budget by a sizable margin due to a spec that had been tailored to allow only one product. The third time, the project was delivered under budget by approximately the same margin that the project had been over budget. The only difference between the second and third attempts to bid the project was the introduction of competition into the equipment bid. This experience has subsequently been replicated several times, all on federal-aid work and all compliant with the Local Assistance Procedures Manual.

The project in question, which was part of HSIP Cycle 2, required purchase and installation of optical emergency vehicle pre-emption equipment for 117 intersections. An inquiry was made regarding why the equipment was being sole-sourced in the procurement documents. It was indicated that the other products available on the market at the time were considered of inferior quality and lacking necessary features. An outreach was conducted to product manufacturers. Of the three products available, one was suitable, one was potentially suitable, and one was inferior.

It was noted that the LAPM allows agency-furnished equipment, and if the equipment is competitively sourced, no Public Interest Finding (PIF) is required. A PIF serves to document the benefit to the public of deviating from procurement regulations. At the time, the applicable procurement regulations required that grant-funded projects not be spent on any particular patented product. This requirement is generally satisfied by allowing at least three manufacturers to bid. Because agency-furnished equipment that was competitively procured is considered to be in the public interest, this approach is allowed for federally funded projects by the LAPM.

A framework for successfully completing the project while complying with all regulations was emerging: Bid the equipment using a carefully prepared specification, then supply the equipment to the contractor.

The specification needed to precisely establish the requirements that a suitable product would meet. A user and functional requirements document was prepared for internal review and comment, and was then shared with the three vendors. All three vendors indicated they could satisfy the requirements therein. It was important to the City that the products be demonstrated to be suitable, so a pre-award testing program was agreed to (specifically, the details of the proposed testing program were shared with the vendors for review and comment). By conducting a pre-award test, the City could be assured the suitability of the product before purchase, thus avoiding potential disputes with the vendor in construction. The testing program also served to assure all vendors that they were being considered exclusively on the suitability of their product (that is, the playing field was level). The City was prepared to award the material purchase to whichever vendor had the best price for product that was found to be suitable through pre-award testing.

The product bidding documents, then, consisted of a requirements document, a testing program, and administrative items such as delivery and payment. The specification was bid and all three vendors submitted bids, all of which were well under budget. The lowest bid received was associated with the least suitable product. This product was tested first, with the vendor present and participating. The product did not pass the test and the vendor agreed that under the terms of the procurement bid, his product was excluded.

The second lowest bid was associated with the product that was considered potentially suitable. The pre-award test was scheduled and conducted, and the product did not pass the test. This vendor also agreed that under the terms of the procurement bid, the product would be excluded. The City then procured the product that had originally been intended, with no protest from the other vendors.

The outcome of the material bid was successful in at least the following aspects:

- Suitable equipment was procured.

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- The pricing on the equipment procured was excellent due to the competitive nature of the bid.
- All three vendors were treated equally, with the product's suitability being the only basis for exclusion.

Once the equipment had been procured and was on order, the remaining work entailed bidding the installation labor and incidental materials competitively as per the Public Contract Code, with the only difference being that the work was described as installation of City-furnished equipment. The bid was awarded to the lowest bidder and was duly completed. The project was delivered under budget due in largest part to the innovative procurement method used.

Subsequent Experience

The two-step procurement method has subsequently been used to purchase traffic signal control equipment and video detection equipment. In all cases, pricing has been substantially better than expected. So long as at least two vendors are actively interested, and so long as the agency is prepared to accept any product so allowed by the material bid (including pre-award testing if necessary), the project will generally be delivered at the best possible cost; which is in the public's interest.

Segregating the material procurement from the installation also tends to improve the construction bids received, since there is no muddying of the waters by requiring contractors to negotiate their own best pricing for the allowed materials. The outcome tends to be best product at best price, followed by best contractor at best price.

Recommendations/Applicability

The two-step project delivery method described herein is primarily applicable to projects that have a substantial material component that can be purchased directly. It is therefore not suitable for typical road work where the agency is contracting for material to be manipulated by the contractor; but that type of work is already highly competitive. It is also probably not suitable for bulky and/or commodity items such as storm drain pipe, which would be difficult to stockpile. It is, however, highly suitable for Intelligent Transportation Systems since the products are highly differentiated, expensive, and compact.

Agencies considering this approach should promptly bid the materials upon receipt of authorization to proceed with construction (E-76) because the material bid requires several months to complete, and the installation bid must follow (because the product to be installed should be known). Delays in the two-step bidding process put the project at risk of being placed on the inactive list, because the first construction-stage invoice must be

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accompanied by the award package, and the award package requires the date of the preconstruction meeting to be shown therein; so the construction contract must be awarded and signed before any invoice can be submitted.

About the Author

John Kerenyi is a registered Traffic Engineer and Electrical Engineer with experience in planning, design, and operations of traffic engineering and ITS in both the private and public sectors. He has been delivering Local Assistance projects for the City of Moreno Valley since 2012 and has been employed with Moreno Valley since 2006.