
Office of Inspector General

Audit Report

FHWA'S FEDERAL LANDS HIGHWAY PROGRAM LACKS ADEQUATE PROCESSES FOR THOROUGHLY EVALUATING CONTRACT BID PRICES

*Federal Highway Administration
Office of Federal Lands Highway*

Report Number: ZA-2015-002

Date Issued: October 9, 2014





Memorandum

U.S. Department of
Transportation

Office of the Secretary
of Transportation
Office of Inspector General

Subject: **ACTION:** FHWA's Federal Lands Highway
Program Lacks Adequate Processes for
Thoroughly Evaluating Contract Bid Prices
Federal Highway Administration
Report No. ZA-2015-002

Date: October 9, 2014

From: Mary Kay Langan-Feirson 
Assistant Inspector General for Acquisition and
Procurement Audits

Reply to
Attn. of: JA-60

To: Federal Highway Administrator

The Federal Highway Administration (FHWA) is responsible for all Federal highway programs. Its Office of Federal Lands Highway (FLH) provides resources and technical assistance for public roads on Federal and tribal lands. FLH relies mainly on sealed bid contracting¹ to award contracts for its road projects. Between October 2012 and September 2013, FLH awarded \$305 million in fixed-price contracts—53 percent of FHWA's total fixed-price contracts.

Under the Federal Acquisition Regulation (FAR) provisions for sealed bidding, contracting officers must determine whether offered prices are fair and reasonable prior to awarding contracts,² and may reject bids if they determine that either total bid prices or line item prices are unreasonable.³ Also, while intended for use by State transportation agencies, FHWA and the American Association of State Highway and Transportation Officials' (AASHTO)⁴ have established guidance that provides best practices for evaluating bid prices (see tables 1 and 2). Both FHWA's and AASHTO's guidance call for establishing written bid review

¹ Per the FAR, sealed bidding is a competitive contracting method in which agencies evaluate submitted bids without discussion. Contracts resulting from sealed bidding are fixed price contracts.

² Per FAR 14.408-2, in each case, the determination shall be made in the light of all prevailing circumstances. Contracting officers must also determine if prospective contractors are responsible—meaning qualified, capable, and eligible for performing the contract, and if submitted bids are responsive—meaning the bids comply in all material respects with the solicitation, to be considered for award. (FAR 9.104-1 and 14.301(a))

³ FAR 14.404-2.

⁴ AASHTO is a nonprofit, nonpartisan association that serves as a liaison between State departments of transportation and the Federal Government. It sets technical standards for all phases of highway system development, including design and construction.

procedures and conducting thorough bid evaluations to help determine whether to award the contract or reject the bids.

Price reasonableness determinations provide agency contracting personnel with information for evaluating bid proposals and promoting competition for Federal contracts. Given the importance of price reasonableness and FLH's sizeable contract awards, our objective for this self-initiated audit was to determine whether FHWA's policies, procedures, and practices meet Federal requirements for ensuring price reasonableness for FLH's fixed price contracts.

We conducted this audit between April 2013 and August 2014 in accordance with generally accepted Government auditing standards. To conduct our work, we assessed FLH's compliance with Federal regulations to ensure price reasonableness in awarding fixed price contracts under sealed bidding, including its procedures and practices for evaluating bids. Specifically, we reviewed Federal requirements, FHWA's policies and procedures, and best practices. From a universe of 37 contract files, we analyzed 13 randomly selected contract files and interviewed FHWA and FLH personnel. We conducted our work in Washington, DC, and FLH's Division Offices. See exhibit A for further details on our scope and methodology.

RESULTS IN BRIEF

FHWA lacks adequate procedures and practices to ensure that contracting personnel thoroughly evaluate bid prices for FLH's contracts. Such evaluations may be needed to meet FAR requirements, even when multiple competitive bids are received for a contract, if there is evidence that the price of the otherwise successful bidder is unreasonable. FHWA received multiple bids for all 13 of the FLH contracts we reviewed—12 contracts had 3 or more bidders; and on average the sample had nearly 7 bidders per contract. However, for all 13 contracts we reviewed, the winning low bids⁵ differed from the agency estimates—also known as the engineer's estimates⁶—by as much as 20 percent above the estimate to as low as 39 percent below. Under the FAR, contracting officers must determine whether bid prices are reasonable, and may use various techniques to evaluate bids. FHWA's and AASHTO's guidance call for establishing written procedures for determining whether to award contracts or re-advertise projects,⁷ and conducting thorough bid evaluations when low bids differ significantly from agency estimates. FLH does not have bid evaluation procedures to assist its

⁵ The lowest bid price offered for a contract during a sealed bid competition, from a bidder that is determined to be both responsive and responsible.

⁶ The engineer's estimate (1) reflects the amount that the agency considers fair and reasonable and is willing to pay; (2) serves as a benchmark for analyzing bids; and (3) should provide sufficient detail to permit an effective review and comparison of bids.

⁷ Re-advertising involves rejecting submitted bids and re-competing the project.

Divisions' contracting personnel in making contract award decisions. In the absence of policies and procedures from FLH, the Agency's three Divisions use informal practices for determining when and how to conduct bid evaluations. However, we found that the Divisions' approaches did not ensure that bids were thoroughly analyzed when determining price reasonableness. For example, one contract was awarded at a winning bid price 20 percent higher than the agency estimate, but we found no evidence that personnel conducted bid evaluations.

We are making recommendations to assist FHWA in ensuring that FLH contracting personnel thoroughly evaluate bid prices for FLH's fixed price contracts.

BACKGROUND

FHWA supports State and local governments in the design, construction, and maintenance of the Nation's highways through its Federal Aid Highway Program,⁸ and provides support for public roads on Federal and tribal lands through FLH. FLH reports to FHWA's Administrator and consists of a Headquarters Office and three Division Offices—Eastern Federal Lands, Central Federal Lands, and Western Federal Lands.

The FAR calls for agencies to ensure they acquire supplies and services at fair and reasonable prices. Under the FAR's provisions on sealed bidding, contracting officers may use various price analysis techniques⁹ to determine whether bid prices are fair and reasonable,¹⁰ including adequate price competition.¹¹

FHWA has established contracting guidance¹² for State transportation agencies under its Federal-aid Highway Program. In a prior audit, we highlighted FHWA's guidelines on evaluating bids to determine whether to award a contract or reject bids.¹³ These guidelines recommend conducting thorough analyses prior to making award decisions. See table 1 for more examples of FHWA's recommended practices.

⁸ FHWA is responsible for overseeing State transportation agencies use of Federal-aid funds and providing assurance that funds are expended in a manner consistent with applicable Federal laws and regulations. Under the Federal-aid Highway Program, State transportation agencies use both Federal and State or local funds to contract with vendors to build intra-State roads and bridges.

⁹ Price analysis employs evaluation techniques to examine proposed prices without evaluating their separate cost elements and proposed profit.

¹⁰ FAR 15.404-1(b)(2) as incorporated under FAR 14.408-2(a).

¹¹ Per FAR 15.403-1(c)(1), as incorporated under FAR 14.408-2 and 15.404-1, a price is based on adequate competition if (1) two or more bids are received; (2) the award is made to the offeror whose proposal represents the best value (see FAR 2.101) when price is a substantial factor in source selection; and (3) there is no finding that the price of the otherwise successful offeror is unreasonable.

¹² *FHWA Guidance: Contract Administration Core Curriculum Participant's Manual and Reference Guide*, 2006; *Guidelines on Preparing Engineer's Estimate, Bid Reviews, and Evaluation*, 2004.

¹³ *Lessons Learned from ARRA: Improved FHWA Oversight Can Enhance States' Use of Federal-Aid Funds*, OIG Report Number ZA-2012-084, April 5, 2012. OIG's reports are available at www.oig.dot.gov.

Table 1: Examples of FHWA’s Recommended Practices for Conducting Bid Reviews under the Federal-aid Program

Topic	Recommended Practice
Bid reviews	Consider factors such as comparisons of total bids and unit bid prices, the distribution or range of bids, and the urgency of the project.
Agency estimates	Test the accuracy of agency estimates over time. Generally, the agency estimate should be within plus or minus 10 percent of low bids for at least 50 percent of the projects awarded over a given time period.
Unbalanced unit bid prices ^a	Ensure that bids have not been materially unbalanced in order to take advantage of errors in the plans or specifications, which may also occur on lump-sum items.
General guidelines	Develop general guidelines for determining whether to award the contract or to reject all bids. These guidelines should be tied to the size and scope of the project.

Source: FHWA, *Guidelines on Preparing Engineer’s Estimate, Bid Reviews and Evaluation*, 2004.

^a FHWA’s Guidelines do not provide a definition for unbalanced bid prices. According to the FAR, however, unbalanced pricing exists when, despite an acceptable total price, the price of one or more contract line item is determined by price analysis to be significantly over or understated. The FAR also states that the Government shall analyze all offers with separately priced line items to determine if the prices are balanced. If price analysis indicates that a bid is unbalanced, the Government shall consider whether awarding the contract will result in paying unreasonably high prices and may reject the bid if the lack of balance poses an unacceptable risk. (FAR 15.404-1(g))

AASHTO’s *Practical Guide to Estimating* sets guidance for evaluating bids—including risk indicators, as seen in table 2.

Table 2: AASHTO’s Examples of Risk Indicators To Look for during Bid Price Evaluation

Risk Factor	May Indicate	That May Lead To
Extremely low prices from one bidder while the average of other bids is near agency estimate	A problem with the quality of the bid documents, such as a specification error.	Future change orders that raise total cost significantly.
Low bids typically more than 10 percent higher than agency estimate	A shift in market prices, such as changing commodity prices, or factors that were not accounted for in the agency estimate, such as previously unidentified permit requirements.	Insufficient funding budgeted for project completion.
Low bids typically more than 15 percent lower than agency estimate	A flaw in the project documents, such as insufficient or missing pay items.	Future change orders that raise total cost significantly.

Source: AASHTO’s *Guide to Cost Estimating*, 2011.

See exhibit B for an overview of the process for determining price reasonableness under sealed bidding and FHWA’s suggested factors for consideration in bid evaluations.

FHWA’S FEDERAL LANDS HIGHWAY PROGRAM LACKS ADEQUATE PROCESSES FOR MEETING REGULATIONS AND BEST PRACTICES ON THOROUGHLY EVALUATING CONTRACT BID PRICES

FHWA does not have adequate policies and procedures for evaluating bid prices for FLH’s contracts. In the absence of policy from FHWA, FLH has not established bid evaluation policies and procedures for its Division Offices. As a result, the Division Offices use informal practices that do not reflect best practices for ensuring that bids are thoroughly evaluated prior to making award decisions.

FHWA has established sealed bid contracting guidance—which AASHTO cites as part of its suggested practices—under its Federal-aid Highway Program, but it has not done so for its FLH program. The guidance from FHWA and AASHTO provide best practices for bid evaluations and decisions to award contracts or reject bids. FLH has neither adopted this guidance nor developed policies or procedures of its own. FLH personnel stated that FHWA’s Federal-aid Program guidance for bid evaluations and contract awards does not apply to FLH because per the FAR they are to award contracts to the lowest bidders.

However, though the FAR calls for awarding contracts to the low-bidder, the FAR also includes requirements detailing when bids may be rejected and when adequate price competition may not provide sufficient evidence for price reasonableness. Specifically, the FAR states that:

- Individual bids may be rejected if the contracting officer determines the bid price is unreasonable;¹⁴
- All bids may be rejected and the competition cancelled if the agency head determines all bids are unreasonable;¹⁵ and
- Adequate price competition normally establishes price reasonableness when there are at least two bidders and if there is no evidence that the price of the otherwise successful bidder is unreasonable.¹⁶

Moreover, FHWA and AASHTO guidance support the need to thoroughly evaluate bids prior to award and suggest that agencies reject unreasonable bids. Specifically:

- Both FHWA's and AASHTO's guidance recommend that agencies (1) follow written procedures to determine whether to award a contract or re-advertise the project; and (2) conduct thorough evaluations—including bids that are lower than agency estimates—to examine factors such as numbers of bids received,¹⁷ comparisons of bids to agency estimates,¹⁸ and distributions—or ranges—of bid prices.
- Per AASHTO's guidance, bids that differ significantly from agency estimates must be carefully evaluated before award decisions are made because they may indicate problems with the competition, possible bid rigging or collusion, changes in market conditions, issues with bidding documents, or result in final project costs that are higher than original award prices (see table 2).

FLH obtained at least two competitive bids on each of the 13 contracts we reviewed—12 contracts had more than 3 bidders and on average, the sample had nearly 7 bidders per contract. However, the bids also contained variations that could pose risks to the Agency's obtaining reasonable prices according to FHWA's and AASHTO's guidance. As seen in table 3, for all 13 contracts, there were variations between the winning bids and the agency estimates from as much

¹⁴ FAR 14.404-2.

¹⁵ FAR 14.404-1.

¹⁶ See FAR 2.101, 15.403, and 15.404, as incorporated under FAR 14.408.

¹⁷ According to FHWA's guidance, while the number of bids received is a measure of bidder interest, the number alone does not indicate the degree of competition.

¹⁸ Per AASHTO's guidance, the comparison of low bids to agency estimates should not be used as the sole criteria for award decisions but as a possible indicator that prices may be unreasonable and that thorough analysis should be performed.

as 20 percent above the agency estimate to as low as 39 percent below the agency estimate.

Table 3: Differences Between Agency Estimates and Bid Prices for FLH's Contracts

OIG contract sample #	FLH division	# of bids	Percent difference between agency estimate and winning bid**	Percent difference between winning bid and average of all other bids***
1	Eastern	5	10.50	-38.36
2	Eastern	2	19.47	-14.76
3	Eastern	6	11.91	-17.93
4	Eastern	7*	-19.88	-25.53
5	Central	15	-14.77	-26.46
6	Central	9	-39.25	-24.32
7	Central	6	-21.48	-29.16
8	Central	7	-28.37	-25.28
9	Western	7	20.29	-19.68
10	Western	7	6.84	-28.62
11	Western	5	-22.77	-23.69
12	Western	4	4.54	-35.78
13	Western	9	-15.30	-17.82

Source: OIG analysis of bid tabulation data from FLH.

*This contract was re-advertised.

**Positive numbers reflect percentages by which a winning bid exceeded agency estimates, while negative numbers reflect percentages by which winning bids fell below agency estimates.

*** Positive numbers reflects the percentage by which a winning bid exceeded the average of all other bids, while a negative number reflects the percentage by which a winning bid fell below the average of all other bids.

FLH personnel told us that additional analysis was not warranted when bids fall into a normal distribution.¹⁹ However, even when bids are normally distributed, per AASHTO's guidance, analyzing the distribution between bidders is important. Large deviations among bids or between bids and agency estimates signal a need for agencies to identify and examine contributing factors. For example, under AASHTO's guidance, a low bid more than 15 percent *lower* than the agency estimate may signal flawed project documents that could result in costly change orders in the future. Among the 13 contracts we reviewed, we found the following two contracts that FLH modified due to errors the Agency made in its solicitation documents:

¹⁹ Normal distribution indicates data points on a "bell curve" grouped around a central value with no bias to either extreme.

- One contract was awarded to a vendor whose bid was about 30 percent below the agency estimate. In the solicitation documents, Agency staff erroneously used cubic feet instead of cubic yards as the unit of measurement for fill material. As a result, FLH had to modify the contract to add 1,136 cubic feet of material and increase the contract price by \$49,984.
- The other contract went to a bid about 15 percent below the agency estimate. FLH staff had used an incorrect number of hours in the solicitation, and as a result, had to modify the contract to add 1,800 hours and increase the price by \$208,800.²⁰

Furthermore, according to AASHTO's guidance, extremely low prices by one bidder while the other bidders average near the agency estimate may suggest a problem with the quality of the bid documents, such as a quantity or specification error. Six of 13 contracts had winning bids that varied from the average of all other bids by 25 percent or more.

Lastly, according to AASHTO's guidance low bids that are more than 10 percent *higher* than the agency estimate may point to factors including a shift in market prices, such as changing commodity prices, or factors that are not accounted for in the agency estimate, such as unidentified permit requirements (see table 2). FHWA's guidance states that when project bids come in higher than the agency estimate it is generally in the public interest to defer the projects for re-advertisement. Similarly, AASHTO's guidance points out that a decision to award a contract above market value should include a detailed justification and a demonstration of such a serious need for the work that re-advertising would not be in the public interest.

As shown in table 4, FLH Divisions' contracting officials reported using different informal practices for evaluating bids; and in price determination memoranda, personnel in each Division described the basis for their price reasonableness determinations. However, based on review of contract file documents, we found that personnel largely did not perform all of the practices reported in table 4 or as documented in their price determination memoranda.

²⁰ According to the contract file, the contract's design called for a 3 person crew and a supervisory foreman. Each crew member would work 900 hours, for a total of 2,700 hours. However, the solicitation document indicated a requirement for only 900 hours, thus incorrectly requiring just 1 crew person.

Table 4: FLH Divisions' Reported Practices for Conducting Bid Evaluations

FLH Division	Percent variation between low bid and agency estimate that triggers bid evaluation	Reported practices for conducting bid evaluations ²¹
Central	15 percent above or below	<ul style="list-style-type: none"> • Ask low bidders to verify accuracy of their bids. • Compare low bids to second and third lowest bids. • Compare low bidders' proposed unit prices to agency estimates and to those of other offerors.
Eastern	Does not use a percent threshold	<ul style="list-style-type: none"> • All bids receive analysis. • Compare low bidders' proposed unit prices to agency estimates and to those of other offerors.
Western	10 percent above	<ul style="list-style-type: none"> • Ask for assistance from other FLH personnel to perform analysis. • Compare low bidders' proposed unit prices to agency estimates and to those of other offerors.

Source: FLH Divisions' self-reported bid evaluation thresholds and practices.

Other than recording numbers of bids and the differences between agency estimates and the lowest (in some cases, also second lowest) bids, we found that FLH personnel did not thoroughly analyze the bids for the contracts we reviewed.

For all four Eastern Division contract files we reviewed, we found no evidence that personnel evaluated bids other than the low bidder, although the price determination memoranda and FLH Division officials (see table 4) indicated that all bids should have been reviewed. Specifically, while the contracts we reviewed received multiple bids (see table 3), based on our review of file documentation Division personnel only looked at the low bidder. Division personnel stated in price determination memoranda that they based their price reasonableness determinations on comparisons of competitive prices received and agency estimates, yet we found that Division personnel only looked at the low bidder and not all bids received. We also found that personnel did not consistently and

²¹ In FHWA's September 16, 2014 technical comments on our issued draft audit report, FHWA stated that per the Eastern and Western Federal Lands Highway offices, they also ask low bidders to verify accuracy of their bids. However, FHWA did not provide evidence to support its assertion.

thoroughly follow the practices reported in table 4. For example, while contract file documents showed that personnel compared the low bidders' proposed total and unit prices to the agency estimates, we found that personnel did not compare the low bidders to other bids received.

Furthermore, we found evidence that Eastern Division personnel awarded two contracts despite finding significant discrepancies between the low bidders' line items and agency estimates.

- One contract had a bid price nearly 20 percent lower than the agency estimate. OIG identified 28 line bid items that were over 60 percent higher or lower than the agency estimates. However, in file documentation, Division staff stated that while they found some prices that were significantly lower and higher, their concerns did not prevent them from awarding the contract, but they provided no explanation to justify their decision.
- For the other contract, personnel noted in a December 2012 email that 2 bid prices were too high based on the limited scope of the project. Personnel also flagged 16 line items in the winning bid that were significantly higher or lower than the agency estimates (half of the line items were over 100 percent higher than the estimates). However, according to a January 2013 memorandum, the Division's project engineer asked the prospective winning bidder to review the bid for errors and relied on the bidder's confirmation that the bid price was correct. We found no documentation explaining the Division's decision to proceed with award despite the presence of these discrepancies.

In the Central Division's price determination memoranda, personnel stated that their price reasonableness determinations were based on the competitive bids received but we did not find that all bids were evaluated. For the four Central Division contract files we reviewed, personnel compared the low bids to the agency estimates but we found no evidence of unit bid analyses or how the other bids factored into the price reasonableness determinations, as indicated in the memoranda and by FLH Division officials. In addition, we found 3 contracts totaling approximately \$22 million that met the Division's threshold to trigger bid evaluations but no evidence in the files that personnel compared the low bidders' proposed total prices to both the agency estimates and the second and third lowest bidders as reported in table 4. Division personnel only contacted the low bidders to verify bids.

Western Division personnel also based their price reasonableness determinations on the competitive bids received, but we again did not find that all bids were analyzed, as indicated in the Division's price determination memoranda and as reported by FLH Division officials to be part of routine practice (see table 4). For the five Western Division contract files we reviewed, we found no evidence of

how the other bids factored into the price reasonableness determinations. Four of the five contracts did not meet the Division's threshold for conducting bid evaluations (see table 4). The remaining contract had a winning bid price that was 20 percent higher than the agency estimate, but we found no evidence that personnel conducted bid evaluations. The contract received four bids—two for approximately \$500,000, and two for approximately \$1,000,000. Division personnel stated that no analysis was performed, but provided no explanation despite the wide discrepancy in the bids.

CONCLUSION

Proper bid evaluation helps ensure that agencies pay fair and reasonable prices for goods and services. FHWA's lack of bid evaluation policies and procedures for FLH diminishes the usefulness of the Agency's price reasonableness determinations for FLH's contracts. As a result, FLH cannot be sure that it is getting the best prices possible for its contracts.

RECOMMENDATIONS

We recommend that FHWA take the following actions for its Federal Lands Highway Program:

1. Develop and implement policies and procedures instructing that FAR requirements, and FHWA and AASHTO guidance are followed for evaluating bids to determine price reasonableness.
2. Establish internal controls to ensure that FLH Division personnel adhere to such policies and procedures to establish price reasonableness.

AGENCY COMMENTS AND OFFICE OF INSPECTOR GENERAL RESPONSE

We provided FHWA with our draft report on August 27, 2014 and received its formal response on September 26, 2014, which is included in its entirety in the appendix to this report. In its response, FHWA stated that it partially concurred with recommendation 1 and concurred with recommendation 2, as written. For recommendation 1, FHWA plans to review and adopt relevant parts of its guidance for its Federal-Aid highway program guidance as well as relevant parts of AASHTO Transportation Officials' guidance on acquisition best practices. FHWA's planned actions meet the intent of our recommendations. We consider both recommendations resolved but open pending completion of the planned actions, both of which FHWA intends to complete by April 30, 2015.

Also in its response, FHWA took exception with several points in our report. In our view, however, the comments do not correctly reflect the content of our report. Specifically:

FHWA states that we overly relied on the use of the Government cost estimate (GCE), and that we suggested that certain contracts should have been cancelled and re-competed solely on bids differing from the GCE. However, we did not rely on GCEs as FHWA states in its response, but on the data recorded in the contract files and presented as the basis for FLH's price reasonableness determinations. Moreover, neither our analysis nor recommendations imply that any of the contracts we reviewed should have been cancelled and re-competed merely because bids differed from the agency estimates. Instead, we point out in our report that, based on FHWA's and AASHTO's best practices, performing some additional analyses to determine the cause of such differences could be beneficial to making fully informed award decisions.

FHWA also states that we did not take into account that according to the FAR, adequate competition is a preferred method for determining price reasonableness. However, we discuss in our report that while the FAR allows for the use of "adequate competition" as a preferred method for determining price reasonableness, the FAR's definition of "adequate competition" includes more than just receipt of at least two bids. It also includes, among other factors, making a determination that there is no finding that the price of the otherwise successful offeror is unreasonable. We acknowledge in our report that each contract we reviewed received at least two bids. In addition, while the FAR establishes that agencies should have "compelling" reasons for cancellations, it also enumerates a variety of reasons that could be compelling, including a determination that otherwise acceptable bids are unreasonable. Furthermore, as we also point out in the report, the FAR allows for individual bids to be rejected—*without cancelling the entire competition*—if they are found to be unreasonable.

Lastly, FHWA states that the best practices established by FHWA's Federal-aid program and AASHTO do not directly pertain to Federal contracting, and that the contracts we reviewed "strictly complied" with the FAR. While we acknowledge that these best practices are aimed at State audiences, they also provide greater detail than the FAR provides for evaluating bids to determine whether they are indeed reasonable. The FAR also states that contracting officers should take the

lead in encouraging business process innovations and ensuring that business decisions are sound.²²

ACTIONS REQUIRED

We consider FHWA's planned actions for recommendations 1 and 2 responsive, and its target action dates are appropriate. Accordingly, we consider those recommendations resolved but open pending completion of the planned actions.

We appreciate the courtesies and cooperation of DOT's representatives during this audit. If you have any questions concerning this report, please call me at (202) 366-5225, or Tony Wysocki, Program Director, at (202) 493-0223.

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cc: DOT Audit Liaison (M-1)
FHWA Audit Liaison (HCFM)

²² Per FAR 1.102-4(e), if a policy or procedure, or a particular strategy or practice, is in the best interest of the Government but not specifically addressed in the FAR, or prohibited by law, regulation, or Executive order, acquisition personnel should not assume it is prohibited. Rather, absence of direction should be interpreted as permitting acquisition personnel to innovate and use sound business judgments that are consistent with law and within the limits of their authority.

EXHIBIT A. SCOPE AND METHODOLOGY

We conducted this audit between April 2013 and August 2014 in accordance with generally accepted Government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Our audit objective was to determine whether FHWA's policies, procedures, and practices meet Federal requirements for ensuring price reasonableness for fixed-price contracts.

To conduct our work, we analyzed data from Federal Procurement Data System-Next Generation (FPDS-NG) to develop a universe and sample of FLH's contracts to review. We stratified the universe by FHWA office—Eastern Federal Lands, Western Federal Lands, Central Federal Lands, and Office of Acquisitions and Grant Management (OAM). Our audit universe of 37 FHWA fixed-price contracts—whose ultimate contract values totaled \$109 million—was based on FPDS-NG data for the first two quarters of fiscal year 2013. Of the 37 contracts in our universe, 29 were sealed bid and 6 were not sealed bid. From the stratified universe, we selected a simple random sample of 18 contracts with an ultimate contract value of \$59 million—representing 54 percent of the universe amount. Of the 18 contracts in our sample, we dropped 5 contracts from our review—2 that OAM awarded, 2 that were not sealed bid, and 1 that was out of our audit scope. The remaining 13 contracts—with an ultimate contract value of \$52 million—were sealed bid.

We also assessed the reliability of the FPDS-NG data by comparing the procurement instrument identifier²³ field in FPDS-NG to the contract files we reviewed during our site visits. We validated the completeness of the FPDS data by comparing the contract numbers from FPDS to those in the contract files. We found that the contract numbers of the files matched those identified in our sample and determined that the data was reliable enough for our audit purposes.

Lastly, we tested FLH's internal controls for determining price reasonableness by conducting field visits and interviews to identify FLH's practices for making price reasonableness determinations. We compared those practices to (1) the FAR's requirements for conducting price analysis; (2) FHWA's policies, procedures, and

²³ FAR 4.605 requires each agency that reports to FPDS-NG to assign a unique identifier, known as a procurement instrument identifier, to every contract. In our review, that unique identifier was the contract number.

guidance for evaluating bids; and (3) AASHTO's recommended practices for analyzing bids and estimating. Specifically, we:

- interviewed FHWA acquisition officials in Washington, D.C. to determine what price reasonableness policies and procedures were in place for FLH;
- conducted site visits at FHWA's FLH Division Offices in Sterling, VA (Eastern Federal Lands); Lakewood, CO (Central Federal Lands); and Vancouver, WA (Western Federal Lands) to review contract files regarding price reasonableness determinations, price analysis, bid tabulations, and agency estimates. We also interviewed contract personnel regarding actual procedures and practices for determining price reasonableness. For file reviews, we developed and used a standardized checklist of FAR criteria to compare the contents of contract files to the FAR's requirements for contract file documentation;
- conducted follow-up interviews with the contracting personnel responsible for administering our sample contracts to verify that we obtained all supporting documentation and explanations; and
- compared the practices that we observed to Federal requirements, FHWA's policies, procedures, and guidance, and AASHTO's recommended practices.

EXHIBIT B. OVERVIEW OF DETERMINING PRICE REASONABLENESS WHEN USING SEALED BIDDING UNDER THE FAR AND FHWA GUIDANCE

Agency receives bids and analyzes their prices	Agency makes contract award decision
<p>Under the FAR,</p> <ul style="list-style-type: none"> • Contracting officers must determine if potential bidders are responsible and whether bid prices are reasonable before awarding contracts. • The FAR sets forth seven price analysis techniques that may be used as guidelines for determining price reasonableness: <p>Compare bid prices to:</p> <ol style="list-style-type: none"> 1. each other,* 2. historical prices,* 3. competitive published prices, 4. independent Government estimates; 5. prices obtained via market research. <p>Agencies can also:</p> <ol style="list-style-type: none"> 6. Use parametric estimating methods/rough yardsticks to highlight significant inconsistencies that warrant additional pricing inquiries; and 7. Analyze pricing information that bidders provide. <p><i>*Preferred methods under the FAR.</i></p> <p>According to FHWA's:</p> <ul style="list-style-type: none"> • Contract Administration Manual, questions to consider when evaluating bid prices: <ul style="list-style-type: none"> ○ Was competition good? ○ Is the timing of the project award critical? ○ Would re-advertisement result in higher or lower bids? ○ Was there an error in the agency estimate? • Federal-aid Program guidance, if prices appear unreasonable, thorough analysis is encouraged before making the decision to either award a contract, or re-advertise the project. Factors to consider include, but are not limited to: <ul style="list-style-type: none"> ○ Distribution or range of bids ○ Identity and geographic location of the bidders ○ Project's urgency ○ Potential for savings if the project is re-advertised ✓ Agency determines whether lowest bid price is reasonable, documents decision, and decides whether to award the contract or reject bids. 	<p>Under the FAR,</p> <ul style="list-style-type: none"> ✓ Unless agency finds a compelling reason to reject all bids and cancel the invitation for bids, it awards the contract to lowest responsive bidder. <p>.....</p> <p>Agency heads may reject all bids if:</p> <ul style="list-style-type: none"> • all otherwise acceptable bids are at unreasonable prices; or • No responsive bids were submitted. <p>If an agency head has determined that an the invitation for bids should be cancelled and that contracting by negotiation would be in the Government's interest, the contracting officer may negotiate and award the contract without issuing a new solicitation provided that:</p> <ul style="list-style-type: none"> • all sealed bidders are given opportunities to participate in negotiations; and • the contract is awarded to the bidder offering the lowest negotiated price. <p>Also, contracting officers may reject any individual bid if they determine that:</p> <ul style="list-style-type: none"> • the price is unreasonable; • line items prices are materially unbalanced; or • the bidder is not responsible.

Source: OIG analysis of the FAR, including 9.104-1, 14.301(a), 14.404-1, 14.404-2, 14.408-2 and 15.404-1(b)(2), and FHWA guidance.

EXHIBIT B. Overview of Determining Price Reasonableness when Using Sealed Bidding under the FAR and FHWA's Guidance

EXHIBIT C. MAJOR CONTRIBUTORS TO THIS REPORT

Name	Title
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APPENDIX. AGENCY COMMENTS

Subject: **INFORMATION**: Management Comments to the Office of Inspector General (OIG) Draft Report on Federal Highway Administration's (FHWA) Federal Lands Highway's Price Reasonableness Reviews Date: September 26, 2014

From: Gregory G. Nadeau
Acting Administrator 

All of the Federal Lands Highway Program (FLHP) contracts reviewed in this audit strictly complied with the Federal Acquisition Regulation (FAR), the principal set of rules and procedures governing the Federal government's acquisition process to ensure price reasonableness. Each of the contracts reviewed resulted in fair and reasonable pricing for the Government and a sound value for the tax payers.

The draft report's overreliance on the use of the Government Cost Estimate (GCE), which is *not* one of the two preferred methodologies stipulated in the FAR to determine a fair and reasonable price, is concerning. While the use of the GCE is one of the permissible techniques identified in the FAR, it is a lagging indicator of market conditions and has limitations. The draft report suggests certain contracts included in the review should have been cancelled and re-competed solely on the basis of bids differing from the GCE. The draft report does not recognize or address the real and negative consequences of such actions – particularly since these contracts did not meet the FAR thresholds established for procurement cancellation and re-competition.

- There was an extremely high level of competition among the contracts reviewed in this audit with an average of seven bids per competition. The FAR states that the Government may use various price analysis techniques and procedures to ensure a fair and reasonable price and lists examples of potential techniques. The FAR further states that when two or more offers are received, adequate competition through comparing prices among offerors is one of the preferred methods to establish price reasonableness. The FAR lists the second preferred method as comparing historical pricing.¹ In all samples reviewed by the OIG, the files had adequate competition, prices were recorded and

¹ FAR 15.403-1 and FAR 15.404-1

reviewed to establish the lowest responsive bidder, and a comparison with historical pricing was performed.

- The FLHP adhered to the FAR in their price reasonableness determinations as noted above. There is no requirement in the FAR that Agencies compare the lowest bid to the GCE.
- The report suggests that some of the contracts reviewed should have been cancelled and re-competed based on the fact that the lowest responsible bidder's price differed from the GCE. In actual practice, cancelling a solicitation after bid opening jeopardizes the competitive process and harms companies that submit bids in good faith as their pricing has been publically revealed to their competitors during the bid opening. Therefore, the FAR directs a very high threshold for cancelling an invitation for bid (IFB) after bid opening and states that the Government must award to the lowest responsible bidder, unless there is a compelling reason.² The lowest responsible bidder's price differing from the GCE is not listed as a reason for cancelling an IFB.³
- The report cites two publications as containing best practices for bid review that do not directly pertain to Federal contracting. In contrast, the FLHP contracts reviewed in this OIG audit were awarded in strict adherence to the FAR.

Based upon our review of the draft report, we partially concur with recommendation 1. The FHWA will review and adopt relevant FHWA Federal-Aid highway program guidance in addition to the American Association of State Highway and Transportation Officials guidance, as appropriate, for leveraging acquisition best practices. We intend to complete action on recommendation 1 by April 30, 2015. We concur with recommendation 2 as written and intend to complete action by April 30, 2015.

We appreciate this opportunity to offer additional perspective on the OIG draft report. Please contact Arlan Finrock, FHWA's Chief Acquisition Officer, at (202) 366-4232 with any questions or if the OIG would like to obtain additional details about these comments.

² FAR 14.404-1(a)(1)

³ FAR 15.404(c)