

INSTRUCTIONAL MEMORANDUMS

To Local Public Agencies



To: Counties and Cities	Date: November 27, 2019
From: Local Systems Bureau	I.M. No. 3.730
Subject: Innovative Contracting Methods	

Contents: This Instructional Memorandum (I.M.) includes guidelines and procedures for a Local Public Agency (LPA) to develop innovative contracting methods for projects.

Introduction

An LPA may decide to use innovative contracting methods on their projects being let by the Iowa DOT. These contracting methods can sometimes help to achieve a more economical project or get the best value for the funding available for a project. Several methods are explained below.

In order to utilize an innovative contracting method, the LPA shall provide a request to the Administering Bureau at the time of Final Plan turn in. The Administering Bureau will provide the request to the Contracts and Specifications Bureau. The LPA is encouraged to discuss any innovative contracting method with the Contracts and Specifications Bureau, prior to Final Plan turn in.

Combined (Tied) Projects

Projects can be tied together into one contract if the LPA chooses. This is referred to as tying projects, or bundling projects. Projects with different LPAs as the project owner could be combined into one contract, if the LPAs choose. However, only one LPA can be the Contracting Authority.

Combining Federal-aid projects with other non-Federal-aid projects can result in some laws that apply to the whole contract, including any non-Federal-aid projects included in the contract. The contract becomes a Federal-aid contract, which include Davis-Bacon wage rates, the FHWA-1273 and Buy America provisions per [Iowa DOT Standard Specification, Section 1107](#).

NEPA Perspective on Combined (Tied) Projects

When combining non-Federal-aid projects with Federal-aid projects into one contract, in certain situations the National Environmental Policy Act (NEPA) requirements will also apply to the non-Federal-aid projects. The general principle that governs the application of NEPA can be stated as follows: NEPA does not apply to a non-Federal-aid project that is combined with a Federal-aid project, if all of the conditions listed in [I.M. 4.020](#) are met.

If the combined projects do not meet the criteria outlined in [I.M. 4.020](#), for purposes of NEPA, they will be viewed as one project, and therefore the NEPA process and associated requirements would apply to all the combined projects. Please note this guidance pertains only to the applicability of NEPA.

If an LPA has project-specific questions, or if are unsure whether their project meets these criteria, please contact the appropriate Iowa DOT Administering Bureau. The Administering Office will consultant with the Iowa DOT Location and Environment Bureau as needed to determine whether NEPA will apply to non-Federal-aid projects tied with Federal-aid projects.

Optional Combination (Tied) Projects

To obtain the maximum number of bidders, the package must be attractive to them; this would mean that it is large enough to entice a contractor to bid but also not too large that it exceeds their bidding capacity. The attractive size range of a package will vary from one contractor to another, and also from one type of work to another. At times, there will be a group of contractors that only bid smaller projects and others that will only bid very large groups of projects.

To allow both of these types of contractors to bid, the Contracts and Specifications Bureau will occasionally offer an "optional combination". For example, four bridges can be let singularly and also all four bridges could be let as one large "tied" package. The contractor may choose to bid any or all of the single bridges, and may also choose to bid the "tied contract" package with all four bridges. The Contracts and Specifications Bureau will decide if the

four separate projects or the four combined are less expensive. The lowest dollar amount of the responsive bids is what will be deemed the low bid.

Alternate Bids

In some cases, alternate bidding may be an appropriate method to promote competition and thereby reduce project costs. There are two acceptable methods for alternate bidding:

1. Standard. Using this method, which is also sometimes referred to “head-to-head”. Using this method, the alternatives are included in separate sections on the plans and proposal. The alternatives are compared with each other, and a contract is awarded to the bidder with the lowest overall bid. No adjustment factors are used.

Note: This method is not acceptable for alternate pavement types (see below for more information).

2. Best Value. This method expands the number of options a bidder can bid and allows the contracting authority to receive the best value based on individual alternatives selected by each bidder. Under this method, the contracting authority pre-determines the additional amount it is willing to pay for the best value alternative over the base alternative and this differential (D) is identified on the bid proposal. Refer to the Developmental Specification (DS) for Best Value Alternative (A-D) Bidding ([DS-23003](#)) for more information.

Plan Requirements for Alternate Bids

When alternate bids are used, the plans and proposal must include sections to separate the bid items appropriately. There are two acceptable methods for accomplishing this:

1. Base bid + alternatives. Using this method, the base (or non-alternate) bid items are placed in the first section. The base bid includes work that is common to all the alternatives. The work unique to each alternative is placed in a separate section, one for each alternative. All bidders must submit a bid for the base bid items, but may bid only one of the alternatives.
2. Alternatives only. Using this method, there is no common set of bid items. All the items necessary for a complete bid are included in a separate section, one for each alternative. Bidders may bid only one of the alternatives.

Alternate Bids for Pavement Types

Alternate bids for pavement types (such as HMA vs. PCC) may be used if all the following conditions are met:

1. The LPA’s engineering and economic analysis does not indicate a clear choice between the pavement designs. In other words, the designs are essentially equivalent. Essentially equivalent means the designs provide a similar level of service over the same performance period and have similar life-cycle costs.
2. The pavement costs will likely have a significant impact on the low bid. Alternative bids for pavement types are not appropriate for contracts in which the paving costs are expected to be relatively minor in comparison to the other items of work.
3. The pavement alternates will be bid using the DS for Best Value Alternative (A-D) Bidding ([DS-23003](#)), where (D) is the difference between the Net Present Value of the future rehabilitation costs of the two alternatives, as calculated by the contracting authority. This is also referred to as a bid adjustment factor.

If alternate pavement type bidding is requested, the LPA’s design engineer shall prepare and submit a life cycle cost analysis (LCCA) for the alternate pavement designs to the Iowa DOT Administering Office. The LCCA shall demonstrate the designs are essentially equivalent and comply with guidelines provided in the Federal Highway Administration’s (FHWA) Pavement [Technical Advisory T 5040.39](#), Use of Alternate Bidding for Pavement Type Selection. The LCCA shall show how the bid adjustment factor was calculated.

For Federal-aid projects, the LPA's LCCA shall be reviewed and approved by the FHWA before the project is turned in to the Office of Contracts for letting. In order to allow enough time for FHWA's review, the LCCA should be submitted with the Check Plans if possible, but no later than 3 weeks prior to the Contracts Turn-in date, as per [I.M. 3.010](#), Project Development Submittal Dates and Information.

For non-Federal-aid projects, FHWA review and approval is not required, but the LCCA should still comply with FHWA's Technical Advisory in order to ensure the contract is awarded to the design with the lowest estimated life-cycle cost. The Iowa DOT will only verify that the LCCA has been performed.

Note: Because of the data required and complexity of analysis involved, LPAs should carefully evaluate the expected benefits against the additional costs required to prepare an LCCA that meets FHWA's guidelines. Also, after bids are opened, the Iowa DOT will provide copies of the LCCA to bidders or other interested parties upon request. LPAs should also be aware that it is difficult to prepare an LCCA that is satisfactory to the competing paving industries, so they should be fully prepared to defend a decision to award which is based on their LCCA.

Added Options Bidding

This method allows the Contracting Authority to obtain the most work, or the best options, for the funds available for the project. Using this method, a contract is awarded to the bidder who bids the most options but stays under the contract award limit, which is identified on the bid proposal.

When this method is used, plans and proposal shall have a separate section for the base bid items and the items for each of the added options. Each added option is an incremental improvement over the base and previous options, if applicable. The price bid for each option will be added in the order shown on the plans and proposal. Therefore, the most important option should be included first, and the least important option is included last.

Refer to the DS for Added Options Bidding ([DS-23002](#)) for more details on this bidding method.

A + B Bidding

The use of A+B provisions is primarily intended for critical projects or project phases where traffic inconvenience and delays must be held to a minimum. The characteristics generally associated with A+B bidding projects are:

- high traffic volume facilities found in urban areas
- projects that will complete a gap in a significant highway system
- major reconstruction or rehabilitation on an existing facility that will severely disrupt traffic
- major bridges out of service and projects with lengthy detours

A+B bidding is a method of awarding a project based on both cost and time. The proposal consists of two parts; the "A" portion of the bid is the sum of the contract work items and the "B" portion of the bid is the time in calendar days proposed by the bidder to complete the project or a portion of the project, which is multiplied by a daily road user cost determined by the Department.

A + B Bidding may be assigned by the Department, if the LPA desires. If so, the determination of the low bidder will involve a combination of the contract sum and the bidder's proposed time to complete all work designated in the A + B portion of the proposal form. Incentives and Disincentives are assigned for the number of closure days remaining after completion of the critical closure activity.

The contract is awarded based on the sum of the "A" portion and the "B" portion of the bid. The contract amount after award is limited to the "A" portion of the bid. An incentive provision is included to pay for acceleration costs and to reward the Contractor for earlier completion. A disincentive provision is incorporated into the contract (based on road user costs) should the contractor fail to complete the work in the number of closure days bid. For the number of closure days used that are less than the specified closure days, the Contractor will be paid the incentive daily rate as an incentive payment. For the number of closure days used to complete the work required in a critical closure activity in excess of the specified closure days, the Contractor will be assessed the disincentive daily rate. There will be no maximum amount for the disincentive assessment.

[Iowa DOT Standard Specifications, Section 1112](#) provides additional information on this type of bidding.

Incentive/Disincentive for Early Completion

Incentive/Disincentive (I/D) may be considered on highway construction projects where traffic movements are adversely affected causing undue delay and operating costs. Critical closure periods may include but are not limited to the following conditions:

- Periods of head-to-head traffic on multi-lane divided highways
- Periods of lane closures on multi-lane highways
- Periods when through traffic is directed to an off -site detour
- Locations that cause severe economic hardship for a local community.

Early completion may be specified for an entire project or for designated portions of a project. Projects on which I/D provisions apply will have the I/D daily rates, the work or portion of the work intended for I/D, the late start date of the designated work, the number of closure days allowed (critical closure period), the total work days for the project and the maximum incentive payment shown in the proposal. The number of closure days will be calculated with consideration of average weather days. A closure day will be counted for each calendar day during the critical closure period.

[Iowa DOT Standard Specifications, Section 1111](#) provides additional information on this type of bidding.