

Chapter 11.0

Plans, Specifications, and Estimates (PS&E) and Bid Letting

11.1 Introduction

This chapter describes the process and procedures for the preparation, submission, and approval of the project Plans, Specifications and Estimates (PS&E), and supporting documents, for the advertising, letting, and awarding of the project. This is a critical step, regardless of the type or source of Federal funds in the project, and the LPA process requires this as an FHWA concurrence point prior to execution of the project agreement and LPA control. The action *Federal authorization* approves the funding and means approval from FHWA to begin the advertising and bid letting process.

Note: If the project is advertised for bids, materials purchased, or work commences before the PS&E package has been approved and a Notice-to-Proceed is provided by ALDOT, the LPA will lose federal project funds.

As the bidding provisions in [23 CFR 635.114](#) implement the competitive bidding principles in Title 23 USC 112, [Consultant Services](#), these requirements apply to all transportation construction projects funded under Title 23. The LPAs may use state-approved procedures for *non-highway* construction projects located off the highway ROW (such as Transportation Alternative projects off the highway ROW). State approved procedures means the LPA will need to submit their proposed procedures for a comprehensive review by ALDOT at least three (3) months prior to PS&E Package Submittal to assure the procedures meet all state and federal requirements. The LPA procedures should be submitted to ALDOT for review and approval no later than by PIH field review time. This will only be done on a project-by-project basis.

11.2 PS&E Review and Letting Schedule

Environmental clearance must be given before the PS&E package is submitted for review. The process for PS&E approval can be a time consuming task. A minimum of twelve (12) weeks is typically required from the PS&E submittal and award of a construction contract. LPAs must be familiar with and understand the timing of these activities:

- PS&E Review, Federal Authorization and Approval – five (5) weeks (7 weeks for full FHWA oversight);
- Advertising for Bids – minimum of three (3) weeks;
- Addendums – reviewed and approved during the bid advertisement period;
- Open, Evaluate, and Tabulate Bids – one (1) week;
- ALDOT Bid Concurrence – one (1) week;
- Award and Executed the Construction Contract and Notice to Proceed – two (2) weeks.

11.3 Development of the PS&E Package

For projects let by the LPA, the LPA will prepare the bid package which contains the plans, special provisions, supplemental specifications, and the bid proposal and submit it to the ALDOT Region Engineer, designee, or LPA Project Coordinator. For projects let by the State, ALDOT, in coordination with the LPA, will prepare the bid package. When using federal funds, LPAs must comply with 23 CFR Section 633 Subpart A which contains federal regulations governing construction contracts.

The LPA will use ALDOT plans, specifications, special provisions, or supplemental specifications on a project. LPA use of plans, specifications, special provisions, or supplemental specifications other than ALDOT's must be by written approval of the Chief Engineer.

It is the responsibility of ALDOT to monitor and enforce federal regulations on all LPA let projects. The following is a list of items the LPA is to submit as part of their PS&E package:

- Two sets of ½-size final plans signed and sealed by a Professional Engineer or Architect registered in Alabama;
- Two sets of specifications including: the bid proposal, required Federal [Form 1273 Contract Provisions](#), bidding instructions, and bid form. These must also be signed and sealed by a Professional Engineer or Architect registered in Alabama;
- Two sets of any required special provisions;
- Final Engineer's Estimate;
- Final Status of Utilities report;
- Completed Clear LPA ROW Certificate or Public Interest Letter (*PIL*);
- Copies of all applicable local, state, and federal permits (404, floodplain, storm water runoff, etc.);
- Copy of the fully executed Railroad Agreement (if required);
- Copy of all fully executed Utility Agreements (if required);
- Environmental commitments to be included in the project contract documents;
- Sole source justification letter (if required); and
- Approved Environmental Document

Note: Contact ALDOT Environmental Technical Section (ETS) to determine status of known document, most recent environmental activity, and recommended actions. Re-evaluation of an existing document may be required if no project actions have taken place for three (3) consecutive years since original NEPA documentation or clearance.

11.4 Required Federal Contract Provisions

When using Federal funds, LPAs must comply with 23 CFR Section 635 which describes Federal regulations governing construction contracts. [Form FHWA-1273](#), Contract Provisions, are required by regulations promulgated by the FHWA and other Federal agencies. These provisions apply to all Federal-aid construction projects and must be made a part of, and physically incorporated into all contracts, as well as appropriate subcontracts and purchase orders. The following is a listing of these specific provisions in the FHWA Form 1273:

11.4.1 Federal Wage Rates and Provisions Relating to Prevailing Wages/Convict Labor

Applies to all Federal-aid construction contracts within the ROW of a Federal-aid roadway exceeding \$2,000 and to all related subcontracts. Davis-Bacon and Copeland Act provisions are not required for transportation construction projects located on roadways classified as local roads or rural minor collectors. The LPA or ALDOT is responsible for incorporating the applicable wage rate decision into each Federal-aid contract. The US Department of Labor requires that an amendment for a general wage rate determination be incorporated into a Federal-aid contract if notification of the change is published in the Federal Register 10 days or more prior to the opening of bids.

11.4.2 Nondiscrimination Clauses

Applies to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more. The basic statutory authority for a nondiscrimination provision is Title VI of the Civil Rights Act of 1964, which is implemented by 23 CFR 200. Title VI mandates that Federal assistance not be used to discriminate. Through expansion of this mandate and the issuance of parallel legislation, the prescribed basis for discrimination now includes race, color, religion, sex, national origin, age, and disability.

Title VI assures that the ALDOT and LPA guarantee that no person is subjected to discrimination in connection with any activity, including any contract, for which the LPA receives Federal funds. In the event of noncompliance by a contractor and/or subcontractor, payment may be withheld or the contract may be canceled in whole or in part.

This section of the Form FHWA-1273 is essentially the Standard EEO Construction Contract Specifications, as included in 23 CFR 230, Subpart A, Appendix A.

11.4.3 DBE Requirements as Mandated by Federal Law

All Federal-aid construction projects, regardless of system or oversight agency are subject to the legislative and regulatory DBE requirements. The main objective of the DBE Program is to ensure that DBE firms have an opportunity to participate in LPA federally-funded contracts. Title VI of the Civil Rights Act of 1964 is the legislation that forms the foundation for the creation of the DBE Program.

By regulatory definition, a DBE is:

"... a for profit small business concern -- 1) That is at least 51 percent owned by one or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which 51 percent of the stock is owned by one or more such individuals; and 2) Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it."

11.4.4 Use of Local Hiring Preferences

Applies to all Federal-aid transportation construction projects. The LPA may not include a provision that requires a contractor to give any preference in hiring on a Federal-aid project. Furthermore, when ALDOT or the LPA has a policy that requires or creates a preference for local hiring, the contracting agency may not require or encourage a contractor to comply with this policy on Federal-aid projects (even if the hiring requirement is not included in the contract itself).

11.4.5 Subletting or Assigning the Contract

Applies to all Federal-aid transportation construction projects on the NHS. Current FHWA policy requires that the prime contractor perform at least 30 percent of contract work with its own organization. This percentage shall be of the original contract price, exclusive of specialty items, but include the cost of materials and manufactured products purchased or produced by the prime contractor. The LPA may be more restrictive and specify a higher self-performance percentage. Conversely, with adequate justification, ALDOT may approve a reduction or a waiver of the 30 percent self-performance requirement on a project-by-project basis.

Specialty items are defined as work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organization qualified and expected to bid on the contract. In general, these items are to be limited to minor components of the overall contract. As noted earlier, the amount of identified specialty work is deducted from the original contract amount before determining the total amount that may be subcontracted. The definition of specialty items is included in 23 CFR 635.102.

11.4.6 Implementation of the Clean Air Act & Federal Water Pollution Control Act

Applies to all Federal-aid transportation construction contracts and related subcontracts of \$100,000 or more. There may be facilities (e.g., asphalt or concrete plants) which are proposed for use in construction operations that do not meet air or water quality standards of the Clean Air Act or Federal Water Pollution Control Act. The EPA regulations, 40 CFR 15, require that these facilities be listed and not be used on government contracts. These facilities are included on the General Services Administration (GSA) Excluded Parties List System.

11.4.7 Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion

Applies to all Federal-aid contracts, and related subcontracts, purchase orders, and other lower tier transactions of \$25,000 or more. The prime contractor and lower-tier participants are required to certify as to their current eligibility status. Certification is also required of all prospective participants in lower-tier transactions. This includes subcontractors, material suppliers, vendors, etc.

Each participant in the Federal-aid program must certify "that it and its principals are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency, and that they have not been convicted or had civil judgment rendered within the past three (3) years for certain types of offenses."

The General Services Administration maintains a government-wide list of excluded parties. This website entitled, *Excluded Parties List System*, is located at www.epis.gov. (This link is inactive due to site security and must be accessed independently.)

11.4.8 Certification Regarding the Use of Contract Funds for Lobbying

Applies to all Federal-aid construction contracts and subcontracts exceeding \$100,000. Prior to receiving funds in excess of \$100,000, ALDOT must submit to the FHWA a certification that it has not and will not make any prohibited payments for lobbying. This certification comes by having ALDOT and the LPA sign the Agreement, which certifies to FHWA that it will agree to comply with the lobbying restrictions in [23 CFR 635.112\(g\)](#). LPAs, contractors, subcontractors, and consultants on contracts and subcontracts that exceed \$100,000 are also required to make a lobbying certification. By signing a contract or subcontract, a prime contractor or subcontract is certifying that it will comply with lobbying restrictions.

The ALDOT certification is to be retained by the FHWA. Likewise, lower-tier certifications are to be retained by the next higher tier (e.g., prime contractors retain their subcontractors' certifications).

Any participant that has made, or agreed to make, payments for lobbying activities using non-Federal funds, is required to disclose such activities.

11.4.9 Non-collusion Affidavit

The submission of a non-collusion statement protects the integrity of the Federal-aid transportation program by serving as a deterrent to bid rigging activities. The certification also becomes evidence in prosecuting cases involving construction contract bid rigging.

A non-collusion statement is required from all bidders and is to be submitted as part of the bid proposal package. Failure to submit the required certification will result in the bid being considered as non-responsive and ineligible for award consideration.

The LPA and ALDOT must include provisions in the bidding proposals that require all bidders to include a non-collusion statement with their bid. The FHWA, in consultation with the US DOJ, has concluded that the non-collusion statement may be either an unsworn declaration made under penalty of perjury under the laws of the US, or a sworn affidavit executed and sworn before a person who is authorized to administer oaths by the laws of the State.

11.4.10 Buy America Provision

Current regulations require the use of domestic steel and iron in Federal-aid transportation construction projects. All foreign steel and iron materials and products are covered by Buy America regardless of the percentage they comprise in a manufactured product or the form they may take. The regulations allow bidders and the contracting agency some latitude through minimum use, waivers, and alternate bids.

All manufacturing processes must take place domestically. Manufacturing begins with the initial melting and mixing, and continues through the coating stage. Any process which modifies the chemical content, the physical size or shape, or the final finish is considered a manufacturing process. These processes include rolling, extruding, machining, bending, grinding, drilling, and coating. *Coating* includes epoxy coating, galvanizing, painting, or any other coating that protects or enhances the value of the material.

If domestically produced steel billets or iron ingots are shipped overseas for any manufacturing process, and then returned to the US, the resulting product does not conform with the Buy America requirements. The manufacturing process for a steel/iron product is considered complete when the product is ready for use as an item (e.g., fencing, posts, girders, pipe, manhole cover) or could be incorporated as a component of a more complex product through a further manufacturing process (e.g., the case for a traffic signal head). The final assembly process does not need to be accomplished domestically so long as the steel/iron component is only installed and no manufacturing process is performed on the steel/iron component.

With prior concurrence from Headquarters, the FHWA Division Administrator may grant a waiver of the Buy America requirements for specific projects if it can be shown that:

- following the requirements is inconsistent with the public interest, or
- insufficient quantities of satisfactory quality domestic products are available.

11.4.11 Native American Preference on Federal-aid Projects

Projects eligible for Indian employment preference are those located on roads within, or providing access to an Indian reservation or other Indian lands (as defined with the term *Indian reservation roads* in [23 CFR 973.104](#)), and transportation projects located *near* the boundaries of reservations. Projects *near* an Indian reservation are defined as those within a reasonable commuting distance from the reservation.

Accordingly, States are encouraged to work together with Indian tribes and their Tribal Employment Rights Offices (TEROs) to develop contract provisions which will promote employment opportunities for Indians on eligible Federal-aid transportation projects. Reasonable overall employment goals for Indians, and the requirements which can be used to achieve such goals, should be agreed upon in advance and made part of the contract documents.

In setting the employment goals, consideration should be given to the scope of the contract and the potential employment requirements of the contractor beyond its core-crew. Once established, the goals should only be changed by ALDOT following consultation with the Indian tribal representative and the contractor and only after good faith efforts to achieve the original goals. Sanctions for failure to meet the employment goals should be determined in advance and be made a part of the contract to facilitate enforcement.

11.4.12 On-the-Job Training (OJT)

Applies to all Federal-aid transportation construction projects. The objectives of the OJT Program are to:

- Provide training and improve the skills of women and minorities so that they have the opportunity and access to the higher paying skilled trade jobs and journeyman positions; and
- Broaden the labor pool to meet the projected future labor needs in the construction industry.

The OJT program involves several major components and involves shared responsibilities between FHWA, ALDOT, the LPA, and the contractor. These components include:

1. Development of Statewide Training Goals: ALDOT has developed training goals that will be applied to LPA projects as required.

<u>Estimated Contract Amount</u>	<u>Training Hours Required</u>
Under \$1,000,000	0
\$1,000,000 to 2,000,000	500 hours
Over \$2,000,000 to 4,000,000	1,000 hours
Over \$4,000,000 to 6,000,000	2,000 hours
Over \$6,000,000 to 8,000,000	3,000 hours
Over \$8,000,000 to 10,000,000	4,000 hours
Over \$10,000,000 to 15,000,000	5,000 hours
Over \$15,000,000 to **	6,000 hours

(**No more than 6,000 hours required regardless of dollar amount)

2. Assignment of Contract Training Goals: For state let projects, ALDOT will assign training goals for each contract. For LPA let projects, the LPA will assign their training goals based upon ALDOT training goals.

The contract training goal is the actual number of training positions or slots required on the project. The OJT Program requires that a special provision be placed in the contract which specifies the number of trainees that are to be assigned to various appropriate construction skilled crafts for actual hands-on experience. If a trainee quits or is terminated, the slot is to be refilled until a trainee completes the program. If a contractor does not attain the contract training goal for the project, the contractor could be subject to monetary penalties.

3. Development and Acceptance of the OJT Program at the Project Level Prior to Commencing Construction: The contractor shall submit to the LPA, for approval, the

commitment in terms of the number of trainees to be trained for each selected classification and the training programs to be utilized.

Note: Alabama is a Right to Work state and has a Right to Work Law. Use of union labor on Federal-aid projects is acceptable in Alabama, but employers are prohibited from requiring employees to be or become union members as a condition of employment. See [State of Alabama Dept of Labor](#) and [Title 25 Right to Work \(Title 25, Art. 25-7-30 et al\)](#).

ALDOT must review, analyze, accept, or reject training programs proposed by the LPA or their contractor. ALDOT should ensure that:

- Proposed training programs are reasonable and realistic based on the job skill classification; and
- The number of training hours specified in the training program is consistent with the project's duration and sufficiently long enough for the trainee to obtain journeyman level status.

The contractor recruits and selects the trainees. However, the contractor may receive assistance from outside sources to accomplish this task. In unionized states, local unions may refer trainees or apprentices to the contractor.

4. Provide Training: Once the contractor's training program has been finalized and approved by ALDOT, the trainees in each training slot begin hands-on training at the project site. Normally, the trainees are paid a percentage of the journeyman's wages (Davis-Bacon rates) [Davis-Bacon](#). The following payment plan is required in the FHWA Training Special Provisions (23 CFR 230 A - Appendix B):
 - 60 percent of the journeyman's wages for the first half of the training period;
 - 75 percent of the journeyman's wages for the third quarter of the training period; and
 - 90 percent of the journeyman's wages for the last quarter of the training period.
5. Determination on the Adequacy of Training: The contractor must periodically evaluate the training provided, and the trainee's progress.
6. Reporting Requirements: FHWA requires ALDOT and the LPA submit this information to them on Forms FHWA-1391 and 1392, [Forms](#) that are to be prepared by the LPA and contractor.
7. Responsibilities: ALDOT has the primary responsibility to monitor and determine the effectiveness of OJT training. FHWA has oversight responsibility to provide guidance and assistance, and to concur in proposed project training provisions, project goals, and proposed training programs from ALDOT. ALDOT and FHWA share the responsibility of determining:
 - The number of trainees that complete training;
 - The number of trainees upgraded to journeyman level status;
 - The level of skills attained; and

- Whether the statewide training program is meeting the needs of the construction industry regarding work force requirements and level of skills.
8. OJT Reimbursement Provisions: Payment for training is made by the FHWA to ALDOT on a reimbursement basis. The training special provisions provide for a monetary incentive to the contractor to establish a project training program either at the rate of \$0.80 per hour; or
 9. ALDOT has the option of permitting the LPA and contractor to bid on the training program provisions as a bid item. ALDOT and the LPA will be reimbursed with Federal-aid construction funds at the same pro rata share as the construction cost of the project.

11.4.13 Standardized Changed Conditions Contract Clauses

Applies to all Federal-aid construction projects. Due to the nature of transportation construction and the conditions under which work is performed, engineering cannot always accurately determine and describe the existing conditions at project sites. Consequently, the actual conditions encountered during construction may differ from those indicated in the contract documents, resulting in a change in type or amount of work and ultimately in the cost of construction. Also, situations may develop during construction that requires the contracting agency to order the contractor to slow down or to stop construction through no fault of the contractor. These slowdowns or stoppages in the work may cause a change in construction costs.

The standardized changed condition clauses in 23 USC 112(e) ***must be included verbatim*** in all contracts, unless state statute prohibits their inclusion. Or, an alternate clause developed by the LPA may be used, upon approval of the FHWA, when the alternate clause has been developed and implemented in accordance with state statute.

The regulation requires the use of three different clauses:

1. Differing Site Conditions Clause: This clause provides for the adjustment of the contract terms if the contractor encounters:
 - Type I Condition: subsurface or latent physical conditions that differ materially from those indicated in the contract; or
 - Type II Condition: unknown physical conditions of an unusual nature that differ materially from those ordinarily encountered and generally recognized as inherent to the work.
2. Suspensions of Work Ordered by the Engineer: This clause provides for the adjustment of the contract terms if the performance of all or a portion of the work is suspended or delayed by the Engineer, in writing, for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry). The contractor is required to submit a request for adjustment, in writing, to the Engineer within seven (7) calendar days of receipt of the notice to resume work. Recovery of profit on costs resulting from suspensions of work is not allowed.
3. Material Changes in the Scope of the Work: This clause provides for the adjustment of the contract terms if the Engineer orders, in writing, an alteration in the work or in the

quantities that significantly change the character of work. The term "significant change" shall be construed to apply only to the following circumstances:

- The altered character of the work differs materially from that of the original contract; or
- A major item of work, as defined in the contract, is increased or decreased by more than 25 percent of the original contract quantity (adjustments shall apply only to that portion in excess of 125 percent of original contract quantity, or in case of a decrease, to the actual quantity performed).

This clause provides for adjustments resulting from formal change orders by the RC, in writing, to the extent that the impacted work is part of the contract. Either party may initiate an adjustment or both must be in agreement before the work is performed. As with the suspension of work provision, this clause does not preclude the recognition of constructive suspensions or delays.

The applicability of the above contract provisions is contained in numerous locations of Federal laws, regulations and guidance such as 18, 23, 33, 40, and 44 of the USC; 23, 28, 29, 41, and 49 of the CFR, and the Contract Administration Core Curriculum Participant's Manual and Reference Guide 2006, [Manual and Reference Guide](#).

11.5 Federal Authorization for the Construction Work Phase

After the PS&E review, ALDOT will request authorization of federal funds for the construction and construction engineering work phases from FHWA. ALDOT will obligate federal funds in the amount indicated on the most current engineer's project estimate.

Note: For projects let by the LPA, the LPA cannot proceed with bid advertisement until a written *Notice-to-Proceed* has been received from the responsible ALDOT Region Engineer or his/her designee.

11.6 Sole Source Procurement

A component of competitive bidding is allowing bidders to choose between multiple items for use in a project so that they may compete for the lowest bid. The best procedure is to write generic specifications or to list at least three specific items from different manufacturers in the project PS&E package. If the LPA decides that only one item will work for the project, the LPA must write a sole source justification letter to be approved by ALDOT or FHWA.

Applying to sole source any item for incorporation into a project should be the exception and not the norm. Just because the LPA requests to use a sole source item does not mean the request will be approved. Prior to developing and submitting the sole source justification letter, the LPA should perform a search of the market of the item they want to sole source to assure no competition of comparable items is available.

Examples of items the LPA may consider to justify as sole source include but are not limited to: light fixtures, fire hydrants, traffic signal controllers, guardrail end treatments, or truncated domes. Sole source justification is preferred for uniformity, ease of maintenance, or historic compliance. An example sole source justification letter can be found at the end of this chapter in the appendix. The following items must be addressed in the letter:

- 1) What is the situation being covered?
- 2) What operating characteristics (criteria) are you looking for in the device?
- 3) How is this item unique from all others?
- 4) How many devices are currently available that will satisfy the criteria?
- 5) Which is the best device from an operations standpoint?
- 6) Which device offers the best cost?
- 7) Does operating characteristics override cost?
- 8) Commit to a review on the industry in case new technology is developed that would also satisfy the criteria or need.

Further guidance on this subject is available from FHWA on [Patented and Proprietary Products](#).

11.7 Pre-Bid Meeting

This optional meeting is held by the LPA after advertising the project. The purpose of the pre-bid meeting is to address prospective contractors' concerns and questions. It is recommended for more complex projects. The meeting purpose is to encourage face-to-face discussion regarding plan intent and any areas of concern prior to bid opening. This meeting often brings plan package discrepancies to light, which can then be rectified through plan addendum. These discrepancies, if not rectified, may result in change orders or claims after the contract is awarded. The LPA **must** notify ALDOT and FHWA that they will hold a pre-bid meeting allowing them the opportunity to participate.

ALDOT and FHWA do not prohibit the use of pre-bid meetings; however, if attendance at a pre-bid meeting is made a condition of bid responsiveness, the project advertisement and all bidding documents must reflect this requirement. The LPA and ALDOT must give the contracting community adequate notice to comply.

11.8 Competitive Bidding

23 CFR 635 requires that a contract method based on competitive bidding must be used for performing work financed with Federal funds. The only exceptions to the competitive bid process are project activities done by utility or railroad companies; work performed under emergency conditions (as outlined in Chapter 2.0); or when the ALDOT can show that some other contract method (Force Account Construction per 23 CFR 635 Subpart B) is more cost effective. To do this, the LPA must submit documentation through ALDOT to FHWA stating what the emergency is or why the Force Account method is cost effective. No work can begin on a project until ALDOT or FHWA issues approval in writing. ALDOT and LPAs are prohibited from establishing any procedures or requirements for qualifications or licensing that would prevent competition.

11.8.1 Emergency Project Interruption

An emergency, as defined and explained in the programming chapter (Chapter 2.0), shall be deemed to exist when repair work as provided for in the ER Program policy statement in 23 CFR 668.105 is necessary or when a major element of a transportation system has failed and the

situation is such that competitive bidding is not possible or impractical because immediate action is necessary to minimize the damage, protect the facility, or restore essential travel.

The LPA shall submit documentation (as required in Chapter 2.0), to ALDOT for their review, identifying and describing the project, the kind(s) of work to be performed, the contract method to be utilized, the estimated cost of the work, the estimated Federal funds to be provided, and the reason(s) that an emergency exists. On projects designated for full FHWA oversight, ALDOT will submit the documentation to FHWA.

11.8.2 Force Account Work

*“The term **Force Account** shall mean the direct performance of highway construction work by a State transportation department, a county, a railroad, or a public utility company by use of labor, equipment, materials, and supplies furnished by them and used under their direct control.” -*

[Force Account 23 CFR 635.201](#).

Force Account work in this instance, then, becomes the direct performance of construction work by ALDOT or the LPA using own forces, labor, equipment, materials, and supplies to complete a project, subject to provisions of the above CFR. The LPA will submit documentation to ALDOT for their review, identifying and describing the project, the kind(s) of work to be performed, the contract method utilized, the estimated cost of the work, the estimated Federal funds to be provided, and the reason(s) that the force account method is considered cost effective. On projects designated for full FHWA oversight, ALDOT will submit the documentation to FHWA.

11.9 Other Contracting Procedures

The use of an alternative contracting procedure, type, or method depends on the work, timing, and location of a project. ALDOT recommends that such techniques not be used for typical projects.

The FHWA allows ALDOT to evaluate innovative contracting techniques proposed by the LPA which are competitive in nature but do not fully comply with the requirements in 23 USC 112. Federal-aid construction contracts that utilize a method of award other than the lowest responsive and responsible bid must be evaluated under FHWA Special Experimental Project No. 14 (SEP-14) - [Alternative Contracting](#). However, four practices have been used successfully by various state DOTs and LPAs and, as a result, no longer require advance approval from FHWA. These methods are: cost-plus-time (A+B) bidding, lane rental, design-build contracting, and warranty clauses.

Note: Currently, ALDOT policy does not allow for design-build contracting or warranty clauses.

11.9.1 Incentive/Disincentive Clauses

Incentive/Disincentive (I/D) clauses are used to encourage early or on time completion of work where there are significant inconveniences to the traveling public. Guidance regarding this technique is contained in [FHWA Technical Advisory T 5080.10, Feb 8, 1989](#). I/D is a contract provision which compensates the contractor a certain amount of money for each day identified critical work is completed ahead of schedule and assesses a deduction for each day the contractor overruns the I/D time. Its use is primarily intended for those critical projects where traffic inconvenience and delays are to be held to a minimum. I/D contract provisions may be used for

either final project completion or for the completion of intermediate project milestones. Project time may be defined either by a fixed completion date or by a count of calendar days. ALDOT recommends a maximum dollar amount be used for incentive payment (FHWA recommends a 5% maximum of total project cost). There is no recommended maximum for a disincentive payment.

The following formulas may be used by the LPA to calculate incentive or disincentive amounts:

Incentive = (Daily I/D amount) x (Number of days completed ahead of schedule), and

Disincentive = (Daily I/D amount) x (Number of days completed behind schedule)

FHWA recommends that the daily I/D amount be calculated on a project-by-project basis either for the entire project or for project milestones. The daily I/D amount may include:

- Established construction engineering inspection costs;
- State related traffic control and maintenance costs;
- Detour costs; and
- Road user costs.

The daily I/D amount should not include costs attributed to disruption of adjacent businesses. It is expected to use sound engineering judgment to adjust the calculated daily amount downward (not upward) to a final daily I/D amount that:

- Provides a favorable benefit/cost ratio to the traveling public where the cost is the daily I/D amount and the benefit is the calculated daily savings in road user and LPA costs.
- Is large enough to motivate the contractor. If a favorable benefit/cost ratio cannot be realized and/or the resulting daily amount is not large enough to motivate a contractor, the project should not be further developed as an I/D project.

11.9.2 A + B Bidding

A+B Bidding, also referred to as Cost-Plus-Time bidding, involves time with an associated cost, in the low bid determination. The bid for award consideration is based on a combination of the bid for the contract items and the associated cost of the time, according to the formula:

$$(A) + (B \times \text{Road User Cost} / \text{Day})$$

Where:

A = the dollar amount bid for the contract items and is the dollar amount for all work to be performed under the contract.

B = the total number of calendar days required to complete the project, as estimated by the bidder. The "B" amount of the low bidder is used as the contract time.

Road User Cost = A daily dollar estimate of vehicle operating costs and delay costs to highway users resulting from construction, maintenance, or rehabilitation activity.

This formula is only used to determine the lowest bid for award and is not used to determine payment to the contractor. ALDOT recommends that a maximum number of days be used.

A disincentive provision, that assesses road user costs, is incorporated into the contract to discourage the contractor from overrunning the time "bid" for the project. In addition, the FHWA recommends that an incentive provision be included to reward the contractor if the work is completed earlier than the time bid. The value of the road user cost is predetermined by the contracting agency and specified in the proposal. It is based on costs such as road user delay time, detour costs, construction engineering costs, etc.

A + B bidding is used for projects where time of completion is a significant concern.

11.9.3 Lane Rental

The goal of the lane rental concept is to encourage contractors to minimize road user impacts during construction. Under FHWA, [Alternative Contracting](#) provides for a rental fee assessment against the contractor included in the contract. The **lane rental fee** is based on estimated cost of delay or inconvenience to the road user during the rental period. The fee is assessed for the time that the contractor occupies or obstructs part of the roadway and is deducted from contractor progress payments.

The rental fee rates are stated in the bidding proposal in dollars per lane per time period, which could be daily, hourly or fractions of an hour. The low bid is determined solely on the lowest amount bid for the contract items. The lane rental concept has merit for use on projects that significantly impact the traveling public. Major urban area projects are prime candidates for this approach.

11.9.4 FHWA Special Experimental Project No. 14 (SEP-14) - Alternative Contracting

Any other non-traditional construction contract technique, proposed by the LPA or ALDOT than those listed in the sections above, which deviates from the competitive bidding provisions in 23 USC 112, requires FHWA Headquarters' SEP-14 approval. These non-traditional contracting techniques may include best value, life cycle cost bidding, qualifications-based bidding, and other methods where cost and other factors are considered in the award process.

ALDOT or the LPA may submit a Sep-14 [Alternative Contracting Workplan](#) work plan through the FHWA. The FHWA reviews the request and, if appropriate, forwards it to their headquarters for review and approval. Electronic copies of work plans and SEP-14 requests for approval are encouraged.

11.10 Alternate Bids

The LPA may propose the use of Alternate Bids under certain circumstances. The proposal must be coordinated and approved by ALDOT or FHWA in the case of full Federal oversight projects. When there is a cap of Federal funds available for a project, an LPA may choose *additional alternate bidding* to maximize the benefits of the funding available for a project. This should only be done in consultation with and by the approval of the ALDOT Region Engineer.

In general, the concept allows for contractors to bid on work outside of the basic project scope: the *additional alternate bid items*. These alternates can be *add-ons* or deletions from the basic project scope, or both. If the LPA receives bids on the basic scope which are less than the Engineer's estimate, bids on the alternate items are considered according to a predetermined order of priority, so long as the total bid price remains under the total project budget. Bids on the basic scope and the alternate items are submitted and opened at the same time. The basis for the bid to be awarded to the lowest responsive bidder though has to be specifically stated in the contract bid documents on which all contractors are bidding.

Note: Add-ons and deletions from the basic project scope are allowed, subject to approval of the ALDOT Region Engineer; State Office Engineer; and if appropriate, Consultant Management Engineer.

11.11 Bidding Procedures for Locally Let Projects

Before a LPA let project can be advertised and let for bids, the LPA must submit a final PS&E package, which meets all applicable Federal and State regulations and procedures and with any supporting documentation, to ALDOT for review and approval or to FHWA through ALDOT if the project is designated as a full FHWA oversight project. The LPA may begin advertising activities once they receive the authorization and a Notice-to-Proceed from the ALDOT Region Engineer. For full FHWA oversight projects, the FHWA will issue the authorization to ALDOT. For additional information, visit the following website:

[Bureau of Office Engineer Sections and Key Contacts](#)

Federal-aid projects are required to be advertised and available to the contractor for a minimum of twenty-one (21) days prior to letting. ***This advertisement must be placed in a newspaper of general circulation within the county.*** In rare circumstances, shorter periods may be approved by FHWA, when justified. Copies of the plans, details, bills of material, schedule of items, and specifications shall be open to public inspection at the office where the bids are being received, during all business hours between the day of the first publication and the day for opening the bids and such other place as may be designated in the notice. Projects over \$500,000 estimated current dollar cost must be advertised at least once in three (3) statewide newspapers 21 days prior to the scheduled bid opening.

Note: Consultants/contractors must be prequalified by ALDOT for project awards in excess of \$1,000,000.00. Project awards less than \$1,000,000.00 will not require ALDOT prequalification. For project awards in excess of \$1,000,000.00, proposal forms will only be issued to prospective bidders who have qualified with the Alabama Department of

Transportation and have a valid ALDOT certification of qualification. For projects in excess of \$1,000,000.00, the LPA must select a contractor from the ALDOT prequalification list.

Note: Subcontractors are not subject to the prequalification requirement.

[23 CFR 635.110\(c\) Licensing and Qualifications of Contractors](#)

The **prime** contractor must perform at least thirty (30) percent of the total original contract price excluding any identified specialty items. Work proposed to be performed under a subcontract must be approved by the LPA in writing through a formal process. Prior to approving the subcontract, the LPA must assure that the subcontract contains all pertinent provisions and requirements of the prime contract.

11.11.1 Amendments to the Bid Documents

The LPA must submit to the ALDOT Region Engineer any addendum to be issued during the advertisement period. Under no circumstances should the addendum process be used to circumvent State or Federal laws, regulations, or guidance. All bidders must bid the project on the same or comparable basis, so that no particular advantage or disadvantage accrues to any potential bidder or to the contracting agency. Since an addendum issued during an advertisement period could have a profound impact, not just on bid prices, but also on the basis for bid comparisons, all prospective bidders must be made aware of any addendum, as expeditiously as possible.

ALDOT must approve such addendum for project eligibility prior to bid opening. For full FHWA oversight projects, ALDOT will submit the addendum to the FHWA Division office for review and approval prior to awarding the contract. The LPA shall furnish any modification to the plans, specifications, or schedule of items to all parties who obtained plans and specifications for the project. The LPA must provide documentation of the receipt of the addendum to the ALDOT Region Engineer. ALDOT does not accept any proposed addendums within five (5) business days of bid opening.

11.11.2 Bid Opening

The bid opening is a public forum where the bids are opened and read aloud either item-by-item, or by the total bid amount. The LPA informs the ALDOT Region Engineer (or designee) once the bid opening date and time is established. ALDOT shall keep FHWA apprised of these activities on full oversight projects. The bid opening should identify the apparent low bidder submitting the lowest, responsive bid. A responsive bid meets all the requirements of the advertisement and proposal. If a bid is determined to be unresponsive (*bid irregularities*), it does not have to be read. However, the bidder and the reason must be announced. The LPA needs to document and retain its reasons for not reading a bid. Some reasons for not reading a bid due to irregularities include:

- Failure to sign the bid, or signature is not by authorized personnel;
- Failure to furnish or sign the required bid bond;
- Failure to include unit prices, extensions, and/or lump sums;

- Failure to submit a non-collusion affidavit;
- Failure to commit to the DBE contract goals or demonstrate good faith effort to do so;
- Failure of the contractor to be prequalified, if required, for that type of work; or
- Inclusion of conditions or qualifications not provided for in the specifications.

11.11.3 LPA Bid Analysis and Evaluation

23 CFR 635.114(a), [Award of Contract](#), requires Federal-aid contracts to be awarded only on the basis of the lowest responsive bid. This requirement applies to all Federal-aid construction projects. FHWA has stressed that estimates should be accurate and credible, based on realistic current data, and while not required, it is recommended that they are kept confidential. Further, there should be written documentation for justifying the award of a contract or rejection of the bids, when the low bid appears excessive, relative to the Engineer's Estimate, or rejection is being considered for other reasons. Factors that should be considered and documented by the LPA in reviewing the bids received for a project include:

- Comparison of the bids against the engineer's estimate;
- Number of bids submitted;
- Distribution or range of bids received;
- Identity and geographic location of the bidders;
- Potential for savings if the project is re-advertised;
- Bid prices for the project under review versus bid prices for similar projects in the same letting;
- Urgency of the project;
- Current market conditions/workload;
- Any unbalancing of bids (mathematically and/or materially);
 - Mathematically unbalanced bid: a bid that contains lump sum or unit bid items that do not reasonably reflect the actual costs (plus reasonable profit, overhead costs, and other indirect costs) to construct the item.
 - Materially unbalanced bid: a bid that generates reasonable doubt that award to that bidder would result in the lowest ultimate cost to the LPA of ALDOT.
- Which unit prices differ significantly from the estimate and from other bids (compare the 3 lowest bidders, if applicable)?
- Is there justification for the difference in unit prices; and
- Any other factors the LPA has determined to be important.

The LPA should analyze the bids for responsiveness and errors. The LPA and ALDOT should refer to the FHWA [Guidelines on Preparing Engineer's Estimate, Bid Reviews, and Evaluation, January 20, 2004](#) during their bid analysis. The analysis should result in a contract award to the lowest responsive bid. Should the bid be over the engineer's estimate, the LPA shall determine,

if the bid amount is appropriate and provide written justification to ALDOT to award or reject the project. ALDOT, and FHWA for full oversight projects, must concur in the LPA's acceptance or rejection of bids. Even if competition is determined not to be adequate, the LPA may recommend the bid be accepted based on other documented reasons.

11.11.4 ALDOT Bid Concurrence

The LPA must prepare an itemized tabulation summary of all bids received and submit it to the ALDOT Region Engineer. The tabulation must list each bid item, the bid quantity for that item, and the unit price for each item bid by all bidders. ALDOT, and FHWA for full oversight projects, must concur prior to awarding a contract. The ***LPA must submit a request for concurrence*** with the itemized bid tabulation summary for the project. All applicable DBE forms must be submitted to the ALDOT DBE Contracts Office. The ***written request must include a statement from the LPA indicating their selection or rejection of the low bidder*** and their desire to proceed or not to proceed with the award of the contract. ALDOT, and FHWA on full oversight projects, will review the selection and ***issue a written concurrence to the LPA if acceptable.***

11.11.5 Awarding and Executing the Construction Contract

The LPA must award the project construction contract in accordance with Federal and State laws and policies. The LPA should apprise its legal counsel of any legal concerns with the bids or the award. Once the LPA has received written concurrence, it must provide notification of any project award to the ALDOT Region Engineer, Region LPA Project Coordinator, Local Transportation Bureau, and the ALDOT Consultant Management Engineer. For full FHWA oversight projects, ALDOT will submit the notification of award to FHWA for approval within thirty (30) days of bid opening and provide a copy of the resolution from the LPA. If the project has been assigned a DBE goal, the LPA must also include documentation from the contractor that all DBE commitments will be met. Federal funds will not be encumbered or released without this information.

Once the project has been awarded, the LPA may sign and enter into a contract with the awarded contractor. The contract should include items specified in the bid proposal, including all Federal and State requirements. The LPA retains original contracts it executes with consultants/subcontractors, but must forward copies of the fully executed contract to the ALDOT Region Engineer for project files. Copies will be provided to Bureau of Office Engineer and other Bureaus and Offices as needed. The Region Engineer will also provide copies of executed contracts to FHWA on all *full FHWA oversight projects only*.

11.12 Bidding Procedures for State Let Projects

LPA projects let by ALDOT must follow the same Federal requirements, procedures, schedules, and bid analysis procedures as if it were to be a LPA let project. The LPA will prepare all documents needed for the PS&E review. ALDOT will create the contract bidding documents, approve all PS&E documents, advertise the project, evaluate the bids, and select the low bidder for the LPA. The LPA will be responsible for concurring in the award and executing the construction contract. For projects with full FHWA oversight, ALDOT will submit the PS&E package to the FHWA Division office for review and approval prior to advertising the project. FHWA will be responsible for reviewing and concurring in the project low bid.