CHAPTER 7. CONTRACT ADMINISTRATION
SECTION 7. CONTRACTOR COST OR PRICING DATA (TRUTH IN NEGOTIATION)

7.7.1 Introduction.

a. Public Law 87-653, commonly called the Truth-in-Negotiation Act, was passed by Congress in 1962 requiring Contracting Officers, in certain circumstances, to obtain cost or pricing data from contractors, and to have the contractors certify that the data presented is current, complete, and accurate. The law also provides that where the certified data is not in fact current, complete, or accurate, the Government will have the right to revise the price downward, but not upward, to compensate for the defective data. The current threshold for obtaining cost or pricing data is $500,000 (FAR 15.403-4).

b. The purpose of the Truth-in-Negotiation Act (the Act), including subsequent revisions is to require contractors to submit truthful cost or pricing data. While all elements of cost may not be ascertainable at the time a contract or modification is awarded, the law requires that those costs that *are* capable of being determined must be accurate, complete, and as current as practicable. The implementing instructions for obtaining cost or pricing data are FAR/DFARS 15.403. Based on the law, as implemented and supplemented by FAR, DFARS, and EFARS, cost or pricing data will be obtained based on the amount of the proposal, NOT the amount of the Government Estimate or any conjecture as to the final outcome of negotiations. The exception to submitting cost or pricing data is an event where a contractor withdraws his or her proposal and substitutes a proposal less than the specified threshold amounts.

c. Subcontractors may also be subject to the provisions of the Truth-in-Negotiation Act, the Competition in Contracting Act of 1984, and the FAR/DFARS/EFARS requirements. FAR considers suppliers as sub-contractors. During a new contract negotiation where the prime contractor has not furnished two or more competitive subcontract quotations, the prospective subcontractors must submit cost or pricing data if their proposals are either: $1,000,000 or more; or both more than $500,000 and more than 10% of the prime contractor's total proposal. For contract modifications where the contract price exceeds the cost or pricing data threshold, subcontractors are subject to the same cost or pricing data and field pricing support report requirements as the prime contractor. If the contract action is in excess of $500,000, subcontractors are subject to the same audit requirements. The requirements also apply to subcontractors and suppliers at any tier when the prime and higher tier subcontractors are required to submit data.

d. There are five so-called exceptions to the cost or pricing data and audit requirements (FAR 15.403-1b). These exceptions involve those instances where price is based upon either:

(1) Adequate price competition,

(2) Prices set by law or regulation (e.g., utility rates),

(3) When a commercial item is being acquired,

(4) Certain exceptional cases where the Head of an agency may grant a (blanket) waiver on the basis of a written determination setting forth the reasons.

(5) When modifying a contract or subcontract for commercial items.

The criteria for these exemptions are discussed in FAR 15.403-1(c).

In construction, there are no known instances where exception (4) would apply. Further, there are some limitations in the use of exception (1), (2), and (3). For example, in modifying an existing contract it would not be practical to obtain competitive price quotations at the prime contract level since one contractor is already obligated to the contract. However, if subcontract work is involved, the prime contractor may be able to obtain competitive quotations from several subcontractors, thereby allowing partial relief under exception (1). (The prime's costs would still be subject to cost or pricing data requirements.) Normally, in construction this exception applies to material suppliers and despite the request for exemption, the Government may perform a review (audit) to determine if the submitted data are indeed established catalog or market prices.

7.7.2 Cost or Pricing Data. (FAR 15.401)

a. Cost or pricing data consists of all facts, which can reasonably be expected to contribute to sound estimates of future costs, as well as the validity of costs already incurred. Contractors must submit, and identify in writing, all cost or pricing support data which is verifiable and factual, and must present historical or factual data to back up any judgmental costs or prices. The submittals should provide documentation such that a reviewer or auditor can readily understand the estimating and accounting practices used; the type of information available and how it pertains to the pricing; and the location of non-furnished supporting data. The Act, in essence, obligates the contractor to reveal to the Contracting Officer all data pertinent to the procurement action in question. The cost or pricing data must be sufficiently detailed to make any certification meaningful; to allow a timely and meaningful audit; and to allow for a timely, successful conclusion of negotiations.

b. DELETED

c. Contractors must furnish sufficient information to show the precise manner in which the cost or price proposal was derived (see exhibit 7-7*1). Because there are varying methods of estimating the following is a general outline of the types of information that the contractor should furnish see FAR15.408 for additional guidance. The proposal must include the following list of the cost and pricing elements:

(1) Labor *Costs*. Include the crafts to be used, the number of man-hours per craft, the wage rate applicable to each craft, and the benefits paid each craft. Show payroll tax and insurance applicable to each craft.

(2) Materials *and Installed Equipment*. Set forth the estimated or actual quantities of materials to be incorporated in the construction, together with the applicable unit costs of such materials. Similarly, furnish the quantities and unit costs of installed equipment.

(3) Construction *Equipment*. For contractor-owned equipment, include the hourly ownership and operating rates for each piece of equipment expected to be used on the project. The rate will be in

accordance with the Corps' Construction Equipment Ownership and Operating Expense Schedule, if actual costs for both ownership and operating costs for each class of equipment are not available. For equipment not owned by the contractor, an hourly rental rate and source must be furnished. For either type of equipment, the number of hours of anticipated use on the changed work and the hourly operating costs must be furnished. Also, details of any costs associated with mobilizing or demobilizing.

(4) Subcontract *Costs*. Since subcontract costs are a part of the cost or pricing data, present quotations/proposals in the same detail as that required of the prime contractor.

(5) Overhead. Breaks down the proposed overhead costs by individual cost elements and separate field office overhead and home office overhead. If overhead is expressed as a percentage of direct costs, the contractor will furnish the basis of the proposed rate.

(6) Other *Costs*. Show profit, bond, and taxes separately.

d. It is important that the contractor identify cost elements as either "factual" or "judgmental." For example, equipment operating time, estimated man-hours, and some material quantities may be considered judgmental. Proposed unit costs for materials, equipment, and labor wage rates should generally be factual; however, judgment may be involved in choosing the material or equipment being proposed, or choosing the craft or crew size needed to perform the work. It is the factual information, which is subject to post-award verification, and as such is subject to any certification by the contractor and price reductions in the event defective data is discovered.

7.7.3 Technical Analysis.

a. The technical analysis of a contractor's proposal determines the need for and reasonableness of the proposed resources to be used in the work, assuming reasonable economy and efficiency. Ultimately, the technical analysis is the basis for negotiating the technical aspects of a contract or modification.

b. FAR 15.404-1 (e) requires the Government to make a technical analysis of the proposal when "cost or pricing data" is required. In addition, Huntsville Center policy requires a technical analysis for ***all*** changes more than $100,000. If an audit is necessary, provide the technical analysis for those areas requiring audit assistance to the auditor, as discussed later in paragraph 7.7.4. The technical analysis must be documented and incorporated (or referenced, if a separate report is prepared) into the Pre-negotiation Objective Memorandum.

c. As a minimum, include the following information in the technical analysis report(s):

(1) A description of the proposal and items analyzed. Qualified technical personnel should review their areas of expertise. The analysis can include separate reports or several reviews consolidated into one report.

(2) Data used in the analysis and the manner in which used.

(3) Constraints on the analysis (e.g., time limitations, lack of data, requested but not provided, etc.).

(4) Data requested and data received from the contractor. Describe how the analysis was conducted in the absence of required data.

(5) A detailed item-by-item description of the proposal analysis with findings, recommendations, and supporting rationale.

(6) A marked-up copy of the contractor's proposal shows the results of the technical analysis.

(7) Any special problems relating to the change. Identify any unacceptable item or items in the proposal which are not a part of the change involved.

(8) Information concerning any other change order action having a bearing on or relationship to the subject change.

(9) An evaluation of the judgmental aspects of the proposal for necessity and reasonableness.

(10) If applicable, the contractual basis for the change, e.g., in the case of a claim proposal, what the claim is based on. This could be a separate document.

(11) Identify whether or not the work has already been performed.

(12) The analyst should be aware that contractors typically include such items as equipment depreciation, home office shops, mechanics, parts inventory, etc., in their home office overhead pool. This is standard accounting practice for commercial construction and on Government contracts (FAR 31.2), unless a cost schedule, such as the Corps' Construction Equipment Ownership and Operating Expense Schedule is specified. Most contractors' accountants are not aware of special treatment when the Corps' guide is used. When it is used, all such costs must be removed from the G&A pool. The Corps' equipment schedule rates consider these costs. Duplication will occur if any costs separately proposed in the proposal or in the overhead rate are not removed. When an audit is required, *the analyst should not assume that the auditor would automatically handle such costs correctly.* Advise the auditor whether the Corps' schedule applied. Experience has shown that DCAA auditors, who normally audit defense contracts or non-Corps defense construction contracts, will not properly handle overhead and equipment costs, if not specifically alerted that the Corps' Equipment Schedule is applicable. Use caution when using previous audits for reference. Always check with the auditor to see how G&A and equipment costs were treated.

d. The detailed item-by-item analysis of the contractor's proposal and resulting findings and recommendations are the most important part of the analysis. This will identify areas of agreement or disagreement on the scope of the work. The supporting documentation should confirm the contractor's quantities or include the analyst's or the Government's estimated quantities for elements, which disagree. The reviewer should apply his or her own knowledge and experience to the analysis as well as other references, such as market analysis, previous contracts, previous modifications, stored material invoices, time and labor studies, observation, QA/QC reports, equipment lists, the Government's Estimate, etc. As a minimum, the detailed analysis should address the following for each item of the proposal:

(1) Labor: Proposed crew size, type and number of skilled and unskilled labor, supervision, production rates, labor hours, work shifts, work week, and overtime and shift differentials. The evaluation

should take into account the location, type of construction, and climatic conditions.

(2) Materials and Supplies: Proposed quantities and types of materials, supplies and installed equipment. This should include the quantities shown for waste and scrap. An evaluation of any price escalation to current or future levels. An analysis of methods used to determine shipping costs.

(3) Construction Equipment and Plant: Proposed equipment types, equipment spreads, production rates, and hours used. Comment on whether equipment is owned, rented, leased, on site, and if mobilization is required. Estimates of small tools and miscellaneous items. Advise whether or not the Special Clause, Corps of Engineers' Construction Equipment Ownership and Operating Expense Schedule is in the contract (see above discussion). Comment on whether equipment costs were based on the Equipment Ownership and Operating Expense Schedule, actual cost or rental rates. If rental rates are used, comment on the necessity for using rental equipment. Consider concurrent use or standby status of equipment. Consider whether equipment is in operable condition.

(4) Subcontractors: A review of the subcontractor's cost or pricing data should be in the same detail as required for the prime contractor. The analyst should study the appropriateness of the contractor's decision to either subcontract or perform the work. The reviewer must also analyze decisions by subcontractors to further subcontract their work. Excessive subcontracting results in multi-tiered markups to the Government. This must be weighed against the possibility of lower direct costs achieved by better efficiency of specialists.

(5) Alert the auditor, when applicable, to the contract Special Provision for use of the Corps of Engineers Equipment Ownership and Operating Expense Schedule. This special requirement determines how depreciation, repair costs, and rental costs must be allowed (e.g., as indirect or direct costs) to avoid duplication.

(6) The estimated effect of the change on the contract time and if the change will be concurrent with other Government or contractor delays. How much of the time is compensable.

(7) Analysis of the items included in the proposed field overhead, identifying nonrecurring costs, costs which will be incurred if additional time is required ("fixed costs"), costs which will vary and a result of the magnitude of the change ("variable costs"), or costs which may be "semi-variable," exhibiting both of the above characteristics. See Section 5 for an example of classification of field office overhead.

(8) An analysis of appropriateness of proposed impact on other work.

(9) An analysis of lab/testing or other special requirements, such as design, field engineering, consultants, etc.

(10) Analysis and comment on contingencies and their bases.

e. The technical analysis report is the vehicle through which the auditor can be asked to investigate the contractor's records concerning particular aspects of the proposal, therefore, when we fail to furnish an adequate technical analysis in a timely manner, we miss the opportunity to gain information that can be extremely valuable to the negotiator. The key to obtaining useful feedback is to take the time to clearly state

all information needs and recommendations to the auditor. The technical analysis report is a part of the documentation used to make cost analysis and to establish pre-negotiation objectives. It should be marked "For Official Use Only" ***and will not be furnished to the contractor before the modification is finalized.*** **Also, since the technical analysis report will be included in the audit report, pertinent sections of the audit report or the entire audit report (as necessary) will be withheld from the contractor until the modification is finalized.**

f. See Exhibit 7-7*2 for an example of a technical analysis report.

7.7.4 Audits. (FAR 15.404-2)

a. The Truth-in-Negotiation Act and the related Public Law 90-512 give the Government authority to examine the contractors' records in order to evaluate cost or pricing data. The implementing FAR/DFARS (with exceptions to be discussed in paragraph b. below) allow the Contracting Officer, prior to negotiations, request a Field Pricing Support Report (which may include an audit) on cost or pricing data submitted in connection with any contract or contract modification. The Contracting Officer should only request audit assistance for those areas of the proposal requiring DCAA field pricing support. As stated earlier, cost or pricing data is required for proposals of $500,000 or more. In accordance with DFARS 215.404-2, the Contracting Officer should not request an audit for proposed negotiated contracts or modifications of an amount less than $500,000, except when a reasonable pricing result cannot be established because of lack of knowledge of the particular contractor, sensitive conditions, or an inability to evaluate the price reasonableness through price analysis or cost analysis of existing data. **The Contracting Officer has the authority to require cost or pricing data and an audit of proposals of any amount exceeding $100,000.**

b. The Contracting Officer need not request an audit when sufficient information is available to accurately price the contract or change, for example, if currently available (most recent complete calendar or fiscal year data) audit information (on the contractor and/or subcontractor) is available. An audit report covering current year financial data and most costs in the proposal would be sufficient to justify not requesting an audit. An audit report covering only current overhead costs might not suffice. If the audit report contains negative results regarding the previously submitted cost or pricing data, the field office should examine how the problem areas were resolved.

c. The Resident Engineer will prepare requests for audits and forward to DCAA with a copy to CD-CA, except where special circumstances or understandings warrant initiation of the requests in HNC. CD-CA will retain a copy of the request package in the event questions are directed to HNC. The request packages will include the contractor's proposal (cost or pricing data), the negotiator's technical analysis, the negotiator's instructions or requests for special audit attention, and the street address where the contractor's records are located (Post Office Box addresses are not acceptable). The request for audit should also cite a "due date" for the audit report, recognizing that experience shows that audits may require 30 to 45 days to complete. In view of this lead-time, audit requests should be made as soon as possible after receipt of the contractor's cost or pricing data.

d. The technical analysis, for those items requiring audit assistance, should accompany the request for audit. If the analysis cannot be furnished with the request for audit, advise the auditor of a date by which the analysis will be furnished so that the audit completion date can be adjusted accordingly. Throughout the years, experience has shown that even though an analysis was furnished to the auditors, the audit reports generally indicate that none was provided. Careful readings of such reports reveal, in most cases, that the

auditors are actually saying that an adequate or useful analysis was not provided. In the past, most analyses have been a generalized restatement of pricing elements, with a request that the auditors confirm the figures.

e. Audits of subcontractor cost or pricing data are handled the same as audits on prime contractor data. FAR 15.404-3 requires the prime contractor to perform price analysis of all significant subcontracts and cost analysis when subcontractor cost or pricing data is required, and to eventually certify that the data is accurate, current, and complete. However, since such evaluation would require a review of the subcontractor's records, accounting practice, etc., the proprietary nature of these sources tends to preclude one contractor searching through the records and business practices of another contractor. Accordingly, if prime contractor evaluates a subcontractor's data at all, it would likely be limited to technical and price aspects only. Thus, the Government has taken on the full responsibility of the audit evaluation of the subcontractor's cost or pricing data.

f. Audit results should be recognized as an evaluation of the contractor's submitted cost or pricing data. Audits do not provide the magic solution to the question of equitable price adjustments. All audits explicitly state that they are qualified as to quantitative (material quantities, labor hours, etc.) and qualitative (materials are as specified, equipment or labor is capable of performing, etc.) aspects of the proposal; and qualified to the extent that further technical considerations may alter the audit results. Audits also state that they are qualified to the extent that a post-award review may alter the results. Notwithstanding these qualifications, audit reports will either support, unsupported, question, or leave unresolved, the contractor's cost or pricing data. These categories of results can be explained as follows:

(1) Supported (reports generally reflect no comments on these elements). For these elements, the contractor has satisfactorily shown the auditor how the proposal was developed and supported. However, as explained above, these costs cannot be automatically accepted since technical aspects have not been fully evaluated.

(2) Unsupported. Normally these cost elements are primarily judgmental and the contractor has not shown a logical development of the costs, or has used outdated information. The reasons for unsupporting the costs are explained, and in most cases, instructions are given as to what is needed by the Contracting Officer in order to accept or rely on the proposed cost in question.

(3) Questioned. The questioned costs primarily relate to factual information or data, and involve those cases where a proposed cost is clearly included in two cost accounts (i.e., duplicated); or is clearly contradictory to hard-copy evidence presented in support of the cost element. Proposed costs may also be questioned if the contractor was totally unable to provide any support or logic whatsoever.

(4) Unresolved. Unresolved costs are generally those involving separate audit actions. For example, if the required audit on a subcontractor is performed by a separate audit office, the auditor performing the prime contractor audit will unresolve the subcontract price. Costs may also be unresolved when a contractor is able to develop a cost or price element, but is unable to show that the element is allocable to the contract or modification (change order) action.

g. Finally, in regards to audit results, complaints generally include comments that the audit was useless in negotiations, or that the auditor did not provide all of the information requested. It must be realized that:

(1) The audit involves evaluation of cost or pricing data as submitted by the contractor, and therefore, the audit will only be as good as the data submitted. Thus, if a contractor submits lump sum cost data (which is not technically cost or pricing data), the auditor may have no choice but to unsupport the data submitted and outline what the Contracting Officer needs to demand from the contractor in order to have certifiable cost or pricing data.

(2) It is neither the auditor's duty nor responsibility to derive a breakdown of contractor-proposed costs and to then evaluate that breakdown. If the negotiator needs a breakdown, it should be demanded from the contractor prior to requesting an audit. As indicated earlier, the required cost or pricing data includes detailed breakdowns and supporting information and to forego this requirement, the results will be a meaningless audit and in most cases a long and arduous negotiation.

7.7.5 Cost and Price Analysis. (FAR 15.404-1)

a. When cost or pricing data are required, FAR requires a "cost analysis" of the proposal to evaluate the reasonableness of individual cost elements. In addition, Huntsville Center requires a cost analysis for all non-competitive modifications greater than $100,000. FAR requires a price analysis for all pricing actions to ensure that the overall price offered is fair and reasonable. The analyses are documented in the Pre-negotiation Objective Memorandum. Inclusion of a marked-up proposal in the file is recommended. The proposal can also include technical and cost analyses. The pre-negotiation objectives, as explained in chapter 8, must consider the price and cost analysis in establishing individual cost objectives and the overall price objectives.

b. FAR 15.404-1 provides price analysis techniques, as follows:

(1) Competitive: Comparison of proposed prices received in response to the solicitation.

(2) Applying rough yardsticks such as cost per pound, per square foot, cubic yard, etc.

(3) Comparison with price lists, published market prices (e.g., Engineering News Record), making market surveys of other suppliers.

(4) Comparing prices with previous contracts, modifications, invoices, experience, etc.

(5) Bottom line or sectional comparisons with the Government's Estimate (e.g., electrical, mechanical, etc.)

(6) Analyze appropriateness of proposed subcontracting. Can the contractor perform the work himself? How many tiers of subcontractors are there? Etc.

c. FAR 15.404-1 provides cost analysis techniques, as follows:

(1) The detailed cost analysis should take into account the results of the audit and technical analysis. For example, if the auditor determines concrete unit prices, labor rates, labor fringe rates, bond rates, indirect rates, the cost analysis should consider these. Likewise, a cost analysis should call attention to elements of the audit report, which appear to be incorrect or unreasonable for further exploration with the auditor.

(2) The cost analysis should verify that the proposed cost elements are in accordance with the contract cost principles in FAR Part 31.

(3) Verify correct application of equipment rates (ownership, standby, rental, F.O.G., repairs, etc.).

(4) Necessity for and reasonableness of proposed costs and allowance for contingencies.

(5) Evaluation of escalation factors.

(6) Comparison of actual costs previously incurred for the same or similar work, previous proposals from this or other contractors, your previous experience, etc.

(7) Market surveys.

(8) Comparison of cost elements in the Government's Estimate.

(9) Review to ensure that complete cost data has been submitted.

d. A math check of the contractor's proposal is mandatory.

7.7.6 Pre-negotiation Objectives. See chapter 8 for detailed requirements of the pre-negotiation objectives.

7.7.7 Negotiation Record. The negotiator must use the proposal (cost or pricing data), profit analysis, the Government Estimate, and the audit report in negotiating an equitable price adjustment. In order for the full intent of the Act to be realized, direct the negotiation toward the contractor's submitted data, with revisions made in that data in accordance with the audit results and technical analyses. In other words, procedures such as offering to settle at a total price figure without defining how the total was derived from the data may well result in rendering the Act useless. This does not mean that the negotiator and contractor must agree on every element of the bottom line cost agreement. However, the negotiator must document those proposed cost elements, which were relied on and included within the settlement. If the Government did not rely on the contractor's data, there can be no recovery for defective data. When data is relied upon, the record of negotiation must so state, setting forth the specific data relied upon (FAR 15.406-3). Further, the record of negotiation must explain how the audit results were used or resolved, or if not used, why. If the record of negotiation is not explicit in these areas, the Act might not be enforceable. Include a marked-up proposal and refer to it in the Price Negotiation Memorandum, if possible, to reconstruct the settlement, item by item. See chapter 11 for detailed requirements for the Price Negotiation Memorandum.

7.7.8 Certification. Cost or pricing data, which is required to be submitted, is also required to be certified. The certification is to be obtained upon completion of negotiations, and therefore, applies to the cost or pricing data as revised during negotiations and is current as of the date of agreement. Even though subcontractors may have submitted cost or pricing data, only the prime contractor is required to furnish a certificate to the Government. The Government will recover damages from the prime contractor, regardless of whether the subcontractor's or prime's data was defective. However, as a matter of policy, but not mandatory, the contractor should be requested to furnish the Government copies of subcontractor certificates. These copies give the Government the opportunity to ascertain that the contractor is complying with contractual requirements for subcontract cost or pricing data/certification, and to determine that the contractor is legally covered in the event defective data is discovered in subcontract data. Include the certification(s) in the official modification file along with the Record of Negotiation. The certificate shown as Exhibit 7-7*3 prescribed by FAR 15.406-2.

7.7.9 Reporting Profit Statistics.

a. In accordance with DFARS 215.404-70, Resident Offices must prepare and forward a DD Form 1547, "Record of Weighted Guidelines Method Application", to CEHNC-CD-DA for any contract action of $500,000 or more which requires cost and profit analysis.

b. CEHNC-CD-CA will forward the completed form to CEHNC-CT for upward reporting to HQ, USACE, within 120 days of final negotiations.

c. As the form was developed for use with the DFARS "Weighted Guidelines Method", some modified instructions are necessary for use with the "Corps of Engineers Alternate Structured Approach", with we use. Instructions and a sample form are provided in Exhibit 7-7*4**.**

d. Send the completed form to CEHNC-CD-CA in the reference copy of the modification file.

7.7.10 Post-Award. Current contract provisions, as well as the Act itself, permit the Government to conduct a post-award audit of the contractor's books and records to determine actual costs incurred in performance of a contract. Such post-award audits cannot be used for evaluating profit-cost relationships and are limited to the single purpose of determining whether or not defective cost or pricing data were, in fact, submitted either in support of the original contract price (if negotiated) or any modification to any contract. The post-award audits may result either from a specific request of a Contracting Officer or from audit action initiated independent of the Contracting Officer (such as the Defense Contract Audit Agency simply choosing to follow up on a previously audited/negotiated modification for which cost or pricing data was submitted). Whenever post-award audit is furnished, the Contracting Officer must respond as to (1) whether the defective data was indeed submitted and relied upon, and (2) the results of any contract action taken. At present, Government audit agencies are under directives to increase involvement in post-award audits, and therefore, the targets of such audits are being randomly chosen by the agencies without input from Contracting Officers. The Government may obtain a price reduction including profit of any significant amount by which the price to the Government was increased because of defective data. The price reduction is limited to only those cost elements represented as "factual".

7.7.11 Sample Formats. Also attached to this section is an example of Typical Detail and Identification of Cost and Pricing Elements as required in support of modification cost proposals, Exhibit 7-7*5.

7.7.12 Exhibits.

Exhibit 7-7*1.	Requirements for Cost and Pricing Proposals.
Exhibit 7-7*2.	Technical Analysis Report.
Exhibit 7-7*3.	Certification of Cost and Pricing Data.
Exhibit 7-7*4.	Weighted Guidelines (Sample and Instructions).
Exhibit 7-7*5.	Typical Detail and Identification of Cost and Pricing Elements.

REQUIREMENTS FOR
COST AND PRICING PROPOSALS UNDER
TRUTH IN NEGOTIATION ACT

1. Listing of all cost and pricing elements, e.g.,

   - Labor to be used.
   - Construction equipment to be used.
   - Materials and supplies which will be consumed or incorporated in the work.
   - Purchased end-items or components to be incorporated in or furnished as
   - Part of an end-item of construction.
   - Subcontract proposals, if used.
   - Indirect charges, job and home overhead
   - Profit (see the guideline for computing profit, Exhibit 4).

2. Identification of all cost elements, e.g.,

   - FACTUAL - Fixed or established and not controlled by job performance; wage agreements, suppliers' quotations, rental agreements, taxes, etc.
   - JUDGMENTAL - performance, efficiency, need.

Exhibit 7-7*1. Requirements for Cost and Pricing Proposal.

CEHNC-CD-CA (file number) Date

MEMORANDUM FOR CONTRACTING OFFICER

SUBJECT: Civil Engineering Technical Analysis of Contractor's Proposal; Contract No. DAA09-92-C-XXXX, Anniston Chemical Agent Disposal Facility (ANCDF), Change Request AN-2-XXX-2

1. Following are the results of my technical analysis of Low Bid Construction Company, Inc.'s proposal for Change Request AN-2-XXX-2. This analysis was performed in response to your request dated 1 November 1994. It covers only direct work to be performed by the prime contractor. It does not address work to be performed by subcontractors or any indirect costs. The contractor was not contacted as part of this evaluation. Other Resident Office personnel have analyzed the mechanical and electrical parts of the proposal.

2. Comments are arranged to parallel the contractor's proposal. A marked-up copy of the proposal is attached which demonstrates the price effects of my recommendations, and to assist in understanding my comments.

3. Item 1, Required over-excavation of site:

a. The proposed quantity of 2,310 cubic yards is reasonable. The contract drawings show a neat-line quantity of 2,312 cubic yards calculated using the average-end area method at 100-foot intervals.

b. The proposal contains 80 hours each for a 490 track-hoe and 50 track-hoe. Both pieces of equipment are currently on-site and being used for similar types of work, as verified by I. M. Tuff, Project Engineer, on 10 January 1994. The estimated hours of usage appear high. Excavating 2,310 cubic yards with 160 hours of excavator indicates a productivity of 14.4 yards per hour. Considering the depth of cut and the soil type (sandy clay) the manufacturer's productivity handbook indicates a productivity of 22.4 cubic yards per hour for the 490 track-hoe and 17.6 cubic yards per hour for the 50 track-hoe. The average of these is 20 cubic yards per hour per machine. Review of the quality control reports for the first two weeks in February shows that the contractor was averaging 21 cubic yards per hour on the East Side of the project where conditions were similar but slightly more favorable. Accordingly, I recommend using an average productivity of 20 cubic yards per hour per machine. This results in 57.75 hours for each machine, which I have rounded up. I have assumed a 45-minute hour in these calculations. Please note that the proposed rates do not appear to be in accordance with the Equipment Ownership and Operating Expense Schedule, EP 1180-1-1, as required by contract for contractor owned equipment.

c. It includes two dump trucks as well as the loader, and that proposed loader time of 32 hours is reasonable (see below). Since the two trucks together should haul 90 cubic yards per hour and the loader can load approximately 72 yards per hour, the duration of this work activity is controlled by the loader. Since the two trucks will be operating for the same hours as the loader, a total of 64 hours (2 X 32) is recommended for the trucks. Again, the rate should be verified using EP 1180-1-1.

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Exhibit 7-7*2. Technical Analysis Report.

SUBJECT: Civil Engineering Technical Analysis of Contractor's Proposal; Contract No. DAA09-92-C-XXXX, Anniston Chemical Agent Disposal Facility (ANCDF), Change Request AN-2-XXX-2

d. The proposal indicates that the 2310 cubic yards will be loaded in 32 hours, indicating a productivity of 72.2 yards per hour. Assuming a 45 minute hour the manufacturer's productivity handbook indicates a productivity of 70 cubic yards per hour when loading from a stockpile. Accordingly, the proposed time appears reasonable, and I recommend that the 32 hours be accepted.

e. The contractor has proposed $1,000 for rental of compaction equipment in conjunction with the item of work. The over-excavation does not require the use of compaction equipment, so any costs are inappropriate under this line item. I recommend that the entire amount of $1,000 be removed.

f. The proposal includes a total of 240 operator hours under this item. The contractor does not clearly explain the source of this quantity, but it is noted that only 192 hours of equipment are proposed (80 hours of 490 track-hoe, 80 hours of 50 track-hoe, 32 hours of IT-80 loader). The difference of 48 hours is questioned as the number of operator hours should equal the number of equipment hours. In addition, 20 hours of the proposed time for both the 490 track-hoe and the 50 track-hoe were recommended for removal. That would further reduce the number of operator hours to 152 (240-48-40). I recommend that 152 operator hours be used. The collective bargaining agreement would allow the use of an apprentice in this loading operation, but the contractor does not have any apprentices on site. This appears reasonable as the majority of basic contract work would not qualify for apprentice work under the agreement.

g. I recommend that the total hours for teamsters be reduced from 74 as proposed to 64. This is to reflect the usage time for the trucks as recommended above. The teamsters will only be used when the trucks are operating. The contractor currently has one journeyman and one apprentice on site, as allowed by the collective bargaining agreement. Half of the recommended hours should be at the apprentice rate.

h. The contractor has proposed 80 laborer hours. This item does not require any direct labor, but it is normal for a contractor to assign a laborer as general support to operations similar to this one. Assuming that all excavation will be performed prior to any loading and hauling, the entire operation should take 92 hours (60 for excavators, 32 for the loader). With some over-lap of the excavation and the loading, 80 hours as proposed appears reasonable. I recommend the proposed number of labor hours be accepted.

4. Item 2, Concrete and masonry requirements; Install drain pipes through wall: The contractor has proposed 144 hours of journeyman plumber time to install 200 feet of 3 inch drain pipe. There are 20 required wall penetrations, each using 10 feet of pipe. This equates to 7.2 hours per penetration. Using a crew of two, each penetration should take approximately 2.5 hours to make. In addition, considering the number of fittings and working conditions, approximately 1 hour per location will be required for pipe installation. This indicates 7 hours per location compared with 7.2 hours as proposed. Since this work would normally be done with one journeyman and one apprentice at each location, I recommend that the total number of hours be accepted as proposed, but that the mix be revised to include half journeymen and half apprentices.

2

Exhibit 7-7*2. Technical Analysis Report (Cont'd).

SUBJECT: Civil Engineering Technical Analysis of Contractor's Proposal; Contract No. DAA09-92-C-XXXX, Anniston Chemical Agent Disposal Facility (ANCDF), Change Request AN-2-XXX-2

5. Item 3, Drainage pipe and fabric installation:

a. The contractor has proposed 70 hours each for a 490 track-hoe and IT-18 loader working together to move and place 200 tons of stone (see below). That equates to 2.9 tons per hour. Considering the required reach and the bucket size of the track-hoe, and assuming a 50 minute-hour, this equipment should be able to place 4.2 tons per hour according to the track-hoe manufacturer's handbook. The loader should be capable of moving approximately 6 tons per hour, which is faster than the track-hoe can place it. A small loader could keep up with the track-hoe and would operate less expensively, but as the contractor has the IT-18 on site, it would not be cost-effective to mobilize a different loader for this item. Using 4.2 tons per hour, it should take 47.6, or 48, hours to place the stone. Accordingly, 48 hours for both the 490 track-hoe and the IT-18 loader are recommended for placing stone.

b. The contract has proposed 30 hours of truck time for moving stone to the general work area (the loader time discussed above was for moving stone stockpiled in the work area to the track-hoe which will place the stone). This proposed 30 hours is unreasonable. The total quantity is 200 tons, and the truck will haul 16 tons per load. Observations by I. M. Tuff, the project engineer, show that the contractor's trucks are averaging 30 minutes per round trip to the quarry. Production is therefore 32 tons per hour per truck, resulting in a total of 6 hours. Loading at the quarry is done by the quarry operator and is included in the purchase price of the stone.

c. The proposed 140 hours for operators and 30 hours for teamsters should be reduced to 96 and 6 hours, respectively, to agree with the equipment usage hours recommended above. The track-hoe and loader operators must both be journeymen to satisfy the local collectively bargaining agreement. The teamster could be either a journeyman or apprentice, and the contractor currently has both on the site. I recommend that an average of the two rates be used.

d. The contractor has proposed 204 hours of laborer time to support the French drains one placement. Compared to the 70 hours of equipment proposed, this indicates an average of 2.9 laborers throughout the placement operation. The quality control reports show that the contractor has consistently used three laborers on similar operations performed as part of the original contract. Accepting three laborers for the 48 hours of placement time recommended above results in 144 hours of laborer time. A reduction of 60 hours is recommended.

e. The contractor's proposal includes 20 tons of stone for French drains. This is an apparent error. The neat line quantity taken off the drawings is 94 cubic yards. An average 2 tons per cubic yard would result in 188 tons. Allowing 5% for placement outside neat line results in 197.4 tons, which I suggest rounding to 200 tons. Note also that the contractor used 200 tons as the basis for his equipment and truck production time calculations. I recommend that the objectives and negotiations be based on 200 tons.

Exhibit 7-7*2. Technical Analysis Report (Cont'd).

6. Item 4, Modification of Existing Sumps:

a. The proposal includes 30 hours of 490 track-hoe time for ditching temporary lines. Recognizing the soil conditions at the site and the depth of cut, this productivity is supported by the manufacturer's productivity handbook. I recommend that it be accepted.

b. The proposal includes 16 hours of IT-18 loader time for moving and placing 12 tons of stone. This is excessive. Placement of this stone will be very similar to the placement of French drain stone discussed in Paragraph 5a, above. Using to production rate recommended their results in 3 hours of loader time instead of 16 as proposed.

c. The proposal does not include any truck or teamster time, although it will be necessary to move the stone to the site. A production of 32 tons per hour was used above, but the contractor will most likely have to make a separate trip for this partial load. As stated above, the project engineer has observed an average round-trip time of 30 minutes. I suggest that an hour of truck and teamster time be included under this item.

d. The proposal includes 46 hours of operator time, in agreement with the proposed equipment time. I recommend lowering this to 33 hours to agree with the equipment hour's recommend in Paragraphs 7a. and 7b. Laborer hours to install sumps should be 9 hours (3 laborers for 3 hours) instead of 48 hours as proposed. This provides the crew mix recommend for trench drain placement for the three hours of placement recommended above.

e. The proposal includes 160 laborer hours for sump maintenance, calculated on the basis of two laborers being required for the two weeks that the sumps are anticipated by the proposal to remain open. The sumps will most likely remain for approximately one week, the total hours of work as recommended. Two laborers are reasonable. Accordingly, I recommend that 80 laborer hours be allowed for sump maintenance.

f. The proposal includes 12 tons of #57 stone for fill for the sumps. The minimum quantity required by the drawings is 8 tons. Due to the placement method required and the location of the fill, 4 tons of waste and overage does not appear unreasonable. I recommend that the proposed quantity be accepted even though it is a 50% overage factor. The difference in material costs is not significant and attempts by the contractor to conserve materials would not be cost-effective in that the material savings would be consumed several times over by increased labor and equipment costs.

Exhibit 7-7*2. Technical Analysis Report (Cont'd).

7. Item 5, Elevator Removal and Replacement: I have reviewed the contractor's proposal for this item and find all judgmental elements to be reasonable except for truck and teamster hours.

Based on a production of 32 tons per hour as discussed above, delivery of the 60 tons required by this item should require only two hours of truck and teamster time instead of the ten hours proposed.

8. Time extension: The contractor has not proposed a time extension. Assuming that the modification can be awarded in the next 90 days, no time is necessary, as the proposed work will be performed concurrent with other work on the critical path.

9. Impact: The contractor has not identified any impact cost in his proposal. I agree the proposed work can be incorporated into the contract without disrupting the other contract work.

F. C. SHORE
Civil Engineer

5

Exhibit 7-7*2. Technical Analysis Report (Cont'd).

This is to certify that, to the best of my knowledge and belief, the cost or pricing data (as defined in Section 15-801 of the Federal Acquisition Regulation (FAR) and required under FAR Subsection 15-804.2) submitted, either actually or by specific identification in writing, to the Contracting Officer or to the Contracting Officer's representative in support of _____* are accurate, complete, and current as of _____**. This certification includes the cost or pricing data supporting any advance agreements and forward pricing rate agreements between offeror and the Government that are part of the proposal.

Firm_____

Signature_____

Name_____

Title_____

Date of Execution***_____

**Insert the day, month, and year when price negotiations wree concluded and price agreement was reached.

***Insert the day, month and year of signing, which should be as close as practicable to the date when the price negotiations were concluded and the contract price was agreed to.

In view of the responsibility outlined in the double-asterisk note above, and the potential far-reaching effects of the Act itself, the certificate must be signed by an officer of the firm or a duly appointed Attorney-in-Fact.

*Identify the proposal, quotation, request for price adjustment, or other submission involved, giving the appropriate identifying number (e.g., RFP No.)

Exhibit 7-7*3 Example Format for A Certificate of Cost and Pricing Data.

INSTRUCTIONS FOR COMPLETING DD FORM 1547

(See attached sample for reference. Form may be neatly handwritten in dark ink.)

Block 1. Leave blank.

Block 2.a. Enter first 6 characters of contract number (e.g., DAAA09)

Block 2.b. Enter contract year (e.g., 97 or 98 - DAAA09-97-C-0025).

Block 2.c. Enter "C" (DAAA09-97-C-0025)

Block 2.d. Enter last 4 digits of contract no. (E.g., 0025 - DAAA09-97-C-0025).

Block 3. Enter modification number.

Block 4.a. Enter year negotiation was finalized (use 2 digits, e.g., 97)

Block 4.b. Enter month negotiation was finalized (use 2 digits, e.g., 03 for March).

Block 5. Enter "CA01" for Military contract or "CW01" for Civil contracts.

Block 6. Enter contractor's name.

Block 7. Enter Code Number (CEC), if shown in block 14 of Contract, SF1442. Otherwise, leave blank.

Block 8. See list on pages 8G/6 and 8G/7 of this Exhibit. Enter the code that best describes your project.

Block 9. Enter C20.

Block 10. Enter "J" (this is the designated code for Firm Fixed Price contracts).

Block 11. Enter "3" (this is the designated code for construction/service contracts).

Block 12. Enter "4" (this designates the use of the OCE Weighted Guidelines as an "Alternate Structured Approach" for determining profit).

Exhibit 7-7*4 Weighted Guidelines (Sample Format and Instructions)

(Blocks 13 through 20 are the "Objective". Thus, the figures can be the pre-negotiation objectives, or the Government Estimate used in preparing the pre-negotiation objective, whichever provides amounts in the detail outlined.)

Block 13. Enter the total direct material cost, including sales tax, if any.

Block 14. Enter the total subcontractor cost.

Block 15. Enter the total direct labor cost, including "burden" mark-ups.

Block 16. Enter all other cost, except equipment, G&A and profit. Since the form has limited categories, the costs in this block would include field overhead, bonds, Goss Receipts tax, Builder's Risk Insurance and any other costs not specifically covered elsewhere. Because costs such as bonds and gross receipt taxes are normally applied after profit, but must be included on this form prior to profit, later computations for Blocks 33 and 35 may be distorted.

Block 17. Enter the equipment cost.

Block 18. Enter the Subtotal of Blocks 13 through 17.

Block 19. Enter the dollar amount of G&A (home office overhead) allowances.

Block 20. Enter the total of Blocks 18 and 19. This should be equal to the Government Estimate, less the amount for profit. Also enter this amount in block 31, under the Objective heading.

Block 21-30. The OCE Weighted Guidelines are not compatible with the categories on this form. Leave these blocks blank.

Block 31. Enter the Total Price, less the Profit amount. You will need to determine these amounts from the original proposal, the pre-negotiation objective (or Government Estimate), and the final negotiated amount. The amount entered for the objective should be the same as the amount in Block 20.

Block 32. Since the facilities capital cost of money is taken into consideration in the OCE Weighted Guidelines, enter "0" in these three columns. (If facilities capital cost of money is allowed as a separate cost, remember to reduce the profit allowance accordingly.)

Exhibit 7-7*4 Weighted Guidelines (Sample Format and Instructions)

Block 33. Using the percentage rates shown in the proposal, the objective or Government Estimate, and the rate negotiated, figure the profit amounts by applying the rates to the amounts in Block 31. Enter these amounts in the appropriate columns in Block 33. Due to the anomaly created by having to nclude "post profit" costs, such as bonds and some taxes, in "pre-profit" totals, the amounts shown in Block 33 may not be exactly those shown in the actual proposal, objective or Government Estimate and settlement. However, since the weighted guideline computation sheet will be submitted to higher authority along with the DD Form 1547, it is considered best to have Block 35 match the guideline sheet; and to have the figures in Block 33 derived from the rates shown in Block 35.

Block 34. Enter the total of Block 31 and 33 (and 32, if used).

Block 35. Enter the profit rates shown in the proposal, objective or Government Estimate and the Negotiated amount.

Blocks 36, 38 and 39. Leave these blocks blank. Since the completed form will be submitted along with the modification to be executed, the Contracting Officer's name, telephone number and a date will be entered by CDCA, depending upon when the Contracting Officer is available.

ATTACH A COPY OF THE WEIGHTED GUIDELINES COMPUTATION SHEET FOR THE OBJECTIVE RATE.

Exhibit 7-7*4 Weighted Guidelines (Sample Format and Instructions

RECORD OF WEIGHTED GUIDELINES APPLICATION

REPORT CONTROL SYMBOL DD FORM 1547

1. REPORT NO.	2. BASIC PROCUREMENT INSTRUMENT IDENTIFICATION NO.				3. SPIIN	4. DATE OF ACTION	
	a. PURCHASING OFFICE	b. FY	c. TYPE PROC INST COD	d. PRISN		a. YEAR	b. MONTH
	DACA01	92	C	0036	P00003	93	02

5. CONTRACTING OFFICER CODE	6. NAME OF CONTRACTOR	7. DUNS NUMBER	8. FEDERAL SUPPLY CODE	9. DOD CLAIMANT PROGRAM	10. CONTRACT TYPE CODE	11. TYPE EFFORT	12. USE CODE
CA01	T. L. Company, Inc.				J	3	4

ITEM	COST CATEGORY	OBJECTIVE
13	MATERIAL	415,857
14	SUBCONTRACT	20,000
15	DIRECT LABOR	134,354
16	INDIRECT EXPENSES	59,569
17	OTHER DIRECT CHARGES	30,000
18	SUBTOTAL COSTS (13 thru 17)	659,780
19	GENERAL & ADMINISTRATIVE	98,967
20	TOTAL COSTS (18 + 19)	758,747

WEIGHTED GUIDELINES PROFIT FACTORS

ITEM	CONTRACTOR RISK FACTORS	ASSIGNED WEIGHTING	ASSIGNED VALUE	BASE (ITEM 18)	PROFIT OBJECTIVE
21	TECHNICAL	%			
22	MANAGEMENT	%			
23	COST CONTROL	%			
24	PERFORMANCE RISK (COMPOSITE)				
25	CONTRACT TYPE RISK				
		COSTS FINANCED	LENGTH FACTOR	INTEREST RATE	
26	WORKING CAPITAL			%	

	CONTRACTOR FACILITIES CAPITAL EMPLOYED	ASSIGNED VALUE	AMOUNT EMPLOYED	
27	LAND			
28	BUILDINGS			
29	EQUIPMENT			
30	TOTAL PROFIT OBJECTIVE			

NEGOTIATION SUMMARY

		PROPOSED	OBJECTIVE	NEGOTIATED
31	TOTAL COSTS	946,222	758,747	907,253
32	FACILITIES CAPITAL COST OF MONEY (DD Form 1861)			
33	PROFIT	79,483	52,665	72,580
34	TOTAL PRICE (Line 31 + 32 + 33)	1,025,705	816,412	979,833
35	MARKUP RATE (Line 32 + 33 divided by 31)	8.4 %	7.6 %	8.0 %

CONTRACTING OFFICER APPROVAL

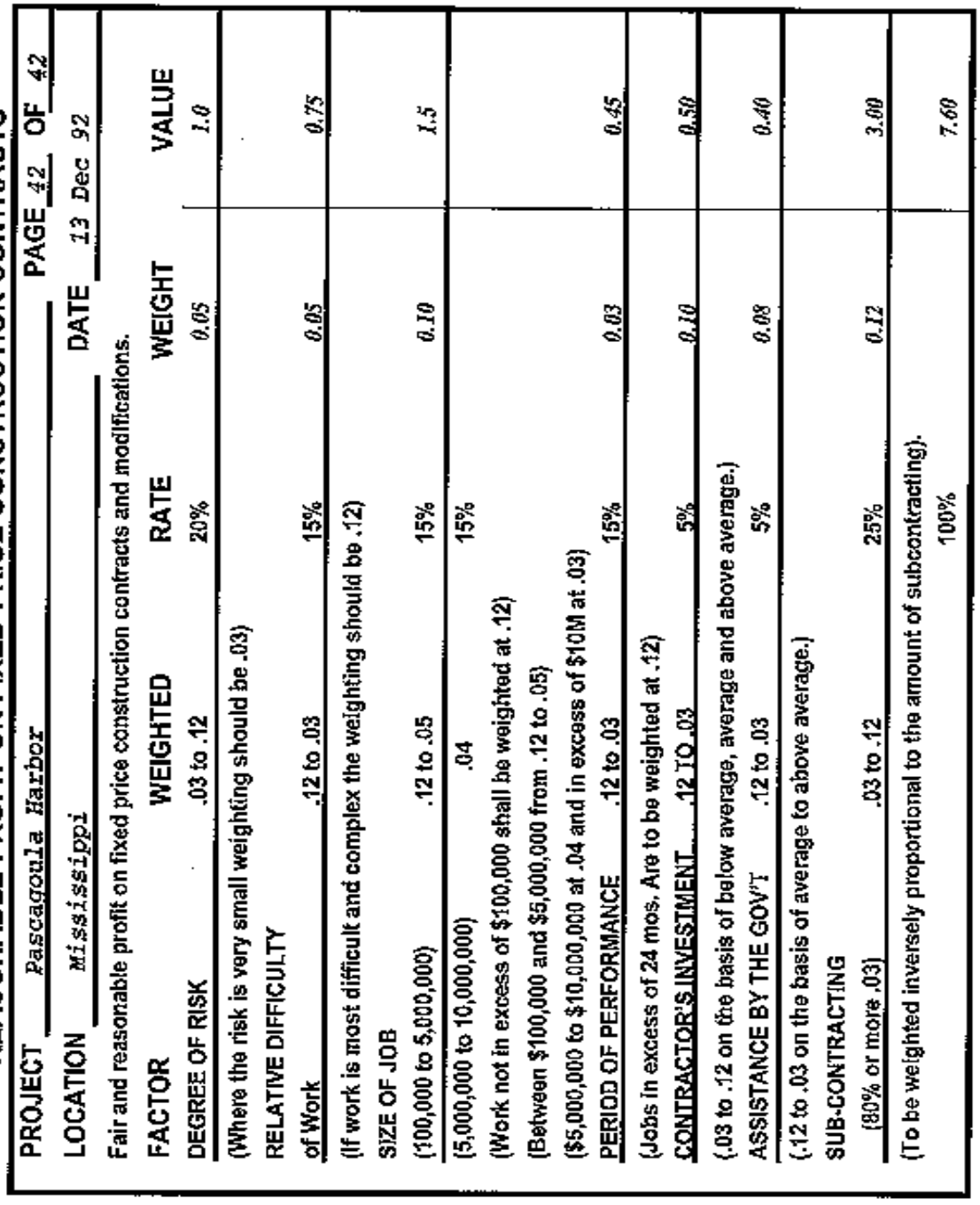
36	TYPED/PRINTED NAME OF CONTRACTING OFFICER (Last, First, Middle Initial)	37. SIGNATURE OF CONTRACTING OFFICER	38. TELEPHONE #	39. DATE
	Newell Patsy E.		(256) 441-5590	93-03-12

OPTIONAL USE

96	97	98	99

DD Form 1547, AUG 87 *Previous additions are obsolete.*

Exhibit 7-7*4 Weighted Guidelines (Sample Format and Instructions)



REASONABLE PROFIT ON FIXED-PRICE CONSTRUCTION CONTRACTS

PROJECT Pascagoula Harbor PAGE 42 OF 42

LOCATION Mississippi DATE 13 Dec 92

Fair and reasonable profit on fixed price construction contracts and modifications.

FACTOR	WEIGHTED	RATE	WEIGHT	VALUE
DEGREE OF RISK	.03 to .12	20%	0.05	1.0
(Where the risk is very small weighting should be .03)				
RELATIVE DIFFICULTY of Work	.12 to .03	15%	0.05	0.75
(If work is most difficult and complex the weighting should be .12)				
SIZE OF JOB ($100,000 to 5,000,000)	.12 to .05	15%	0.10	1.5
($5,000,000 to 10,000,000) (Work not in excess of $100,000 shall be weighted at .12) (Between $100,000 and $5,000,000 from .12 to .05) ($5,000,000 to $10,000,000 at .04 and in excess of $10M at .03)	.04	15%		
PERIOD OF PERFORMANCE	.12 to .03	15%	0.03	0.45
(Jobs in excess of 24 mos. Are to be weighted at .12) CONTRACTOR'S INVESTMENT	.12 TO .03	5%	0.10	0.50
(.03 to .12 on the basis of below average, average and above average.) ASSISTANCE BY THE GOV'T	.12 to .03	5%	0.08	0.40
(.12 to .03 on the basis of average to above average.) SUB-CONTRACTING (80% or more .03)	.03 to .12	25%	0.12	3.00
(To be weighted inversely proportional to the amount of subcontracting).		100%		7.60

SAM FORM 828 Previous Editions are Obsolete
JUL 82 (REV)

Exhibit 7-7*4 Weighted Guidelines (Sample Form 828)

OTHER SERVICES AND CONSTRUCTION CODES

TITLE	CODE
CONSTRUCTION OF STRUCTURES & FACILITIES	
ADMINISTRATIVE FACILITIES & SERVICE BUILDINGS	
Office Buildings	Y111
Conference Space & Facilities	Y112
Other Administrative Facilities & Service Buildings	Y119
AIRFIELD COMMUNICATIONS & MISSILE FACILITIES	
Air Traffic Control Towers	Y121
Air Traffic Control Training Facilities	Y122
Radar & Navigational Facilities	Y123
Airport Runways	Y124
Airport Terminals	Y125
Missile System Facilities	Y126
Electronic & Communication Facilities	Y127
Other Airfield Structures	Y129
EDUCATIONAL BUILDINGS	
Schools	Y131
Other Educational Buildings	Y139
HOSPITAL BUILDINGS	
Hospitals & Infirmaries	Y141
Laboratories & Clinics	Y142
Other Hospital Buildings	Y143
INDUSTRIAL BUILDINGS	
Ammunition Facilities	Y151
Maintenance Buildings	Y152
Production Buildings	Y153
Ship Construction & Repair Facilities	Y154
Tank Automotive Facilities	Y155
Other Industrial Buildings	Y159

Exhibit 7-7*4 Weighted Guidelines (Codes)

RESIDENTIAL BUILDINGS

Family Housing Facilities	Y161
Recreational Buildings	Y162
Troop Housing Facilities	Y163
Dining Facilities	Y164
Religious Facilities	Y165
Penal Facilities	Y166
Other Residential Buildings	Y169

WAREHOUSE BUILDINGS

Ammunition Storage Buildings	Y171
Food or Grain Storage Buildings	Y172
Fuel Storage Buildings	Y173
Open Storage Facilities	Y174
Other Residential Buildings	Y179

RESEARCH & DEVELOPMENT FACILITIES

Gov't-Owned Contractor Operated (GOCO) R&D Facilities	Y181
Gov't-Owned Gov't Operated (GOGO) R&D Facilities	Y182
GOCO Environmental Laboratories	Y183
GOGO Environmental Laboratories	Y184

OTHER BUILDINGS

Museums & Exhibition Buildings	Y191
Testing & Measurement Buildings	Y192
Other Miscellaneous Buildings	Y199

NON-BUILDING STRUCTURES

CONSERVATION & DEVELOPMENT FACILITIES

Dams	Y211
Canals	Y212
Mine Fire Control Facilities	Y213
Mine Subsidence Control Facilities	Y214
Surface Mine Reclamation Facilities	Y215
Dredging	Y216
Other Conservation & Development Facilities	Y219

Exhibit 7-7*4 Weighted Guidelines (Codes)

HIGHWAYS, ROADS, STREETS & BRIDGES	
Airport Service Roads	Y221
Highways, Roads, Streets & Bridges (Including Resurfacing)	Y222
Tunnels & Subsurface Structures	Y223
Parking Facilities Conservation	Y224
ELECTRIC POWER GENERATION (EPG) FACILITIES	
EPG - Coal	Y231
EPG - Gas	Y232
EPG - Geothermal	Y233
EPG - Hydro	Y234
EPG - Nuclear	Y235
EPG - Petroleum	Y236
EPG - Solar	Y237
EPG - Other - Including Transmission	Y239
UTILITIES	
Fuel Supply Facilities	Y241
Heating & Cooling Plants	Y242
Pollution Abatement & Control Facilities	Y243
Sewage & Waste Facilities	Y244
Water Supply Facilities	Y245
Other Utilities	Y249
OTHER NON-BUILDING FACILITIES	
Recreation Facilities (non-building)	Y291
Exhibit Design (non-building)	Y292
Unimproved Real Property (land)	Y293
Waste Treatment & Storage Facilities	Y294
All Other Non-Building Facilities	Y299
RESTORATION ACTIVITIES	Y300
MAINTENANCE, REPAIR OR ALTERATION OF REAL PROPERTY	Z***

*** Uses last three digits of "Y" Category Codes.

Exhibit 7-7*4 Weighted Guidelines (Codes)

EXAMPLE OF
TYPICAL DETAIL AND IDENTIFICATION
OF COST AND PRICING ELEMENT IN SUPPORT OF
MODIFICATION COST PROPOSALS

a. LABOR

	(JUDGEMENTAL)		(FACTUAL)	
1 Carpenter Foreman	@ 8 hrs	8 hours @ $4.455	$ 35.64	
2 Carpenters	@ 8 hrs	16 hours @ $3.955	63.28	
1 Carpenter (Apprentice), 3rd	@ 8 hrs	8 hours @ $2.955	23.64	
2 Ironworkers	@ 8 hrs	16 hours @ $4.800	76.80	
1 Crane Operator	@ 8 hrs	8 hours @ $4.510	36.00	
		56 hours		$235.36
Travel, 7 man days	@ $3.000			$ 21.00
				$256.36
	OR			
Labor taxes, etc. (Payroll Addit.)	@ 16.65% on $235.36		$ 42.63	
		Total Labor		$299.04

FICA	4.4 %
Federal Unemployment	0.4 %
Workman's Compensation	7.4 %
State Unemployment	2.7 %
PL & PD	0.25%
HW & Pension (Avg.)	1.5 %

NOTE: Wages, travel & HW - Pension; W. Mont. H&H Labor Agreement 1966

b. CONSTRUCTION EQUIPMENT

		(JUDGEMENTAL)		(FACTUAL)
(Example #1)				
Crane, Bucyrus-Erie 61-B				
30 T. W/60' Boom		2 days @	$140.72	$281.44

NOTE: Ownership rates taken from AGC Equipment Owner Manual. Base figure used in computing this figure should be furnished.

(Example #2)				
Crane, Bucyrus-Erie 61-B				
30 T. W/60' Boom		2 days @	$100.00	$200.00
Operator	1	6 hours @	$ 5.00	$ 80.00
				$280.00

NOTE: Rented from Big Ben Equip. Co, rental invoice, copy enclosed, w/o operator. Transportation to and from job and operating costs not included. Operating cost/hour includes transportation, fuel, repairs, etc.

Exhibit 7-7*5 An example of Cost and Pricing Elements

c.	MATERIALS AND SUPPLIES	(JUDGEMENTAL)		(FACTUAL)
	Form Lumber 10 MFRM (Big Pine Tbr. Co., our order No. L-2, Inv. Bp-2 enclosed)	$120.00 / M		$1,200.00
	Form Hardware 1 Lot, LS (Experienced cost, 10% of lumber cost)			$120.00
	Reinforcing Steel (See subcontracted items)			
	Concrete, Class A 100.00 C.T. (Concrete priced @ contract price for pay item pay item 7, $21.00, less indirect, special forming and placement as priced herein and includes vibration, stripping and curing) $2,800.00	@ $15.00		$1,500.00
d.	PURCHASED END ITEMS			
	1 Olympic Fdry. MGT-Pat. X, fob job (Olympic Fdry. In. OF-2 enclosed)	$350.00		$350.00
e.	SUBCONTRACT			
	(FACTUAL) Reinforcing Steel 6000# (Our subcontract No. 106, Rod & Wire Co., unit price. copy of subcontract furnished COE 6/26/87 with proposal under Mod. No 2)	@ $0.16	$960.00M	$960.00
	Recap. Total Direct			
	(1) Labor, say			$ 300.00
	(2) Equipment			280.00
	(3) Material			2,280.00
	(4) Purchased Items			350.00
	(5) Subcontract			960.00
	Total Direct			$ 4,710.00
f.	INDIRECT, JOB AND HOME OFFICE OH (For detail, see enclosed statements)	@ 10%		$ 471.00
			$ 5,181.00	
g.	PROFIT (Computation as per guideline)	@ 7%	$ 362.67	
		Total Proposal	$ 5,543.67	

Exhibit 7-7*5 An example of Cost and Pricing Elements (Cont'd).

h. OVERHEAD	(Judgmental)	AND (Factual)
(1) Job OH (est.)	Supervision	$100,000.00
	Office Space	20,000.00
	Clerical	24,000.00
	Telephone, etc	6,000.00
	Office Supplies	7,000.00
	Ins., etc.	9,000.00
	Utilities	12,000.00
	Safety	12,000.00
	Surveys	24,000.00
	Labor Taxes	120,000.00
	Travel & sub., Supr. Employees	15,000.00
	Taxes, bonds, etc.	80,000.00
	Total	$429,000.00
(2) Home Office (G&A)		30,000.00
		$459,000.00

Estimated direct costs = $4,500,000; $459,000/4,500,000 = 10%

Exhibit 7-7*5 An example of Cost and Pricing Elements (Cont'd).