

Office Memorandum
No. 1110-1-7

13 April 1988

Engineering and Design
REVISION OF PLANS AND SPECIFICATIONS
FOR AMENDMENTS AND MODIFICATIONS

1. Purpose. This District office memorandum establishes procedures for revising plans and specifications from date of advertisement to completion of contract and includes posting and filing of the revisions.
2. Applicability. The principles and procedures outlined herein are applicable to Engineering Division and Construction-Operations Division. The format which follows is directed toward military projects; however, it is applicable to civil works projects with minor variations as noted in the text.
3. References.
 - a. EP 415-1-2.
 - b. Modifications and Claims Guide dated 15 July 1987.
4. Request for change. Requests to Engineering Division for changes to plans and specifications shall be coordinated with the design project manager but may be originated by any of the following:
 - a. Project construction office (Resident Engineer/Manager, civil projects).
 - b. Using agency or MACOM.
 - c. Design element.
 - d. Project manager.
 - e. Specifications unit.
 - f. Construction-Operations Division.
5. Method of Making Changes. Changes made to project plans and specifications after the project has been advertised for bids through the completion of construction require formal action as defined below.
 - a. Amendments. Amendments are used to revise plans and specifications during the advertisement period. Amendments may be required because of:

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- (1) Changed field conditions.
- (2) New or changed criteria.
- (3) Design errors and omissions.

Amendments must be completed and published not less than 10 calendar days prior to bid opening. If the need for an amendment is recognized too late to be so completed and issued, the design element, Specifications Unit, Construction Branch, and the project manager shall jointly determine whether the change justifies delaying the bid opening. If a delay is not justified, then the plans and specifications may be left "as is" or the change may be made later by known modification. A known modification or any decision to delay the bid opening must be approved by the Chief, Engineering Division, and the Chief, Construction-Operations Division. A telegraphic amendment may be used to delay bid openings if a change is required and less than 10 days remain until the bid opening date. Upon award of the contract, all contract drawings, including those containing all amendment changes, will be issued per standard distribution. They will be identified by the contract number added to them. Civil works drawings do not include provisions for marking the contract number in the title block; therefore, the only drawings that need to be reissued after award of the contract are those drawings which were amended by "word description." Amendments will not be issued by the field office or Resident Contracting Officer.

b. Modifications. After a contract is awarded, changes to the plans and specifications are accomplished by modification. Modifications may be required to correct errors or omissions, to resolve conflicts, to make user requested changes, or to make changes required because of differing site conditions. Modifications may be initiated by and processed by either the field office or the District Office. A request for proposal (RFP) which includes Eng Forms 3938 and 3938B is the formal procedure for obtaining the contractor's proposal of cost to accomplish the changed work. Following negotiations, the Contracting Officer or Resident Contracting Officer executes the contract documents, modifying the contract.

(1) Each request for a modification shall be directed to the design project manager who shall:

- (a) Coordinate the technical review.
- (b) Obtain information from Construction Branch on the availability of funds and on the current status of construction and material purchases which might affect the modification.
- (c) Obtain concurrence from the using agency, applicable design elements, and Construction Branch to proceed with the modification.
- (d) Obtain a preliminary cost estimate for the work from the design element. The preliminary cost estimate is primarily for funds control and shall be a liberal estimate.

- (e) Forward the RFP to the design element for preparation.
- (2) Construction Branch shall:
 - (a) Determine how the modification will affect construction of the project.
 - (b) Determine if removal of previously constructed or supplied items will be required.
 - (c) Determine if the modification will replace items which the Contractor has ordered or has in stock and how those items can be disposed.
 - (d) Furnish all information to the design project manager.
 - (e) Coordinate execution of the modification.
- (3) A Resident Contracting Officer may issue changes to the contract within his authority. The field office will:
 - (a) Obtain information from Construction Branch on the availability of funds.
 - (b) Prepare a preliminary cost estimate for the work.
 - (c) Evaluate the status of construction.
 - (d) Prepare and distribute the RFP.

c. Letters to the field. Field offices will occasionally ask for clarification or recommendations as to how to construct items. These data will be furnished by Disposition Form (prepared by the appropriate design element), but will not be included in a modification because it does not affect the contract work or contract costs. Examples are:

- (1) Furnishing dimensions of items which can be indirectly determined from the drawings.
- (2) Furnishing ties to new base line points when old base lines are destroyed.
- (3) Suggesting means to accomplish items of work if the contractor asks for assistance. Provide a suggested way, but make it clear to the contractor that we are not directing him to use the suggestion. For example, if the plans indicate that an expansion tank is required for the emergency generator, but do not provide an installation detail, the contractor may request a typical mounting detail.
- (4) Provide letter on verification of location of items to be sited in the field if the field asks for a recommendation.

(5) Furnish interpretation of specification provisions if requested by the contractor.

6. Preparation of the Change. The preparation of the amendment or modification shall begin after the design project manager has determined the current status of construction, material orders, and purchases and has determined that the change is justified and fundable. The design element shall coordinate the change with Construction Branch to ensure that any special conditions such as time, phasing and established beneficial occupancy date are given the appropriate considerations. The change shall be accomplished in accordance with the following guidelines.

a. Drawing changes. Drawing changes shall be made by the appropriate design element.

(1) Amendments. Changes shall be entered on the original mylar tracings. Each drawing to be reissued shall have a notation placed in the revision block that briefly describes the change(s), followed by "Amend. No. 000#," and shall have the following notation placed in the lower right hand margin below the title block: "ENCL 1, AMEND. NO. 000#." Minor, easily described revisions to drawings may be accomplished by "Word Description" change to minimize reproduction costs and time delays. The Specifications Unit, in cooperation with the design element, will decide whether the drawing is to be reissued or changed by "Word Description." Word changes must be entered on the originals prior to publishing the amendment to prevent problems if the drawing is later reissued without the word changes being made. Each drawing so changed shall have the following notation placed in the revision block: "REVISED IN ACCORDANCE WITH W/D AMEND. NO. 000#" (the margin notation will not be required for drawings changed by "Word Description").

(2) Modifications. Drawing changes shall be shown on the original mylars. In extreme circumstances modifications may be initiated by "sketches" provided that the formal modification includes the revised mylar drawings. In such cases individual justification to support the urgency must accompany the request for the change.

b. Specifications changes. The design element shall furnish the Specifications Unit with advance plans in sufficient detail for drafting the specifications changes. The Specifications Unit shall draft the specification changes and/or additions and furnish them to the appropriate design element for review. Amendments prepared by an A-E shall be coordinated with Specifications Unit during the draft stage. Specifications Unit will complete the change in final form. Changes for both amendments and modifications shall include written descriptions of the changes with proper location information, revised pages, revised sections, or new sections as needed. If extensive changes are being made, revised specification pages will be issued in lieu of numerous "Word Descriptions."

c. Documentation. The design element (design leader, where practicable) shall prepare the documentation. Assistance may be requested and obtained from other design elements, Specifications Unit, and Estimating Unit.

(1) Amendments. Specifications Unit shall prepare Standard Form 30 and process the amendment for approval and reproduction. Revisions to plans and specifications shall adequately describe the change and shall include any changes in bid quantities.

(2) Modifications. Documentation to be prepared by the design element shall be in single spaced draft form and shall include:

(a) Eng Form 3938, page 1. Fill in the blanks for items 2 and 5. Then prepare a narrative for item 7, DESCRIPTION OF CHANGE. The description of change shall clearly outline the actual changes in contract work to be performed by the contractor. It shall include any secondary work such as removals or alterations of previously completed construction as based on the knowledge at the time of preparation of the document. All conditions shall be noted. A modification is a negotiated procurement and it cannot be assumed that all conditions in the original contract documents will apply to the changed work unless it is so clarified in the modification or negotiations. For example, if the described work is to be performed according to the original contract specifications, the applicable technical provisions sections will be stated in the narrative. The narrative shall describe to the contractor what he is to provide, what he is to install, what testing is required, etc., in performing the changed work.

(b) Eng Form 3938, page 2. Fill in the blanks for item 9 and add data to block 11 to show the approximate change in contract price. If the contract is a unit price contract, show the changes in the contract quantities and estimate the change in the contract amount by extending the quantities with the contract unit prices. For lump sum contracts furnish a quantity take off and have the Government estimator provide a preliminary estimate of the change in contract amount.

(c) Eng Form 3938B. Fill in blanks for items 12 and 13, and prepare narratives for item 16. The NECESSITY FOR CHANGE shall include a detailed justification. Some examples are:

- Changed ground surface conditions as the result of a flood.
- User requested change, such as floor plan revised to add an office for the First Sergeant.
- Design omission, such as door inadvertently left out of schedule.
- Site conditions different from that indicated on the plans. For example, excavation between soils borings subsequently uncovered soils which are unsuitable. This item could include different conditions discovered during demolition work, as well as undetected as-built conditions.
- Conflicts existed in the plans and specifications. The REASON FOR OMISSION from the plans and specifications shall include a detailed description of the reason(s) the change was not included in the original contract. Some examples are:

- Flood occurred after award of the contract.
- User changed building occupancy after contract award.
- Discrepancy was not discovered until after award of the contract (or until demolition work began).
- At the time of design, borings spaced 500 feet apart indicated uniform soil conditions. Pocket of bad material is about 150 feet by 200 feet and is 50 feet from the nearest boring.

- Discrepancy was not discovered until after award of the contract.

(d) Three examples of prepared documents are shown in Appendices B, C, and D.

(e) Revised mylar drawings, specification changes, and documentation shall be concurred in by all design elements. The lead design element engineer or his representative shall hand-carry the drawings, specification changes, documentation, and concurrence form to each office for signature. Suggested concurrence forms are shown in Appendix E. Once all concurrences have been obtained, the originals of the entire package will be hand-carried to Chief, Construction-Operations Division, and a copy will be hand-carried to the project manager for his records.

(f) Construction-Operations Division will complete the RFP documents and negotiate a change in contract price. Estimates Unit personnel will, upon request, aid Construction-Operations Division in the negotiations.

(g) Modifications prepared under the authority of a Resident Contracting Officer shall be accomplished in accordance with the following guidelines:

- The field office is responsible for preparation of all sketches, supplemental specifications, bid schedule revisions, documents necessary to request the contractor's proposal, and issue the final modification. If considered necessary, the field office may initiate and prepare all documents to request a contractor's proposal for work outside the Resident Contracting Officer's authority. In this event, the field office will request the District Office to prepare a Government estimate and the modification will be executed, after negotiations, by the Contracting Officer. Conversely, a modification initiated and prepared by the District Office may be executed, after negotiations, by the Resident Contracting Officer, if within his authority.

- Eng Form 3938, pages 1 and 2 and Eng Form 3938B will be used by the field to obtain the contractor's proposal (Standard Form 30 will be used to execute the modification). The 3938 and 3938B forms will be completed as described in subparagraphs 6c(2)(a) through (c) above. Changes will be described by narrative if possible. Sketches describing significant and extensive changes in the contract drawings will be minimized as much as possible.

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- The field office will make distribution to the District Office, including Project Management Section, when the RFP is forwarded to the contractor for proposal. Elements of Engineering Division may perform a technical review upon receipt of the RFP. Comments pertaining to the RFP will be furnished through Construction Branch to the field office within 15 days of the date of the RFP.

(h) Prior to execution of the formal modification, the RFP can be revised if necessary. A revision can be made by the District Office or a field office. A field office considering revision of an RFP prepared in the District Office will coordinate the revisions through Construction Branch with the design elements involved. A revision to an RFP will be identified by adding an "R" behind the modification serial number (DO-L####) wherever it appears on the drawings, specifications, or Standard Form 30 for the modification.

7. Drawing Change Designation. Changes made to drawings shall be noted by the application of revision symbols (triangles) placed in accordance with the instructions contained in the SWD-EIM, except that a numeral shall be placed inside the symbol to indicate the number of times the drawing has been revised. For example, a drawing revised by amendment and then reissued by modification would be identified with a "1" inside each triangle placed on the drawing for the amendment and with a "2" inside each triangle placed on the drawing for the modification. Before adding the new set of revision symbols to the bottom margin of a drawing, all previous symbols shall be removed from the margin (but not from any other location on the drawing). For any given group of drawings revised as a single amendment or modification, the number inside the revision symbol may be different for every sheet since this is dependent upon previous actions regarding each drawing. Examples of amendment and modification revision block notations are shown in Appendix A.

8. Scope of Work.

a. Amendments. None required.

b. Modifications. The DESCRIPTION OF CHANGE entry on Eng Form 3938 shall be of sufficient detail and clarity to serve as the scope of work for most modifications. However, a separate detailed scope of work shall be prepared for the larger, more complicated modifications for which the DESCRIPTION OF CHANGE may not fully describe the extent or intent of work and materials required by the modification. For example, a change to require construction for a more severe seismic condition than originally specified could not be readily described on Eng Form 3938. The scope of work shall be prepared by Construction Branch (Government negotiator and field personnel who are thoroughly familiar with the project and the proposed change) who shall be aided in development of the scope of work by the design project manager and representatives of the design element, Estimates Unit, and Specifications Unit. This procedure will ensure that the modification documentation includes construction conditions and accurately reflects the required changes in work, materials, and time.

9. Posting and Filing.

a. Responsible offices. Upon issuance of an RFP or executed modification, Construction Branch or the field office (as applicable) will make distribution as agreed upon. A minimum of one file copy of the as issued plans and specifications shall be kept in each of the following offices:

- (1) Project Management Section.
- (2) Appropriate design element office.
- (3) Specifications Unit (updated through amendments only).
- (4) Estimates Unit.
- (5) Construction Management Section, Little Rock District Office.
- (6) Corps of Engineers inspection office (keep two copies; one which is never marked on and one for a working copy).

b. Plans. Each file copy shall be kept current by posting and filing all amendments and modifications within 1 week after they are issued as follows:

(1) Each time a drawing is reissued, insert the new drawing immediately in front of the drawing it replaces. Leave the old drawing in the set, place a large red "X" through the title block, and add a note above the title block "See Amend. No. 000#" or "See Mod. No. DO-L####."

(2) If a drawing is added to the set, insert it in the proper sequence by number. All "A" or "B" drawings are placed behind the drawing which has the same number. For example, drawing 115/2701A would be placed behind drawing 115/2701; drawing 115/2791B would be placed behind drawing 115/2701A.

(3) After all drawing changes have been made, write "Amend. No. 000# posted, (date), (initial)" or "Mod. No. DO-L#### posted, (date), (initial)" on the front drawing of the set.

c. Specifications.

(1) Place a complete copy of each amendment or modification text in the front of the specifications immediately behind the front cover. Place the latest revision on top of the last revision.

(2) Use a second copy to post each individual revision to the proper section or page of the specification by:

- (a) Inserting new sections.
- (b) Inserting new pages.

- (c) Lining out deleted text.
 - (d) Cutting new text from the amendment or modification and taping it into the proper location in the specifications.
 - (e) Making red ink changes as directed by the amendment or modification.
- (3) Do not remove any existing pages from the specifications; instead, mark out all deleted text.
- (4) Each place a change is made use a symbol to indicate the document that directed the change.
- (5) After all changes have been made as directed, write "Amend. No. 000# Posted, (date), (initial)" or "Mod. No. DO-L#### posted, (date), (initial)" on the front cover of the specifications.

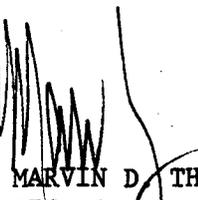
d. Sketches. Sketches used to initiate modifications shall be retained in a file folder which is clearly labeled with the contract job name and contract number. Sketch files shall be maintained by the originator of the sketch and by the design element office responsible for transferring the sketch to the contract plans. The contractor is responsible for including sketches from field office changes in the as-built drawings. The field office will ensure their incorporation.

e. Documentation. Copies of documentation for contract modifications shall be maintained in file folders clearly labeled by contract job name and contract number in the following offices:

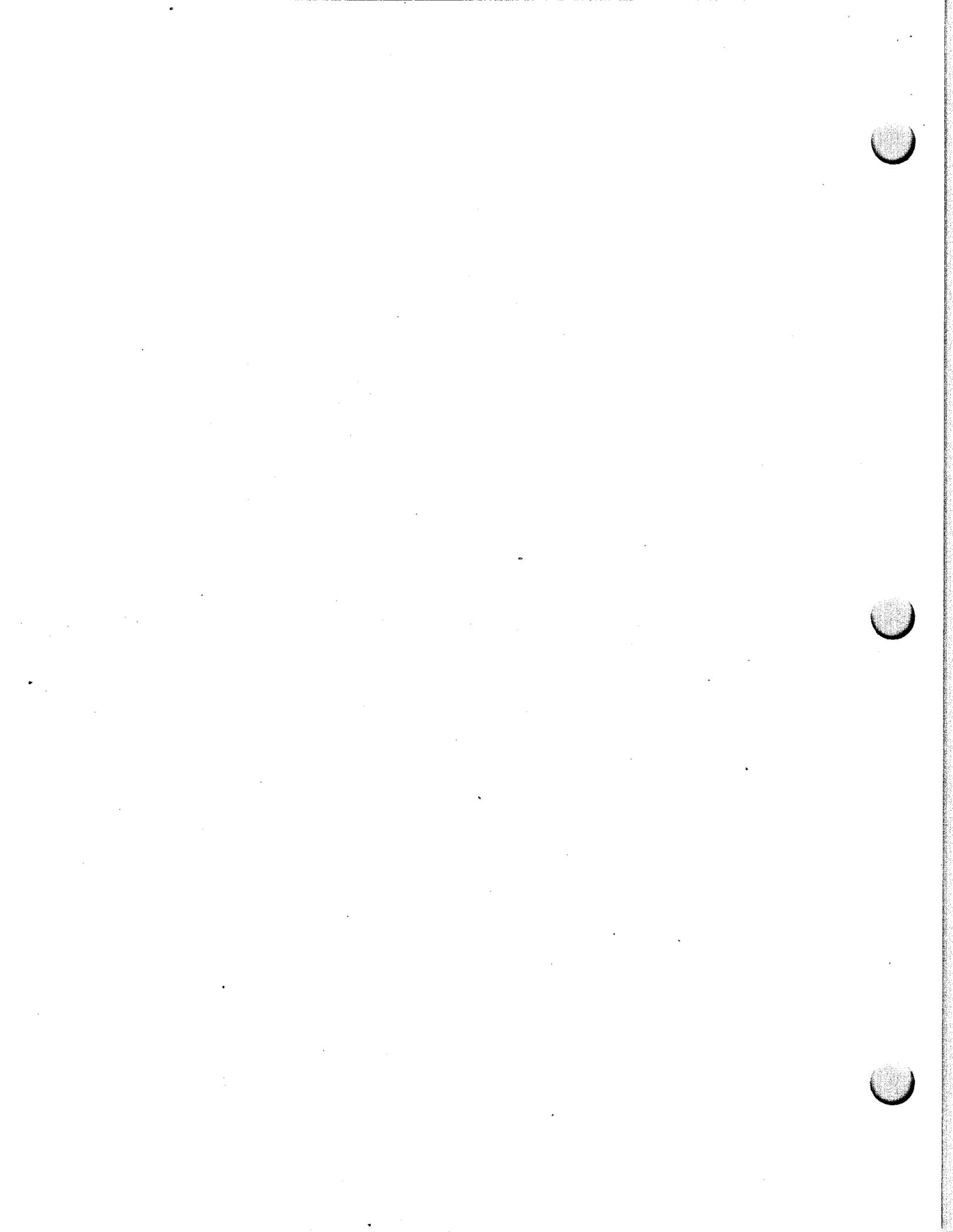
- (1) Design element office.
- (2) Construction Management Section, Construction-Operations Division, District Office (until execution).
- (3) Corps of Engineers inspection office.
- (4) Contracting Division (records file).

FOR THE DISTRICT ENGINEER:

5 Appendixes


MARVIN D. THOMPSON
LTC, Corps of Engineers
Deputy District Engineer

DISTRIBUTION B



APPENDIX A
REVISION BLOCK NOTATIONS

B

		REVISED IN ACCORDANCE WITH W/D AMEND NO. 0002	6/9/87 ABC
SYMBOL	REVISIONS	DATE	APPROVED
DEPARTMENT OF THE ARMY LITTLE ROCK DISTRICT, CORPS OF ENGINEERS LITTLE ROCK, ARKANSAS			
DESIGNED BY: BRM	 US ARMY CORPS OF ENGINEERS	PDC NO. NKAK 87-0001L FY-87 LITTLE ROCK AIR FORCE BASE LITTLE ROCK, ARKANSAS	
DRAWN BY: KLB		ADAL FUEL SYSTEMS MAINTENANCE DOCKS LIGHTING FLOOR PLAN	
CHECKED BY: LLB			
REVIEWED BY:	SCALE: AS SHOWN	SHEET REFERENCE NUMBER:	INV. NO. DACA03-87-B-0099
APPROVED BY:	DATE: 15 MAY 1987	E1.1	CONT. NO. DACA03-
	DWG. CODE: AF-211-111-01		SHEET 70 OF 84

CONTR. NO.

8

NOTE:
FOR WORD DESCRIPTION AMENDMENTS:
PROVIDE DELTA (Δ) AT EACH CHANGE ON BODY OF
DRAWING BUT NOT IN BOTTOM MARGIN
NOTE REGARDING ENCL TO AMEND NO. IS NOT REQUIRED

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B

SYMBOL	REVISIONS	DATE	APPROVED
	REV LIGHT LAYOUT IN CRANE AREA AM NO 0004	6/22/87	ABC
	REVISED IN ACCORDANCE WITH W/D AMEND NO. 0002	6/9/87	ABC

DEPARTMENT OF THE ARMY
LITTLE ROCK DISTRICT, CORPS OF ENGINEERS
LITTLE ROCK, ARKANSAS

DESIGNED BY: BRM	 US ARMY CORPS OF ENGINEERS PDC NO. NKAK 87-0001L FY-87 LITTLE ROCK AIR FORCE BASE LITTLE ROCK, ARKANSAS	ADAL FUEL SYSTEMS MAINTENANCE DOCKS	
DRAWN BY: KLB		LIGHTING FLOOR PLAN	
CHECKED BY: LLB			
REVIEWED BY:	SCALE: AS SHOWN	SHEET REFERENCE NUMBER:	INV. NO. DACA03-87-B-0099
APPROVED BY:	DATE: 15 MAY 1987	E1.2	CONT. NO. DACA03-
	DWG. CODE: AF-211-111-01		SHEET 70 OF 84

CONTR. NO.

3    ENCL 1. AMEND NO. 0004

NOTE:
FOR DRAWINGS REISSUED WITH AMENDMENTS:
PROVIDE DELTA () AT EACH CHANGE ON BODY OF
DRAWING AND DIRECTLY BELOW IN BOTTOM MARGIN
ADD NOTE "ENCL 1, AMEND NO. 0004" AT LOWER
RIGHT CORNER OF DRAWING AS SHOWN ABOVE
REMOVE MARGIN DELTAS AND NOTES REGARDING
PREVIOUS ISSUE PRIOR TO ADDING THOSE FOR
CURRENT REVISION

B

	REV PANEL & ADD CRANE CIRCUIT AMEND NO. 0004	6/22/87	ABC
SYMBOL	REVISIONS	DATE	APPROVED

DEPARTMENT OF THE ARMY
LITTLE ROCK DISTRICT, CORPS OF ENGINEERS
LITTLE ROCK, ARKANSAS

DESIGNED BY: BRM	 LC ARMY CORPS OF ENGINEERS PDC NO. NKAK 87-0001L FY-87 LITTLE ROCK AIR FORCE BASE LITTLE ROCK, ARKANSAS	ADAL FUEL SYSTEMS MAINTENANCE DOCKS POWER FLOOR PLAN	
DRAWN BY: GJ			
CHECKED BY: LLB			
REVIEWED BY:	SCALE: AS SHOWN	SHEET REFERENCE NUMBER:	INV. NO. DACA03-87-B-0099
APPROVED BY:	DATE: 15 MAY 1987	E2.1	CONT. NO. DACA03-
	DWG. CODE: AF-211-111-01		SHEET 71 OF 84

CONTR. NO.

ENCL 1. AMEND NO. 0004

8

NOTE:
FOR DRAWINGS REISSUED WITH AMENDMENTS:
PROVIDE DELTA () AT EACH CHANGE ON BODY OF
DRAWING AND DIRECTLY BELOW IN BOTTOM MARGIN
ADD NOTE 'ENCL 1. AMEND NO. 0004' AT LOWER
RIGHT CORNER OF DRAWING AS SHOWN ABOVE

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B

SYMBOL	REVISIONS	DATE	APPROVED
△ ²	ADD EMERGENCY LIGHTING & DISC SW. MOD NO.	9/18/87	ABC
△ ³	REV LIGHT LAYOUT IN CRANE AREA AM NO 0004	6/22/87	ABC
△ ¹	REVISED IN ACCORDANCE WITH W/D AMEND NO. 0002	6/9/87	ABC

DEPARTMENT OF THE ARMY LITTLE ROCK DISTRICT, CORPS OF ENGINEERS LITTLE ROCK, ARKANSAS			
DESIGNED BY: BRM	 US ARMY CORPS OF ENGINEERS	PDC NO. NKAK 87-0001L FY-87 LITTLE ROCK AIR FORCE BASE LITTLE ROCK, ARKANSAS	
DRAWN BY: KLB		ADAL FUEL SYSTEMS MAINTENANCE DOCKS LIGHTING FLOOR PLAN	
CHECKED BY: LLB			
REVIEWED BY:	SCALE: AS SHOWN	SHEET REFERENCE NUMBER:	INV. NO. DACA03-87-B-0099
APPROVED BY:	DATE: 15 MAY 1987	E1.3	CONT. NO. DACA03-87-C-0140
	DWG. CODE: AF-211-111-01		SHEET 70 OF 84

CONTR. NO.

3

△²

NOTE:

FOR DRAWINGS REISSUED WITH MODIFICATION:
 PROVIDE DELTA (△) AT EACH CHANGE ON BODY OF
 DRAWING AND DIRECTLY BELOW IN BOTTOM MARGIN
 NOTE PERTAINING TO ENCL NOT REQUIRED FOR
 MODIFICATION DRAWINGS

B

Δ^B	ADDED TRANSF AND DETAIL 7: MOD NO.	9/18/87	ABC
SYMBOL	REVISIONS	DATE	APPROVED
DEPARTMENT OF THE ARMY LITTLE ROCK DISTRICT, CORPS OF ENGINEERS LITTLE ROCK, ARKANSAS			
DESIGNED BY: BRM	 US ARMY CORPS OF ENGINEERS PDC NO. NKAK 87-0001L FY-87 LITTLE ROCK AIR FORCE BASE LITTLE ROCK, ARKANSAS ADAL FUEL SYSTEMS MAINTENANCE DOCKS BUILDING 245 ALTERATIONS POWER FLOOR PLAN		
DRAWN BY: GJ			
CHECKED BY: LLB			
REVIEWED BY:		SCALE: AS SHOWN	SHEET REFERENCE NUMBER:
APPROVED BY:	DATE: 15 MAY 1987	E10.1	CONT. NO. DACA03-87-C-0140
	DWG. CODE: AF-211-111-01		SHEET 79 OF 84

CONTR. NO.

3 Δ^A Δ^B

NOTE:
 FOR DRAWINGS REISSUED WITH MODIFICATION,
 PROVIDE DELTA (Δ) AT EACH CHANGE ON BODY OF
 DRAWING AND DIRECTLY BELOW IN BOTTOM MARGIN
 NOTE PERTAINING TO ENCL NOT REQUIRED FOR
 MODIFICATION DRAWINGS

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B

Δ^4	RELOC POWER & TELE FOR WORK STA; MOD NO.	10/15/87	
Δ^8	ADDED TRANSF AND DETAIL 7; MOD NO.	9/18/87	ABC
SYMBOL	REVISIONS	DATE	APPROVED
DEPARTMENT OF THE ARMY LITTLE ROCK DISTRICT, CORPS OF ENGINEERS LITTLE ROCK, ARKANSAS			
DESIGNED BY: BRM	 US ARMY CORPS OF ENGINEERS	PDC NO. NKAK 87-0001L FY-87 LITTLE ROCK AIR FORCE BASE LITTLE ROCK, ARKANSAS	
DRAWN BY: GJ		ADAL FUEL SYSTEMS MAINTENANCE DOCKS BUILDING 245 ALTERATIONS POWER FLOOR PLAN	
CHECKED BY: LLB			
REVIEWED BY:	SCALE: AS SHOWN	SHEET REFERENCE NUMBER:	INV. NO. DACA03-87-B-0099
APPROVED BY:	DATE: 15 MAY 1987	E10.2	CONT. NO. DACA03-87-C-0140
	DWG. CODE: AF-211-111-01		SHEET 79 OF 84

CONTR. NO.

3

Δ^4

NOTE:

FOR DRAWINGS REISSUED WITH MODIFICATION:
 PROVIDE DELTA (Δ) AT EACH CHANGE ON BODY OF
 DRAWING AND DIRECTLY BELOW IN BOTTOM MARGIN
 NOTE IN MARGIN REGARDING ENCL NOT REQUIRED FOR
 MODIFICATION DRAWINGS

REVISION	DATE	DESCRIPTION	BY
3/6	5-27-87	EXTENDED DIKE 493L LANDWARD. MOD NO.	RLY
2/3	11-15-86	REV R-O-W. ADD GATE DETAIL. AMEND NO. 0005	RLY
1/5	8-22-86	ADD RIGHT OF WAY BASELINE EL. AMEND NO. 0001	RLY

DEPARTMENT OF THE ARMY LITTLE ROCK DISTRICT, CORPS OF ENGINEERS LITTLE ROCK, ARKANSAS			
DESIGNED BY: RH	ARKANSAS RIVER AND TRIBUTARIES		ARKANSAS RIVER, ARKANSAS
DRAWN BY: MS	POOL 2 CHANNEL IMPROVEMENTS N.M. 26.6-N.M. 28.3 LAYOUT		
CHECKED BY: AZ			
SUBMITTED BY:		SCALE: AS SHOWN	JUNE 1986
ENGINEER		INV. SERIAL NO. 86-B-0066	
		DRAWING NUMBER 9813-115/4576	
		SHEET 10 OF 12	

NOTE:

FOR DRAWINGS REISSUED WITH MODIFICATIONS PROVIDE DELTA (Δ) AT EACH CHANGE ON BODY OF DRAWING AND DIRECTLY BELOW IN BOTTOM MARGIN.
OMIT NOTE REGARDING 'ENCL 1' IN MARGIN AT THE LOWER RIGHT OF TITLE BLOCK

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REVISION	DATE	DESCRIPTION	BY
2/3	11-15-86	REV R-O-W, ADD GATE DETAIL, AMEND NO. 0005	RLY
1/5	8-22-86	ADD RIGHT OF WAY BASELINE EL, AMEND NO. 0001	RLY

DEPARTMENT OF THE ARMY LITTLE ROCK DISTRICT, CORPS OF ENGINEERS LITTLE ROCK, ARKANSAS			
DESIGNED BY:	ARKANSAS RIVER AND TRIBUTARIES	ARKANSAS RIVER, ARKANSAS	
RH	POOL 2 CHANNEL IMPROVEMENTS N.M. 26.6-N.M. 28.3 LAYOUT		
DRAWN BY:			
MS			
CHECKED BY:			
AZ	SUBMITTED BY:		JUNE 1986
ENGINEER		INV. SERIAL NO. 86-B-0066	
		DRAWING NUMBER	
		9813-115/4576	
		SHEET 10 OF 12	

ENCL 1. AMEND NO. 0005

NOTE:

FOR DRAWINGS REISSUED WITH AMENDMENTS PROVIDE
 DELTA (Δ) AT EACH CHANGE ON BODY OF DRAWING
 AND DIRECTLY BELOW IN BOTTOM MARGIN AND
 PROVIDE NOTE 'ENCL 1. AMEND NO. 0005' IN MARGIN
 AT THE LOWER RIGHT OF TITLE BLOCK

15	8-22-86	ADD RIGHT OF WAY BASELINE EL. AMEND NO. 0001	RLY
REVISION	DATE	DESCRIPTION	BY
DEPARTMENT OF THE ARMY LITTLE ROCK DISTRICT, CORPS OF ENGINEERS LITTLE ROCK, ARKANSAS			
DESIGNED BY:	ARKANSAS RIVER AND TRIBUTARIES		ARKANSAS RIVER, ARKANSAS
RH	POOL 2 CHANNEL IMPROVEMENTS N.M. 26.6-N.M. 28.3 LAYOUT		
DRAWN BY:			
MS			
CHECKED BY:			
AZ			
SUBMITTED BY:			JUNE 1986
			INV. SERIAL NO. 86-B-0066
ENGINEER	DRAWING NUMBER		
	9813-115/4576		
	SHEET 10 OF 12		

ENCL 1. AMEND NO. 0001

NOTE:

FOR DRAWINGS REISSUED WITH AMENDMENTS PROVIDE
 DELTA (Δ) AT EACH CHANGE ON BODY OF DRAWING
 AND DIRECTLY BELOW IN BOTTOM MARGIN AND
 PROVIDE NOTE 'ENCL 1. AMEND NO. 0001' IN MARGIN
 AT THE LOWER RIGHT OF TITLE BLOCK

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REVISION	DATE	DESCRIPTION	BY
DEPARTMENT OF THE ARMY LITTLE ROCK DISTRICT, CORPS OF ENGINEERS LITTLE ROCK, ARKANSAS			
DESIGNED BY:	ARKANSAS RIVER AND TRIBUTARIES		ARKANSAS RIVER, ARKANSAS
RH	POOL 2 CHANNEL IMPROVEMENTS N.M. 26.6-N.M. 28.3 LAYOUT		
DRAWN BY:			
MS			
CHECKED BY:			
AZ			
SUBMITTED BY:			JUNE 1986
ENGINEER			INV. SERIAL NO. 86-B-0066
		DRAWING NUMBER	
		9813-115/4576	
		SHEET 10 OF 12	

NOTE:
 AS ISSUED DRAWING

CONTRACT MODIFICATION PROPOSAL AND ACCEPTANCE (Modification of less than \$25,000) For use of this form, see ER 1180-1-1.		
1. ISSUING OFFICE	2. CONTRACT NO. 87-C-0009	3. MODIFICATION NO. DO-00-277
4. TO (Contractor)	5. PROJECT LOCATION AND DESCRIPTION Channel Improvements, Pools 5 and 2, Navigation Miles 107, 43, 38, and 28, Arkansas River	
6. A proposal is requested for making the hereinafter described change in accordance with specification and drawing revisions cited herein or listed in attachment hereto. Submit your proposal in space indicated on page 2, attach detailed breakdown of prime and subcontract costs. (See the clause of this contract entitled, "Modification Proposals - Price Breakdown") DO NOT start work under this proposed change until you receive a copy signed by the Contracting Officer or a directive to proceed.		
Date	Typed Name and Title	Signature
7. DESCRIPTION OF CHANGE: Pursuant to the clause of this contract entitled, "Changes", the contractor shall furnish all plant labor and material, and perform all work necessary to accomplish the following described work:		
Extend Dike 49.3L landward from station 5+20+ and construct bankhead at landward end as detailed on drawings 9813-115/4576, 4577 and 4578.		
Except as hereby Modified, all terms and conditions of said contract as heretofore Modified remain unchanged and in full force and effect.		
The foregoing modification is hereby accepted:		UNITED STATES OF AMERICA
CONTRACTOR		
BY _____ <div style="text-align: center; font-size: x-small;">Signature</div>		
_____ <div style="text-align: center; font-size: x-small;">Date</div>	_____ <div style="text-align: center; font-size: x-small;">Typed Name and Title</div>	

13 Apr 88

CONTRACT MODIFICATION PROPOSAL AND ACCEPTANCE (PAGE 2)

8. ISSUING OFFICE		9. CONTRACT NO. 87-C-0009	10. MODIFICATION NO. DO-CO-227		
11. DESIGN ESTIMATE — CHANGE IN CONTRACT PRICE <i>(Detailed breakdown, attach additional sheets as necessary)</i>					
NOTE: SIGN AND RETURN ORIGINAL AND COPIES; RETAIN ONE COPY FOR YOUR FILE					
NET INCREASE \$ 28,210		NET DECREASE \$		CALENDAR DAYS INCREASE _____ DAYS	
<i>(Proposal)</i>					
<u>Summary of Quantity Changes</u>					
Item No.	Description	Unit	Original Quantity	Change	New Quantity
1	Excavation and Grading	Cu. Yd.	* 5,400	+ 2,400	8,800
2	Random Fill b. Mile 43+	Cu. Yd.	20,300	+ 500	20,800
3	Quarry-Run Stone b. Mile 43+	Ton	* 14,200	+ 2,300	16,500
* Quantity after revision by Mod. No. CO 186.					
<u>Change in Contract Amount Based on Contract Unit Prices</u>					
Item No.	Description	Unit	Estimated Quantity	Unit Price	Estimated Amount
1	Excavation and Grading	Cu. Yd.	+ 2,400	2.90	\$ 6,960
2	Random Fill b. Mile 43+	Cu. Yd.	+ 500	2.25	1,125
3.	Quarry-Run Stone b. Mile 43+	Ton	+ 2,300	8.75	20,125
					\$28,210
DATE	TYPED NAME AND TITLE			SIGNATURE	

13 Apr 88

CONTRACT MODIFICATION PROPOSAL AND ACCEPTANCE

(CONTRACTING OFFICER'S COPY)

12. PROJECT Channel Improvements, Pools 5 and 2, Navigation Miles 107, 43, 38, and 28, Arkansas River	13. CONTRACT NO. 87-C-0009	14. MODIFICATION NO. DO-CO277
15. FUNDS PROGRAMMED FOR THIS CHANGE IN THE AMOUNT OF:		
<p>16. NECESSITY FOR CHANGE AND REASON FOR OMISSION FROM PLANS AND SPECIFICATIONS</p> <p><u>Necessity for Change:</u></p> <p>Recent floods have eroded the bankline landward of Dike 49.3L. A narrow point of land connects the dike to the top bank. The dike needs to be extended landward and a bankhead needs to be constructed to prevent Dike 49.3L from being flanked.</p> <p><u>Reason for Omission from Plans and Specifications:</u></p> <p>The bank erosion occurred after contract award.</p>		
17. RESUME OF NEGOTIATIONS OR RECOMMENDATIONS (<i>Government representative</i>)		
DATE	TYPED NAME AND TITLE OF GOVERNMENT REPRESENTATIVE	SIGNATURE



CONTRACT MODIFICATION PROPOSAL AND ACCEPTANCE

(Modification of less than \$50,000)

For use of this form, see ER 1180-1-1.

1. ISSUING OFFICE Department of the Army Little Rock District, Corps of Engineers P.O. Box 867, Little Rock, AR 72203-0867	2. CONTRACT NO. DACW03-85-C-0006	3. MODIFICATION NO. D0-C0232
4. TO (Contractor) Carter Construction Company, Inc. P.O. Box 548 Benton, Arkansas 72015-0548	5. PROJECT LOCATION AND DESCRIPTION Bank Stabilization, Navigation Mile 6.9 to 4.3, White River Entrance Channel, McClellan-Kerr Arkansas River Navigation System	

6. A proposal is requested for making the hereinafter described change in accordance with specification and drawing revisions cited herein or listed in attachment hereto. Submit your proposal in space indicated on page 2, attach detailed breakdown of prime and subcontract costs. (See the clause of this contract entitled, "Modification Proposals - Price Breakdown") DO NOT start work under this proposed change until you receive a copy signed by the Contracting Officer or a directive to proceed.

JAMES W. MARLOW, P.E.

87 Jul 10 Chief, Construction-Operations Div

Date

Typed Name and Title

Signature

7. DESCRIPTION OF CHANGE: Pursuant to the clause of this contract entitled, "Changes", the contractor shall furnish all plant, labor and material, and perform all work necessary to accomplish the following described work:

- a. Revise Revetment 6.5R to delete the revetment between station 9+70 and station 20+70 and provide a 150' radius turnback upstream from station 20+70 in accordance with Contract Drawings 9734-115/4512, 4513, and 4514; each revised July 01, 1987. Payment shall be made for the portion of trench previously excavated from station 9+70 to station 11+00+. Stone placed to construct the toe of section B between stations 18+00+ and 20+70 shall remain in place.
- b. Delete placement of the remainder of the semi-compacted fill embankment shown on Contract Drawing No. 9734-115/4513.1, revised July 01, 1987. Do not reconstruct the embankment which was removed by the October 1986 high river stages.
- c. Perform all remaining work under the contract in accordance with the Order of Work attached hereto and made a part hereof.

Except as hereby Modified, all terms and conditions of said contract as heretofore Modified remain unchanged and in full force and effect.

The foregoing modification is hereby accepted: CONTRACTOR	UNITED STATES OF AMERICA	
BY _____ Signature	_____ Signature	
_____ Date	_____ Date	
_____ Typed Name and Title	_____ Typed Name and Title	

ORDER OF WORK
CONTRACT NO. DACW03-85-C-0006
MODIFICATION SERIAL NO. D0-C0232

1. ORDER OF WORK: Unless otherwise directed by the Contracting Officer in writing, the work shall be constructed in the following order.

1.1. Begin the work on each revetment at the upstream end and proceed downstream.

1.1.1 For the Section A portion of each revetment, keep stone placement within 200 feet of the completed trench excavation and bankgrading at all times. If more than one excavating machine is used on a revetment, the first machine will be allowed to excavate ahead of the finish grading machine provided the finish grading machine is kept within 300 feet of the initial grading machine and the initial cut is kept a minimum of 3 feet above finished grade. Place the stone in each structure by placing the stone below elevation 126.0 first and then constructing the bank paving between elevations 126.0 and 135.0. Placement of stone between elevations 126.0 and 135.0 shall be kept within 100 feet of the downstream end of stone placed below elevation 126.0.

1.1.2. For the Section B portion of each revetment construct the toe stone to elevation 123.0; place semi-compacted fill landward of the toe stone and keep the completed semi-compacted fill placement within 100 feet of the downstream end of the toe stone placement; place stone on the semi-compacted fill between the toe stone and elevation 135.0, keeping the completed revetment section within 100 feet of the downstream end of the semi-compacted fill.

1.2 Construct Revetment 6.5R.

1.3 Construct Revetment 7.5L.

1.4 Construct Revetment 5.5L.

1.5 Construct Revetment 5.0R.

CONTRACT MODIFICATION PROPOSAL AND ACCEPTANCE (PAGE 2)

8. ISSUING OFFICE Department of the Army Little Rock District, Corps of Engineers P.O. Box 867, Little Rock, Arkansas 72203	9. CONTRACT NO. DACW03-86-C-0006	10. MODIFICATION NO. D0-C0232
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11. **CONTRACTOR'S PROPOSAL—CHANGE IN CONTRACT PRICE**
(Detailed breakdown, attach additional sheets as necessary)

NOTE: SIGN AND RETURN ORIGINAL AND COPIES; RETAIN ONE COPY FOR YOUR FILE

NET INCREASE \$ _____	NET DECREASE \$ _____	CALENDAR DAYS INCREASE _____ DAYS
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(Proposal)

DECREASE

<u>Item No.</u>	<u>Description</u>	<u>Estimated Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Estimated Amount</u>
3	Excavation and Grading	32,000	Cu Yd		
5	Quarry-Run Stone	10,000	Ton		

DATE	TYPED NAME AND TITLE	SIGNATURE
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CONTRACT MODIFICATION PROPOSAL AND ACCEPTANCE

(CONTRACTING OFFICER'S COPY)

12. PROJECT Bank Stabilization, White River Entrance Channel, N.M. 6.9 to 4.3	13. CONTRACT NO. DACW03-85-C-0006	14. MODIFICATION NO. D0-C0232
15. FUNDS PROGRAMMED FOR THIS CHANGE IN THE AMOUNT OF: 96X3123 CA310 E02-850006 5006 JA 0507		
16. NECESSITY FOR CHANGE AND REASON FOR OMISSION FROM PLANS AND SPECIFICATIONS <u>NECESSITY FOR CHANGE:</u> a. Floods removed the existing embankment and then removed the partially completed semi-compacted fill replacement embankment in the vicinity of Owen's Lake on two occasions. Construction of a permanent over flow section landward of the revetment between stations 9+00+ and 19+70+ is proposed. The deleted portion of the revetment would have to be removed for construction of this structure. b. The contractor continues to work in several areas concurrently. As a result, a small amount of work has been done on several structures but none are complete. The order in which some work has been done has resulted in damage to constructed work and accelerated erosion of adjacent banks. <u>REASON FOR OMISSION FROM THE PLANS AND SPECIFICATIONS:</u> a. Plans and Specifications were prepared before the permanent over flow section was proposed. b. The need for an Order of Work was not contemplated during preparation of the specifications.		
17. RESUME OF NEGOTIATIONS OR RECOMMENDATIONS (Government representative)		
DATE	TYPED NAME AND TITLE OF GOVERNMENT REPRESENTATIVE	SIGNATURE

CONTRACT MODIFICATION PROPOSAL AND ACCEPTANCE

(Modification of less than \$50,000)

For use of this form, see ER 1180-1-1.

TURNER: jz
 3/24/87
 0557v

1. ISSUING OFFICE Department of the Army Little Rock District, Corps of Engineers P.O. Box 867, Little Rock, AR 72203-0867	2. CONTRACT NO. DACA03-86-C-0006	3. MODIFICATION NO. D0-L0185
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4. TO (Contractor) Huffman, Inc. P.O. Box 279 Poplar Bluff, MO 63901	5. PROJECT LOCATION AND DESCRIPTION Precision Measurement Equipment Laboratory and Aircraft General Purpose Shop, Blytheville Air Force Base, Blytheville, Arkansas
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6. A proposal is requested for making the hereinafter described change in accordance with specification and drawing revisions cited herein or listed in attachment hereto. Submit your proposal in space indicated on page 2, attach detailed breakdown of prime and subcontract costs. (See the clause of this contract entitled, "Modification Proposals - Price Breakdown") DO NOT start work under this proposed change until you receive a copy signed by the Contracting Officer or a directive to proceed.

87 Mar 24 <i>Date</i>	JAMES R. TOLLETT, P.E. Chief, Construction Branch <i>Typed Name and Title</i>	CLEMANS <i>Signature</i>
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7. DESCRIPTION OF CHANGE: Pursuant to the clause of this contract entitled, "Changes", the contractor shall furnish all plant, labor and material, and perform all work necessary to accomplish the following described work:

- TOLLETT
- a. Provide concrete sidewalks at the locations and in accordance with details shown on contract drawings, sheet reference numbers C-1.1, C-2.1, and C-3.1, sheets 4, 5, and 6 of 35 sheets, each revised 20 Mar 87.
 - b. Provide asphaltic concrete parking lot in accordance with details shown on contract drawings, sheet reference numbers C-1.1, C-2.1, and C-3.1, sheets 4, 5, and 6 of 35 sheets, each revised 20 Mar 87 and revised technical provisions stated below.
 - c. Construct service drive to south entrance of building in accordance with details shown on contract drawings, sheet reference numbers C-1.1, C-2.1, and C-3.1, sheets 4, 5, and 6 of 35 sheets, each revised 20 Mar 87 and revised technical provisions stated below.
 - d. Furnish and install precast concrete wheel stops at the locations and in accordance with details shown on contract drawings, sheet reference numbers C-1.1 and C-2.1, sheets 4 and 5 of 35, each revised 20 Mar 87 and revised technical provisions stated below.
 - e. Furnish and install pipe guards at the locations and in accordance with details shown on contract drawings, sheet reference numbers C-1.1 and C-2.1, sheets 4 and 5 of 35 sheets, each revised 20 Mar 87 and revised technical provisions stated below.

Except as hereby Modified, all terms and conditions of said contract as heretofore Modified remain unchanged and in full force and effect.

The foregoing modification is hereby accepted: CONTRACTOR BY _____ <i>Signature</i> _____ <i>Date</i>	UNITED STATES OF AMERICA _____ <i>Signature</i> _____ <i>Date</i>
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Modification Ser. No. D0-L0185
Contract No. DACA03-86-C-0006
Precision Measurement Equipment Laboratory
and Aircraft General Purpose Maintenance Shop
Blytheville AFB, AR
Page 1A

f. Construct canopies at south and east entrances to building in accordance with details shown on contract drawings, sheet reference numbers A-1, A-2, A-3, A-5, & A-6, sheets 7, 8, 9, 11, and 12 of 35 sheets, each revised 11 March 1987.

g. Provide a 2-1/2" fire department connection, in accordance with revised technical provision stated below, in lieu of originally specified 4" connection.

h. Extend ground bus, provide group receptacle in Room 14, furnish and install panel R1 and revised circuits, and provide phone outlets in accordance with details shown on contract drawings, sheets 32, 33, and 34 of 35 sheets, each revised 3/16/87.

CONTRACT DRAWINGS: The following revised drawings form a part of this modification:

<u>Sheet Reference No.</u>	<u>Sheet No.</u>	
C-1.1	4 of 35	
C-2.1	5 of 35	
C-3.1	6 of 35	
A-1	7 of 35	
A-2	8 of 35	
A-3	9 of 35	
A-5	11 of 35	
S-1 A-6	12 of 35	
S-2 → E-3.2	32 of 35	
S-3 E-4.2	33 of 35	
	E-5.1	34 of 35

13 }
14 } of 35
15 }

TECHNICAL PROVISIONS:

VOLUME 2 of 3, SECTION 2I - GRAVEL SURFACE COURSE, Delete the section in its entirety.

VOLUME 2 of 3, SECTION 15G - SPRINKLER SYSTEMS, FIRE PROTECTIONS, page 15G-8, paragraph 10, Delete original paragraph 10 in its entirety and insert the following:

"10. FIRE-DEPARTMENT CONNECTIONS: Fire-department connections shall be in accordance with NFPA No. 13 where indicated. Connections shall include check valve, automatic drop, caps, chains, and nameplate, so located that connections will not be subject to freezing. The discharge from the automatic drip shall be visible. Fire-department connections shall be two-way type with 2-1/2" outside diameter, and shall be provided with National Standard fire-hose thread connections.

Modification Ser. No. D0-L0185
Contract No. DACA03-86-C-0006
Precision Measurement Equipment Laboratory
and Aircraft General Purpose Maintenance Shop
Blytheville AFB, AR
Page 1B

TECHNICAL PROVISIONS: (cont'd)

VOLUME 2 of 3, Add the following new sections, attached hereto and made a part hereof:

SECTION 2V - HOT-MIX ASPHALTIC CONCRETE SURFACE COURSE

SECTION 2W - BITUMINOUS PRIME COAT

SECTION 2X - BITUMINOUS TACK COAT

SECTION 2Y - PRECAST CONCRETE WHEEL STOPS

SECTION 2Z - MISCELLANEOUS METAL

PART II
TECHNICAL PROVISIONS

SECTION 2V - HOT-MIX ASPHALTIC CONCRETE SURFACE COURSE

PART 1 - GENERAL

1. APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1 American Association of State Highway and Transportation Officials (AASHTO) Specifications:

M 17-77 (1982)	Mineral Filler for Bituminous Paving Mixtures.
M 20-70 (1982)	Penetration Graded Asphalt Cement.
M 226-80	Viscosity Graded Asphalt Cement.
T 11-82	Amount of Material Finer Than 0.075 mm Sieve in Aggregate.
T 27-82	Sieve Analysis of Fine and Coarse Aggregates.
T 30-78 (1982)	Mechanical Analysis of Extracted Aggregate.
T 96-77 (1982)	Resistance to Abrasion of Small Size Coarse Aggregate by Use of the Los Angeles Machine.
T 104-77 (1982)	Soundness of Aggregate by Use of Sodium Sulfate or Magnesium Sulfate.
T 164-80	Quantitative Extraction of Bitumen From Bituminous Paving Mixtures.
T 166-78 (1982)	Bulk Specific Gravity of Compacted Bituminous Mixtures.

1.2 Arkansas State Highway Commission:

Standard Specifications for Highway Construction (1978 Edition).

1.3 Military Standards:

MIL-STD 620A Test Methods for Bituminous Materials.
& Not. 1.

2.3.4 Extraction Tests on Bituminous Mixture: Extraction text on the paving mixture shall be made in accordance with AASHTO Specification T 164.

2.3.5 Density of Pavement: Density tests shall be made in accordance with AASHTO Specification T 166 on samples sawed or cored from the finished pavement.

3. STANDARD SPECIFICATIONS: Asphaltic concrete hot mix surface course shall conform to the provisions of Section 408 - Asphaltic Concrete Hot Mix Surface Course, Section 409 - Materials and Equipment for Hot Mix Bituminous Binder and Surface Courses, and Section 410 - Construction Methods for Hot Mix Bituminous Binder and Surface Courses of the "Arkansas State Highway Commission Standard Specifications for Highway Construction", except as specified herein. Reference hereinafter to the "Arkansas State Highway Commission Standard Specifications for Highway Constructions" will be by the basic designation "Standard Specifications". The words "Chief Engineer" or "Engineer" in the Standard Specifications shall be interpreted to mean "Contracting Officer". In case of conflict between the Standard Specifications and this specification, this specification shall govern. Copies of the Standard Specifications may be obtained from the Arkansas State Highway and Transportation Department, Little Rock, Arkansas, for \$7 per copy.

PART 2 - PRODUCTS

4. MATERIALS:

4.1 Mineral Aggregate: Mineral aggregate shall be as specified in Sections 408 and 409 of the Standard Specifications for Type 2 or 3 asphaltic concrete hot mix surface course, except as specified herein.

4.2 Subsection 408.02 of the Standard Specifications: The following paragraphs in 408.02 of the Standard Specifications are not applicable and in lieu thereof paragraph 2.3 of this specification shall apply.

"Each day the Engineer shall take as many samples as he considers necessary for checking the uniformity of the mixture. When unsatisfactory results or changed conditions make it necessary, the Engineer may establish a new job-mix formula.

"Aggregate samples will be tested in accordance with AASHTO T11, T27, and T30, as applicable. Extraction tests on bituminous mixtures shall be in accordance with AASHTO T164. Density of compacted mixture shall be in accordance with AASHTO T166."

4.3 Asphalt Cement: The asphalt cement shall be as specified for penetration grade 60-70 in Table 1 of AASHTO Specification M 20. The Contractor may furnish a viscosity graded asphalt cement. The viscosity graded asphalt cement furnished shall be in accordance with AASHTO M 226

LRDOM 1110-1-7
13 Apr 88

PART 3 - EXECUTION

7. **PLACEMENT:** Type 2 or 3 asphaltic concrete surface course shall be laid to the typical section or sections indicated on the drawings in accordance with Section 410 of the Standard Specifications.

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PART II
TECHNICAL PROVISIONS

SECTION 2W - BITUMINOUS PRIME COAT

PART 1 - GENERAL

1. APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1 American Society for Testing and Materials (ASTM) Standards:

- D 977-80 Emulsified Asphalt.
- D 1250-80 Petroleum Measurement Tables.
- D 2027-76 Liquid Asphalt (Medium-Curing Type).
(R 1981)

1.2 Arkansas State Highway Commission:

Standard Specifications for Highway Construction (1978 Edition).

2. CERTIFICATES OF COMPLIANCE: Certificates of compliance with specified tests on bituminous material shall be submitted to the Contracting Officer in accordance with SPECIAL CLAUSES. All costs incurred in testing materials shall be borne by the Contractor.

3. STANDARD SPECIFICATIONS: Bituminous prime coat shall conform to the provisions of Section 401 - Prime and Tack Coats, of the "Arkansas State Highway Commission Standard Specifications for Highway Construction", except as specified herein. The words "Chief Engineer" and "Engineer" in the Standard Specifications shall be interpreted to mean "Contracting Officer". Copies of the Standard Specifications may be obtained from the Arkansas State Highway and Transportation Department, Little Rock, Arkansas, for \$7 per copy.

PART 2 - PRODUCTS

4. MATERIALS: Asphalt for prime coat shall conform to ASTM Specification D 2027, Designation MC-30.

PART 3 - EXECUTION

5. APPLICATION: Bituminous material for the prime coat shall be applied in quantities of not less than 0.15 gallon nor more than 0.25 gallon per square yard of base course. Any prescribed application shall be divided, if necessary, into two applications to avoid flowing off the surface. The Contracting Officer may vary the rate to suit field conditions.

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PART II
TECHNICAL PROVISIONS

SECTION 2X - BITUMINOUS TACK COAT

PART 1 - GENERAL

1. **APPLICABLE PUBLICATIONS:** The American Society for Testing and Materials (ASTM) publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designations only.

D 140-70 (R 1981)	Sampling Bituminous Materials.
D 946-82	Penetration-Graded Asphalt Cement for Use in Pavement Construction.
D 977-80	Emulsified Asphalt.
D 1250-80 (R 1984)	Petroleum Measurement Tables.
D 2028-76 (R 1981)	Cutback Asphalt (Rapid-Curing Type).
D 2397-79	Cationic Emulsified Asphalt.
D 2995-79.	Determining Application Rate of Bituminous Distributors.

2. **EQUIPMENT:**

2.1 **Bituminous Distributor:** Distributor shall be mounted on pneumatic tires of such size and number to prevent rutting, shoving or otherwise damaging the base surface or other layers in the pavement structure. It shall be designed and equipped to spray the bituminous material in a uniform double or triple lap at the specified temperature, at readily determined and controlled rates with an allowable variation from the specified rate of not more than plus or minus 5 percent, and at variable widths. Distributor equipment shall include a separate power unit for the bitumen pump, full-circulation spray bars, tachometer, pressure gages, volume-measuring devices, adequate heaters for heating of materials to the proper application temperature, a thermometer for reading the temperature of tank contents, and a hand hose attachment suitable for applying bituminous material manually to areas inaccessible to the distributor. The distributor shall be equipped to circulate and agitate the bituminous material during the heating process.

2.2 **Power Brooms and Power Blowers:** Power brooms and power blowers shall be suitable for cleaning the surfaces to which the tack coat is to be applied.

amount of bituminous material more than 10 percent over the specified application rate for each application will be deducted from the measured quantities except for irregular areas where hand spraying of the bituminous material is necessary. Measured quantities shall be expressed in gallons at 60°F. Volumes measured at temperatures other than 60°F. shall be corrected in accordance with ASTM D 1250, using a coefficient of expansion of 0.00025 per degree F. for asphalt emulsion.

8. PAYMENT: The quantities of bituminous material, determined as specified in paragraph MEASUREMENT will be paid for at the respective contract unit price in the bid schedule on which the contract is based, which shall constitute full compensation for all operations necessary to complete the work as specified herein.

PART 2 - PRODUCTS

9. BITUMINOUS MATERIAL: Cutback asphalt, or emulsified asphalt, grade RC-250, conforming to ASTM D 2028, or emulsified asphalt grade SS-1, conforming to ASTM D 977.

PART 3 - EXECUTION

10. PREPARATION OF SURFACE: Immediately before applying the tack coat, all loose material, dirt, clay, or other objectionable material shall be removed from the surface to be treated. The area to be tacked shall also be dry and clean.

11. APPLICATION RATE: Bituminous material for the tack coat shall be applied in quantities of not less than 0.05 gallon nor more than 0.15 gallon per square yard of pavement surface. The exact quantities within the range specified, which may be varied to suit field conditions, will be determined by the Contracting Officer.

12. APPLICATION TEMPERATURE: Cutback asphalt application temperature shall provide an application viscosity between 10 and 60 seconds, Saybolt Furol, or between 20 and 120 centistokes, kinematic. The temperature viscosity relation shall be furnished to the Contracting Officer.

13. APPLICATION: Following preparation and subsequent inspection of the surface, the tack coat shall be applied at the specified rate with uniform distribution over the surface to be treated. All areas and spots missed by the distributor shall be properly treated with the hand spray. Following application of the prime material, the tack shall be allowed to cure and obtain evaporation of any volatiles or moisture. Until the succeeding layer of pavement is placed, the tacked area shall be maintained by protecting the surface against damage and by repairing and retacking deficient areas at no additional cost to the Government. If

PART II
TECHNICAL PROVISIONS

SECTION 2Y - PRECAST CONCRETE WHEEL STOPS

1. SCOPE: This section covers precast concrete wheel stops, complete.
2. GENERAL: Wheel stops shall be installed as indicated and in the locations shown on the drawings. Stops will be inspected before installation and any damaged or defective stops shall be replaced.
3. PRECAST CONCRETE WHEEL STOPS shall be constructed of reinforced concrete conforming to the SECTION: CONCRETE, class A. The stops shall be constructed as detailed on the drawings, or may be approved manufactured items. If approved manufactured stops are used, installation shall be as recommended by the manufacturer and as approved.

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**PART II
TECHNICAL PROVISIONS**

SECTION 22 - MISCELLANEOUS METAL

PART 1 - GENERAL

1. APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1 American Society for Testing and Materials (ASTM) Publications:

A 36-81a	Structural Steel
A 123-78	Zinc (Hot-Galvanized) Coatings on Products Fabricated from Rolled, Pressed, and Forged Steel Shapes, Plates, Bars, and Strip
A 386-78	Zinc Coating (Hot-Dip) on Assembled Steel Products
A 525-83	Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process

1.2 American Welding Society (AWS) Publication:

D1.1-83	Structural Welding Code - Steel
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2. GENERAL REQUIREMENTS: The Contractor shall verify all measurements and shall take all field measurements necessary before fabrication. Welding to or on structural steel shall be in accordance with AWS D1.1. Items specified to be galvanized, when practicable and not indicated otherwise, shall be hot-dip galvanized after fabrication. Galvanizing shall be in accordance with ASTM A 123, A 386, or A 525, as applicable. Exposed fastenings shall be compatible materials, shall generally match in color and finish, and shall harmonize with the material to which fastenings are applied. Materials and parts necessary to complete each item, even though such work is not definitely shown or specified, shall be included. Poor matching of holes for fasteners shall be cause for rejection. Fastenings shall be concealed where practicable. Thickness of metal and details of assembly and supports shall give ample strength and stiffness. Joints exposed to the weather shall be formed to exclude water.

3. DISSIMILAR MATERIALS: Where dissimilar metals are in contact, or where aluminum is in contact with concrete, mortar, masonry, wet or pressure-treated wood, or absorptive materials subject to wetting, the surfaces shall be protected with a coat of bituminous paint or asphalt varnish.

13 Apr 88

CONTRACT MODIFICATION PROPOSAL AND ACCEPTANCE (PAGE 2)

8. ISSUING OFFICE Department of the Army Little Rock District, Corps of Engineers P.O. Box 867, Little Rock, Arkansas 72203	9. CONTRACT NO. DACA03-86-C-0006	10. MODIFICATION NO. D0-L0185
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11. **CONTRACTOR'S PROPOSAL—CHANGE IN CONTRACT PRICE**
(Detailed breakdown, attach additional sheets as necessary)

NOTE: SIGN AND RETURN ORIGINAL AND COPIES; RETAIN ONE COPY FOR YOUR FILE

NET INCREASE \$ _____	NET DECREASE \$ _____	CALENDAR DAYS INCREASE _____ DAYS
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(Proposal)

DATE	TYPED NAME AND TITLE	SIGNATURE
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13 Apr 88

CONTRACT MODIFICATION PROPOSAL AND ACCEPTANCE

(CONTRACTING OFFICER'S COPY)

12. PROJECT Precision Measurement Equipment Laboratory and Aircraft General Purpose Maintenance Shop, Blytheville AFB, AR	13. CONTRACT NO. DACA03-86-C-0006	14. MODIFICATION NO. D0-L0185
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15. FUNDS PROGRAMMED FOR THIS CHANGE IN THE AMOUNT OF:

Accounting and Appropriation Data:
 575 3300 P321 38-6539 S34066 L.I. KA 55145091

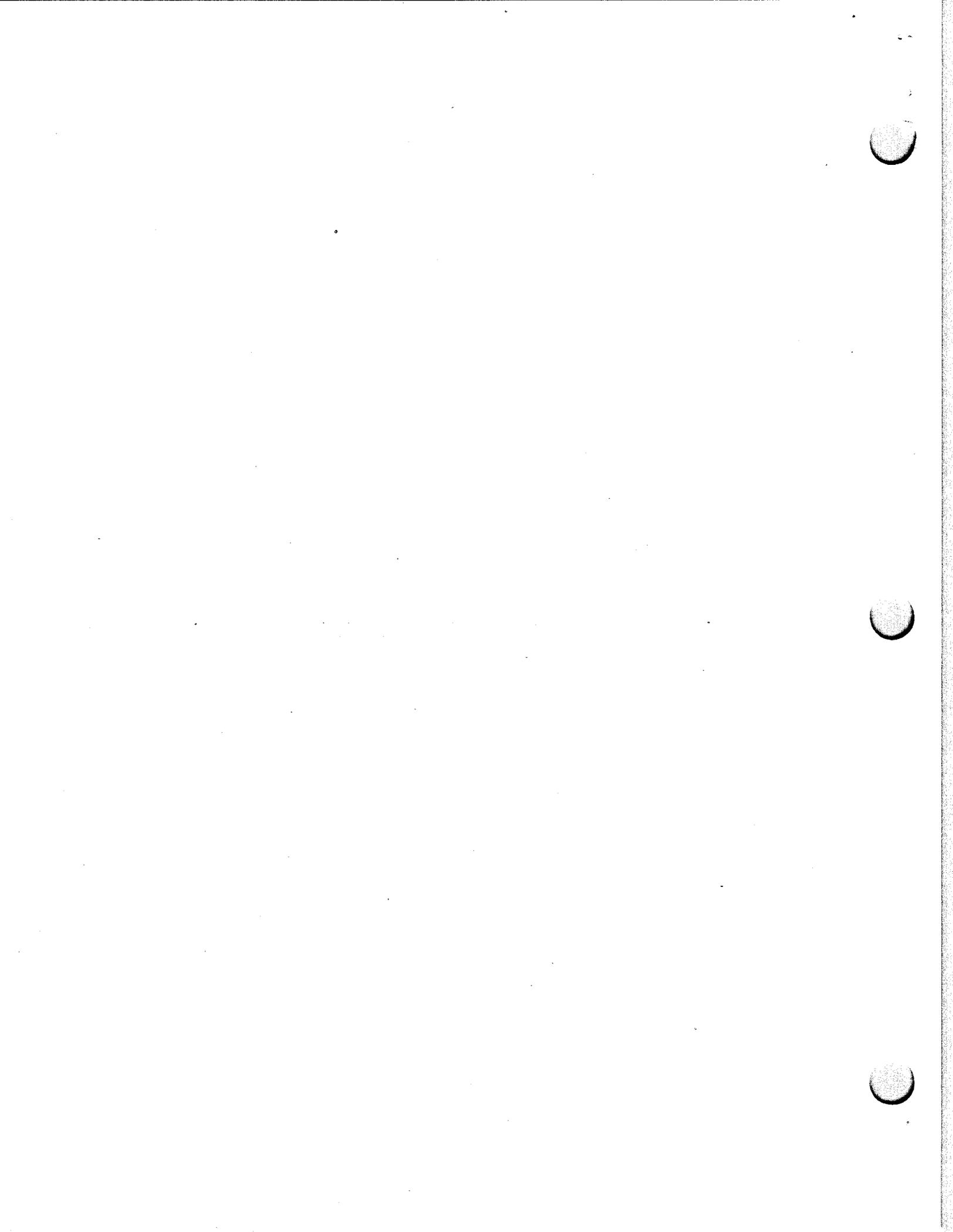
16. NECESSITY FOR CHANGE AND REASON FOR OMISSION FROM PLANS AND SPECIFICATIONS

NECESSITY: The change is necessary as the result of a user request by AF letter, DEEP (Smith, 43265), Subject: Blytheville AFB FY 85 MCP Project, BWKR850091, PMEL, dated 03 Feb 1987 and 1st End thereto (SWDCO-CM, 12 Feb 1987).

REASON FOR OMISSION FROM PLANS AND SPECIFICATIONS: Sufficient funds were not available at time of award.

17. RESUME OF NEGOTIATIONS OR RECOMMENDATIONS (*Government representative*)

DATE	TYPED NAME AND TITLE OF GOVERNMENT REPRESENTATIVE	SIGNATURE
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APPENDIX E
CONCURRENCE FOR AMENDMENT NO. 000#
TO SOLICITATION NO. DAC_03-8#-0###

Project Name

The following individuals have reviewed the drawings and specification changes prepared for the subject amendment and concur in the changes.

_____	_____	Structures Section, Engineer
Name	Date	
_____	_____	Structures Section, Architect
Name	Date	
_____	_____	Geotechnical Branch, Soils Engineer
Name	Date	
_____	_____	Geotechnical Branch, Geologist
Name	Date	
_____	_____	Gen Engrg Section, Engineer
Name	Date	
_____	_____	Electrical Section, Engineer
Name	Date	
_____	_____	Mechanical Section, Engineer
Name	Date	
_____	_____	Specifications Unit, Engineer
Name	Date	
_____	_____	River Design Unit, Engineer
Name	Date	
_____	_____	Project Engineer
Name	Date	

All data for the subject amendment and this concurrence form was hand-carried to Chief, Construction-Operations Division, on _____.

Received By _____
Signature

LRDOM 1110-1-7
13 Apr 88

CONCURRENCE FOR AMENDMENT NO. 000#
TO SOLICITATION NO. DAC_03-8#-0###

Project Name

The following individuals have reviewed the drawings and specification changes prepared for the subject amendment and concur in the changes.

_____ Name	_____ Date	Structures Section, Engineer
_____ Name	_____ Date	Structures Section, Architect
_____ Name	_____ Date	Geotechnical Branch, Soils Engineer
_____ Name	_____ Date	Geotechnical Branch, Geologist
_____ Name	_____ Date	Gen Engrg Section, Engineer
_____ Name	_____ Date	Electrical Section, Engineer
_____ Name	_____ Date	Mechanical Section, Engineer
_____ Name	_____ Date	Specifications Unit, Engineer
_____ Name	_____ Date	River Design Unit, Engineer
_____ Name	_____ Date	Project Engineer

All data for the subject amendment and this concurrence form was hand-carried to Chief, Construction-Operations Division, on _____.

Received By _____
Signature