

2. AMENDMENT/MODIFICATION NO. 0001	3. EFFECTIVE DATE 30 DEC 97	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. <i>(If applicable)</i>
6. ISSUED BY Department of the Army Corps of Engineers Fort Worth District		7. ADMINISTERED BY <i>(If other than Item 6)</i>	CODE

8. NAME AND ADDRESS OF CONTRACTOR <i>(No., street, county, State and ZIP Code)</i>	(√)	9A. AMENDMENT OF SOLICITATION NO. DACA63-98-B-0002
	(X)	9B. DATED <i>(SEE ITEM 11)</i> 5 DECEMBER 1997
		10A. MODIFICATION OF CONTRACTS/ORDER NO.
		10B. DATED <i>(SEE ITEM 13)</i>
CODE	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
 (a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(√)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: <i>(Specify authority)</i> THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES <i>(such as changes in paying office, appropriation date, etc.)</i> SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER <i>(Specify type of modification and authority)</i>

E. IMPORTANT: Contractor is not, is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible.)*
 Standard Form 1442, the Bidding Schedule, Specifications and Drawings for SOCIAL WORK SERVICES CLINIC, FORT HOOD, TEXAS, are amended as follows:

See Continuation Sheet.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER <i>(Type or print)</i>	16A. NAME AND TITLE OF CONTRACTING OFFICER <i>(Type or print)</i>
15B. CONTRACTOR/OFFEROR _____ <i>(Signature of person authorized to sign)</i>	15C. DATE SIGNED
16B. UNITED STATES OF AMERICA BY _____ <i>(Signature of Contracting Officer)</i>	16C. DATE SIGNED

Item 14. Continued.

a. Standard Form 1442, First Page, Item 13.A.- In the second line, change the Bid Opening date from "6 January 1998" to "13 January 1998". Bid opening time will be 2 p.m. CST.

b. Bidding Schedule.- The Bidding Schedule shall be voided and the accompanying new Bidding Schedule, bearing the notation "ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002", shall be substituted therefor.

c. Specifications.

(1) The following listed sections shall be voided and the accompanying new sections of the same title and number, each bearing the notation "ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-986-B-0002" shall be substituted therefor:

<u>Section No.</u>	<u>Title</u>
02551	BITUMINOUS PAVING FOR ROADS, STREETS AND OPEN STORAGE AREAS
05055	WELDING, STRUCTURAL
08700	BUILDERS' HARDWARE

(2) The following listed accompanying new section, bearing the notation "ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002" shall be added to the specifications and add to the Table of Contents:

<u>Section No.</u>	<u>Title</u>
10440	INTERIOR SIGNAGE

d. Drawings.- The drawings listed below shall be voided and the attached new drawings of the same number, each bearing the notation "AM #0001", shall be substituted therefor:

<u>Sequence No.</u>	<u>Sheet No.</u>	<u>Title</u>
22	A2-3	FLOOR PLAN-BLOCK B
25A	A2-7	ROOF DETAILS
29	A4-2	FINISH SCHEDULE
30	A5-1	DOOR SCHEDULE
32A	A5-4	DOOR DETAILS
33	A6-1	WALL TYPES
34	A6-2	GYPSUM WALL DETAILS
41	A8-5	EXTERIOR DETAILS
76	M21	HVAC CONTROLS, LEGEND AND DIAGRAM
77	M22	HVAC CONTROLS DIAGRAM
78	M23	HVAC CONTROLS DIAGRAM

e. The attached Plan Holder's List is the current list of all individuals requesting plans and specifications as of 30 December 1997.

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

Social Work Services Center (Title)
Fort Hood, Texas (Location)

Solicitation No. DACA63-98-B-0002

BIDDING SCHEDULE
 (To be attached to SF 1442)

BASE BID: All work required by the plans and specifications exclusive of work required by the Option Bid Items.

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
0001	One building, complete including all utilities within the five foot building line				
		Job	Sum	***	\$ _____
0002	Drilled Piers				
0002AA	24-Inch Drilled Piers	829	VLF	\$ _____	\$ _____
0002AB	30-Inch Drilled Piers	1,205	VLF	\$ _____	\$ _____
0002AC	36-Inch Drilled Piers	86	VLF	\$ _____	\$ _____
0003	All site work outside the building five foot line including utilities, demolition, earthwork, paving, storm drainage, fencing, turfing and all work not listed separately				
		Job	Sum	***	\$ _____
TOTAL BASE BID					\$ _____
0004	OPTION NO. 1: All work required by the plans and specifications for the landscaping and irrigation outside the building, not including the courtyard.				
		Job	Sum	***	\$ _____
0005	OPTION NO. 2: All work required by the plans and specifications for the courtyard landscaping and irrigation				
		Job	Sum	***	\$ _____
0006	OPTION NO. 3: All work required by the plans and specifications for the site lighting.				
		Job	Sum	***	\$ _____
0007	OPTION NO. 4: All work required by the plans and specifications for the interior signage.				
		Job	Sum	***	\$ _____

BIDDING SCHEDULE (cont)

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
0008	OPTION NO. 5: All work required by the plans and specifications for the motorized projection screen.				
		Job	Sum	***	\$ _____
TOTAL BASE BID PLUS OPTIONS 1 THROUGH 5					\$ _____

NOTES:

1. ARITHMETIC DISCREPANCIES (EFARS 14.406-2)

(a) For the purpose of initial evaluation of bids, the following will be utilized in resolving arithmetic discrepancies found on the face of the bidding schedule as submitted by bidders:

- (1) Obviously misplaced decimal points will be corrected;
- (2) In case of discrepancy between unit price and extended price, the unit price will govern;
- (3) Apparent errors in extension of unit prices will be corrected; and
- (4) Apparent errors in addition of lump-sum and extended prices will be corrected.

(b) For the purposes of bid evaluation, the Government will proceed on the assumption that the bidder intends his bid to be evaluated on the basis of the unit prices, extensions, and totals arrived at by resolution of arithmetic discrepancies as provided above and the bid will be so reflected on the abstract of bids.

(c) These correction procedures shall not be used to resolve any ambiguity concerning which bid is low.

2. If a modification to a bid based on unit prices is submitted, which provides for a lump sum adjustment to the total estimated cost, the application of the lump sum adjustment to each unit price in the bid schedule must be stated. If it is not stated, the bidder agrees that the lump sum adjustment shall be applied on a pro rata basis to every unit price in the bid schedule.

BIDDING SCHEDULE (cont)

NOTES: (cont)

3. Bidders must bid on all items.
4. Costs attributable to Division 01 - General Requirements are assumed to be prorated among bid items listed.
5. Responders are advised that this requirement may be delayed, cancelled or revised at any time during the solicitation, selection, evaluation, negotiation and/or final award process based on decisions related to DOD changes in force structure and disposition of the Armed Forces.
6. For the purpose of this solicitation, the word "item" shall be considered to mean "schedule" as used in Provision 52.214-0019, CONTRACT AWARD--SEALED BIDDING--CONSTRUCTION, in Section 00100 INSTRUCTIONS, CONDITIONS, AND NOTICES TO BIDDERS, excluding additives, deductives, or optional items.
7. EVALUATION OF OPTIONS (JUL 1990) (FAR 52.217-5)

Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the option(s).

8. OPTION FOR INCREASED QUANTITY - SEPARATELY PRICED LINE ITEM (MAR 1989) (FAR 52.217-7)

The Government may require the completion of the numbered line item, identified in the Bidding Schedule as an option item, in the quantity and at the price stated in the Bidding Schedule. The Contracting Officer may exercise the option by written notice to the Contractor within the period specified in the Bidding Schedule. Completion of added items shall continue at the same schedule as the Base Bid unless otherwise noted in the SPECIAL CONTRACT REQUIREMENTS, paragraph 1 entitled COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK.

9. The Government reserves the right to exercise the option(s) either singularly or in any combination for up to 180 calendar days after award of the Base Bid without an increase in the Offeror's Bid Price.

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

SECTION 02551

BITUMINOUS PAVING FOR ROADS, STREETS AND OPEN STORAGE AREAS
12/95

PART

1 - GENERAL

1.1 REFERENCES

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

TEXAS DEPARTMENT OF TRANSPORTATION

TXDOT (1993) Standard Specifications for
Construction of Highways, Streets and
Bridges

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 29 (1991a) Unit Weight and Voids in Aggregate

ASTM C 88 (1990) Soundness of Aggregates by Use of
Sodium Sulfate or Magnesium Sulfate

ASTM C 117 (1990) Materials Finer than 75-micrometer
(No 200) Sieve in Mineral Aggregates by
Washing

ASTM C 127 (1988) Specific Gravity and Absorption of
Coarse Aggregate

ASTM C 128 (1988) Specific Gravity and Absorption of
Fine Aggregate

ASTM C 131 (1989) Resistance to Degradation of
Small-Size Coarse Aggregate by Abrasion and
Impact in the Los Angeles Machine

ASTM C 136 (1984a) Sieve Analysis of Fine and Coarse
Aggregates

ASTM C 183 (1988) Sampling and the Amount of Testing
of Hydraulic Cement

ASTM D 5 (1986) Penetration of Bituminous Materials

ASTM D 75 (1987) Sampling Aggregates

ASTM D 140 (1988) Sampling Bituminous Materials

ASTM D 242 (1985; R 1990) Mineral Filler for
Bituminous Paving Mixtures

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

ASTM D 422	(1963; R 1990) Particle-Size Analysis of Soils
ASTM D 946	(1982) Penetration-Graded Asphalt Cement for Use in Pavement Construction
ASTM D 1250	(1980; R 1990) Petroleum Measurement Tables
ASTM D 1856	(1979; R 1984) Recovery of Asphalt from Solution by Abson Method
ASTM D 2041	(1991) Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures
ASTM D 2172	(1992) Quantitative Extraction of Bitumen from Bituminous Paving Mixtures
ASTM D 2216	(1990) Laboratory Determination of Water (Moisture) Content of Soil, and Rock
ASTM D 3381	(1983) Viscosity-Graded Asphalt Cement for Use in Pavement Construction
ASTM D 3515	(1989) Hot-Mixed, Hot-Laid Bituminous Paving Mixtures
ASTM D 4791	(1989) Flat or Elongated Particles in Coarse Aggregate

MILITARY STANDARDS (MIL-STD)

MIL-STD-620A	(Rev A & Notice 1) Test Methods for Bituminous Paving Material
--------------	--

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01300 SUBMITTAL PROCEDURES:

SD-09 Reports

Bituminous Pavement; FIO.

Copies of test results.

1.3 PLANT, EQUIPMENT, MACHINES, AND TOOLS

1.3.1 General

The bituminous plant shall be of such capacity to produce the quantities of bituminous mixtures required. Hauling equipment, paving machines, rollers, miscellaneous equipment, and tools shall be provided in sufficient numbers and capacity and in proper working condition to place the bituminous paving mixtures at a rate equal to the plant output.

1.3.2 Straightedge

The Contractor shall furnish and maintain at the site, in good condition, one 12-foot straightedge for each bituminous paver. Straightedge shall be made available for Government use. Straightedges shall be constructed of aluminum or other lightweight metal and shall have blades of box or box-girder cross section with flat bottom reinforced to insure rigidity and accuracy. Straightedges shall have handles to facilitate movement on pavement.

1.4 WEATHER LIMITATIONS

Unless otherwise directed, bituminous courses shall not be constructed when temperature of the surface of the existing pavement or base course is below 40 degrees F.

1.5 PROTECTION OF PAVEMENT

After final rolling, no vehicular traffic of any kind shall be permitted on the pavement until the pavement has cooled to 140 degrees F.

1.6 GRADE AND SURFACE-SMOOTHNESS REQUIREMENTS

Finished surface of bituminous courses, when tested as specified below and in paragraph ACCEPTABILITY OF WORK, shall conform to gradeline and elevations shown and to surface-smoothness requirements specified.

1.6.1 Plan Grade

The grade of the completed surface shall not deviate more than 0.05 foot from the plan grade.

1.6.2 Surface Smoothness

When a 12 foot straightedge is laid on the surface parallel with the centerline of the paved area or transverse from crown to pavement edge, the surface shall vary not more than 1/4 inch from the straightedge.

1.7 GRADE CONTROL

Lines and grades shall be established and maintained by means of line and grade stakes placed at site of work in accordance with the SPECIAL CLAUSES. Elevations of bench marks used by the Contractor for controlling pavement operations at the site of work will be determined, established, and maintained by the Government. Finished pavement elevations shall be established and controlled at the site of work by the Contractor in accordance with bench mark elevations furnished by the Contracting Officer.

1.8 SAMPLING AND TESTING

Sampling and testing shall be the responsibility of the Contractor. Sampling and testing shall be performed by an approved commercial testing laboratory or by the Contractor subject to approval. Unless otherwise specified, sampling shall be in accordance with ASTM D 75 for aggregates, ASTM C 183 for mineral filler, and ASTM D 140 for bituminous material. Copies of test results shall be furnished to the Contracting Officer.

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

Approval of a source does not relieve the Contractor of responsibility for delivery at the job site of materials meeting the requirements herein.

1.8.1 Tests Required

1.8.1.1 Plant Mix

1.8.1.1.1 Hot Bin Gradations

Hot bin gradations (cold-feed gradation when drum mix plant is used), shall be tested in accordance with ASTM C 136 and ASTM C 117. A minimum of one test will be conducted per every 200 tons of wearing course mix placed or fraction thereof, and a minimum of one test conducted per every 350 tons of intermediate course mix placed or fraction thereof.

1.8.1.1.2 Marshall Specimens

Marshall Specimens shall be taken in accordance with MIL-STD-620A, Method 104. At least one set of specimens shall be taken per each 200 tons of wearing course mix placed, and one set of specimens shall be taken per each 350 tons of intermediate course mix placed. However, not less than two sets of specimens (three specimens per set) shall be taken in any one day regardless of the quantity of mix placed.

1.8.1.1.3 Asphalt Extractions

Asphalt extractions shall be performed in accordance with ASTM D 2172, Method A or B. At least one asphalt extraction shall be conducted once per 200 tons.

1.8.1.2 Field Density Tests

Field Density Tests shall be conducted in accordance with MIL-STD-620A, Method 100. A minimum of one test (3 samples per test) will be conducted per every 200 tons of wearing course mix placed or fraction thereof, and a minimum of one test conducted per every 350 tons of intermediate course mix placed or fraction thereof.

1.8.1.3 Thickness Measurements

Thickness measurements shall be taken at a minimum of one measurement for each 1000 square yards of mix placed.

PART 2 - PRODUCTS

2.1 HOT-MIX SURFACE COURSE

For Texas

Bituminous hot-mix surface course shall conform to the requirements of TXDOT for "Hot-Mix Asphaltic Concrete Pavement," Item 340, except as specified hereinafter.

2.1.1 Asphalt Material

For Texas

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

Asphalt material for the surface course shall be asphalt cement AC-20 conforming to TXDOT-01 for "Asphalts, Oils, and Emulsions," Item 300. Asphalt material shall come from a source approved for use by the TXDOT. The seal number from the tank and the number of the TXDOT Laboratory test report shall be furnished to the Contracting Officer.

2.1.2 Paving Mixture

Paving mixture shall be Type "D".

TXDOT Specification shall be modified as follows:

- (a) Material retained on the No. 10 screen shall not exceed 65 percent.
- (b) Density and stability requirements shall not apply.
- (c) Construction methods paragraph shall not apply.
- (d) The measurement and payment paragraphs shall not apply.

2.1.3 Job Mix Formula (JMF)

The JMF for the bituminous mixture shall be furnished to the Contracting Officer for approval. No payment will be made for mixtures produced prior to the approval of the JMF. The formula will indicate the percentage of each stockpile and mineral filler, the percentage of each size aggregate, the percentage of bitumen, and the temperature of the completed mixture when discharged from the mixer. The tolerances specified in TXDOT-01, Item 340, will be allowed for asphalt content, temperature, and aggregate grading for tests conducted on the mix as discharged from the mixing plant. Bituminous mix that deviates more than 25 degrees F. from the JMF shall be rejected. The JMF may be adjusted during construction to improve paving mixtures, as directed, without adjustments in the contract prices.

2.1.4 Test Properties of Bituminous Mixtures

Finished mixture shall meet requirements described below when tested in accordance with MIL-STD-620, Method 100. All samples will be compacted with 50 blows of specified hammer on each side of sample. When bituminous mixture fails to meet the requirements specified below, the paving operation shall be stopped until the cause of noncompliance is determined and corrected.

2.1.4.1 Stability, Flow, and Voids

Requirements for stability, flow, and voids are shown in TABLES I and II for nonabsorptive and absorptive aggregates, respectively.

TABLES I and II - Not Used.

TABLE III. NONABSORPTIVE-AGGREGATE MIXTURE

Wearing Course

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

Stability minimum, pounds	500
Flow maximum, 1/100-inch units	20
Voids total mix, percent (1)	3-5
Voids filled with bitumen, percent (2)	75-85

(1) The Contracting Officer may permit deviations from limits specified when gyratory method of design is used to develop the JMF.

(2) The Contracting Officer may permit deviation from limits specified for voids filled with bitumen in the intermediate course in order to stay within limits for percent voids total mix.

TABLE IV. ABSORPTIVE-AGGREGATE MIXTURE

	<u>Wearing Course</u>
Stability minimum, pounds	500
Flow maximum, 1/100-inch units	20
Voids total mix, percent (1)	2-4
Voids filled with bitumen, percent (2)	80-90

(1) The Contracting Officer may permit deviations from limits specified when gyratory method of design is used to develop the JMF.

(2) The Contracting Officer may permit deviation from limits specified for voids filled with bitumen in the intermediate course in order to stay within limits for percent voids total mix.

a. When the water-absorption value of the entire blend of aggregate does not exceed 2.5 percent as determined in accordance with ASTM C 127 and ASTM C 128, the aggregate is designated as nonabsorptive. The theoretical specific gravity computed from the apparent specific gravity or ASTM D 2041 will be used in computing voids total mix and voids filled with bitumen, and the mixture shall meet requirements in TABLE I.

b. When the water-absorption value of the entire blend of aggregate exceeds 2.5 percent as determined in accordance with ASTM C 127 and ASTM C 128, the aggregate is designated as absorptive. The theoretical specific gravity computed from the bulk-impregnated specific gravity method contained in MIL-STD-620, Method 105, or ASTM D 2041 shall be used in computing percentages of voids total mix and voids filled with bitumen; the mixture shall meet requirements in TABLE II.

2.1.4.2 Stability

The index of retained stability must be greater than 75 percent as determined by MIL-STD-620, Method 104. When the index of retained stability is less than 75, the aggregate stripping tendencies may be countered by the use of hydrated lime or by treating the bitumen with an approved antistripping agent. The hydrated lime is considered as mineral filler and should be considered in the gradation requirements. The amount of hydrated lime or antistripping agent added to bitumen shall be sufficient, as approved, to produce an index of retained stability of not less than 75

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

percent. No additional payment will be made to the Contractor for addition of antistripping agent required.

PART 3 - EXECUTION

3.1 BASE COURSE CONDITIONING

The surface of the base course will be inspected for adequate compaction and surface tolerances specified in Section 02241, "Aggregate Base Course". Unsatisfactory areas shall be corrected.

3.2 PREPARATION OF BITUMINOUS MIXTURES

Rates of feed of aggregates shall be regulated so that the moisture content and temperature of aggregates will be within specified tolerances. Aggregates, mineral filler, and bitumen shall be conveyed into the mixer in proportionate quantities required to meet the JMF. Mixing time shall be as required to obtain a uniform coating of the aggregate with the bituminous material. Temperature of bitumen at time of mixing shall not exceed 300 degrees F. Temperature of aggregate and mineral filler in the mixer shall not exceed 325 degrees F when bitumen is added. Overheated and carbonized mixtures or mixtures that foam shall not be used.

3.3 WATER CONTENT OF AGGREGATES

Drying operations shall reduce the water content of mixture to less than 0.75 percent. The water content test will be conducted in accordance with ASTM D 2216; the weight of the sample shall be at least 500 grams. If the water content is determined on hot bin samples, the water content will be a weighted average based on composition of blend.

3.4 STORAGE OF BITUMINOUS PAVING MIXTURE

Storage shall conform to the applicable requirements of ASTM D 3515; however, in no case shall the mixture be stored for more than 4 hours.

3.5 TRANSPORTATION OF BITUMINOUS MIXTURE

Transportation from paving plant to site shall be in trucks having tight, clean, smooth beds lightly coated with an approved releasing agent to prevent adhesion of the mixture to the truck bodies. Excessive releasing agent shall be drained prior to loading. Each load shall be covered with canvas or other approved material of ample size to protect mixture from weather and to prevent loss of heat. Loads that have crusts of cold, unworkable material or that have become wet will be rejected. Hauling over freshly placed material will not be permitted.

3.6 SURFACE PREPARATION OF UNDERLYING COURSE

Prior to placing of the intermediate or wearing course, the underlying course shall be cleaned of all foreign or objectionable matter with power brooms and hand brooms.

3.7 PRIME COATING

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

Surfaces of previously constructed base course shall be sprayed with a coat of bituminous material conforming to Section 02559 BITUMINOUS PRIME COAT.

3.8 TACK COATING

Contact surfaces of previously constructed pavement, curbs, manholes, and other structures shall be sprayed with a thin coat of bituminous material conforming to Section 02558 BITUMINOUS TACK COAT.

3.9 PLACING

Bituminous courses shall be constructed only when the base course or existing pavement has no free water on the surface. Bituminous mixtures shall not be placed without ample time to complete spreading and rolling during daylight hours, unless approved satisfactory artificial lighting is provided.

3.9.1 Offsetting Joints

The wearing course shall be placed so that longitudinal joints of the wearing course will be offset from joints in the intermediate course by at least 1 foot. Transverse joints in the wearing course shall be offset by at least 2 feet from transverse joints in the intermediate course.

3.9.2 General Requirements for Use of Mechanical Spreader

Range of temperatures of mixtures, when dumped into the mechanical spreader, shall be as determined by the Contracting Officer. Mixtures having temperatures less than 225 degrees F when dumped into the mechanical spreader shall not be used. The mechanical spreader shall be adjusted and the speed regulated so that the surface of the course being laid will be smooth and continuous without tears and pulls, and of such depth that, when compacted, the surface will conform to the cross section indicated. Placing with respect to center line areas with crowned sections or high side of areas with one-way slope shall be as directed. Placing of the mixture shall be as nearly continuous as possible, and speed of placing shall be adjusted, as directed, to permit proper rolling. When segregation occurs in the mixture during placing, the spreading operation shall be suspended until the cause is determined and corrected.

3.9.3 Placing Strips Succeeding Initial Strips

In placing each succeeding strip after initial strip has been spread and compacted as specified below, the screed of the mechanical spreader shall overlap the previously placed strip 2 to 3 inches and be sufficiently high so that compaction produces a smooth dense joint. Mixture placed on the edge of a previously placed strip by the mechanical spreader shall be pushed back to the edge of the strip by use of a lute. Excess mixture shall be removed and wasted.

3.9.4 Handspreading in Lieu of Machine Spreading

In areas where the use of machine spreading is impractical, the mixture shall be spread by hand. Spreading shall be in a manner to prevent segregation. The mixture shall be spread uniformly with hot rakes in a

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

loose layer of thickness that, when compacted, will conform to required grade, density, and thickness.

3.10 COMPACTION OF MIXTURE

Rolling shall begin as soon after placing as the mixture will bear a roller without undue displacement. Delays in rolling freshly spread mixture will not be permitted. After initial rolling, preliminary tests of crown, grade, and smoothness shall be made by the Contractor. Deficiencies shall be corrected so that the finished course will conform to requirements for grade and smoothness specified herein. After the Contractor is assured of meeting crown, grade, and smoothness requirements, rolling shall be continued until a mat density of 97.0 to 100.0 percent and a joint density of 95.0 to 100.0 percent of density of laboratory-compacted specimens of the same mixture is obtained. Joint density test cores shall be taken at least twice daily directly over the exposed joints. Places inaccessible to rollers shall be thoroughly compacted with hot hand tampers.

3.10.1 Correcting Deficient Areas

Mixtures that become contaminated or are defective shall be removed to the full thickness of the course. Edges of the area to be removed shall be cut so that sides are perpendicular and parallel to the direction of traffic and so that the edges are vertical. Edges shall be sprayed with bituminous materials conforming to Section 02558 BITUMINOUS TACK COAT. Fresh paving mixture shall be placed in the excavated areas in sufficient quantity so that the finished surface will conform to grade and smoothness requirements. Paving mixture shall be compacted to the density specified herein. Skin patching of an area that has been rolled shall not be permitted.

3.11 JOINTS

3.11.1 General

Joints between old and new pavements, between successive work days, or joints that have become cold (less than 175 degrees F) shall be sawed back to insure continuous bond between the old and new sections of the course. All joints shall have the same texture and smoothness as other sections of the course. Contact surfaces of previously constructed pavements coated by dust, sand, or other objectionable material shall be cleaned by brushing or shall be cut back as directed. When directed by the Contracting Officer, the surface against which new material is placed shall be sprayed with a thin, uniform coat of bituminous material conforming to Section 02558 BITUMINOUS TACK COAT. Material shall be applied far enough in advance of placement of a fresh mixture to insure adequate curing. Care shall be taken to prevent damage or contamination of the sprayed surface.

3.11.2 Transverse Joints

The roller shall pass over the unprotected end of a strip of freshly placed material only when placing is discontinued or delivery of the mixture is interrupted to the extent that the material in place may become cold. In all cases, prior to continuing placement, the edge of previously placed pavement shall be cut back to expose an even vertical surface for full thickness of the course. In continuing placement of a strip, the mechanical spreader shall be positioned on the transverse joint so that sufficient hot

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

mixture will be spread to obtain a joint after rolling that conforms to the required density and smoothness specified herein.

3.11.3 Longitudinal Joints

Edges of a previously placed strip shall be prepared such that the pavement in and immediately adjacent to the joint between this strip and the succeeding strip meets the requirements for grade, smoothness, and density.

-- End of Section --

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

SECTION 05055

WELDING, STRUCTURAL

11/88

PART

1 - GENERAL

1.1 REFERENCES

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

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

AISC-04 (1989) Specification for Structural Steel Buildings - Allowable Stress Design and Plastic Design

AMERICAN SOCIETY FOR NONDESTRUCTIVE TESTING (ASNT)

ASNT-01 (1992; Supple) Recommended Practice SNT-TC-1A

AMERICAN WELDING SOCIETY (AWS)

AWS A2.4 (1993) Standard Symbols for Welding, Brazing and Nondestructive Examination

AWS A3.0 (1994) Standard Welding Terms and Definitions

AWS D1.1 (1994) Structural Welding Code - Steel

AWS Z49.1 (1988) Safety in Welding and Cutting

1.2 DEFINITIONS

Definitions of welding terms shall be in accordance with AWS A3.0.

1.3 GENERAL REQUIREMENTS

The design of welded connections shall conform to AISC-04 unless otherwise indicated or specified. Material with welds will not be accepted unless the welding is specified or indicated on the drawings or otherwise approved. Welding shall be as specified in this section, except where additional requirements are shown on the drawings or are specified in other sections. Welding shall not be started until welding procedures, welders, welding operators, and tackers have been qualified and the submittals furnished to the Contracting Officer. Qualification testing shall be performed at or near the work site. Each Contractor performing welding shall maintain records of the test results obtained in welding procedure, welder, welding operator, and tacker performance qualifications.

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

1.4 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01300 SUBMITTAL PROCEDURES:

SD-08 Statements

Welding Procedure Qualifications; FIO.

Welder, Welding Operator, and Tacker Qualification; FIO.

Inspector Qualification; FIO.

Copies of the welding procedure specifications; the procedure qualification test records; and the welder, welding operator, or tacker qualification test records.

SD-18 Records

Quality Control; FIO.

A quality assurance plan and records of tests and inspections.

1.5 WELDING PROCEDURE QUALIFICATIONS

All welds shall be prequalified per AWS D1.1.

1.5.1 Previous Qualifications

1.5.2 Prequalified Procedures

Welding procedures which are considered prequalified as specified in AWS D1.1 will be accepted without further qualification.

1.6 WELDER, WELDING OPERATOR, AND TACKER QUALIFICATION

Each welder, welding operator, and tacker assigned to work on this contract shall be qualified in accordance with the applicable requirements of AWS D1.1 and as specified in this section. Welders, welding operators, and tackers who make acceptable procedure qualification test welds will be considered qualified for the welding procedure used.

1.6.1 Previous Qualifications

At the discretion of the Contracting Officer, welders, welding operators, and tackers qualified by test within the previous 6 months may be accepted for this contract without requalification if all the following conditions are met:

a. Copies of the welding procedure specifications, the procedure qualification test records, and the welder, welding operator, and tacker qualification test records are submitted and approved in accordance with the specified requirements for detail drawings.

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

- b. Testing was performed by an approved testing laboratory, technical consultant, or the Contractor's approved quality control organization.
- c. The previously qualified welding procedure conforms to the requirements of this specification and is applicable to welding conditions encountered under this contract.
- d. The welder, welding operator, and tacker qualification tests conform to the requirements of this specification and are applicable to welding conditions encountered under this contract.

1.6.2 Certificates

Before assigning any welder, welding operator, or tacker to work under this contract, the Contractor shall submit the names of the welders, welding operators, and tackers to be employed, and certification that each individual is qualified as specified. The certification shall state the type of welding and positions for which the welder, welding operator, or tacker is qualified, the code and procedure under which the individual is qualified, the date qualified, and the name of the firm and person certifying the qualification tests. The certification shall be kept on file, and 3 copies shall be furnished. The certification shall be kept current for the duration of the contract.

1.6.3 Renewal of Qualification

Requalification of a welder or welding operator shall be required under any of the following conditions:

- a. It has been more than 6 months since the welder or welding operator has used the specific welding process for which he is qualified.
- b. There is specific reason to question the welder or welding operator's ability to make welds that meet the requirements of these specifications.
- c. The welder or welding operator was qualified by an employer other than those firms performing work under this contract, and a qualification test has not been taken within the past 12 months. Records showing periods of employment, name of employer where welder, or welding operator, was last employed, and the process for which qualified shall be submitted as evidence of conformance.
- d. A tacker who passes the qualification test shall be considered eligible to perform tack welding indefinitely in the positions and with the processes for which he is qualified, unless there is some specific reason to question the tacker's ability. In such a case, the tacker shall be required to pass the prescribed tack welding test.

1.7 INSPECTOR QUALIFICATION

Inspection and nondestructive testing personnel shall be qualified in accordance with the requirements of ASNT-01 for Levels I or II in the applicable nondestructive testing method. The inspector may be supported by assistant welding inspectors who are not qualified to ASNT-01, and assistant inspectors may perform specific inspection functions under the supervision of the qualified inspector.

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

1.8 SYMBOLS

Symbols shall be in accordance with AWS A2.4, unless otherwise indicated.

1.9 SAFETY

Safety precautions during welding shall conform to AWS Z49.1.

PART 2 - PRODUCTS

2.1 WELDING EQUIPMENT AND MATERIALS

All welding equipment, electrodes, welding wire, and fluxes shall be capable of producing satisfactory welds when used by a qualified welder or welding operator performing qualified welding procedures. All welding equipment and materials shall comply with the applicable requirements of AWS D1.1.

PART 3 - EXECUTION

3.1 WELDING OPERATIONS

3.1.1 Requirements

Workmanship and techniques for welded construction shall conform to the requirements of AWS D1.1 and AISC-04. When AWS D1.1 and the AISC-04 specification conflict, the requirements of AWS D1.1 shall govern.

3.1.2 Identification

Welds shall be identified in one of the following ways:

- a. Written records shall be submitted to indicate the location of welds made by each welder, welding operator, or tacker.
- b. Each welder, welding operator, or tacker shall be assigned a number, letter, or symbol to identify welds made by that individual. The Contracting Officer may require welders, welding operators, and tackers to apply their symbol next to the weld by means of rubber stamp, felt-tipped marker with waterproof ink, or other methods that do not cause an indentation in the metal. Identification with die stamps or electric etchers shall not be allowed.

3.2 QUALITY CONTROL

Testing shall be done by an approved inspection or testing laboratory or technical consultant, or if approved, the Contractor's inspection and testing personnel may be used instead of the commercial inspection or testing laboratory or technical consultant. The Contractor shall perform visual inspection to determine conformance with paragraph STANDARDS OF ACCEPTANCE. Procedures and techniques for inspection shall be in accordance with applicable requirements of AWS D1.1.

3.3 STANDARDS OF ACCEPTANCE

Dimensional tolerances for welded construction, details of welds, and quality of welds shall be in accordance with the applicable requirements of AWS D1.1 and the contract drawings. Nondestructive testing shall be by visual inspection, ultrasonic or dye penetrant methods. All shop and field welds shall be visually inspected, and 10% of all shop welds shall be tested by ultrasonic or dye penetrant methods.

3.3.1 Nondestructive Examination

The welding shall be subject to inspection and tests in the mill, shop, and field. Inspection and tests in the mill or shop will not relieve the Contractor of the responsibility to furnish weldments of satisfactory quality. When materials or workmanship do not conform to the specification requirements, the Government reserves the right to reject material or workmanship or both at any time before final acceptance of the structure containing the weldment.

3.4 GOVERNMENT INSPECTION AND TESTING

In addition to the inspection and tests performed by the Contractor for quality control, the Government will perform inspection and testing for acceptance to the extent determined by the Contracting Officer. The costs of such inspection and testing will be borne by the Contractor if unsatisfactory welds are discovered, or by the Government if the welds are satisfactory. The work may be performed by the Government's own forces or under a separate contract for inspection and testing. The Government reserves the right to perform supplemental nondestructive and destructive tests to determine compliance with paragraph STANDARDS OF ACCEPTANCE.

3.5 CORRECTIONS AND REPAIRS

When inspection or testing indicates defects in the weld joints, the welds shall be repaired using a qualified welder or welding operator as applicable. Corrections shall be in accordance with the requirements of AWS D1.1 and the specifications. Defects shall be repaired in accordance with the approved procedures. Defects discovered between passes shall be repaired before additional weld material is deposited. Wherever a defect is removed and repair by welding is not required, the affected area shall be blended into the surrounding surface to eliminate sharp notches, crevices, or corners. After a defect is thought to have been removed, and before rewelding, the area shall be examined by suitable methods to insure that the defect has been eliminated. Repair welds shall meet the inspection requirements for the original welds. Any indication of a defect shall be regarded as a defect, unless reevaluation by nondestructive methods or by surface conditioning shows that no unacceptable defect is present.

-- End of Section --

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

SECTION 08700

BUILDERS' HARDWARE

03/96

PART

1 - GENERAL

1.1 REFERENCES

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM E 283 (1991) Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen

BUILDERS HARDWARE MANUFACTURERS ASSOCIATION (BHMA)

BHMA-01 (Effective thru Jun 1995) Directory of Certified Locks & Latches

BHMA-02 (Effective thru Jul 1995) Directory of Certified Door Closers

BHMA-03 (Effective thru Jul 1996) Directory of Certified Exit Devices

BHMA A156.1 (1988) Butts and Hinges

BHMA A156.2 (1989) Bored and Preassembled Locks and Latches

BHMA A156.3 (1994) Exit Devices

BHMA A156.4 (1992) Door Controls - Closers

BHMA A156.5 (1992) Auxiliary Locks & Associated Products

BHMA A156.6 (1994) Architectural Door Trim

BHMA A156.7 (1988) Template Hinge Dimensions

BHMA A156.8 (1994) Door Controls - Overhead Holders

BHMA A156.13 (1994) Mortise Locks & Latches

BHMA A156.16 (1989) Auxiliary Hardware

BHMA A156.18 (1993) Materials and Finishes

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

BHMA A156.21 (1989) Thresholds

DOOR AND HARDWARE INSTITUTE (DHI)

DHI-03 (1989) Keying Systems and Nomenclature

DHI-04 (1976) Recommended Locations for Builders' Hardware for Custom Steel Doors and Frames

DHI-05 (1990) Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames

DHI-A115.IG (1994) Installation Guide for Doors and Hardware

DHI A115-W (Varies) Wood Door Hardware Standards (Incl A115-W1 thru A115-W9)

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 80 (1995) Fire Doors and Windows

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01300 SUBMITTAL PROCEDURES:

SD-01 Data

Hardware and Accessories; GA.

Manufacturer's descriptive data, technical literature, catalog cuts, and installation instructions. Spare parts data for locksets, and closers, after approval of the detail drawings, and not later than 1 month prior to the date of beneficial occupancy. The data shall include a complete list of parts and supplies, with current unit prices and source of supply.

SD-07 Schedules

Hardware Schedule; GA.

Hardware schedule listing all items to be furnished. The schedule shall include for each item: the quantities; manufacturer's name and catalog numbers; the ANSI number specified, sizes; detail information or catalog cuts; finishes; door and frame size and materials; location and hardware set identification cross-references to drawings; lock trim material thicknesses; lock trim evaluation test results; corresponding reference standard type number or function number from manufacturer's catalog if not covered by ANSI or BHMA; and list of abbreviations and template numbers.

Keying Schedule; GA.

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

Keying schedule developed in accordance with DHI-03, after the keying meeting with the user.

SD-13 Certificates

Hardware and Accessories; FIO.

The hardware manufacturer's certificates of compliance stating that the supplied material or hardware item meets specified requirements. Furnish separate certificates of compliance attesting that hardware items conform to Section 00700 CONTRACT CLAUSES PERTAINING TO THE "BUY AMERICAN ACT". Each certificate shall be signed by an official authorized to certify in behalf of the product manufacturer and shall identify quantity and date or dates of shipment or delivery to which the certificates apply. A statement that the proposed hardware items appear in BHMA-01, BHMA-02 and BHMA-03 directories of certified products may be submitted in lieu of certificates.

SD-14 Samples

Locksets; GA.

Furnish a sample of the locksets to be furnished this project. Notify the Contracting Officer and base personnel for a meeting demonstrating that the locksets to be furnished are fully compatible with the existing keying system. An existing base core and key will be fitted to the sample lockset. The core shall fit the lockset without the use of adaptors and without play. The key shall easily lock and unlock the lockset without binding or other difficulties. Control key shall easily remove and install cores.

1.3 PREDELIVERY CONFERENCE

Upon approval of the Hardware Schedule, the construction Contractor shall arrange a conference with the hardware supplier, Contracting Officer and the using agency to determine keying system requirements. Location of the key control storage system, set-up and key identification labeling will also be determined.

1.4 DELIVERY, STORAGE, AND HANDLING

Hardware shall be delivered to the project site in the manufacturer's original packages. Each article of hardware shall be individually packaged in the manufacturer's standard commercial carton or container, and shall be properly marked or labeled to be readily identifiable with the approved hardware schedule. Each change key shall be tagged or otherwise identified with the door for which its cylinder is intended. Where double cylinder functions are used or where it is not obvious which is the key side of a door, appropriate instructions shall be included with the lock and on the hardware schedule. Manufacturer's printed installation instructions, fasteners, and special tools shall be included in each package.

1.5 SPECIAL TOOLS

Special tools, such as those supplied by the manufacturer and unique wrenches shall be provided as required to adjust hardware items.

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

1.6 WARRANTY

Manufacturer's standard performance guarantees or warranties that extend beyond a one year period shall be provided.

1.7 OPERATION AND MAINTENANCE MANUALS

Six complete copies of maintenance instructions listing routine maintenance procedures, possible breakdowns and repairs, and troubleshooting guides shall be provided.

PART 2 PRODUCTS

2.1 GENERAL HARDWARE REQUIREMENTS

Hardware shall conform to the requirements specified herein and the HARDWARE SETS listing at the end of this section. Hardware set numbers correspond to the set numbers shown on the drawings.

2.2 TEMPLATES

Requirements for hardware to be mounted on metal doors or metal frames shall be coordinated between hardware manufacturer and door or frame manufacturer by use of templates and other information to establish location, reinforcement required, size of holes, and similar details. Templates of hinges shall conform to BHMA A156.7.

2.3 HINGES

Hinges shall conform to BHMA A156.1. Hinges used on metal doors and frames shall also conform to BHMA A156.7. Except as otherwise specified in the Hardware Schedule herein, hinge sizes shall be 4-1/2" x 4-1/2".

2.3.1 Hinges for Reverse Bevel Doors with Locks

Hinges for reverse bevel doors with locks shall have pins that are made nonremovable by means such as a set screw in the barrel, or safety stud, when the door is in the closed position.

2.3.2 Contractor's Option

Hinges with antifriction bearings may be furnished in lieu of ball bearing hinges.

2.3.3 Pivot Hinges

Pivot hinges shall conform to BHMA A156.4.

2.4 LOCKS AND LATCHES

To the maximum extent possible, locksets, latchsets and deadlocks shall be the products of a single manufacturer.

2.4.1 Bored Lock and Latchsets

Bored lock, latchsets, and strikes shall be series 4000 key-in-lever type and shall conform to BHMA A156.2, Grade 1. Bored type locks and latches

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

shall have adjustable bevel fronts or otherwise conform to the shape of the door.

2.4.2 Lock Cylinders and Key-Removable Cores

Mortise lock cylinders shall comply with BHMA A156.5. Mortise cylinder and key-in-lever handles shall have key removable type cores with not less than seven pins. A master keying system shall be provided to the level (grand, great-grand, etc.) directed by the Contracting Officer. Construction interchangeable cores shall be provided. Disassembly of lever handle or lockset shall not be required to remove core from lockset. All locksets shall accept same interchangeable cores.

2.4.3 Lock Trim

Lock trim shall be solid cast, zinc, brass or bronze. Roses shall be cast, forged, or heavy wrought construction of commercial plain design. In addition to meeting the test requirement of BHMA A156.2 or BHMA A156.13, roses shall be 0.050 inch thick, if unreinforced. If reinforced, the outer shell shall be 0.035 inch thick and the combined thickness shall be 0.070 inch. Lever handles shall be of plain design with ends returned to no more than 1/2 inch from the door face.

2.5 KEYING

Locks shall be keyed in sets or subsets as scheduled. Change keys for locks shall be stamped with change number and the inscription "U.S. Property - Do Not Duplicate." Keys shall be supplied as follows:

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

Locks: 3 change keys each lock.
Master keyed sets: 5 keys each level.
Control keys: 3 total.
Blank keys: 30 total.

The keys shall be furnished to the Contracting Officer arranged in a container for key control system storage in sets or subsets as scheduled.

2.6 DOOR CLOSING DEVICES

Door closing devices shall conform to BHMA A156.4, Grade 1, heavy duty. Closing devices shall be products of one manufacturer for each type specified. The opening resistance of closing devices shall not exceed 15 lbf applied at the latch stile or exceed 5 lbf where low opening resistance is scheduled. Provide closers with cast-iron housings and forged steel pistons and main arms.

2.6.1 Surface Type Closers

Surface type closers shall be Grade 1, Series C02000 Full Cover with options PT-4H, Size 1 or 2 through Size 6, and PT-4D with back check position valve. Except as otherwise specified, sizes shall conform to the manufacturer's published recommendations. Closers for doors close to a wall shall be of narrow projection so as not to strike the wall at the 90-degree open position. Closers on doors accessible to the physically handicapped shall have the closing force set for a push-pull of 5 pounds applied at the knob or handle for interior doors; for exterior doors, set to the minimum required to relatch the door.

2.7 DOOR CONTROLS - OVERHEAD HOLDERS

Door controls - overhead holders shall conform to BHMA A156.8.

2.8 ARCHITECTURAL DOOR TRIM

Architectural door trim shall conform to BHMA A156.6.

2.8.1 Door Protection Plates

2.8.1.1 Kick Plates

Kick plates shall be Type J102 flat stainless steel. Width of plates shall be 2 inches less than door width for single doors. Height shall be 10 inches. Edges of plates shall be beveled.

2.8.2 Push Plates

2.8.2.1 Flat Plates

Flat plates shall be Type J301 0.50 inch thick stainless steel, size 4 inches by 16 inches. Edges of metal plates shall be beveled.

2.8.3 Pull Handles

2.8.3.1 Door Pulls

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

Pull handles shall be similar to Category J405 except handle shall be 1 inch round stainless steel. Rod or tube of constant diameter with mounting legs 8 inches apart o.c.

2.8.4 Push Bars

Push bars shall comply with ANSI/BHMA A156.6, Type J501, 1 inch diameter. Push bars shall be stainless steel.

2.8.5 Pull Bars

Pull bars shall comply with ANSI/BHMA A156.6, Type J402, 1 inch diameter, 8 inch center-to-center, 2 inch offset and clearance. Pull bars shall be stainless steel.

2.9 AUXILIARY HARDWARE

Auxiliary hardware, consisting of door holders, door stops, silencers, and manual flush bolts shall conform to BHMA A156.16. Specific types are indicated in the Hardware Schedule at the end of this section.

2.10 MISCELLANEOUS

2.10.1 Metal Thresholds

Thresholds shall conform to BHMA A156.21. Thresholds for exterior doors shall be extruded aluminum of the type indicated below. Where required, thresholds shall be modified to receive projecting bolts of flush bolts. Thresholds for doors accessible to the handicapped shall be beveled with slopes not exceeding 1:2 and with heights not exceeding 1/2 inch. Air leakage rate of weatherstripping shall not exceed 0.5 cubic feet per minute per lineal foot of crack when tested in accordance with ASTM E 283 at standard test conditions.

- a. All Exterior Aluminum Doors: Type J12130.
- b. Mechanical Room Doors: Type J16130.

2.10.2 Sound Seals

2.10.2.1 Jamb Applied Sound Seals

Sound seals at the lock and head jamb shall be equal to Zero Model #3326. Sound seals at hinge jamb shall be equal to Zero Model #3328. Provide manufacturer's standard mill finish.

2.10.2.2 Automatic Door Bottoms

Surface mounted automatic door bottoms shall be equal to Zero Model #367A with clear anodized finish.

2.10.3 Silencers

Door silencers shall conform to BHMA A156.16, Type L03011. See Section 08110 STEEL DOORS AND FRAMES for quantity per frame.

2.10.4 Key Control Storage System

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

Key control storage system shall conform to BHMA A156.5, Type E8341, capacity 110 percent of door quantity, and shall be properly labeled for key identification. Set up, identification labeling and location of the key control storage shall be as directed at the Predelivery Conference.

2.11 FASTENINGS

Fastenings of proper type, size, quantity, and finish shall be supplied with each article of hardware. Machine screws and expansion shields shall be used for attaching hardware to concrete or masonry. Fastenings exposed to the weather in the finished work shall be of brass, bronze, or stainless steel.

2.12 FINISHES

Unless otherwise specified, finishes shall conform to those identified in BHMA A156.18. Where painting of primed surfaces is required, painting is specified in Section 09900 PAINTING, GENERAL. Unless otherwise indicated in the Hardware Schedule, the finishes shall be as follows:

2.12.1 Hinges

Brass or bronze hinges (typically exterior doors) shall have a BHMA 626 finish and steel hinges (typically interior doors) shall have a BHMA 652 finish.

2.12.2 Locks and Latches

Locks and latches fabricated from a brass or bronze base metal shall have a BHMA 626 finish and locks and latches fabricated from stainless steel shall have a BHMA 630 finish.

2.12.3 Door Trim

Miscellaneous items such as push plates, pull handles, push and pull bars, metal protection plates, flush bolts, overhead holders/stops, etc., shall have a BHMA 630 or 626 finish depending on type of base metal.

2.12.4 Door Closers

Door closers shall have a BHMA 689 finish to match other exposed hardware items.

2.13 HARDWARE FOR FIRE DOORS

Hardware for fire doors shall conform to the requirements of NFPA 80 AND NFPA 101.

PART 3 EXECUTION

3.1 APPLICATION

Hardware shall be located in accordance with DHI-04 and DHI-05. When approved, slight variations in locations or dimensions will be permitted. Application shall be in accordance with DHI-A115.IG or DHI A115-W. Door control devices for exterior doors such as closers and holders, shall be attached to doors with thru bolts and nuts or sex bolts. Alternate fastening methods may be approved by the Contracting Officer when

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

manufacturers' documentation is submitted to verify that the fastening devices and door reinforcements are adequate to resist wind induced stresses.

3.1.1 Hardware for Fire Doors and Smoke-Control Door Assemblies

Hardware for fire doors shall be installed in accordance with the requirements of NFPA 80. Hardware installed on fire doors, such as locksets, closers, and hinges shall have a visible label or stamp indicating that the hardware items have been approved by an approved testing agency for installation on fire-rated door.

3.1.2 Door-Closing Devices

Door-closing devices shall be installed and adjusted in accordance with the templates and printed instructions supplied by the manufacturer of the devices.

3.1.3 Key Control Storage Systems

Key control storage system shall be furnished to the Contracting Officer.

3.1.4 Kick Plates

Kick plates shall be installed on the push side of single-acting doors.

3.1.5 Auxiliary Hardware

Lever extension flush bolts shall be installed at the top and bottom of the inactive leaf of pairs of doors. The bottom bolt shall operate into a dust-proof floor strike or threshold.

3.1.6 Thresholds

Thresholds shall be secured with a minimum of three fasteners per single door width and six fasteners per double door width with a maximum spacing of 12 inches. Exterior thresholds shall be installed in a bed of sealant with expansion anchors and stainless steel screws. Minimum screw size shall be No. 10 length, dependent on job conditions, with a minimum of 3/4 inch thread engagement into the floor or anchoring device used. Thresholds shall have ends scribed neatly to jambs.

3.1.7 Sound Seals

Sound seals shall be located as indicated, snug to door face and fastened in place with color matched metal screws, after door and frames have been finish painted. Screw spacing shall be as recommended by manufacturer.

3.2 HARDWARE SETS

HARDWARE SETS

Interior Doors

HW - 1

1-1/2 Pr.	Hinges	A8133
1 Ea.	Office Lockset	F82

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

1 Ea.	Wall Stop	L12251
1 Set	Sound Seals	As Specified

HW - 2

1-1/2 Pr.	Hinges	A8133
1 Ea.	Classroom Lockset	F84
1 Ea.	Wall Stop	L12101
1 Set	Sound Seals	As Specified

HW - 3

1-1/2 Pr.	Hinges	A8133
1 Ea.	Office Lockset	F82
1 Ea.	Overhead Stop	C14541

HW - 4

1-1/2 Pr.	Hinges	A8133
1 Ea.	Office Lockset	F82
1 Ea.	Wall Stop	L12251

HW - 5

1-1/2 Pr.	Hinges	A8112
1 Ea.	Classroom Lockset	F84
1 Ea.	Closer	C02011
1 Ea.	Kick Plate	J102
1 Ea.	Wall Stop	L12101
1 Ea.	Overhead Stop	C14541 (Door C07 only in lieu of L12101)

Note: Levers on corridor side of Doors B13, C12A, and C16 shall have ADA compliant textured handles to indicate hazardous areas.

HW - 6

1-1/2 Pr.	Hinges	A8133
1 Ea.	Office Lockset	F81
1 Ea.	Closer	C02061
1 Ea.	Kick Plate	J102
1 Ea.	Wall Stop	L12101

HW - 7

1-1/2 Pr.	Hinges	A8133
1 Ea.	Office Lockset	F82
1 Ea.	Overhead Stop	C14541
1 Set	Sound Seals	As Specified

HW - 8

1-1/2 Pr.	Hinges	A8133
1 Ea.	Office Lockset	F82
1 Ea.	Overhead Stop	C14541

HW - 9

1-1/2 Pr.	Hinges	A8112
1 Ea.	Push Plate	J301
1 Ea.	Pull Handle	J405

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

1 Ea.	Closer	C02011
1 Ea.	Kick Plate	J102
1 Ea.	Wall Stop	L12101

HW - 10

1-1/2 Pr.	Hinges	A8112
1 Ea.	Push Plate	J301
1 Ea.	Pull Handle	J405
1 Ea.	Closer	C02021with built-in stop
1 Ea.	Kick Plate	J102

HW - 11

Not Used

HW - 12

1 Pr.	Offset Pivots	C07131
1 Ea.	Intermediate Pivot	C07321
1 Ea.	Pull Bar	As Specified
1 Ea.	Push Bars	As Specified
1 Ea.	Concealed Closers	C05041
1 Ea.	Wall Stop	L12101

HW - 13

2 Pr.	Offset Pivots	C07131
2 Ea.	Intermediate Pivot	C07321
2 Ea.	Pull Bar	As Specified
2 Ea.	Push Bars	As Specified
2 Ea.	Concealed Closers	C05041 with built-in stops

HW - 14

1 Pr.	Offset Pivots	C07131
1 Ea.	Intermediate Pivot	C07321
1 Ea.	Pull Bar	As Specified
1 Ea.	Push Bars	As Specified
1 Ea.	Concealed Closers	C05041 with built-in stop

Exterior Doors

HW - 100

1 Pr.	Offset Pivots	C07131
1 Ea.	Intermediate Pivot	C07321
1 Ea.	Pull Bar	As Specified
1 Ea.	Push Bar	As Specified
1 Ea.	Concealed Closer	C05041
1 Ea.	Dead Latch	E0231 with paddle inside
1 Ea.	Mortise Cylinder	E09211
1 Ea.	Wall Stop	L12101
1 Ea.	Threshold	As Specified

HW - 101

2 Pr.	Offset Pivots	C07131
2 Ea.	Intermediate Pivot	C07321
2 Ea.	Pull Bars	As Specified

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

2 Ea.	Push Bars	As Specified
2 Ea.	Concealed Closers	C05041 with built-in stops
1 Ea.	Dead Latch	E0231 with paddle inside
2 Ea.	Flush Bolts	L14081
1 Ea.	Threshold	As Specified

HW - 102

3 Pr.	Hinges	A2112
1 Ea.	Storage Lock	F86
2 Ea.	Flush Bolts	L14081
2 Ea.	Overhead Holder/Stop	C12511
1 Ea.	Threshold	As Specified
1 Ea.	Astragal (Exterior Face of Active Leaf)*	

* To be provided factory installed and primed with steel door units.

HW - 103

1 Pr.	Offset Pivots	C07131
1 Ea.	Intermediate Pivot	C07321
1 Ea.	Pull Bar	As Specified
1 Ea.	Push Bar	As Specified
1 Ea.	Concealed Closer	C05041
1 Ea.	Dead Lock	E0221 with thumb-turn outside
1 Ea.	Mortise Cylinder	E09211
1 Ea.	Wall Stop	L12101
1 Ea.	Threshold	As Specified

-- End of Section --

SECTION 10440

INTERIOR SIGNAGE

05/95

PART

1 - GENERAL

1.1 REFERENCES

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

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI Z97.1 (1984; Rev 1994) Safety Glazing Materials
Used in Buildings

CODE OF FEDERAL REGULATIONS (CFR)

36 CFR 1191 Americans with Disabilities Act (ADA)
Accessibility Guidelines for Buildings and
Facilities

FEDERAL STANDARDS (FED-STD)

FED-STD 795 (Basic) Uniform Federal Accessibility
Standards

1.2 GENERAL

Interior signage shall be of the sizes and types shown on the drawings, shall conform to the requirements specified herein, and shall be provided at the locations indicated. Signs shall be complete with lettering, framing, and related components for a complete installation. Signs shall be the standard product of a manufacturer regularly engaged in the manufacture of such products and shall essentially duplicate signs that have been in satisfactory use at least 2 years prior to bid opening.

1.3 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01300 SUBMITTAL PROCEDURES:

SD-01 Data

Interior Signage; FIO.

Manufacturer's descriptive data, catalogs cuts, installation and cleaning instructions.

SD-04 Drawings

Interior Signage; FIO.

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

Drawings showing elevations of each type of sign, dimensions, details and methods of mounting or anchoring, shape and thickness of materials, and details of construction. A schedule showing the location of each sign type shall be included.

SD-14 Samples

Interior Signage; GA.

One sample of each of the following sign types showing typical quality and workmanship. The samples may be installed in the work, provided each sample is identified and location recorded.

a. Door sign.

Two samples of manufacturer's standard color chips for each material requiring color selection.

1.4 DELIVERY AND STORAGE

Materials shall be delivered to the jobsite in manufacturer's original packaging and stored in a clean, dry area.

PART 2 - PRODUCTS

2.1 COLOR

Color shall be as selected from manufacturer's full range of colors.

2.2 VINYL SHEETING FOR GRAPHICS

Vinyl sheeting for graphics shall be a minimum 0.003 inch film thickness. Film shall include a precoated pressure sensitive adhesive backing.

2.3 ACRYLIC SHEET

Acrylic sheet for panels and components shall conform to ANSI Z97.1.

2.4 PLAQUE SIGNS

Plaque signs shall be a modular type signage system. Signs shall be fabricated of Type ES laminated thermosetting plastic or acrylic plastic conforming to ANSI Z97.1.

2.4.1 Standard Modular Plaque Signs

Plaque signs shall consist of matte finish acrylic plastic or laminated thermosetting Type ES plastic, 1/8 inch thick. Corners of signs shall be 3/8 inch radius.

2.4.2 Type of Mounting For Plaque Signs

Mounting for framed signs shall be by holes and screws. Surface mounted signs shall be provided with mounting screws.

2.5 GRAPHICS

2.5.1 Tactile Graphics

ACCOMPANYING AMENDMENT NO. 0001 TO SOLICITATION NO. DACA63-98-B-0002

Signage that provides permanent identification of spaces shall be tactile (perceptible to touch) and shall comply with 36 CFR 1191. The 36 CFR 1191 requirements must provide equal or greater accessibility than the requirements of FED-STD 795. Characters, symbols, or pictographs on tactile signs shall meet 36 CFR 1191 Grade 2 braille. Characters and symbols shall contrast with their background.

2.5.2 Graphics Application

Signage graphics shall be pressure sensitive precision cut vinyl letters shall be provided. Edges and corners of finished letter forms and graphics shall be true and clean.

2.5.3 Messages

See door schedule for message content, Typeface: Helvetica medium. Type size one inch.

2.6 ANCHORS AND FASTENERS

Exposed fastener materials shall have matching color and finish.

2.7 FABRICATION AND MANUFACTURE

2.7.1 Workmanship

Holes for bolts and screws shall be drilled for countersinking of screws. Drilling shall produce clean, true lines and surfaces. Fastenings shall be concealed where practicable.

PART 3 - EXECUTION

3.1 INSTALLATION

Signs shall be installed in accordance with approved manufacturer's instructions at locations selected by the Contracting Officer. Signs shall be installed plumb and true at mounting heights indicated, and by method specified. Signs on doors or other surfaces shall not be installed until finishes on such surfaces have been installed.

3.1.1 Protection and Cleaning

The work shall be protected against damage during construction. Sign surfaces shall be cleaned in accordance with the manufacturer's approved instructions.

-- End of Section --