SAMUEL MAHELONA MEMORIAL HOSPITAL 4800 Kawaihau Rd, Kapa'a, HI 96746 (808) 822-4961

ADDENDUM #3

October 21, 2021

TO: Potential Offerors

FROM: Cora Shirai, Contract Manager

RE: Solicitation Addendum #3 to RFP #22-01/Imaging Department Renovation

This correspondence serves as Addendum #3 to the subject Request for Proposals ("RFP"). Your response to this RFP should be governed by the content of the original RFP and the revisions/corrections/additions/clarifications provided in this addendum notice.

The following questions were asked:

- 1. Q: Will both projects be on one contract or two?
 - A: Projects will be separate contracts totally two.
- 2. Q: Will both projects go simultaneously?
 - A: Projects to go simultaneously.
- 3. Q: Has the permit application been submitted?

A: Work is exempt from building permit. Contractor to comply with all other government agency codes and laws as stated in the Kauai Building Code Section 105.2 "Work Exempt from Permit. A building permit shall not be required for the following; however, all other government agency codes and laws shall be complied with: EXEMPTION 19 - Work on building or premises owned by or under the direct control of the United States or the State of Hawai'i, except where permits are specially requested by said governmental agency."

- 4. What are the anticipated start and completion dates for both sites?
 - A: Construction start February 2022 and completed in one (1) year.

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5. Q: The lock system states ASSA high security keying system tied into UH Manoa (see below). My manager mentioned that KVMH and SMMH were set up with Schlage Security Locks. Please verify if this is 1. High Security ASSA system; 2. Keying tied in with the UH Manoa; 3. Existing Sargent Locks.

2.05 LOCK CYLINDERS AND KEYING

A. Lock cylinders shall be ASSA high security key system, 6 pin tumblers to match University of Hawaii Manoa ASSA system. The lock cylinders shall be master-keyed to the University ASSA high security key system as directed by the University.

A: No, the system is not required to be a high security ASSA system. No, system will not be tied to UH Manoa. Existing locks are Schlage. Please see G70 Addendum 2.

6. Q: Referencing page A-913 in the SMMH set – there is reference in 1/A-913 indicating a "resin architectural feature" in the ceiling. Detail 2/A-913 offers an elevation view. Please confirm if this detail is a single item in the ceiling and not representative of numerous items. Can you provide the 3-Form material call out for this item and is it possible the get them roughly detailed in plan view so the material quantity can be estimated. The current detail only offers 1 dimension of 1'- 4" in width.

A: Please see G70 Addendum 2 for SMMH Imaging Department Renovation.

7. Q: Page A-913 in the SMMH set indicates a section 9/A-911 through the soffit and has a callout for "wood soffit ceiling painted" in the reflected ceiling view.

The section detail 9/A-911 indicates the finish as FRP panel on adhesive at the lower soffit and paint on the upper soffit. Please clarify the finish intended. Is this to be WP-05 (unpainted).

A: Please see G70 Addendum 2 for SMMH Imaging Department Renovation.

8. Q: We have the equipment drawings for the ceiling hung x-ray equipment for SMMH. Can you provide similar details for the ceiling hung equipment for KVMH so we can see what we need for Unistrut support.

A: Please see G70 Addendum 2.

9. Q: The Report of Shielding Design Evaluation has a note#7 in the General Requirements stating "A Radiation Protection Survey of the finished room shall be performed by a qualified Medical Physicist within six months after installation of the x-ray equipment." Will this be an owner hired consultant?

A: Yes.



ADDENDUM

111 S. King Street Suite 170 Honolulu, HI 96813 808.523.5866 www.g70.design 002

In reference to the bid documents for Project:

PROJECT NAME: KVMH IMAGING DEPARTMENT RENOVATION		DATE OF ISSUANCE: 10/21/21	
PROJECT NO: 220038-01		ISSUED BY: G70	
NO. OF PAGES DWG:	NO. OF PAGES SPECS:	NO. OF PAGES NARRATIVE:	TOTAL NO. OF PAGES:

Holders of Bidding Documents Dated **08/16/21** for the subject Project are hereby informed that these documents are modified as noted in the ADDENDUM, and that all conditions not modified hereby remain unchanged.

Modifications in this ADDENDUM are noted with the following Delta Numbers:

DELTA NO:	DATE:	DESCRIPTION:
1	10/21/21	ADDENDUM 2

G70

SPECIFICATIONS

Specificat	ion No.	Description
08710 Fin	ish Hardware	Revised lock cylinder section

-END OF ADD-002-

SECTION 08710 - FINISH HARDWARE

PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes:
 - 1. Hardware for interior doors, other than hardware specified in specific door Sections.
 - 2. Furnish and deliver to the building site, all finishing hardware required for all doors, etc., complete as indicated on Drawings and as specified.
 - 3. It is the intent of this Specification to cover in general the class and character of all finish hardware required.
 - 4. The hardware list specified has been made for the convenience of the Contractor and covers in general the necessary hardware for doors, casework, etc., but all other doors, etc., shown on the Drawings and not covered by the general characterization shall be fitted with appropriate hardware of the same standards as the hardware described throughout these specifications. Contractor shall furnish hardware schedule as specified.
 - 5. Suppliers proposing substitutes of equivalent products of other than the manufacturers named shall submit schedules listing the product and manufacturer specified and the product and manufacturer of proposed substitute.
- B. Related Work described elsewhere:
 - 1. Section 06412 ARCHITECTURAL CASEWORK
- 1.02 <u>REFERENCES</u>: The publications listed below form a part of this Specification to the extent referenced. These publications are referred to in the text by the basic designation only.
 - A. ADA Department of Justice 2010 ADA Standards for Accessible Design
 - B. BHMA Builders Hardware Manufacturers Association
 - C. NFPA 80 Fire Doors and Windows.
 - D. NFPA 252 Fire Tests of Door Assemblies.
 - E. SDI Steel Door Institute
 - F. UL 10B Fire Tests of Door Assemblies.
 - G. UL 305 Panic Hardware.
 - H. NFPA 101 Life Safety Code.
 - I. IBC 2006 International Building Code

1.03 <u>SUBMITTALS</u>

- A. Schedule: Furnish eight (8) copies of the schedule of hardware in compliance with specifications and Drawings. Schedule format shall be vertical type as listed in DHI document "Sequence and Format for the Hardware Schedule". List each opening and hardware to be applied. State materials finish, and manufacturer's number for each item. Required types are listed.
- B. Manufacturer's Data: Submit manufacturer's descriptive literature along with schedule for information only.
- C. Certified Test Reports: Indicate that each item listed under Hardware Items meets the standard listed for that item. A copy of the listing of proposed hardware items in the current applicable BHMA directories of certified products may be submitted in lieu of test reports.
- D. Project Reference Samples: Upon delivery of finish hardware to the site, select and tag one item of each different type. Identify each item by reference publication type or number and manufacturer's catalog number. Items shall remain on file until similar items have been installed, at which time items on file shall be installed in predetermined locations.
- E. Templates: Furnish hardware templates of each fabricator of doors, frames and other work to be factory-prepared for the installation of hardware. Upon request, check Shop Drawings of such other work, to confirm that adequate provisions are made for proper location and installation of hardware.
- F. Tools and Maintenance Instructions: Furnish a complete set of special wrenches, tools, maintenance instructions applicable to each different or special hardware component.
- G. Certification: After completion and inspection by hardware supplier of all construction work, certify on an approved form, that all items of finish hardware have been adjusted and are working properly and that all hardware on fire rated (labeled) closures conforms to requirements of ULI.
- H. Warranty: Submit warranty as stipulated in item entitled "WARRANTY" hereinbelow.

1.04 PROJECT RECORD DOCUMENTS

A. Include data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.

1.05 OPERATION AND MAINTENANCE DATA

- A. Maintenance Data: Include data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.
- B. The manufacturer's representative shall instruct the user's staff on the hardware's maintenance procedures (type of lubricant needed and frequency of maintenance).

1.06 QUALITY ASSURANCE

A. Perform work in accordance with Americans with Disabilities Act Accessibility Guidelines ADAAG Section 404.1, NFPA 80, "Fire Doors and Fire Windows", NFPA

101, "Life Safety Code", UL10C, "Fire Tests of Door Assemblies", NFPA 252, "Fire Tests of Door Assemblies", and ICC IBC as applicable. Each door that is an element of an accessible route shall comply with ADAAG Section 404.1 and shall be mounted no higher than 48-inches above finish floor.

- B. Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum three years documented experience. Obtain each type of hardware (latch and lock sets, hinges, closers, etc.) from a single manufacturer.
- C. Hardware Supplier: Company specializing in architectural finish hardware, with a local stock warehouse, who has furnished hardware in Hawaii for a period of not less than three years.
- D. Hardware Supplier Personnel: Employ an experienced Architectural Hardware Consultant (AHC), or architects approved equal, who is available at reasonable times during the course of the Work, to the Engineer and Contractor for consultation about Project's hardware requirements, to verify specified hardware with door function and hardware finishes, and to establish keying system.
- E. Hardware Installer: Company specializing in the installation of architectural hardware and approved by the architect and architectural hardware consultant (AHC), or architects approved equal.

1.07 REGULATORY REQUIREMENTS

- A. Conform to applicable code for accessibility and requirements applicable to fire rated doors and frames.
- B. Products Requiring Electrical Connection: Listed and classified by Underwriter's Laboratories, Inc., as suitable for the purpose specified and indicated.
- C. Definition: "Door Hardware" includes items known commercially as finish hardware which are required for swing and sliding doors, except special types of unique and non-matching hardware specified in same section as door and door frame.

1.08 DELIVERY, STORAGE AND HANDLING

- A. Delivery, store, protect and handle products to prevent damage of any kind and to maintain security to site.
- B. Inventory hardware jointly with representatives of hardware supplier and hardware installer until each is satisfied that count is correct.
- C. Deliver individually packaged hardware items at proper times to proper locations (shop or project site) for installation.
- D. Package hardware items individually; label and identify each package with door opening code to match hardware schedule.
- E. Deliver keys to Engineer by security shipment direct from hardware supplier.
- F. Provide secure lock-up for hardware delivered to project but not yet installed. Control handling and installation of hardware items which are not immediately replaceable, so that completion of the Work will not be delayed by hardware losses, both before and after installation.

1.09 COORDINATION

A. Coordinate the work with other directly affected sections involving manufacture or fabrication of internal reinforcement for door hardware, and door machining for all hardware items.

1.10 WARRANTY

- A. Provide one year warranty. Ten (10) years on Door Closers, with two (2) years on Electrical Components. Where longer warrant is standard with the manufacturer, furnish the longer warranty.
- B. The Surety shall not be liable beyond 2 years of the Project Acceptance date.

1.11 MAINTENANCE MATERIALS

- A. Provide special wrenches and tools applicable to each different or special hardware component.
- B. Provide maintenance tools and accessories supplied by hardware component manufacturer.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Asbestos Prohibition: No asbestos containing material materials shall be used under this section. The Contractor shall insure that all material incorporated in the project are asbestos-free.

2.02 <u>SCHEDULED HARDWARE</u>

- A. Requirements for design, grade, function, finish, size, and other distinctive qualities of each type of door hardware is indicated in HARDWARE GROUPS at end of this section. Products are identified by using proprietary catalog numbers, and are used to establish quality and function of products desired.
- B. Product numbers indicated in the HARDWARE GROUPS are those of the manufacturers listed and are used to establish the quality of products intended.

2.03 MATERIALS AND FABRICATION

- A. Hand of Door: Drawings show direction of slide, swing or hand of each door leaf. Furnish each item of hardware for proper installation and operation of indicated door.
- B. Base Metals: Produce hardware units of basic metal and forming method specified, using manufacturer's standard metal alloy, composition, temper and hardness, but in no case of lesser (commercially recognized) quality than specified for applicable hardware units by applicable ANSI A156 series standard for each type hardware item

- and with ANSI A156.18 for finish designations indicated. Do not furnish optional materials or forming methods for those indicated, except as otherwise specified.
- C. Fasteners: Provide hardware manufactured to conform to published templates, generally prepared for machine screw installation. Do not provide hardware which has been prepared for self-tapping sheet metal screws, except as specifically indicated.
- D. Furnish screws for installation, with each hardware item. Provide Phillips flat head screws except as otherwise indicated. Finish exposed screws to matches hardware finish. If exposed in surfaces of other work, to match finish of such other work as closely as possible, including prepared-for-paint finish in surfaces to receive painted finish.
- E. Expansion shields in concrete or masonry shall fill the depth and diameter of drilled holes.
- F. Provide concealed fasteners for hardware units which are exposed when door is closed, except to the extent no standard units of the type specified are available with concealed fasteners. Do not use through bolts for installation where bolt head or nut on opposite face is exposed in other work, except where it is not feasible to adequately reinforce the Work. In such cases, provide sleeves for each through bolt or use sex screws fasteners.
- G. Bring to the attention of the University any discrepancy between the Hardware Groups and door schedule prior to ordering.

2.04 HINGES, BUTTS AND PIVOTS

- A. General: Hinges shall conform to ANSI/BHMA A156.1, pivots shall conform to ANSI/BHMA A156.4, and the requirements of this specification.
- B. Templates: Except for hinges to be installed entirely (both leaves) into wood doors and frames, provide only template-produced units.
- C. Screws: Furnish Phillips flat head or machine screws for installation of units, except furnish Phillips flat head or wood screws for installation of units into wood. Finish screw heads to match surface of hinges or pivots.
- D. Hinges Pins: Except as otherwise indicated, provide hinge pins as follows:
 - 1. Nonferrous Hinges: Stainless steel pins.
 - 2. Interior Doors: Nonrising pins.
 - 3. Tips: Flat button and matching plug, finished to match leaves.
- E. Number of Hinges: Provide number of hinges in accordance with BHMA A 156.1 but not less than 3 hinges for door leaf for doors 90 inches or less in height and one additional hinge for each 30 inches of additional height.
- F. Size of hinges shall be as follows:

Door Thickness / Width	Hinge Height	Hinge Width
1-3/4 inch to 36 inches	4-1/2 inch	4 or 4-1/2 inch
1-3/4 inch over 36 inches	5-inch	4-1/2 Extra Heavy Ball Bearing

1-3/4 inch over 48 inches	5-inch	4-1/2 Extra Heavy Ball Bearing
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2.05 LOCK CYLINDERS AND KEYING

- A. Lock cylinders shall be ASSA high security key system, 6 pin tumblers to match University of Hawaii Manoa ASSA HHSC's system. The lock cylinders shall be master-keyed to the University ASSA high security HHSC key system as directed by the University HHSC.
- B. Provide no more than ten (10) keys per lockset; exact quantity to be determined during keying schedule. Stamp all keys "University of Hawaii HHSC do not duplicate."
- C. Upon acceptance of the project, the contractor shall arrange for temporary keys from HHSC if further access is required.

2.06 LOCKS, LATCHES AND BOLTS

- A. General: Mortise locks and latches shall conform to ANSI/BHMA A156.13, Grade 1, bored locks and latches shall conform to ANSI/BHMA A 156.2, bolts shall conform to ANSI/BHMA A156.16, ADAAG Section 404.2.7, and the requirements of this specification
- B. Mortise Locksets shall be manufactured in a single sized case formed from 12 gauge minimum steel. The case shall be closed on all sides and back. The lockset shall have a field-adjustable, beveled armored front, with a 0.125-inch minimum thickness.
- C. Mortise locksets shall have freewheeling outside levers on all exterior doors. The freewheeling lever design shall allow the lever to swing freely up to 70 degrees, when the door is locked.
- D. <u>Strikes</u>: Provide manufacturer's standard wrought box strike for each latch of lock bolt, with curved lip extended to protect frame, finish to match hardware set. Provide dustproof strikes for foot bolts, except where special threshold construction provides non-recessed strike for bolts.

E. Lock Throw:

- 1. Provide 3/4-inch minimum throw of latch, and 1-inch minimum Deadbolt.
- F. Flush Bolt Heads: Minimum of 1/2-inch diameter rods of brass, bronze or stainless steel, with minimum 12-inch long rod for doors up to 7 feet in height; minimum 42-inches long rod for doors up to 9'-6" in height.
- G. Provide locksets, latches, and cylinders equal in all respects to those specified in the Hardware Groups. All thumb turns shall conform to ADAAG Section 404.2.7.

2.07 <u>CLOSERS AND DOOR CONTROL DEVICES</u>

- A. <u>Standards</u>: Comply with BHMA A 156.4 for closers, BHMA A 156. 15 for closer holder release devices and ADAAG Section 404.2.8.1 and Section 404.2.9 and the requirements of this specification.
- B. <u>Grade</u>: BHMA Grade1 for all closers.

C. Size of Units: Comply with manufacturer's recommendations for size of door control unit, depending upon size of door, exposure to weather, and anticipated frequency of use. Where parallel arm closers are installed, provide closer unit one size larger than recommended for use with standard arms.

D. Maximum effort to operate doors shall not exceed 8.5 pounds for exterior doors and 5 pounds for interior doors, such pull or push effort being applied at right angles to hinged doors. Compensating devices or automatic door operators may be utilized to meet the above standards. When fire doors are required, the maximum effort to operate the door may be increased not to exceed 15 pounds.

E. Surface Closers:

- 1. Provide parallel arm or regular arm closer as required to mount closer on door face least exposed to public traffic.
- 2. Closers shall have brass adjustment operating valves for closing speed, latching speed and backcheck control as a standard feature.
- 3. Closers shall have one piece high performance aluminum alloy body.
- 4. Closer covers shall be high impact non corrosive, flame retardant.
- 5. Closer shall not require removal for adjustments to be made.
- F. Following door closers will be considered equal subject to Project conditions:
 - 1. LCN 4041 Series.
 - 2. Corbin Russwin DC6000 Series.
 - 3. Norton 7500 Series.
 - 4. Sargent 351 Series.

2.08 DOOR SEALS

- A. Standard: Comply with BHMA A156.22.
- B. Gasketing Materials: Comply with ASTM D 2000 and AAMA 701/702
- C. Provide noncorrosive fasteners as recommended by manufacturer for application indicated.
- D. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strip is easily replaceable and readily available from stocks maintained by manufacturer.
- E. Smoke Seals: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke-control ratings indicated, based on testing according to UL 1784
 - 1. Provide smoke-labeled gasketing on 20-minute-rated doors and on smoke-labeled doors. Provide continuous seals at each edge of door leaf.
- F. Thresholds: Provide all thresholds as indicated on the door schedule conforming to ANSI/BHMA A156.21 and ADAAG Section 404.2.5.

2.09 FINISHES

- A. Standard: Comply with BHMA A156.18.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Designations used are those listed in ANSI/BHMA A156.18 -American National Standards for Materials and Finishes, including coordination with traditional U.S. finishes shown by certain manufacturers for their products.
 - 1. If no BHMA finish is established, match specified product.
- D. Provide matching finishes for hardware units at each door or opening to greatest extent possible, except as otherwise indicated. Reduce differences in color and textures as much as commercially possible where base metal or metal forming process is different for individual units of hardware exposed at same door or opening.
- E. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness and other qualities complying with manufacturer's standards, but in no case less than specified for applicable units of hardware by referenced standards.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Pre-Installation Meeting: Before start of work under this contract, the Contractor, hardware installer, hardware manufacturer's representative or supplier and the University shall meet to review the hardware installation instructions and installation conditions.
- B. Verify that doors and frames are ready to receive Work and dimensions are as indicated. Hardware installer must notify the architect of any conflicts prior to installing hardware.

3.02 INSTALLATION

- A. Install each hardware item in compliance with manufacturer's instructions and recommendations.
- B. Mount hardware units at height indicated in ANSI/SDI A250.8, "Recommended Specification for Standard Steel Doors and Frames", except:
 - 1. As otherwise indicated or as required to comply with governing regulations or ADAAG Section 404.2.7.
 - 2. Mount deadbolt (if any)) centerline to conform with ADAAG Section 404.2.7 above latchset handle centerline.
- C. Wherever cutting and fitting is required to install hardware onto or into surfaces which are later to be painted or finished in another way, coordinate removal, storage and reinstallation or application of surface protection with finishing work. Do not install surface mounted items until finishes have been completed on the substrate.

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D. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.

- E. Drill and countersink units which are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.
- F. Set metal thresholds for exterior doors in full bed of butyl rubber or polyisobutylene mastic sealant as specified in Section 07920 SEALANTS.
- G. Fit face of all mortise parts snug and flush.
- H. Operating parts shall move freely and smoothly without binding, sticking or excessive clearance.
- I. Protect hardware from damage or marring of finish during construction. Use strippable coatings, removable tapes or other approved means.
- J. Ensure that hardware displays no evidence of finish paint after building cleanup with exception of prime coated hardware installed for finish painting. The Contractor may achieve this by sequencing installation, removing after fittings and reinstalling after painting is completed, providing protection, cleaning original hardware finish, or other approved means.
- K. Latch and bolt: Install latch and bolt to automatically engage in keeper, whether activated by closer or manual push. In no case shall additional manual pressure be required to engage latch or bolt in keeper.

L. Closers:

- 1. Do not mount closers on corridor side of door except at exterior doors.
- 2. Carefully adjust closers to be operated noiselessly and evenly and to conform to ADAAG Section 404.2.8 and Section 404.2.9.
- 3. Have manufacturer's representative regulate closers prior to University's acceptance of building.

3.03 FIELD QUALITY CONTROL

A. Required certified Architectural Hardware Consultant or architects approved equal from door hardware supplier to inspect installation and certify that hardware and installation has been furnished and installed in accordance with manufacturer's instructions and as specified.

3.04 ADJUST AND CLEAN

- A. Hardware installer shall adjust and check each operating item of hardware and each door, to ensure proper operation or function of every unit. Replace items which cannot be adjusted to operate freely and smoothly as intended for application made.
- B. Hardware installer shall clean adjacent surface soiled by hardware installation.
- C. Final Adjustment: Wherever hardware installation is made more than one month prior to acceptance or occupancy of a space or area, hardware installer shall return to the Work during the week prior to acceptance or occupancy and make final check and adjustment of all hardware items in such space or area:

- 1. Clean operating items as necessary to restore proper function and finish of hardware and doors.
- 2. Adjust door control devices to compensate for final operation of ventilating equipment.
- 3. Lubricate bearings surface of moving parts and adjust latching and holding devices for proper function.
- 4. Test keys for proper conformance with keying system.

3.05 HARDWARE GROUPS

MANUFACTURER LIST

CATEGORY	VE	NDOR NAME	MFG
ADA CLASSROOM SET	ВҮ	ACCURATE LOCK & HARDWARE CO.	ACU
ADA ENTRY SET	BY	ACCURATE LOCK & HARDWARE CO.	ACU
ADA PULLS	BY	ACCURATE LOCK & HARDWARE CO.	ACU
AUTO OPERATOR	BY	BESAM ENTRANCE SOLUTIONS	BSM
ELECTRIC STRIKE	BY	HANCHETT ENTRY SYSTEMS, INC.	HAN
ELECTRICAL HINGE	BY	McKINNEY PRODUCTS COMPANY	MCK
HINGE	BY	McKINNEY PRODUCTS COMPANY	MCK
AUTO. DOOR BOTTOM	BY	PEMKO MANUFACTURING CO.	PEM
	BY	PEMKO MANUFACTURING CO.	PEM
SMOKE SEAL	BY	PEMKO MANUFACTURING CO.	PEM
SPLIT ASTRAGAL	BY	PEMKO MANUFACTURING CO.	PEM
INTERMEDIATE PIVOT	BY	RIXSON DOOR CONTROLS	RIX
PIVOT SET	BY	RIXSON DOOR CONTROLS	RIX
AUTOMATIC FLUSH BOLT	BY	ROCKWOOD MANUFACTURING CO.	ROC
COORDINATOR	BY	ROCKWOOD MANUFACTURING CO.	ROC
DUST PROOF STRIKE	BY	ROCKWOOD MANUFACTURING CO.	ROC
FLOOR STOP	BY	ROCKWOOD MANUFACTURING CO.	ROC
FLUSH BOLT	BY	ROCKWOOD MANUFACTURING CO.	ROC
WALL OR FLOOR STOP	BY	ROCKWOOD MANUFACTURING CO.	ROC
WALL STOP (CONVEX)	BY	ROCKWOOD MANUFACTURING CO.	ROC
CLASSROOM LOCK	BY	SARGENT MANUFACTURING COMPANY	SAR
CONCEALED O.H.STOP	BY	SARGENT MANUFACTURING COMPANY	SAR
DOOR CLOSER	BY	SARGENT MANUFACTURING COMPANY	SAR
ELEC RIM EXIT DEVICE	BY	SARGENT MANUFACTURING COMPANY	SAR
ENTRY LOCK	BY	SARGENT MANUFACTURING COMPANY	SAR
MORTISE CYLINDER	BY	SARGENT MANUFACTURING COMPANY	SAR
PASSAGE SET	BY	SARGENT MANUFACTURING COMPANY	SAR
PRIVACY SET		SARGENT MANUFACTURING COMPANY	SAR
RIM EXIT DEVICE	BY	SARGENT MANUFACTURING COMPANY	SAR
HANGER	BY	DORMAKABA USA, INC.	STA
POCKET DOOR SET	BY	DORMAKABA USA, INC.	STA
ADA WALL SWITCH	BY	WIKK INDUSTRIES, INC.	WIK
KEY SWITCH	BY	WIKK INDUSTRIES, INC.	WIK
		ZERO INTERNATIONAL	ZER
PERIMETER SEAL @HEAD	BY	ZERO INTERNATIONAL	ZER
SLIDING AUTO DR BOT	BY	ZERO INTERNATIONAL	ZER

		HW GROUP - 001	
3.0 EA	HINGE RIM EXIT DEVICE	T4A3386 5 X 4.5 US26D	MCK SAR
I.O LA		KEY AS DIRECTED.	DAIX
1.0 EA		9600 12/24VDC 630	HAN
	AUTO OPERATOR		BSM
	WALL STOP (CONVEX)		ROC
	ADA WALL SWITCH		WIK
1.0 EA	KEY SWITCH	S-SG-KEY1MAIN-US32D	WIK
		HW GROUP - 002	
5.0 EA	HINGE	T4A3386 5 X 4.5 US26D	MCK
1.0 EA		QC8-T4A3386 5 X 4.5 US26D	MCK
	FLUSH BOLT		ROC
	DUST PROOF STRIKE		ROC
1.0 EA		CE 55-56-8813 ETL US32D X 644 STRIKE	SAR
1 በ 🖙 አ		KEY AS DIRECTED. SW200i - SGL ACTIVE DOOR	BSM
	WALL STOP (CONVEX)		ROC
		S773D LENGTH AS REQUIRED	PEM
		29310 CS LENGTH AS REQUIRED	PEM
	ADA WALL SWITCH		WIK
1.0 EA	KEY SWITCH	S-SG-KEY1MAIN-US32D	WIK
		HW GROUP - 003	
1.0 EA	PIVOT SET	L147 US26D 3/4"	RIX
	INTERMEDIATE PIVOT		RIX
		28-74-10U15 LL US26D WBX	SAR
		74-351 O EN LEAD LINED COVER	SAR
1.0 EA	WALL STOP (CONVEX) DOOR SEAL	S773D LENGTH AS REQUIRED	ROC PEM
		411ARL LENGTH AS REQUIRED	PEM
		HW GROUP - 004	
3.0 EA	HINGE	TA2314 4.5 X 4.5 US26D	MCK
		28-10G37 LL US26D WBX	SAR
		KEY AS DIRECTED.	
1.0 EA	WALL STOP (CONVEX)	406 630	ROC
		HW GROUP - 005	
3.0 EA	HINGE	TA2314 4.5 X 4.5 US26D	MCK

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1.0 EA	ENTRY LOCK	28-10G24 LL US26D WBX	SAR
1 O EA	WALL STOP (CONVEX)	KEY AS DIRECTED.	ROC
		S773D LENGTH AS REQUIRED	PEM
		411ARL LENGTH AS REQUIRED	PEM
		HW GROUP - 006	
1.0 EA	POCKET DOOR SET	PDFC150N-00-70	STA
1.0 PR	HANGER	BP250N-41 (1PR)	STA
	ADA PULLS	7200P US26D BTB	ACU
1.0 EA	FLOOR STOP	441H 626 TO KEEP DOOR 4" OUT OF POCKET	ROC
		HW GROUP - 007	
1.0 EA	PIVOT SET	L147 US26D 3/4"	RIX
1.0 EA	INTERMEDIATE PIVOT	ML19 US26D	RIX
1.0 EA		28-74-10U15 LL US26D WBX	SAR
		74-351 O EN LEAD LINED COVER	SAR
1.0 EA	WALL OR FLOOR STOP	406 630 / 441H 626 AS REQUIRED	ROC
		HW GROUP - 008	
6.0 EA	HINGE	TA2314 3.5 X 3.5 US26D	MCK
	FLUSH BOLT	555 626	ROC
	DUST PROOF STRIKE		ROC
1.0 EA		1-28-10G37 LL US26D WBX KEY AS DIRECTED.	SAR
2.0 EA		1537 S US26D (25-1/8" - 32-1/2")	SAR
		HW GROUP - 009	
2.0 EA	PIVOT SET	L147 US26D 3/4"	RIX
2.0 EA	INTERMEDIATE PIVOT		RIX
1.0 EA		T 2840 626 (TOP ONLY)	ROC
1.0 EA	PASSAGE SET	28-74-10U15 LL US26D WBX	SAR
1.0 EA	COORDINATOR	1700 628	ROC
2.0 EA	DOOR CLOSER		SAR
2.0 EA		406 630 / 441H 626 AS REQUIRED	ROC
1.0 EA	DOOR SEAL	S773D LENGTH AS REQUIRED	PEM
2.0 EA	AUTO, DOOR BOTTOM	411ARL LENGTH AS REQUIRED ASTRAGAL BY DOOR MANUFACTURER.	PEM
		HW GROUP - 010	
3.0 EA	HINGE	TA2314 4.5 X 4.5 US26D	MCK
1.0 EA	PRIVACY SET	V54-8265 LNL US26D WBX	SAR
1.0 EA	DOOR CLOSER	1431 UO EN	SAR

1.0 EA POCKET DOOR SET PDFC150N-00-70

STA

HW GROUP - 011

1.0 EA	PIVOT SET	L147 US26D 3/4"	RIX
1.0 EA	INTERMEDIATE PIVOT	ML19 US26D	RIX
1.0 EA	PRIVACY SET	V54-74-8265 LNL US26D WBX	SAR
1.0 EA	DOOR CLOSER	74-351 O EN LEAD LINED COVER	SAR
1.0 EA	WALL OR FLOOR STOP	406 630 / 441H 626 AS REQUIRED	ROC

HW GROUP - 012

1.0 EA	POCKET DOOR SET	PDFC150N-00-70	STA
1.0 PR	HANGER	BP250N-41 (1PR)	STA
1.0 EA	ADA CLASSROOM SET	9100ADAL-3ST US26D	ACU
1.0 EA	MORTISE CYLINDER	41 US32D	SAR
		KEY AS DIRECTED.	
1.0 EA	FLOOR STOP	441H 626 TO KEEP DOOR 4" OUT OF POCKET	ROC

HW GROUP - 013

1.0 PR	HANGER	BP250N-41 (1PR)	STA
1.0 EA	ADA ENTRY SET	9100ADAL-3 US26D	ACU
1.0 EA	MORTISE CYLINDER	41 US32D	SAR
		KEY AS DIRECTED.	
1.0 EA	FLOOR STOP	441H 626 TO KEEP DOOR 4" OUT OF POCKET	ROC
2.0 EA	PERIMETER SEAL @HEA	AD 381A LENGTH AS REQUIRED	ZER
1.0 EA	SLIDING AUTO DR BOT	7350AA LENGTH AS REQUIRED	ZER
2.0 EA	HALF SADDLE THRES	627A LENGTH AS REQUIRED	ZER

HW GROUP - 014

3.0 EA HING	E	TA2314 4.5 X 4.5 US26D	MCK
1.0 EA PASS	AGE SET	28-10U15 LL US26D WBX	SAR
1.0 EA DOOR	CLOSER	1431 O EN	SAR
1.0 EA WALL	OR FLOOR STOP	406 630 / 441H 626 AS REQUIRED	ROC
1.0 EA DOOR	SEAL	S773D LENGTH AS REQUIRED	PEM
1.0 EA AUTO	. DOOR BOTTOM	411ARL LENGTH AS REQUIRED	PEM

HW GROUP - 015

2.0 EA	PIVOT SET	L147 US26D 3/4"	RIX
2.0 EA	INTERMEDIATE PIVOT	ML19 US26D	RIX
1.0 EA	FLUSH BOLT	555 626 (TOP ONLY)	ROC
1.0 EA	PASSAGE SET	28-74-10U15 LL US26D WBX	SAR
1.0 EA	DOOR CLOSER	74-351 O EN LEAD LINED COVER	SAR
2.0 EA	WALL OR FLOOR STOP	406 630 / 441H 626 AS REQUIRED	ROC
1.0 EA	DOOR SEAL	S773D LENGTH AS REQUIRED	PEM

2.0 EA AUTO. DOOR BOTTOM

411ARL LENGTH AS REQUIRED ASTRAGAL BY DOOR MANUFACTURER.

PEM

END OF SCHEDULE

END OF SECTION



ADDENDUM

111 S. King Street Suite 170 Honolulu, HI 96813 808.523.5866 www.g70.design 002

In reference to the bid documents for Project:

PROJECT NAME: SMMH IMAGING DEPARTMEN	NT RENOVATION	DATE OF ISSUANCE: 10/21/21	
PROJECT NO: 220038-01		ISSUED BY: G70	
NO. OF PAGES DWG: NO. OF PAGES SPECS: 14		NO. OF PAGES NARRATIVE:	TOTAL NO. OF PAGES:

Holders of Bidding Documents Dated **08/16/21** for the subject Project are hereby informed that these documents are modified as noted in the ADDENDUM, and that all conditions not modified hereby remain unchanged.

Modifications in this ADDENDUM are noted with the following Delta Numbers:

DELTA NO:	DATE:	DESCRIPTION:
1	10/21/21	Addendum 2
G70		

DRAWINGS:

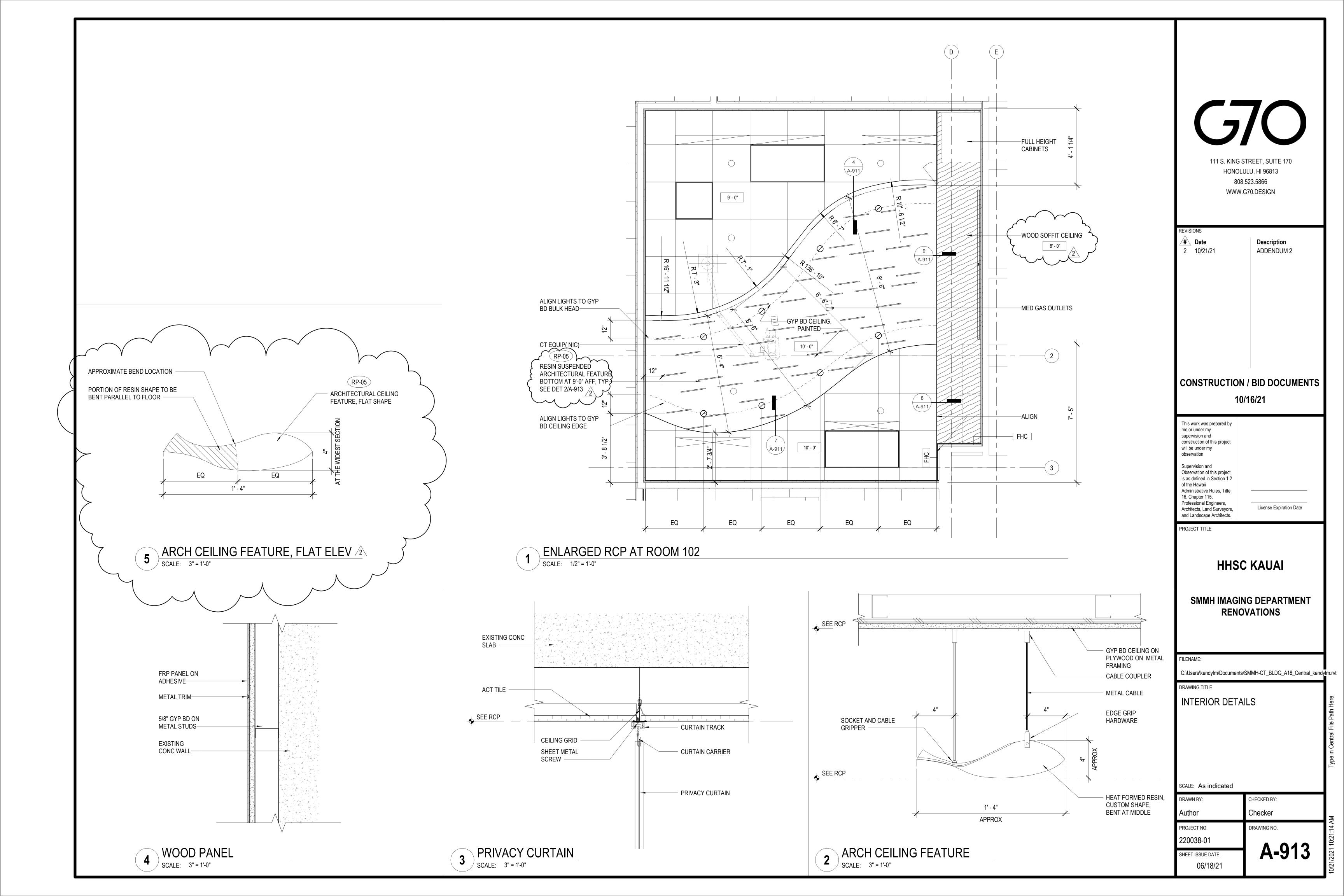
ARCHITECTURE

ARCHITECTORE				
Drawing No.	Delta No.	Description		
A-913	2	Revised ceiling feature details.		

SPECIFICATIONS

S	pecification No.	Description
0	8710 Finish Hardware	Revised lock cylinder section

-END OF ADD-002-



SECTION 08710 - FINISH HARDWARE

PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes:
 - 1. Hardware for interior doors, other than hardware specified in specific door Sections.
 - 2. Furnish and deliver to the building site, all finishing hardware required for all doors, etc., complete as indicated on Drawings and as specified.
 - 3. It is the intent of this Specification to cover in general the class and character of all finish hardware required.
 - 4. The hardware list specified has been made for the convenience of the Contractor and covers in general the necessary hardware for doors, casework, etc., but all other doors, etc., shown on the Drawings and not covered by the general characterization shall be fitted with appropriate hardware of the same standards as the hardware described throughout these specifications. Contractor shall furnish hardware schedule as specified.
 - 5. Suppliers proposing substitutes of equivalent products of other than the manufacturers named shall submit schedules listing the product and manufacturer specified and the product and manufacturer of proposed substitute.
- B. Related Work described elsewhere:
 - 1. Section 06400 ARCHITECTURAL CASEWORK
- 1.02 <u>REFERENCES</u>: The publications listed below form a part of this Specification to the extent referenced. These publications are referred to in the text by the basic designation only.
 - A. ADA Department of Justice 2010 ADA Standards for Accessible Design
 - B. BHMA Builders Hardware Manufacturers Association
 - C. NFPA 80 Fire Doors and Windows.
 - D. NFPA 252 Fire Tests of Door Assemblies.
 - E. SDI Steel Door Institute
 - F. UL 10B Fire Tests of Door Assemblies.
 - G. UL 305 Panic Hardware.
 - H. NFPA 101 Life Safety Code.
 - I. IBC 2006 International Building Code

1.03 SUBMITTALS

- A. Schedule: Furnish eight (8) copies of the schedule of hardware in compliance with specifications and Drawings. Schedule format shall be vertical type as listed in DHI document "Sequence and Format for the Hardware Schedule". List each opening and hardware to be applied. State materials finish, and manufacturer's number for each item. Required types are listed.
- B. Manufacturer's Data: Submit manufacturer's descriptive literature along with schedule for information only.
- C. Certified Test Reports: Indicate that each item listed under Hardware Items meets the standard listed for that item. A copy of the listing of proposed hardware items in the current applicable BHMA directories of certified products may be submitted in lieu of test reports.
- D. Project Reference Samples: Upon delivery of finish hardware to the site, select and tag one item of each different type. Identify each item by reference publication type or number and manufacturer's catalog number. Items shall remain on file until similar items have been installed, at which time items on file shall be installed in predetermined locations.
- E. Templates: Furnish hardware templates of each fabricator of doors, frames and other work to be factory-prepared for the installation of hardware. Upon request, check Shop Drawings of such other work, to confirm that adequate provisions are made for proper location and installation of hardware.
- F. Tools and Maintenance Instructions: Furnish a complete set of special wrenches, tools, maintenance instructions applicable to each different or special hardware component.
- G. Certification: After completion and inspection by hardware supplier of all construction work, certify on an approved form, that all items of finish hardware have been adjusted and are working properly and that all hardware on fire rated (labeled) closures conforms to requirements of ULI.
- H. Warranty: Submit warranty as stipulated in item entitled "WARRANTY" hereinbelow.

1.04 PROJECT RECORD DOCUMENTS

A. Include data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.

1.05 OPERATION AND MAINTENANCE DATA

- A. Maintenance Data: Include data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.
- B. The manufacturer's representative shall instruct the user's staff on the hardware's maintenance procedures (type of lubricant needed and frequency of maintenance).

1.06 QUALITY ASSURANCE

- A. Perform work in accordance with Americans with Disabilities Act Accessibility Guidelines ADAAG Section 404.1, NFPA 80, "Fire Doors and Fire Windows", NFPA 101, "Life Safety Code", UL10C, "Fire Tests of Door Assemblies", NFPA 252, "Fire Tests of Door Assemblies", and ICC IBC as applicable. Each door that is an element of an accessible route shall comply with ADAAG Section 404.1 and shall be mounted no higher than 48-inches above finish floor.
- B. Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum three years documented experience. Obtain each type of hardware (latch and lock sets, hinges, closers, etc.) from a single manufacturer.
- C. Hardware Supplier: Company specializing in architectural finish hardware, with a local stock warehouse, who has furnished hardware in Hawaii for a period of not less than three years.
- D. Hardware Supplier Personnel: Employ an experienced Architectural Hardware Consultant (AHC), or architects approved equal, who is available at reasonable times during the course of the Work, to the Engineer and Contractor for consultation about Project's hardware requirements, to verify specified hardware with door function and hardware finishes, and to establish keying system.
- E. Hardware Installer: Company specializing in the installation of architectural hardware and approved by the architect and architectural hardware consultant (AHC), or architects approved equal.

1.07 REGULATORY REQUIREMENTS

- A. Conform to applicable code for accessibility and requirements applicable to fire rated doors and frames.
- B. Products Requiring Electrical Connection: Listed and classified by Underwriter's Laboratories, Inc., as suitable for the purpose specified and indicated.
- C. Definition: "Door Hardware" includes items known commercially as finish hardware which are required for swing and sliding doors, except special types of unique and non-matching hardware specified in same section as door and door frame.

1.08 SECURITY DOOR HARDWARE REQUIREMENTS

- A. All security door hardware specified herein shall be furnished and installed by the Door Hardware Contractor.
- B. Electronic security components such as magnetic door contacts, card readers, external request to exit devices, etc. shall be furnished and installed by the security contractor.
- C. Hardware manufacturers and model numbers referenced within this document define the functional and technical requirements for the hardware. Other manufacturers and models may be substituted if the same functional and technical requirements are provided.

- D. All doors and frames scheduled to receive security hardware shall be prepared in the manufacturer's shop for the security hardware as required by the hardware manufacturer.
- E. All electric door hardware shall be 24 volts DC.
- F. Power supplies for exit devices with electric latch retraction, time delay exit devices, and time delay electromagnetic locks shall be furnished, installed, and wired by the Door Hardware Contractor. Power supplies for all other electric door hardware shall be furnished, installed, and wired by the Security Contractor.
- G. All security controlled and monitored doors shall be equipped with high security closers such as the High Security Series as manufactured by Sargent or equivalent as scheduled.
- H. Non-removable hinge pins shall be used for all security controlled and monitored doors.
- I. All cylinders for security controlled and monitored doors shall be equipped with interchangeable cores.

1.09 DELIVERY, STORAGE AND HANDLING

- A. Delivery, store, protect and handle products to prevent damage of any kind and to maintain security to site.
- B. Inventory hardware jointly with representatives of hardware supplier and hardware installer until each is satisfied that count is correct.
- C. Deliver individually packaged hardware items at proper times to proper locations (shop or project site) for installation.
- D. Package hardware items individually; label and identify each package with door opening code to match hardware schedule.
- E. Deliver keys to Engineer by security shipment direct from hardware supplier.
- F. Provide secure lock-up for hardware delivered to project but not yet installed. Control handling and installation of hardware items which are not immediately replaceable, so that completion of the Work will not be delayed by hardware losses, both before and after installation.

1.10 COORDINATION

A. Coordinate the work with other directly affected sections involving manufacture or fabrication of internal reinforcement for door hardware, and door machining for all hardware items.

1.11 WARRANTY

- A. Provide one year warranty. Ten (10) years on Door Closers, with two (2) years on Electrical Components. Where longer warrant is standard with the manufacturer, furnish the longer warranty.
- B. The Surety shall not be liable beyond 2 years of the Project Acceptance date.

1.12 MAINTENANCE MATERIALS

- A. Provide special wrenches and tools applicable to each different or special hardware component.
- B. Provide maintenance tools and accessories supplied by hardware component manufacturer.

PART 2 - PRODUCTS

2.01 MATERIALS

A. <u>Asbestos Prohibition</u>: No asbestos containing material materials shall be used under this section. The Contractor shall insure that all material incorporated in the project are asbestos-free.

2.02 <u>SCHEDULED HARDWARE</u>

- A. Requirements for design, grade, function, finish, size, and other distinctive qualities of each type of door hardware is indicated in HARDWARE GROUPS at end of this section. Products are identified by using proprietary catalog numbers, and are used to establish quality and function of products desired.
- B. Product numbers indicated in the HARDWARE GROUPS are those of the manufacturers listed and are used to establish the quality of products intended.

2.03 MATERIALS AND FABRICATION

- A. <u>Hand of Door</u>: Drawings show direction of slide, swing or hand of each door leaf. Furnish each item of hardware for proper installation and operation of indicated door.
- B. <u>Base Metals</u>: Produce hardware units of basic metal and forming method specified, using manufacturer's standard metal alloy, composition, temper and hardness, but in no case of lesser (commercially recognized) quality than specified for applicable hardware units by applicable ANSI A156 series standard for each type hardware item and with ANSI A156.18 for finish designations indicated. Do not furnish optional materials or forming methods for those indicated, except as otherwise specified.
- C. <u>Fasteners</u>: Provide hardware manufactured to conform to published templates, generally prepared for machine screw installation. Do not provide hardware which has been prepared for self-tapping sheet metal screws, except as specifically indicated.
- D. Furnish screws for installation, with each hardware item. Provide Phillips flat head screws except as otherwise indicated. Finish exposed screws to matches hardware finish. If exposed in surfaces of other work, to match finish of such other work as closely as possible, including prepared-for-paint finish in surfaces to receive painted finish.
- E. Expansion shields in concrete or masonry shall fill the depth and diameter of drilled holes.

- F. Provide concealed fasteners for hardware units which are exposed when door is closed, except to the extent no standard units of the type specified are available with concealed fasteners. Do not use through bolts for installation where bolt head or nut on opposite face is exposed in other work, except where it is not feasible to adequately reinforce the Work. In such cases, provide sleeves for each through bolt or use sex screws fasteners.
- G. Bring to the attention of the University any discrepancy between the Hardware Groups and door schedule prior to ordering.

2.04 HINGES, BUTTS AND PIVOTS

- A. General: Hinges shall conform to ANSI/BHMA A156.1, pivots shall conform to ANSI/BHMA A156.4, and the requirements of this specification.
- B. <u>Templates</u>: Except for hinges to be installed entirely (both leaves) into wood doors and frames, provide only template-produced units.
- C. <u>Screws</u>: Furnish Phillips flat head or machine screws for installation of units, except furnish Phillips flat head or wood screws for installation of units into wood. Finish screw heads to match surface of hinges or pivots.
- D. Hinges Pins: Except as otherwise indicated, provide hinge pins as follows:
 - 1. Nonferrous Hinges: Stainless steel pins.
 - 2. <u>Interior Doors</u>: Nonrising pins.
 - 3. <u>Tips</u>: Flat button and matching plug, finished to match leaves.
- E. <u>Number of Hinges</u>: Provide number of hinges in accordance with BHMA A 156.1 but not less than 3 hinges for door leaf for doors 90 inches or less in height and one additional hinge for each 30 inches of additional height.
- F. Size of hinges shall be as follows:

Door Thickness / Width	Hinge Height	Hinge Width
1-3/4 inch to 36 inches	4-1/2 inch	4 or 4-1/2 inch
1-3/4 inch over 36 inches	5-inch	4-1/2 Extra Heavy Ball Bearing
1-3/4 inch over 48 inches	5-inch	4-1/2 Extra Heavy Ball Bearing

2.05 LOCK CYLINDERS AND KEYING

- A. Lock cylinders shall be ASSA high security key system, 6 pin tumblers to match University of Hawaii Manoa ASSA HHSC's system. The lock cylinders shall be master-keyed to the University ASSA high security HHSC key system as directed by the University HHSC.
- B. Provide no more than ten (10) keys per lockset; exact quantity to be determined during keying schedule. Stamp all keys "University of Hawaii HHSC do not duplicate."
- C. Upon acceptance of the project, the contractor shall arrange for temporary keys from HHSC if further access is required.

2.06 LOCKS, LATCHES AND BOLTS

- A. General: Mortise locks and latches shall conform to ANSI/BHMA A156.13, Grade 1, bored locks and latches shall conform to ANSI/BHMA A 156.2, bolts shall conform to ANSI/BHMA A156.16, ADAAG Section 404.2.7, and the requirements of this specification
- B. Mortise Locksets shall be manufactured in a single sized case formed from 12 gauge minimum steel. The case shall be closed on all sides and back. The lockset shall have a field-adjustable, beveled armored front, with a 0.125-inch minimum thickness.
- C. Mortise locksets shall have freewheeling outside levers on all exterior doors. The freewheeling lever design shall allow the lever to swing freely up to 70 degrees, when the door is locked.
- D. Strikes: Provide manufacturer's standard wrought box strike for each latch of lock bolt, with curved lip extended to protect frame, finish to match hardware set. Provide dustproof strikes for foot bolts, except where special threshold construction provides non-recessed strike for bolts.

E. Lock Throw:

- 1. Provide 3/4-inch minimum throw of latch, and 1-inch minimum Deadbolt.
- F. Flush Bolt Heads: Minimum of 1/2-inch diameter rods of brass, bronze or stainless steel, with minimum 12-inch long rod for doors up to 7 feet in height; minimum 42-inches long rod for doors up to 9'-6" in height.
- G. Provide locksets, latches, and cylinders equal in all respects to those specified in the Hardware Groups. All thumb turns shall conform to ADAAG Section 404.2.7.

2.07 <u>CLOSERS AND DOOR CONTROL DEVICES</u>

- A. Standards: Comply with BHMA A 156.4 for closers, BHMA A 156. 15 for closer holder release devices and ADAAG Section 404.2.8.1 and Section 404.2.9 and the requirements of this specification.
- B. Grade: BHMA Grade1 for all closers.
- C. Size of Units: Comply with manufacturer's recommendations for size of door control unit, depending upon size of door, exposure to weather, and anticipated frequency of use. Where parallel arm closers are installed, provide closer unit one size larger than recommended for use with standard arms.
- D. Maximum effort to operate doors shall not exceed 8.5 pounds for exterior doors and 5 pounds for interior doors, such pull or push effort being applied at right angles to hinged doors. Compensating devices or automatic door operators may be utilized to meet the above standards. When fire doors are required, the maximum effort to operate the door may be increased not to exceed 15 pounds.

E. Surface Closers:

1. Provide parallel arm or regular arm closer as required to mount closer on door face least exposed to public traffic.

- 2. Closers shall have brass adjustment operating valves for closing speed, latching speed and backcheck control as a standard feature.
- 3. Closers shall have one piece high performance aluminum alloy body.
- 4. Closer covers shall be high impact non corrosive, flame retardant.
- 5. Closer shall not require removal for adjustments to be made.
- F. Following door closers will be considered equal subject to Project conditions:
 - 1. LCN 4041 Series.
 - 2. Corbin Russwin DC6000 Series.
 - 3. Norton 7500 Series.
 - 4. Sargent 351 Series.

2.08 DOOR SEALS

- A. Standard: Comply with BHMA A156.22.
- B. Gasketing Materials: Comply with ASTM D 2000 and AAMA 701/702
- C. Provide noncorrosive fasteners as recommended by manufacturer for application indicated.
- D. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strip is easily replaceable and readily available from stocks maintained by manufacturer.
- E. Smoke Seals: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke-control ratings indicated, based on testing according to UL 1784
 - 1. Provide smoke-labeled gasketing on 20-minute-rated doors and on smoke-labeled doors. Provide continuous seals at each edge of door leaf.
- F. Thresholds: Provide all thresholds as indicated on the door schedule conforming to ANSI/BHMA A156.21 and ADAAG Section 404.2.5.

2.09 FINISHES

- A. Standard: Comply with BHMA A156.18.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Designations used are those listed in ANSI/BHMA A156.18 -American National Standards for Materials and Finishes, including coordination with traditional U.S. finishes shown by certain manufacturers for their products.
 - 1. If no BHMA finish is established, match specified product.
- D. Provide matching finishes for hardware units at each door or opening to greatest extent possible, except as otherwise indicated. Reduce differences in color and textures as much as commercially possible where base metal or metal forming process is different for individual units of hardware exposed at same door or opening.

E. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness and other qualities complying with manufacturer's standards, but in no case less than specified for applicable units of hardware by referenced standards.

PART 3 - EXECUTION

3.01 **EXAMINATION**

- A. Pre-Installation Meeting: Before start of work under this contract, the Contractor, hardware installer, hardware manufacturer's representative or supplier and the University shall meet to review the hardware installation instructions and installation conditions.
- B. Verify that doors and frames are ready to receive Work and dimensions are as indicated. Hardware installer must notify the architect of any conflicts prior to installing hardware.

3.02 INSTALLATION

- A. Install each hardware item in compliance with manufacturer's instructions and recommendations.
- B. Mount hardware units at height indicated in ANSI/SDI A250.8, "Recommended Specification for Standard Steel Doors and Frames", except:
 - 1. As otherwise indicated or as required to comply with governing regulations or ADAAG Section 404.2.7.
 - 2. Mount deadbolt (if any)) centerline to conform with ADAAG Section 404.2.7 above latchset handle centerline.
- C. Wherever cutting and fitting is required to install hardware onto or into surfaces which are later to be painted or finished in another way, coordinate removal, storage and reinstallation or application of surface protection with finishing work. Do not install surface mounted items until finishes have been completed on the substrate.
- D. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.
- E. Drill and countersink units which are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.
- F. Set metal thresholds for exterior doors in full bed of butyl rubber or polyisobutylene mastic sealant as specified in Section 07920 SEALANTS.
- G. Fit face of all mortise parts snug and flush.
- H. Operating parts shall move freely and smoothly without binding, sticking or excessive clearance.
- I. Protect hardware from damage or marring of finish during construction. Use strippable coatings, removable tapes or other approved means.

- J. Ensure that hardware displays no evidence of finish paint after building cleanup with exception of prime coated hardware installed for finish painting. The Contractor may achieve this by sequencing installation, removing after fittings and reinstalling after painting is completed, providing protection, cleaning original hardware finish, or other approved means.
- K. Latch and bolt: Install latch and bolt to automatically engage in keeper, whether activated by closer or manual push. In no case shall additional manual pressure be required to engage latch or bolt in keeper.

L. Closers:

- 1. Do not mount closers on corridor side of door except at exterior doors.
- 2. Carefully adjust closers to be operated noiselessly and evenly and to conform to ADAAG Section 404.2.8 and Section 404.2.9.
- 3. Have manufacturer's representative regulate closers prior to University's acceptance of building.

3.03 FIELD QUALITY CONTROL

A. Required certified Architectural Hardware Consultant or architects approved equal from door hardware supplier to inspect installation and certify that hardware and installation has been furnished and installed in accordance with manufacturer's instructions and as specified.

3.04 ADJUST AND CLEAN

- A. Hardware installer shall adjust and check each operating item of hardware and each door, to ensure proper operation or function of every unit. Replace items which cannot be adjusted to operate freely and smoothly as intended for application made.
- B. Hardware installer shall clean adjacent surface soiled by hardware installation.
- C. <u>Final Adjustment</u>: Wherever hardware installation is made more than one month prior to acceptance or occupancy of a space or area, hardware installer shall return to the Work during the week prior to acceptance or occupancy and make final check and adjustment of all hardware items in such space or area:
 - 1. Clean operating items as necessary to restore proper function and finish of hardware and doors.
 - 2. Adjust door control devices to compensate for final operation of ventilating equipment.
 - 3. Lubricate bearings surface of moving parts and adjust latching and holding devices for proper function.
 - 4. Test keys for proper conformance with keying system.

3.05 HARDWARE GROUPS

MANUFACTURER LIST

CATEGORY	VEN	IDOR NAME	MFG
ADA ENTRY SET	ВҮ	ACCURATE LOCK & HARDWARE CO.	ACU
PRIVACY BARN SET	BY	ACCURATE LOCK & HARDWARE CO.	ACU
AUTO OPERATOR	BY	BESAM ENTRANCE SOLUTIONS	BSM
ELECTRICAL HINGE	BY	McKINNEY PRODUCTS COMPANY	MCK
HINGE	BY	McKINNEY PRODUCTS COMPANY	MCK
AUTO. DOOR BOTTOM	BY	PEMKO MANUFACTURING CO.	PEM
	BY	PEMKO MANUFACTURING CO.	PEM
SLIDING DR HARDWARE	BY	PEMKO MANUFACTURING CO.	PEM
SPLIT ASTRAGAL	BY	PEMKO MANUFACTURING CO.	PEM
INTERMEDIATE PIVOT	BY	RIXSON DOOR CONTROLS	RIX
		RIXSON DOOR CONTROLS	RIX
AUTOMATIC FLUSH BOLT	BY	ROCKWOOD MANUFACTURING CO.	ROC
	BY	ROCKWOOD MANUFACTURING CO.	ROC
DUST PROOF STRIKE	BY	ROCKWOOD MANUFACTURING CO.	ROC
FLOOR STOP	BY	ROCKWOOD MANUFACTURING CO.	ROC
FLUSH BOLT	BY	ROCKWOOD MANUFACTURING CO.	ROC
WALL OR FLOOR STOP		ROCKWOOD MANUFACTURING CO.	ROC
		ROCKWOOD MANUFACTURING CO.	ROC
CLASSROOM LOCK	BY	SARGENT MANUFACTURING COMPANY	SAR
CONCEALED O.H.STOP	BY	SARGENT MANUFACTURING COMPANY	SAR
DOOR CLOSER	BY	SARGENT MANUFACTURING COMPANY	SAR
ELEC SVR PANIC DEV	BY	SARGENT MANUFACTURING COMPANY	SAR
ENTRY LOCK	BY	SARGENT MANUFACTURING COMPANY	SAR
MORTISE CYLINDER	BY	SARGENT MANUFACTURING COMPANY	SAR
PASSAGE SET	BY	SARGENT MANUFACTURING COMPANY	SAR
PRIVACY SET	BY	SARGENT MANUFACTURING COMPANY	SAR
POWER SUPPLY	BY	SECURITRON MAGNALOCK CORP.	SEC
HANGER	BY	DORMAKABA USA, INC.	STA
POCKET DOOR SET			STA
	BY	WIKK INDUSTRIES, INC.	WIK
		ZERO INTERNATIONAL	ZER
PERIMETER SEAL @HEAD	BY	ZERO INTERNATIONAL	ZER
SLIDING AUTO DR BOT	BY	ZERO INTERNATIONAL	ZER

HW GROUP - 001

ALL HARDWARE BY TOTAL DOOR MANUFACTURER.

HW GROUP - 002

4.0 EA	HINGE	TA2314 4.5 X 4.5 US26D	MCK
2.0 EA	ELECTRICAL HINGE	QC8-TA2314 4.5 X 4.5 US26D	MCK
2.0 EA	ELEC SVR PANIC DEV	55-56-NB8715 ETL US32D (VFY FUNCTION)_	SAR
1.0 EA	AUTO OPERATOR	SW200i - DUAL	BSM
2.0 EA	WALL OR FLOOR STOP	406 630 / 441H 626 AS REQUIRED	ROC
2.0 EA	SPLIT ASTRAGAL	29310 CS LENGTH AS REQUIRED	PEM
2.0 EA	ADA WALL SWITCH	S-4X4-3-US32D	WIK
1.0 EA	POWER SUPPLY	BPS-24-2	SEC

HW GROUP - 003

1.0 EA	CLASSROOM LOCK	TA2314 4.5 X 4.5 US26D 28-10G37 LL US26D WBS KEY AS DIRECTED. 1537 S US26D (25-1/8" - 32-1/2")	MCK SAR SAR
		HW GROUP - 004	
2.0 EA 1.0 EA 1.0 EA 2.0 EA	FLUSH BOLT DUST PROOF STRIKE CLASSROOM LOCK CONCEALED O.H.STOP	570 626 28-10G37 LL US26D WBS KEY AS DIRECTED. 1537 S US26D (25-1/8" - 32-1/2")	MCK ROC ROC SAR SAR PEM
		HW GROUP - 005	
		REUSE EXISTING HARDWARE.	
		HW GROUP - 006	
2.0 EA 1.0 EA 1.0 EA 1.0 EA 2.0 EA 2.0 EA 1.0 EA	PASSAGE SET COORDINATOR DOOR CLOSER FLOOR STOP DOOR SEAL	ML19 US26D T2840 626 (TOP ONLY) 28-74-10U15 LL US26D WBX 1700 628 74-351 UO EN LEAD LINED COVER	RIX RIX ROC SAR ROC SAR ROC PEM
		HW GROUP - 007	
1.0 EA 1.0 EA 1.0 EA 1.0 EA 1.0 EA	INTERMEDIATE PIVOT PASSAGE SET DOOR CLOSER FLOOR STOP DOOR SEAL	28-74-10U15 LL US26D WBX 74-351 O EN LEAD LINED COVER	RIX RIX SAR SAR ROC PEM PEM
		HW GROUP - 008	
	ENTRY LOCK	TA2314 4.5 X 4.5 US26D 28-10G24 LL US26D WBS KEY AS DIRECTED. 406 630	MCK SAR ROC
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		S773D LENGTH AS REQUIRED 411ARL LENGTH AS REQUIRED	PEM PEM
		HW GROUP - 009	
1.0 EA 1.0 EA 1.0 EA	PASSAGE SET DOOR CLOSER	L147 US26D 3/4" ML19 US26D 28-74-10U15 LL US26D WBX 74-351 O EN LEAD LINED COVER 406 630 / 441H 626 AS REQUIRED	RIX RIX SAR SAR ROC
		HW GROUP - 010	
1.0 EA 1.0 EA	FLUSH BOLT DUST PROOF STRIKE CLASSROOM LOCK WALL STOP (CONVEX)	28-10G37 LL US26D WBS KEY AS DIRECTED.	MCK ROC ROC SAR ROC PEM PEM
		HW GROUP - 011	
1.0 PR 1.0 EA 1.0 EA 1.0 EA 2.0 EA 1.0 EA	PERIMETER SEAL @HEA SLIDING AUTO DR BOT	BP250N-41 (1PR) 9100ADAL-3 US26D	STA STA ACU SAR ROC ZER ZER ZER
		HW GROUP - 012	
1.0 EA	HINGE ENTRY LOCK WALL STOP (CONVEX)	TA2314 4.5 X 4.5 US26D 28-10G24 LL US26D WBS KEY AS DIRECTED. 406 630	MCK SAR ROC
		HW GROUP - 013	
3.0 EA 1.0 EA	HINGE CLASSROOM LOCK	TA2314 4.5 X 4.5 US26D 28-10G37 LL US26D WBS KEY AS DIRECTED.	MCK SAR

ROC

HW GROUP -	0	1	4
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1.0 EA 1.0 EA	PRIVACY SET DOOR CLOSER	TA2314 4.5 X 4.5 US26D V54-8265 LNL US26D WBX 1431 O EN 406 630 / 441H 626 AS REQUIRED	MCK SAR SAR ROC
		HW GROUP - 015	
1.0 EA 1.0 EA 1.0 EA	ENTRY LOCK DOOR CLOSER WALL STOP (CONVEX)		MCK SAR SAR ROC PEM
		HW GROUP - 016	
	SLIDING DR HARDWARE PRIVACY BARN SET	•	PEM ACU
		HW GROUP - 017	
	CLASSROOM LOCK	TA2314 4.5 X 4.5 US26D 28-10G37 LL US26D WBS KEY AS DIRECTED.	MCK SAR
1.0 EA		406 630 S773D LENGTH AS REQUIRED 411ARL LENGTH AS REQUIRED	ROC PEM PEM

END OF SCHEDULE

End of Section