## HAWAII STATE DEPARTMENT OF EDUCATION PROCUREMENT AND CONTRACTS BRANCH

AUGUST 13, 2024

#### **ADDENDUM B**

TO

**INVITATION FOR BIDS** 

IFB D24-154

TO

#### **PROVIDE**

# MAINTENANCE AND WATER TREATMENT FOR THE AIR CONDITIONING AND HEAT-VENTILATING EQUIPMENT AT VARIOUS SCHOOLS AND OTHER STATE BUILDINGS ON THE ISLANDS OF MAUI, MOLOKAI, AND LANAI

#### The following changes are hereby provided and incorporated into IFB D24-154:

#### PART I: Bid submission due date has been revised as follows:

From: Thursday, August 15, 2024

4:30 p.m., Hawaii Standard Time

To: Tuesday, August 20, 2024

4:30 p.m., Hawaii Standard Time

#### **PART II: Responses to Questions Submitted**

- Q1: Exhibit B, Schedule of Air Conditioning and Ventilating Equipment appears to have missing equipment and equipment that does not match what is physically on various sites. Please advise how you would like us to proceed with the bid proposal based on the equipment list provided.
- A1: Offerors shall include prices for equipment as shown in the solicitation. For any equipment that is missing or does not match what is actually at the physical site, the

STATE will include a supplemental agreement after the CONTRACTOR is in place if corrections are needed.

#### PART III: CHANGES TO THE IFB

#### A. SPECIAL CONDITIONS

The following Special Condition has been deleted in its entirety and replaced with the following:

#### 25. Method of Award

Award, if made, shall be to the responsive, responsible Offeror submitting the lowest estimated Total Sum Bid Price for Items 1 through 198. However, if the Total Sum Bid Price of the qualified low offer exceeds allotted funds, the STATE shall have the option to shorten the contract period or delete location(s) and/or unit(s) to allow award to be made within the allotted funds. Offeror must bid on all items to qualify for award.

B. Offer Pages (OF-2 to OF-10) are deleted in its entirety and replaced with the attached.

The Revised Offer Page is labeled as follows:

IFB D24 154 Offer Pages Addendum B.xlsx

#### C. REVISIONS TO SPECIFICATIONS

Section I. Screw-Type Chillers on page S-10 to S-11 has been deleted in its entirety. The subsequent lettering has been updated accordingly. The Specifications has been deleted in its entirety and replaced with the attached.

- D. Exhibit A Offer Information is deleted in its entirety and replaced with the attached.
- E. Exhibit B Schedule of Air Conditioning and Ventilating Equipment is deleted in its entirety and replaced with the attached.

Item Number	School and/or Building	Unit Bid Price Per Month (A)	Number of Months (B)	Total Bid Price (A x B)
SCHOOLS	REQUIRING AIR-CONDITIONING MAINTENANG	CE SERVICE (Part A)		
	Baldwin High School			
1	Building A	\$ -	12	\$ -
2	Building G	\$ -	12	\$ -
3	Building H (Band)	\$ -	12	\$ -
4	Building J	\$ -	12	\$ -
5	Building N (New Library)	\$ -	12	\$ -
6	Building R (Lecture Center)	\$ -	12	\$ -
7	Portable Classroom P-15	\$ -	12	\$ -
	Hana High School			
8	Library Conference Room	\$ -	12	\$ -
9	Library Main	\$ -	12	\$ -
10	Band Room	\$ -	12	\$ -
11	Building B	\$ -	12	\$ -
	lao Intermediate School			
12	Building H (Band)	\$ -	12	\$ -
13	Building J	\$ -	12	\$ -
14	Building J (Multi-Media Room)	\$ -	12	\$ -
15	Building J (Cafeteria, Library, Administration, Classrooms)	\$ -	12	\$ -
	Kahului School			
16	Modular #1	\$ -	12	\$ -
17	Modular #2	\$ -	12	\$ -
18	Modular #3	\$ -	12	\$ -
19	Modular #4	\$ -	12	\$ -
20	Modular #5	\$ -	12	\$ -
21	Modular #6	\$ -	12	\$ -
22	Modular #7	\$ -	12	\$ -
23	Modular #8	\$ -	12	\$ -

Offeror: _		

Item Number	School and/or Building	Bid Price Per Month (A)	Number of Months (B)	Total Bid Price (A x B)
24	Modular #9	\$ -	12	\$ -
25	Modular #10	\$ -	12	\$ -
26	Modular #11	\$ -	12	\$ -
27	Modular #18	\$ -	12	\$ -
28	E1	\$ -	12	\$ -
29	E2	\$ -	12	\$ -
30	P 18	\$ -	12	\$ -
31	P 19	\$ -	12	\$ -
32	Building D Library	\$ -	12	\$ -
33	Building G Classrooms	\$ -	12	\$ -
	Kalama Intermediate School			
34	Building C (Library)	\$ -	12	\$ -
35	Building K (Music)	\$ -	12	\$ -
36	Special Ed. Trailers 1	\$ -	12	\$ -
37	Special Ed. Trailers 2	\$ -	12	\$ -
	Kamalii Elementary School			
38	Building A	\$ -	12	\$ -
39	Building B	\$ -	12	\$ -
40	Building C (Cafeteria)	\$ -	12	\$ -
41	Building D	\$ -	12	\$ -
42	Building E	\$ -	12	\$ -
43	Building F	\$ -	12	\$ -
	Kaunakakai Elementary School			
44	Administration	\$ -	12	\$ -
45	Library	\$ -	12	\$ -
46	Trailer	\$ -	12	\$ -
	Kihei Elementary School			
47	Building A	\$ -	12	\$ -
48	Building B	\$ -	12	\$ -
49	Building C (Cafeteria)	\$ -	12	\$ -

Item Number	School and/or Building	Bid Price Per Month (A)	Number of Months (B)	Total Bid Price (A x B)
50	Building D	\$ -	12	\$ -
51	Building E-E (Library)	\$ -	12	\$ -
52	P-23	\$ -	12	\$ -
53	Building E	\$ -	12	\$ -
54	Building F	\$ -	12	\$ -
	King Kekaulike High School			
55	Building A (Control Room)	\$ -	12	\$ -
56	Building B (Library)	\$ -	12	\$ -
57	Building C (Cafeteria)	\$ -	12	\$ -
58	Building H (Physics Classroom)	\$ -	12	\$ -
59	Building K	\$ -	12	\$ -
60	Building V (Music)	\$ -	12	\$ -
61	Performing Arts Center	\$ -	12	\$ -
62	Transformer Building	\$ -	12	\$ -
	Kula Elementary School			
63	Building B	\$ -	12	\$ -
64	Building C	\$ -	12	\$ -
65	Building E	\$ -	12	\$ -
66	Building F	\$ -	12	\$ -
	Lahaina Intermediate School			
67	Building G (Cafeteria)	\$ -	12	\$ -
68	Building I Band Room	\$ -	12	\$ -
69	P11	\$ -	12	\$ -
70	P12	\$ -	12	\$ -
71	P13	\$ -	12	\$ -
72	P14	\$ -	12	\$ -
	Lahainaluna High School			
73	Building B (Library)	\$ -	12	\$ -
74	Building H Science Building	\$ -	12	\$ -
75	Building K101	\$ -	12	\$ -

Offeror:

Item Number	School and/or Building	Bid Price Per Month (A)	Number of Months (B)	Total Bid Price (A x B)
76	Building Z Music Building	\$ -	12	\$ -
77	New Classroom Building *Start on June 1, 2025	\$ -	4	\$ -
78	Cafeteria Exhaust Fans	\$ -	12	\$ -
79	Cafeteria Office	\$ -	12	\$ -
80	Cafeteria Supply Fans	\$ -	12	\$ -
81	P 8	\$ -	12	\$ -
82	P 9	\$ -	12	\$ -
83	P 12	\$ -	12	\$ -
84	P-16 (Portable Classroom)	\$ -	12	\$ -
85	P-17 (Portable Classroom)	\$ -	12	\$ -
86	P-18 (Portable Classroom)	\$ -	12	\$ -
	Lanai High School			
87	Library	\$ -	12	\$ -
88	B-1	\$ -	12	\$ -
89	B-2	\$ -	12	\$ -
90	B-3	\$ -	12	\$ -
91	C-1	\$ -	12	\$ -
92	Gym	\$ -	12	\$ -
93	S Building (1) Band Room	\$ -	12	\$ -
94	S Building (2) Comp Room	\$ -	12	\$ -
95	A-05 Tech Room	\$ -	12	\$ -
96	V-1 Special Room	\$ -	12	\$ -
97	U-2 Graf Art Room	\$ -	12	\$ -
	Lihikai Elementary School			
98	Building A - Library	\$ -	12	\$ -
	Lokelani Intermediate School			
99	Building E (Music)	\$ -	12	\$ -
100	Building E (Choral Room)	\$ -	12	\$ -
101	Building G	\$ -	12	\$ -

Item Number	School and/or Building	Bid Price Per Month (A)	Number of Months (B)	Total Bid Price (A x B)
102	Building H	\$ -	12	\$ -
103	Building I	\$ -	12	\$ -
104	P-1 (Portable Classroom)	\$ -	12	\$ -
105	P-2 (Portable Classroom)	\$ -	12	\$ -
106	P-3 (Portable Classroom)	\$ -	12	\$ -
107	P-4 (Portable Classroom)	\$ -	12	\$ -
108	P-5 (Portable Classroom)	\$ -	12	\$ -
109	P-6 (Portable Classroom)	\$ -	12	\$ -
110	P-7 (Portable Classroom)	\$ -	12	\$ -
111	P-8 (Portable Classroom)	\$ -	12	\$ -
112	P-9 (Portable Classroom)	\$ -	12	\$ -
113	P-10 (Portable Classroom)	\$ -	12	\$ -
114	P-11 (Portable Classroom)	\$ -	12	\$ -
115	P-12 (Portable Classroom)	\$ -	12	\$ -
116	P-13 (Portable Classroom)	\$ -	12	\$ -
117	P-14 (Portable Classroom)	\$ -	12	\$ -
118	P-15 (Portable Classroom)	\$ -	12	\$ -
	Makawao Elementary School			
119	Playcourt	\$ -	12	\$ -
	Maui High School			
120	Building B	\$ -	12	\$ -
121	Building C	\$ -	12	\$ -
122	Building H	\$ -	12	\$ -
123	Building J	\$ -	12	\$ -
124	Building T	\$ -	12	\$ -
125	P-30 (Portable Classroom)	\$ -	12	\$ -
126	P-31 (Portable Classroom)	\$ -	12	\$ -
127	P-32 (Portable Classroom)	\$ -	12	\$ -
128	P-33 (Portable Classroom)	\$ -	12	\$ -
129	P-34 (Portable Classroom)	\$ -	12	\$ -

Item Number	School and/or Building	id Price Per Nonth (A)	Number of Months (B)	Total Bid Price (A x B)
130	P-35 (Portable Classroom)	\$ -	12	\$ -
131	P-36 (Portable Classroom)	\$ -	12	\$ -
132	P-37 (Portable Classroom)	\$ -	12	\$ -
133	New Stem/Autism Building	\$ -	12	\$ -
	Maui Waena Intermediate School			
134	Building B	\$ -	12	\$ -
135	Building H (Library)	\$ -	12	\$ -
136	Building I (Administration)	\$ -	12	\$ -
137	Building K (Cafeteria)	\$ -	12	\$ -
138	Building M (Band Room)	\$ -	12	\$ -
139	Building O	\$ -	12	\$ -
140	P-6 (Portable Classroom)	\$ -	12	\$ -
141	P-7 (Portable Classroom)	\$ -	12	\$ -
142	P-8 (Portable Classroom)	\$ -	12	\$ -
143	P-9 (Portable Classroom)	\$ -	12	\$ -
144	P-10 (Portable Classroom)	\$ -	12	\$ -
145	P-11 (Portable Classroom)	\$ -	12	\$ -
146	P-12 (Portable Classroom)	\$ -	12	\$ -
147	TB-1 (Portable Classroom)	\$ -	12	\$ -
	Molokai High and Intermediate School			
148	Trailer	\$ -	12	\$ -
149	Building Q (Library)	\$ -	12	\$ -
150	Building R (Music)	\$ -	12	\$ -
151	Library (VRF system)	\$ -	12	\$ -
	Princess Nahienaena Elementary School			
152	Cafeteria	\$ -	12	\$ -
153	P-8 (Portable Classroom)	\$ -	12	\$ -
154	P-9 (Portable Classroom)	\$ -	12	\$ -
155	Building F Computer Center	\$ -	12	\$ -
156	P-10 (Portable Classroom)	\$ -	12	\$ -

Offeror: _		

Item Number	School and/or Building			Number of Months (B)	Total Bi	
157	P-11 (Portable Classroom)	\$	-	12	\$	-
158	P-12 (Portable Classroom)	\$	-	12	\$	-
	Pomaikai Elementary School					
159	Building A	\$	-	12	\$	-
160	Building B	\$	-	12	\$	-
161	Building C (Cafeteria)	\$	-	12	\$	-
162	Building D	\$	-	12	\$	-
163	Building E	\$	-	12	\$	-
164	Faculty Room	\$	-	12	\$	-
	Pu'u Kukui Elementary School					
165	Building A	\$	-	12	\$	-
166	Building B	\$	-	12	\$	-
167	Building C	\$	-	12	\$	-
168	Building D	\$	-	12	\$	-
169	Building E	\$	-	12	\$	-
170	Building F	\$	-	12	\$	-
171	Building G	\$	-	12	\$	-
172	Building H	\$	-	12	\$	-
173	Building K	\$	-	12	\$	-
	Wailuku Elementary School					
174	Building F	\$	-	12	\$	-
	Waihee Elementary School					
175	Building B - LIBRARY	\$	-	12	\$	-
176	Building C (Cafeteria)	\$	-	12	\$	-
177	P-11	\$	-	12	\$	-
178	New Admin Building	\$	-	12	\$	-
	Maui Community School For Adults					
179	Annex A	\$	-	12	\$	-

Item Number	School and/or Building	Unit Bid Price Per Month (A)	Number of Months (B)	Total Bid Price (A x B)	
	SCHOOLS REQUIRING AIR-CONDITIONING MAINTENANCE SERVICE (Part A) and WATER TREATMENT SERVICE (Part B)				
	Maui High School				
180	Building B (Language Lab)	\$ -	12	\$ -	
181	Building C (Library)	\$ -	12	\$ -	
182	Building H (Tower)	\$ -	12	\$ -	
183	Building J (Band)	\$ -	12	\$ -	
	lao Intermediate School				
184	Building H (Band)	\$ -	12	\$ -	
185	Building J (Multi-Media Room)	\$ -	12	\$ -	
186	Building J (Cafeteria, Library, Administration, Classrooms)	\$ -	12	\$ -	
STATE BU (Part A)	ILDINGS REQUIRING AIR-CONDITIONING MAIN	ITENANCE SERVICE			
	Department of Agriculture				
187	Building A (PW Project-Under Warranty until 2025)	\$ -	12	\$ -	
188	Building B	\$ -	12	\$ -	
	Kihei Public Library				
189	Library	\$ -	12	\$ -	
	Maui - DAGS Facility				
190	Building A	\$ -	12	\$ -	
	Wailuku Health Center				
191	Conference Room	\$ -	12	\$ -	
192	Laboratory	\$ -	12	\$ -	
193	Nursing (West Side)	\$ -	12	\$ -	
194	Nursing (North Side)	\$ -	12	\$ -	
195	Mental Health (North Side)	\$ -	12	\$ -	
	Wailuku State Office Building Number 2				
196	Building	\$ -	12	\$ -	

Item Number	School and/or Building	Unit Bid Price Per Month (A)	Number of Months (B)	Total Bid Price (A x B)	
STATE BUILDINGS REQUIRING AIR-CONDITIONING MAINTENANCE SERVICE (Part A) and WATER TREATMENT SERVICE (Part B)					
	Wailuku State Office Building Number 1				
197	Building	\$ -	12	\$ -	
	SUB TOTAL BID PRICE (Items 1 through 197)			\$ -	

		Unit Bid Price Per Hour* (A)	Number of Hours** (B)	Total Bid Price (A x B)
198	Emergency Service, Authorized Extra Work or Trouble Shooting and Repair for Heat Abatement Air Conditioning	\$ -	350	\$ -
TC	TOTAL SUM BID PRICE (Items 1 through 198)***			\$ -

<sup>\*</sup> Offeror to enter hourly labor rate here. This hourly rate shall be used as the Hourly Labor Rate for all cost proposals for Emergency Service, Authorized Extra Work, or Trouble Shooting and Repair for Heat Abatement AC ordered by the CA, and shall be inclusive of all travel time, taxes, profits, and other associated costs.

<sup>\*\*</sup> The Number of Hours (350) is estimated only and is not guaranteed. Total hours may increase or decrease depending on emergency and/or CA-authorized repairs assigned.

<sup>\*\*\*</sup> This is the total sum bid price a contract award will be based on.

#### **SPECIFICATIONS**

## PART A Maintenance Service of the Air Conditioning and Ventilating Equipment

#### I. SCOPE

The CONTRACTOR shall furnish all labor, materials, parts, tools, lubricants, refrigerant, equipment, transportation, and supervision necessary for the complete inspection, maintenance, and repairs to the air conditioning and heat-ventilating equipment located at the various schools and other state buildings as listed herein on the attached "Exhibit B - Schedule of Air Conditioning and Ventilating Equipment." The CONTRACTOR shall guarantee the satisfactory operation of all air conditioning and ventilating systems within the scope of this contract such that the room temperature can be maintained between 72 degrees Fahrenheit and 75 degrees Fahrenheit.

#### II. DESCRIPTION OF WORK

Inspection and Assessment of Existing Equipment:

The CONTRACTOR shall be responsible to inspect and assess the existing air conditioning and ventilation equipment at the Maui, Molokai, and Lanai District schools and State buildings as listed herein on the attached "Exhibit B – Schedule of Air Conditioning and Ventilating Equipment Schedule" prior to bidding on this contract.

#### Maintenance work:

The CONTRACTOR shall be totally responsible for all costs necessary for the maintenance services, including but not limited to, response to all STATE trouble calls regardless of the reason(s) for the call.

#### Repair work:

The STATE shall compensate the CONTRACTOR for replaced mechanical part or component and the connected accessories and **the CONTRACTOR shall be responsible for all labor and other costs**. For more details, please refer to Section IV Parts and Materials.

The guaranteed full-service maintenance contract shall not relieve the CONTRACTOR from performing the specified schedule maintenance service and repair service.

The CONTRACTOR shall perform **complete maintenance and repair services**, including, but not limited to, inspections, recurring maintenance, responding to trouble calls, trouble shooting, performing repair work, emergency service and re-setting air conditioning equipment schedule as requested by STATE for all equipment included in this contract. Complete maintenance and repair services shall cover all equipment and appurtenances that are not listed but are part of the system, including but not limited to Variable Air Volume (VAV) boxes, duct smoke detectors, and motorized dampers. These services shall be performed by trained Heating, Ventilation and Air-Conditioning (HVAC) certified Journeyman Technicians with a minimum of five (5) years of field experience in accordance with the requirements of the latest edition of the American Society of Mechanical Engineers standards and all other applicable laws, including, but not limited to regulations, rules ordinances, codes, and the best commercial practices governing the maintenance of the types of air conditioning systems and services as specified herein or the manufacturer's original specifications, whichever is more stringent.

The CONTRACTOR shall repair or replace all worn, failed or doubtful components and parts, regardless of cause, to ensure satisfactory operation of the air conditioning and ventilation equipment. Replacement parts shall be new, standard parts manufactured by the maker of each unit or of equal design and quality to maintain systems integrity and serviceability. The CONTRACTOR shall be responsible for the electrical and built-in control (except Direct Digital Controls (DDC) web control system) of each unit from the disconnect switch to the unit, including all electrical problems. Any questions as to the satisfactory performance of maintenance service and repairs and the satisfactory operation of all equipment and systems shall be determined by the Contract Administrator (CA).

#### Repairs due to unforeseen events:

The CONTRACTOR shall not be responsible for repairs due to flagrant vandalism, fire, theft, storm, rainstorm, flood, lightning and other damages caused by unusual events (Pests such as ants, geckos or rodents-caused damages are not considered unusual event; electrical supply issues such as surge or power fluctuations in classrooms or buildings, or involving only two (2) or three (3) equipment, are not considered as unusual event) as determined solely by the CA. However, the CONTRACTOR shall be responsible for such repairs and associated costs if the damages are caused by the CONTRACTOR's failure to properly maintain and repair the equipment or caused by CONTRACTOR's negligence, e.g., failure to reinstall protective covers causes motor, compressor or condenser to burn during rainstorm and/or thunderstorm.

#### Heat abatement unit repairs:

The CONTRACTOR shall not be responsible for regular or scheduled maintenance service for Heat Abatement Ductless Split AC Units (Exhibit C – Heat Abatement AC School List) powered either by Electric or Photovoltaic (PV) system. However, trouble shooting and repair work on the Heat Abatement AC Units shall be performed by the CONTRACTOR only if ordered by the CA. For repair work which can be attributed to a cause beyond the CONTRACTOR's control, including trouble shooting and repair work ordered by the CA for Heat Abatement Ductless Split AC Units, the CONTRACTOR shall submit a cost proposal to the CA. Upon approval by the CA, a purchase order will be issued to the CONTRACTOR for the repair work. If the CA and the CONTRACTOR cannot agree on the price, the STATE reserves the right to bid out the repair work, including but not limited to a formal STATE solicitation.

#### A. Air Handling Units and Fan Coil Units:

On a monthly basis, the CONTRACTOR shall perform the following procedures:

- 1. Clear and clean all drip pans and all related condensate drain lines with nitrogen or other applicable means. CONTRACTOR may be liable for water damages due to clogged drains which are not cleaned regularly as specified. Install pan tablets if necessary to control algae.
- Change all disposable air filters including automatic filters as required, but at least once
  every two (2) months or sooner if needed. The CONTRACTOR shall use MERV 8 pleated
  FARR 30/30 or approved equal. The thickness of filters shall be the size specified by the air
  handler manufacturer. The CONTRACTOR shall not stack up multiple thinner filters in one
  slot.
- 3. Wash permanent type filters with an approved detergent and spray coat with an approved filter treatment solution. Replace deteriorated permanent type filters which cannot be cleaned.
- 4. Lubricate and oil all fan and motor bearings, and connections of dampers and vanes. Check controls to ensure proper operation.
- 5. Check all drives for wear; adjust belt tension. Replace belt as required.

- 6. Check UV lights and CO<sub>2</sub> monitor systems; repair and/or replace items as required to keep systems operating properly. Recalibrate the CO<sub>2</sub> monitor system **quarterly**.
- 7. Check back-draft and motor-controlled dampers and operators for proper operation; lubricate linkage for free movement.
- 8. Operate equipment to check for proper operation, unusual noise and vibration. Adjust, repair, and correct all discrepancies before certifying service report.

#### On a semi-annual basis, the CONTRACTOR shall perform the following procedures:

- 1. Adjust alignment of bearings and sheaves, lubricate fan and motor bearings. Replace worn or noisy bearings or sheaves.
- 2. Wash cooling coils and clean all dirt accumulation, using water washer, steam or surfactant chemical coil cleaner (alkali or acidic cleaners not allowed) as necessary. This service only required annually for units equipped with properly working UV lights.
- 3. Remove and wash all supply and return air and supply air grilles, register and diffusers and exterior surfaces of all related air conditioning equipment. Clean fresh air intake grille and damper, and repair and/or replace deteriorated bird and/or insect screens.
- 4. Check and adjust belt tension with deflection gauge and replace worn belts.
- 5. Adjust, repair, and correct all discrepancies before certifying service report.

#### On an annual basis, the CONTRACTOR shall perform the following procedures:

- 1. Check pressure drop and temperature differential across coils, and log readings. Clean strainers and check vents and drains on chill water coils.
- 2. Replace any UV light tubes that have not been replaced since the last annual service.
- 3. Replace all fresh intake filter bags, with new bags where applicable.
- 4. Secure all loose housing, seal leaks, and touch-up paint after cleaning all rust.
- 5. Check condition of insulation; repair and/or reinsulate properly and immediately, including any time disturbing of insulation is required to make repairs, or upon discovery or notification.
- 6. Calibrate pneumatic and/or electric temperature controls.
- 7. Clean all fan wheels and interior housings.
- 8. Adjust, repair, and correct all discrepancies before certifying service report.

#### **B.** Temperature Controls:

#### a. Pneumatic

#### On a monthly basis, the CONTRACTOR shall perform the following procedures:

- 1. Check air compressor for wear and noise, adjust and/or replace belt or sheaves as required, check and add oil as required.
- 2. Drain air tank and check and clean traps.

- 3. Inspect entire air systems for leaks and repair.
- 4. Check thermostats, controllers, smoke detectors, control dampers, control valves and actuators for proper operation; lubricate, adjust, and recalibrate as required. Adjust room thermostat to maintain 75 degrees Fahrenheit.
- 5. Check control dampers for tight closing, bent blades, defective linkage, etc. and repair as required.

#### On a semi-annual basis, the CONTRACTOR shall perform the following procedures:

- 1. Check oil in air compressor, change all air filters.
- 2. Inspect valve assemblies, check and adjust.
- 3. Adjust and calibrate pneumatic and related controls as required.
- 4. Record compressor running time and cut-in, cut-out pressures.

#### On an annual basis, the CONTRACTOR shall perform the following procedures:

- All pneumatic and related controllers shall be checked for presence of moisture or oils, control port and seat alignment and response of capillaries; and shall be repaired, adjusted, and calibrated as required.
- All pneumatic and related control devices shall be checked for leaks, sticking stems, air tightness, broken or weak springs, ruptured diaphragms, and shall be lubricated, repaired, adjusted, and calibrated as required, including repacking, rediscing and reseating of control valves as required.
- 3. All automatic dampers shall be checked for tight closing, bent blades, defective linkage, and shall be repaired as required.
- 4. Clean all external parts of air compressor and drive, presence of moisture, safety valve operation and make all necessary repairs and adjustments. Lubricate electric motor bearings. Compressed air filters shall be cleaned and/or replaced. Change crankcase oil.
- 5. Inspect valve assemblies, check and adjust.
- 6. Record compressor run time and cut-in and/or cut-out pressures.
- 7. Dust clean by compressed air or electrical solvent on all electric control devices.
- 8. Repair or replace worn parts or complete controls with new or reconditioned equivalents, as conditions warrant.

#### b. Electric

#### On a semi-annual basis, the CONTRACTOR shall perform the following procedures:

- 1. Check and calibrate all control devices, including valves and actuators.
- 2. Check operation, lubricate and adjust control dampers.
- 3. Dust clean by compressed air or electrical solvent on all control devices.

### C. <u>Packaged Water Chiller, Reciprocating Compressor, Air-Cooled Condenser and/or</u> Condensing Unit:

#### On a monthly basis, the CONTRACTOR shall perform the following procedures:

- Check and record entering and leaving water temperatures and pressures of chilled water and water-cooled condenser in "maintenance log book."
- 2. Check and record refrigerant compressor suction and discharge and oil pressures.
- Visual check for water, refrigerant and oil leakage; correct or repair as required. Check vibration isolator mounts.
- 4. Check compressor, fan, and motor bearings for abnormal temperature and unusual noise; lubricate and/or replace as required.
- 5. Adjust chilled water temperature setting for seasonal change.
- 6. Check refrigerant sight glass; change filter and/or drier if moisture indicated (DX system). Check compressor oil level and add oil as required.
- 7. Check air-cooled condenser fans, sheaves, belts; tension, adjust, or replace as required.
- 8. Adjust alignment of bearings and sheaves for fans, motors, and compressors, and replace worn or noisy bearings or sheaves.
- 9. Note and run system operation through complete operating cycle and adjust for proper operation.
- 10. Certify performance of monthly maintenance service and correct and report all discrepancies.

#### On a quarterly basis, the CONTRACTOR shall perform the following procedures:

- 1. Check chiller response at various cooling load conditions for proper operation and calibration of capacity control system and record settings.
- 2. Check operation of freezestat and oil failure switch; record settings.
- 3. Clean condenser coils of all dirt and/or salt accumulation with water, steam or surfactant chemical coil cleaning solution (alkali or acidic cleaners not allowed) (air-cooled).
- 4. Test and adjust "make-up" water and expansion tank.
- Certify performance of quarterly maintenance service and correct and report all discrepancies.

#### On a semi-annual basis, the CONTRACTOR shall perform the following procedures:

- 1. Remove heads of condenser and internally brush tubes at the same time cooling tower is cleaned (water-cooled); as applicable coordinate with the water treatment contractor and coordinate with Maui-Department of Accounting and General Services (DAGS).
- 2. Lubricate all fan, motor, and pump bearings as required.

 Certify performance of semi-annual maintenance service and correct and report all discrepancies.

#### On an annual basis, the CONTRACTOR shall perform the following procedures:

- Have compressor crankcase oil analyzed and submit written report; replace if contaminated; clean or replace strainer and oil filter.
- 2. Check and clean or replace all strainers, filters, and refrigerant and/or driers.
- 3. Test operate control switches, compressor unloading and safeties; calibrate and record settings. Adjust as required.
- 4. Megger compressor motor and submit report; check starter relay and control contacts and electrical connections for tightness and clean as required.
- Check and clean all unit housings (inside, outside, and components), seal leaks, and remove rust from exterior component and touch-up paint with matching color, immediately upon discovery or notification.
- 6. Certify performance of annual service, report and correct all discrepancies. Submit maintenance report in writing to CA.

#### D. Ventilating Fans (Exhaust and Supply):

#### On a quarterly basis, the Contractor shall perform the following procedures:

- 1. Check back-draft and motor-controlled dampers and operators for proper operation; lubricate linkage for free movement.
- 2. Lubricate fan and motor bearings.
- 3. Check belt wear and tension; adjust or replace as needed.
- 4. Check sheaves for wear, replace as needed.
- 5. Check fan collar, bearings and shaft for wear, repair or replace as needed.
- 6. Replace air filters where installed.

#### On a semi-annual basis, the CONTRACTOR shall perform the following procedures:

- 1. Check and clean fan wheels and housings of dust, dirt, and grease.
- 2. Remove and wash all intake and/or exhaust or supply grilles, registers, louvers and dampers; repair or replace deteriorated bird and/or insect screens.
- 3. Change air filters as required.

#### E. Pumps:

#### On a monthly basis, the CONTRACTOR shall perform the following procedures:

1. Check packing glands and seals on all water pumps for excessive leakage. Adjust, tighten, repair, or replace as required.

- 2. Lubricate; and check pump and motor bearings including pump couplings for abnormal temperature and unusual noise or vibration and repair or replace as needed.
- 3. Lubricate motor and pump bearings as necessary.

#### On a semi-annual basis, the CONTRACTOR shall perform the following procedures:

- 1. Remove and clean strainer for all condenser pumps after tower cleaning.
- 2. Check and blow down strainer to chilled water pumps. Remove and clean strainer if excessive debris is noted.
- Check condition of insulation; repair and/or reinsulate properly and immediately, including any time disturbing of insulation is required to make repairs, or upon discovery or notification.
- 4. Log suction and discharge pressures for all pumps.
- 5. Clean and remove all dust and foreign matter. Clean all rust spots and scratches and touch up paint with matching color, immediately upon discovery or notification.
- 6. Check motor coupling for alignment; mounting bolts are secure.

#### F. Packaged or Split DX Air Conditioning Units:

On a monthly basis, the CONTRACTOR shall perform the following procedures:

1. Perform the monthly tasks of Part A, II. Description of Work, A. Air Handling Units and Fan Coil Units and Part A, II. Description of Work, C. Packaged Water Chiller, Reciprocating Compressor, Air-Cooled Condenser and/or Condensing Unit

On a quarterly basis, the CONTRACTOR shall perform the following procedures:

1. Perform the quarterly tasks of Part A, II. Description of Work, C. Packaged Water Chiller, Reciprocating Compressor, Air-Cooled Condenser and/or Condensing Unit

On a semi-annual basis, the CONTRACTOR shall perform the following procedures:

Perform the semi-annual tasks of Part A, II. Description of Work, A. Air Handling
 Units and Fan Coil Units and Part A, II. Description of Work, C. Packaged Water
 Chiller, Reciprocating Compressor, Air-Cooled Condenser and/or Condensing Unit

On an annual basis, the CONTRACTOR shall perform the following procedures:

- 1. Perform the annual tasks of Part A, II. Description of Work, A. Air Handling Units and Fan Coil Units and Part A, II. Description of Work, C. Packaged Water Chiller, Reciprocating Compressor, Air-Cooled Condenser and/or Condensing Unit
- 2. Certify performance of all services, report and correct all discrepancies. Submit maintenance report in writing to CA.

## G. <u>Standby and Lead-Lag Equipment (Pumps, Chillers, Cooling Towers, etc.) Control Panels, Switches, and Time Clocks:</u>

On a monthly basis, the CONTRACTOR shall perform the following procedures:

- 1. The CONTRACTOR shall be responsible for the operational changeover of all standby and lead-lag equipment (monthly, unless otherwise indicated).
- 2. Check lead-in wires to see that all connections are tightly secured. Clean contacts and replace if necessary.
- 3. Check and adjust time settings as directed or required. Charge battery for back-up if applicable, as necessary.
- Should time clock fail replace with electronic type with capacitance back up (Batteries NOT ALLOWED).
- 5. Should bypass timer switch fail replace with adjustable 4-hour programmable electronic selector switch or push button; add or revise wiring as necessary.
- 6. Should insects and/or vermin enter device housings, correct by providing: door gaskets, screens over air vents, and seal conduit openings entering the housing.

#### On a semi-annual basis, the CONTRACTOR shall perform the following procedures:

- 1. Thoroughly clean out all dust and dirt from inside of housing.
- 2. Check and tighten loose fasteners and adjust spring tensions as required.
- 3. Check and operate all release mechanisms to see that they are in proper working order.
- 4. Clean out all dust and dirt from inside of all control and/or electrical panels by using dry compressed nitrogen to blow out dust and foreign matters.
- 5. Certify performance of all services, report and correct all discrepancies. Submit maintenance report in writing to the CA.

#### H. Centrifugal/ Screw Chiller:

#### On a monthly basis, the CONTRACTOR shall perform the following procedures:

- 1. Check and record entering and leaving chiller water and condenser water temperatures and pressures in maintenance log.
- 2. Check and record head pressure, oil pressure and system pressure; check oil heater.
- 3. Check oil pump operation; service purge compressor and purge system.
- 4. Check for refrigerant and oil leakage; recharge system.
- 5. Adjust chilled water temperature setting for seasonal changes.
- 6. Check, adjust and/or calibrate the oxygen and/or refrigerant monitor and alarm system.
- 7. Certify monthly performance of chiller operation and maintenance service. Correct and report all discrepancies.
- 8. Check purging controls. If purge pump activates frequently, check for leaks and report.
- 9. Check moisture indicating a sight glass and drain water accumulation. If excessive moisture is present and pump does not cycle, check for source of water leak.

- 10. Check oil level in cup on the control modulating motor and refill as required (Carrier).
- 11. Turn oil filter handle on sump cover, two or three revolutions (Trane).
- 12. Review daily operating log for abnormal conditions and report any discrepancies. Wipe down chiller and check operation of all gauges and indicating lamps.
- Certify that equipment has received monthly service and submit written service report to CA

#### On a quarterly basis, the CONTRACTOR shall perform the following procedures:

- Check chiller response at various load conditions for proper operation and calibration of capacity control system.
- 2. Check safety and purge controls; record settings.
- 3. Certify performance of quarterly service and correct and report all discrepancies.

#### On a semi-annual basis, the CONTRACTOR shall perform the following procedures:

- 1. Remove heads of condenser and internally brush tubes at the same time cooling tower is cleaned; coordinate with water treatment contractor and Maui-DAGS.
- 2. Perform pressure test to detect refrigerant leaks.
- Check condition of insulation; repair and/or reinsulate properly and immediately, including any time disturbing of insulation is required to make repairs, or upon discovery or notification.
- 4. Certify performance of semi-annual service and correct and report all discrepancies.
- 5. Check, test, and adjust all safety controls, switches, loading and unloading of the chiller; record settings for each machine on tags and affix to machine.
- 6. Check and report any oil pump wear and oil leaks.
- 7. Check functioning of all control valves, gauges, thermometers. List defective items and submit written report to CA.
- 8. Clean purge drum, lubricate purge motor bearings, and adjust belt tension (Trane).
- 9. Clean and remove all dust and foreign matter in the chiller control panels with air or other safe means.
- 10. Test and adjust "make-up water" for chilled water system.
- Lubricate vane linkage arms (Trane). DO NOT LUBRICATE VANE LINKAGE BELLOWS ASSEMBLY OR THE SHAFT OF THE PNEUMATIC VAN OPERATOR.
- 12. Check purge unit inlet drier cartridge and replace.
- 13. Check and record motor amperage for each chiller for 24-hour period. Adjust lead-lag controls for each chiller as directed by the Maui-DAGS. Adjust chiller control to obtain proper loading and cycling for optimum running.

- 14. Clean all rust spots and scratches and touch-up paint with matching color.
- 15. Certify that chiller has received semi-annual service and submit semi-annual maintenance report including recommendations for each chiller to the CA.

#### On an annual basis, the CONTRACTOR shall perform the following procedures:

- 1. Have chiller and purge compressor oil analyzed and submit written report. (Continuous oil monitoring system may be used in lieu of testing.)
- Replace oil cooler filter cartridge; change oil if recommended by analysis and per manufacturer's recommendations.
- 3. Check refrigerant; replace filter drier.
- 4. Inspect purge compressor and drum; clean and replace wearing parts.
- 5. Electronic leak test entire system and repair all leaks.
- 6. Megger chiller and oil pump motors, check relay contacts and electrical connections.
- 7. Test and operate control switches; unloaders, safeties; calibrate and record settings.
- 8. Clean and remove all dust and foreign matter. Clean all rust spots and scratches and touch up paint with matching color, immediately upon discovery or notification.
- 9. Certify performance of annual maintenance service, report and correct all discrepancies. Submit maintenance report in writing to CA.

#### I. Cooling Towers and Evaporative Condensers:

#### On a monthly basis, the CONTRACTOR shall perform the following procedures:

- 1. Check and adjust water make-up float valve and bleed rate.
- 2. Check general condition of tower interior and water distribution pattern.
- 3. Check and lubricate motor and fan bearings.
- Check all drives for wear; adjust belt tension. Replace belts or sheaves as required.
- 5. Remove foreign material from inside the tower, vacuum basin residue as required.
- 6. Check for leaks, patch, correct, or repair immediately upon discovery or notification.
- 7. Certify performance of monthly maintenance service and correct and report all discrepancies to the CA.

#### On a semi-annual basis, the CONTRACTOR shall perform the following procedures:

- Drain, clean, and flush tower; coordinate with water treatment contractor and Maui-DAGS.
- 2. Clean condenser suction screen, drift eliminators, spray nozzles, vacuum basin residue.

Certify semi-annual cleaning of towers and correct and report any discrepancies to the CA.

#### J. Window and Duct-Less Split DX Air Conditioners (3-1/2 Tons or Less):

On a quarterly basis, the CONTRACTOR shall perform the following procedures:

- Clean and wash evaporator and condenser coils of all dirt and/or salt accumulation with water, steam, or surfactant chemical coil cleaner (alkali or acidic cleaners not allowed); wash unit to remove dirt, oil, and debris from fan assembly and chassis.
- 2. Clean, wash, or furnish and install new filter as required.
- 3. Check and clean condensate pan and flush drain lines.
- 4. Lubricate compressor and fan motor bearings.
- Check system refrigerant charge.
- 6. Run and check units operation and controls through complete cycle, record temperature and setting when compressor cuts in.
- 7. Certify performance of quarterly services, report and correct all discrepancies. Submit maintenance report in writing to the CA.

#### K. Valves and Condenser Water Lines, Equipment and Supports

- The CONTRACTOR shall exercise all equipment shut-off valves quarterly for proper operation and tightness.
- 2. Wirebrush and remove rust from pipe, equipment and support surfaces, then prime and paint to prevent further rusting. Perform work **immediately upon discovery or notification**.
- **L. CLASSROOM HEATING UNITS:** Heating units to be operational during winter months from December 1st through February 28th of each year

#### a. Gas-Fired Heaters:

#### Start-up Inspection and Service

Start-up check to be initiated on or around November 1st of each year.

- 1. Clean and remove dirt, grime, soot, and old grease from the unit.
- 2. Lubricate motor and bearings as necessary.
- 3. Inspect belts and pulleys and adjust as necessary.
- 4. Check burners and clean and adjust burner orifices as necessary.
- 5. Check condition of exhaust flue. Repair and/or replace as necessary.
- 6. Check thermostat and on and off switch.

7. Test run each heater for a minimum of 1 (one) hour and make repairs and adjustments as necessary.

#### On a monthly basis, the CONTRACTOR shall perform the following service:

- 1. Service to be done only when the units are operational during the months of December, January, and February.
- 2. Check motor, belts, pulleys, and bearings and adjust or replace as necessary.
- 3. Clean and remove dirt, dust, and grime from grilles and fan blades.
- 4. Certify performance of monthly service and report any discrepancies to the CA.

#### b. Boiler-Fed Heater System

#### Start-up Inspection and Service

- 1. Start-up check to be initialed on or around November 1st of each year.
- Check pumps and pump motors. Inspect pump seals for leakage. Lubricate motor and bearings as necessary. Repair and/or replace as necessary.
- 3. Check valves and piping for leaks and repair as necessary. Replace pressure gauges that are not working properly.
- 4. Check gas pressures and regulators. Purge and/or prime lines if necessary.
- 5. Drain storage tank, boiler, and hot water piping and refill with clean water.
- 6. Inspect boiler heat exchanger tubes and clean as necessary.
- 7. Inspect boiler burners and burner orifices and clean as necessary.
- 8. Check boiler pilot light and re-light if out.
- 9. Inspect roof ventilator fan and motor. Lubricate motor and bearings and adjust belt and pulley as necessary.
- 10. Check condition of exhaust flue. Repair and/or replace if necessary.
- 11. Inspect fan coil units and check for leaks. Clean all dirt and grime from grilles.
- 12. Replace fan coil unit air filters.
- 13. Lubricate fan coil unit fan and motor bearings.
- 14. Check and adjust fan coil unit belt tension.
- 15. Check fan coil unit thermostats and on and off switches.
- 16. Test run boiler-fed system for a minimum of two (2) days and make repairs and adjustments as necessary.

On a monthly basis, the CONTRACTOR shall perform the following service:

- Service to be done only when the units are operational during the months of December, January, and February.
- 2. Check boiler room. Boiler should be operating properly. Check pumps for leaks, loud noises, and overheating, repair and adjust as necessary.
- 3. Lubricate pump motors.
- 4. Check fan coil units for leaks and abnormal noises, repair and adjust as necessary.
- 5. Lubricate fan coil unit motors.
- 6. Change fan coil unit air filters.
- 7. Certify performance of monthly service and report any discrepancies to the CA.

#### M. Cleaning of Mechanical Equipment Rooms or Enclosures:

On a monthly basis, the CONTRACTOR shall perform the following procedures:

- 1. Vacuum or wipe clean all equipment surfaces and all related appurtenance.
- Vacuum clean or sweep complete floor and platform areas. DO NOT wet floor and platform area where there is no waterproofing.
- 3. Wet wash complete floor area with tap water where allowed. CAUTION: DO NOT splash water onto the electrical and mechanical equipment.
- 4. Remove all used, deteriorated, replaced, discarded parts and related debris.
- 5. Remove tall grass, brush, or other vegetation within outdoor enclosures, which affects operation or maintenance of equipment.
- 6. Notify Maui-DAGS of any dangerous conditions, improper storage of furniture, materials and supplies which impacts CONTRACTOR's work within rooms and enclosures, including vandalism.

#### N. WATER TREATMENT SERVICE OF AIR CONDITIONING SYSTEMS

- CONTRACTOR may subcontract for the chemicals and water treatment service, which shall be provided under this contract by a qualified water treatment company experienced in the business of servicing air conditioning water systems. (See "SPECIFICATIONS, Part B - Water Treatment Service of Air Conditioning Systems" and "SUBCONTRACTING" provision in the SPECIAL CONDITIONS listed herein.)
- 2. Log and date maintenance service actions on a service report to be submitted to STATE and in a "Chemical Treatment Log Book" (e.g. monthly water analysis, equipment maintenance and repair, chemical feed set points and adjustments made, annotate amount of each chemical used and on-hand).

#### III. TROUBLE CALL PROCEDURES FOR AIR CONDITIONING AND VENTILATION SERVICE

1. School and/or Office informs the Maui-DAGS, via fax, phone, email, or other means available of air conditioning and ventilating problem. School and/or Office shall also submit a work order

thru Maximo, which is an automated work order system that the Hawaii State Department of Education uses.

- CONTRACTOR shall NOT respond to calls from school and/or office. CONTRACTOR shall inform school and/or office to contact Maui-DAGS via fax, phone, email or other means available.
- Maui-DAGS shall notify CONTRACTOR of problem with the assigned work order number via facsimile, email or other.
- 4. CONTRACTOR shall call Maui-DAGS, no later than the next day, and report the status of the problem by work order number.
  - a. If completed, CONTRACTOR shall inform (via fax, phone, email or other means available) Maui-DAGS of the CONTRACTOR's evaluation and the action taken to remedy the situation. CONTRACTOR shall have the appropriate school and/or office's representative sign the completed work order and return to the Maui-DAGS office via facsimile, email or other means available.
  - b. If not completed, CONTRACTOR shall inform (via fax, phone, email or other means available) Maui-DAGS of the problem and provide an estimated completion date.
- 5. Once a week the CONTRACTOR shall report (via fax, phone, email or other means available) on all outstanding trouble calls and the CONTRACTOR's estimated completion date and/or action pending.
- Maui-DAGS shall inform school and/or office of pending actions, via fax, phone, email, or other means available.
- 7. Unauthorized extra work performed on a trouble call may not be compensated, as determined by the CA.

The CONTRACTOR shall be responsible for all costs of responding to the trouble calls regardless of the reason(s) for the call.

#### IV. PARTS AND MATERIALS

The CONTRACTOR shall restore to serviceability all parts that are found to cost less to restore than to replace with a new part. Where parts are worn out and cannot be restored, the CONTRACTOR shall replace these parts with new parts. Only new, standard parts manufactured by the maker of each unit or parts of equal quality shall be used.

For repair work to AC units as listed in Exhibit B, the STATE shall compensate the CONTRACTOR for replaced mechanical part or component and the connected accessories at supplier's invoice price plus a mark-up not exceeding twenty percent (20%), which shall include cost of material, shipping costs if applicable, overhead, profit, taxes and any other incidental expenses, and the CONTRACTOR shall be responsible for all labor and other costs. A cost proposal with an estimate of the replaced mechanical parts or components and the connected accessories plus a mark-up not exceeding twenty percent (20%) shall be submitted to CA for approval for the repair work. Please see SPECIAL CONDITIONS, Invoicing and Payment sections for further instructions regarding invoicing and payment.

The CONTRACTOR shall maintain a supply of spare parts, refrigerant, and materials that are required for normal repairs and maintenance to air conditioning and heat-ventilating equipment. The CONTRACTOR shall notify the STATE whenever parts are not locally available to accomplish

the repairs. The STATE reserves the right to request that the parts be shipped by air freight at the expense of the STATE and cost shall not include CONTRACTOR mark-up.

Should the CONTRACTOR elect to purchase parts from the mainland at reduced prices, <u>even</u> though the part is available locally, the STATE reserves the right to <u>require</u> the CONTRACTOR to air express (<u>next day delivery</u>) the parts at the CONTRACTOR's expense.

The CONTRACTOR shall include all costs necessary to maintain a supply of refrigerant (virgin or equal quality) for the life of the contract and shall maintain a record of refrigerant usage for each location and comply with all government regulations and shall support and protect the STATE with regard to these regulations. Recovery or storage of refrigerant shall be included at no additional cost to the STATE.

The CONTRACTOR shall include all costs necessary to maintain a supply of refrigerant (virgin or equal quality) for the life of the contract and shall maintain a record of refrigerant usage for each location and comply with all government regulations, and shall indemnify and defend the STATE from all legal and financial liabilities with regard to these regulations. Recovery or storage of refrigerant shall be included at no additional cost to the STATE. **Topping off, refilling and/or recharging refrigerant for maintenance and repair work shall be included in the bid price.** 

#### V. STANDARD HOURS OF COVERAGE

All scheduled maintenance tasks shall be performed between the hours of 7:30 A.M. and 4:00 P.M., Monday through Friday, excluding State holidays.

#### VI. WARRANTY

The CONTRACTOR shall submit a written warranty for replacement of any integral part of equipment listed herein, including but not limited to, compressors, fan motors, as guaranteed by the factory.

The warranty shall consist of the period covered from date of installation, make, model number, serial number, name of school, and location of equipment (including but not limited to the library, band room, office,) and shall be provided to the STATE.

There will be some air conditioning units that are covered by manufacturer's and installer's warranties and/or initial maintenance service agreement. The expiration dates of these units will be provided by the STATE. As the warranties and/or agreements expire, the CONTRACTOR shall commence service on these units and shall continue to service them for the remaining period of the contract. The CONTRACTOR cannot refuse to accept the additional and/or replace equipment. Any increase in the contract price for these units shall be negotiated between the CONTRACTOR and the STATE and shall become binding only upon issuance of contract modification by the STATE.

#### VII. EMERGENCY SERVICE AND AUTHORIZED EXTRA WORK

#### **Emergency Service**

Emergency service required between regular maintenance calls shall be rendered within three (3) hours after the CONTRACTOR is notified provided that notification is received by 1:00 P.M. on a work day. If notification is received after 1:00 P.M., the CONTRACTOR shall respond to the emergency by the beginning of the following work day.

The CONTRACTOR shall respond to <u>MAJOR</u> emergencies as soon as possible regardless of the time of day. Major emergencies include broken refrigerant lines, broken chilled water lines, blown compressors, burned motors, etc. **All repairs shall be provided at no additional charge to the** 

**STATE**. The CONTRACTOR shall provide copies of the past maintenance history and cost upon request by the CA. As repair jobs are completed, the CONTRACTOR must notify the CA <u>daily</u>, and not longer than weekly, of the status of repairs and estimated completion time.

The STATE reserves the right to have maintenance or repair tasks to be performed on the weekends or after normal operating hours. Whenever the STATE exercises this right, compensation to the CONTRACTOR shall be based on one and one-half (1 1/2) the hourly rate provided by CONTRACTOR, on the appropriate offer pages, for its employees which includes applicable fringe benefits, mileage, travel, and tax costs. The CONTRACTOR shall be responsible for all other costs as if the work was performed during normal working hours.

#### **Authorized Extra Work**

Repairs due to unforeseen events or authorized extra work are chargeable. For as-needed or unforeseen repairs authorized by the CA, the STATE shall compensate the CONTRACTOR for replaced mechanical parts, units or components and the connected accessories at supplier's invoice price plus a mark-up not exceeding twenty percent (20%), which shall include the cost of material, shipping cost if applicable, overhead, profit, taxes and any other incidental expenses. Compensation for labor shall be in accordance with the CONTRACTOR'S hourly labor rate price.

When "chargeable" emergency services are necessary, including CA ordered trouble shooting, the CONTRACTOR shall promptly provide the CA within twenty-four (24) hours of the notification of the repair trouble call, with an estimated cost and shall receive advance approval from the CA prior to performing any such work over three (3) hours labor or \$500.00 total cost.

When authorized extra work are necessary, including CA ordered trouble shooting for Heat Abatement Ductless Split AC Units, the CONTRACTOR shall provide the CA within three (3) working days of the notification of the repair trouble call, with an estimated cost and shall receive advance approval from the CA prior to performing any such work over three (3) hours labor or \$500.00 total cost.

A written quotation shall follow within forty-eight (48) hours of any "chargeable" services performed, containing the following minimum information:

- a. Description and breakdown of material, parts and labor costs;
- b. Extra costs such as airfreight; and
- c. Completion date.

CONTRACTOR shall bill such "chargeable" services or authorized extra work, including CA ordered trouble shooting and repairs for Heat Abatement Ductless Split AC Units, separately from the contract price. Unless the CONTRACTOR is given a separate purchase order authorizing the CONTRACTOR to make such repairs, the STATE shall not be held responsible for payment of any such work performed by the CONTRACTOR.

#### VIII. SPECIAL REPORTS

Prior to commencement with the work on the contract, the CONTRACTOR shall submit to the CA the CONTRACTOR's monthly inspection schedule for the period of the contract.

The CONTRACTOR shall also maintain a separate book, record, documents, and other evidence pertaining to the maintenance, repair, and costs for each air conditioning system at the various schools to the extent and in such detail as will properly and adequately reflect the past maintenance history and cost (labor, materials, parts, and equipment).

#### IX. MAINTENANCE CHECKLIST

The CONTRACTOR shall prepare and maintain a maintenance checklist and/or log book and post a checklist and/or log book on each unit as described herein. The checklist and/or log book shall include the date maintenance was performed, the name of mechanic who performed said maintenance, and the type of repair work performed on the unit, if any. It will be the CONTRACTOR's responsibility to maintain the checklist and/or log book by recording the above data after each scheduled maintenance and emergency repairs, and have the checklist and/or log book available for inspection at the school and/or public building sites.

#### X. CLEANUP AND WORK PRACTICES

The CONTRACTOR shall keep the job site free of debris, including but not limited to, litter, refuse, worn and/or damaged, discarded parts, and shall clean and remove all fluids, oil, grease drippings or spills during the daily progress of work. The CONTRACTOR shall remove all tools, used parts, fluids and lubricants, and equipment from the service area upon completion of the work. CONTRACTOR shall also legally dispose of used parts, fluids, oils and lubricants, whether hazardous or not, in accordance with the Environmental Protection Agency (EPA) and/or other government regulations including providing written records, as required. The CONTRACTOR shall support and protect the STATE legally and financially with regard to these regulations.

CONTRACTOR shall exercise caution during the progress of maintenance and repair work to prevent damage to any of the building utilities and structure. The CONTRACTOR shall immediately restore and correct all damaged equipment and property caused by the CONTRACTOR's negligence, by CONTRACTOR's employees or equipment, at the CONTRACTOR's own expense when or as requested by the STATE and to the CA's satisfaction. If such repairs are not completed immediately, the CA reserves the right to purchase, in the open market, a corresponding quantity of the services specified herein, and to deduct from any moneys due or that may thereafter become due to the CONTRACTOR, the difference between the price named in the contract and the actual cost to the STATE. In case any money due the CONTRACTOR is insufficient for said purpose, the CONTRACTOR shall pay the difference upon demand from the STATE. The STATE may also utilize all other remedies provided by law.

#### XI. WORK SCHEDULE

The CONTRACTOR shall perform total coverage maintenance and repair services to air conditioning and heat-ventilating systems in the various schools and other public buildings as listed herein, including any other equipment not listed but which are permanently part of the existing systems and not newly installed, all in accordance with the best commercial practices and as required to provide assurance of safety and operational reliability.

Within seven (7) days after the award of this contract, the CONTRACTOR shall submit in writing to the CA, a proposed schedule of inspection, preventative maintenance, a maintenance checklist, and a maintenance record system, all in sufficient detail to show its adequacy in carrying out the terms of this contract.

CONTRACTOR shall include forms and checklists to be used by the CONTRACTOR's maintenance personnel in the performance of the contract requirements for approval by the STATE. The STATE reserves the right to provide the CONTRACTOR with preprinted maintenance worksheets to be completed by the CONTRACTOR.

All maintenance tasks described herein shall be performed between the hours of 7:30 A.M. to 4:00 P.M. on normal working days, Monday through Friday, excluding state holidays.

A. Monthly maintenance procedures shall be performed in the last week of the month, normal working days (Monday through Friday) or as coordinated by Maui-DAGS. Monthly service

reports shall be certified by CA. Monthly service shall be performed <u>not less than</u> **three (3) weeks** or more than **five (5) weeks** from the last service period.

- B. Quarterly maintenance procedures shall be performed in March, June, September, and December on normal working days (Monday through Friday) or as coordinated by Maui-DAGS. Quarterly service reports shall be certified by CA.
- C. Semi-Annual maintenance procedures shall be performed in April and October on normal working days (Monday through Friday) or as coordinated by Maui-DAGS. Semi-Annual service reports shall be certified by CA.
- D. Annual maintenance procedures shall be performed in the month of July on normal working days (Monday through Friday) or as coordinated by Maui-DAGS. Annual service reports shall be certified by CA.

The CONTRACTOR is required to schedule the work to accommodate business and classroom times to prevent disruption and/or may be required to return at a more appropriate time all at no additional cost to the STATE, but work must be performed and not missed.

All work performed by the CONTRACTOR shall be subject to random periodic inspection and testing by the CA or the CA's representative. The STATE reserves the right to have the CONTRACTOR present at such inspections to be scheduled by the STATE periodically.

All CONTRACTOR service reports, whether regular maintenance, trouble call, emergency or authorized extra work, shall be filled out <u>properly and completely at the time of service</u> and shall include: day and date, time start, time complete, service performed, materials used and costs, control number, service person, and shall be <u>certified</u> (signed) by a representative of the school or state building.

FALSIFICATION OF RECORDS SHALL CONSTITUTE A BREACH OF THIS CONTRACT.

#### XII. INSPECTION

All work done and all materials furnished shall be subject to random periodic inspection and approval by the CA so as to ascertain that the services rendered are in accordance with requirements and intentions of the Specifications, the Special Conditions, and the General Conditions. The CA may require additional information as necessary to maintain a record of the service rendered, and also request that the CONTRACTOR accompany the CA on field inspection to be scheduled periodically.

The CONTRACTOR shall furnish the CA three (3) copies of a service check receipt for each unit serviced and a service check list bearing the signature of the maintenance personnel performing the services and the designated state employee certifying receipt of services. Services which cannot be certified by a representative of the school or state building may not be compensated.

The CONTRACTOR shall be responsible to inspect any newly installed equipment in the Maui District prior to the acceptance of those equipment by STATE and included in the maintenance schedule.

#### XIII. SAFETY PRECAUTIONS

Whenever maintenance and repair work is performed during school hours when the site is accessible to school children and other people, the CONTRACTOR shall not perform work until all safety-type barricades are in place. The CONTRACTOR shall not perform maintenance and repair work until all switches are de-energized, locked, and tagged. All services, equipment and/or parts to be provided by the CONTRACTOR shall comply with all applicable federal, state

and city and county safety requirements, especially the provisions of the Occupational Safety and Health Act (OSHA), EPA, and other governmental agencies.

CONTRACTOR shall submit copies of Material Safety Data Sheets (MSDS) to the Maui-DAGS prior to taking any chemicals to the schools for maintenance purposes. CONTRACTOR shall submit the CONTRACTOR's policy statement regarding venting, recovery, recycling, and replacement of chlorofluorocarbon (CFC) and hydrochlorofluorocarbons (HCFC) refrigerants for Maui-DAGS review and approval. CONTRACTOR shall track refrigerants used on site including current inventory, equipment leaks, and leakage rates and shall submit report to Maui-DAGS on a semi-annual basis.

#### XIV. SECURITY REQUIREMENTS

The CONTRACTOR must be aware of the heightened security conditions at all state facilities covered by this contract. The CONTRACTOR is requested to be aware of any suspicious activity or obvious breach of security in relation to or during the course of the CONTRACTOR's work at any of the state facilities; this shall be reported to the CA with as much detailed information as possible. The CONTRACTOR must keep the work areas closed and secure before, during and after performing services. Any doors and/or gates left open and unsecured may be liable for security breaches and be charged at one hundred dollars (\$100.00) per incident per day, per location.

The CONTRACTOR shall be required to schedule and coordinate maintenance service, emergencies, or repair work at state facilities in advance before work can commence. A letter from the STATE to the respective facility(ies) may be required. Upon award of the contract and prior to the start of the work, the CONTRACTOR shall be required to submit to the STATE a background security check for each personnel assigned to this contract. Any employees found to have a history of sexual abuse, drug abuse, or felony conviction shall not be allowed on school premises or perform the work under this contract.

The CONTRACTOR's vehicles and personnel shall be properly identified via use of company signage and/or logos, uniforms, name tags or identification cards. The CONTRACTOR shall be required to sign in at the main office when entering state property and shall also be required to check out after work has been completed.

## SPECIFICATIONS PART B - Water Treatment of Air Conditioning Systems

CONTRACTOR shall provide all necessary equipment, chemicals, and services required to control corrosion, scale, and biological growth in the cooling tower, condenser water, and chilled water systems located at various school and state building sites as listed herein.

A one chemical-combined type-system is NOT allowed. Two or more chemical type system - such as a biocide and scale and/or corrosion inhibitor-is required and shall be provided by the Water Treatment Contractor (WTC).

Water Treatment service shall be performed in accordance with, but not be limited to, the Water Treatment Service Specifications of this solicitation as a minimum.

#### **GENERAL**

- 1. Offeror may subcontract for the services of a WTC who shall provide water treatment services which shall include furnishing of all necessary equipment, chemicals, and services required to control corrosion, scale, and biological growth in the following systems:
  - a. cooling towers, evaporative condensers;
  - b. condenser water (open or closed loop), and
  - c. chilled water.

The work shall be in accordance with the Specifications, Special Conditions, and the General Conditions specified herein; using qualified personnel with a minimum of three (3) years of field experience in maintaining an air conditioning water treatment program. These services may be subcontracted to a WTC.

- 2. A minimum of 10% of the estimated annual usage of chemicals specified herein must be delivered to the service sites within one week of the start date of this contract. Each package of chemicals delivered shall be labeled with directions for usage per the approved dosage for each chemical.
- 3. The treatment supplied by the WTC shall be one that has been especially designed and tailor-made for the water being used in each system.
- 4. The WTC shall warrant that the chemicals used in the water treatment program and offered herein will not: endanger the health or safety of persons coming into contact with the materials, damage personal or real property, have a detrimental effect on the metallic or non-metallic materials in the equipment being treated; as long as the WTC instructions are followed.
- 5. The chemical containers and equipment shall be located within a leak containment system. The WTC shall have and provide an absorbent and/or clean-up system and/or program that shall be available at each site, and be submitted and approved by the STATE prior to start date of this contract (<u>if none</u> is currently provided).
- 6. All material and equipment that is found to be missing shall be provided by the WTC at each site as required for the execution of this work and shall become the property of the STATE. Therefore, any costs for the materials and equipment used must be included in the bid price as submitted. The WTC shall submit an updated list of all equipment and parts included in the Water Treatment system to the STATE once a year at the end of the contract period, including name, model number, serial number, description, et cetera.
- 7. The WTC shall provide any and all testing (example; Legionella, et cetera) as may be required to safeguard and protect the STATE should suspect conditions, allegations, or complaints be

experienced or as requested at no additional cost to the STATE.

#### MINIMUM REQUIREMENTS OF THE TREATMENT PROGRAM

#### Scale and Corrosion Control

- Scale and corrosion shall be inhibited by the controlled use of scale and corrosion prevention materials as herein noted.
  - 1) The use of essentially toxic and staining corrosion inhibitors such as chromate will not be permitted. The chilled water system is a closed system and can use nitrite solutions.
  - 2) The use of inhibitors such as the organic phosphorous type shall be used for steel.
  - 3) The use of inhibitors such as azole type shall be used for copper.
  - 4) The WTC selected corrosion inhibitors shall have been proven effective by at least two (2) years usage in the State of Hawaii.
  - 5) The WTC selected scale inhibitors shall have been proven effective by at least two (2) years usage in the State of Hawaii.
  - 6) Poly-phosphates are not considered effective corrosion inhibitors and shall not be permitted.
- b. An automatic feed system is generally installed at the service site for the WTC's use; however, the WTC must verify this information and shall furnish and install in whole or part that which is missing from the system as currently installed at the site.
  - The system shall include a completely automatic proportional pump(s) feed and the bleedoff shall be in direct proportion to equipment load indicated by the makeup water (condenser water).
  - 2) Control shall be by means of a solid state conductivity meter, controller, and a flow through probe sensor (condenser water).
  - 3) The controller is to be programmed to bleed-off the system and to regulate a preset (adjustable) solution inhibitor feed pump (condenser water).
  - 4) A biocide timer to regulate a preset (adjustable) solution biocide feed pump (condenser water).
  - 5) Closed system valved bypass Pot feeder (chilled water). Note: Not all sites have Pot feeder, nor is the CONTRACTOR required to supply it for the contract. WTC shall use their own injection pump to install chemicals when required and/or requested to maintain residual.
- c. The water treatment must constantly prevent the build-up of adherent mineral deposits on the heat transfer surfaces of the equipment being treated. Periodic circulation of inhibited descaling acids and/or alkaline will not be considered as meeting these specifications.
- d. Certified corrosion test coupon rack kit with test coupons to establish corrosion rates in the condenser water system may not be currently installed at all service sites; therefore, the WTC shall install a test system at each missing site immediately at the start of the contract. Test system shall include strainer, isolation and Dole valves, piping kit, and test coupons all wall mounted adjacent to the controller, pumps, et cetera on a removable, painted all sides, 3/4

inches thick marine plywood backboard. Corrosion rates shall be less than two (2) mils per year for copper and four (4) mils per year for steel - both with no pitting. Corrosion analysis, necessary adjustments, and reports to the STATE shall be done quarterly in September, December, March, and June. Reports shall qualify the type of corrosion occurring- general, localized, or pitting; and quantify (in mils) the maximum localized or pit depth and general corrosion loss rate.

#### 2. Biological Growth Control

- a. Bacteria, algae, and slime growths shall be prevented in all water circuits by using suitable biocides. Total colonies shall not exceed 10,000 using 48 hour incubation dip slides of the easicult variety.
- b. Chemicals may be fed into water circuits requiring continuous make-up by automatic proportional feeding devices or by adding directly to the tower sump as required. Chemicals shall be slug fed into the system on a regular basis and not added continuously.
- c. Stabilized bromine oxidizing biocides shall be used, but shall not include metallic salts, such as tin. A sufficient halogen residual shall be maintained to prevent Legionella. Quatemaries may be used, but **only** with oxidizing biocides.

#### 3. Chemicals

- a. All chemicals shall be supplied in their original factory containers and no dilution of chemicals is allowed. Handling of chemicals shall be by the WTC and shall include specific application information, safety, and quality control information, including MSDS sheets.
- b. The chemicals provided must meet OSHA, EPA, Office of Environmental Quality Control (OEQC), and ISO-9000 requirements for safety to personnel and the environment, and must be approved by the STATE.
- c. All chemicals supplied shall have been registered and in satisfactory use in Hawaii for at least two (2) years. Offeror may be required to provide evidence of satisfactory performance of the chemicals offered. The STATE shall be the sole judge of such satisfaction and the STATE's decision shall be final.
- d. Chemicals other than those presently being used in the water treatment program, hereinafter referred as "new chemicals," shall be compatible with the existing chemicals, scale, and corrosion inhibitor and broad spectrum bacteriostat.
  - 1) Verification by an independent testing laboratory for the compatibility of the new chemicals shall be submitted upon award and <u>prior to commencement of work</u>.
  - 2) This verification is required for <u>all</u> chemicals not presently being used in the treatment program.
  - 3) Should the new chemicals be determined to be incompatible with the chemicals presently in use, the WTC shall be responsible for flushing the system to remove all chemicals before the new chemicals are introduced into the system. Any damages to the system resulting from the failure of the WTC to satisfactorily flush the system shall be repaired by the WTC at their own expense and at no cost to the STATE.
- e. The STATE will require the WTC to use the STATE's existing on-site stock of chemicals before purchasing additional chemicals. <u>If the existing chemicals are not compatible with the new chemicals</u>, they shall be legally disposed of by the WTC within the first two months of the contract and at no cost to the STATE. All other on-site aged, unused or stored chemicals must

also be legally disposed of by the WTC within the first two months of the contract and at no cost to the STATE.

#### SERVICE REQUIREMENTS

- 1. Upon award of the contract, the representative designated in the bid by the WTC shall visit the service sites to make an initial detailed chilled, condenser, and raw water analysis to establish the prescribed treatment program respectively.
  - a. The initial service call shall include establishment of treatment dosages, bleed schedules, and interval to replenish chemicals for automatic feed systems.
  - b. The WTC shall submit a report on the results of the initial water analysis and the prescribed water treatment program for each site including findings and recommendations. These reports shall be submitted within three (3) calendar days following the service call to the STATE.
  - c. The WTC shall also submit supplemental monthly, semi-annual and other supplemental reports as required and shall initiate and document any changes required in the initial prescribed water treatment program to the STATE.
- 2. The designated representative of the WTC shall make service calls and water analysis and/or testing at intervals of a maximum of thirty (30) calendar days for condenser water and one hundred eighty (180) calendar days for chilled water, or sooner if required or notified of concern. WTC shall notify Maui-DAGS prior to conducting the service and upon completion of the service and/or testing.
  - a. The representative shall make initial application of each material and shall continuously furnish specific treatment of the water as required.
  - b. The representative shall also investigate any unusual conditions pertaining to scale deposition as indicated by condenser operating data, corrosion, and algae growths, and implement corrective action, as required.
  - c. The WTC shall submit the results of the water analysis and the prescribed water treatment including findings and recommendations and service requirements performed in a report. This report shall be submitted within three (3) calendar days following the service call.
- 3. The WTC shall be totally responsible for a continuous water treatment program.
  - a. The WTC shall be available on-site during the performance of the cooling tower and condenser tube cleaning services and coordinate the inspection with the CONTRACTOR and the STATE. Only one (1) chiller per site can be down at any time.
  - b. The WTC shall coordinate with other air conditioning maintenance contractors maintaining a common building system to accomplish a total air conditioning system maintenance program.
  - c. The WTC shall be totally responsible for the Water Treatment equipment and shall keep it functioning at its optimum through proper maintenance, repair, alter, and replacement of equipment as required including piping and electrical.
- 4. Cooling Tower, Evaporative Condenser, and Condenser Water (open loop) Chemical Feed System shall be serviced monthly as follows:
  - a. Check chemical feed pumps for proper operation and/or adjust if needed.
  - b. Check condition of chemical drums and containment system for leaks and repair and/or replace and refill as required.

- c. Check operations of automatic chemical controller system, sensor and piping for proper operation. Check for leaks and repair.
- d. Calibrate chemical feed as required by water analysis from test results. Indicate amount of each chemical used at each site and remaining amount.
- Log water meter readings for makeup and bleed at sites where available. Remove empty chemical containers and clean area.
- f. Certify that system has received monthly services and report all discrepancies, adjustments, repairs or corrections performed to the STATE.
- Chilled Water and Condenser Water (closed loop) Chemical Feed System shall be serviced semiannually in April and October as follows:
  - a. Check chemical concentration and add chemicals as needed to keep the residual concentration at or above 800 PPM. Should recharging be required, it shall be performed within one week from discovery or notification.
- 6. The WTC shall maintain a "service log" at each chiller room for recording the following information for each visit, also include in submitted regular service reports and recheck service reports:
  - a. Name of service representative and date of service.
  - b. Items serviced, adjusted, repaired, etc.
  - c. Record set points and recommended ranges including (make-up and bleed water meter readings at locations where available) and quantities of each chemical used and remaining.
  - d. Record and analyze readings of <u>raw and systems water samples</u> to include but not be limited to: **pH**, **conductivity (micro-mho)**, **silica**, **alkalinity**, **calcium hardness**, **magnesium**, **chlorides**, **bio-organism counts**, **halogen levels and nitrite residuals**.
- 7. All work done and all material furnished shall be subject to inspection and approval of the CA so as to ascertain that the services rendered are in accordance with the requirements and intentions of the Specifications, Special Conditions, and the General Conditions.

	EXHIB	T A
	OFFEROR INF	ORMATION
	or shall provide the Exhibit A, including attachm STATE's request.	ents if applicable, within three (3) working days
Α.	EXPERIENCE	
		minimum of five (5) consecutive years' experience in anditioning and ventilation equipment on the island of
	Offeror has a minimum five (5) years of experience	☐ Yes
	OFFEROR	
В.	LICENSE	
	of Hawaii Contractor C-52 license to provid Heat-Ventilating Equipment on file with and Consumer Affairs. CONTRACTOR's license Contract and for any extension(s) that may	ontract period, Offeror shall have a current valid State e Maintenance and Repairs for Air Conditioning and for as issued by the Department of Commerce and e must be kept in force during the duration of this be agreed upon. Offeror shall provide all necessary o substantiate compliance with this requirement.
	C-52 License Number	
	Copy of License attached	☐ Yes
C.	OFFICE LOCATION	
	island of Maui from where business is cond	ontract period, Offeror shall have an office on the ucted and from where the company is accessible to hat need immediate attention. An answering service
	Office Location Address	
	Telephone Number	
	Cell Number	

Offeror:

D.	SERVICE FACILITY LOCATION	
	At the time of bidding and throughout the contra island of Maui from where business is conducted	act period, Offeror shall have a service facility on the d.
	Offeror shall be capable of providing Maintenan Ventilating Equipment for the STATE. Therefore period, Offeror shall maintain a Maui-based facithird party.	
	The STATE reserves the right to inspect and ev facility of Offeror's chosen third-party service prequirement.	valuate the Offeror's service facility or the service ovider to determine acceptability under this
	Facility Location Address	
	Telephone Number	
	Cell Number	
E.	PERSONNEL	
	At time of bidding and throughout the contract pemployee as the STATE point of contact (POC) in Hawaii and available during regular business Time (HST), Monday through Friday excluding hquestions, resolving problems, and providing sa	for this contract. This individual shall be based hours, 7:45 a.m. to 4:30 p.m. Hawaii Standard olidays, and shall be capable of answering
	POC Name	
	Telephone Number	
	Cell Number	
	Fax Number	
	Email Address	
F.	PERSONNEL SKILL AND QUALIFICATIONS Offeror shall have at least two (2) journeyman a	refrigeration mechanics employed on a full-time
	basis.	emgeration mechanics employed on a full-time

Offeror:

	Offeror:	
	minimum of five (5) consecutive years, immed	shall be journeyman refrigeration mechanics with a liately prior to the bid opening date, of equipment similar to the equipment listed herein
	Journeyman Mechanic's Name:	
	Number of years of experience:	
	Journeyman Mechanic's Name:	
	Number of years of experience:	
Offer sh	nall provide subcontractor(s), if any, for this solici	tation:
G.	WATER TREATMENT PERSONNEL	
		r Treatment of Air Conditioning Systems; however, nnel and/or company with a minimum of three (3) conditioning water treatment program.
	Subcontractor Name:	
	Address:	
	Contact Person:	
	Phone Number:	
	Subcontractor's License Number:	
	Number of years of field experience in maintaining an air conditioning water treatment program:	

Offeror:		
		•

## H. REFERENCES

Offeror shall provide the names of at least three (3) companies or government agencies other than the Hawaii State Department of Education, with whom Offeror was or is providing Maintenance and Repairs for Air Conditioning and Heat-Ventilating Equipment and who can attest to the reliability of all aspects of Offeror's service and personnel. The STATE reserves the right to contact these references to verify Offeror's quality level and reliability.

	<u>Name</u>	<u>Address</u>	<u>Contact</u>	<u>Telephone</u>
1				
0				
2				
3				

GROU	P I: SCHOOLS					
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
1	Baldwin High School					
	Bldg A	ACCU-1,2,3	Carrier	38HDR060520		3
	Bldg A	FCU-1,2,3	Carrier	38HDR060520		3
	Bldg A	ACCU-4,5,6	Carrier	40QAX060311		3
	Bldg A	FCU 4,5,6	Carrier	40QAX060311		3
	Bldg G (cafeteria)	Air Curtains				10
	Bldg H (Band Bldg) H-1	ACCU	YORK	B2A1BAA2A1		1
	Bldg H (Band Bldg) H-2	ACCU	YORK	PCE5A2422		1
	Bldg J (Old Library)	Mitsubishi Ductless Unit				1
	Bldg N (New Library)	Petra-Chiller	Petra	RWCC 50	50284/0101/01	1
	Bldg N (New Library)	Petra-AHU-1	Petra	PAHHC120	50284 /0201/01	1
	Bldg N (New Library)	Petra-FCU-1	Petra	CM15C6	50284/0301/01	1
	Bldg N (New Library)	Petra-2 FCU	Petra	CM20CB	50284/040101	1
	Bldg N (New Library)	Petra- OACC-1	Petra	RAC2CBPC3	N/A	1
	Bldg N (New Library)	Petra- OACC-2	Petra	RAC2CBPCA	50284/0701/02	1
	Bldg N (New Library)	Baldor-Chill water pump mtr motor #1	Baldor	EM3615T	F1004221169	1
	Bldg N (New Library)	Baldor-Chill water pump #2	Baldor	EM3615T	F1004221209	1
	Bldg R (Lecture Center)	Carrier Condenser	Carrier	38AE014600	N-494705	1
	Bldg R (Lecture Center)	Carrier Condenser	Carrier	38AE014600	R-596406	1
	Bldg R (Lecture Center)	Evaporator		39ED10	0784T-17730	1
	Bldg R (Lecture Center)	Evaporator		390000000	0585T-28051	1

	SCHEDULE OF AIR CONDITIONING AND VENTILATING EQUIPMENT						
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity	
	Bldg R	R-1 ACCU	CARRIER		50HC-E11	1	
	Blug K	R-1 ACCO	CARRIER		JUHC-ETT		
	Bldg R	R-2 ACCU	CARRIER		50HC-E08	1	
	P-15 (Portable Classroom) A/B	FCU	MITSUBISHI	PLFY-3P24NEMU-E		2	
	P-15 (Portable Classroom)	ACCU-P15A	ACCU	MITSUBISHI	POMY-P48NKMU1-BS	1	
	P-15 (Portable Classroom)	P-15 BOOSTER	OUTSIDE B FAN	FAN TECH	GF-6M-EC	1	
2	Hana High School						
	Library Conference Room	Trane	Trane	4Tcc3048-1000	N/A	1	
	Library Main	Carrier FCU	Carrier	40ruaa25a4a6	1512u13697	1	
	Library Main	Carrier Condenser	Carrier	38apd0256j-22020	2512q45421	1	
	Band Room	York	York	nc090c00c6aaa2a	n1f3849786	1	
	Bldg B	Outdoor Unit	Mitsubishi			1	
3	lao Intermediate School						
	Bldg H (Band Bldg)	Carrier Package Unit	Carrier	50BD016630	10692002	1	
	Bldg J	Air Curtains				1	
	Bldg J (Multi-Media Room)	PCU-1 Liebert		BU036E-AAEO	529189-001	1	
	Bldg J (Cafeteria, Library, Administration, Classrooms)	Evapco Cooling Tower #1	Evapco	L5TA5123	W027018	1	
	Bldg J (Cafeteria, Library, Administration, Classrooms)	Evapco Cooling Tower #2	Evapco	L5TA5123	W017017	1	
	Bldg J (Cafeteria, Library, Administration, Classrooms)	Trane Chiller #1	Trane	RTI- IC1B1F0H0B1L2B1LFVQU00	U02K06958	1	
	Bldg J (Cafeteria, Library, Administration, Classrooms)	Trane Chiller #2	Trane	RTI- IC1B1F0H0B1L2B1LFVQU00	U02K06957	1	
	Bldg J (Cafeteria, Library, Administration, Classrooms)	Aurora Cold Water Pump #1	Aurora	344A8F	02-522248-1	1	

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School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
Bldg J (Cafeteria, Library, Administration, Classrooms)	Cold Water Pump Motor #1		AS93	D15P2B	1
Bldg J (Cafeteria, Library, Administration, Classrooms)	Aurora Cold Water Pump #2	Aurora	344A8F	02-522248-2	1
Bldg J (Cafeteria, Library, Administration, Classrooms)	Cold Water Pump Motor #2		AS93	D15P2B	1
Bldg J (Cafeteria, Library, Administration, Classrooms)	Aurora Chill Water Pump #1	Aurora	344A	(Not Available)	1
Bldg J (Cafeteria, Library, Administration, Classrooms)	US Electric Cold Water Pump #1 Motor		R345	D10P2B	1
Bldg J (Cafeteria, Library, Administration, Classrooms)	Aurora Chill Water Pump #2	Aurora	344A	(Not Available)	1
Bldg J (Cafeteria, Library, Administration, Classrooms)	US Electric Chill Water Pump #2 Motor		R345	D10P2B	1
Bldg J (Cafeteria, Library, Administration, Classrooms)	Aurora Chill Water Pump #3	Aurora	344A	(Not Available)	1
Bldg J (Cafeteria, Library, Administration, Classrooms)	US Electric Chill Water Pump #3 Motor		J364	P2562B	1
Bldg J (Cafeteria, Library, Administration, Classrooms)	Aurora Chill Water Pump #4	Aurora	344A	(Not Available)	1
Bldg J (Cafeteria, Library, Administration, Classrooms)	US Electric Chill Water Pump #4 Motor		J364	P2562B	1
Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #1 Trane Fan Module	Trane	МССВ	K02D59624	1
Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #1 Trane Coil Module	Trane	(Not Available)	(Not Available)	1
Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #1 Trane Filter Module	Trane	(Not Available)	(Not Available)	1
Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #2 Trane Fan Module	Trane	МССВ	K02D59629	1
Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #2 Trane Coil Module	Trane	(Not Available)	(Not Available)	1
Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #2 Trane Filter Module	Trane	(Not Available)	(Not Available)	1
Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #3 Trane Fan Module	Trane	MCCA-25#	K02D66354	1
Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #3 Trane Coil Module	Trane	(Not Available)	K02D66353	1
Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #3 Trane Filter Module	Trane	(Not Available)	(K02D66352)	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)  Bldg J (Cafeteria, Library, Administration, Classrooms)	School / Location  Bldg J (Cafeteria, Library, Administration, Classrooms)  AHU #1 Trane Fan Module  Bldg J (Cafeteria, Library, Administration, Classrooms)  AHU #2 Trane Fan Module  Bldg J (Cafeteria, Library, Administration, Classrooms)  AHU #2 Trane Fan Module  Bldg J (Cafeteria, Library, Administration, Classrooms)  AHU #3 Trane Fan Module  Bldg J (Cafeteria, Library, Administration, Classrooms)  Bldg J (Cafeteria, Library, Administration, Cl	School / Location Bldg J (Cafeteria, Library, Administration, Classrooms) AHU #1 Trane Fan Module Trane Bldg J (Cafeteria, Library, Administration, Classrooms) AHU #2 Trane Fan Module Trane Bldg J (Cafeteria, Library, Administration, Classrooms) Bldg J (	Bidg J (Cafeteria, Library, Administration, Classrooms) Bidg J (Cafeteria, Library, Administration, Classrooms) Bidg J (Cafeteria, Library, Administration, Classrooms) Cold Water Pump Motor #1 Aurora 2344A8F Bidg J (Cafeteria, Library, Administration, Classrooms) Cold Water Pump Motor #2 As93 Bidg J (Cafeteria, Library, Administration, Classrooms) Bidg J (Cafeteri	School / Location Unit Description Manufacturer Bidg J (Cafeteria, Library, Administration, Classrooms) AHU #1 Trane Fan Module Trane (Not Available) Trane (Not Available) Trane (Not Available) Trane (Not Available) Not Available) Bidg J (Cafeteria, Library, Administration, Classrooms) AHU #2 Trane Fan Module Trane (Not Available)

		JCHEDOLL OF AIR CONDI	T TENTILE	T T T T T T T T T T T T T T T T T T T	-	
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #4 Trane Fan Module	Trane	МССВ	K02D59640	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #4 Trane Coil Module	Trane	(Not Available)	K02D59639	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #4 Trane Filter Module	Trane	(Not Available)	K02D59638	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #5 Trane Fan Module	Trane	МССВ	K02D66375	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #5 Trane Coil Module	Trane	(Not Available)	K02D66374	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #5 Trane Filter Module	Trane	(Not Available)	K02D66373	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #6 Trane Fan Module	Trane	МССВ	K02D59663	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #6 Trane Coil Module	Trane	(Not Available)	K02D59662	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #6 Trane Filter Module	Trane	(Not Available)	K02D59661	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #7 Trane Fan Module	Trane	МССВ	K02D59674	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #7 Trane Coil Module	Trane	(Not Available)	(Not Available)	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #7 Trane Filter Module	Trane	(Not Available)	K02D59671	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #8 Trane Fan Module	Trane	МССВ	K02D59694	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #8 Trane Coil Module	Trane	(Not Available)	K02D59693	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #8 Trane Filter Module	Trane	(Not Available)	K02D59692	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	Acme EF-8 Exhaust Fan	Acme	XB300	02E054221	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	Acme SF-1 Supply Fan	Acme	XB300	02E054223	1
_	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #9 Trane Fan Module	Trane	МССВ	K02D59799	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #9 Trane Coil Module	Trane	(Not Available)	K02D59798	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #9 Trane Filter Module	Trane	(Not Available)	K02D59797	1

	SCHEDULE OF AIR CONDITIONING AND VENTILATING EQUIPMENT					
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #10 Trane Fan Module	Trane	MCCB	K02D60279	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #10 Trane Coil Module	Trane	(Not Available)	K02D60278	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	AHU #10 Trane Filter Module	Trane	(Not Available)	K02D60277	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	PACU-1 Challenger Liebert		BF042A-ASEI	(Not Available)	
	Bldg J (Cafeteria, Library, Administration, Classrooms)	CACC-1 Liebert		MCD 40	0233N67398	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	EF8 Acme Exhaust Fan	Acme	XB300	02E054221	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	EF22 Acme Exhaust Fan	Acme	PNU300RG	02E116809	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	EF23 Acme Exhaust Fan	Acme	PNU300RG	02E116811	1
	Bldg J (Cafeteria, Library, Administration, Classrooms)	SF1 Acme Supply Fan	Acme	XB300	02E054223	1
4	Kahului School					
	Modular #1	Packaged AC				1
	Modular #2	Packaged AC				1
	Modular #3	Packaged AC				1
	Modular #4	Packaged AC				1
	Modular #5	Packaged AC				1
	Modular #6	Packaged AC				1
	Modular #7	Packaged AC				1
	Modular #8	Packaged AC				1
	Modular #9	Packaged AC				1
	Modular #10	Packaged AC				1

Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Modular #11	Packaged AC				1
	Modular #18	Packaged AC				1
	E1	FCU	Mitsubishi	MSZ-GLZ4NA	6002077T	1
	E1	ACCU	Mitsubishi	MXZ-8C48NA	4YU00569A	1
	E2	FCU	Mitsubishi	MSZ-GLZ4NA	5007596T	1
	E2	ACCU	Mitsubishi	MXZ-8B48NA	4YU00569A	1
	P18	Packaged AC	Bard	2411N227830	N1124227830	1
	P 19	Packaged AC	Bard	WA4S3-A0ZVP4	382D143113351-02	1
	Bldg D	FCU1	LG	ARNU114BTE4	409KCWCA3409	1
	Bldg D	FCU 2,3,4,5,6,7,8,9	LG	ARNU153SEL2	various	8
	Bldg D	ACCU-1,2,3	LG	LSU240HSV3	various	3
	Bldg D	Exhaust Fans	Greenheck	SS1-080440-G	154SS492/154SS493	2
	Bldg G	FCU1,2,3,4	Johnson Controls	Y1C4030B21S	various	4
	Bldg G	CRAC-1	Johnson Controls	DCP12NWB21S	DIE1801350	1
	Bldg G	EF-1	GREENHECK	SQ-98-VG-7-X		1
	Bldg G	EF-ELEC	GREENHECK	SP-A7-10	15626312	1
	Bldg G	OAU 2-1	Johnson Controls	YD0A096B21S	C1D80064	1
	Bldg G	CU 1,2,3,4,5	Rahn	YVAHP072B32S	various	5
	Bldg G	CU 6	Rahn	DCP12CSB21S		1
5	Kalama Intermediate School					

		SCHEDULE OF AIR CONDITIONIN	TO THE VENTILE	THING EQUILIVIENT		
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Bldg C (Library)	AHU-1 Carrier Air Handler Unit, Fan Section Module	Carrier	39TH21-CHT-A	089F26350	1
	Diag & (Library)	AHU-1 Carrier Air Handler Unit, Coil	Carrier	0011121 0111 7	0001 20000	'
	Bldg C (Library)	Section Module	Carrier	39TS1B-15087-A	1198V51278	1
	Bldg C (Library)	AHU-2 Carrier Air Handler Unit, Fan Section Module	Carrier	39TS13K-X-G-A	0998V51233	1
	Bldg C (Library)	AHU-2 Carrier Air Handler	Carrier	39TH13KA-AJR-1	0698e23263	1
	Bldg C (Library)	Unit, Coil Section Module	Carrier	FB4ANBO7O	0898A13982	1
	Bldg C (Library)	FCU-3 Carrier Fan Coil Unit	Carrier	FB4ANFO3O	2097A22065	1
	Bldg C (Library)	FCU-3 Carrier Fan Coil Unit	Carrier	38AH-082-K61OAC	1198F31268	1
	Bldg C (Library)	ACCU-1 Carrier Air Cooled Condensing Unit	Carrier	38AKSO14-K610	1398F33259	1
	Bldg C (Library)	ACCU-1 Carrier Air Cooled Condensing Unit	Carrier	38CK060520	0998E14857	1
	Bldg C (Library)	ACCU-1 Carrier Air Cooled Condensing Unit	Carrier	38CK030500	5097E05345	1
	Bldg K (Music Bldg)	Carrier Centrifugal Air Cool Condenser	Carrier	39EH19	0186T37388	1
	Bldg K (Music Bldg)	Carrier Air Cool Vertical Air Handling Unit	Carrier	50BK024630	N695806	1
	Special Ed. Trailers 1	Bard Manufacturing Co.	Bard	WA241-A05	140F90841929-02	1
	Special Ed. Trailers 2	Bard Manufacturing Co.	Bard	WA241-A05	140A960974159-02	1
6	Kamalii Elementary School					
	Bldg A	ACCU A-1A	Carrier	39MN25W025XFC12XSE	0819P3388	2
	Bldg A	VAV A-1,2,3,4,5,7,8	Carrier	35ED-10		1
	Bldg A	VAV A-6,9,20	Carrier	35 ED-08		1
	Bldg A	VAV A-10,11,12,13,18,	Carrier	35 ED-06		1
	Bldg A	VAV A-14,15,17,19,21,26	Carrier	35 ED-05		1
	Bldg A	VAV A-16,22,23,24,25	Carrier	35 ED-04		1
	Bldg B	ACCU-2 Trane Air Cooled Condensing Uni	t Trane	RAUCC-40	J95L82818	1

		SCHEDOLL OF AIR CONDITIONIN				
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
		AHU-2 Trane Modular Climate Changer Air				
	Bldg B	Handler	Trane	MCAAH-35	K96A07863	1
	5.4.5	ACCU-1A Trane Air Cooled Condensing	_	TTD: 400	1/500 / 00D 5	
	Bldg B	Unit	Trane	TTR048C	K502106BF	1
	Bldg B	FCU-1A Trane Fan Coil Unit	Trane	TWE048C	K38876797	1
		ACCU-2A Trane Air Cooled Condensing				
	Bldg B	Unit	Trane	TTA072C	K495LE3FT	1
	Bldg B	FCU-2A Trane Fan Coil Unit	Trane	TWE060A	K492PU6514	1
		RCH-2A Warren Manufacturing Co.				
	Bldg B	Electric Duct Heater	Warren	СВК	(Not Available)	1
		ACCU-3A Trane Air Cooled Condensing				
	Bldg B	Unit	Trane	TTR060C	K464SJWCF	1
	Bldg B	FCU-3A Trane Fan Coil Unit	Trane	TWE060C	S/N K505TAA5H	1
	3	SF-1 Trane Modular Climate Changer Air				
	Bldg C (Cafeteria)	Handler (Supply Air Unit)	Trane	MCCA021	K96A04214	1
	Bldg D	ACCU-3 Trane Air Cooled Condensing Unit	Trane	RAUCC-40	J95L57816	1
		AHU-3 Trane Modular Climate Changer Air				
	Bldg D	Handler	Trane	MCAAH-35	K96A07851	1
	Bldg E	ACCU-4 Trane Air Cooled Condensing Unit	Trane	RAUCC-40	J95L82817	1
	3	AHU-4 Trane Modular Climate Changer Air				
	Bldg E	Handler	Trane	MCAAH-35	K96A08551	1
	Bldg F	ACCU-5 Trane Air Cooled Condensing Unit	Trane	RAUCC-50	J95L82819	1
	Bldg F	AHU-5 Trane Modular Climate Changer Air Handler	Trane	MCAAH-50	K96A08533	1
7	Kaunakakai Elementary School					
	Admin Bldg	Split system	MITSUBISHI	PUY-A24NHA7	13U26222B	1
	Library	Central Unit	Carrier	50XCA12AAMG5062870	1024U67947	1
	Trailer	Central Unit	Bard			1
		Certifal Offic	Daiu			
8	Kihei Elementary School					

tem	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Bldg A	FCU	MITSUBISHI	PLFYEP30NEMU-E	61A00895B	2
	Bldg A	ACCU	MITSUBISHI	PUMY-P36NKMU2	81U00868B	2
	Bldg A	FCU	MITSUBISHI	PLA-A24EA7	98A05309D	14
	Bldg A	ACCU	MITSUBISHI	PUY-A24NHA7	99U19817D	14
	Bldg B	B-101	MITSUBISHI	PCA-A24KA7	95M00249	1
	Bldg B	B-101	MITSUBISHI	PUY-A24NHA7	6XU00083A	1
	Bldg B	B-102	MITSUBISHI	PCA-A24KA7	8YM00163	1
	Bldg B	B-102	MITSUBISHI	PUY-A24NHA7	99U16933D	1
	Bldg B	B-103	MITSUBISHI	PCA-A24KA7	8YM00161	1
	Bldg B	B-103	MITSUBISHI	PUY-A24NHA7	99U16825D	1
	Bldg B	B-104	MITSUBISHI	PUY-A24NHA7	76M00226	1
	Bldg B	B-104	MITSUBISHI	PUY-A24NHA7	99U16885	1
	Bldg C (Cafeteria)	4 each Air Curtains, Exhaust Fans		36 CH	(Not Available)	4
	Bldg D	D-101 FCU	MITSUBISHI	PLA-A24EA7	8YA03659A	1
	Bldg D	D-101 ACCU	MITSUBISHI	PUY-A24NHA7	95U14042C	1
	Bldg D	D-102 FCU	MITSUBISHI	PLA-A24EA7	83A04382B	1
	Bldg D	D-102 ACCU	MITSUBISHI	PUY-A24NHA7	9YU18036A	1
	Bldg D	D-103 FCU	MITSUBISHI	PLA-A24EA7	8YA03657A	1
	Bldg D	D-103 ACCU	MITSUBISHI	PUY-A24NHA7	97U15304D	1
	Bldg D	D-104 FCU	MITSUBISHI	PLA-A24EA7	82A01488B	1

	1	SCHEDULE OF AIR CONDI	HONING AND VENTILA	TING EQUIPMENT			
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity	
	Bldg D	D-104 ACCU	MITSUBISHI	PUY-A24NHA7	85U03060C	1	
	Bldg E-E (Library)	Friedrich Condenser Unit	Friedrich	MR30C3E	1264	1	
	Bldg E-E (Library)	Friedrich Air Handler Unit	Friedrich	MR30C3E	1278	1	
	P-23 (Portable Classroom)	Panasonic Condenser Unit	Panasonic	C24BCB6	592202249	1	
	P-23 (Portable Classroom)	Panasonic Air Handler Unit	Panasonic	(Not Available)	(Not Available)	1	
	Bldg E	DX split units				8	
	Bldg F	DX split units				8	
9	King Kekaulike High School						
	Bldg A (Control Room)	MHI Evaporator Unit		FDE360HA1	(Not Available)	1	
	Bldg A (Control Room)	MHI Condensing Unit		FDC360HA1	83680088B	1	
	Bldg B (Library)	AHU Carrier	Carrier	39TH21BA-CT-LHS-1	0497F50020	1	
	Bldg B (Library)	AHU Carrier	Carrier	3976V07BA-B2-LH4-1	0597F51261	1	
	Bldg B (Library)	FCU Carrier	Carrier	FC4BNF060	4496A17360	1	
	Bldg B (Library)	ACCU Carrier	Carrier	38AH-028-600AC	5196F45859	1	
	Bldg B (Library)	ACCU Carrier	Carrier	38AK5008-601	4596G00025	1	
	Bldg B (Library)	ACCU Carrier	Carrier	38CKB060600	4296E18517	1	
	Bldg B (Library)	RHC Delta Flow		EH10N346970572		1	
	Bldg C (Cafeteria)	Carrier Supply Air Fan Units	Carrier	39LG18	various	2	
	Bldg H (Physics Classroom)	FCU Carrier	Carrier	40QNB013200	2296Y30244	1	
	Bldg H (Physics Classroom)	ACCU Carrier	Carrier	38AN012300	2296Y00243	1	

	SCHEDOLL OF AIR CONDITIONING AND VENTILATING EQUIPMENT							
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity		
	Bldg K	DX split units	Mitsubishi			1		
	Bldg V (Music Bldg)	AHU Carrier	Carrier	39TH17BA-C5-CKL-B	0497F50019	1		
	Bldg V (Music Bldg)	AHU Carrier	Carrier	39TH09BA-CT-CKG-2	4097F49980	1		
	Bldg V (Music Bldg)	ACCU Carrier	Carrier	38AH-028-600AC	5196F45872	1		
	Bldg V (Music Bldg)	ACCU Carrier	Carrier	38AK5016-610	4196F34227	1		
	Bldg V (Music Bldg)	RHC Reheat coil unit is located high in ceiling, and couldn't be easily accessed				1		
	Bldg V (Music Bldg)	RHC Delta Flow		EH40N348970305B		1		
	Performing Arts Center	PACU-1	Aaon	RN0183AEB19	201611BNCN1781	1		
	Performing Arts Center	PACU-2	Aaon	RN031AEB19	201611BNCU11790	1		
	Performing Arts Center	PACU-3	Aaon	RN0403AEA19	201611BNCV11791	1		
	Performing Arts Center	PACU-4	Aaon	RN015AEB19	201611ANC11772	1		
	Transformer Bldg	MHI Evaporator Unit		FDK140A1	2142027B	1		
	Transformer Bldg	MHI Condensing Unit		FDC360HA1	21420146B	1		
10	Kula Elementary School							
	Bldg B	Trane Gas Fired Heaters	Trane			6		
	Bldg C	Trane Gas Fired Heaters	Trane			6		
	Bldg E	Trane Gas Fired Heaters	Trane			2		
	Bldg F	Taco, End Suction Pump 2HP	Тасо	1208		1		
	Bldg F	Taco, In Line Circulating Pump 2HP	Taco	133		1		
	Bldg F	Raypak, Gas Boiler	Raypak	H-403		1		

	SCHEDULE OF AIR CONDITIONING AND VENTILATING EQUIPMENT							
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity		
	Bldg F	Rudd, Hot Water Storage Tank Model	Rudd	ST120		1		
	Bldg F	Trane Unitrane Fan Coil Units	Trane			6		
	Bldg F	Cook, Centrifugal Roof Ventilator		ACE-B		1		
11	Lahaina Intermediate School							
	Bldg G (Cafeteria)	Mars Air Curtains		72-COMBI	(Not Available)	6		
	Bldg G (Cafeteria)	Greencheck Exhaust Fans	Greencheck	CUBE-300-30-G	96G06586	1		
	Bldg G (Cafeteria)	Greencheck Exhaust Fan	Greencheck	CUBE-300-30-G	96G06587	1		
	Bldg G (Cafeteria)	Greencheck Exhaust Fan	Greencheck	CUBE-300-30-G	96G0U526	1		
	Bldg I Band Room	Johnson Controls Package Unit	Johnson Controls	DSV180B4M1VAA2A0A-A	1309-5904	1		
	P-11 (Portable Classroom)	PACKAGE UNIT	BARD	WA484-A0Z		1		
	P12	PACKAGE UNIT	BARD	WA49A1-A0Z		1		
	P 13	PACKAGE UNIT	BARD	W49A1-A0ZUP4XXX		1		
	P 14	PACKAGE UNIT	BARD			1		
12	Lahainaluna High School							
	New Classroom Bldg (under warranty until 05/23/25)	FCU	Daikin	FXMQ48/30/15/18/07/24		15		
	New Classroom Bldg (under warranty until 05/23/25)	RESTROOMS- EF-1,EF-2	соок	80SQN-V		2		
	Bldg B (Library)	CWU #1 Trane	Trane	CCAD40	(Not Available)	1		
	Bldg B (Library)	ACC #1 Trane	Trane	MCCA40	(Not Available)	1		
	Bldg B (Library)	CHWP#1 ITT B&G		Series 1510	(Not Available)	1		
	Bldg B (Library)	CHWP#2 ITT B&G		Series 80	(Not Available)	1		

ltem	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Bldg B (Library)	AHU #1 Carrier	Carrier	39T17	(Not Available)	1
	Bldg B (Library)	AHU #2 Carrier	Carrier	39T07	(Not Available)	1
	Bldg B (Library)	AHU #3 Carrier	Carrier	39L03	(Not Available)	1
	Bldg B (Library)	TU A Temp Master		S 300 cfm		1
	Bldg B (Library)	TU B Temp Master		S 450 cfm		1
	Bldg B (Library)	TU C Temp Master		S 750 cfm		1
	Bldg B (Library)	TU D Temp Master		S 975 cfm		1
	Bldg B (Library)	TU E Temp Master		S 1450 cfm		1
	Bldg B (Library)	TU F Temp Master		S 1790 cfm		1
	Bldg B (Library)	EF #1 Greenheck	Greencheck	CSP 260	(Not Available)	1
	Bldg H EXTERIOR (BACK)	ACCU-1	LG		704KCWC10R53	1
	Bldg H EXTERIOR (BACK)	ACCU-2	LG		705KCNL0KC55	1
	Bldg H EXTERIOR (BACK)	ACCU-3	LG		705KCEA0KC52	1
	Bldg H EXTERIOR (BACK)	ACCU-4	LG		703KCYQ17546	1
	Bldg H EXTERIOR (FRONT)	ACCU-5	LG		MEZ66708808	1
	H101	FCU1-1	LG		704KCXM0SA62	1
	H101	FCU1-2	LG		704KCPY0SA44	1
	H102	FCU2-1	LG		704KCUK0SA82	1
	H102	FCU2-2	LG		704KCRY0SA18	1
	H103	FCU3-1	LG		704KCKJ0SA81	1

Г	SCHEDULE OF AIR CONDITIONING AND VENTILATIN			ING EQUIPMENT			
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity	
	H103	FCU3-2	LG		704KCBD0SA17	1	
	H104	FCU4-1	LG		704KCGW0VT59	1	
	H104	FCU 4-2	LG		704KCEA0VT64	1	
	H103	FCU-5	LG		MEZ65296017	1	
	Bldg K101	Rheem Split System	Rheem	RAKA060CAS	4991F429911745	1	
	Bldg K101	Rheem Split System	Rheem	RAKA060CAS	4991F030009588	1	
	Bldg Z Music Bldg	Package Unit	York	DSV240B2M1HAA1A0A-A	1209-2292	1	
	P 8	Package Unit	Carrier	24AHA436A300	3918X55840	1	
	P 9	Package Unit				1	
	P 12	Package Unit				1	
	P-16, P-17 (Portable Classrooms)	Rheem Split System	Rheem	THC048AR0A1001B	334100718L	1	
	P-16, P-17 (Portable Classrooms)	Trane Package Unit	Trane	THC048AR0A1001B	334100718L	1	
	P-18	Bard Trailer Unit	Bard	W484AOZXX4XXX	236H052046085-02	1	
	Cafeteria Office	Ductless Split		PUYA12NHAZ	7YU00107A	1	
	Cafeteria Exhaust Fans	Cook				6	
	Cafeteria Supply Fans	Cook				2	
13	Lanai High School						
	Library	York PACU-1	York	zr037c00a4zz5001	N/A	1	
	Library	YorkPACU-2	York	zr090c00a4azz50001	N/A	1	
	Library	York PACU-3	York	zr102c00n4azz50001	N/A	1	

Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Library	York PACU-4	York	zr090c00a4azz50002	N/A	1
	Library	TOIR PACU-4	TOIK	210900000442250002	IN/A	I I
	B-1	Daiken Air Cooled Cond Unit	Daiken	rxyq120pbyd		1
	B-1	Daiken Fan Coil Unit	Daiken	fxmq48pvju		1
	B-1	Greenheck exhaust fan	Greenheck	sp-b		1
	B-2	Greenheck exhaust fan	Greenheck	s1		1
	B-3	Greenheck exhaust fan	Greenheck	sfd		1
	C-1	Daiken Fan Coil Unit	Daiken	fxmq72mvju		1
	C-1	Fantech	Fantech	fr		1
	Gym	Exhaust Fans				3
	S Bldg BandRM	DX split units	CARRIER	50TJ-016-6B1BA		1
	S Bldg Comp RM	DX split units	CARRIER	50TM008-601	4606G40546	2
	A-05 Tech RM	DX split units				1
	V-1 Special RM	DX split units				1
	U-2 Graf Art RM	DX split units				1
14	Lihikai Elementary School					
	Bldg A Library	TON/1444000BTU	Carrier	50XCA14BAQH5FAG1AA	1919U66664	1
	Bldg A Library	18,000	Mitsubishi	PUY-A18NKA7	85U07187C	1
	Bldg A Library	138,000	Toshiba	MMY-MAP1446HT9P-UL	82900002	1
15	Lokelani Intermediate School					
	Bldg E (Music Bldg)	Trane Package Unit	Trane	SAUBC154BA0	A91H31501	1
	Bldg E (Music Bldg)	Trane Condenser Unit ACC#1	Trane	TTD718B100A0	F30201345	1

	SCHEDULE OF AIR CONDITIONING AND VENTILATING EQUIPMENT							
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity		
	Bldg E (Music Bldg)	Trane Condenser Unit ACC#2	Trane	TTD742B100A0	F45206197	1		
			American					
	Bldg E (Music Bldg)	American Std. Fan Coil Unit FCU#1	Standard	FWH724B140A0	F09375308	1		
	Bldg E (Music Bldg)	American Std. Fan Coil Unit FCU#2	American Standard	FWH0368140A1	F51394892	1		
	Bldg E (Choral Room)	AHU#1 Carrier	Carrier	39LD0GAA-BK-CPN-A9	(Not Available)	1		
	Bldg E (Choral Room)	ACCU#1 Carrier	Carrier	38ARZ008-6-BA	(Not Available)	1		
	Bldg G	Daikin ACCU G 1-1	Daikin	RXYQ96PYDN	A000159	1		
	Bldg G	Daikin FCU 1-1	Daikin	FXAQ24MVJU	E001603	1		
	Bldg G	Daikin FCU 1-2	Daikin	FXAQ24MVJU	E001450	1		
	Bldg G	Daikin FCU 1-3	Daikin	FXAQ24MVJU	E001458	1		
	Bldg G	Daikin FCU 1-4	Daikin	FXAQ24MVJU	E001489	1		
	Bldg G	Daikin ACCU G 2-3	Daikin	RXYQ96PYDN	A000214	1		
	Bldg G	Daikin FCU 2-9	Daikin	FXAQ24MVJU	E001529	1		
	Bldg G	Daikin FCU 2-10	Daikin	FXAQ18MVJU	E000698	1		
	Bldg G	Daikin FCU 2-4	Daikin	FXAQ24MVJU	E001534	1		
	Bldg G	Daikin FCU 2-8	Daikin	FXAQ24MVJU	E001543	1		
	Bldg G	Daikin ACCU G 2-2	Daikin	RXYQ96PYDN	A000268	1		
	Bldg G	Daikin FCU 2-5	Daikin	FXAQ24MVJU	E001558	1		
	Bldg G	Daikin FCU 2-6	Daikin	FXAQ18MVJU	E001604	1		
	Bldg G	Daikin FCU 2-7	Daikin	FXAQ24MVJU	E001452	1		
	Bldg G	Daikin FCU 2-11	Daikin	FXAQ12MVJU	E003740	1		

em   School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
Bldg G	Daikin ACCU G 2-1	Daikin	RXYQ96PYDN	A000103	1
Bldg G	Daikin FCU 2-1	Daikin	FXAQ24MVJU	E001459	1
Bldg G	Daikin FCU 2-3	Daikin	FXAQ24MVJU	E001492	1
Bldg G	Daikin FCU 2-2	Daikin	FXAQ24MVJU	E001530	1
Bldg G	Daikin ACCU G 1-3	Daikin	RXYQ96PYDN	A000103	1
Bldg G	Daikin FCU 1-7A	Daikin	FXAQ24MVJU	E001536	1
Bldg G	Daikin FCU 1-8	Daikin	FXAQ24MVJU	E001544	1
Bldg G	Daikin FCU 1-9	Daikin	FXAQ24MVJU	E001594	1
Bldg G	Daikin ACCU G 1-2	Daikin	RXYQ96PYDN	A000123	1
Bldg G	Daikin FCU 1-5	Daikin	FXAQ24MVJU	E001448	1
Bldg G	Daikin FCU 1-6	Daikin	FXAQ24MVJU	E001537	1
Bldg G	Daikin FCU 1-7	Daikin	FXAQ24MVJU	E001451	1
Bldg G	Munters Units	Munters	RGA5453BAA01	various	16
Bldg H (H1)	AHU	Trane	BCHD051B1		1
Bldg H (H2)	AHU	Trane	BCHD051B1		1
Bldg H (H1)	Fan Coil Unit	Mitsubishi	PKFY-P18		1
Bldg H (H3)	Fan Coil Unit	Mitsubishi	PKFY-P18		1
Bldg H (H4)	Fan Coil Unit	Mitsubishi	PKFY-P18		1
Bldg H (H5)	Fan Coil Unit	Mitsubishi	PKFY-P18		1
Bldg H (H6)	Fan Coil Unit	Mitsubishi	PKFY-P18		1

tem	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Bldg H (H7)	Fan Coil Unit	Mitsubishi	PKFY-P18		1
	Diag IT (ITI)	i an oon onit	WIRSUDISHI	FRI 1-F 10		1
	Bldg H (H8)	Fan Coil Unit	Mitsubishi	PKFY-P18		1
	Bldg H (H9)	Fan Coil Unit	Mitsubishi	PKFY-P18		1
	Bldg H (H10)	Fan Coil Unit	Mitsubishi	PEFY-P36		1
	Bldg H (H11)	Fan Coil Unit	Mitsubishi	PEFY-P36		1
	Bldg H (H12)	Fan Coil Unit	Mitsubishi	PEFY-P36		1
	Bldg H (H13)	Fan Coil Unit	Mitsubishi	PEFY-P36		1
	Bldg H (H14)	Fan Coil Unit	Mitsubishi	PKFY-P12		1
	Bldg H (H15)	Fan Coil Unit	Mitsubishi	PKFY-P12		1
	Bldg H (H16)	Fan Coil Unit	Mitsubishi	PKFY-P12		1
	Bldg I	ACCU-1	Mitsubishi	PUHY-P96YKMU-A	31W00271	1
	Bldg I	ACCU-2, 4	Mitsubishi	PUHY-P72YKMU-A	44W00387	2
	Bldg I	ACCU-3	Mitsubishi	PUHY-P120YKMU-A	3ZW00418	1
	Bldg I (101, 102,103,104,104A)	FCU 1,2,3,4,5,6,7,8,9	Mitsubishi	PFKY-P18NHMU-E2	various	9
	Bldg I 201	FCU 10	Mitsubishi	PEFY-P36NMHU-E		1
	Bldg I (202, 203)	FCU 11,12	Mitsubishi	PEFY-P48NMHU-E	various	2
	Bldg I 204	FCU 13	Mitsubishi	PEFY-P54NMHU-E		1
	P-1 (Portable Classroom)	Daikin ACCU	Daikin	RXYQ48MVJU	E001864	1
	P-1 (Portable Classroom)	Daikin FCU-1	Daikin	FXAQ24MVJU	E001453	1
	P-1 (Portable Classroom)	Daikin FCU-2	Daikin	FXAQ24MVJU	E001460	1

ltom	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
item	School / Location	Onit Description	Walturacturer	Woder Number	Serial Number	Quantity
	P-2 (Portable Classroom)	Daikin ACCU	Daikin	RXYQ48MVJU	E001901	1
	P-2 (Portable Classroom)	Daikin FCU-1	Daikin	FXAQ24MVJU	E001409	1
	P-2 (Portable Classroom)	Daikin FCU-2	Daikin	FXAQ24MVJU	E001414	1
	P-2 (Portable Classroom)	Daikin FCU-3	Daikin	FXAQ24MVJU	E001514	1
	P-3 (Portable Classroom)	Daikin ACCU	Daikin	RXYQ48MVJU	E001581	1
	P-3 (Portable Classroom)	Daikin FCU-1	Daikin	FXAQ09MVJU	E001662	1
	P-3 (Portable Classroom)	Daikin FCU-2	Daikin	FXAQ09MVJU	E001670	1
	P-3 (Portable Classroom)	Daikin FCU-3	Daikin	FXAQ09MVJU	E002164	1
	P-3 (Portable Classroom)	Daikin FCU-4	Daikin	FXAQ09MVJU	E002167	1
	P-3 (Portable Classroom)	Daikin FCU-5	Daikin	FXAQ12MVJU	E001540	1
	P-4 (Portable Classroom)	Daikin ACCU	Daikin	RXYQ48MVJU	E001870	1
	P-4 (Portable Classroom)	Daikin FCU-1	Daikin	FXAQ24MVJU	E001497	1
	P-4 (Portable Classroom)	Daikin FCU-2	Daikin	FXAQ24MVJU	E001531	1
	P-5 (Portable Classroom)	Daikin ACCU	Daikin	RXYQ48MVJU	E001902	1
	P-5 (Portable Classroom)	Daikin FCU-1	Daikin	FXAQ24MVJU	E001538	1
	P-5 (Portable Classroom)	Daikin FCU-2	Daikin	FXAQ24MVJU	E001547	1
	P-6 (Portable Classroom)	Trane Package Unit	Trane			1
	P-7 (Portable Classroom)	Daikin ACCU	Daikin	RXYQ48MVJU	E001594	1
	P-7 (Portable Classroom)	Daikin FCU-1	Daikin	FXAQ24MVJU	E001600	1
	P-7 (Portable Classroom)	Daikin FCU-2	Daikin	FXAQ24MVJU	E001447	1

ltom	School / Loostion	Unit Description	Manufacturar	Model Number	Serial Number	Quantity
item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	P-8 (Portable Classroom)	Daikin ACCU	Daikin	RXYQ48MVJU	E001872	1
	P-8 (Portable Classroom)	Daikin FCU-1	Daikin	FXAQ24MVJU	E001455	1
	P-8 (Portable Classroom)	Daikin FCU-2	Daikin	FXAQ24MVJU	E001462	1
	P-9 (Portable Classroom)	Daikin ACCU	Daikin	RXYQ48MVJU	E001912	1
	P-9 (Portable Classroom)	Daikin FCU-1	Daikin	FXAQ24MVJU	E001498	1
	P-9 (Portable Classroom)	Daikin FCU-2	Daikin	FXAQ24MVJU	E001532	1
	P-10 (Portable Classroom)	Daikin ACCU	Daikin	RXYQ48MVJU	E001604	1
	P-10 (Portable Classroom)	Daikin FCU-1	Daikin	FXAQ24MVJU	E001540	1
	P-10 (Portable Classroom)	Daikin FCU-2	Daikin	FXAQ24MVJU	E001555	1
	P-11 (Portable Classroom)	Daikin ACCU	Daikin	RXYQ48MVJU	E001881	1
	P-11 (Portable Classroom)	Daikin FCU-1	Daikin	FXAQ24MVJU	E001602	1
	P-11 (Portable Classroom)	Daikin FCU-2	Daikin	FXAQ24MVJU	E001449	1
	P-12 (Portable Classroom)	Daikin ACCU	Daikin	RXYQ48MVJU	E001942	1
	P-12 (Portable Classroom)	Daikin FCU-1	Daikin	FXAQ24MVJU	E001457	1
	P-12 (Portable Classroom)	Daikin FCU-2	Daikin	FXAQ24MVJU	E001481	1
	P-13 (Portable Classroom)	Daikin ACCU	Daikin	RXYQ48MVJU	E001617	1
	P-13 (Portable Classroom)	Daikin FCU-1	Daikin	FXAQ24MVJU	E001526	1
	P-13 (Portable Classroom)	Daikin FCU-2	Daikin	FXAQ24MVJU	E001533	1
	P-14 (Portable Classroom)	Daikin ACCU	Daikin	RXYQ48MVJU	E001900	1
	P-14 (Portable Classroom)	Daikin FCU-1	Daikin	FXAQ24MVJU	E001541	1

SCHEDOLL OF AIR CONDITIONING AND VENTILATING EQUIFWENT							
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity	
	P-14 (Portable Classroom)	Daikin FCU-2	Daikin	FXAQ24MVJU	E001557	1	
	P-13 (Portable Classroom)	Trane Package Unit	Trane	THCD48A3R0A1001B	33400758L	1	
	P-15 (Portable Classroom)	Bard Trailer Unit	Bard	WA491-B0ZXXXXXXG	219L041958100-02	1	
	P 1,4,5,7,8,9,10,11,12,13,14	Munters Units	Munters	RGA5453BAA01	various	22	
16	Makawao Elementary						
	Playcourt Telecom	FCU1	Carrier	40MHHC12-1	0319V25872	1	
	Playcourt Telecom	ACCU	Carrier	38MHRC12A-1	5118V19819	1	
17	Maui High School						
	Bldg B (Language Lab)	Tranes	Trane	FDSN-10A2	S4D236722	2	
	Bldg C TV Recording Studio	FCU-C1	IEC	HBD2000483987	21U0001502	1	
	Bldg C Storage/Utility/DR/Ofc	FCU -C2	IEC	HBD I 200483989	21U00015023	1	
	Bldg C Media Production	FCU -C3	IEC	HBD 1600483990	21 U000 15025	1	
	Bldg C Work Room	FCU -C4	IEC	HBD1200484000	21U00015024	1	
	Bldg C Professional Materials	FCU -C5	IEC	HBD I 600483991	21 U000 15026	1	
	Bldg C Preview/Meeting Room	FCU -C6	IEC	HBD1600483992	21U000l5027	1	
	Bldg C (Library)	FCU-C7	IEC	HBD3000483993	21 U000 I S03 I	1	
	Bldg C (Library)	FCU C-8- McQuay	IEC	HBD300483994	21 U000 I S032	1	
	Bldg C	FCU-C9	IEC	HBD3000483994	21U000IS033	1	
	Bldg C (Library)	FCU-C10	IEC	HBD3000483994	21UOOOI5034	1	
	Bldg C (Library)	FCU-C11	IEC	HBD300048399S5	21UOOOI5035	1	

	SCHEDULE OF AIR CONDITIONING AND VENTILATING EQUIPMENT								
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity			
	Bldg C Classroom	FCU C12	IEC	HBD3000483996	21U00015036	1			
	Bldg C Classroom	FCU C13	IEC	HBD3000483996	21 U000 I S037	1			
	Bldg H (Tower)	CDWP-1	Pentair	3X3X7382B	22-2613251-1	1			
	Bldg H (Tower)	CDWP-2	Pentair	3X3X7382B	22-2613251-2	1			
	Bldg H (Tower)	CHWP-1	Pentair	2X2X11382B-SC1800-CL	N/A	1			
	Bldg H (Tower)	CHWP-2	Pentair	2X2X11382B-SC1800-CL	N/A	1			
	Bldg H (Tower)	CT-1	Delta Cooling Towers	T-55	70889-1	1			
	Bldg H (Tower)	CT-2	Delta Cooling Towers	T-55	70889-2	1			
	Bldg H (Tower)	CH-1	Daikin	WGZ050DW4NNDPN	STNU210700154	1			
	Bldg H (Tower)	CH-2	Daikin	WGZ050DW4NNDPN	STNU210700141	1			
	Bldg H (Tower)	FCU-1-	Mitsubishi	PKA-A12HA7	14A30084C	1			
	Bldg J (Band Room)	FCU J1	IEC	HBD30000483997	21U00015038	1			
	Bldg J (Practice Room-Wardrobe)	FCU J2	IEC	HBD30000483998	21U00015022	1			
	Bldg J Ensemble-Offices	FCU J3	IEC	HBD16000484001	21U00015028	1			
	Bldg J 119	FCU J4	IEC	HBD2000484002	21U00015030	1			
	Bldg J Choral Room	FCU J5	IEC	HBD3000483999	21U00015039	1			
	Bldg J	FCU/ACCU	Carrier	ARCGK1A2/30RAP0255GCD G800	2819U30194/311965877	2			
	Bldg T	ACCU	Fujitsu	A0U36RLAVM/A0U12RLFW1	BNP000581/MYN048468	2			

	SCHEDOLE OF AIR CONDITIONING AND VENTILATING EQUIPMENT						
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity	
	P-30	Bard Trailer Unit	Bard	W4SACDA0ZXP4XXX	L224003447	1	
	P-31	Bard Trailer Unit	Bard	W4SACDA0ZXP4XXX	L224003448	1	
	P-32	Bard Trailer Unit	Bard	W4SACDA0ZXP4XXX	L224003449	1	
	P-33	Bard Trailer Unit	Bard	W4SACDA0ZXP4XXX	L224003450	1	
	P-34	Bard Trailer Unit	Bard	W4SACDA0ZXP4XXX	L224003451	1	
	P-35	Bard Trailer Unit	Bard	W4SACDA0ZXP4XXX	L224003452	1	
	P-36	Bard Trailer Unit	Bard	W4SACDA0ZXP4XXX	L224003453	1	
	P-37	Bard Trailer Unit				1	
	Stem/Autism Bldg	LG - FCU 1A, 1B, 2B, 3A, 3B, 4C	LG	ARNU963B8A4	various	6	
	Stem/Autism Bldg	LG - FCU-2A	LG	ARNU763B8A4		1	
	Stem/Autism Bldg	LG - FCU-4A,4B	LG	ARNU543M3A4	various	2	
	Stem/Autism Bldg	LG - FCU -4D	LG	ARNU363M2A4		1	
	Stem/Autism Bldg	CU-1	LG	ARUM360BTE5		1	
	Stem/Autism Bldg	CU-2	LG	ARUM192BTE5		1	
	Stem/Autism Bldg	CU-3	LG	ARUM241BTE5		1	
	Stem/Autism Bldg	FCU-5/CU-4	LG	LSN090HSV5	various	2	
18	Maui Waena Intermediate School						
	Administration Bldg	CFU		AC030X1222A	WHLM006058	1	
	Bldg B	No Info Available				1	
	Bldg H (Library)	ACU-1- Carrier Package Unit (ACCU-1HA)	Carrier	MMY-MAP1446HT6P-UL	92300026	1	

em	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantit
		ACU-2- Carrier Package Unit (ACCU-				
	Bldg H (Library)	1HB)	Carrier	MMY-MAP0966HT6P-UL	92100001	1
		ACU-1- Carrier Air Cooled Condenser				
	Bldg H (Library)	Unit (ACCU-2H)	Carrier	38AUDC12A0A6-0A0A0	1719C94374	1
	Bldg H (Library)	FCU-1H, 2H	CARRIER	MMD-AP0726HP-UL	various	2
	Bldg H (Library)	FCU-3H	CARRIER	MMD-AP0364H2UL	80240001	1
	Bldg H (Library)	FCU-4H	CARRIER	MMD-AP0244BH27L-1	90240024	1
	Bldg H (Library)	FCU-5H	CARRIER	MMD-AP0364H2UL	80240003	1
	Bldg H (Library)	FCU-6H	CARRIER	MMD-AP0600VHG2UL	904R2393	1
	Bldg H (Library)	FCU-7H	CARRIER	39LB06AA-54150X112	3019U30236	1
	Bldg I Admin	ACCU-1I	CARRIER	FX4DNF031L00	2518E27118	1
	Bldg I Admin	ACCU 2I, 3I	CARRIER	38AUDC12A0A6-0A0A0	various	2
	Bldg I Admin	FCU-1I	CARRIER	FX4DNF031L00	0719F35690	1
	Bldg I Admin	FCU-2I, 3I	CARRIER	40RUAA12T1A6-0A1A0 (SAV)	various	2
	Bldg M (Band Room)	Packaged AC	Johnson Controls	DSV180B4M1VAA2A01-A		1
	Bldg K (Cafeteria)	Greenheck Exhaust Fan Units	Greenheck	SWB-30-30	91E00538	1
	Bldg K (Cafeteria)	Greenheck Exhaust Fan Units	Greenheck	SWB-30-30	91E00539	1
	Bldg K (Cafeteria)	Greenheck Exhaust Fan Units	Greenheck	SWB-30-30	91E00540	1
	Bldg K (Cafeteria)	Carrier Supply Air Fan Units	Carrier	39FF13	2491T31643	1
	Bldg K (Cafeteria)	Carrier Supply Air Fan Units	Carrier	39FF13	2491T31596	1
	Building O (Classrooms)	Packaged Air Cooled Water Chiller	Carrier	30RAP0356KAC2DJ4	0715Q52797	1
	Building O (Classrooms)	Packaged Air Cooled Water Chiller	Carrier	30RAP0356KAC2DJ4	0715Q52809	1

	SCHEDDLE OF AIR CONDITIONING AND VENTILATING EQUIPMENT							
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity		
	Building O (Classrooms)	Central Station Air Handling Unit	Carrier	39MN50D022VYB13XPS	0315U42212	1		
	P-6 (Portable Classroom)	DX split units	Fujitsu	AOU36RLX	CWN008467	1		
	P-7 (Portable Classroom)	DX split units	Toshiba/Carrier	RAV-SP420CT-UL	60420016	1		
	P-8, P-9, P-10, P-11 (Portable Classrooms)	Trane Package Unit	Trane	THC048A3R0A10001000000	334100640L	1		
	P-8, P-9, P-10, P-11 (Portable Classrooms)	Trane Package Unit	Trane	THC048A3R0A10001000000	334100736L	1		
	P-8, P-9, P-10, P-11 (Portable Classrooms)	Trane Package Unit	Trane	THC048A3R0A10001000000	334100485L	1		
	P-8, P-9, P-10, P-11 (Portable Classrooms)	Trane Package Unit	Trane	THC048A3R0A10001000000	334100650L	1		
	P-12 (Portable Classroom)	Package Unit	Bard	WA4S3-A0ZVP4XXX	382D143113349-02	1		
	TB-1 (Portable Classroom)	TB1 Bard Trailer Unit	Trane	THC048A3R0A10001000000	219L041958101-02	1		
19	Molokai High and Intermediate							
	Trailer	Central System				1		
	Bldg Q (Library)	Split systems				4		
	LIBRARY	ACCU	MITSUBISHI	PUMY-P60NKMU	2YU00133A	1		
	LIBRARY LOBBY	FCU	MITSUBISHI			1		
	LIBRARY HALLWAY	FCU	MITSUBISHI			1		
	LIBRARY BREAKER ROOM/SERVER ROOM	FCU	MITSUBISHI			1		
	LIBRARY CLASSROOM	FCU	MITSUBISHI			1		
	LIBRARY CLASSROOM	FCU	MITSUBISHI			1		
	LIBRARY OFFICE	FCU	MITSUBISHI			1		
	LIBRARY CLASSROOM/LOUNGE	FCU	MITSUBISHI			1		

	1	SCHEDULE OF AIR CONDITION	IIING AIND VEIVITLE	TING EQUIPMENT	1	
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Bldg R (Music)	Split system				4
20	Princess Nahienaena Elementary S	<u> </u>				
	Cafeteria	MARS Air Curtains	Mars	36C	(Not Available)	8
					,	
	Cafeteria	MARS Air Curtain	Mars	EHV 84	9801B84T 1/2	1
	Cafeteria	Exhaust Fans		(Not Available)	(Not Available)	2
	P-8 (Portable Classroom)	Trane Package System	Trane	THC048A3R0A1001B0	334100591L15	1
	P-9	Bard Trailer Unit	Bard			1
	P-10,11,12 (Portable Classroom)	Packaged AC	Bard	WA4S3-A0ZVP4XXX	various	3
	BLDG F COMPUTER CENTER-204	FCU 1A	LG	ARNU243BHA4		1
	BLDG F COMPUTER CENTER204	FCU 1B	LG	ARNU243BHA5		1
	BLDG F COMPUTER CENTER-204	FCU 1C	LG	ARNU243BHA6		1
	BLDG F COMPUTER CENTER-204	FCU 1D	LG	ARNU243BHA7		1
	BLDG F COMPUTER CENTER-204	CU-1	LG	ARUN096BTE4	704KCPY10R60	1
	BLDG F COMPUTER CENTER-203	FCU-2	LG	LSN180HSV4		1
	BLDG F COMPUTER CENTER-203	CU-2	LG	LSU180HSV4	610KAXV0GJ34	1
	BLDG F ELEVATOR MACHINE-210	FCU-3	LG	LHN247HV		1
	BLDG F ELEVATOR MACHINE-210	CU-3	LG	LUU247HV	704KCFT0WH31	1
21	Pomaikai Elementary School					
	Bldg A	AHU-1 Carrier Air Handler	Carrier	39LD18GABK	806404314	1
	Bldg A	ACCU-1 Carrier Condensing Unit	Carrier	38AH034611AC	0706Q3765	1

Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Bldg A	AHU-2 Carrier Air Handler	Carrier	39LD15GABBCPSA9	0806U04352	1
	Bldg A	ACCU-2 Carrier Condensing Unit	Carrier	38AH034611AC	0706Q3765	1
	Bldg A	ACCU-A Airedale Condensing Unit	Airedale	SCC12DA00A0AA0B	1-05-M-555948	1
	Bldg A	AHU-A Airedale Air Handler	Airedale	CAC2/114M	PA4255-U26993	1
	Bldg B, Room B-107	AC-7Airedale Package Unit	Airedale	CMX-4	PA42550U26965	1
	Bldg B, Room B-106	AC-6 Airedale Package Unit	Airedale	CMX-4	PA4255-U2696	1
	Bldg B, Room B-105	AC-5 Airedale Package Unit	Airedale	CMX-4	PA4255-U26963	1
	Bldg B, Room B-104	AC-1 Airedale Package Unit	Airedale	CMX-4	PA4255-U26959	1
	Bldg B, Room B-103	AC-2 Airedale Package Unit	Airedale	CMX-4	PA4255-U26960	1
	Bldg B, Room B-102	AC-3 Airedale Package Unit	Airedale	CMX-4	PA4255-U26961	1
	Bldg B, Room B-101	AC-4 Airedale Package Unit	Airedale	CMX-4	PA4255-U26962	1
	Bldg B, Room B-206	AC-13 Airedale Package Unit	Airedale	CMX-4	PA4255U26955	1
	Bldg B, Room B-205	AC-12 Airedale Package Unit	Airedale	CMX-4	PA4255-U26970	1
	Bldg B, Room B-204	AC-11 Airedale Package Unit	Airedale	CMX-4	PA4255-U26969	1
	Bldg B, Room B-203	AC-10 Airedale Package Unit	Airedale	CMX-4	PA4255-U26968	1
	Bldg B, Room B-202	AC-8 Airedale Package Unit	Airedale	CMX-4	PA4255-U26966	1
	Bldg B, Room B-201	AC-9 Airedale Package Unit	Airedale	CMX-4	PA4255-U26967	1
	Bldg B, Faculty Room	Airedale Multizone ACCU	Airedale	MC4D04040FDFA0G	1-05-L-3981-47	1
	Bldg B, Faculty Room	AHU-1 Airedale Air Handler	Airedale	CAC24M	PA4255-U2-7004	1
	Bldg B, Faculty Room	AHU-2 Airedale Air Handler	Airedale	CAC24M	PA4255-U2-7002	1

		SCHEDULE OF AIR CONDITIONING AND VENTILATE		ING EQUIPMENT		
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Bldg B, Faculty Room	Exhaust Fans	Fan Tech	FX-4	various	5
	Bldg C (Cafeteria)	Berner Air Curtains	Berner	ASR 2072A	(Not Available)	1
	Bldg C (Cafeteria)	AHU Airedale Air Handler	Airedale	CAC24M	(Not Available)	1
	Bldg C (Cafeteria)	ACCU Airedale	Airedale	SCC-09D	(Not Available)	1
	Bldg C (Cafeteria)	ACCU Airedale	Airedale	MC4D 0404	(Not Available)	1
	Bldg C (Cafeteria)	Exhaust Fans	Fan Tech	FX-4XL	(Not Available)	1
	Bldg C (Cafeteria)	Exhaust Fans	Fan Tech	FX-4	(Not Available)	1
	Bldg C (Cafeteria)	Exhaust Fans	Fan Tech	FX-8	(Not Available)	1
	Bldg C (Cafeteria)	FCU Airedale	Airedale	CAC2/8	(Not Available)	1
	Bldg C (Cafeteria)	Greenheck Supply Air	Greenheck	BSQ-360-20	(Not Available)	1
	Bldg D, Faculty Room	ACCU Airedale Multizone	Airedale	MC4D04040F0F00G	1-05-L-3981-4	1
	Bldg D, Faculty Room	AHU-1 Airedale Air Handler	Airedale	CAC24M	PA4255-U27000	1
	Bldg D, Faculty Room	AHU-2 Airedale Air Handler	Airedale	CAC24M	PA4255-U269995	1
	Bldg D, Faculty Room	Exhaust Fans	Fan Tech	FX-4	(Not Available)	5
	Bldg D, Room D-102	AC-16 Airedale Package Unit	Airedale	CMX-4	PA4255-U26973	1
	Bldg D, Room D-103	AC-16 Airedale Package Unit	Airedale	CMX-4	PA4255-U26972	1
	Bldg D, Room D-104	AC-15 Airedale Package Unit	Airedale	CMX-4	PA4255-U26971	1
	Bldg D, Room D-105	AC-17 Airedale Package Unit	Airedale	CMX-4	PA4255-U26974	1
	Bldg D, Room D-106	AC-18 Airedale Package Unit	Airedale	CMX-4	PA4255-U26975	1
	Bldg D, Room D-107	AC-19 Airedale Package Unit	Airedale	CMX-4	PA4255-U26976	1

	I	SCHEDULE OF AIR CONDITIO	ING EQUIFIVEINT			
ltem	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Bldg D, Room D-202	AC-22 Airedale Package Unit	Airedale	CMX-4	PA4255-U26978	1
	Bldg D, Room D-203	AC-21 Airedale Package Unit	Airedale	CMX-4	PA4255-U26986	1
	Bldg D, Room D-204	AC-20 Airedale Package Unit	Airedale	CMX-4	PA4255-U26977	1
	Bldg D, Room D-205	AC-23 Airedale Package Unit	Airedale	CMX-4	PA4255-U26980	1
	Bldg D, Room D-206	AC-24 Airedale Package Unit	Airedale	CMX-4	PA4255U26981	1
	Bldg D, Room D-207	AC-25 Airedale Package Unit	Airedale	CMX-4	PA4255-U26982	1
	Bldg E, Room E-102	AC-32 Airedale Package Unit	Airedale	CMX-4	PA4255-U26988	1
	Bldg E, Room E-103	AC-31 Airedale Package Unit	Airedale	CMX-4	PA4255-U26956	1
	Bldg E, Room E-104	AC-30 Airedale Package Unit	Airedale	CMX-4	PA4255-U26987	1
	Bldg E, Room E-105	AC-26 Airedale Package Unit	Airedale	CMX-4	PA4255-U26983	1
	Bldg E, Room E-106	AC-27 Airedale Package Unit	Airedale	CMX-4	PA4255-U26984	1
	Bldg E, Room E-107	AC-28 Airedale Package Unit	Airedale	CMX-4	PA4255-U26985	1
	Bldg E, Room E-108	AC-29 Airedale Package Unit	Airedale	CMX-4	PA4255-U26979	1
	Bldg E, Room E-201	AC-38 Airedale Package Unit	Airedale	CMX-4	PA4255-U26958	1
	Bldg E, Room E-203	AC-37 Airedale Package Unit	Airedale	CMX-4	PA4255-U26954	1
	Bldg E, Room E-204	AC-36 Airedale Package Unit	Airedale	CMX-4	PA4255-U26957	1
	Bldg E, Room E-205	AC-35 Airedale Package Unit	Airedale	CMX-4	PA4255-U26991	1
	Bldg E, Room E-206	AC-33 Airedale Package Unit	Airedale	CMX-4	PA4255-U26998	1
	Bldg E, Room E-207	AC-35 Airedale Package Unit	Airedale	CMX-4	PA4255-U26990	1
	Faculty Room	ACCU Airedale Multizone	Airedale	MC4D04040F0F00G	1-05-L-3981-48	1

		Jenebole of Allicentoring	SITING THE VENTIES	TING EQUIPIVIENT		
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Faculty Room	AHU-1 Airedale Air Handler	Airedale	CAC24M	PA4255-U26998	1
	Faculty Room	AHU-2 Airedale Air Handler	Airedale	CAC24M	PA4255-U27001	1
	Faculty Room	Exhaust Fans, Fan Tech		FX-4	(Not Available)	5
22	Pu'u Kukui Elementary School					
	Bldg A, Room 110	Centrifugal Fans EF-A-1	Greenheck	SEI-10-428-P-X	12707223 1202	1
	Bldg A	Air-to-Air Recovery Eqp ERV-A-1	Daiken	ERV-251S-20-A	12665389	1
	Bldg A, Room 116	FCU-A-1	Daiken	FXZQ12M7VJU	6103776	1
	Bldg A, Room 117	FCU-A-2	Daiken	FXZQ18M7VJU	6104180	1
	Bldg A, Room 105A	FCU-A-3	Daiken	FXZQ30M7VJU	C000614	1
	Bldg A, Room 105E	FCU-A-4	Daiken	FXZQ12M7VJU	C000831	1
	Bldg A, Room 118	FCU-A-5	Daiken	FXZQ12M7VJU	6103851	1
	Bldg A, Room 123	FCU-A-6	Daiken	FXZQ12M7VJU	61033771	1
	Bldg A, Room 123	FCU-A-7	Daiken	FXZQ18M7VJU	6104040	1
	Bldg A, Room 124	FCU-A-8	Daiken	FXFQ24PVJU	C000349	1
	Bldg A, Room 108	FCU-A-9	Daiken	FXZQ12M7VJU	6103859	1
	Bldg A, Room 125	FCU-A-10	Daiken	FXZQ18M7VJU	C000438	1
	Bldg A, Room 128	FCU-A-11	Daiken	FXZQ18M7VJU	6104037	1
	Bldg A, Room 101	FCU-A-12	Daiken	FXFQ24PVJU	C000353	1
	Bldg A, Room 102	FCU-A-13	Daiken	FXZQ18M7VJU	6104030	1
	Bldg A, Room 102a	FCU-A-14	Daiken	FXZQ09M7VJU	6102800	1

tem School	/ Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
				RXYQ120PBYD	A000358/	
Bldg A		ACCU-A-1	Daiken	RXYQ96PBYD	A000227	1
Bldg B,	, Room 114	Centrifugal Fans EF-B-1	Greenheck	SP-B150	12662335	1
Bldg B,	, Room 112	Centrifugal Fans EF-B-2	Greenheck	SP-B80	12662337	1
Bldg B,	, Room 113	Centrifugal Fans EF-B-3	Greenheck	SP-B150	12662336	1
Bldg B,	, Room 120	Centrifugal Fans EF-B-4	Greenheck	SEI-10-428-P-X	12661839 1111	1
Bldg B,	Room 118	Centrifugal Fans OAF-B-12	Fantech	FR-110	919710	1
Bldg B,	SPED Dryer	Centrifugal Fans OAF-B-15	Fantech	FR-110	919719	1
Bldg B		Air-to-Air Recovery Eqp ERV-B-1	Greenheck	ERV-251S-20-A	12709993	1
Bldg B,	, Room 122	Air-to-Air Recovery Eqp OAU-B-1	Munters	DRYCOOL HD	04B0111123	1
Bldg B,	, Room 101	Air-to-Air Recovery Eqp OAU-B-2	Munters	DRYCOOL HD	04A1211110104	1
Bldg B,	, Room 101	Air-to-Air Recovery Eqp OAU-B-3	Munters	DRYCOOL HD	04B0111110125	1
Bldg B,	, Room 115	Air-to-Air Recovery Eqp OAU-B-4	Munters	DRYCOOL HD	04A1211110108	1
Bldg B,	Room 115	Air-to-Air Recovery Eqp OAU-B-5	Munters	DRYCOOL HD	04A1211110106	1
Bldg B,	, Room 117	Air-to-Air Recovery Eqp OAU-B-6	Munters	DRYCOOL HD	04B0111110124	1
Bldg B,	, Room 117	Air-to-Air Recovery Eqp OAU-B-7	Munters	DRYCOOL HD	14A1211110103	1
Bldg B,	Room 121	Fan-Coil Units FCU-B-1	Daiken	FXZQ12M7VJU	6103812	1
Bldg B,	, Room 122	Fan-Coil Units FCU-B-2	Daiken	FXFQ24PVJU	C000846	1
Bldg B,	, Room 123	Fan-Coil Units FCU-B-3	Daiken	FXZQ12M7VJU	6103813	1
Bldg B,	, Room 124	Fan-Coil Units FCU-B-4	Daiken	FXZQ18M7VJU	6104127	1
Bldg B,	Room 125c	Fan-Coil Units FCU-B-5	Daiken	FXZQ09M7VJU	6102782	1

		SCHEDULE OF AIR COINL	THOMING AND VENTILE	ING EQUIPIVIENT			
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity	
	Bldg B, Room 101	Fan-Coil Units FCU-B-6	Daiken	FXZQ48PVJU	E002087	1	
	Bldg B, Room 126	Fan-Coil Units FCU-B-7	Daiken	FXFQ24PVJU	C000850	1	
	Bldg B, Room 101	Fan-Coil Units FCU-B-8	Daiken	FXZQ48PVJU	E002103	1	
	Bldg B, Room 101	Fan-Coil Units FCU-B-9	Daiken	FXZQ07M7VJU	6106240	1	
	Bldg B, Room 130a	Fan-Coil Units FCU-B-10	Daiken	FXFQ24PVJU	C000849	1	
	Bldg B, Room 130	Fan-Coil Units FCU-B-11	Daiken	FXFQ24PVJU	C000848	1	
	Bldg B, Room 118	Fan-Coil Units FCU-B-12	Daiken	FXZQ18M7VJU	6104145	1	
	Bldg B, Room 117	Fan-Coil Units FCU-B-13	Daiken	FXFQ24PVJU	C000845	1	
	Bldg B, Room 117	Fan-Coil Units FCU-B-14	Daiken	FXFQ24PVJU	C000844	1	
	Bldg B, Room 116	Fan-Coil Units FCU-B-15	Daiken	FXZQ12M7VJU	6103792	1	
	Bldg B, Room 115a	Fan-Coil Units FCU-B-16	Daiken	FXZQ30M7VJU	C000768	1	
	Bldg B, Room 115a	Fan-Coil Units FCU-B-17	Daiken	FXZQ30M7VJU	C000766	1	
	Bldg B, Room 115	Fan-Coil Units FCU-B-18	Daiken	FXZQ30M7VJU	C000763	1	
	Bldg B, Room 115	Fan-Coil Units FCU-B-19	Daiken	FXZQ30M7VJU	C000767	1	
	Bldg B, Room 101	Fan-Coil Units FCU-B-20	Daiken	FXZQ48PVJU	E002088	1	
	Bldg B, Room 107	Fan-Coil Units FCU-B-21	Daiken	FXZQ07M7VJU	6106242	1	
	Bldg B, Room 109	Fan-Coil Units FCU-B-22	Daiken	FXZQ07M7VJU	6106235	1	
	Bldg B, Room 101	Fan-Coil Units FCU-B-23	Daiken	FXZQ48PVJU	E002081	1	
	Bldg B, Room 108	Fan-Coil Units FCU-B-24	Daiken	FXZQ07M7VJU	6106236	1	
	Bldg B, Room 105	Fan-Coil Units FCU-B-25	Daiken	FXZQ12M7VJU	6103849	1	

ltem	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Bldg B, Room 106	Fan-Coil Units FCU-B-26	Daiken	FXZQ12M7VJU	6103852	1
	Blug B, Room 100	Fair-Coil Offits FCO-D-20	Daiken	FAZQ1ZIVI7 VJU	0103032	1
	Bldg B, Room 104	Fan-Coil Units FCU-B-27	Daiken	FXZQ12M7VJU	6103811	1
	Bldg B, Room 102	Fan-Coil Units FCU-B-28	Daiken	FXZQ18M7VJU	6104148	1
	Bldg B	ACCU-B-1	Daiken	RXYQ120PBYD RXYQ120PBYD	A000356/ A000354	1
	Bldg B	ACCU-B-2	Daiken	RXYQ120PBYD RXYQ120PBYD	A000357/ A000407	1
	Bldg C	Air Curtains				4
	Bldg C, Kitchen Hood	Centrifugal Fans EF-C-1	Greenheck	CUBE-141HP-7-X	12707275 1202	1
	Bldg C, General Exhaust	Centrifugal Fans EF-C-2	Greenheck	GB-180-10-S	12707276 1202	1
	Bldg C, Room 106	Centrifugal Fans EF-C-3	Greenheck	SEI-10-428-P-X	12707221 1202	1
	Bldg C, Room 107	Centrifugal Fans SF-C-1A	Ruskin	ACC-78	AL 122426	1
	Bldg C, Room 101	Centrifugal Fans SF-C-1B	Ruskin	ACC-78	AL 122426	1
	Bldg C, Room 101	Centrifugal Fans SF-C-1C	Ruskin	ACC-78	AL 122426	1
	Bldg C, Room 101	Centrifugal Fans SF-C-1D	Ruskin	ACC-78	AL 122426	1
	Bldg C, Room 101	Centrifugal Fans SF-C-1E	Ruskin	ACC-78	AL 122426	1
	Bldg C, Room 101	Centrifugal Fans SF-C-1F	Ruskin	ACC-78	AL 122426	1
	Bldg C, Room 107	Centrifugal Fans SF-C-2	Greenheck	KSF-108-H10-DB	12707397	1
	Room 102 (Bldg D)	Centrifugal Fans EF-D-1	Greenheck	SEI-10-428-P-X	12707225	1
	Bldg K	Air Cooled Refrigerant Condensers ACCU- C-1	Daiken	RXYQ120PBYD	A000385	1
	Bldg E, Room 129C	Centrifugal Fans EF-E-1	Greenheck	SP-B90	1278606	1
	Bldg E, Room 101C	Centrifugal Fans EF-E-2	Greenheck	SQ-85-D-X	12708086	1

	1	SCHEDULE OF AIR CONDITIO	INING AND VENTILE	ATTING EQUIPIVIENT	1	
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Bldg E, Room 108	Centrifugal Fans EF-E-3	Greenheck	SEI-10-428-P-X	12661840	1
	Bldg E, Room 101	Centrifugal Fans EF-E-4	Greenheck	FR-110	910833	1
	Bldg E, Room 103a	Centrifugal Fans EF-E-5	Greenheck	SP-B150	CAPN12708162	1
	Bldg E, Room 103c	Centrifugal Fans EF-E-6	Greenheck	SP-B150	12708160	1
	Bldg E, Room 101b	Centrifugal Fans EF-E-7	Greenheck	SP-B150	None	1
	Bldg E, Room 101a	Centrifugal Fans EF-E-8	Greenheck	SP-B150	12708164	1
	Bldg E, Room 111/112	Centrifugal Fans EF-E-9	Greenheck	G-103-A-X	12708138 1201	1
	Bldg E, Room 123/124	Centrifugal Fans EF-E-10	Greenheck	G-123-A-X	12708139	1
	Bldg E, Room 129b	Centrifugal Fans EF-E-11	Greenheck	SP-B150	12708159	1
	Bldg E, Room 130a	Centrifugal Fans EF-E-12	Greenheck	SP-B150	12708163	1
	Bldg E, Room 129	Air-to-Air Recovery Eqp OAU-E-1	Munters	DRYCOOL HD	04M1511110743	1
	Bldg E, Room 129	Air-to-Air Recovery Eqp OAU-E-2	Munters	DRYCOOL HD	04M1511110737	1
	Bldg E, Room 127	Air-to-Air Recovery Eqp OAU-E-3	Munters	DRYCOOL HD	04M1711110764	1
	Bldg E, Room 127	Air-to-Air Recovery Eqp OAU-E-4	Munters	DRYCOOL HD	04M1511110750	1
	Bldg E, Room 125	Air-to-Air Recovery Eqp OAU-E-5	Munters	DRYCOOL HD	04M1711110773	1
	Bldg E, Room 125	Air-to-Air Recovery Eqp OAU-E-6	Munters	DRYCOOL HD	04M1511110749	1
	Bldg E, Room 119	Air-to-Air Recovery Eqp OAU-E-7	Munters	DRYCOOL HD	04M1511110754	1
	Bldg E, Room 119	Air-to-Air Recovery Eqp OAU-E-8	Munters	DRYCOOL HD	04M1711110775	1
	Bldg E, Room 118	Air-to-Air Recovery Eqp OAU-E-9	Munters	DRYCOOL HD	04M1511110738	1
	Bldg E, Room 118	Air-to-Air Recovery Eqp OAU-E-10	Munters	DRYCOOL HD	04M1711110722	1

		SCHEDULE OF AIR CONDITIO	T T T T T T T T T T T T T T T T T T T	THIS EQUIPMENT			
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity	
	Bldg E, Room 116	Air-to-Air Recovery Eqp OAU-E-11	Munters	DRYCOOL HD	04M1511110740	1	
	Bldg E, Room 116	Air-to-Air Recovery Eqp OAU-E-12	Munters	DRYCOOL HD	04M1511110745	1	
	Bldg E, Room 115	Air-to-Air Recovery Eqp OAU-E-13	Munters	DRYCOOL HD	04M1711110777	1	
	Bldg E, Room 115	Air-to-Air Recovery Eqp OAU-E-14	Munters	DRYCOOL HD	04M1711110780	1	
	Bldg E, Room 113	Air-to-Air Recovery Eqp OAU-E-15	Munters	DRYCOOL HD	04M1711110706	1	
	Bldg E, Room 113	Air-to-Air Recovery Eqp OAU-E-16	Munters	DRYCOOL HD	04M1711110765	1	
	Bldg E, Room 106	Air-to-Air Recovery Eqp OAU-E-17	Munters	DRYCOOL HD	04M1711110766	1	
	Bldg E, Room 106	Air-to-Air Recovery Eqp OAU-E-18	Munters	DRYCOOL HD	04M1711110778	1	
	Bldg E, Room 104	Air-to-Air Recovery Eqp OAU-E-19	Munters	DRYCOOL HD	04M1711110762	1	
	Bldg E, Room 104	Air-to-Air Recovery Eqp OAU-E-20	Munters	DRYCOOL HD	04M1511110742	1	
	Bldg E, Room 101	Air-to-Air Recovery Eqp OAU-E-21	Munters	DRYCOOL HD	04A0312110800	1	
	Bldg E, Room 101	Air-to-Air Recovery Eqp OAU-E-22	Munters	DRYCOOL HD	04M1711110776	1	
	Bldg E, Room 129	Fan-Coil Units FCU-E-1	Daiken	FXFQ24PVJU	C0001071	1	
	Bldg E, Room 129	Fan-Coil Units FCU-E-2	Daiken	FXFQ24PVJU	C001110	1	
	Bldg E, Room 128	Fan-Coil Units FCU-E-3	Daiken	FXFQ24PVJU	C001112	1	
	Bldg E, Room 127	Fan-Coil Units FCU-E-4	Daiken	FXFQ24PVJU	C000900	1	
	Bldg E, Room 127	Fan-Coil Units FCU-E-5	Daiken	FXFQ24PVJU	C000886	1	
	Bldg E, Room 126	Fan-Coil Units FCU-E-6	Daiken	FXZQ09M7VJU	6102823	1	
	Bldg E, Room 125	Fan-Coil Units FCU-E-7	Daiken	FXFQ24PVJU	C001052	1	
	Bldg E, Room 125	Fan-Coil Units FCU-E-8	Daiken	FXFQ24PVJU	C001057	1	

		SCHEDULE OF AIR CONL	I VENTILE	THIS EQUILIVIENT		
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Bldg E, Room 122	Fan-Coil Units FCU-E-9	Daiken	FXFQ24PVJU	C000901	1
	Bldg E, Room 119	Fan-Coil Units FCU-E-10	Daiken	FXFQ24PVJU	C000834	1
	Bldg E, Room 119	Fan-Coil Units FCU-E-11	Daiken	FXFQ24PVJU	C000902	1
	Bldg E, Room 118	Fan-Coil Units FCU-E-12	Daiken	FXFQ24PVJU	C000933	1
	Bldg E, Room 118	Fan-Coil Units FCU-E-13	Daiken	FXFQ24PVJU	C000934	1
	Bldg E, Room 117	Fan-Coil Units FCU-E-14	Daiken	FXZQ09M7VJU	6102794	1
	Bldg E, Room 116	Fan-Coil Units FCU-E-15	Daiken	FXFQ24PVJU	C000932	1
	Bldg E, Room 116	Fan-Coil Units FCU-E-16	Daiken	FXFQ24PVJU	C000931	1
	Bldg E, Room 115	Fan-Coil Units FCU-E-17	Daiken	FXFQ24PVJU	C0001017	1
	Bldg E, Room 115	Fan-Coil Units FCU-E-18	Daiken	FXFQ24PVJU	C001030	1
	Bldg E, Room 115	Fan-Coil Units FCU-E-19	Daiken	FXZQ09M7VJU	6002690	1
	Bldg E, Room 114	Fan-Coil Units FCU-E-20	Daiken	FXFQ24PVJU	C001058	1
	Bldg E, Room 113	Fan-Coil Units FCU-E-21	Daiken	FXFQ24PVJU	C001051	1
	Bldg E, Room 106	Fan-Coil Units FCU-E-22	Daiken	FXFQ24PVJU	C001020	1
	Bldg E, Room 106	Fan-Coil Units FCU-E-23	Daiken	FXFQ24PVJU	C001041	1
	Bldg E, Room 105	Fan-Coil Units FCU-E-24	Daiken	FXZQ09M7VJU	60022687	1
	Bldg E, Room 104	Fan-Coil Units FCU-E-25	Daiken	FXFQ24PVJU	C001029	1
	Bldg E, Room 104	Fan-Coil Units FCU-E-26	Daiken	FXFQ24PVJU	C001031	1
	Bldg E, Room 103	Fan-Coil Units FCU-E-27	Daiken	FXZQ18M7VJU	6104000	1
	Bldg E, Room 101	Fan-Coil Units FCU-E-28	Daiken	FXFQ24PVJU	C000903	1

		SCHEDULE OF AIR CONDITIONIN	AND VENTILA	THING EQUITIVE INT		
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Dida E. Danier 404	5 O.''. H.''. FOLL 5.00	Delle	EVEO 24 DV III.	0004000	
	Bldg E, Room 101	Fan-Coil Units FCU-E-29	Daiken	FXFQ24PVJU RXYQ96PBYD/	C001022 A000224/	1
	Bldg E	Air Cooled Refrigerant Condensers ACCU- E-1	Daiken	RXYQ72PBYD	A000224/ A000238	1
	Blag E	Air Cooled Refrigerant Condensers ACCU-	Daikeri	RXYQ96PBYD/	A000256	<u>'</u>
	Bldg E	E-2	Daiken	RXYQ72PBYD	A00270	1
		Air Cooled Refrigerant Condensers ACCU-		RXYQ120PBYD/	A000390/	
	Bldg E	E-3	Daiken	RXYQ120PBYD	A000363	1
	Bldg F, Room 108b	Centrifugal Fans EF-F-1	Greenheck	SP-B90	12708166	1
	Bldg F, Room 107	Centrifugal Fans EF-F-2	Greenheck	SP-B110	12012739	1
	Bldg F, Room 101	Centrifugal Fans EF-F-3	Greenheck	SEI-10-428-P-X	12661841 1111	1
	Bldg F, Room 108c	Centrifugal Fans EF-F-4	Greenheck	SP-B90	12708165	1
	Bldg F, Room 105/106	Centrifugal Fans EF-F-5	Greenheck	G-133-A-X	12922455 1203	1
	Bldg F, Room 102	Air-to-Air Recovery Eqp OAU-F-1	Munters	DRYCOOL HD	04M1511110741	1
	Bldg F, Room 102	Air-to-Air Recovery Eqp OAU-F-2	Munters	DRYCOOL HD	04M1711110761	1
	Bldg F, Room 104	Air-to-Air Recovery Eqp OAU-F-3	Munters	DRYCOOL HD	04M1711110779	1
	Bldg F, Room 104	Air-to-Air Recovery Eqp OAU-F-4	Munters	DRYCOOL HD	04M1711110759	1
	Bldg F, Room 111	Air-to-Air Recovery Eqp OAU-F-5	Munters	DRYCOOL HD	04M1511110746	1
	Bldg F, Room 111	Air-to-Air Recovery Eqp OAU-F-6	Munters	DRYCOOL HD	04M1511110744	1
	Bldg F, Room 113	Air-to-Air Recovery Eqp OAU-F-7	Munters	DRYCOOL HD	04M1511110747	1
	Bldg F, Room 113	Air-to-Air Recovery Eqp OAU-F-8	Munters	DRYCOOL HD	04M1511110752	1
	Bldg F, Room 114	Air-to-Air Recovery Eqp OAU-F-9	Munters	DRYCOOL HD	04M1511110755	1
	Bldg F, Room 114	Air-to-Air Recovery Eqp OAU-F-10	Munters	DRYCOOL HD	04M1511110739	1
	Bldg F, Room 102	Fan-Coil Units FCU-F-1	Daiken	FXFQ24PVJU	C000908	1

Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Bldg F, Room 102	Fan-Coil Units FCU-F-2	Daiken	FXFQ24PVJU	C000907	1
	Bldg F, Room 103	Fan-Coil Units FCU-F-3	Daiken	FXZQ09M7VJU	6102806	1
	Bldg F, Room 104	Fan-Coil Units FCU-F-4	Daiken	FXFQ24PVJU	C000851	1
	Bldg F, Room 104	Fan-Coil Units FCU-F-5	Daiken	FXFQ24PVJU	C000847	1
	Bldg F, Room 108	Fan-Coil Units FCU-F-6	Daiken	FXFQ24PVJU	C000885	1
	Bldg F, Room 111	Fan-Coil Units FCU-F-7	Daiken	FXFQ24PVJU	C000884	1
	Bldg F, Room 111	Fan-Coil Units FCU-F-8	Daiken	FXFQ24PVJU	C000909	1
	Bldg F, Room 112	Fan-Coil Units FCU-F-9	Daiken	FXZQ09M7VJU	6102806	1
	Bldg F, Room 113	Fan-Coil Units FCU-F-10	Daiken	FXFQ24PVJU	C000889	1
	Bldg F, Room 113	Fan-Coil Units FCU-F-11	Daiken	FXFQ24PVJU	C000910	1
	Bldg F, Room 114	Fan-Coil Units FCU-F-12	Daiken	FXFQ24PVJU	C000888	1
	Bldg F, Room 114	Fan-Coil Units FCU-F-13	Daiken	FXFQ24PVJU	C000914	1
	Bldg F	Air Cooled Refrigerant Condensers ACCU-F-1	Daiken	RXYQ120PBYD/ RXYQ120PBYD	A000362/ A000352	1
	Bldg G, Room 101c	Centrifugal Fans EF-G-1	Greenheck	SP-B90	12708157	1
	Bldg G, Room 105	Centrifugal Fans EF-G-2	Greenheck	SP-B150	12708167	1
	Bldg G, Room 108	Centrifugal Fans EF-G-3	Greenheck	SQ-90-D-X	12708087 1201	1
	Bldg G, SPED DRYER	Centrifugal Fans EF-G-4	Greenheck	FR-110	910833	1
	Bldg G, Room 101b	Centrifugal Fans EF-G-5	Greenheck	SP-B150	12708169	1
	Bldg G, Room 101a	Centrifugal Fans EF-G-6	Greenheck	SP-B150	12708168	1
	Bldg G, Room 109/110	Centrifugal Fans EF-G-7	Greenheck	G-133-A-X	12708140 1201	1

		JCHEDOLL OF AIR CONDITIO	SCHEDULE OF AIR CONDITIONING AND VENTILATI		ING EQUIPIVIENT		
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity	
	Bldg G, Room 106	Centrifugal Fans EF-G-8	Greenheck	FR-110	919719	1	
	Bldg G, Room 101	Air-to-Air Recovery Eqp OAU-G-1	Munters	DRYCOOL HD	04M1711110771	1	
	Bldg G, Room 101	Air-to-Air Recovery Eqp OAU-G-2	Munters	DRYCOOL HD	04M1511110756	1	
	Bldg G, Room 102	Air-to-Air Recovery Eqp OAU-G-3	Munters	DRYCOOL HD	04M1711110753	1	
	Bldg G, Room 102	Air-to-Air Recovery Eqp OAU-G-4	Munters	DRYCOOL HD	04M1711110770	1	
	Bldg G, Room 104	Air-to-Air Recovery Eqp OAU-G-5	Munters	DRYCOOL HD	04M1711110758	1	
	Bldg G, Room 104	Air-to-Air Recovery Eqp OAU-G-6	Munters	DRYCOOL HD	04M1711110781	1	
	Bldg G, Room 111	Air-to-Air Recovery Eqp OAU-G-7	Munters	DRYCOOL HD	04M1711110769	1	
	Bldg G, Room 111	Air-to-Air Recovery Eqp OAU-G-8	Munters	DRYCOOL HD	04M1711110760	1	
	Bldg G, Room 113	Air-to-Air Recovery Eqp OAU-G-9	Munters	DRYCOOL HD	04M1711110757	1	
	Bldg G, Room 113	Air-to-Air Recovery Eqp OAU-G-10	Munters	DRYCOOL HD	04M1511110736	1	
	Bldg G, Room 101	Fan-Coil Units FCU-G-1	Daiken	FXFQ24PVJU	C000930	1	
	Bldg G, Room 101	Fan-Coil Units FCU-G-2	Daiken	FXFQ24PVJU	C000929	1	
	Bldg G, Room 102	Fan-Coil Units FCU-G-3	Daiken	FXFQ24PVJU	C000918	1	
	Bldg G, Room 102	Fan-Coil Units FCU-G-4	Daiken	FXFQ24PVJU	C000923	1	
	Bldg G, Room 103	Fan-Coil Units FCU-G-5	Daiken	FXZQ09M7VJU	6102824	1	
	Bldg G, Room 104	Fan-Coil Units FCU-G-6	Daiken	FXFQ24PVJU	C000924	1	
	Bldg G, Room 104	Fan-Coil Units FCU-G-7	Daiken	FXFQ24PVJU	C000925	1	
	Bldg G, Room 106	Fan-Coil Units FCU-G-8	Daiken	FXFQ24PVJU	C000928	1	
	Bldg G, Room 111	Fan-Coil Units FCU-G-9	Daiken	FXFQ24PVJU	C000906	1	

Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Bldg G, Room 111	Fan-Coil Units FCU-G-10	Daiken	FXFQ24PVJU	C000926	1
	Bldg G, Room 112	Fan-Coil Units FCU-G-11	Daiken	FXZQ09M7VJU	6102791	1
	Bldg G, Room 113	Fan-Coil Units FCU-G-12	Daiken	FXFQ24PVJU	C000904	1
	Bldg G, Room 113	Fan-Coil Units FCU-G-13	Daiken	FXFQ24PVJU	C000905	1
	Bldg G	Air Cooled Refrigerant Condensers ACCU- G-1	Daiken	RXYQ120PBYD/ RXYQ120PBYD	A000322/ A000355	1
	Bldg H, Room 118a	Centrifugal Fans EF-H-1	Greenheck	SP-B150	12707443	1
	Bldg H, Room 101c	Centrifugal Fans EF-H-2	Greenheck	G-133-A-X	12707278 1202	1
	Bldg H, Room 116	Centrifugal Fans EF-H-3	Greenheck	SQ-75-D-X	12707218 1202	1
	Bldg H, Room 211	Centrifugal Fans EF-H-4	Greenheck	SQ-75-D-X	12707129 1202	1
	Bldg H, Room 106	Centrifugal Fans EF-H-5	Greenheck	SEI-10-428-P-X	12707224 1202	1
	Bldg H, Room 204	Centrifugal Fans EF-H-6	Greenheck	SEI-10-428-P-X	12922615 1206	1
	Bldg H, SPED DRYER	Centrifugal Fans EF-H-7	Fantech	FDP4	1032058	1
	Bldg H, Room 201-202	Centrifugal Fans EF-H-8	Greenheck	G-133-A-X	12707277 1202	1
	Bldg H, Room 115	Centrifugal Fans EF-H-9	Greenheck	SEI-10-428-P-X	12707222 1202	1
	Bldg H, Room 101a	Centrifugal Fans EF-H-10	Greenheck	SP-B150	12707444	1
	Bldg H, Room 101b	Centrifugal Fans EF-H-11	Greenheck	SP-B150	12707446	1
	Bldg H, Room 118b	Centrifugal Fans EF-H-12	Greenheck	SP-B150	12707445	1
	Bldg H, Room 116	Centrifugal Fans OAF-H-4	Fantech	FR-110	919719	1
	Bldg H, Room 210	Centrifugal Fans OAF-H-16	Fantech	FR-110	919719	1
	Bldg H, Room 101	Air-to-Air Recovery Eqp OAU-H-1	Munters	DRYCOOL HD	04A0312110788	1

		SCHEDULE OF AIR CONDITIO	T T TENTER	THIS EQUIPMENT			
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity	
	Bldg H, Room 101	Air-to-Air Recovery Eqp OAU-H-2	Munters	DRYCOOL HD	04M1711110763	1	
	Bldg H, Room 108	Air-to-Air Recovery Eqp OAU-H-3	Munters	DRYCOOL HD	04A0612110818	1	
	Bldg H, Room 108	Air-to-Air Recovery Eqp OAU-H-4	Munters	DRYCOOL HD	04A0312110795	1	
	Bldg H, Room 109	Air-to-Air Recovery Eqp OAU-H-5	Munters	DRYCOOL HD	04A0312110789	1	
	Bldg H, Room 109	Air-to-Air Recovery Eqp OAU-H-6	Munters	DRYCOOL HD	04A0612110811	1	
	Bldg H, Room 111	Air-to-Air Recovery Eqp OAU-H-7	Munters	DRYCOOL HD	04A0312110797	1	
	Bldg H, Room 111	Air-to-Air Recovery Eqp OAU-H-8	Munters	DRYCOOL HD	04A0312110793	1	
	Bldg H, Room 118	Air-to-Air Recovery Eqp OAU-H-9	Munters	DRYCOOL HD	04A0312110806	1	
	Bldg H, Room 118	Air-to-Air Recovery Eqp OAU-H-10	Munters	DRYCOOL HD	04A0612110820	1	
	Bldg H, Room 205	Air-to-Air Recovery Eqp OAU-H-11	Munters	DRYCOOL HD	04A0312110787	1	
	Bldg H, Room 205	Air-to-Air Recovery Eqp OAU-H-12	Munters	DRYCOOL HD	04M1511110748	1	
	Bldg H, Room 206	Air-to-Air Recovery Eqp OAU-H-13	Munters	DRYCOOL HD	04A0612110817	1	
	Bldg H, Room 206	Air-to-Air Recovery Eqp OAU-H-14	Munters	DRYCOOL HD	04A0312110790	1	
	Bldg H, Room 208	Air-to-Air Recovery Eqp OAU-H-15	Munters	DRYCOOL HD	04A0612110812	1	
	Bldg H, Room 208	Air-to-Air Recovery Eqp OAU-H-16	Munters	DRYCOOL HD	04M2211110782	1	
	Bldg H, Room 212	Air-to-Air Recovery Eqp OAU-H-17	Munters	DRYCOOL HD	04A0612110814	1	
	Bldg H, Room 212	Air-to-Air Recovery Eqp OAU-H-18	Munters	DRYCOOL HD	04A031210799	1	
	Bldg H, Room 120	Fan-Coil Units FCU-H-1	Daiken	FXFQ24PVJU	C000898	1	
	Bldg H, Room 120	Fan-Coil Units FCU-H-2	Daiken	FXFQ24PVJU	C000899	1	
	Bldg H, Room 118	Fan-Coil Units FCU-H-3	Daiken	FXFQ18PVJU	6104188	1	

ltom	School / Location	Unit Description	Manufacturar	Madal Number	Serial Number	Quantity
item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Bldg H, Room 116	Fan-Coil Units FCU-H-4	Daiken	FXFQ24PVJU	C000897	1
	Bldg H, Room 111	Fan-Coil Units FCU-H-5	Daiken	FXFQ24PVJU	C000894	1
	Bldg H, Room 111	Fan-Coil Units FCU-H-6	Daiken	FXFQ24PVJU	C000893	1
	Bldg H, Room 110	Fan-Coil Units FCU-H-7	Daiken	FXZQ12M7VJU	6103816	1
	Bldg H, Room 109	Fan-Coil Units FCU-H-8	Daiken	FXFQ24PVJU	C000892	1
	Bldg H, Room 109	Fan-Coil Units FCU-H-9	Daiken	FXFQ24PVJU	C000896	1
	Bldg H, Room 108	Fan-Coil Units FCU-H-10	Daiken	FXFQ24PVJU	C000917	1
	Bldg H, Room 108	Fan-Coil Units FCU-H-11	Daiken	FXFQ24PVJU	C000895	1
	Bldg H, Room 101	Fan-Coil Units FCU-H-12	Daiken	FXFQ24PVJU	C000230	1
	Bldg H, Room 101	Fan-Coil Units FCU-H-13	Daiken	FXFQ24PVJU	C000237	1
	Bldg H, Room 212	Fan-Coil Units FCU-H-14	Daiken	FXFQ24PVJU	C0001021	1
	Bldg H, Room 212	Fan-Coil Units FCU-H-15	Daiken	FXFQ24PVJU	C0001028	1
	Bldg H, Room 210	Fan-Coil Units FCU-H-16	Daiken	FXZQ12M7VJU	6104924	1
	Bldg H, Room 208	Fan-Coil Units FCU-H-17	Daiken	FXFQ24PVJU	C000916	1
	Bldg H, Room 208	Fan-Coil Units FCU-H-18	Daiken	FXFQ24PVJU	C0001026	1
	Bldg H, Room 207	Fan-Coil Units FCU-H-19	Daiken	FXZQ09M7VJU	6102796	1
	Bldg H, Room 206	Fan-Coil Units FCU-H-20	Daiken	FXFQ24PVJU	C000915	1
	Bldg H, Room 206	Fan-Coil Units FCU-H-21	Daiken	FXFQ24PVJU	C001027	1
	Bldg H, Room 205	Fan-Coil Units FCU-H-22	Daiken	FXFQ24PVJU	C001024	1
	Bldg H, Room 205	Fan-Coil Units FCU-H-23	Daiken	FXFQ24PVJU	C001025	1

		SCHEDOLE OF AIR CONDITIONIN	l	1		
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
		Air Cooled Refrigerant Condensers ACCU-				
	Bldg H (1st Flr)	H-1	Daiken	RXYQ120PBYD	A000410	1
	Bldg H (1st Flr)	Air Cooled Refrigerant Condensers ACCU-H-2	Daiken	RXYQ120PBYD	A000361	1
	Bidg IT (18t I II)	Air Cooled Refrigerant Condensers ACCU-	Daiken	RXYQ120PBYD/	A000361 A000406/	<del></del>
	Bldg H (2nd Flr)	H-3	Daiken	RXYQ72PBYD	A000264	1
	Bldg K, Room 101	Air-to-Air Recovery Eqp OAU-K-1	Munters	DRYCOOL HD	04M1511110751	1
	Bldg K, Room 101	Air-to-Air Recovery Eqp OAU-K-2	Munters	DRYCOOL HD	04A0312110798	1
	Bldg K, Room 102	Air-to-Air Recovery Eqp OAU-K-3	Munters	DRYCOOL HD	04A0312110802	1
	Bldg K, Room 102	Air-to-Air Recovery Eqp OAU-K-4	Munters	DRYCOOL HD	04A0312110784	1
	Bldg K, Room 104	Air-to-Air Recovery Eqp OAU-K-5	Munters	DRYCOOL HD	04A0612110808	1
	Bldg K, Room 104	Air-to-Air Recovery Eqp OAU-K-6	Munters	DRYCOOL HD	04A0612110815	1
	Bldg K, Room 101	Fan-Coil Units FCU-K-1	Daiken	FXFQ24PVJU	C001106	1
	Bldg K, Room 101	Fan-Coil Units FCU-K-2	Daiken	FXFQ24PVJU	C0011005	1
	Bldg K, Room 102	Fan-Coil Units FCU-K-3	Daiken	FXFQ24PVJU	C001113	1
	Bldg K, Room 102	Fan-Coil Units FCU-K-4	Daiken	FXFQ24PVJU	C001114	1
	Bldg K, Room 104	Fan-Coil Units FCU-K-5	Daiken	FXFQ24PVJU	C001115	1
	Bldg K, Room 104	Fan-Coil Units FCU-K-6	Daiken	FXFQ24PVJU	C001108	1
23	Wailuku Elementary					
	Bldg F	Air Curtains				4
	New AC units to be installed by 2025	Schoolwide				
24	Waihee Elementary School					
	Library Bldg	FCU#1 York	York	H2E120A25TC	NALMO 010310	1

		SCHEDULE OF AIR CO	NDITIONING AND VENTILA	TING EQUIFIVIENT		T
ltem	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	Library Bldg	FCU#2 York	York	H2E120A25TC	NALMO 010310	1
	Library Bldg	AHU#1 York	York	ACO42X1021A	WMKM 012366	1
	Library Bldg	AHU#2 York	York	H1ROA76S25A	WGKM 59508	1
	Library Bldg	ACU#1 York	York	K4EU090A33A	NNKS 008245	1
	Library Bldg	ACU#2 York	York	K3EU120A33B	NGKS 0048876	1
	Library Bldg	ACU#3 York	York	K3EU120A33B	NGKS 0048842	1
	Library Bldg	FU#1 York	York	N1VSC1606 A	XMKS 066111	1
	Library Bldg	FU#2 York	York	G2FDO48H21A	XNK 9088084	1
	Library Bldg	ACCU B-A	YORK	PC090C00A2AAAA	N2F0912649	1
	New Admin Bldg	CU-1	Carrier	MMY-MAP1686HT9P-UL	92200008	1
	New Admin Bldg	FCU-1A	Carrier	MMD-AP0156BHPUL	12600012	1
	New Admin Bldg	FCU-1B	Carrier	MMD-AP0726HP-UL	12400014	1
	New Admin Bldg	FCU-1C & 1D	Carrier	MMD-AP0306HPUL	12400007/12400005	2
	New Admin Bldg	FCU-1E	Carrier	MMD-AP0366HPUL	12700018	1
	New Admin Bldg	CU-2	Carrier	MMY-MAP0726HT9P-UL	13100007	1
	New Admin Bldg	FCU-2A& 2B	Carrier	MMD-AP0366HPUL	12700016 / 12700012	2
	New Admin Bldg	CU-3	Carrier	MMY-MAP1686HT9P-UL	92200002	1
	New Admin Bldg	FCU-3A 3C & 3D	Carrier	MMD-AP0366HPUL	12700043 / 12700014 /12700017	3
	New Admin Bldg	FCU-3B	Carrier	MMD-AP0726HP-UL	12400011	1
	New Admin Bldg	CU-4	Carrier	MMY-MAP0726HT9P-UL	12700002	1

	I	SCHEDULE OF AIR CONDITION	ING AND VENTILA	TING EQUIPMENT		
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
	New Admin Bldg	FCU-4A&4B	Carrier	MMD-AP0366HPUL	12500012 /12500007	2
	New Admin blug	FCU-4AQ4B	Carrier	WIWID-AF0300FF0L	12300012/12300007	
	New Admin Bldg	CU-5	Carrier	38MARBQ09AA3	0421V29870	1
	New Admin Bldg	FCU-5	Carrier	40MBDQ093	1219V18726	1
	New Admin Bldg	CU-6	Carrier	38MARBQ09AA3	0421V30081	1
	New Admin Bldg	FCU-6H	Carrier	40MAHBQ09XA3	3221V12441	1
	Bldg C (Cafeteria)	Mars Air Curtains	Mars	36C	(Not Available)	10
	P-11	SPED				1
25	Maui Community School for Adults					
	Annex A Conference Room	Condensing Unit	Mitsubishi	PU24EK	14E013090	1
	Annex A Conference Room	Condensing Unit	Mitsubishi		BC79M553H02	1
	Annex A Conference Room	Condensing Unit	Mitsubishi	MUY-GL24NA	8001901T	1
	Annex A Conference Room	Evaporating Unit	Mitsubishi	MUY-GL24NA	8902958T	1
GROU	P II: STATE BUILDINGS					
Item	School / Location	Unit Description	Manufacturer	Model No.	Serial No.	Quantity
1	Department of Agriculture					
	Bldg A (PW Project-Under Warranty until 10/ 2025)	Central Air	Carrier	50FC-N24AJA5A0A3N0	1124P21029	1
	Bldg A Conference Rm (Project Under Warranty Until 10/ 2025)	Split System	Mitsubishi	MXZ-SM36NAM	2XU03158	1
	Bldg B	Carrier Room Air Conditioning Unit	Carrier	51HK229		1
	Bldg B	Carrier Room Air Conditioning Unit	Carrier	51HK229		1
	Bldg B	Carrier Room Air Conditioning Unit	Carrier	51CMD012		1
2	Kihei Public Library					

SCHEDULE OF AIR CONDITIONING AND VENTILATING EQUIPMENT								
Item	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity		
	AHU-1	Air Handler	Carrier	39MN30D022WWY12XCS	0515U34859	1		
	C-1	Chiller	Carrier	39MN36D022WWX12XPS	0515U42274	1		
3	Makawao Library							
	New AC units to be installed by 2025							
4	Maui - DAGS Facility							
	Building A	Central A/C System	Trane	SCIHO7533A01010	B1107S0349	1		
	Building A	Central A/C System	Trane	SCIH10033A01010	B1207S0004	1		
5	Wailuku Health Center Conference Ro	om I						
	Conference Room	Trane Air Cooled Condenser		TTAO24A300AO	E28277775	1		
	Conference Room	Trane Plus Air Handler				1		
	Laboratory	Packaged A/C Unit	LG	50GKL0036321CU	2005G51346	2		
	Laboratory	ACCU/FCU	LG	ARUM072BTE5	809KCDG17W46	1		
	Nursing - West Side	ACCU/FCU	York	ZF060C00R2CZZ10001A	N1C18805013	1		
	Nursing - West Side	ACCU/FCU	York	ZFO48C00R2CZZ10001A	N1C1880509	1		
	Nursing North Side	ACCU/FCU	York	ZFO48C00R2CZZ10001A	N1C1880510	1		
	Mental Health - South Side	ACCU/FCU	York	ZH078C00E2CZZ50002A	N1C1880327	1		
6	Wailuku State Office Building No. 1							
	SOB 1	Air Handler Units			various	15		
	SOB 1	Chiller	Carrier	30HR070-E600	2590J00997	2		
	SOB 1	Cooling Tower	Baltimore Aircoil	VXT75MCR	90201503	2		

ltom	School / Location	Unit Description	Manufacturer	Model Number	Serial Number	Quantity
		Unit Description	Wanuracturer	Woder Number	Serial Number	Quantity
7	Wailuku State Office Building No. 2					
	MECHANICAL ENCLOSURE	Air Cooled Condensing Unit	Mitsubishi	PUHY-P144TNU-A	09P00125	1
	MECHANICAL ENCLOSURE	Air Cooled Condensing Unit	Mitsubishi	PUHY-P96TNU-A	95P00039	1
	Conference Room	Fan Coil Unit	Mitsubishi	PEFY-P24NMAU-E3	0YR08461	1
	Conference Room	Fan Coil Unit	Mitsubishi	PLFY-P18NFMU-E	95M01297	1
	Governor's Ofc 1	Fan Coil Unit	Mitsubishi	PLFY-P08NEMU-E	87MO1673	1
	Governor's Ofc 1	Fan Coil Unit	Mitsubishi	PLFY-P08NEMU-E	87MO1672	1
	Mech Room	Fan Coil Unit	Mitsubishi	PVFY-P24NAMU-E	0YN02282	1
	DUR Ofc/Hearing/Waiting	Fan Coil Unit	Mitsubishi	PVFY-P54NAMU-E	0XN02146	1
	DUR Ofc/Labor Law	Fan Coil Unit	Mitsubishi	PVFY-P30NAMU-E1	0XN01442	1
	Break/MGR Ofc/DUR Ofc	Fan Coil Unit	Mitsubishi	PVFY-P48NAMU-E	OXN01989	1
	Conference Room	Dehumidfier	Ultra Air	70H	82127395	1
	Governor's Ofc 1	Dehumidfier	Ultra Air	70H	82127396	1
	Conference Room	Booster Fan	Fan Tech	FG-4XL-EC	1005462124	1
	Former Lt. Governor's Ofc	Booster Fan	Fan Tech	FG-6	1007001681	1