CONSULTING ENGINEERS

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**SUBMITTAL REVIEW**

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| **Project:** Asian Health Health Center |
|  |
| **Architect:** Holst |

**Date: July 24, 2017**

**Job No.: 9097**

We have completed our review of the Mechanical submittals and have the following comments:

**GENERAL NOTES:**

Section 230500 Common HVAC Materials and Methods

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|  | **ITEM** | **MANUFACTURER** | **COMMENT** |
| 1. | Access Doors | Elmdor, FR Series  Elmdor CFR Sries | No exception taken. |
| 2. | Pipe Support, | Flex-Strug, Hydra-Zorb  Gibson Stainless, Two hold straps  Grip Rite- Threaded Rod  Powers Fasteners, Vertigo  Duro Dyne, hanging strap  Elgen Hex Nut & washer  Unistrut channel, channel nut with springs  Gripple wire for hanging | No exception taken. |
| 3. | Pipe Penetrations | HILTI – FC 1059  HILTI- FC 1106  HILTI-FC 7013  HILTI FC-8026  HILTI WL 1054  HILTI WL 7042  HILTI WL 7155  HILTI, CFS-S, SIL GG  HILTI, CP 606  HILTI FS-ONE MAX | No exception taken. |

Section 230548 Mechanical Sound and Vibration Control

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|  | **ITEM** | **MANUFACTURER** | **COMMENT** |
| 1. | Spring Isolators | MW Sausse, Vibrex | No exception taken. |
| 2. | Neoprene Pads | MW Sausse, HSS | No exception taken. |

Section 230590 Testing Adjusting and Balancing

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|  | **ITEM** | **MANUFACTURER** | **COMMENT** |
| 1. | TAB | Accurate Balancing Agency | No exception taken. |

Section 230700 HVAC Insulation

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|  | **ITEM** | **MANUFACTURER** | **COMMENT** |
| 1. | Elastomeric pipe insulation | AP/Armaflex Armacell | No exception taken. |
| 2. | Insulation seaming tape | 3M Venture Tape 1507 | No exception taken. |
| 3. | Insulation Jacketing Tape | Nashua Tape Products FSK | No exception taken. |
| 4. | Duct Wrap Insulation | Johns Manville, MIcrolite XG | No exception taken. |

Section 232300 Refrigerant Piping System

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|  | **ITEM** | **MANUFACTURER** | **COMMENT** |
| 1. | **Pre-insulated Pipes** | **PDM Gel Copper pre-insulated**  **SOFT OR HARD** | **Approved for piping downstream of branch selector boxes.** |
| 2. | Copper pipe | STreamline | No exception taken. |
| 3. | Ref line Roughin Box | Polar RouginBox | No exception taken. |
| 4. | Wrappable Split Braided Tube | TeckFlex FLEXO F6N | No exception taken. |
| 5. | Brazing Filler | STAY-SILV 15 | No exception taken. |
| 6. | Refrigerant | SUVA 410A | No exception taken. |

Section 23000 Air Distribution

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|  | **ITEM** | **MANUFACTURER** | **COMMENT** |
| 1. | Flex Duct | Alex-Aire VAlueflex | No exception taken. |
| 2. | Duct Seal | Hard Cast Duct-Seal 321 | No exception taken. |
| 3. | Sealing Tap | Nahua, FiolMastic UL181B-FX Foil Tape | No exception taken. |
| 4. | Grease Hood/ | Captive Aire Hood | **Submitted hood has make-up air plenum , is rated for 600 degree F, and higher airflow reqts than the specified hood. Please revise, or provide explanation if this is a design requirement.** |
| 5. | Grease Fan | Captive Aire DU33HFA | **See comment above for hood, confirm airflow.**  **Provide 208/1 power, per construction set.** |
| 6. | Make-up air unit | Captive Aire AI-G10 | **See comment above, for hood confirm airflow.**  **Provide 208/1 power, per construction set.** |
| 7. | Grease Duct | Captive Aire | No exception taken. |
| 8. | Fire/Smoke Dampers | Geenheck FSD-212 | No exception taken. |
| 9. | Control Damper | Geenheck VCD-23 | No exception taken. |
| 10. | GRD’s | Price PDMC  PDDR  520D  530D  RCDA  SPF  ASP 210  **TBD2100(2nd floor)**  SDR100  **SDB100, 14” inlet**  SDS100  SDB 100  530 | No exception taken.  No exception taken.  No exception taken.  No exception taken.  No exception taken.  No exception taken.  No exception taken.  **Provide with 1.5” slot width, as specified.**  No exception taken.  **14” inlet sizes is approved if it fits. Otherwise, provide plenum with 14x10 custom inlet, as specified on plan.**  No exception taken.  No exception taken. |

Section 233490 HVAC Fans

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|  | **ITEM** | **MANUFACTURER** | **COMMENT** |
| 1. | SF-1 | RCS3-48-623-c50 | No exception taken. |
| 2. | **EF-1** |  | **No product info provided for EF-1. Provide EF-1 for battery storage/Elec 133 room, per REV 2 plans.** |
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Section 237400 HVAC Units

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|  | **ITEM** | **MANUFACTURER** | **COMMENT** |
| 1. | DOAS-1 | Daikin DPS 007A, 208/3 | * **Please confirm 2-position OSA/EXH dampers are provided with the unit. Page 8, “Type” is marked as “none” in the Return/OSA/Exhaust air section.** * **Please confirm all control functions listed under 23 74 00, 2.1 O are met.** |
| 2. | RTU-1, 2, 3 | Daikin DPS-007a, 208/3 | No exception taken. |

Section 237700 VRV Heat REcovery /Section 238000 Terminal HVAC Equipment

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|  | **ITEM** | **MANUFACTURER** | **COMMENT** |
| 1. | HP-1 | Daikin REYQ264TTJU | **No exception taken.** |
|  | FC-1 | Daikin FXMQ18PBJU | **Contractor to provide condensate pump per spec.** |
|  | FC\_8 | Daikin FXMQ48PBJU | No exception taken. |
|  | FC-9 | Daikin FXMQ48PBJU | No exception taken. |
|  | CC-14 | Daikin FXZQ07MVJU9 | No exception taken. |
|  | CC-8 | Daikin FXZQ07MVJU9 | No exception taken. |
|  | CC-17 | Daikin FXFQ24TBJU | No exception taken. |
|  | WU-1 | Daikin FXAQ24PVJU | **Contractor to provide condensate pump, per spec.** |
|  | Bs-1.3 | Daikin BS4Q54TVK | No exception taken. |
|  | BS-1.1 | Daikin BS4Q54TVK | No exception taken. |
|  | BS-6 | Daikin BS6Q54TVJ | No exception taken. |
| 2. | HP-2 | Daikin REYQ264TTJU | **No exception taken.** |
|  | FC-2 | Daikin FXMQ24PBJU | No exception taken. |
|  | FC-3 | Daikin FXMQ15PBJU | No exception taken. |
|  | FC-4 | Daikin FXMQ18PBJU | No exception taken. |
|  | FC-5 | Daikin FXMQ15PBJU | No exception taken. |
|  | FC-6 | Daikin FXMQ15PBJU | No exception taken. |
|  | FC-7 | Daikin FXMQ15PBJU | No exception taken. |
|  | CC-1 | Daikin FXZQ18MVJU9 | No exception taken. |
|  | CC-2 | Daikin FXZQ07MVJU9 | No exception taken.. |
|  | CC-3 | Daikin FXZQ18MVJU9 | No exception taken. |
|  | CC-4 | Daikin FXZQ18MVJU9 | No exception taken. |
|  | CC-5 | Daikin FXZQ18MVJU9 | No exception taken. |
|  | CC-6 | Daikin FXZQ18MVJU9 | No exception taken. |
|  | CC-7 | Daikin FXZQ07MVJU9 | No exception taken. |
|  | CC-9 | Daikin FXZQ07MVJU9 | No exception taken. |
|  | CC-10 | Daikin FXZQ07MVJU9 | No exception taken. |
|  | CC-11 | Daikin FXZQ15MVJU9 | No exception taken. |
|  | CC-12 | Daikin FXZQ15MVJU9 | No exception taken. |
|  | CC-13 | Daikin FXZQ18MVJU9 | No exception taken. |
|  | WU-2 | Daikin FXAQ18PVJU | **Contractor to provide condensate pump, per spec.** |
|  | WU-3 | Daikin FXAQ18PVJU | **Contractor to provide condensate pump, per spec.** |
|  | CC-15 | Daikin FXZQ07MVJU9 | See above. |
|  | Bs-2.5 | Daikin BS6Q54TVK | No exception taken. |
|  | BS-2.1 | Daikin BS4Q54TVK | No exception taken. |
|  | BS=2.2 | Daikin BS4Q54TVK | No exception taken. |
|  | BS-2.4 | Daikin BS4Q54TVK | No exception taken. |
|  | BS-2.3 | Daikin BS4Q54TVK | No exception taken. |
| 3. | Controllers | Daikin DCMN610A71 | No exception taken. |
|  |  | Daikin BRC1E73 | No exception taken. |

Checking is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for: Dimensions which shall be confirmed and correlated at the job site; fabrication processes and techniques of construction; coordination of his work with that of all other trades; and the satisfactory performance of his work.

Sincerely,

MFIA, Inc.

Takako Baker