CONSULTING ENGINEERS

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**SUBMITTAL REVIEW**

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| **Project:** AHSC - YVFWC |
|  |
| **Architect:** Holst |

**Date: November 7, 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, RMXA | 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 copper approved for piping downstream of branch selector boxes only. Use hard copper for piping upstream of the 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. |

Section 23000 Air Distribution

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|  | **ITEM** | **MANUFACTURER** | **COMMENT** |
| 1. | Flex Duct | Flex-Aire VAlueflex | No exception taken. |
| 2. | Duct Seal | Hard Cast Duct-Seal 321 | No exception taken. |
| 3. | MVD | Streimer | No exception taken. |
| 4. | GRD’s | Price PDMC  PDDR  JS220  530D  SPF | No exception taken.  No exception taken.  Please provide 520D model for waiting room SWG. Flow bar was incorrectly specified.  No exception taken. |

Section 233490 HVAC Fans

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|  | **ITEM** | **MANUFACTURER** | **COMMENT** |
| 1. | EF-A1 | Greenheck SP-B200 | Provide with Speed Controller near fan for balancing. |
| 2. | EF-A2 | Greenheck SPB-110 | Provide with Speed Controller near fan for balancing. |
| 3. | EF-A3 | Greenheck SP-A390 | Provide with Speed Controller near fan for balancing. |
| 4. | EF-A4 | Greenheck SP-B200 | Provide with Speed Controller near fan for balancing. |

Section 238000 Terminal HVAC Equipment

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|  | **ITEM** | **MANUFACTURER** | **COMMENT** |
| 1. | FC-A4 | Daikin FXMQ36PBVJU | No exception taken. |
| 2 | FC-A3 | Daikin FXMQ24PBVJU | No exception taken. |
| 3 | FC-A2 | Daikin FXMQ18PBVJU | No exception taken. |
| 4 | CC-A2 | Daikin FXZQ12MVJU9 | No exception taken. |
| 5 | CC-A1 | Daikin FXZQ12MVJU9 | No exception taken. |
| 6 | FC-A1 | Daikin FXMQ36PBVJU | No exception taken. |
| 7. | Bs-1.2 | Daikin BS6Q54TVJ | No exception taken. |
| 8. | Controllers | Daikin BRC1E73 | No exception taken. |
| 9. | IAC/OAC-1 | Daikin FTK324NMVJURK24NMVJU | The submitted product is Larger than specified unit. It is acceptable, but please coordinate wiring size, breaker size, etc with electrical contractor. |

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