

Drawing Name: S:\Projects\Ellenville CSD\2019 Bond Ref\VD Design\06 CAD\AutoCAD\MECH\HV9\Phase 1\VES H900.dwg Date last accessed: 3/22/2022 11:07 AM Date last plotted: 3/22/2022 11:07 AM Plotted By: Brendon Mazza

| AIR HANDLING UNIT SCHEDULE |                                                                   |           |            |        |                |         |             |      |        |                |         |          |           |          |       |         |       |      |        |           |                 |      |                       |       |        |       |         |         |           |     |             |           |                   |                              |         |      |                |     |
|----------------------------|-------------------------------------------------------------------|-----------|------------|--------|----------------|---------|-------------|------|--------|----------------|---------|----------|-----------|----------|-------|---------|-------|------|--------|-----------|-----------------|------|-----------------------|-------|--------|-------|---------|---------|-----------|-----|-------------|-----------|-------------------|------------------------------|---------|------|----------------|-----|
| MARK                       | LOCATION                                                          | NOM. TONS | FANS       |        |                |         |             |      |        |                | DX COIL |          |           |          |       |         |       |      |        |           | ELECTRICAL DATA |      | ENERGY RECOVERY WHEEL |       |        |       |         |         |           |     | REHEAT COIL |           | UNIT WEIGHT (LBS) | TYPICAL UNIT MFG & MODEL NO. | REMARKS |      |                |     |
|                            |                                                                   |           | SUPPLY FAN |        |                |         | EXHAUST FAN |      |        |                | COOLING |          |           |          |       | HEATING |       |      |        |           |                 |      |                       |       |        |       |         |         |           |     |             |           |                   |                              |         |      |                |     |
|                            |                                                                   |           | CFM        | OA CFM | ESP (IN. W.C.) | FAN RPM | BHP / HP    | CFM  | OA CFM | ESP (IN. W.C.) | FAN RPM | BHP / HP | TOTAL MBH | SENS MBH | EAT°F |         | LAT°F |      | AMB °F | TOTAL MBH | EAT°F           |      | LAT°F                 |       | AMB °F |       |         |         |           |     |             |           |                   |                              |         |      |                |     |
|                            |                                                                   |           |            |        |                |         |             |      |        |                |         |          |           |          | DB    | WB      | DB    | WB   |        |           | DB              | WB   | DB                    | WB    |        |       |         |         |           |     |             |           |                   |                              |         |      |                |     |
| RTU-1                      | CAFETERIA ROOF                                                    | 16        | 7500       | 2150   | 1.5            | 1510    | 6.26/7.5    | 7500 | 1700   | 1.5            | 1619    | 3.77/7.5 | 241.6     | 201.6    | 77.3  | 63.6    | 52.7  | 52.6 | 95     | 161       | 60.5            | 80.1 | 2                     | 208/3 | 121.2  | 94/73 | 75/62.5 | 83/66.3 | 77.3/63.6 | 2/1 | 68/51.5     | 41.8/37.3 | 60.5/47.8         | 140.7                        | 70      | 4153 | DAIKIN DPS020A | 1.2 |
| RTU-2                      | CAFETERIA ROOF                                                    | 16        | 7500       | 2150   | 1.5            | 1510    | 6.26/7.5    | 7500 | 1700   | 1.5            | 1619    | 3.77/7.5 | 241.6     | 201.6    | 77.3  | 63.6    | 52.7  | 52.6 | 95     | 161       | 60.5            | 80.1 | 2                     | 208/3 | 121.2  | 94/73 | 75/62.5 | 83/66.3 | 77.3/63.6 | 2/1 | 68/51.5     | 41.8/37.3 | 60.5/47.8         | 140.7                        | 70      | 4153 | DAIKIN DPS020A | 1.2 |
| REMARKS:                   | 1. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH                      |           |            |        |                |         |             |      |        |                |         |          |           |          |       |         |       |      |        |           |                 |      |                       |       |        |       |         |         |           |     |             |           |                   |                              |         |      |                |     |
|                            | 2. INSTALL HOT GAS REHEAT LINE PER MANUFACTURER'S RECOMMENDATIONS |           |            |        |                |         |             |      |        |                |         |          |           |          |       |         |       |      |        |           |                 |      |                       |       |        |       |         |         |           |     |             |           |                   |                              |         |      |                |     |
|                            | 3. PROVIDE BACNET CONTROLLER AND CONNECT TO EXISTING BMS          |           |            |        |                |         |             |      |        |                |         |          |           |          |       |         |       |      |        |           |                 |      |                       |       |        |       |         |         |           |     |             |           |                   |                              |         |      |                |     |

| AIR HANDLING UNIT SCHEDULE |                                                          |           |            |        |                |               |         |          |              |          |       |    |       |      |                |           |     |       |    |       |                 |                   |                              |                   |       |       |
|----------------------------|----------------------------------------------------------|-----------|------------|--------|----------------|---------------|---------|----------|--------------|----------|-------|----|-------|------|----------------|-----------|-----|-------|----|-------|-----------------|-------------------|------------------------------|-------------------|-------|-------|
| MARK                       | LOCATION                                                 | NOM. TONS | SUPPLY FAN |        |                |               |         |          | COOLING COIL |          |       |    |       |      | HOT WATER COIL |           |     |       |    |       | ELECTRICAL DATA | UNIT WEIGHT (LBS) | TYPICAL UNIT MFG & MODEL NO. | REMARKS           |       |       |
|                            |                                                          |           | CFM        | OA CFM | ESP (IN. W.C.) | TSP W.C.) (IN | FAN RPM | BHP / HP | TOTAL MBH    | SENS MBH | EAT°F |    | LAT°F |      | AMB °F         | TOTAL MBH | GPM | EAT°F |    | LAT°F |                 |                   |                              |                   | EWT°F | LWT°F |
|                            |                                                          |           |            |        |                |               |         |          |              |          | DB    | WB | DB    | WB   |                |           |     | DB    | DB |       |                 |                   |                              |                   |       |       |
| AHU-1                      | MECHANICAL ROOM                                          | 10        | 4000       | 800    | 1              | 2.89          | 3650    | 2.98/5   | 139          | 99       | 78    | 65 | 55.3  | 53.4 | 92             | 74.5      | 7   | 63    | 80 | 180   | 158.7           | 200/3             | 1552                         | DAIKIN CAH009GDGM | 1     |       |
| REMARKS:                   | 1. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH             |           |            |        |                |               |         |          |              |          |       |    |       |      |                |           |     |       |    |       |                 |                   |                              |                   |       |       |
|                            | 2. PROVIDE BACNET CONTROLLER AND CONNECT TO EXISTING BMS |           |            |        |                |               |         |          |              |          |       |    |       |      |                |           |     |       |    |       |                 |                   |                              |                   |       |       |

| MAKE UP AIR UNIT SCHEDULE |                                                                                |          |                 |                   |     |                 |       |    |              |      |           |                |               |              |             |                |          |      |      |                                |                              |          |
|---------------------------|--------------------------------------------------------------------------------|----------|-----------------|-------------------|-----|-----------------|-------|----|--------------|------|-----------|----------------|---------------|--------------|-------------|----------------|----------|------|------|--------------------------------|------------------------------|----------|
| MARK                      | NOM. CFM                                                                       | FAN DATA |                 |                   |     | ELECTRICAL DATA |       |    | HEATING DATA |      |           |                |               | COOLING (DX) |             |                |          |      |      | WT (LBS)                       | TYPICAL UNIT MFG & MODEL NO. | REMARKS: |
|                           |                                                                                | NOM. RPM | EXT SP (IN. WC) | TOTAL SP (IN. WC) | HP  | VOLT            | PHASE | HZ | TEMP (°F)    |      | COIL TYPE | TEMP RISE (°F) | CAPACITY (KW) | TEMP (°F)    |             | CAPACITY (MBH) |          | EER  |      |                                |                              |          |
|                           |                                                                                |          |                 |                   |     |                 |       |    | ENT          | LVG  |           |                |               | ENT (DB/WB)  | LVG (DB/WB) | TOTAL          | SENSIBLE |      |      |                                |                              |          |
| MUA-1                     | 1136                                                                           | 2203     | 0.5             | 0.739             | 0.5 | 208             | 3     | 60 | -2           | 66.1 | ELECTRIC  | 68.1           | 24.5          | 88.3/74.2    | 62.9/60     | 57.8           | 31.8     | 13.3 | 2072 | GREENHECK<br>MSX-P109-H12-MF-5 | 1, 2                         |          |
| REMARKS:                  | 1. PROVIDE FACTORY MOUNTED DISCONNECT.<br>2. PROVIDE MAGNETIC STARTER FOR FANS |          |                 |                   |     |                 |       |    |              |      |           |                |               |              |             |                |          |      |      |                                |                              |          |

| FIN TUBE SCHEDULE |                                                                                                               |    |              |          |       |                    |            |       |          |          |              |             |                       |              |                                 |         |
|-------------------|---------------------------------------------------------------------------------------------------------------|----|--------------|----------|-------|--------------------|------------|-------|----------|----------|--------------|-------------|-----------------------|--------------|---------------------------------|---------|
| MARK              | FIN SIZE<br>X H                                                                                               | (W | FINS PER FT. | FIN TYPE | TIERS | FIN LENGTH<br>(FT) | HOT WATER  |       |          |          | ENCLOSURE    |             |                       |              | TYPICAL UNIT MFG<br>& MODEL NO. | REMARKS |
|                   |                                                                                                               |    |              |          |       |                    | FLOW (GPM) | BTUH  | EWI (°F) | LWT (°F) | HEIGHT (IN.) | DEPTH (IN.) | MOUNT HEIGHT<br>(IN.) | STYLE        |                                 |         |
| ME-FT-1           | 3-5/8X4-1/4                                                                                                   |    | 32           | CU/AL    | 1     | 20                 | 0.5        | 16200 | 180      | 160      | 14           | 5 5/16      | 4                     | SLOPE OUTLET | STERLING JVB-ARS14<br>C3/4-433  | 1, 2    |
| REMARKS:          | 1. PROVIDE ACCESS DOOR IN ENCLOSURE AS NECESSARY FOR ACCESS TO SHUTOFF VALVE, CONTROL VALVE, AND ACCESSORIES. |    |              |          |       |                    |            |       |          |          |              |             |                       |              |                                 |         |
|                   | 2. ENCLOSURE COLOR TO BE SELECTED BY ARCHITECT.                                                               |    |              |          |       |                    |            |       |          |          |              |             |                       |              |                                 |         |

| FAN SCHEDULE |                                              |                    |           |                    |      |            |                |      |                 |       |       |                              |         |
|--------------|----------------------------------------------|--------------------|-----------|--------------------|------|------------|----------------|------|-----------------|-------|-------|------------------------------|---------|
| MARK         | LOCATION                                     | SERVICE            | TYPE      | ROOF OPENING (IN.) | CFM  | SP IN W.G. | DIAMETER (IN.) | RPM  | ELECTRICAL DATA |       |       | TYPICAL UNIT MFG & MODEL NO. | REMARKS |
|              |                                              |                    |           |                    |      |            |                |      | BHP / HP        | VOLTS | PHASE |                              |         |
| KEF-1        | CAFETERIA ROOF                               | KITCHEN HOOD       | UPBLAST   | 18.5X18.5          | 1418 | 1.25       | 29             | 1416 | .54/75          | 208   | 1     | GREENHECK CUE-141-VG         | 1, 3, 4 |
| EF-1         | CAFETERIA ROOF                               | CAFETERIA BATHROOM | DOWNBLAST | 10.5X10.5          | 100  | 0.25       | 20             | 1175 | .01/06          | 115   | 1     | GREENHECK CUE-070-VG         | 1, 2    |
| EF-2         | CAFETERIA ROOF                               | KITCHEN            | UPBLAST   | 18.5X18.5          | 800  | 0.35       | 29             | 783  | .09/25          | 115   | 1     | GREENHECK CUE-141-VG         | 1, 3    |
| EF-3         | LIBRARY ROOF                                 | LIBRARY            | DOWNBLAST | 14.5X14.5          | 800  | 0.3        | 28             | 826  | .06/25          | 115   | 1     | GREENHECK G-133-VG           | 1, 2    |
| EF-4         | LIBRARY ROOF                                 | LIBRARY            | DOWNBLAST | 26.5X26.5          | 3200 | 0.4        | 43             | 565  | .43/5           | 115   | 1     | GREENHECK GB-220             | 1, 2    |
| REMARKS:     | 1. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH |                    |           |                    |      |            |                |      |                 |       |       |                              |         |
|              | 2. PROVIDE BACKDRAFT DAMPER                  |                    |           |                    |      |            |                |      |                 |       |       |                              |         |
|              | 3. PROVIDE GREASE TRAP                       |                    |           |                    |      |            |                |      |                 |       |       |                              |         |
|              | 4. PROVIDE MAGNETIC STARTER                  |                    |           |                    |      |            |                |      |                 |       |       |                              |         |

| AIR COOLED CONDENSER UNIT SCHEDULE |                         |             |        |              |                      |        |                 |        |      |                         |      |                              |          |
|------------------------------------|-------------------------|-------------|--------|--------------|----------------------|--------|-----------------|--------|------|-------------------------|------|------------------------------|----------|
| MARK                               | LOCATION                | REFRIGERANT | SERVES | NOMINAL TONS | REFRIGERANT CIRCUITS | SST °F | ELECTRICAL DATA |        |      | OPERATING WEIGHT (LBS.) | EER  | TYPICAL UNIT MFG & MODEL NO. | REMARKS: |
|                                    |                         |             |        |              |                      |        | COMPRESSOR      | VOLT/Ø | MCA  |                         |      |                              |          |
|                                    |                         |             |        |              |                      |        |                 |        |      |                         |      |                              |          |
| ACCU-1                             | OUTSIDE MECHANICAL ROOM | R-410A      | AHU-1  | 10           | 1                    | 44     | 2               | 208/3  | 46.4 | 345                     | 11.2 | DAIKIN DX11TA1203            | *        |
| REMARKS:                           | 1.                      |             |        |              |                      |        |                 |        |      |                         |      |                              |          |

| HOT WATER COIL SCHEDULE |         |          |           |      |                     |             |      |           |       |                       |       |                                 |                 |                     |
|-------------------------|---------|----------|-----------|------|---------------------|-------------|------|-----------|-------|-----------------------|-------|---------------------------------|-----------------|---------------------|
| MARK                    | SERVICE | AIR DATA |           |      |                     | WATER DATA  |      |           |       | MFG SIZE<br>HxL (IN.) | ROWS  | TYPICAL UNIT MFG<br>& MODEL NO. | REMARKS:        |                     |
|                         |         | CFM      | TEMP (°F) |      | MAX APD<br>(IN. WC) | MIN.<br>MBH | CFM  | TEMP (°F) |       |                       |       |                                 |                 | MAX APD<br>(IN. WC) |
|                         |         |          | ENT       | LVG  |                     |             |      | ENT       | LVG   |                       |       |                                 |                 |                     |
| HC-1                    | RTU-1   | 7500     | 48        | 89.1 | 0.51                | 337.2       | 7500 | 180       | 160.4 | 2.9                   | 42X36 | 2                               | DAIKIN SWH1002A |                     |
| HC-2                    | RTU-2   | 7500     | 48        | 89.1 | 0.51                | 337.2       | 7500 | 180       | 160.4 | 2.9                   | 42X36 | 2                               | DAIKIN SWH1002A |                     |
| REMARKS:                | 1.      |          |           |      |                     |             |      |           |       |                       |       |                                 |                 |                     |

| LOUVER SCHEDULE |                      |         |                     |      |             |                |                               |
|-----------------|----------------------|---------|---------------------|------|-------------|----------------|-------------------------------|
| MARK            | LOCATION             | SERVICE | FREE AREA (SQ. FT.) | CFM  | SP (IN. WG) | SIZE WxH (IN.) | TYPICAL UNIT MFG. & MODEL NO. |
| L-1             | MECHANICAL ROOM WALL | AHU-1   | 6.4                 | 4000 | 0.05        | 56X36          | GREENHECK EAC-601             |
| REMARKS:        | 1.                   |         |                     |      |             |                |                               |

| REGISTERS, GRILLES, AND DIFFUSERS |             |          |        |        |       |               |         |
|-----------------------------------|-------------|----------|--------|--------|-------|---------------|---------|
| MARK                              | APPLICATION | MATERIAL | TYPE   | FINISH | SIZE  | DESIGN EQUIP. | REMARKS |
| D-1                               | SUPPLY      | STEEL    | LAY IN | WHITE  | 24X24 | PRICE SCD     |         |
| D-2                               | SUPPLY      | STEEL    | LAY IN | WHITE  | 12X12 | PRICE SCD     |         |
| G-1                               | RETURN/EA   | STEEL    | LAY IN | WHITE  | 24X24 | PRICE PDDR    |         |
| G-2                               | RETURN/EA   | STEEL    | LAY IN | WHITE  | 24X24 | PRICE PFRF    |         |
| G-3                               | RETURN/EA   | STEEL    | LAY IN | WHITE  | 12X12 | PRICE PDDR    |         |
| REMARKS:                          | 1.          |          |        |        |       |               |         |

| OUTSIDE AIR CALCULATIONS |                          |         |              |             |          |          |      |     |         |                  |
|--------------------------|--------------------------|---------|--------------|-------------|----------|----------|------|-----|---------|------------------|
|                          |                          |         |              | TOTAL       |          |          |      |     |         |                  |
|                          |                          |         | Occupant     | OCCUPANCY   | O.A. PER | O.A. PER |      |     |         |                  |
|                          |                          |         | Density      | FOR         | PERSON   | SQ. FT.  |      |     | Voz=Vot |                  |
| Space                    | Occupancy Classification | SQ. FT. | #/1000sq.ft. | VENTILATION | (CFM)    | (CFM)    | Vbz  | Ez  | (CFM)   | Required Exhaust |
| LIBRARY 307              | LIBRARY                  | 3500    | 10           | 35          | 5        | 0.12     | 595  | 0.8 | 744     |                  |
| LIBRARY OFFICE           | OFFICE SPACE             | 120     | 5            | 3           | 5        | 0.08     | 22   | 0.8 | 29      |                  |
| LIBRARY READING ROOM     | CONFERENCE ROOM          | 170     | 50           | 9           | 5        | 0.06     | 55   | 0.8 | 69      |                  |
| CAFETERIA                | CAFETERIA, FAST FOOD     | 4000    | 100          | 400         | 7.5      | 0.18     | 3720 | 0.8 | 4650    |                  |
| KITCHEN                  | KITCHEN                  | 1075    |              |             |          |          |      |     |         | 107.5            |