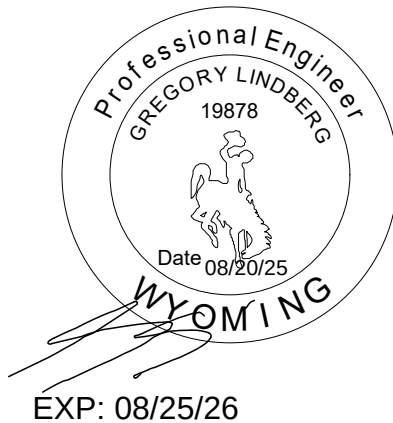
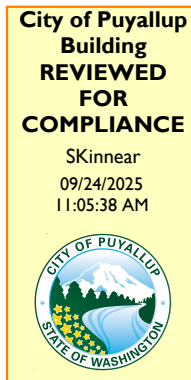




Location  
Building owner  
Program user  
Company  
Comments

Puyallup, WA  
Target Corporation  
Prototype Team  
Target Corporation

By  
Dataset name

NRA  
C:\USERS\JSS\DESKTOP\NEW FOLDER\T0342  
LOADS.TRC

Calculation time  
TRACE® 700 version

12:39 PM on 08/17/2025  
6.3.5

Location  
Latitude  
Longitude  
Time Zone  
Elevation  
Barometric pressure

Tacoma, Washington  
47.0 deg  
122.0 deg  
8  
350 ft  
29.5 in. Hg

Air density  
Air specific heat  
Density-specific heat product  
Latent heat factor  
Enthalpy factor

0.0750 lb/cu ft  
0.2444 Btu/lb·°F  
1.1003 Btu/h·cfm·°F  
4,843.6 Btu·min/h·cu ft  
4.5015 lb·min/hr·cu ft

Summer design dry bulb  
Summer design wet bulb  
Winter design dry bulb  
Summer clearness number  
Winter clearness number  
Summer ground reflectance  
Winter ground reflectance  
Carbon Dioxide Level

82.0 °F  
66.0 °F  
24.0 °F  
1.05  
0.95  
0.20  
0.20  
400 ppm

Design simulation period  
Cooling load methodology  
Heating load methodology

January - December  
RTS (Heat Balance)  
CLTD-CLF (ASHRAE-TFM)

# System Checksums

By NRA

RTU-16 - Pharmacy

Single Zone

| COOLING COIL PEAK                     |                     |               |                  |               | CLG SPACE PEAK        |                  |   |                             |                | HEATING COIL PEAK     |               |          |     |  | TEMPERATURES     |                |                |
|---------------------------------------|---------------------|---------------|------------------|---------------|-----------------------|------------------|---|-----------------------------|----------------|-----------------------|---------------|----------|-----|--|------------------|----------------|----------------|
| Peaked at Time: Mo/Hr: 9 / 11         |                     |               |                  |               | Mo/Hr: Sum of         |                  |   |                             |                | Mo/Hr: Heating Design |               |          |     |  |                  |                |                |
| Outside Air: OADB/WB/HR: 70 / 63 / 76 |                     |               |                  |               | OADB: Peaks           |                  |   |                             |                | OADB: 24              |               |          |     |  |                  |                |                |
| Space Sens. + Lat.                    | Plenum Sens. + Lat. | Net Total     | Percent Of Total |               | Space Sensible        | Percent Of Total |   |                             |                | Space Peak            | Coil Peak     | Percent  |     |  |                  |                |                |
| Btu/h                                 | Btu/h               | Btu/h         | (%)              |               | Btu/h                 | (%)              |   |                             |                | Space Sens            | Tot Sens      | Of Total | (%) |  |                  |                |                |
| <b>Envelope Loads</b>                 |                     |               |                  |               | <b>Envelope Loads</b> |                  |   |                             |                |                       |               |          |     |  |                  |                |                |
| Skylite Solar                         | 0                   | 0             | 0                | 0             | 0                     | 0                | 0 | Skylite Solar               | 0              | 0                     | 0             | 0.00     |     |  | <b>SADB</b>      | <b>Cooling</b> | <b>Heating</b> |
| Skylite Cond                          | 0                   | 0             | 0                | 0             | 0                     | 0                | 0 | Skylite Cond                | 0              | 0                     | 0             | 0.00     |     |  | <b>Ra Plenum</b> | 55.0           | 86.2           |
| Roof Cond                             | 0                   | 2,296         | 2,296            | 7             | 0                     | 0                | 0 | Roof Cond                   | 0              | -1,355                | 4.27          |          |     |  | <b>Return</b>    | 94.2           | 50.9           |
| Glass Solar                           | 11,128              | 0             | 11,128           | 33            | 11,128                | 39               | 0 | Glass Solar                 | 0              | 0                     | 0.00          |          |     |  | <b>Ret/OA</b>    | 74.0           | 69.4           |
| Glass/Door Cond                       | -329                | 0             | -329             | -1            | -329                  | -1               | 0 | Glass/Door Cond             | -2,344         | -2,344                | 7.38          |          |     |  | <b>Fn MtrTD</b>  | 73.6           | 65.0           |
| Wall Cond                             | 7,778               | 4,062         | 11,840           | 35            | 7,760                 | 27               | 0 | Wall Cond                   | -6,609         | -9,838                | 30.97         |          |     |  | <b>Fn BldTD</b>  | 0.1            | 0.0            |
| Partition/Door                        | 0                   | 0             | 0                | 0             | 0                     | 0                | 0 | Partition/Door              | 0              | 0                     | 0.00          |          |     |  | <b>Fn Frict</b>  | 0.1            | 0.0            |
| Floor                                 | 0                   | 0             | 0                | 0             | 0.00                  | 0                | 0 | Floor                       | -3,093         | -3,093                | 9.74          |          |     |  |                  | 0.3            | 0.0            |
| Adjacent Floor                        | 0.00                | 0.00          | 0.00             | 0.00          | 0.00                  | 0.00             | 0 | Adjacent Floor              | 0.00           | 0.00                  | 0.00          |          |     |  |                  |                |                |
| Infiltration                          | 591                 | 591           | 591              | 2             | -52                   | 0                | 0 | Infiltration                | -2,526         | -2,526                | 7.95          |          |     |  |                  |                |                |
| <b>Sub Total ==&gt;</b>               | <b>19,168</b>       | <b>6,359</b>  | <b>25,527</b>    | <b>75</b>     | <b>18,508</b>         | <b>65</b>        |   | <b>Sub Total ==&gt;</b>     | <b>-14,572</b> | <b>-19,155</b>        | <b>60.31</b>  |          |     |  |                  |                |                |
| <b>Internal Loads</b>                 |                     |               |                  |               | <b>Internal Loads</b> |                  |   |                             |                |                       |               |          |     |  |                  |                |                |
| Lights                                | 3,102               | 75            | 3,177            | 9             | 3,102                 | 11               | 0 | Lights                      | 3,102          | 3,177                 | -10.00        |          |     |  |                  |                |                |
| People                                | 2,500               | 0             | 2,500            | 7             | 1,250                 | 4                | 0 | People                      | 1,250          | 1,250                 | -3.94         |          |     |  |                  |                |                |
| Misc                                  | 632                 | 0             | 632              | 2             | 632                   | 2                | 0 | Misc                        | 632            | 632                   | -1.99         |          |     |  |                  |                |                |
| <b>Sub Total ==&gt;</b>               | <b>6,234</b>        | <b>75</b>     | <b>6,309</b>     | <b>19</b>     | <b>4,984</b>          | <b>17</b>        |   | <b>Sub Total ==&gt;</b>     | <b>4,984</b>   | <b>5,059</b>          | <b>-15.93</b> |          |     |  |                  |                |                |
| <b>Ceiling Load</b>                   | <b>4,950</b>        | <b>-4,950</b> | <b>0</b>         | <b>0</b>      | <b>5,027</b>          | <b>18</b>        |   | <b>Ceiling Load</b>         | <b>-4,509</b>  | <b>0</b>              | <b>0.00</b>   |          |     |  |                  |                |                |
| <b>Ventilation Load</b>               | <b>0</b>            | <b>0</b>      | <b>1,391</b>     | <b>4</b>      | <b>0</b>              | <b>0</b>         |   | <b>Ventilation Load</b>     | <b>0</b>       | <b>-6,648</b>         | <b>20.93</b>  |          |     |  |                  |                |                |
| <b>Adj Air Trans Heat</b>             | <b>0</b>            | <b>0</b>      | <b>0</b>         | <b>0</b>      | <b>0</b>              | <b>0</b>         |   | <b>Adj Air Trans Heat</b>   | <b>0</b>       | <b>0</b>              | <b>0</b>      |          |     |  |                  |                |                |
| <b>Dehumid. Ov Sizing</b>             |                     |               | <b>0</b>         | <b>0</b>      |                       |                  |   | <b>Ov/Undr Sizing</b>       | <b>-11,015</b> | <b>-11,015</b>        | <b>34.68</b>  |          |     |  |                  |                |                |
| <b>Ov/Undr Sizing</b>                 | <b>0</b>            |               | <b>0</b>         | <b>0</b>      | <b>0</b>              | <b>0</b>         |   | <b>Exhaust Heat</b>         |                | <b>-4</b>             | <b>0.01</b>   |          |     |  |                  |                |                |
| <b>Exhaust Heat</b>                   |                     | <b>0</b>      | <b>0</b>         | <b>0</b>      |                       |                  |   | <b>OA Preheat Diff.</b>     |                | <b>0</b>              | <b>0.00</b>   |          |     |  |                  |                |                |
| <b>Sup. Fan Heat</b>                  |                     |               | <b>728</b>       | <b>2</b>      |                       |                  |   | <b>RA Preheat Diff.</b>     |                | <b>0</b>              | <b>0.00</b>   |          |     |  |                  |                |                |
| <b>Ret. Fan Heat</b>                  |                     | <b>0</b>      | <b>0</b>         | <b>0</b>      |                       |                  |   | <b>Additional Reheat</b>    |                | <b>0</b>              | <b>0.00</b>   |          |     |  |                  |                |                |
| <b>Duct Heat Pkup</b>                 |                     | <b>0</b>      | <b>0</b>         | <b>0</b>      |                       |                  |   | <b>Underflr Sup Ht Pkup</b> |                | <b>0</b>              | <b>0.00</b>   |          |     |  |                  |                |                |
| <b>Underflr Sup Ht Pkup</b>           |                     | <b>0</b>      | <b>0</b>         | <b>0</b>      |                       |                  |   | <b>Supply Air Leakage</b>   |                | <b>0</b>              | <b>0.00</b>   |          |     |  |                  |                |                |
| <b>Supply Air Leakage</b>             |                     | <b>0</b>      | <b>0</b>         | <b>0</b>      |                       |                  |   |                             |                |                       |               |          |     |  |                  |                |                |
| <b>Grand Total ==&gt;</b>             | <b>30,352</b>       | <b>1,484</b>  | <b>33,954</b>    | <b>100.00</b> | <b>28,519</b>         | <b>100.00</b>    |   | <b>Grand Total ==&gt;</b>   | <b>-25,112</b> | <b>-31,764</b>        | <b>100.00</b> |          |     |  |                  |                |                |

| AIRFLOWS           |         |         |
|--------------------|---------|---------|
|                    | Cooling | Heating |
| <b>Diffuser</b>    | 1,364   | 1,364   |
| <b>Terminal</b>    | 1,364   | 1,364   |
| <b>Main Fan</b>    | 1,364   | 1,364   |
| <b>Sec Fan</b>     | 0       | 0       |
| <b>Nom Vent</b>    | 133     | 133     |
| <b>AHU Vent</b>    | 133     | 133     |
| <b>Infil</b>       | 51      | 51      |
| <b>MinStop/Rh</b>  | 0       | 0       |
| <b>Return</b>      | 1,405   | 1,405   |
| <b>Exhaust</b>     | 174     | 174     |
| <b>Rm Exh</b>      | 10      | 10      |
| <b>Auxiliary</b>   | 0       | 0       |
| <b>Leakage Dwn</b> | 0       | 0       |
| <b>Leakage Ups</b> | 0       | 0       |

| ENGINEERING CKS   |         |         |
|-------------------|---------|---------|
|                   | Cooling | Heating |
| <b>% OA</b>       | 9.7     | 9.7     |
| <b>cfm/ft²</b>    | 1.77    | 1.77    |
| <b>cfm/ton</b>    | 482.11  |         |
| <b>ft²/ton</b>    | 272.84  |         |
| <b>Btu/hr-ft²</b> | 43.98   | -41.14  |
| <b>No. People</b> | 5       |         |

| COOLING COIL SELECTION |     |           |              |                |      |       |                |      |       |             | AREAS |     |     |                 | HEATING COIL SELECTION |        |        |      |  |
|------------------------|-----|-----------|--------------|----------------|------|-------|----------------|------|-------|-------------|-------|-----|-----|-----------------|------------------------|--------|--------|------|--|
| Total Capacity         |     | Sens Cap. | Coil Airflow | Enter DB/WB/HR |      |       | Leave DB/WB/HR |      |       | Gross Total | Glass | ft² | (%) | Capacity        | Coil Airflow           | Ent °F | Lvg °F |      |  |
| ton                    | MBh |           |              | °F             | °F   | gr/lb | °F             | °F   | gr/lb |             |       |     |     | MBh             | cfm                    |        |        |      |  |
| <b>Main Clg</b>        | 2.8 | 34.0      | 30.3         | 1,364          | 73.6 | 60.3  | 58.2           | 54.5 | 51.5  | 772         |       |     |     | <b>Main Htg</b> | -31.8                  | 1,364  | 65.0   | 86.2 |  |
| <b>Aux Clg</b>         | 0.0 | 0.0       | 0.0          | 0              | 0.0  | 0.0   | 0.0            | 0.0  | 0.0   | 0           |       |     |     | <b>Aux Htg</b>  | 0.0                    | 0      | 0.0    | 0.0  |  |
| <b>Opt Vent</b>        | 0.0 | 0.0       | 0.0          | 0              | 0.0  | 0.0   | 0.0            | 0.0  | 0.0   | 1           |       |     |     | <b>Preheat</b>  | 0.0                    | 0      | 0.0    | 0.0  |  |
|                        |     |           |              |                |      |       |                |      |       | 139         |       |     |     |                 |                        |        |        |      |  |
| <b>Total</b>           | 2.8 | 34.0      |              |                |      |       |                |      |       | 772         | 0     | 0   |     | <b>Humidif</b>  | 0.0                    | 0      | 0.0    | 0.0  |  |
|                        |     |           |              |                |      |       |                |      |       | 2,547       | 56    | 2   |     | <b>Opt Vent</b> | 0.0                    | 0      | 0.0    | 0.0  |  |
|                        |     |           |              |                |      |       |                |      |       | 0           | 0     | 0   |     | <b>Total</b>    | -31.8                  |        |        |      |  |

# System Checksums

By NRA

RTU-18 - Sales / Market

Single Zone

| COOLING COIL PEAK     |                     |                          |                  |        | CLG SPACE PEAK        |                  | HEATING COIL PEAK     |                    |                  | TEMPERATURES |         |      |
|-----------------------|---------------------|--------------------------|------------------|--------|-----------------------|------------------|-----------------------|--------------------|------------------|--------------|---------|------|
| Peaked at Time:       |                     | Mo/Hr: 6 / 13            |                  |        | Mo/Hr: Sum of         |                  | Mo/Hr: Heating Design |                    |                  |              |         |      |
| Outside Air:          |                     | OADB/WB/HR: 78 / 67 / 81 |                  |        | OADB: Peaks           |                  | OADB: 24              |                    |                  |              |         |      |
| Space Sens. + Lat.    | Plenum Sens. + Lat. | Net Total                | Percent Of Total |        | Space Sensible        | Percent Of Total | Space Peak Space Sens | Coil Peak Tot Sens | Percent Of Total | Cooling      | Heating |      |
| Btu/h                 | Btu/h               | Btu/h                    | (%)              |        | Btu/h                 | (%)              | Btu/h                 | Btu/h              | (%)              |              |         |      |
| <b>Envelope Loads</b> |                     |                          |                  |        | <b>Envelope Loads</b> |                  |                       |                    |                  |              |         |      |
| Skylite Solar         | 0                   | 0                        | 0                | 0      | 0                     | 0                | 0                     | 0                  | 0.00             | SADB         | 55.0    | 80.0 |
| Skylite Cond          | 0                   | 0                        | 0                | 0      | 0                     | 0                | 0                     | 0                  | 0.00             | Ra Plenum    | 92.7    | 59.9 |
| Roof Cond             | 0                   | 53,451                   | 53,451           | 30     | 0                     | 0                | 0                     | -21,371            | 20.14            | Return       | 74.0    | 68.0 |
| Glass Solar           | 0                   | 0                        | 0                | 0      | 0                     | 0                | 0                     | 0                  | 0.00             | Ret/OA       | 74.0    | 68.0 |
| Glass/Door Cond       | 0                   | 0                        | 0                | 0      | 0                     | 0                | 0                     | 0                  | 0.00             | Fn MtrTD     | 0.0     | 0.0  |
| Wall Cond             | 1,382               | 602                      | 1,984            | 1      | 1,382                 | 1                | -2,052                | -4,035             | 3.80             | Fn BldTD     | 0.1     | 0.0  |
| Partition/Door        | 0                   | 0                        | 0                | 0      | 0                     | 0                | 0                     | 0                  | 0.00             | Fn Frict     | 0.3     | 0.0  |
| Floor                 | 0                   | 0                        | 0                | 0      | 0.00                  | 0                | -1,001                | -1,001             | 0.94             |              |         |      |
| Adjacent Floor        | 0.00                | 0.00                     | 0.00             | 0.00   | 0.00                  | 0.00             | 0.00                  | 0.00               | 0.00             |              |         |      |
| Infiltration          | 463                 | 463                      | 0                | 0      | 91                    | 0                | -914                  | -914               | 0.86             |              |         |      |
| Sub Total ==>         | 1,845               | 54,054                   | 55,898           | 31     | 1,473                 | 1                | -3,967                | -27,321            | 25.75            |              |         |      |
| <b>Internal Loads</b> |                     |                          |                  |        | <b>Internal Loads</b> |                  |                       |                    |                  |              |         |      |
| Lights                | 24,866              | 0                        | 24,866           | 14     | 24,866                | 15               | 24,866                | 24,866             | -23.44           |              |         |      |
| People                | 13,661              | 0                        | 13,661           | 8      | 7,589                 | 5                | 7,589                 | 7,589              | -7.15            |              |         |      |
| Misc                  | 80,000              | 0                        | 80,000           | 45     | 80,000                | 48               | 80,000                | 80,000             | -75.40           |              |         |      |
| Sub Total ==>         | 118,526             | 0                        | 118,526          | 67     | 112,455               | 67               | 112,455               | 112,455            | -106.00          |              |         |      |
| Ceiling Load          | 54,054              | -54,054                  | 0                | 0      | 54,054                | 32               | -23,354               | 0                  | 0.00             |              |         |      |
| Ventilation Load      | 0                   | 0                        | 0                | 0      | 0                     | 0                | 0                     | 0                  | 0.00             |              |         |      |
| Adj Air Trans Heat    | 0                   | 0                        | 0                | 0      | 0                     | 0                | 0                     | 0                  | 0                |              |         |      |
| Dehumid. Ov Sizing    |                     |                          | 0                | 0      |                       |                  | -191,228              | -191,228           | 180.24           |              |         |      |
| Ov/Undr Sizing        | 0                   | 0                        | 0                | 0      | 0                     | 0                | 0                     | 0                  | 0.00             |              |         |      |
| Exhaust Heat          |                     | 0                        | 0                | 0      |                       |                  | 0                     | 0                  | 0.00             |              |         |      |
| Sup. Fan Heat         |                     |                          | 3,333            | 2      |                       |                  | 0                     | 0                  | 0.00             |              |         |      |
| Ret. Fan Heat         |                     | 0                        | 0                | 0      |                       |                  | 0                     | 0                  | 0.00             |              |         |      |
| Duct Heat Pkup        |                     | 0                        | 0                | 0      |                       |                  | 0                     | 0                  | 0.00             |              |         |      |
| Underflr Sup Ht Pkup  |                     | 0                        | 0                | 0      |                       |                  | 0                     | 0                  | 0.00             |              |         |      |
| Supply Air Leakage    |                     | 0                        | 0                | 0      |                       |                  | 0                     | 0                  | 0.00             |              |         |      |
| Grand Total ==>       | 174,425             | 0                        | 177,758          | 100.00 | 167,982               | 100.00           | -106,094              | -106,094           | 100.00           |              |         |      |

| AIRFLOWS    |         |         |
|-------------|---------|---------|
|             | Cooling | Heating |
| Diffuser    | 8,035   | 8,035   |
| Terminal    | 8,035   | 8,035   |
| Main Fan    | 8,035   | 8,035   |
| Sec Fan     | 0       | 0       |
| Nom Vent    | 0       | 0       |
| AHU Vent    | 0       | 0       |
| Infil       | 19      | 19      |
| MinStop/Rh  | 0       | 0       |
| Return      | 8,054   | 8,054   |
| Exhaust     | 19      | 19      |
| Rm Exh      | 0       | 0       |
| Auxiliary   | 0       | 0       |
| Leakage Dwn | 0       | 0       |
| Leakage Ups | 0       | 0       |

| ENGINEERING CKS |         |         |
|-----------------|---------|---------|
|                 | Cooling | Heating |
| % OA            | 0.0     | 0.0     |
| cfm/ft²         | 0.88    | 0.88    |
| cfm/ton         | 542.42  |         |
| ft²/ton         | 614.79  |         |
| Btu/hr-ft²      | 19.52   | -11.65  |
| No. People      | 30      |         |

| COOLING COIL SELECTION |      |           |              |                |      |       |                |      |       | AREAS       |           |     |  | HEATING COIL SELECTION |                  |        |        |          |
|------------------------|------|-----------|--------------|----------------|------|-------|----------------|------|-------|-------------|-----------|-----|--|------------------------|------------------|--------|--------|----------|
| Total Capacity         |      | Sens Cap. | Coil Airflow | Enter DB/WB/HR |      |       | Leave DB/WB/HR |      |       | Gross Total | Glass ft² | (%) |  | Capacity MBh           | Coil Airflow cfm | Ent °F | Lvg °F |          |
| ton                    | MBh  |           |              | °F             | °F   | gr/lb | °F             | °F   | gr/lb |             |           |     |  |                        |                  |        |        |          |
| Main Clg               | 14.8 | 177.8     | 171.3        | 8,035          | 74.0 | 59.3  | 52.8           | 54.6 | 51.2  | 9,107       |           |     |  | -106.1                 | 8,035            | 68.0   | 80.0   | Main Htg |
| Aux Clg                | 0.0  | 0.0       | 0.0          | 0              | 0.0  | 0.0   | 0.0            | 0.0  | 0.0   | 0           |           |     |  | 0.0                    | 0                | 0.0    | 0.0    | Aux Htg  |
| Opt Vent               | 0.0  | 0.0       | 0.0          | 0              | 0.0  | 0.0   | 0.0            | 0.0  | 0.0   | 1           |           |     |  | 0.0                    | 0                | 0.0    | 0.0    | Preheat  |
|                        |      |           |              |                |      |       |                |      |       | 46          |           |     |  |                        |                  |        |        |          |
| Total                  | 14.8 | 177.8     |              |                |      |       |                |      |       | 9,107       | 0         | 0   |  | 0.0                    | 0                | 0.0    | 0.0    | Humidif  |
|                        |      |           |              |                |      |       |                |      |       | 944         | 0         | 0   |  | 0.0                    | 0                | 0.0    | 0.0    | Opt Vent |
|                        |      |           |              |                |      |       |                |      |       | 0           | 0         | 0   |  | -106.1                 |                  |        |        | Total    |

# System Checksums

By NRA

RTU-19 - Front Stock

Single Zone

| COOLING COIL PEAK    |              |                          |        |          | CLG SPACE PEAK |          | HEATING COIL PEAK     |            |           | TEMPERATURES |  |  |         |      |
|----------------------|--------------|--------------------------|--------|----------|----------------|----------|-----------------------|------------|-----------|--------------|--|--|---------|------|
| Peaked at Time:      |              | Mo/Hr: 7 / 12            |        |          | Mo/Hr: Sum of  |          | Mo/Hr: Heating Design |            |           | Cooling      |  |  | Heating |      |
| Outside Air:         |              | OADB/WB/HR: 78 / 65 / 74 |        |          | OADB: Peaks    |          | OADB: 24              |            |           | SADB         |  |  | 55.0    | 80.0 |
|                      |              |                          |        |          |                |          |                       |            |           | Ra Plenum    |  |  | 74.0    | 66.0 |
|                      |              |                          |        |          |                |          |                       |            |           | Return       |  |  | 74.8    | 66.8 |
|                      |              |                          |        |          |                |          |                       |            |           | Ret/OA       |  |  | 75.2    | 60.8 |
|                      |              |                          |        |          |                |          |                       |            |           | Fn MtrTD     |  |  | 0.1     | 0.0  |
|                      |              |                          |        |          |                |          |                       |            |           | Fn BldTD     |  |  | 0.1     | 0.0  |
|                      |              |                          |        |          |                |          |                       |            |           | Fn Frict     |  |  | 0.4     | 0.0  |
|                      |              |                          |        |          |                |          |                       |            |           |              |  |  |         |      |
|                      | Space        | Plenum                   | Net    | Percent  | Space          | Percent  |                       | Space Peak | Coil Peak | Percent      |  |  |         |      |
|                      | Sens. + Lat. | Sens. + Lat              | Total  | Of Total | Sensible       | Of Total |                       | Space Sens | Tot Sens  | Of Total     |  |  |         |      |
|                      | Btu/h        | Btu/h                    | Btu/h  | (%)      | Btu/h          | (%)      |                       | Btu/h      | Btu/h     | (%)          |  |  |         |      |
| Envelope Loads       |              |                          |        |          | Envelope Loads |          |                       |            |           |              |  |  |         |      |
| Skylite Solar        | 0            | 0                        | 0      | 0        | 0              | 0        | Skylite Solar         | 0          | 0         | 0.00         |  |  |         |      |
| Skylite Cond         | 0            | 0                        | 0      | 0        | 0              | 0        | Skylite Cond          | 0          | 0         | 0.00         |  |  |         |      |
| Roof Cond            | 12,735       | 0                        | 12,735 | 30       | 12,735         | 37       | Roof Cond             | -5,191     | -5,191    | 14.89        |  |  |         |      |
| Glass Solar          | 0            | 0                        | 0      | 0        | 0              | 0        | Glass Solar           | 0          | 0         | 0.00         |  |  |         |      |
| Glass/Door Cond      | 0            | 0                        | 0      | 0        | 0              | 0        | Glass/Door Cond       | 0          | 0         | 0.00         |  |  |         |      |
| Wall Cond            | 14,354       | 0                        | 14,354 | 34       | 14,354         | 42       | Wall Cond             | -13,946    | -13,946   | 40.02        |  |  |         |      |
| Partition/Door       | 0            | 0                        | 0      | 0        | 0              | 0        | Partition/Door        | 0          | 0         | 0.00         |  |  |         |      |
| Floor                | 0            | 0                        | 0      | 0        | 0.00           | 0        | Floor                 | -3,078     | -3,078    | 8.83         |  |  |         |      |
| Adjacent Floor       | 0.00         | 0.00                     | 0.00   | 0.00     | 0.00           | 0.00     | Adjacent Floor        | 0.00       | 0.00      | 0.00         |  |  |         |      |
| Infiltration         | 1,065        | 1,065                    | 3      | 3        | 243            | 1        | Infiltration          | -2,845     | -2,845    | 8.16         |  |  |         |      |
| Sub Total ==>        | 28,154       | 0                        | 28,154 | 67       | 27,332         | 79       | Sub Total ==>         | -25,059    | -25,059   | 71.90        |  |  |         |      |
| Internal Loads       |              |                          |        |          | Internal Loads |          |                       |            |           |              |  |  |         |      |
| Lights               | 5,680        | 1,420                    | 7,099  | 17       | 5,680          | 16       | Lights                | 5,680      | 7,099     | -20.37       |  |  |         |      |
| People               | 890          | 0                        | 890    | 2        | 556            | 2        | People                | 556        | 556       | -1.60        |  |  |         |      |
| Misc                 | 904          | 0                        | 904    | 2        | 904            | 3        | Misc                  | 904        | 904       | -2.59        |  |  |         |      |
| Sub Total ==>        | 7,473        | 1,420                    | 8,893  | 21       | 7,139          | 21       | Sub Total ==>         | 7,139      | 8,559     | -24.56       |  |  |         |      |
| Ceiling Load         | 0            | 0                        | 0      | 0        | 0              | 0        | Ceiling Load          | 0          | 0         | 0.00         |  |  |         |      |
| Ventilation Load     | 0            | 0                        | 3,979  | 10       | 0              | 0        | Ventilation Load      | 0          | -10,629   | 30.50        |  |  |         |      |
| Adj Air Trans Heat   | 0            | 0                        | 0      | 0        | 0              | 0        | Adj Air Trans Heat    | 0          | 0         | 0            |  |  |         |      |
| Dehumid. Ov Sizing   | 0            | 0                        | 0      | 0        | 0              | 0        | Ov/Undr Sizing        | -7,481     | -7,481    | 21.46        |  |  |         |      |
| Ov/Undr Sizing       | 0            | 0                        | 0      | 0        | 0              | 0        | Exhaust Heat          | -242       | -242      | 0.69         |  |  |         |      |
| Exhaust Heat         | -242         | -242                     | -1     | -1       | 0              | 0        | OA Preheat Diff.      | 0          | 0         | 0.00         |  |  |         |      |
| Sup. Fan Heat        | 977          | 977                      | 2      | 2        | 0              | 0        | RA Preheat Diff.      | 0          | 0         | 0.00         |  |  |         |      |
| Ret. Fan Heat        | 0            | 0                        | 0      | 0        | 0              | 0        | Additional Reheat     | 0          | 0         | 0.00         |  |  |         |      |
| Duct Heat Pkup       | 0            | 0                        | 0      | 0        | 0              | 0        | Underflr Sup Ht Pkup  | 0          | 0         | 0.00         |  |  |         |      |
| Underflr Sup Ht Pkup | 0            | 0                        | 0      | 0        | 0              | 0        | Supply Air Leakage    | 0          | 0         | 0.00         |  |  |         |      |
| Supply Air Leakage   | 0            | 0                        | 0      | 0        | 0              | 0        |                       |            |           |              |  |  |         |      |
| Grand Total ==>      | 35,627       | 1,178                    | 41,760 | 100.00   | 34,471         | 100.00   | Grand Total ==>       | -25,400    | -34,851   | 100.00       |  |  |         |      |

| AIRFLOWS    |         |         |
|-------------|---------|---------|
|             | Cooling | Heating |
| Diffuser    | 1,649   | 1,649   |
| Terminal    | 1,649   | 1,649   |
| Main Fan    | 1,649   | 1,649   |
| Sec Fan     | 0       | 0       |
| Nom Vent    | 230     | 230     |
| AHU Vent    | 230     | 230     |
| Infil       | 62      | 62      |
| MinStop/Rh  | 0       | 0       |
| Return      | 1,710   | 1,710   |
| Exhaust     | 292     | 292     |
| Rm Exh      | 0       | 0       |
| Auxiliary   | 0       | 0       |
| Leakage Dwn | 0       | 0       |
| Leakage Ups | 0       | 0       |

| ENGINEERING CKS |         |         |
|-----------------|---------|---------|
|                 | Cooling | Heating |
| % OA            | 13.9    | 13.9    |
| cfm/ft²         | 0.87    | 0.87    |
| cfm/ton         | 473.80  |         |
| ft²/ton         | 543.39  |         |
| Btu/hr-ft²      | 22.08   | -18.43  |
| No. People      | 2       |         |

| COOLING COIL SELECTION |     |           |              |                |      |       |                |      |       | AREAS       |       |     |          | HEATING COIL SELECTION |              |      |      |  |
|------------------------|-----|-----------|--------------|----------------|------|-------|----------------|------|-------|-------------|-------|-----|----------|------------------------|--------------|------|------|--|
| Total Capacity         |     | Sens Cap. | Coil Airflow | Enter DB/WB/HR |      |       | Leave DB/WB/HR |      |       | Gross Total | Glass |     |          | Capacity               | Coil Airflow | Ent  | Lvg  |  |
| ton                    | MBh | MBh       | cfm          | °F             | °F   | gr/lb | °F             | °F   | gr/lb |             | ft²   | (%) |          | MBh                    | cfm          | °F   | °F   |  |
| Main Clg               | 3.5 | 41.8      | 37.5         | 1,649          | 75.2 | 60.8  | 57.6           | 54.5 | 51.8  | 1,891       | 0     | 0   | Main Htg | -34.9                  | 1,649        | 60.8 | 80.0 |  |
| Aux Clg                | 0.0 | 0.0       | 0.0          | 0              | 0.0  | 0.0   | 0.0            | 0.0  | 0.0   | 0           | 0     | 0   | Aux Htg  | 0.0                    | 0            | 0.0  | 0.0  |  |
| Opt Vent               | 0.0 | 0.0       | 0.0          | 0              | 0.0  | 0.0   | 0.0            | 0.0  | 0.0   | 1           | 0     | 0   | Preheat  | 0.0                    | 0            | 0.0  | 0.0  |  |
|                        |     |           |              |                |      |       |                |      |       | ExFlr       | 147   |     |          |                        |              |      |      |  |
| Total                  | 3.5 | 41.8      |              |                |      |       |                |      |       | Roof        | 1,891 | 0   | Humidif  | 0.0                    | 0            | 0.0  | 0.0  |  |
|                        |     |           |              |                |      |       |                |      |       | Wall        | 3,078 | 0   | Opt Vent | 0.0                    | 0            | 0.0  | 0.0  |  |
|                        |     |           |              |                |      |       |                |      |       | Ext Door    | 0     | 0   | Total    | -34.9                  |              |      |      |  |

Project Name: T0342  
Dataset Name: T0342 LOADS.TRC

TRACE® 700 v6.3.5 calculated at 12:39 PM on 08/17/2025  
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# System Checksums

By NRA

RTU-20 - Stock

Single Zone

| COOLING COIL PEAK     |                     |                          |                  | CLG SPACE PEAK        |                  |                       |                 | HEATING COIL PEAK     |            |                       |          | TEMPERATURES |         |         |
|-----------------------|---------------------|--------------------------|------------------|-----------------------|------------------|-----------------------|-----------------|-----------------------|------------|-----------------------|----------|--------------|---------|---------|
| Peaked at Time:       |                     | Mo/Hr: 6 / 14            |                  | Mo/Hr: Sum of         |                  | Mo/Hr: Heating Design |                 | Mo/Hr: Heating Design |            | Mo/Hr: Heating Design |          |              |         |         |
| Outside Air:          |                     | OADB/WB/HR: 80 / 67 / 81 |                  | OADB: Peaks           |                  | OADB: 24              |                 | OADB: 24              |            | OADB: 24              |          |              |         |         |
| Space Sens. + Lat.    | Plenum Sens. + Lat. | Net Total                | Percent Of Total | Space Sensible        | Percent Of Total | Space Peak            | Coil Peak       | Percent               | Space Sens | Tot Sens              | Of Total |              |         |         |
| Btu/h                 | Btu/h               | Btu/h                    | (%)              | Btu/h                 | (%)              | Btu/h                 | Btu/h           | (%)                   | Btu/h      | Btu/h                 | (%)      |              |         |         |
| <b>Envelope Loads</b> |                     |                          |                  | <b>Envelope Loads</b> |                  |                       |                 | <b>Envelope Loads</b> |            |                       |          |              |         |         |
| Skylite Solar         | 0                   | 0                        | 0                | 0                     | 0                | Skylite Solar         | 0               | 0.00                  | 0          | 0                     | 0.00     | SADB         | Cooling | Heating |
| Skylite Cond          | 0                   | 0                        | 0                | 0                     | 0                | Skylite Cond          | 0               | 0.00                  | 0          | 0                     | 0.00     | Ra Plenum    | 55.0    | 80.0    |
| Roof Cond             | 34,882              | 0                        | 34,882           | 46                    | 34,362           | 57                    | Roof Cond       | -13,535               | -13,535    | 23.22                 | 23.22    | Return       | 74.0    | 66.0    |
| Glass Solar           | 0                   | 0                        | 0                | 0                     | 0                | Glass Solar           | 0               | 0.00                  | 0          | 0                     | 0.00     | Ret/OA       | 75.1    | 67.1    |
| Glass/Door Cond       | 0                   | 0                        | 0                | 0                     | 0                | Glass/Door Cond       | 0               | 0.00                  | 0          | 0                     | 0.00     | Fn MtrTD     | 75.7    | 61.7    |
| Wall Cond             | 7,678               | 0                        | 7,678            | 10                    | 8,300            | 14                    | Wall Cond       | -20,146               | -20,146    | 34.55                 | 34.55    | Fn BldTD     | 0.1     | 0.0     |
| Partition/Door        | 0                   | 0                        | 0                | 0                     | 0                | Partition/Door        | 0               | 0.00                  | 0          | 0                     | 0.00     | Fn Frict     | 0.1     | 0.0     |
| Floor                 | 0                   | 0                        | 0                | 0                     | 0.00             | Floor                 | -3,015          | -3,015                | 5.17       | 5.17                  | 5.17     |              | 0.3     | 0.0     |
| Adjacent Floor        | 0.00                | 0.00                     | 0.00             | 0.00                  | 0.00             | Adjacent Floor        | 0.00            | 0.00                  | 0.00       | 0.00                  | 0.00     |              |         |         |
| Infiltration          | 2,120               |                          | 2,120            | 3                     | 724              | 1                     | Infiltration    | -4,109                | -4,109     | 7.05                  | 7.05     |              |         |         |
| Sub Total ==>         | 44,680              | 0                        | 44,680           | 59                    | 43,385           | 72                    | Sub Total ==>   | -40,804               | -40,804    | 69.99                 | 69.99    |              |         |         |
| <b>Internal Loads</b> |                     |                          |                  | <b>Internal Loads</b> |                  |                       |                 | <b>Internal Loads</b> |            |                       |          |              |         |         |
| Lights                | 14,810              | 3,702                    | 18,512           | 24                    | 14,810           | 24                    | Lights          | 14,810                | 18,512     | -31.75                | -31.75   |              |         |         |
| People                | 3,365               | 0                        | 3,365            | 4                     | 2,175            | 4                     | People          | 2,175                 | 2,175      | -3.73                 | -3.73    |              |         |         |
| Misc                  | 121                 | 0                        | 121              | 0                     | 121              | 0                     | Misc            | 121                   | 121        | -0.21                 | -0.21    |              |         |         |
| Sub Total ==>         | 18,296              | 3,702                    | 21,998           | 29                    | 17,106           | 28                    | Sub Total ==>   | 17,106                | 20,809     | -35.69                | -35.69   |              |         |         |
| Ceiling Load          | 0                   | 0                        | 0                | 0                     | 0                | Ceiling Load          | 0               | 0.00                  | 0          | 0                     | 0.00     |              |         |         |
| Ventilation Load      | 0                   | 0                        | 8,702            | 11                    | 0                | Ventilation Load      | 0               | -16,868               | 28.93      | 28.93                 | 28.93    |              |         |         |
| Adj Air Trans Heat    | 0                   |                          | 0                | 0                     | 0                | Adj Air Trans Heat    | 0               | 0                     | 0          | 0                     | 0        |              |         |         |
| Dehumid. Ov Sizing    |                     |                          | 0                | 0                     |                  | Ov/Undr Sizing        | -20,875         | -20,875               | 35.80      | 35.80                 | 35.80    |              |         |         |
| Ov/Undr Sizing        | 0                   |                          | 0                | 0                     | 0                | Exhaust Heat          |                 | -564                  | 0.97       | 0.97                  | 0.97     |              |         |         |
| Exhaust Heat          |                     | -564                     | -564             | -1                    |                  | OA Preheat Diff.      |                 | 0                     | 0.00       | 0.00                  | 0.00     |              |         |         |
| Sup. Fan Heat         |                     |                          | 1,543            | 2                     |                  | RA Preheat Diff.      |                 | 0                     | 0.00       | 0.00                  | 0.00     |              |         |         |
| Ret. Fan Heat         |                     | 0                        | 0                | 0                     |                  | Additional Reheat     |                 | 0                     | 0.00       | 0.00                  | 0.00     |              |         |         |
| Duct Heat Pkup        |                     | 0                        | 0                | 0                     |                  | Underflr Sup Ht Pkup  |                 | 0                     | 0.00       | 0.00                  | 0.00     |              |         |         |
| Underflr Sup Ht Pkup  |                     |                          | 0                | 0                     |                  | Supply Air Leakage    |                 | 0                     | 0.00       | 0.00                  | 0.00     |              |         |         |
| Supply Air Leakage    |                     | 0                        | 0                | 0                     |                  |                       |                 |                       |            |                       |          |              |         |         |
| Grand Total ==>       | 62,976              | 3,139                    | 76,360           | 100.00                | 60,492           | 100.00                | Grand Total ==> | -44,573               | -58,302    | 100.00                | 100.00   |              |         |         |

| AIRFLOWS    |         |         |
|-------------|---------|---------|
|             | Cooling | Heating |
| Diffuser    | 2,893   | 2,893   |
| Terminal    | 2,893   | 2,893   |
| Main Fan    | 2,893   | 2,893   |
| Sec Fan     | 0       | 0       |
| Nom Vent    | 365     | 365     |
| AHU Vent    | 365     | 365     |
| Infil       | 89      | 89      |
| MinStop/Rh  | 0       | 0       |
| Return      | 2,982   | 2,982   |
| Exhaust     | 454     | 454     |
| Rm Exh      | 0       | 0       |
| Auxiliary   | 0       | 0       |
| Leakage Dwn | 0       | 0       |
| Leakage Ups | 0       | 0       |

| ENGINEERING CKS |         |         |
|-----------------|---------|---------|
|                 | Cooling | Heating |
| % OA            | 12.6    | 12.6    |
| cfm/ft²         | 0.59    | 0.59    |
| cfm/ton         | 454.71  |         |
| ft²/ton         | 774.91  |         |
| Btu/hr-ft²      | 15.49   | -11.82  |
| No. People      | 6       |         |

| COOLING COIL SELECTION |     |           |              |                |      |       |                |      |       | AREAS       |          |       |     | HEATING COIL SELECTION |              |        |        |      |
|------------------------|-----|-----------|--------------|----------------|------|-------|----------------|------|-------|-------------|----------|-------|-----|------------------------|--------------|--------|--------|------|
| Total Capacity         |     | Sens Cap. | Coil Airflow | Enter DB/WB/HR |      |       | Leave DB/WB/HR |      |       | Gross Total |          | Glass | (%) | Capacity               | Coil Airflow | Ent °F | Lvg °F |      |
| ton                    | MBh |           |              | °F             | °F   | gr/lb | °F             | °F   | gr/lb |             |          |       |     | MBh                    | cfm          |        |        |      |
| Main Clg               | 6.4 | 76.4      | 67.3         | 2,893          | 75.7 | 61.2  | 58.5           | 54.5 | 51.8  | 54.0        | Floor    | 4,931 |     | Main Htg               | -58.3        | 2,893  | 61.7   | 80.0 |
| Aux Clg                | 0.0 | 0.0       | 0.0          | 0              | 0.0  | 0.0   | 0.0            | 0.0  | 0.0   | 0.0         | Part     | 0     |     | Aux Htg                | 0.0          | 0      | 0.0    | 0.0  |
| Opt Vent               | 0.0 | 0.0       | 0.0          | 0              | 0.0  | 0.0   | 0.0            | 0.0  | 0.0   | 0.0         | Int Door | 1     |     | Preheat                | 0.0          | 0      | 0.0    | 0.0  |
|                        |     |           |              |                |      |       |                |      |       |             | ExFlr    | 144   |     |                        |              |        |        |      |
| Total                  | 6.4 | 76.4      |              |                |      |       |                |      |       |             | Roof     | 4,931 | 0   | Humidif                | 0.0          | 0      | 0.0    | 0.0  |
|                        |     |           |              |                |      |       |                |      |       |             | Wall     | 4,446 | 0   | Opt Vent               | 0.0          | 0      | 0.0    | 0.0  |
|                        |     |           |              |                |      |       |                |      |       |             | Ext Door | 0     | 0   | Total                  | -58.3        |        |        |      |