

|   |                                |
|---|--------------------------------|
| Version, 8.9.0.001;   | !- Version Identifier          |
| RunPeriod,  | !- Annual simulation           |
| Tropical standard (01-01:31-12),  | !- Location                    |
| 1,1,  | !- Start Month , Day           |
| 12,31,  | !- End Month , Day             |
| UseWeatherFile,   | !- will use day as shown in    |
| weather file  |                                |
| No,   | !- Use weather file            |
| holidays/special day periods  |                                |
| Yes,  | !- Use WeatherFile             |
| DaylightSavingPeriod - will use daylight saving time in weather file          |                                |
| Yes,  | !- Apply Weekend Holiday Rule  |
| - will reassign weekend holidays to Monday                                    |                                |
| Yes,  | !- use weather file rain       |
| indicators  |                                |
| Yes,  | !- use weather file snow       |
| indicators  |                                |
| 1;  | !- Number of years in          |
| simulation  |                                |
| ! Hourly weather file: C:\ProgramData\DesignBuilder\Weather Data\tropical.epw |                                |
| Site:Location,Tropical standard (01-01:31-12) (01-01:31-12),                  | !- Location Name               |
| -12.42,   | !- Latitude                    |
| 130.88,   | !- Longitude                   |
| 9.5,  | !- Time Zone                   |
| 31;   | !- Elevation {m}               |
| Site:GroundTemperature:BuildingSurface,                                       | !- Annual ground temperatures  |
| - 1 value for each month  |                                |
| 18,   | !- Jan ground temperature      |
| 18,   | !- Feb ground temperature      |
| 18,   | !- Mar ground temperature      |
| 18,   | !- Apr ground temperature      |
| 18,   | !- May ground temperature      |
| 18,   | !- Jun ground temperature      |
| 18,   | !- Jul ground temperature      |
| 18,   | !- Aug ground temperature      |
| 18,   | !- Sep ground temperature      |
| 18,   | !- Oct ground temperature      |
| 18,   | !- Nov ground temperature      |
| 18;   | !- Dec ground temperature      |
| Site:GroundTemperature:Deep,  | !- Annual ground temperatures  |
| - 1 value for each month  |                                |
| 14,   | !- Jan deep ground temperature |
| 14,   | !- Feb deep ground temperature |
| 14,   | !- Mar deep ground temperature |
| 14,   | !- Apr deep ground temperature |
| 14,   | !- May deep ground temperature |
| 14,   | !- Jun deep ground temperature |
| 14,   | !- Jul deep ground temperature |
| 14,   | !- Aug deep ground temperature |

14,  
14,  
14,  
14;

!- Sep deep ground temperature  
!- Oct deep ground temperature  
!- Nov deep ground temperature  
!- Dec deep ground temperature

Site:GroundTemperature:Shallow,  
- 1 value for each month

14,  
temperature  
14,  
temperature  
14,  
temperature  
14,  
temperature  
14,  
temperature  
14,  
temperature  
14,  
temperature  
14,  
temperature  
14,  
temperature  
14;  
temperature

!- Annual ground temperatures

!- Jan shallow ground

!- Feb shallow ground

!- Mar shallow ground

!- Apr shallow ground

!- May shallow ground

!- Jun shallow ground

!- Jul shallow ground

!- Aug shallow ground

!- Sep shallow ground

!- Oct shallow ground

!- Nov shallow ground

!- Dec shallow ground

Site:GroundTemperature:FCfactorMethod,  
- 1 value for each month

26.7,  
ground temperature {C}  
27.4,  
ground temperature {C}  
27.6,  
temperature {C}  
27.4,  
temperature {C}  
26.7,  
temperature {C}  
25.8,  
temperature {C}  
25.0,  
temperature {C}  
24.3,  
ground temperature {C}  
24.1,  
ground temperature {C}  
24.3,  
ground temperature {C}

!- Annual ground temperatures

!- January FCfactorMethod

!- Februry FCfactorMethod

!- March FCfactorMethod ground

!- April FCfactorMethod ground

!- May FCfactorMethod ground

!- June FCfactorMethod ground

!- July FCfactorMethod ground

!- August FCfactorMethod

!- September FCfactorMethod

!- October FCfactorMethod

25.0,  
ground temperature {C}  
25.8;  
ground temperature {C}

!- November FCfactorMethod  
!- December FCfactorMethod

Site:GroundReflectance,  
- 1 value for each month  
0.2,  
0.2,  
0.2,  
0.2,  
0.2,  
0.2,  
0.2,  
0.2,  
0.2,  
0.2,  
0.2;  
0.2;

!- Annual ground reflectances  
!- Jan ground reflectance  
!- Feb ground reflectance  
!- Mar ground reflectance  
!- Apr ground reflectance  
!- May ground reflectance  
!- Jun ground reflectance  
!- Jul ground reflectance  
!- Aug ground reflectance  
!- Sep ground reflectance  
!- Oct ground reflectance  
!- Nov ground reflectance  
!- Dec ground reflectance

Site:GroundReflectance:SnowModifier,  
2.0,  
Modifier  
2.0;  
Reflected Solar Modifier

!- Ground Reflected Solar  
!- Daylighting Ground

SimulationControl,  
Yes,  
calculation  
Yes,  
calculation  
No,  
calculation  
No,  
calculation  
Yes;  
calculation

!- Do the zone sizing  
!- Do the system sizing  
!- Do the plant sizing  
!- Do the design day  
!- Do the weather file

SizingPeriod:DesignDay, Summer Design Day in Tropical standard (01-01:31-12)

Jan, !- Design Day Name

1,  
15,  
SummerDesignDay,  
schedules  
33.2,  
Temperature {C}  
6.9,  
Range {C}  
,  
Modifier Type  
,  
Modifier Schedule  
WetBulb,

!- Month  
!- Day of Month  
!- Day Type -- used for  
!- Maximum Dry-Bulb  
!- Daily Dry-Bulb Temperature  
!- Dry-Bulb Temperature Range  
!- Dry-Bulb Temperature Range  
!- Humidity Condition Type

|  |                               |
|--|-------------------------------|
| 26.4,  | !- Wetbulb at Maximum         |
| Dry-Bulb{C}  |                               |
| ,  | !- Humidity Condition Day     |
| Schedule Name  |                               |
| ,  | !- Humidity Ratio at Maximum  |
| Dry-Bulb   |                               |
| ,  | !- Enthalpy Ratio at Maximum  |
| Dry-Bulb   |                               |
| ,  | !- Daily Wet-Bulb Temperature |
| Range  |                               |
| 100953.1,  | !- Barometric Pressure        |
| {N/M**2}   |                               |
| 0,   | !- Wind Speed {m/s}           |
| 0,   | !- Wind Direction {Degrees}   |
| N=0, S=180}  |                               |
| No,  | !- Rain Indicator             |
| No,  | !- Snow on ground indicator   |
| No,  | !- Daylight Savings Time      |
| Indicator  |                               |
| ASHRAEClearSky,  | !- Solar Model Indicator      |
| ,  | !- Beam Solar Day Schedule    |
| Name   |                               |
| ,  | !- Diffuse Solar Day Schedule |
| Name   |                               |
| ,  | !- ASHRAE Clear Sky Optical   |
| Depth for Beam Irradiance (taub)   |                               |
| ,  | !- ASHRAE Clear Sky Optical   |
| Depth for Diffuse Irradiance (taud)  |                               |
| 0.98;  | !- Clearness {0.0 to 1.2}     |
| SizingPeriod:DesignDay, Summer Design Day in Tropical standard (01-01:31-12) |                               |
| Feb, !- Design Day Name  |                               |
| 2,   | !- Month                      |
| 15,  | !- Day of Month               |
| SummerDesignDay,   | !- Day Type -- used for       |
| schedules  |                               |
| 33.1,  | !- Maximum Dry-Bulb           |
| Temperature {C}  |                               |
| 6.9,   | !- Daily Dry-Bulb Temperature |
| Range {C}  |                               |
| ,  | !- Dry-Bulb Temperature Range |
| Modifier Type  |                               |
| ,  | !- Dry-Bulb Temperature Range |
| Modifier Schedule  |                               |
| WetBulb,   | !- Humidity Condition Type    |
| 26.4,  | !- Wetbulb at Maximum         |
| Dry-Bulb{C}  |                               |
| ,  | !- Humidity Condition Day     |
| Schedule Name  |                               |
| ,  | !- Humidity Ratio at Maximum  |
| Dry-Bulb   |                               |
| ,  | !- Enthalpy Ratio at Maximum  |
| Dry-Bulb   |                               |
| ,  | !- Daily Wet-Bulb Temperature |

|  |                               |
|--|-------------------------------|
| Range  |                               |
| 100953.1,  | !- Barometric Pressure        |
| {N/M**2}   |                               |
| 0,   | !- Wind Speed {m/s}           |
| 0,   | !- Wind Direction {Degrees    |
| N=0, S=180}  |                               |
| No,  | !- Rain Indicator             |
| No,  | !- Snow on ground indicator   |
| No,  | !- Daylight Savings Time      |
| Indicator  |                               |
| ASHRAEClearSky,  | !- Solar Model Indicator      |
| ,  | !- Beam Solar Day Schedule    |
| Name   |                               |
| ,  | !- Diffuse Solar Day Schedule |
| Name   |                               |
| ,  | !- ASHRAE Clear Sky Optical   |
| Depth for Beam Irradiance (taub)   |                               |
| ,  | !- ASHRAE Clear Sky Optical   |
| Depth for Diffuse Irradiance (taud)  |                               |
| 0.98;  | !- Clearness {0.0 to 1.2}     |
| SizingPeriod:DesignDay, Summer Design Day in Tropical standard (01-01:31-12) |                               |
| Mar, !- Design Day Name  |                               |
| 3,   | !- Month                      |
| 15,  | !- Day of Month               |
| SummerDesignDay,   | !- Day Type -- used for       |
| schedules  |                               |
| 34,  | !- Maximum Dry-Bulb           |
| Temperature {C}  |                               |
| 7.8,   | !- Daily Dry-Bulb Temperature |
| Range {C}  |                               |
| ,  | !- Dry-Bulb Temperature Range |
| Modifier Type  |                               |
| ,  | !- Dry-Bulb Temperature Range |
| Modifier Schedule  |                               |
| WetBulb,   | !- Humidity Condition Type    |
| 23.6,  | !- Wetbulb at Maximum         |
| Dry-Bulb{C}  |                               |
| ,  | !- Humidity Condition Day     |
| Schedule Name  |                               |
| ,  | !- Humidity Ratio at Maximum  |
| Dry-Bulb   |                               |
| ,  | !- Enthalpy Ratio at Maximum  |
| Dry-Bulb   |                               |
| ,  | !- Daily Wet-Bulb Temperature |
| Range  |                               |
| 100953.1,  | !- Barometric Pressure        |
| {N/M**2}   |                               |
| 0,   | !- Wind Speed {m/s}           |
| 0,   | !- Wind Direction {Degrees    |
| N=0, S=180}  |                               |
| No,  | !- Rain Indicator             |
| No,  | !- Snow on ground indicator   |
| No,  | !- Daylight Savings Time      |

|   |                               |
|---|-------------------------------|
| Indicator   |                               |
| ASHRAEClearSky,   | !- Solar Model Indicator      |
| ,   | !- Beam Solar Day Schedule    |
| Name  |                               |
| ,   | !- Diffuse Solar Day Schedule |
| Name  |                               |
| ,   | !- ASHRAE Clear Sky Optical   |
| Depth for Beam Irradiance (taub)  |                               |
| ,   | !- ASHRAE Clear Sky Optical   |
| Depth for Diffuse Irradiance (taud)   |                               |
| 0.98;   | !- Clearness {0.0 to 1.2}     |
| SizingPeriod:DesignDay, Winter Design Day in Tropical standard (01-01:31-12), |                               |
| !- Design Day Name  |                               |
| 7,  | !- Month                      |
| 15,   | !- Day of Month               |
| WinterDesignDay,  | !- Day Type -- used for       |
| schedules   |                               |
| 17.1,   | !- Max Dry-Bulb {C}           |
| 0,  | !- Daily Temp Range {C}       |
| ,   | !- Dry-Bulb Temperature Range |
| Modifier Type   |                               |
| ,   | !- Dry-Bulb Temperature Range |
| Modifier Schedule   |                               |
| WetBulb,  | !- Humidity Condition Type    |
| 17.1,   | !- Wet-Bulb at Max {C}        |
| ,   | !- Humidity Condition Day     |
| Schedule Name   |                               |
| ,   | !- Humidity Ratio at Maximum  |
| Dry-Bulb  |                               |
| ,   | !- Enthalpy Ratio at Maximum  |
| Dry-Bulb  |                               |
| ,   | !- Daily Wet-Bulb Temperature |
| Range   |                               |
| 100953.1,   | !- Barometric Pressure        |
| {N/M**2}  |                               |
| 9.4,  | !- Wind Speed {M/Sec}         |
| 0,  | !- Wind Direction {Degrees}   |
| N=0, S=180}   |                               |
| No,   | !- Rain Indicator             |
| No,   | !- Snow on ground indicator   |
| No,   | !- Daylight Savings Time      |
| Indicator   |                               |
| ,   | !- Solar Model Indicator      |
| ,   | !- Beam Solar Day Schedule    |
| Name  |                               |
| ,   | !- Diffuse Solar Day Schedule |
| Name  |                               |
| ,   | !- ASHRAE Clear Sky Optical   |
| Depth for Beam Irradiance (taub)  |                               |
| ,   | !- ASHRAE Clear Sky Optical   |
| Depth for Diffuse Irradiance (taud)   |                               |
| 0;  | !- Clearness {0.0 to 1.2} -   |
| gives no sun (but does include long wave radiant heat exchange with sky)      |                               |

|  |                              |
|--|------------------------------|
| Timestep, 2;   | !- Timesteps/hour            |
| ConvergenceLimits,                                     |                              |
| 1,   | !- Minimum System Time Step  |
| (0=same as zone time step)                             |                              |
| 25;  | !- Maximum HVAC Iterations   |
| (1=min, 20=default)                                    |                              |
| ScheduleTypeLimits, Any Number;                        | ! Not limited                |
| ScheduleTypeLimits, Fraction, 0.0, 1.0, CONTINUOUS;    |                              |
| ScheduleTypeLimits, Temperature, -60, 200, CONTINUOUS; |                              |
| ScheduleTypeLimits, Control Type, 0, 4, DISCRETE;      |                              |
| ScheduleTypeLimits, On/Off, 0, 1, DISCRETE;            |                              |
| Schedule:Compact,                                      |                              |
| On,  | ! Name                       |
| Any Number,  | ! Type                       |
| Through: 12/31,  | ! Type                       |
| For: AllDays,  | ! All days in year           |
| Until: 24:00,  | ! All hours in day           |
| 1;   |                              |
| Schedule:Compact,                                      |                              |
| Off,   | ! Name                       |
| Any Number,  | ! Type                       |
| Through: 12/31,  | ! Type                       |
| For: AllDays,  | ! All days in year           |
| Until: 24:00,  | ! All hours in day           |
| 0;   |                              |
| Schedule:Compact,                                      |                              |
| Work efficiency,                                       | ! Name                       |
| Any Number,  | ! Type                       |
| Through: 12/31,  | ! Type                       |
| For: AllDays,  | ! All days in year           |
| Until: 24:00,  | ! All hours in day           |
| 0;   |                              |
| Schedule:Compact,                                      |                              |
| OpaqueShade,   | ! Name                       |
| Any Number,  | ! Type                       |
| Through: 12/31,  | ! Type                       |
| For: AllDays,  | ! All days in year           |
| Until: 24:00,  | ! All hours in day           |
| 0;   |                              |
| Schedule:Compact,                                      |                              |
| Zone Comfort Control Type Sched,                       | !- Name                      |
| Control Type,  | !- Schedule Type Limits Name |
| Through: 12/31,  | !- Field 1                   |
| For: AllDays,  | !- Field 2                   |
| Until: 24:00,  | !- Field 3                   |
| 4;   | !- Field 4                   |

```
Schedule:Compact,
    Design Days Only,
    Any Number,
    Through: 12/31,
    For: SummerDesignDay WinterDesignDay,
    Until: 24:00,
    1,
    For: AllOtherDays,
    Until: 24:00,
    0;
```

```
! off heating day  
Schedule:Day:Hourly, 0, Any Number,  
    0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0;
```

```
! off cooling day  
Schedule:Day:Hourly, 50, Any Number,  
    50,50,50,50,50,50,50,50,50,50,50,50,50,50,50,50,50,50,50,50,50,50,50;
```

```
! used in seasonal schedules
Schedule:Day:Hourly, Off, Fraction,
    0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0;
```

```
Schedule:Week:Daily, Off,  
Off,Off,Off,Off,  
Off,Off,Off,Off,  
Off,Off,Off,Off;
```

```
! ----- Control type schedules (for heating & cooling)
-----
```

```
Schedule:Day:Hourly, Summer Control Type Day Sch, Control Type,
4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4;
```

```
Schedule:Day:Hourly, Winter Control Type Day Sch, Control Type,
4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4;
```

```
Schedule:Day:Hourly, Summer Control Type Day Sch - cool, Control Type,
2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2,2;
```

```
Schedule:Day:Hourly, Winter Control Type Day Sch - heat, Control Type,
1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1;
```

```
Schedule:Week:Daily, Summer Control Type Week Sch,
    Summer Control Type Day Sch,Summer Control Type Day Sch,Summer Control Type
Day Sch,
    Summer Control Type Day Sch,Summer Control Type Day Sch,Summer Control Type
Day Sch,
    Summer Control Type Day Sch,Summer Control Type Day Sch,Summer Control Type
Day Sch,
    Summer Control Type Day Sch,Summer Control Type Day Sch,Summer Control Type
Day Sch;
```



Schedule:Week:Daily, Winter Control Type Week Sch,  
 Winter Control Type Day Sch,Winter Control Type Day Sch,Winter Control Type  
 Day Sch,  
 Winter Control Type Day Sch,Winter Control Type Day Sch,Winter Control Type  
 Day Sch,  
 Winter Control Type Day Sch,Winter Control Type Day Sch,Winter Control Type  
 Day Sch,  
 Winter Control Type Day Sch,Winter Control Type Day Sch,Winter Control Type  
 Day Sch;

Schedule:Week:Daily, Summer Control Type Week Sch - cool,  
 Summer Control Type Day Sch - cool,Summer Control Type Day Sch - cool,Summer  
 Control Type Day Sch - cool,  
 Summer Control Type Day Sch - cool,Summer Control Type Day Sch - cool,Summer  
 Control Type Day Sch - cool,  
 Summer Control Type Day Sch - cool,Summer Control Type Day Sch - cool,Summer  
 Control Type Day Sch - cool,  
 Summer Control Type Day Sch - cool,Summer Control Type Day Sch - cool,Summer  
 Control Type Day Sch - cool;

Schedule:Week:Daily, Winter Control Type Week Sch - heat,  
 Winter Control Type Day Sch - heat,Winter Control Type Day Sch - heat,Winter  
 Control Type Day Sch - heat,  
 Winter Control Type Day Sch - heat,Winter Control Type Day Sch - heat,Winter  
 Control Type Day Sch - heat,  
 Winter Control Type Day Sch - heat,Winter Control Type Day Sch - heat,Winter  
 Control Type Day Sch - heat,  
 Winter Control Type Day Sch - heat,Winter Control Type Day Sch - heat,Winter  
 Control Type Day Sch - heat;

!Material:InfraredTransparent,  
 !IRMaterial; !- Name

!Construction,  
 !IRTSurface, !- Name  
 !IRMaterial; !- Outside Layer

|                      |  |
|----------------------|--|
| Material:NoMass,     |  |
| LinearBridgingLayer, | ! Material Name                        |
| Rough,               | ! Roughness                            |
| 0.6267 ,             | ! Resistance {M**2K/W} will give Total |
| Resistance 1         |  |
| 0.0100000 ,          | ! Thermal Absorptance                  |
| 0.0100000 ,          | ! Solar Absorptance                    |
| 0.0100000 ;          | ! Visible Absorptance                  |

|                             |          |
|-----------------------------|----------|
| Construction,               |          |
| LinearBridgingConstruction, | !- Name  |
| LinearBridgingLayer;        | !- Layer |

Schedule:Compact,  
TypOperativeTempControlSch,  
Temperature,  
Through: 31 Dec,  
For: SummerDesignDay WinterDesignDay,  
Until: 24:00, 0.0,  
For: AllOtherDays,  
Until: 24:00, 0.5;

Schedule:Compact,  
    OnWinterDesignDay,                   ! Name  
    Any Number,  
    Through: 12/31,  
    For: WinterDesignDay,               ! All days in year  
    Until: 24:00, 1,  
    For: AllOtherDays,  
    Until: 24:00, 0;

Schedule:Compact,  
    OnSummerDesignDay,                 ! Name  
    Any Number,  
    Through: 12/31,  
    For: SummerDesignDay,              ! All days in year  
    Until: 24:00, 1,  
    For: AllOtherDays,  
    Until: 24:00, 0;

Schedule:Compact, AirVelocitySchedule,  
    Any Number,                         !- Type  
    Through: 12/31,  
    For: AllDays,                        !- All days in year  
    Until: 24:00,                       !- All hours in day  
    .137;                               !- Velocity  
Material:InfraredTransparent,  
IRTMaterial; !- Name

Construction,  
IRTSurface, !- Name  
IRTMaterial; !- Outside Layer

! Schedule: On 24/7  
Schedule:Compact,  
On 24/7,  
Any Number,  
Through: 12/31,  
For: AllDays,  
Until: 24:00, 1 ;

! Schedule: Off 24/7  
Schedule:Compact,  
Off 24/7,  
Any Number,

Through: 12/31,  
For: AllDays,  
Until: 24:00, 0 ;

! Schedule: Dwell\_DomToilet\_Occ  
Schedule:Compact,  
Dwell\_DomToilet\_Occ,  
Fraction,  
Through: 31 Dec,  
For: Weekdays SummerDesignDay,  
Until: 06:00, 0,  
Until: 07:00, 0.25,  
Until: 09:00, 1,  
Until: 10:00, 0.25,  
Until: 18:00, 0,  
Until: 19:00, 0.5,  
Until: 21:00, 1,  
Until: 22:00, 0.3,  
Until: 24:00, 0,  
For: Weekends,  
Until: 06:00, 0,  
Until: 07:00, 0.25,  
Until: 09:00, 1,  
Until: 10:00, 0.25,  
Until: 18:00, 0,  
Until: 19:00, 0.5,  
Until: 21:00, 1,  
Until: 22:00, 0.3,  
Until: 24:00, 0,  
For: Holidays,  
Until: 06:00, 0,  
Until: 07:00, 0.25,  
Until: 09:00, 1,  
Until: 10:00, 0.25,  
Until: 18:00, 0,  
Until: 19:00, 0.5,  
Until: 21:00, 1,  
Until: 22:00, 0.3,  
Until: 24:00, 0,  
For: WinterDesignDay AllOtherDays,  
Until: 24:00, 0;

! Schedule: Dwell\_DomBed\_Occ  
Schedule:Compact,  
Dwell\_DomBed\_Occ,  
Fraction,  
Through: 31 Dec,  
For: Weekdays SummerDesignDay,  
Until: 07:00, 1,  
Until: 08:00, 0.5,  
Until: 09:00, 0.25,  
Until: 22:00, 0,

Until: 23:00, 0.25,  
Until: 24:00, 0.75,  
For: Weekends,  
Until: 07:00, 1,  
Until: 08:00, 0.5,  
Until: 09:00, 0.25,  
Until: 22:00, 0,  
Until: 23:00, 0.25,  
Until: 24:00, 0.75,  
For: Holidays,  
Until: 07:00, 1,  
Until: 08:00, 0.5,  
Until: 09:00, 0.25,  
Until: 22:00, 0,  
Until: 23:00, 0.25,  
Until: 24:00, 0.75,  
For: WinterDesignDay AllOtherDays,  
Until: 24:00, 0;

! Schedule: Dwell\_DomKitchen\_Occ  
Schedule:Compact,  
Dwell\_DomKitchen\_Occ,  
Fraction,  
Through: 31 Dec,  
For: Weekdays SummerDesignDay,  
Until: 07:00, 0,  
Until: 10:00, 1,  
Until: 19:00, 0,  
Until: 23:00, 0.2,  
Until: 24:00, 0,  
For: Weekends,  
Until: 07:00, 0,  
Until: 10:00, 1,  
Until: 19:00, 0,  
Until: 23:00, 0.2,  
Until: 24:00, 0,  
For: Holidays,  
Until: 07:00, 0,  
Until: 10:00, 1,  
Until: 19:00, 0,  
Until: 23:00, 0.2,  
Until: 24:00, 0,  
For: WinterDesignDay AllOtherDays,  
Until: 24:00, 0;

! Schedule: Dwell\_DomCirculation\_Occ  
Schedule:Compact,  
Dwell\_DomCirculation\_Occ,  
Fraction,  
Through: 31 Dec,  
For: Weekdays SummerDesignDay,  
Until: 07:00, 0,

Until: 10:00, 1,  
Until: 19:00, 0,  
Until: 23:00, 0.2,  
Until: 24:00, 0,  
For: Weekends,  
Until: 07:00, 0,  
Until: 23:00, 1,  
Until: 24:00, 0.3,  
For: Holidays,  
Until: 07:00, 0,  
Until: 23:00, 1,  
Until: 24:00, 0.3,  
For: WinterDesignDay AllOtherDays,  
Until: 24:00, 0;

! Schedule: occupancy schedule  
Schedule:Compact,  
occupancy schedule,  
Fraction,  
Through: 31 Dec,  
For: Weekdays SummerDesignDay,  
Until: 05:00, 0.9,  
Until: 06:00, 0.8,  
Until: 07:00, 0.7,  
Until: 09:00, 0.6,  
Until: 10:00, 0.3,  
Until: 16:00, 0.1,  
Until: 17:00, 0.2,  
Until: 18:00, 0.3,  
Until: 19:00, 0.4,  
Until: 20:00, 0.5,  
Until: 21:00, 0.6,  
Until: 23:00, 0.7,  
Until: 24:00, 0.9,  
For: Weekdays,  
Until: 05:00, 0.9,  
Until: 06:00, 0.8,  
Until: 07:00, 0.7,  
Until: 09:00, 0.6,  
Until: 10:00, 0.3,  
Until: 16:00, 0.1,  
Until: 17:00, 0.2,  
Until: 18:00, 0.3,  
Until: 19:00, 0.4,  
Until: 20:00, 0.5,  
Until: 21:00, 0.6,  
Until: 23:00, 0.7,  
Until: 24:00, 0.9,  
For: Weekends,  
Until: 05:00, 0.9,  
Until: 06:00, 0.8,  
Until: 07:00, 0.7,  
Until: 09:00, 0.6,

Until: 10:00, 0.3,  
Until: 16:00, 0.1,  
Until: 17:00, 0.2,  
Until: 18:00, 0.3,  
Until: 19:00, 0.4,  
Until: 20:00, 0.5,  
Until: 21:00, 0.6,  
Until: 23:00, 0.7,  
Until: 24:00, 0.9,  
For: Holidays,  
Until: 05:00, 0.9,  
Until: 06:00, 0.8,  
Until: 07:00, 0.7,  
Until: 09:00, 0.6,  
Until: 10:00, 0.3,  
Until: 16:00, 0.1,  
Until: 17:00, 0.2,  
Until: 18:00, 0.3,  
Until: 19:00, 0.4,  
Until: 20:00, 0.5,  
Until: 21:00, 0.6,  
Until: 23:00, 0.7,  
Until: 24:00, 0.9,  
For: WinterDesignDay AllOtherDays,  
Until: 05:00, 0.9,  
Until: 06:00, 0.8,  
Until: 07:00, 0.7,  
Until: 09:00, 0.6,  
Until: 10:00, 0.3,  
Until: 16:00, 0.1,  
Until: 17:00, 0.2,  
Until: 18:00, 0.3,  
Until: 19:00, 0.4,  
Until: 20:00, 0.5,  
Until: 21:00, 0.6,  
Until: 23:00, 0.7,  
Until: 24:00, 0.9;

! Schedule: lighting schedule  
Schedule:Compact,  
lighting schedule,  
Fraction,  
Through: 31 Dec,  
For: Weekdays SummerDesignDay,  
Until: 05:00, 0.05,  
Until: 06:00, 0.25,  
Until: 08:00, 0.8,  
Until: 09:00, 0.5,  
Until: 17:00, 0.2,  
Until: 24:00, 0.5,  
For: Weekdays,  
Until: 05:00, 0.05,  
Until: 06:00, 0.25,  
Until: 08:00, 0.8,

```

Until: 09:00, 0.5,
Until: 17:00, 0.2,
  Until: 24:00, 0.5,
  For: Weekends,
    Until: 05:00, 0.05,
    Until: 06:00, 0.25,
Until: 08:00, 0.8,
Until: 09:00, 0.5,
Until: 17:00, 0.2,
  Until: 24:00, 0.5,
  For: Holidays,
    Until: 05:00, 0.05,
    Until: 06:00, 0.25,
Until: 08:00, 0.8,
Until: 09:00, 0.5,
Until: 17:00, 0.2,
  Until: 24:00, 0.5,
  For: WinterDesignDay AllOtherDays,
    Until: 05:00, 0.05,
    Until: 06:00, 0.25,
Until: 08:00, 0.8,
Until: 09:00, 0.5,
Until: 17:00, 0.2,
  Until: 24:00, 0.5;

```

```

! Schedule: equipment schedule
Schedule:Compact,
equipment schedule,
Fraction,
Through: 31 Dec,
  For: Weekdays SummerDesignDay,
Until: 02:00, 0.2,
Until: 06:00, 0.15,
Until: 07:00, 0.4,
Until: 08:00, 0.8,
Until: 09:00, 0.5,
Until: 10:00, 0.3,
Until: 17:00, 0.5,
Until: 19:00, 0.4,
Until: 20:00, 0.5,
Until: 22:00, 0.6,
Until: 23:00, 0.4,
Until: 24:00, 0.2,
  For: Weekdays,
    Until: 02:00, 0.2,
Until: 06:00, 0.15,
Until: 07:00, 0.4,
Until: 08:00, 0.8,
Until: 09:00, 0.5,
Until: 10:00, 0.3,
Until: 17:00, 0.5,
Until: 19:00, 0.4,
Until: 20:00, 0.5,
Until: 22:00, 0.6,

```

```

Until: 23:00, 0.4,
Until: 24:00, 0.2,
  For: Weekends,
Until: 02:00, 0.2,
Until: 06:00, 0.15,
Until: 07:00, 0.4,
Until: 08:00, 0.8,
Until: 09:00, 0.5,
Until: 10:00, 0.3,
Until: 17:00, 0.5,
Until: 19:00, 0.4,
Until: 20:00, 0.5,
Until: 22:00, 0.6,
Until: 23:00, 0.4,
Until: 24:00, 0.2,
  For: Holidays,
Until: 02:00, 0.2,
Until: 06:00, 0.15,
Until: 07:00, 0.4,
Until: 08:00, 0.8,
Until: 09:00, 0.5,
Until: 10:00, 0.3,
Until: 17:00, 0.5,
Until: 19:00, 0.4,
Until: 20:00, 0.5,
Until: 22:00, 0.6,
Until: 23:00, 0.4,
Until: 24:00, 0.2,
  For: WinterDesignDay AllOtherDays,
Until: 02:00, 0.2,
Until: 06:00, 0.15,
Until: 07:00, 0.4,
Until: 08:00, 0.8,
Until: 09:00, 0.5,
Until: 10:00, 0.3,
Until: 17:00, 0.5,
Until: 19:00, 0.4,
Until: 20:00, 0.5,
Until: 22:00, 0.6,
Until: 23:00, 0.4,
Until: 24:00, 0.2;

```

```

WindowMaterial:Glazing,2,
  SpectralAverage,
{SpectralAverage or Spectral}
,
when Optical Data Type = Spectral
.003,
.837,
normal incidence
.075,
incidence: front side

```

```

!- Generic CLEAR 3MM
!- Optical data type
!- Name of spectral data set
!- Thickness {m}
!- Solar transmittance at
!- Solar reflectance at normal

```



|  |                                |
|--|--------------------------------|
| .075,  | !- Solar reflectance at normal |
| incidence: back side                                       |                                |
| .898,  | !- Visible transmittance at    |
| normal incidence   |                                |
| .081,  | !- Visible reflectance at      |
| normal incidence: front side                               |                                |
| .081,  | !- Visible reflectance at      |
| normal incidence: back side                                |                                |
| .0,  | !- IR transmittance at normal  |
| incidence  |                                |
| .84,   | !- IR emissivity: front side   |
| .84,   | !- IR emissivity: back side    |
| .9,  | !- Conductivity {W/m-K}        |
| 1;   | !- Dirt Correction Factor for  |
| Solar and Visible Transmittance                            |                                |
| ! Clay Tile (roofing)- thickness 0.025                     |                                |
| Material, Clay Tile (roofing)_.025,                        |                                |
| Rough,   | !- Roughness                   |
| .025,  | !- Thickness {m}               |
| 1,   | !- Conductivity {w/m-K}        |
| 2000,  | !- Density {kg/m3}             |
| 800,   | !- Specific Heat {J/kg-K}      |
| 0.9,   | !- Thermal Emittance           |
| 0.7,   | !- Solar Absorptance           |
| 0.7;   | !- Visible Absorptance         |
| ! Roofing Felt- thickness 0.005                            |                                |
| Material, Roofing Felt_.005,                               |                                |
| Rough,   | !- Roughness                   |
| .005,  | !- Thickness {m}               |
| 0.19,  | !- Conductivity {w/m-K}        |
| 960,   | !- Density {kg/m3}             |
| 837,   | !- Specific Heat {J/kg-K}      |
| 0.9,   | !- Thermal Emittance           |
| 0.8,   | !- Solar Absorptance           |
| 0.8;   | !- Visible Absorptance         |
| ! Brickwork Outer- thickness 0.1                           |                                |
| Material, Brickwork Outer_.1,                              |                                |
| Rough,   | !- Roughness                   |
| .1,  | !- Thickness {m}               |
| 0.84,  | !- Conductivity {w/m-K}        |
| 1700,  | !- Density {kg/m3}             |
| 800,   | !- Specific Heat {J/kg-K}      |
| 0.9,   | !- Thermal Emittance           |
| 0.7,   | !- Solar Absorptance           |
| 0.7;   | !- Visible Absorptance         |
| ! XPS Extruded Polystyrene - CO2 Blowing- thickness 0.0792 |                                |
| Material, XPS Extruded Polystyrene - CO2 Blowing_.0792,    |                                |
| Rough,   | !- Roughness                   |
| .0792,   | !- Thickness {m}               |
| 0.034,   | !- Conductivity {w/m-K}        |
| 35,  | !- Density {kg/m3}             |

1400,  
0.9,  
0.6,  
0.6;

!- Specific Heat {J/kg-K}  
!- Thermal Emittance  
!- Solar Absorptance  
!- Visible Absorptance

! Concrete Block (Medium)- thickness 0.1

Material, Concrete Block (Medium)\_.1,  
Rough,  
.1,  
0.51,  
1400,  
1000,  
0.9,  
0.6,  
0.6;

!- Roughness  
!- Thickness {m}  
!- Conductivity {w/m-K}  
!- Density {kg/m3}  
!- Specific Heat {J/kg-K}  
!- Thermal Emittance  
!- Solar Absorptance  
!- Visible Absorptance

! Gypsum Plastering- thickness 0.013

Material, Gypsum Plastering\_.013,  
Rough,  
.013,  
0.4,  
1000,  
1000,  
0.9,  
0.5,  
0.5;

!- Roughness  
!- Thickness {m}  
!- Conductivity {w/m-K}  
!- Density {kg/m3}  
!- Specific Heat {J/kg-K}  
!- Thermal Emittance  
!- Solar Absorptance  
!- Visible Absorptance

! Holes and vents- thickness 0.2

Material, Holes and vents\_.2,  
Rough,  
.2,  
0.1,  
12,  
840,  
0.9,  
0.7,  
0.7;

!- Roughness  
!- Thickness {m}  
!- Conductivity {w/m-K}  
!- Density {kg/m3}  
!- Specific Heat {J/kg-K}  
!- Thermal Emittance  
!- Solar Absorptance  
!- Visible Absorptance

! Plasterboard- thickness 0.013

Material, Plasterboard\_.013,  
Rough,  
.013,  
0.25,  
2800,  
896,  
0.9,  
0.5,  
0.5;

!- Roughness  
!- Thickness {m}  
!- Conductivity {w/m-K}  
!- Density {kg/m3}  
!- Specific Heat {J/kg-K}  
!- Thermal Emittance  
!- Solar Absorptance  
!- Visible Absorptance

! Cast Concrete (Lightweight)- thickness 0.1

Material, Cast Concrete (Lightweight)\_.1,  
Rough,  
.1,  
0.38,

!- Roughness  
!- Thickness {m}  
!- Conductivity {w/m-K}

1200,  
1000,  
0.9,  
0.6,  
0.6;

!- Density {kg/m3}  
!- Specific Heat {J/kg-K}  
!- Thermal Emittance  
!- Solar Absorptance  
!- Visible Absorptance

! MW Glass Wool (rolls)- thickness 0.1

Material, MW Glass Wool (rolls)\_.1,  
Rough,  
.1,  
0.04,  
12,  
840,  
0.9,  
0.6,  
0.6;

!- Roughness  
!- Thickness {m}  
!- Conductivity {w/m-K}  
!- Density {kg/m3}  
!- Specific Heat {J/kg-K}  
!- Thermal Emittance  
!- Solar Absorptance  
!- Visible Absorptance

! Plywood (Heavyweight)- thickness 0.01

Material, Plywood (Heavyweight)\_.01,  
Rough,  
.01,  
0.15,  
700,  
1420,  
0.9,  
0.78,  
0.78;

!- Roughness  
!- Thickness {m}  
!- Conductivity {w/m-K}  
!- Density {kg/m3}  
!- Specific Heat {J/kg-K}  
!- Thermal Emittance  
!- Solar Absorptance  
!- Visible Absorptance

! External Rendering- thickness 0.025

Material, External Rendering\_.025,  
Rough,  
.025,  
0.5,  
1300,  
1000,  
0.9,  
0.7,  
0.7;

!- Roughness  
!- Thickness {m}  
!- Conductivity {w/m-K}  
!- Density {kg/m3}  
!- Specific Heat {J/kg-K}  
!- Thermal Emittance  
!- Solar Absorptance  
!- Visible Absorptance

! MW Stone Wool (rolls)- thickness 0.1439

Material, MW Stone Wool (rolls)\_.1439,  
Rough,  
.1439,  
0.04,  
30,  
840,  
0.9,  
0.6,  
0.6;

!- Roughness  
!- Thickness {m}  
!- Conductivity {w/m-K}  
!- Density {kg/m3}  
!- Specific Heat {J/kg-K}  
!- Thermal Emittance  
!- Solar Absorptance  
!- Visible Absorptance

! Timber Flooring- thickness 0.005

Material, Timber Flooring\_.005,  
Rough,  
.005,

!- Roughness  
!- Thickness {m}

0.14,  
650,  
1200,  
0.9,  
0.78,  
0.78;

!- Conductivity {w/m-K}  
!- Density {kg/m3}  
!- Specific Heat {J/kg-K}  
!- Thermal Emittance  
!- Solar Absorptance  
!- Visible Absorptance

! Urea Formaldehyde Foam- thickness 0.1

Material, Urea Formaldehyde Foam\_.1,  
Rough,  
.1,  
0.04,  
10,  
1400,  
0.9,  
0.6,  
0.6;

!- Roughness  
!- Thickness {m}  
!- Conductivity {w/m-K}  
!- Density {kg/m3}  
!- Specific Heat {J/kg-K}  
!- Thermal Emittance  
!- Solar Absorptance  
!- Visible Absorptance

! Cast Concrete- thickness 0.1

Material, Cast Concrete\_.1,  
Rough,  
.1,  
1.13,  
2000,  
1000,  
0.9,  
0.6,  
0.6;

!- Roughness  
!- Thickness {m}  
!- Conductivity {w/m-K}  
!- Density {kg/m3}  
!- Specific Heat {J/kg-K}  
!- Thermal Emittance  
!- Solar Absorptance  
!- Visible Absorptance

! Floor/Roof Screed- thickness 0.07

Material, Floor/Roof Screed\_.07,  
Rough,  
.07,  
0.41,  
1200,  
840,  
0.9,  
0.73,  
0.73;

!- Roughness  
!- Thickness {m}  
!- Conductivity {w/m-K}  
!- Density {kg/m3}  
!- Specific Heat {J/kg-K}  
!- Thermal Emittance  
!- Solar Absorptance  
!- Visible Absorptance

! Carpet/textile flooring- thickness 0.03

Material, Carpet/textile flooring\_.03,  
Rough,  
.03,  
0.06,  
200,  
1300,  
0.9,  
0.6,  
0.6;

!- Roughness  
!- Thickness {m}  
!- Conductivity {w/m-K}  
!- Density {kg/m3}  
!- Specific Heat {J/kg-K}  
!- Thermal Emittance  
!- Solar Absorptance  
!- Visible Absorptance

! Gypsum Plasterboard- thickness 0.02

Material, Gypsum Plasterboard\_.02,  
Rough,

!- Roughness

|       |                           |
|-------|---------------------------|
| .02,  | !- Thickness {m}          |
| 0.25, | !- Conductivity {w/m-K}   |
| 900,  | !- Density {kg/m3}        |
| 1000, | !- Specific Heat {J/kg-K} |
| 0.9,  | !- Thermal Emittance      |
| 0.5,  | !- Solar Absorptance      |
| 0.5;  | !- Visible Absorptance    |

! Cement/plaster/mortar - cement- thickness 0.1

|  |                           |
|--|---------------------------|
| Material, Cement/plaster/mortar - cement_.1, |                           |
| Rough,                                       | !- Roughness              |
| .1,  | !- Thickness {m}          |
| 0.72,  | !- Conductivity {w/m-K}   |
| 1860,  | !- Density {kg/m3}        |
| 840,   | !- Specific Heat {J/kg-K} |
| 0.9,   | !- Thermal Emittance      |
| 0.6,   | !- Solar Absorptance      |
| 0.6;   | !- Visible Absorptance    |

! Painted Oak- thickness 0.035

|                             |                           |
|-----------------------------|---------------------------|
| Material, Painted Oak_.035, |                           |
| Rough,                      | !- Roughness              |
| .035,                       | !- Thickness {m}          |
| 0.19,                       | !- Conductivity {w/m-K}   |
| 700,                        | !- Density {kg/m3}        |
| 2390,                       | !- Specific Heat {J/kg-K} |
| 0.9,                        | !- Thermal Emittance      |
| 0.5,                        | !- Solar Absorptance      |
| 0.5;                        | !- Visible Absorptance    |

! Special material to represent an R-value for the next construction

|                            |                            |
|----------------------------|----------------------------|
| Material:NoMass, 1_RVAL_2, | !- Material name - Air gap |
| 10mm                       |                            |
| Rough,                     | !- Roughness               |
| .15,                       | !- Resistance {m2-K/w}     |
| 0.9,                       | !- Thermal Emittance       |
| 0.7,                       | !- Solar Absorptance       |
| 0.7;                       | !- Visible Absorptance     |

! Project unoccupied pitched roof

|  |            |
|--|------------|
| Construction, Project unoccupied pitched roof, |            |
| Clay Tile (roofing)_.025,                      | !- .025m   |
| 1_RVAL_2,                                      | !- R-value |
| Roofing Felt_.005;                             | !- .005m   |

! Special material to represent an R-value for the next construction

|                            |                            |
|----------------------------|----------------------------|
| Material:NoMass, 2_RVAL_2, | !- Material name - Air gap |
| 10mm                       |                            |
| Rough,                     | !- Roughness               |
| .15,                       | !- Resistance {m2-K/w}     |
| 0.9,                       | !- Thermal Emittance       |
| 0.7,                       | !- Solar Absorptance       |
| 0.7;                       | !- Visible Absorptance     |

! <Previous reversed>

Construction, Project unoccupied pitched roof\_Rev,  
Roofing Felt\_.005, !- .005m  
2\_RVAL\_2, !- R-value  
Clay Tile (roofing)\_.025; !- .025m

! Project wall

Construction, Project wall,  
Brickwork Outer\_.1, !- .1m  
XPS Extruded Polystyrene - CO2 Blowing\_.0792, !- .0792m  
Concrete Block (Medium)\_.1, !- .1m  
Gypsum Plastering\_.013; !- .013m

! <Previous reversed>

Construction, Project wall\_Rev,  
Gypsum Plastering\_.013, !- .013m  
Concrete Block (Medium)\_.1, !- .1m  
XPS Extruded Polystyrene - CO2 Blowing\_.0792, !- .0792m  
Brickwork Outer\_.1; !- .1m

! Holes and vents

Construction, Holes and vents,  
Holes and vents\_.2; !- .2m

! <Previous reversed>

Construction, Holes and vents\_Rev,  
Holes and vents\_.2; !- .2m

! Special material to represent an R-value for the next construction

Material:NoMass, 7\_RVAL\_2, !- Material name - Air gap  
>=25mm  
Rough, !- Roughness  
.18, !- Resistance {m2-K/w}  
0.9, !- Thermal Emittance  
0.7, !- Solar Absorptance  
0.7; !- Visible Absorptance

! Project semi-exposed ceiling\_Reversed

Construction, Project semi-exposed ceiling\_Reversed,  
Plasterboard\_.013, !- .013m  
7\_RVAL\_2, !- R-value  
Cast Concrete (Lightweight)\_.1, !- .1m  
MW Glass Wool (rolls)\_.1, !- .1m  
Plywood (Heavyweight)\_.01; !- .01m

! Special material to represent an R-value for the next construction

Material:NoMass, 8\_RVAL\_4, !- Material name - Air gap  
>=25mm  
Rough, !- Roughness  
.18, !- Resistance {m2-K/w}  
0.9, !- Thermal Emittance  
0.7, !- Solar Absorptance  
0.7; !- Visible Absorptance

! <Previous reversed>

|  |            |
|--|------------|
| Construction, Project semi-exposed ceiling_Reversed_Rev, |            |
| Plywood (Heavyweight)_.01,                               | !- .01m    |
| MW Glass Wool (rolls)_.1,                                | !- .1m     |
| Cast Concrete (Lightweight)_.1,                          | !- .1m     |
| 8_RVAL_4,  | !- R-value |
| Plasterboard_.013;                                       | !- .013m   |

! Project external floor

|                                       |           |
|---------------------------------------|-----------|
| Construction, Project external floor, |           |
| External Rendering_.025,              | !- .025m  |
| MW Stone Wool (rolls)_.1439,          | !- .1439m |
| Timber Flooring_.005;                 | !- .005m  |

! <Previous reversed>

|   |           |
|---|-----------|
| Construction, Project external floor_Rev, |           |
| Timber Flooring_.005,                     | !- .005m  |
| MW Stone Wool (rolls)_.1439,              | !- .1439m |
| External Rendering_.025;                  | !- .025m  |

! ground floor

|                              |         |
|------------------------------|---------|
| Construction, ground floor,  |         |
| Urea Formaldehyde Foam_.1,   | !- .1m  |
| Cast Concrete_.1,            | !- .1m  |
| Floor/Roof Screed_.07,       | !- .07m |
| Carpet/textile flooring_.03; | !- .03m |

! <Previous reversed>

|                                 |         |
|---------------------------------|---------|
| Construction, ground floor_Rev, |         |
| Carpet/textile flooring_.03,    | !- .03m |
| Floor/Roof Screed_.07,          | !- .07m |
| Cast Concrete_.1,               | !- .1m  |
| Urea Formaldehyde Foam_.1;      | !- .1m  |

! internal wall

|                                    |         |
|------------------------------------|---------|
| Construction, internal wall,       |         |
| Gypsum Plasterboard_.02,           | !- .02m |
| Cement/plaster/mortar - cement_.1, | !- .1m  |
| Gypsum Plasterboard_.02;           | !- .02m |

! <Previous reversed>

|                                    |         |
|------------------------------------|---------|
| Construction, internal wall_Rev,   |         |
| Gypsum Plasterboard_.02,           | !- .02m |
| Cement/plaster/mortar - cement_.1, | !- .1m  |
| Gypsum Plasterboard_.02;           | !- .02m |

! Project internal door

|                                      |          |
|--------------------------------------|----------|
| Construction, Project internal door, |          |
| Painted Oak_.035;                    | !- .035m |

! <Previous reversed>

|  |          |
|--|----------|
| Construction, Project internal door_Rev, |          |
| Painted Oak_.035;                        | !- .035m |

|  |                                |
|--|--------------------------------|
| ! Project external door  |                                |
| Construction, Project external door,   |                                |
| Painted Oak_.035;  | !- .035m                       |
| ! <Previous reversed>  |                                |
| Construction, Project external door_Rev,                                     |                                |
| Painted Oak_.035;  | !- .035m                       |
| Construction,1001,   | !- Sgl Clr 3mm - Material      |
| layer names follow:  |                                |
| 2;   | !- Generic CLEAR 3MM           |
| HeatBalanceAlgorithm,  |                                |
| ConductionTransferFunction,  | !- Heat Balance Algorithm: CTF |
| or CondFD  |                                |
| 2000,  | !- Max Surface Temperature     |
| Limit  |                                |
| 0.00000001,  | !- Minimum Surface Convection  |
| Heat Transfer Coefficient  |                                |
| 1000;  | !- Maximum Surface Convection  |
| Heat Transfer Coefficient  |                                |
| ShadowCalculation, AverageOverDaysInFrequency, 20, 15000, SutherlandHodgman, |                                |
| SimpleSkyDiffuseModeling; !- Interval between shading calcs                  |                                |
| SurfaceConvectionAlgorithm:Inside,TARP;                                      | !- Inside Convection Algorithm |
| SurfaceConvectionAlgorithm:Outside,DOE-2;                                    | !- Outside Convection          |
| Algorithm  |                                |
| ZoneCapacitanceMultiplier:ResearchSpecial, All, , 1, 1.0, 1.0, 1.0;          |                                |
| Building, Building,  | !- Building Name               |
| 0,   | !- North Axis                  |
| Suburbs,   | !- Terrain                     |
| .04,   | !- Loads Convergence Tolerance |
| .4,  | !- Temperature Convergence     |
| Tolerance  |                                |
| FullExterior,  | !- Solar Distribution          |
| 25,  | !- Maximum number of warmup    |
| days   |                                |
| 6;   | !- Minimum number of warmup    |
| days   |                                |
| GlobalGeometryRules, LowerLeftCorner, CounterClockWise, Relative; !- Surface |                                |
| order is specified as viewed from outside the zone                           |                                |
| ! Roof 1 - Zone 1  |                                |
| Zone, Roof1:Zone1,   | !- Zone Name                   |
| 0,   | !- Relative North (to          |
| building)  |                                |
| 0,   | !- X Origin (M)                |
| 0,   | !- Y Origin (M)                |
| 0,   | !- Z Origin (M)                |



```

1 ,                               !- Zone Type
1,                               !- Zone multiplier
,                                !- Zone ceiling height - Let
EnergyPlus work it out
    33.1175,                      !- Zone volume
    97.4914,                      !- Floor Area
    TARP,                         !- Zone inside convection
algorithm                        !- Zone outside convection
,
algorithm                        !- Part Of Total Floor Area
No;

```

```

ZoneInfiltration:DesignFlowRate, Roof1:Zone1 Infiltration, !- Name
    Roof1:Zone1,                 !- Zone Name
    On 24/7,                     !- Infiltration SCHEDULE Name
    Flow/zone,                   !- Design Volume Flow Rate
calculation method
    .009199,                     !- Design Volume Flow Rate
(m3/s)                           !- Flow per Zone Floor Area
,                                !- Flow per Exterior Surface
{m3/s/m2}                        !- Air Changes Per Hour
,                                !- Constant Term Coefficient
Area {m3/s/m2}                  !- Temperature Term
1,                               !- Velocity Term Coefficient
0,                               !- Velocity Squared Term
Coefficient
0,
Coefficient
0;

```

! Roof 1, Zone 1, External roof - 10° Slope 63.276 m2, Surface Area: 63.276m2

```

BuildingSurface:Detailed,        !- Surface
    Roof1:Zone1_Roof_0_0_0,      !- Surface name
    Roof, Project unoccupied pitched roof, !- Class and Construction Name
    Roof1:Zone1,                 !- Zone Name
    Outdoors, ,                  !- Outside Face Environment
    SunExposed,                  !- Sun Exposure
    WindExposed,                 !- Wind Exposure
    AutoCalculate,               !- View Factor to Ground
    4,                           !- Number vertices
    -62.0578367433, 34.9359295168, 2.7, !- Vertex 1
    -62.0578367433, 48.1716004168, 2.7, !- Vertex 2
    -66.7659313292, 48.1716004168, 3.5301641024, !- Vertex 3
    -66.7659313292, 34.9359295168, 3.5301641024; !- Vertex 4

```

! Roof 1, Zone 1, Wall - 3.908 m2 - 180.0°, Surface Area: 3.908m2

```

BuildingSurface:Detailed,        !- Surface
    Roof1:Zone1_Wall_1_0_0,      !- Surface name
    Wall, Project wall,          !- Class and Construction Name
    Roof1:Zone1,                 !- Zone Name
    Outdoors, ,                  !- Outside Face Environment

```

SunExposed, !- Sun Exposure  
 WindExposed, !- Wind Exposure  
 AutoCalculate, !- View Factor to Ground  
 3, !- Number vertices  
 -71.4740259133, 34.9359295168, 2.7, !- Vertex 1  
 -62.0578367433, 34.9359295168, 2.7, !- Vertex 2  
 -66.7659313292, 34.9359295168, 3.5301641024; !- Vertex 3

! Vent, 0.041m2

FenestrationSurface:Detailed, Roof1:Zone1\_Wall\_1\_0\_0\_0\_0\_Vent, !- Vent

name

Door, Holes and vents, !- Class and Construction Name  
 Roof1:Zone1\_Wall\_1\_0\_0, !- Base surface  
 , !- Corresponding other surface  
 AutoCalculate, !- View Factor to Ground  
 , !- Window shading control  
 , !- Frame divider name  
 1, !- Multiplier  
 4, !- Number vertices  
 -66.8586434747, 34.9359295168, 3.19832809, !- Vertex 1  
 -66.6555494147, 34.9359295168, 3.19832809, !- Vertex 2  
 -66.6555494147, 34.9359295168, 3.40058128, !- Vertex 3  
 -66.8586434747, 34.9359295168, 3.40058128; !- Vertex 4

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 4.7309

BuildingSurface:Detailed, !- Surface  
 Roof1:Zone1\_Floor\_2\_0\_0, !- Surface name  
 Floor, Project semi-exposed ceiling\_Reversed, !- Class and Construction

Name

Roof1:Zone1, !- Zone Name  
 Surface, Block2:Wc\_Ceiling\_1\_0\_10000, !- Outside Face Environment  
 NoSun, !- Sun Exposure  
 NoWind, !- Wind Exposure  
 0, !- View Factor to Ground  
 4, !- Number vertices  
 -71.1759645247, 46.5357395832, 2.7, !- Vertex 1  
 -71.1740259147, 48.1716004132, 2.7, !- Vertex 2  
 -68.2814168747, 48.1698320332, 2.7, !- Vertex 3  
 -68.2814168747, 46.5357395832, 2.7; !- Vertex 4

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 4.7309

<Other side>

BuildingSurface:Detailed, !- Surface reverse definition  
 Block2:Wc\_Ceiling\_1\_0\_10000, !- Surface name  
 Ceiling, Project semi-exposed ceiling\_Reversed\_Rev, !- Class and

Construction Name

Block2:Wc, !- Zone Name  
 Surface, Roof1:Zone1\_Floor\_2\_0\_0, !- Outside Face Environment  
 NoSun, !- Sun Exposure  
 NoWind, !- Wind Exposure  
 0, !- View Factor to Ground  
 4, !- Number vertices  
 -71.1759645247, 46.5357395832, 2.7, !- Vertex 1  
 -68.2814168747, 46.5357395832, 2.7, !- Vertex 2

-68.2814168747, 48.1698320332, 2.7,                   !- Vertex 3  
 -71.1740259147, 48.1716004132, 2.7;               !- Vertex 4

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 6.2568

BuildingSurface:Detailed,                           !- Surface  
 Roof1:Zone1\_Floor\_2\_1\_0,                         !- Surface name  
 Floor, Project semi-exposed ceiling\_Reversed,   !- Class and Construction

Name

Roof1:Zone1,                                       !- Zone Name  
 Surface, Block2:Laundry\_Ceiling\_1\_0\_10001,     !- Outside Face Environment  
 NoSun,   !- Sun Exposure  
 NoWind,   !- Wind Exposure  
 0,   !- View Factor to Ground  
 4,   !- Number vertices  
 -71.1785151947, 44.3834058632, 2.7,           !- Vertex 1  
 -71.1759645247, 46.5357395832, 2.7,           !- Vertex 2  
 -68.2814168747, 46.5357395832, 2.7,           !- Vertex 3  
 -68.2814168747, 44.3667993132, 2.7;           !- Vertex 4

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 6.2568

<Other side>

BuildingSurface:Detailed,                           !- Surface reverse definition  
 Block2:Laundry\_Ceiling\_1\_0\_10001,               !- Surface name  
 Ceiling, Project semi-exposed ceiling\_Reversed\_Rev,   !- Class and

Construction Name

Block2:Laundry,                                   !- Zone Name  
 Surface, Roof1:Zone1\_Floor\_2\_1\_0,               !- Outside Face Environment  
 NoSun,   !- Sun Exposure  
 NoWind,   !- Wind Exposure  
 0,   !- View Factor to Ground  
 4,   !- Number vertices  
 -71.1785151947, 44.3834058632, 2.7,           !- Vertex 1  
 -68.2814168747, 44.3667993132, 2.7,           !- Vertex 2  
 -68.2814168747, 46.5357395832, 2.7,           !- Vertex 3  
 -71.1759645247, 46.5357395832, 2.7;           !- Vertex 4

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 7.4067

BuildingSurface:Detailed,                           !- Surface  
 Roof1:Zone1\_Floor\_2\_2\_0,                         !- Surface name  
 Floor, Project semi-exposed ceiling\_Reversed,   !- Class and Construction

Name

Roof1:Zone1,                                       !- Zone Name  
 Surface, Block2:Shower\_Ceiling\_1\_0\_10002,     !- Outside Face Environment  
 NoSun,   !- Sun Exposure  
 NoWind,   !- Wind Exposure  
 0,   !- View Factor to Ground  
 4,   !- Number vertices  
 -71.1815603947, 41.8137719832, 2.7,           !- Vertex 1  
 -71.1785151947, 44.3834058632, 2.7,           !- Vertex 2  
 -68.2814168747, 44.3667993132, 2.7,           !- Vertex 3  
 -68.2952307047, 41.8137719832, 2.7;           !- Vertex 4

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 7.4067

<Other side>

```

BuildingSurface:Detailed,                !- Surface reverse definition
Block2:Shower_Ceiling_1_0_10002,        !- Surface name
Ceiling, Project semi-exposed ceiling_Reversed_Rev, !- Class and
Construction Name
Block2:Shower,                          !- Zone Name
Surface, Roof1:Zone1_Floor_2_2_0,       !- Outside Face Environment
NoSun,                                  !- Sun Exposure
NoWind,                                 !- Wind Exposure
0,                                       !- View Factor to Ground
4,                                       !- Number vertices
-71.1815603947, 41.8137719832, 2.7,    !- Vertex 1
-68.2952307047, 41.8137719832, 2.7,    !- Vertex 2
-68.2814168747, 44.3667993132, 2.7,    !- Vertex 3
-71.1785151947, 44.3834058632, 2.7;    !- Vertex 4

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 15.6249
BuildingSurface:Detailed,                !- Surface
Roof1:Zone1_Floor_2_3_0,                !- Surface name
Floor, Project semi-exposed ceiling_Reversed, !- Class and Construction
Name
Roof1:Zone1,                            !- Zone Name
Surface, Block2:Bed2_Ceiling_1_0_10003, !- Outside Face Environment
NoSun,                                  !- Sun Exposure
NoWind,                                 !- Wind Exposure
0,                                       !- View Factor to Ground
4,                                       !- Number vertices
-71.1859455147, 38.1134826732, 2.7,    !- Vertex 1
-71.1815603947, 41.8137719832, 2.7,    !- Vertex 2
-66.9611367047, 41.8137719832, 2.7,    !- Vertex 3
-66.9611367047, 38.1134826732, 2.7;    !- Vertex 4

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 15.6249
<Other side>
BuildingSurface:Detailed,                !- Surface reverse definition
Block2:Bed2_Ceiling_1_0_10003,          !- Surface name
Ceiling, Project semi-exposed ceiling_Reversed_Rev, !- Class and
Construction Name
Block2:Bed2,                            !- Zone Name
Surface, Roof1:Zone1_Floor_2_3_0,       !- Outside Face Environment
NoSun,                                  !- Sun Exposure
NoWind,                                 !- Wind Exposure
0,                                       !- View Factor to Ground
4,                                       !- Number vertices
-71.1859455147, 38.1134826732, 2.7,    !- Vertex 1
-66.9611367047, 38.1134826732, 2.7,    !- Vertex 2
-66.9611367047, 41.8137719832, 2.7,    !- Vertex 3
-71.1815603947, 41.8137719832, 2.7;    !- Vertex 4

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 17.8853
BuildingSurface:Detailed,                !- Surface
Roof1:Zone1_Floor_2_4_0,                !- Surface name
Floor, Project semi-exposed ceiling_Reversed, !- Class and Construction
Name
Roof1:Zone1,                            !- Zone Name

```

|   |                             |
|---|-----------------------------|
| Surface, Block2:Bed3_Ceiling_1_0_10004, | !- Outside Face Environment |
| NoSun,                                  | !- Sun Exposure             |
| NoWind,                                 | !- Wind Exposure            |
| 0,                                      | !- View Factor to Ground    |
| 4,                                      | !- Number vertices          |
| -71.1897111416, 34.9359295132, 2.7,     | !- Vertex 1                 |
| -71.1859455147, 38.1134826732, 2.7,     | !- Vertex 2                 |
| -65.5568432147, 38.1134826732, 2.7,     | !- Vertex 3                 |
| -65.5615178147, 34.9359295132, 2.7;     | !- Vertex 4                 |

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 17.8853  
<Other side>

|   |                                |
|---|--------------------------------|
| BuildingSurface:Detailed,                           | !- Surface reverse definition  |
| Block2:Bed3_Ceiling_1_0_10004,                      | !- Surface name                |
| Ceiling, Project semi-exposed ceiling_Reversed_Rev, | !- Class and Construction Name |
| Block2:Bed3,  | !- Zone Name                   |
| Surface, Roof1:Zone1_Floor_2_4_0,                   | !- Outside Face Environment    |
| NoSun,  | !- Sun Exposure                |
| NoWind,   | !- Wind Exposure               |
| 0,  | !- View Factor to Ground       |
| 4,  | !- Number vertices             |
| -71.1897111416, 34.9359295132, 2.7,                 | !- Vertex 1                    |
| -65.5615178147, 34.9359295132, 2.7,                 | !- Vertex 2                    |
| -65.5568432147, 38.1134826732, 2.7,                 | !- Vertex 3                    |
| -71.1859455147, 38.1134826732, 2.7;                 | !- Vertex 4                    |

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 8.4351

|   |                                |
|---|--------------------------------|
| BuildingSurface:Detailed,                     | !- Surface                     |
| Roof1:Zone1_Floor_2_5_0,                      | !- Surface name                |
| Floor, Project semi-exposed ceiling_Reversed, | !- Class and Construction Name |
| Roof1:Zone1,                                  | !- Zone Name                   |
| Surface, Block2:Hallway_Ceiling_1_0_10005,    | !- Outside Face Environment    |
| NoSun,  | !- Sun Exposure                |
| NoWind,                                       | !- Wind Exposure               |
| 0,  | !- View Factor to Ground       |
| 4,  | !- Number vertices             |
| -68.2952307047, 41.8137719832, 2.7,           | !- Vertex 1                    |
| -68.2814168747, 48.1698320332, 2.7,           | !- Vertex 2                    |
| -66.9611367047, 48.1690248932, 2.7,           | !- Vertex 3                    |
| -66.9611367047, 41.8137719832, 2.7;           | !- Vertex 4                    |

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 8.4351  
<Other side>

|   |                                |
|---|--------------------------------|
| BuildingSurface:Detailed,                           | !- Surface reverse definition  |
| Block2:Hallway_Ceiling_1_0_10005,                   | !- Surface name                |
| Ceiling, Project semi-exposed ceiling_Reversed_Rev, | !- Class and Construction Name |
| Block2:Hallway,                                     | !- Zone Name                   |
| Surface, Roof1:Zone1_Floor_2_5_0,                   | !- Outside Face Environment    |
| NoSun,  | !- Sun Exposure                |
| NoWind,   | !- Wind Exposure               |
| 0,  | !- View Factor to Ground       |

|                                     |                    |
|-------------------------------------|--------------------|
| 4,                                  | !- Number vertices |
| -68.2952307047, 41.8137719832, 2.7, | !- Vertex 1        |
| -66.9611367047, 41.8137719832, 2.7, | !- Vertex 2        |
| -66.9611367047, 48.1690248932, 2.7, | !- Vertex 3        |
| -68.2814168747, 48.1698320332, 2.7; | !- Vertex 4        |

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 13.717

|   |                           |
|---|---------------------------|
| BuildingSurface:Detailed,                     | !- Surface                |
| Roof1:Zone1_Floor_2_6_0,                      | !- Surface name           |
| Floor, Project semi-exposed ceiling_Reversed, | !- Class and Construction |

Name

|  |                             |
|--|-----------------------------|
| Roof1:Zone1,                               | !- Zone Name                |
| Surface, Block2:Kitchen_Ceiling_1_0_10006, | !- Outside Face Environment |
| NoSun,                                     | !- Sun Exposure             |
| NoWind,                                    | !- Wind Exposure            |
| 0,   | !- View Factor to Ground    |
| 4,   | !- Number vertices          |
| -66.9611367047, 41.8137719832, 2.7,        | !- Vertex 1                 |
| -66.9582728647, 44.7911169132, 2.7,        | !- Vertex 2                 |
| -62.3510640847, 44.7911169132, 2.7,        | !- Vertex 3                 |
| -62.3540797547, 41.8137719832, 2.7;        | !- Vertex 4                 |

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 13.717

<Other side>

|   |                               |
|---|-------------------------------|
| BuildingSurface:Detailed,                           | !- Surface reverse definition |
| Block2:Kitchen_Ceiling_1_0_10006,                   | !- Surface name               |
| Ceiling, Project semi-exposed ceiling_Reversed_Rev, | !- Class and                  |

Construction Name

|                                     |                             |
|-------------------------------------|-----------------------------|
| Block2:Kitchen,                     | !- Zone Name                |
| Surface, Roof1:Zone1_Floor_2_6_0,   | !- Outside Face Environment |
| NoSun,                              | !- Sun Exposure             |
| NoWind,                             | !- Wind Exposure            |
| 0,                                  | !- View Factor to Ground    |
| 4,                                  | !- Number vertices          |
| -66.9611367047, 41.8137719832, 2.7, | !- Vertex 1                 |
| -62.3540797547, 41.8137719832, 2.7, | !- Vertex 2                 |
| -62.3510640847, 44.7911169132, 2.7, | !- Vertex 3                 |
| -66.9582728647, 44.7911169132, 2.7; | !- Vertex 4                 |

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 17.0612

|   |                           |
|---|---------------------------|
| BuildingSurface:Detailed,                     | !- Surface                |
| Roof1:Zone1_Floor_2_7_0,                      | !- Surface name           |
| Floor, Project semi-exposed ceiling_Reversed, | !- Class and Construction |

Name

|   |                 |
|---|-----------------|
| Roof1:Zone1,                                  | !- Zone Name    |
| Surface, Block2:LivingArea_Ceiling_1_0_10007, | !- Outside Face |

Environment

|                                     |                          |
|-------------------------------------|--------------------------|
| NoSun,                              | !- Sun Exposure          |
| NoWind,                             | !- Wind Exposure         |
| 0,                                  | !- View Factor to Ground |
| 4,                                  | !- Number vertices       |
| -66.9611367047, 38.1134826732, 2.7, | !- Vertex 1              |
| -66.9611367047, 41.8137719832, 2.7, | !- Vertex 2              |
| -62.3540797547, 41.8137719832, 2.7, | !- Vertex 3              |

-62.3578367547, 38.1045088632, 2.7;                      !- Vertex 4

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 17.0612  
<Other side>

BuildingSurface:Detailed,                      !- Surface reverse definition  
Block2:LivingArea\_Ceiling\_1\_0\_10007,                      !- Surface name  
Ceiling, Project semi-exposed ceiling\_Reversed\_Rev,                      !- Class and  
Construction Name  
Block2:LivingArea,                      !- Zone Name  
Surface, Roof1:Zone1\_Floor\_2\_7\_0,                      !- Outside Face Environment  
NoSun,                      !- Sun Exposure  
NoWind,                      !- Wind Exposure  
0,                      !- View Factor to Ground  
4,                      !- Number vertices  
-66.9611367047, 38.1134826732, 2.7,                      !- Vertex 1  
-62.3578367547, 38.1045088632, 2.7,                      !- Vertex 2  
-62.3540797547, 41.8137719832, 2.7,                      !- Vertex 3  
-66.9611367047, 41.8137719832, 2.7;                      !- Vertex 4

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 15.5668

BuildingSurface:Detailed,                      !- Surface  
Roof1:Zone1\_Floor\_2\_8\_0,                      !- Surface name  
Floor, Project semi-exposed ceiling\_Reversed,                      !- Class and Construction  
Name  
Roof1:Zone1,                      !- Zone Name  
Surface, Block2:Bed1\_Ceiling\_1\_0\_10008,                      !- Outside Face Environment  
NoSun,                      !- Sun Exposure  
NoWind,                      !- Wind Exposure  
0,                      !- View Factor to Ground  
4,                      !- Number vertices  
-66.9582728647, 44.7911169132, 2.7,                      !- Vertex 1  
-66.9611367047, 48.1690248932, 2.7,                      !- Vertex 2  
-62.3476455647, 48.1662044532, 2.7,                      !- Vertex 3  
-62.3510640847, 44.7911169132, 2.7;                      !- Vertex 4

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 15.5668

<Other side>  
BuildingSurface:Detailed,                      !- Surface reverse definition  
Block2:Bed1\_Ceiling\_1\_0\_10008,                      !- Surface name  
Ceiling, Project semi-exposed ceiling\_Reversed\_Rev,                      !- Class and  
Construction Name  
Block2:Bed1,                      !- Zone Name  
Surface, Roof1:Zone1\_Floor\_2\_8\_0,                      !- Outside Face Environment  
NoSun,                      !- Sun Exposure  
NoWind,                      !- Wind Exposure  
0,                      !- View Factor to Ground  
4,                      !- Number vertices  
-66.9582728647, 44.7911169132, 2.7,                      !- Vertex 1  
-62.3510640847, 44.7911169132, 2.7,                      !- Vertex 2  
-62.3476455647, 48.1662044532, 2.7,                      !- Vertex 3  
-66.9611367047, 48.1690248932, 2.7;                      !- Vertex 4

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area:  
10.153m2

|                                     |                                |
|-------------------------------------|--------------------------------|
| BuildingSurface:Detailed,           | !- Surface                     |
| Roof1:Zone1_ExtFloor_2_9_0,         | !- Surface name                |
| Floor, Project external floor,      | !- Class and Construction Name |
| Roof1:Zone1,                        | !- Zone Name                   |
| Outdoors, ,                         | !- Outside Face Environment    |
| SunExposed,                         | !- Sun Exposure                |
| WindExposed,                        | !- Wind Exposure               |
| AutoCalculate,                      | !- View Factor to Ground       |
| 4,                                  | !- Number vertices             |
| -65.5615178162, 34.9359295089, 2.7, | !- Vertex 1                    |
| -65.5568432067, 38.113482664, 2.7,  | !- Vertex 2                    |
| -62.3578367551, 38.104508863, 2.7,  | !- Vertex 3                    |
| -62.3610461145, 34.9359295161, 2.7; | !- Vertex 4                    |

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 3.923m2

|                                     |                                |
|-------------------------------------|--------------------------------|
| BuildingSurface:Detailed,           | !- Surface                     |
| Roof1:Zone1_ExtFloor_2_9_1,         | !- Surface name                |
| Floor, Project external floor,      | !- Class and Construction Name |
| Roof1:Zone1,                        | !- Zone Name                   |
| Outdoors, ,                         | !- Outside Face Environment    |
| SunExposed,                         | !- Sun Exposure                |
| WindExposed,                        | !- Wind Exposure               |
| AutoCalculate,                      | !- View Factor to Ground       |
| 4,                                  | !- Number vertices             |
| -62.3610461145, 34.9359295161, 2.7, | !- Vertex 1                    |
| -62.3476455641, 48.1662044518, 2.7, | !- Vertex 2                    |
| -62.0578367449, 48.1660272832, 2.7, | !- Vertex 3                    |
| -62.057836739, 34.9359295168, 2.7;  | !- Vertex 4                    |

! Roof 1, Zone 1, External/internal floor - 124.630 m2, Surface Area: 3.867m2

|                                     |                                |
|-------------------------------------|--------------------------------|
| BuildingSurface:Detailed,           | !- Surface                     |
| Roof1:Zone1_ExtFloor_2_9_2,         | !- Surface name                |
| Floor, Project external floor,      | !- Class and Construction Name |
| Roof1:Zone1,                        | !- Zone Name                   |
| Outdoors, ,                         | !- Outside Face Environment    |
| SunExposed,                         | !- Sun Exposure                |
| WindExposed,                        | !- Wind Exposure               |
| AutoCalculate,                      | !- View Factor to Ground       |
| 4,                                  | !- Number vertices             |
| -71.4740259143, 34.9359295166, 2.7, | !- Vertex 1                    |
| -71.4740259153, 48.1716004107, 2.7, | !- Vertex 2                    |
| -71.1740259147, 48.1716004107, 2.7, | !- Vertex 3                    |
| -71.1897111447, 34.9359295132, 2.7; | !- Vertex 4                    |

! Roof 1, Zone 1, External roof - 10° Slope 63.276 m2, Surface Area: 63.276m2

|  |                                |
|--|--------------------------------|
| BuildingSurface:Detailed,              | !- Surface                     |
| Roof1:Zone1_Roof_3_0_0,                | !- Surface name                |
| Roof, Project unoccupied pitched roof, | !- Class and Construction Name |
| Roof1:Zone1,                           | !- Zone Name                   |
| Outdoors, ,                            | !- Outside Face Environment    |
| SunExposed,                            | !- Sun Exposure                |
| WindExposed,                           | !- Wind Exposure               |
| AutoCalculate,                         | !- View Factor to Ground       |
| 4,                                     | !- Number vertices             |





|   |                               |
|---|-------------------------------|
| PEOPLE, People Block2:Wc,                 | !- Name                       |
| Block2:Wc,                                | !- Zone Name                  |
| occupancy schedule,                       | !- Number of People SCHEDULE  |
| Name                                      |                               |
| People/Area,                              | !- Number of People           |
| Calculation Method                        |                               |
| ,   | !- Number of People           |
| .0692,                                    | !- People per Zone Floor Area |
| ,   | !- Zone Floor Area per Person |
| .3,                                       | !- radiant fraction           |
| AutoCalculate,                            | !- User Specified Sensible    |
| Fraction                                  |                               |
| Activity Schedule 2507,                   | !- Activity level SCHEDULE    |
| Name (units W/person, real)               |                               |
| .0000000382,                              | !- CO2 generation rate per    |
| unit of activity level (units m3/s-W      |                               |
| No,                                       | !- Enable ASHRAE 55 comfort   |
| warnings                                  |                               |
| ZoneAveraged,                             | !- MRT Calculation Type       |
| ,   | !- no particular surface is   |
| weighted                                  |                               |
| Work efficiency,                          | !- Work Efficiency SCHEDULE   |
| Name (0.0-1.0,real)                       |                               |
| ClothingInsulationSchedule,               | !- Clothing Insulation        |
| Calculation Method                        |                               |
| ,   | !- Clothing Insulation        |
| Calculation Method Schedule Name          |                               |
| Clothing Schedule 2507,                   | !- Clothing Insulation        |
| SCHEDULE Name (real)                      |                               |
| AirVelocitySchedule;                      | !- Air Velocity SCHEDULE Name |
| (units m/s, real)                         |                               |
| Schedule:Compact, Activity Schedule 2507, | !- activity schedule W/person |
| Any Number,                               | !- Type                       |
| Through: 12/31,                           | !- Type                       |
| For: AllDays,                             | !- All days in year           |
| Until: 24:00, 126;                        | !- Constant value             |
| Schedule:Compact, Clothing Schedule 2507, | !- Clothing schedule clo      |
| Any Number,                               | !- Type                       |
| Through: 4/1,                             | !- Type                       |
| For: AllDays,                             | !- All days in year           |
| Until: 24:00, .5,                         | !- Constant value             |
| Through: 9/30,                            | !- Type                       |
| For: AllDays,                             | !- All days in year           |
| Until: 24:00, 1,                          | !- Constant value             |
| Through: 12/31,                           | !- Type                       |
| For: AllDays,                             | !- All days in year           |
| Until: 24:00, .5;                         | !- Constant value             |
| Lights, Block2:Wc ,                       | !- Name                       |
| Block2:Wc,                                | !- Zone Name                  |

|   |                                |
|---|--------------------------------|
| lighting schedule,                                  | !- Lighting SCHEDULE Name      |
| Watts/Area,   | !- Design Level calculation    |
| method  |                                |
| ,   | !- Design lighting Level (W)   |
| 5,  | !- Watts per Zone Area {W/m2}  |
| ,   | !- Watts per Person            |
| {watts/person}                                      |                                |
| 0,  | !- Return Air Fraction         |
| .42,  | !- Radiant fraction            |
| .18,  | !- Fraction Visible            |
| 1,  | !- Fraction Replaceable        |
| ;   | !- LightsEndUseKey             |
|   |                                |
| ! Equipment gain 1                                  |                                |
| OtherEquipment, Block2:Wc Equipment gain 1,         | !- Name                        |
| Electricity,  | !- Fuel Type                   |
| Block2:Wc,  | !- Zone Name                   |
| equipment schedule,                                 | !- Equipment SCHEDULE Name     |
| Watts/Area,   | !- Design Level calculation    |
| method  |                                |
| ,   | !- Design Equipment Level (W)  |
| 1.61,   | !- Watts per Zone Area         |
| {watts/m2}  |                                |
| ,   | !- Watts per Person            |
| {watts/person}                                      |                                |
| 0,  | !- Latent fraction             |
| .2,   | !- Radiant fraction            |
| 0,  | !- Fraction Lost               |
| 0,  | !- Carbon Dioxide Generation   |
| Rate  |                                |
| ELECTRIC EQUIPMENT#Block2:Wc#05;                    | !- End-use category            |
|   |                                |
| ! DHW 1   |                                |
| WaterUse:Equipment,                                 |                                |
| DHW Block2:Wc,                                      | !- Name                        |
| DHW Block2:Wc,                                      | !- End-Use Subcategory         |
| 8.18984014675052E-07,                               | !- Peak Volumetric Flow Rate   |
| {m3/s}  |                                |
| Dwell_DomToilet_Occ,                                | !- DHW SCHEDULE Name           |
| DHW Supply Temperature Block2:Wc,                   | !- Target Temperature Schedule |
| DHW Supply Temperature Block2:Wc,                   | !- Hot Water Supply            |
| Temperature Schedule                                |                                |
| DHW Mains Temperature Block2:Wc,                    | !- Cold Water Supply           |
| Temperature Schedule                                |                                |
| Block2:Wc,  | !- Zone Name                   |
| ,   | !- Sensible Fraction Schedule  |
| ;   | !- Latent Fraction Schedule    |
|   |                                |
| Schedule:Compact, DHW Supply Temperature Block2:Wc, | !- DHW Supply                  |
| Temperature Schedule                                |                                |
| Temperature,  | !- Type                        |
| Through: 12/31,                                     | !- Type                        |
| For: AllDays,                                       | !- All days in year            |
| Until: 24:00, 65;                                   | !- All hours in day            |

```

Schedule:Compact, DHW Mains Temperature Block2:Wc,  !- DHW Mains Temperature
Schedule
    Temperature,                                     !- Type
    Through: 12/31,                                  !- Type
    For: AllDays,                                     !- All days in year
    Until: 24:00, 10;                                !- All hours in day

ZoneInfiltration:DesignFlowRate, Block2:Wc Infiltration, !- Name
    Block2:Wc,                                         !- Zone Name
    On 24/7,                                           !- Infiltration SCHEDULE Name
    Flow/zone,                                         !- Design Volume Flow Rate
calculation method
    .001691,                                           !- Design Volume Flow Rate
(m3/s)
    ,                                                 !- Flow per Zone Floor Area
{m3/s/m2}
    ,                                                 !- Flow per Exterior Surface
Area {m3/s/m2}
    ,                                                 !- Air Changes Per Hour
    1,                                                 !- Constant Term Coefficient
    0,                                                 !- Temperature Term
Coefficient
    0,                                                 !- Velocity Term Coefficient
    0;                                                 !- Velocity Squared Term
Coefficient

! Block 2, wc, Ground floor - 4.731 m2 (Ground), Surface Area: 4.731m2
BuildingSurface:Detailed,                             !- Surface
    Block2:Wc_GroundFloor_0_0_0,                     !- Surface name
    Floor, ground floor,                             !- Class and Construction Name
    Block2:Wc,                                         !- Zone Name
    Ground, ,                                          !- Outside Face Environment
    NoSun,                                             !- Sun Exposure
    NoWind,                                            !- Wind Exposure
    AutoCalculate,                                    !- View Factor to Ground
    4,                                                 !- Number vertices
    -71.1759645247, 46.5357395832, 0,               !- Vertex 1
    -71.1740259147, 48.1716004132, 0,               !- Vertex 2
    -68.2814168747, 48.1698320332, 0,               !- Vertex 3
    -68.2814168747, 46.5357395832, 0;               !- Vertex 4

! Block 2, wc, Partition - 7.815 m2 (Block 2, laundry), Surface Area: 7.8153
BuildingSurface:Detailed,                             !- Surface
    Block2:Wc_Partition_2_0_0,                       !- Surface name
    Wall, internal wall,                             !- Class and Construction Name
    Block2:Wc,                                         !- Zone Name
    Surface, Block2:Laundry_Partition_4_0_10009,     !- Outside Face Environment
    NoSun,                                             !- Sun Exposure
    NoWind,                                            !- Wind Exposure
    0,                                                 !- View Factor to Ground
    4,                                                 !- Number vertices
    -71.1759645247, 46.5357395814, 0,               !- Vertex 1

```

|                                     |             |
|-------------------------------------|-------------|
| -68.2814168747, 46.5357395814, 0,   | !- Vertex 2 |
| -68.2814168747, 46.5357395814, 2.7, | !- Vertex 3 |
| -71.1759645247, 46.5357395814, 2.7; | !- Vertex 4 |

! Block 2, wc, Partition - 7.815 m2 (Block 2, laundry), Surface Area: 7.8153  
<Other side>

|                                     |                                |
|-------------------------------------|--------------------------------|
| BuildingSurface:Detailed,           | !- Surface reverse definition  |
| Block2:Laundry_Partition_4_0_10009, | !- Surface name                |
| Wall, internal wall_Rev,            | !- Class and Construction Name |
| Block2:Laundry,                     | !- Zone Name                   |
| Surface, Block2:Wc_Partition_2_0_0, | !- Outside Face Environment    |
| NoSun,                              | !- Sun Exposure                |
| NoWind,                             | !- Wind Exposure               |
| 0,                                  | !- View Factor to Ground       |
| 4,                                  | !- Number vertices             |
| -68.2814168747, 46.5357395814, 0,   | !- Vertex 1                    |
| -71.1759645247, 46.5357395814, 0,   | !- Vertex 2                    |
| -71.1759645247, 46.5357395814, 2.7, | !- Vertex 3                    |
| -68.2814168747, 46.5357395814, 2.7; | !- Vertex 4                    |

! Block 2, wc, Partition - 4.412 m2 (Block 2, hallway), Surface Area: 2.8231

|  |                                |
|--|--------------------------------|
| BuildingSurface:Detailed,                    | !- Surface                     |
| Block2:Wc_Partition_3_0_0,                   | !- Surface name                |
| Wall, internal wall,                         | !- Class and Construction Name |
| Block2:Wc,                                   | !- Zone Name                   |
| Surface, Block2:Hallway_Partition_6_0_10010, | !- Outside Face Environment    |
| NoSun,                                       | !- Sun Exposure                |
| NoWind,                                      | !- Wind Exposure               |
| 0,   | !- View Factor to Ground       |
| 4,   | !- Number vertices             |
| -68.2814168757, 46.5357395832, 0,            | !- Vertex 1                    |
| -68.2814168757, 48.1698320332, 0,            | !- Vertex 2                    |
| -68.2814168757, 48.1698320332, 2.7,          | !- Vertex 3                    |
| -68.2814168757, 46.5357395832, 2.7;          | !- Vertex 4                    |

! Block 2, wc, Partition - 4.412 m2 (Block 2, hallway), Surface Area: 2.8231  
<Other side>

|                                     |                                |
|-------------------------------------|--------------------------------|
| BuildingSurface:Detailed,           | !- Surface reverse definition  |
| Block2:Hallway_Partition_6_0_10010, | !- Surface name                |
| Wall, internal wall_Rev,            | !- Class and Construction Name |
| Block2:Hallway,                     | !- Zone Name                   |
| Surface, Block2:Wc_Partition_3_0_0, | !- Outside Face Environment    |
| NoSun,                              | !- Sun Exposure                |
| NoWind,                             | !- Wind Exposure               |
| 0,                                  | !- View Factor to Ground       |
| 4,                                  | !- Number vertices             |
| -68.2814168757, 48.1698320332, 0,   | !- Vertex 1                    |
| -68.2814168757, 46.5357395832, 0,   | !- Vertex 2                    |
| -68.2814168757, 46.5357395832, 2.7, | !- Vertex 3                    |
| -68.2814168757, 48.1698320332, 2.7; | !- Vertex 4                    |

! Door, 1.589m2

FenestrationSurface:Detailed, Block2:Wc\_Partition\_3\_0\_0\_0\_0\_Door, !-  
Door name

```

Door, Project internal door,          !- Class and Construction Name
Block2:Wc_Partition_3_0_0,          !- Base surface
Block2:Hallway_Partition_6_0_0_0_0_Door_10012, !- Corresponding
other surface
0,                                   !- View Factor to Ground
,                                   !- Window shading control
,                                   !- Frame divider name
1,                                   !- Multiplier
4,                                   !- Number vertices
-68.2814168757, 46.9829427432, .002, !- Vertex 1
-68.2814168757, 47.7772416432, .002, !- Vertex 2
-68.2814168757, 47.7772416432, 2.00250584, !- Vertex 3
-68.2814168757, 46.9829427432, 2.00250584; !- Vertex 4

```

! Door, 1.589m2

```

FenestrationSurface:Detailed,
Block2:Hallway_Partition_6_0_0_0_0_Door_10012, !- Door name - reverse
definition
Door, Project internal door_Rev,          !- Class and Construction Name
Block2:Hallway_Partition_6_0_10010,       !- Base surface
Block2:Wc_Partition_3_0_0_0_0_Door,      !- Corresponding other door
subsurface
0,                                   !- View Factor to Ground
,                                   !- Window shading control
,                                   !- Frame divider name
1,                                   !- Multiplier
4,                                   !- Number vertices
-68.2814168757, 47.7772416432, .002, !- Vertex 1
-68.2814168757, 46.9829427432, .002, !- Vertex 2
-68.2814168757, 46.9829427432, 2.00250584, !- Vertex 3
-68.2814168757, 47.7772416432, 2.00250584; !- Vertex 4

```

! Block 2, wc, Wall - 7.810 m2 - 0.0°, Surface Area: 7.810m2

```

BuildingSurface:Detailed,          !- Surface
Block2:Wc_Wall_4_0_0,             !- Surface name
Wall, Project wall,                !- Class and Construction Name
Block2:Wc,                         !- Zone Name
Outdoors, ,                        !- Outside Face Environment
SunExposed,                        !- Sun Exposure
WindExposed,                       !- Wind Exposure
AutoCalculate,                     !- View Factor to Ground
4,                                   !- Number vertices
-68.2814168757, 48.1698320359, 0,   !- Vertex 1
-71.1740259133, 48.1716004168, 0,   !- Vertex 2
-71.1740259133, 48.1716004168, 2.7, !- Vertex 3
-68.2814168757, 48.1698320359, 2.7; !- Vertex 4

```

! Block 2, wc, Wall - 4.417 m2 - 270.1°, Surface Area: 4.417m2

```

BuildingSurface:Detailed,          !- Surface
Block2:Wc_Wall_5_0_0,             !- Surface name
Wall, Project wall,                !- Class and Construction Name
Block2:Wc,                         !- Zone Name
Outdoors, ,                        !- Outside Face Environment
SunExposed,                        !- Sun Exposure

```

```

WindExposed,                !- Wind Exposure
AutoCalculate,              !- View Factor to Ground
4,                          !- Number vertices
-71.1740259133, 48.1716004168, 0,    !- Vertex 1
-71.1759645266, 46.5357395814, 0,    !- Vertex 2
-71.1759645266, 46.5357395814, 2.7,  !- Vertex 3
-71.1740259133, 48.1716004168, 2.7;  !- Vertex 4

! Window, 0.429m2
FenestrationSurface:Detailed, Block2:Wc_Wall_5_0_0_0_0_Win, !- Window
name
    Window,                !- Class
    1001,                  !- Construction Name
    Block2:Wc_Wall_5_0_0,  !- Base surface
    ,                      !- corresponding other window
subsurface
    AutoCalculate,         !- View Factor to Ground
    ,                      !- Window shading control
    1,                     !- Frame divider name
    1,                     !- Multiplier
    4,                     !- Number vertices
    -71.1746150034, 47.6745083625, 1.632386, !- Vertex 1
    -71.1755852891, 46.8557517475, 1.632386, !- Vertex 2
    -71.1755852891, 46.8557517475, 2.1568566, !- Vertex 3
    -71.1746150034, 47.6745083625, 2.1568566; !- Vertex 4

! Block 2 - laundry
Zone, Block2:Laundry,      !- Zone Name
0,                         !- Relative North (to
building)
0,                         !- X Origin (M)
0,                         !- Y Origin (M)
0,                         !- Z Origin (M)
1 ,                        !- Zone Type
1,                         !- Zone multiplier
,                          !- Zone ceiling height - Let
EnergyPlus work it out
13.8271,                  !- Zone volume
5.1212,                   !- Floor Area
TARP,                     !- Zone inside convection
algorithm
,                          !- Zone outside convection
algorithm
Yes;                       !- Part Of Total Floor Area

PEOPLE, People Block2:Laundry, !- Name
Block2:Laundry,           !- Zone Name
occupancy schedule,       !- Number of People SCHEDULE
Name
    People/Area,          !- Number of People
Calculation Method
,                          !- Number of People

```

|   |                               |
|---|-------------------------------|
| .0692,                                    | !- People per Zone Floor Area |
| ,   | !- Zone Floor Area per Person |
| .3,                                       | !- radiant fraction           |
| AutoCalculate,                            | !- User Specified Sensible    |
| Fraction                                  |                               |
| Activity Schedule 2514,                   | !- Activity level SCHEDULE    |
| Name (units W/person, real)               |                               |
| .0000000382,                              | !- CO2 generation rate per    |
| unit of activity level (units m3/s-W      |                               |
| No,                                       | !- Enable ASHRAE 55 comfort   |
| warnings                                  |                               |
| ZoneAveraged,                             | !- MRT Calculation Type       |
| ,   | !- no particular surface is   |
| weighted                                  |                               |
| Work efficiency,                          | !- Work Efficiency SCHEDULE   |
| Name (0.0-1.0,real)                       |                               |
| ClothingInsulationSchedule,               | !- Clothing Insulation        |
| Calculation Method                        |                               |
| ,   | !- Clothing Insulation        |
| Calculation Method Schedule Name          |                               |
| Clothing Schedule 2514,                   | !- Clothing Insulation        |
| SCHEDULE Name (real)                      |                               |
| AirVelocitySchedule;                      | !- Air Velocity SCHEDULE Name |
| (units m/s, real)                         |                               |
|   |                               |
| Schedule:Compact, Activity Schedule 2514, | !- activity schedule W/person |
| Any Number,                               | !- Type                       |
| Through: 12/31,                           | !- Type                       |
| For: AllDays,                             | !- All days in year           |
| Until: 24:00, 126;                        | !- Constant value             |
|   |                               |
| Schedule:Compact, Clothing Schedule 2514, | !- Clothing schedule clo      |
| Any Number,                               | !- Type                       |
| Through: 4/1,                             | !- Type                       |
| For: AllDays,                             | !- All days in year           |
| Until: 24:00, .5,                         | !- Constant value             |
| Through: 9/30,                            | !- Type                       |
| For: AllDays,                             | !- All days in year           |
| Until: 24:00, 1,                          | !- Constant value             |
| Through: 12/31,                           | !- Type                       |
| For: AllDays,                             | !- All days in year           |
| Until: 24:00, .5;                         | !- Constant value             |
|   |                               |
| Lights, Block2:Laundry ,                  | !- Name                       |
| Block2:Laundry,                           | !- Zone Name                  |
| lighting schedule,                        | !- Lighting SCHEDULE Name     |
| Watts/Area,                               | !- Design Level calculation   |
| method                                    |                               |
| ,   | !- Design lighting Level (W)  |
| 5,  | !- Watts per Zone Area {W/m2} |
| ,   | !- Watts per Person           |
| {watts/person}                            |                               |
| 0,  | !- Return Air Fraction        |
| .42,                                      | !- Radiant fraction           |



```

        .18,                !- Fraction Visible
        1,                  !- Fraction Replaceable
        ;                   !- LightsEndUseKey

! Equipment gain 1
OtherEquipment, Block2:Laundry Equipment gain 1, !- Name
    Electricity,           !- Fuel Type
    Block2:Laundry,        !- Zone Name
    equipment schedule,     !- Equipment SCHEDULE Name
    Watts/Area,            !- Design Level calculation
method
    ,                      !- Design Equipment Level (W)
    1.61,                  !- Watts per Zone Area
{watts/m2}
    ,                      !- Watts per Person
{watts/person}
    0,                     !- Latent fraction
    .2,                    !- Radiant fraction
    0,                     !- Fraction Lost
    0,                     !- Carbon Dioxide Generation
Rate
    ELECTRIC EQUIPMENT#Block2:Laundry#05;    !- End-use category

! DHW 1
WaterUse:Equipment,
    DHW Block2:Laundry,    !- Name
    DHW Block2:Laundry,    !- End-Use Subcategory
    1.30177253668763E-06,  !- Peak Volumetric Flow Rate
{m3/s}
    Dwell_DomToilet_Occ,   !- DHW SCHEDULE Name
    DHW Supply Temperature Block2:Laundry, !- Target Temperature Schedule
    DHW Supply Temperature Block2:Laundry, !- Hot Water Supply
Temperature Schedule
    DHW Mains Temperature Block2:Laundry,  !- Cold Water Supply
Temperature Schedule
    Block2:Laundry,        !- Zone Name
    ,                      !- Sensible Fraction Schedule
    ;                      !- Latent Fraction Schedule

Schedule:Compact, DHW Supply Temperature Block2:Laundry, !- DHW Supply
Temperature Schedule
    Temperature,           !- Type
    Through: 12/31,        !- Type
    For: AllDays,          !- All days in year
    Until: 24:00, 65;      !- All hours in day

Schedule:Compact, DHW Mains Temperature Block2:Laundry, !- DHW Mains
Temperature Schedule
    Temperature,           !- Type
    Through: 12/31,        !- Type
    For: AllDays,          !- All days in year
    Until: 24:00, 10;      !- All hours in day

ZoneInfiltration:DesignFlowRate, Block2:Laundry Infiltration, !- Name

```

|                    |                               |
|--------------------|-------------------------------|
| Block2:Laundry,    | !- Zone Name                  |
| On 24/7,           | !- Infiltration SCHEDULE Name |
| Flow/zone,         | !- Design Volume Flow Rate    |
| calculation method |                               |
| .002689,           | !- Design Volume Flow Rate    |
| (m3/s)             |                               |
| ,                  | !- Flow per Zone Floor Area   |
| {m3/s/m2}          |                               |
| ,                  | !- Flow per Exterior Surface  |
| Area {m3/s/m2}     |                               |
| ,                  | !- Air Changes Per Hour       |
| 1,                 | !- Constant Term Coefficient  |
| 0,                 | !- Temperature Term           |
| Coefficient        |                               |
| 0,                 | !- Velocity Term Coefficient  |
| 0;                 | !- Velocity Squared Term      |
| Coefficient        |                               |

! Block 2, laundry, Ground floor - 6.257 m2 (Ground), Surface Area: 6.257m2

|                                   |                                |
|-----------------------------------|--------------------------------|
| BuildingSurface:Detailed,         | !- Surface                     |
| Block2:Laundry_GroundFloor_0_0_0, | !- Surface name                |
| Floor, ground floor,              | !- Class and Construction Name |
| Block2:Laundry,                   | !- Zone Name                   |
| Ground, ,                         | !- Outside Face Environment    |
| NoSun,                            | !- Sun Exposure                |
| NoWind,                           | !- Wind Exposure               |
| AutoCalculate,                    | !- View Factor to Ground       |
| 4,                                | !- Number vertices             |
| -71.1785151947, 44.3834058632, 0, | !- Vertex 1                    |
| -71.1759645247, 46.5357395832, 0, | !- Vertex 2                    |
| -68.2814168747, 46.5357395832, 0, | !- Vertex 3                    |
| -68.2814168747, 44.3667993132, 0; | !- Vertex 4                    |

! Block 2, laundry, Partition - 7.822 m2 (Block 2, shower), Surface Area: 6.2317

|   |                                |
|---|--------------------------------|
| BuildingSurface:Detailed,                   | !- Surface                     |
| Block2:Laundry_Partition_2_0_0,             | !- Surface name                |
| Wall, internal wall,                        | !- Class and Construction Name |
| Block2:Laundry,                             | !- Zone Name                   |
| Surface, Block2:Shower_Partition_4_0_10012, | !- Outside Face Environment    |
| NoSun,                                      | !- Sun Exposure                |
| NoWind,                                     | !- Wind Exposure               |
| 0,  | !- View Factor to Ground       |
| 4,  | !- Number vertices             |
| -71.1785151967, 44.3834058655, 0,           | !- Vertex 1                    |
| -68.2814168718, 44.3667993155, 0,           | !- Vertex 2                    |
| -68.2814168718, 44.3667993155, 2.7,         | !- Vertex 3                    |
| -71.1785151967, 44.3834058655, 2.7;         | !- Vertex 4                    |

! Block 2, laundry, Partition - 7.822 m2 (Block 2, shower), Surface Area: 6.2317 <Other side>

|                                    |                               |
|------------------------------------|-------------------------------|
| BuildingSurface:Detailed,          | !- Surface reverse definition |
| Block2:Shower_Partition_4_0_10012, | !- Surface name               |

```

Wall, internal wall_Rev,                !- Class and Construction Name
Block2:Shower,                          !- Zone Name
Surface, Block2:Laundry_Partition_2_0_0, !- Outside Face Environment
NoSun,                                  !- Sun Exposure
NoWind,                                 !- Wind Exposure
0,                                       !- View Factor to Ground
4,                                       !- Number vertices
-68.2814168718, 44.3667993155, 0,      !- Vertex 1
-71.1785151967, 44.3834058655, 0,      !- Vertex 2
-71.1785151967, 44.3834058655, 2.7,    !- Vertex 3
-68.2814168718, 44.3667993155, 2.7;    !- Vertex 4

! Door, 1.591m2
FenestrationSurface:Detailed, Block2:Laundry_Partition_2_0_0_0_0_Door,
!- Door name
    Door, Project internal door,        !- Class and Construction Name
    Block2:Laundry_Partition_2_0_0,      !- Base surface
    Block2:Shower_Partition_4_0_0_0_0_Door_10014, !- Corresponding other
surface
    0,                                    !- View Factor to Ground
    ,                                    !- Window shading control
    ,                                    !- Frame divider name
    1,                                    !- Multiplier
    4,                                    !- Number vertices
    -69.2480992506, 44.3723404665, .003, !- Vertex 1
    -68.4499223935, 44.3677652114, .003, !- Vertex 2
    -68.4499223935, 44.3677652114, 1.99580036, !- Vertex 3
    -69.2480992506, 44.3723404665, 1.99580036; !- Vertex 4

! Door, 1.591m2
FenestrationSurface:Detailed,
Block2:Shower_Partition_4_0_0_0_0_Door_10014, !- Door name - reverse
definition
    Door, Project internal door_Rev,      !- Class and Construction Name
    Block2:Shower_Partition_4_0_10012,    !- Base surface
    Block2:Laundry_Partition_2_0_0_0_0_Door, !- Corresponding other door
subsurface
    0,                                    !- View Factor to Ground
    ,                                    !- Window shading control
    ,                                    !- Frame divider name
    1,                                    !- Multiplier
    4,                                    !- Number vertices
    -68.4499223935, 44.3677652114, .003, !- Vertex 1
    -69.2480992506, 44.3723404665, .003, !- Vertex 2
    -69.2480992506, 44.3723404665, 1.99580036, !- Vertex 3
    -68.4499223935, 44.3677652114, 1.99580036; !- Vertex 4

! Block 2, laundry, Partition - 5.856 m2 (Block 2, hallway), Surface Area:
5.8561
BuildingSurface:Detailed,                !- Surface
Block2:Laundry_Partition_3_0_0,          !- Surface name
Wall, internal wall,                     !- Class and Construction Name
Block2:Laundry,                          !- Zone Name
Surface, Block2:Hallway_Partition_7_0_10014, !- Outside Face Environment

```

|                                     |                          |
|-------------------------------------|--------------------------|
| NoSun,                              | !- Sun Exposure          |
| NoWind,                             | !- Wind Exposure         |
| 0,                                  | !- View Factor to Ground |
| 4,                                  | !- Number vertices       |
| -68.2814168757, 44.3667993132, 0,   | !- Vertex 1              |
| -68.2814168757, 46.5357395832, 0,   | !- Vertex 2              |
| -68.2814168757, 46.5357395832, 2.7, | !- Vertex 3              |
| -68.2814168757, 44.3667993132, 2.7; | !- Vertex 4              |

! Block 2, laundry, Partition - 5.856 m2 (Block 2, hallway), Surface Area: 5.8561 <Other side>

|  |                                |
|--|--------------------------------|
| BuildingSurface:Detailed,                | !- Surface reverse definition  |
| Block2:Hallway_Partition_7_0_10014,      | !- Surface name                |
| Wall, internal wall_Rev,                 | !- Class and Construction Name |
| Block2:Hallway,                          | !- Zone Name                   |
| Surface, Block2:Laundry_Partition_3_0_0, | !- Outside Face Environment    |
| NoSun,                                   | !- Sun Exposure                |
| NoWind,                                  | !- Wind Exposure               |
| 0,                                       | !- View Factor to Ground       |
| 4,                                       | !- Number vertices             |
| -68.2814168757, 46.5357395832, 0,        | !- Vertex 1                    |
| -68.2814168757, 44.3667993132, 0,        | !- Vertex 2                    |
| -68.2814168757, 44.3667993132, 2.7,      | !- Vertex 3                    |
| -68.2814168757, 46.5357395832, 2.7;      | !- Vertex 4                    |

! Block 2, laundry, Wall - 5.811 m2 - 270.1°, Surface Area: 5.811m2

|                                     |                                |
|-------------------------------------|--------------------------------|
| BuildingSurface:Detailed,           | !- Surface                     |
| Block2:Laundry_Wall_5_0_0,          | !- Surface name                |
| Wall, Project wall,                 | !- Class and Construction Name |
| Block2:Laundry,                     | !- Zone Name                   |
| Outdoors, ,                         | !- Outside Face Environment    |
| SunExposed,                         | !- Sun Exposure                |
| WindExposed,                        | !- Wind Exposure               |
| AutoCalculate,                      | !- View Factor to Ground       |
| 4,                                  | !- Number vertices             |
| -71.1759645266, 46.5357395814, 0,   | !- Vertex 1                    |
| -71.1785151976, 44.3834058655, 0,   | !- Vertex 2                    |
| -71.1785151976, 44.3834058655, 2.7, | !- Vertex 3                    |
| -71.1759645266, 46.5357395814, 2.7; | !- Vertex 4                    |

! Window, 0.401m2

FenestrationSurface:Detailed, Block2:Laundry\_Wall\_5\_0\_0\_0\_0\_Win, !-

Window name

|                            |                               |
|----------------------------|-------------------------------|
| Window,                    | !- Class                      |
| 1001,                      | !- Construction Name          |
| Block2:Laundry_Wall_5_0_0, | !- Base surface               |
| ,                          | !- corresponding other window |

subsurface

|  |                           |
|--|---------------------------|
| AutoCalculate,                           | !- View Factor to Ground  |
| ,  | !- Window shading control |
| 1,                                       | !- Frame divider name     |
| 1,                                       | !- Multiplier             |
| 4,                                       | !- Number vertices        |
| -71.1765684699, 46.02611389, 1.38109202, | !- Vertex 1               |

```

-71.1771807416, 45.5094604228, 1.38109202, !- Vertex 2
-71.1771807416, 45.5094604228, 2.1568566, !- Vertex 3
-71.1765684699, 46.02611389, 2.1568566; !- Vertex 4

```

```

! Block 2 - shower
Zone, Block2:Shower,
    0,
building)
    0,
    0,
    0,
    1 ,
    1,
    ,
EnergyPlus work it out
    16.5327,
    6.1232,
    TARP,
algorithm
    ,
algorithm
    Yes;

```

!- Zone Name  
 !- Relative North (to  
 !- X Origin (M)  
 !- Y Origin (M)  
 !- Z Origin (M)  
 !- Zone Type  
 !- Zone multiplier  
 !- Zone ceiling height - Let  
 !- Zone volume  
 !- Floor Area  
 !- Zone inside convection  
 !- Zone outside convection  
 !- Part Of Total Floor Area

```

    PEOPLE, People Block2:Shower,
        Block2:Shower,
        occupancy schedule,
Name
    People/Area,
Calculation Method
    ,
    .0692,
    ,
    .3,
    AutoCalculate,
Fraction
    Activity Schedule 2521,
Name (units W/person, real)
    .0000000382,
unit of activity level (units m3/s-W
    No,
warnings
    ZoneAveraged,
    ,
weighted
    Work efficiency,
Name (0.0-1.0,real)
    ClothingInsulationSchedule,
Calculation Method
    ,
Calculation Method Schedule Name
    Clothing Schedule 2521,
SCHEDULE Name (real)

```

!- Name  
 !- Zone Name  
 !- Number of People SCHEDULE  
 !- Number of People  
 !- Number of People  
 !- People per Zone Floor Area  
 !- Zone Floor Area per Person  
 !- radiant fraction  
 !- User Specified Sensible  
 !- Activity level SCHEDULE  
 !- CO2 generation rate per  
 !- Enable ASHRAE 55 comfort  
 !- MRT Calculation Type  
 !- no particular surface is  
 !- Work Efficiency SCHEDULE  
 !- Clothing Insulation  
 !- Clothing Insulation  
 !- Clothing Insulation

|   |                               |
|---|-------------------------------|
| AirVelocitySchedule;                            | !- Air Velocity SCHEDULE Name |
| (units m/s, real)                               |                               |
| Schedule:Compact, Activity Schedule 2521,       | !- activity schedule W/person |
| Any Number,                                     | !- Type                       |
| Through: 12/31,                                 | !- Type                       |
| For: AllDays,                                   | !- All days in year           |
| Until: 24:00, 126;                              | !- Constant value             |
| Schedule:Compact, Clothing Schedule 2521,       | !- Clothing schedule clo      |
| Any Number,                                     | !- Type                       |
| Through: 4/1,                                   | !- Type                       |
| For: AllDays,                                   | !- All days in year           |
| Until: 24:00, .5,                               | !- Constant value             |
| Through: 9/30,                                  | !- Type                       |
| For: AllDays,                                   | !- All days in year           |
| Until: 24:00, 1,                                | !- Constant value             |
| Through: 12/31,                                 | !- Type                       |
| For: AllDays,                                   | !- All days in year           |
| Until: 24:00, .5;                               | !- Constant value             |
| Lights, Block2:Shower ,                         | !- Name                       |
| Block2:Shower,                                  | !- Zone Name                  |
| lighting schedule,                              | !- Lighting SCHEDULE Name     |
| Watts/Area,                                     | !- Design Level calculation   |
| method  |                               |
| ,   | !- Design lighting Level (W)  |
| 5,  | !- Watts per Zone Area {W/m2} |
| ,   | !- Watts per Person           |
| {watts/person}                                  |                               |
| 0,  | !- Return Air Fraction        |
| .42,  | !- Radiant fraction           |
| .18,  | !- Fraction Visible           |
| 1,  | !- Fraction Replaceable       |
| ;   | !- LightsEndUseKey            |
| ! Equipment gain 1                              |                               |
| OtherEquipment, Block2:Shower Equipment gain 1, | !- Name                       |
| Electricity,                                    | !- Fuel Type                  |
| Block2:Shower,                                  | !- Zone Name                  |
| equipment schedule,                             | !- Equipment SCHEDULE Name    |
| Watts/Area,                                     | !- Design Level calculation   |
| method  |                               |
| ,   | !- Design Equipment Level (W) |
| 1.61,   | !- Watts per Zone Area        |
| {watts/m2}                                      |                               |
| ,   | !- Watts per Person           |
| {watts/person}                                  |                               |
| 0,  | !- Latent fraction            |
| .2,   | !- Radiant fraction           |
| 0,  | !- Fraction Lost              |
| 0,  | !- Carbon Dioxide Generation  |
| Rate  |                               |
| ELECTRIC EQUIPMENT#Block2:Shower#05;            | !- End-use category           |

```

! DHW 1
WaterUse:Equipment,
    DHW Block2:Shower,
    DHW Block2:Shower,
    1.55647379454927E-06,
{m3/s}
    Dwell_DomToilet_Occ,
    DHW Supply Temperature Block2:Shower,
    DHW Supply Temperature Block2:Shower,
Temperature Schedule
    DHW Mains Temperature Block2:Shower,
Temperature Schedule
    Block2:Shower,
    ,
    ;

Schedule:Compact, DHW Supply Temperature Block2:Shower,
Temperature Schedule
    Temperature,
    Through: 12/31,
    For: AllDays,
    Until: 24:00, 65;

Schedule:Compact, DHW Mains Temperature Block2:Shower,
Temperature Schedule
    Temperature,
    Through: 12/31,
    For: AllDays,
    Until: 24:00, 10;

ZoneInfiltration:DesignFlowRate, Block2:Shower
    Block2:Shower,
    On 24/7,
    Flow/zone,
calculation method
    .003215,
(m3/s)
    ,
{m3/s/m2}
    ,
Area {m3/s/m2}
    ,
    1,
    0,
Coefficient
    0,
    0;
Coefficient

! Block 2, shower, Ground floor - 7.407 m2 (Ground), Surface Area: 7.407m2
BuildingSurface:Detailed,
    Block2:Shower_GroundFloor_0_0_0,

```

!- Name  
 !- End-Use Subcategory  
 !- Peak Volumetric Flow Rate  
 !- DHW SCHEDULE Name  
 !- Target Temperature Schedule  
 !- Hot Water Supply  
 !- Cold Water Supply  
 !- Zone Name  
 !- Sensible Fraction Schedule  
 !- Latent Fraction Schedule  
 !- DHW Supply  
 !- Type  
 !- Type  
 !- All days in year  
 !- All hours in day  
 !- DHW Mains  
 !- Type  
 !- Type  
 !- All days in year  
 !- All hours in day  
 !- Name  
 !- Zone Name  
 !- Infiltration SCHEDULE Name  
 !- Design Volume Flow Rate  
 !- Design Volume Flow Rate  
 !- Flow per Zone Floor Area  
 !- Flow per Exterior Surface  
 !- Air Changes Per Hour  
 !- Constant Term Coefficient  
 !- Temperature Term  
 !- Velocity Term Coefficient  
 !- Velocity Squared Term  
 !- Surface  
 !- Surface name

|                                   |                                |
|-----------------------------------|--------------------------------|
| Floor, ground floor,              | !- Class and Construction Name |
| Block2:Shower,                    | !- Zone Name                   |
| Ground, ,                         | !- Outside Face Environment    |
| NoSun,                            | !- Sun Exposure                |
| NoWind,                           | !- Wind Exposure               |
| AutoCalculate,                    | !- View Factor to Ground       |
| 4,                                | !- Number vertices             |
| -71.1815603947, 41.8137719832, 0, | !- Vertex 1                    |
| -71.1785151947, 44.3834058632, 0, | !- Vertex 2                    |
| -68.2814168747, 44.3667993132, 0, | !- Vertex 3                    |
| -68.2952307047, 41.8137719832, 0; | !- Vertex 4                    |

! Block 2, shower, Partition - 7.793 m2 (Block 2, bed 2), Surface Area:  
7.7931

|   |                                |
|---|--------------------------------|
| BuildingSurface:Detailed,                 | !- Surface                     |
| Block2:Shower_Partition_2_0_0,            | !- Surface name                |
| Wall, internal wall,                      | !- Class and Construction Name |
| Block2:Shower,                            | !- Zone Name                   |
| Surface, Block2:Bed2_Partition_5_0_10015, | !- Outside Face Environment    |
| NoSun,                                    | !- Sun Exposure                |
| NoWind,                                   | !- Wind Exposure               |
| 0,  | !- View Factor to Ground       |
| 4,  | !- Number vertices             |
| -71.1815603947, 41.8137719852, 0,         | !- Vertex 1                    |
| -68.2952307047, 41.8137719852, 0,         | !- Vertex 2                    |
| -68.2952307047, 41.8137719852, 2.7,       | !- Vertex 3                    |
| -71.1815603947, 41.8137719852, 2.7;       | !- Vertex 4                    |

! Block 2, shower, Partition - 7.793 m2 (Block 2, bed 2), Surface Area:  
7.7931 <Other side>

|   |                                |
|---|--------------------------------|
| BuildingSurface:Detailed,               | !- Surface reverse definition  |
| Block2:Bed2_Partition_5_0_10015,        | !- Surface name                |
| Wall, internal wall_Rev,                | !- Class and Construction Name |
| Block2:Bed2,                            | !- Zone Name                   |
| Surface, Block2:Shower_Partition_2_0_0, | !- Outside Face Environment    |
| NoSun,                                  | !- Sun Exposure                |
| NoWind,                                 | !- Wind Exposure               |
| 0,                                      | !- View Factor to Ground       |
| 4,                                      | !- Number vertices             |
| -68.2952307047, 41.8137719852, 0,       | !- Vertex 1                    |
| -71.1815603947, 41.8137719852, 0,       | !- Vertex 2                    |
| -71.1815603947, 41.8137719852, 2.7,     | !- Vertex 3                    |
| -68.2952307047, 41.8137719852, 2.7;     | !- Vertex 4                    |

! Block 2, shower, Partition - 6.893 m2 (Block 2, hallway), Surface Area:  
6.8933

|  |                                |
|--|--------------------------------|
| BuildingSurface:Detailed,                    | !- Surface                     |
| Block2:Shower_Partition_3_0_0,               | !- Surface name                |
| Wall, internal wall,                         | !- Class and Construction Name |
| Block2:Shower,                               | !- Zone Name                   |
| Surface, Block2:Hallway_Partition_8_0_10016, | !- Outside Face Environment    |
| NoSun,                                       | !- Sun Exposure                |
| NoWind,                                      | !- Wind Exposure               |
| 0,   | !- View Factor to Ground       |



|                                     |                    |
|-------------------------------------|--------------------|
| 4,                                  | !- Number vertices |
| -68.2952307062, 41.8137719867, 0,   | !- Vertex 1        |
| -68.2814168757, 44.3667993152, 0,   | !- Vertex 2        |
| -68.2814168757, 44.3667993152, 2.7, | !- Vertex 3        |
| -68.2952307062, 41.8137719867, 2.7; | !- Vertex 4        |

! Block 2, shower, Partition - 6.893 m2 (Block 2, hallway), Surface Area: 6.8933 <Other side>

|   |                                |
|---|--------------------------------|
| BuildingSurface:Detailed,               | !- Surface reverse definition  |
| Block2:Hallway_Partition_8_0_10016,     | !- Surface name                |
| Wall, internal wall_Rev,                | !- Class and Construction Name |
| Block2:Hallway,                         | !- Zone Name                   |
| Surface, Block2:Shower_Partition_3_0_0, | !- Outside Face Environment    |
| NoSun,                                  | !- Sun Exposure                |
| NoWind,                                 | !- Wind Exposure               |
| 0,                                      | !- View Factor to Ground       |
| 4,                                      | !- Number vertices             |
| -68.2814168757, 44.3667993152, 0,       | !- Vertex 1                    |
| -68.2952307062, 41.8137719867, 0,       | !- Vertex 2                    |
| -68.2952307062, 41.8137719867, 2.7,     | !- Vertex 3                    |
| -68.2814168757, 44.3667993152, 2.7;     | !- Vertex 4                    |

! Block 2, shower, Wall - 6.938 m2 - 270.1°, Surface Area: 6.938m2

|                                     |                                |
|-------------------------------------|--------------------------------|
| BuildingSurface:Detailed,           | !- Surface                     |
| Block2:Shower_Wall_5_0_0,           | !- Surface name                |
| Wall, Project wall,                 | !- Class and Construction Name |
| Block2:Shower,                      | !- Zone Name                   |
| Outdoors, ,                         | !- Outside Face Environment    |
| SunExposed,                         | !- Sun Exposure                |
| WindExposed,                        | !- Wind Exposure               |
| AutoCalculate,                      | !- View Factor to Ground       |
| 4,                                  | !- Number vertices             |
| -71.1785151976, 44.3834058655, 0,   | !- Vertex 1                    |
| -71.1815603995, 41.8137719852, 0,   | !- Vertex 2                    |
| -71.1815603995, 41.8137719852, 2.7, | !- Vertex 3                    |
| -71.1785151976, 44.3834058655, 2.7; | !- Vertex 4                    |

! Window, 0.573m2

FenestrationSurface:Detailed, Block2:Shower\_Wall\_5\_0\_0\_0\_0\_Win, !- Window name

|  |                               |
|--|-------------------------------|
| Window,                                    | !- Class                      |
| 1001,                                      | !- Construction Name          |
| Block2:Shower_Wall_5_0_0,                  | !- Base surface               |
| ,  | !- corresponding other window |
| subsurface                                 |                               |
| AutoCalculate,                             | !- View Factor to Ground      |
| ,  | !- Window shading control     |
| 1,   | !- Frame divider name         |
| 1,   | !- Multiplier                 |
| 4,   | !- Number vertices            |
| -71.1790518109, 43.9305953115, 1.64030737, | !- Vertex 1                   |
| -71.1801449226, 43.0081943692, 1.64030737, | !- Vertex 2                   |
| -71.1801449226, 43.0081943692, 2.26126565, | !- Vertex 3                   |
| -71.1790518109, 43.9305953115, 2.26126565; | !- Vertex 4                   |

|                                      |                               |
|--------------------------------------|-------------------------------|
| ! Block 2 - bed 2                    |                               |
| Zone, Block2:Bed2,                   | !- Zone Name                  |
| 0,                                   | !- Relative North (to         |
| building)                            |                               |
| 0,                                   | !- X Origin (M)               |
| 0,                                   | !- Y Origin (M)               |
| 0,                                   | !- Z Origin (M)               |
| 1 ,                                  | !- Zone Type                  |
| 1,                                   | !- Zone multiplier            |
| ,                                    | !- Zone ceiling height - Let  |
| EnergyPlus work it out               |                               |
| 37.1093,                             | !- Zone volume                |
| 13.7442,                             | !- Floor Area                 |
| TARP,                                | !- Zone inside convection     |
| algorithm                            |                               |
| ,                                    | !- Zone outside convection    |
| algorithm                            |                               |
| Yes;                                 | !- Part Of Total Floor Area   |
|                                      |                               |
| PEOPLE, People Block2:Bed2,          | !- Name                       |
| Block2:Bed2,                         | !- Zone Name                  |
| occupancy schedule,                  | !- Number of People SCHEDULE  |
| Name                                 |                               |
| People/Area,                         | !- Number of People           |
| Calculation Method                   |                               |
| ,                                    | !- Number of People           |
| .0728,                               | !- People per Zone Floor Area |
| ,                                    | !- Zone Floor Area per Person |
| .3,                                  | !- radiant fraction           |
| AutoCalculate,                       | !- User Specified Sensible    |
| Fraction                             |                               |
| Activity Schedule 2528,              | !- Activity level SCHEDULE    |
| Name (units W/person, real)          |                               |
| .0000000382,                         | !- CO2 generation rate per    |
| unit of activity level (units m3/s-W |                               |
| No,                                  | !- Enable ASHRAE 55 comfort   |
| warnings                             |                               |
| ZoneAveraged,                        | !- MRT Calculation Type       |
| ,                                    | !- no particular surface is   |
| weighted                             |                               |
| Work efficiency,                     | !- Work Efficiency SCHEDULE   |
| Name (0.0-1.0,real)                  |                               |
| ClothingInsulationSchedule,          | !- Clothing Insulation        |
| Calculation Method                   |                               |
| ,                                    | !- Clothing Insulation        |
| Calculation Method Schedule Name     |                               |
| Clothing Schedule 2528,              | !- Clothing Insulation        |
| SCHEDULE Name (real)                 |                               |
| AirVelocitySchedule;                 | !- Air Velocity SCHEDULE Name |
| (units m/s, real)                    |                               |

|   |                               |
|---|-------------------------------|
| Schedule:Compact, Activity Schedule 2528,     | !- activity schedule W/person |
| Any Number,                                   | !- Type                       |
| Through: 12/31,                               | !- Type                       |
| For: AllDays,                                 | !- All days in year           |
| Until: 24:00, 81;                             | !- Constant value             |
| <br>Schedule:Compact, Clothing Schedule 2528, | !- Clothing schedule clo      |
| Any Number,                                   | !- Type                       |
| Through: 4/1,                                 | !- Type                       |
| For: AllDays,                                 | !- All days in year           |
| Until: 24:00, .5,                             | !- Constant value             |
| Through: 9/30,                                | !- Type                       |
| For: AllDays,                                 | !- All days in year           |
| Until: 24:00, 1,                              | !- Constant value             |
| Through: 12/31,                               | !- Type                       |
| For: AllDays,                                 | !- All days in year           |
| Until: 24:00, .5;                             | !- Constant value             |
| <br>Lights, Block2:Bed2 ,                     | !- Name                       |
| Block2:Bed2,                                  | !- Zone Name                  |
| lighting schedule,                            | !- Lighting SCHEDULE Name     |
| Watts/Area,                                   | !- Design Level calculation   |
| method  |                               |
| ,   | !- Design lighting Level (W)  |
| 5,  | !- Watts per Zone Area {W/m2} |
| ,   | !- Watts per Person           |
| {watts/person}                                |                               |
| 0,  | !- Return Air Fraction        |
| .42,  | !- Radiant fraction           |
| .18,  | !- Fraction Visible           |
| 1,  | !- Fraction Replaceable       |
| ;   | !- LightsEndUseKey            |
| <br>! Equipment gain 1                        |                               |
| OtherEquipment, Block2:Bed2 Equipment gain 1, | !- Name                       |
| Electricity,                                  | !- Fuel Type                  |
| Block2:Bed2,                                  | !- Zone Name                  |
| equipment schedule,                           | !- Equipment SCHEDULE Name    |
| Watts/Area,                                   | !- Design Level calculation   |
| method  |                               |
| ,   | !- Design Equipment Level (W) |
| 3.58,   | !- Watts per Zone Area        |
| {watts/m2}                                    |                               |
| ,   | !- Watts per Person           |
| {watts/person}                                |                               |
| 0,  | !- Latent fraction            |
| .2,   | !- Radiant fraction           |
| 0,  | !- Fraction Lost              |
| 0,  | !- Carbon Dioxide Generation  |
| Rate  |                               |
| ELECTRIC EQUIPMENT#Block2:Bed2#05;            | !- End-use category           |
| <br>! DHW 1                                   |                               |
| WaterUse:Equipment,                           |                               |

|   |                                |
|---|--------------------------------|
| DHW Block2:Bed2,  | !- Name                        |
| DHW Block2:Bed2,  | !- End-Use Subcategory         |
| 2.31251619047619E-07,   | !- Peak Volumetric Flow Rate   |
| {m3/s}  |                                |
| Dwell_DomBed_Occ,   | !- DHW SCHEDULE Name           |
| DHW Supply Temperature Block2:Bed2,   | !- Target Temperature Schedule |
| DHW Supply Temperature Block2:Bed2,   | !- Hot Water Supply            |
| Temperature Schedule  |                                |
| DHW Mains Temperature Block2:Bed2,  | !- Cold Water Supply           |
| Temperature Schedule  |                                |
| Block2:Bed2,  | !- Zone Name                   |
| ,   | !- Sensible Fraction Schedule  |
| ;   | !- Latent Fraction Schedule    |
|   |                                |
| Schedule:Compact, DHW Supply Temperature Block2:Bed2,                       | !- DHW Supply                  |
| Temperature Schedule  |                                |
| Temperature,  | !- Type                        |
| Through: 12/31,   | !- Type                        |
| For: AllDays,   | !- All days in year            |
| Until: 24:00, 65;   | !- All hours in day            |
|   |                                |
| Schedule:Compact, DHW Mains Temperature Block2:Bed2,                        | !- DHW Mains                   |
| Temperature Schedule  |                                |
| Temperature,  | !- Type                        |
| Through: 12/31,   | !- Type                        |
| For: AllDays,   | !- All days in year            |
| Until: 24:00, 10;   | !- All hours in day            |
|   |                                |
| ZoneInfiltration:DesignFlowRate, Block2:Bed2 Infiltration,                  | !- Name                        |
| Block2:Bed2,  | !- Zone Name                   |
| On 24/7,  | !- Infiltration SCHEDULE Name  |
| Flow/zone,  | !- Design Volume Flow Rate     |
| calculation method  |                                |
| .007216,  | !- Design Volume Flow Rate     |
| (m3/s)  |                                |
| ,   | !- Flow per Zone Floor Area    |
| {m3/s/m2}   |                                |
| ,   | !- Flow per Exterior Surface   |
| Area {m3/s/m2}  |                                |
| ,   | !- Air Changes Per Hour        |
| 1,  | !- Constant Term Coefficient   |
| 0,  | !- Temperature Term            |
| Coefficient   |                                |
| 0,  | !- Velocity Term Coefficient   |
| 0;  | !- Velocity Squared Term       |
| Coefficient   |                                |
|   |                                |
| ! Block 2, bed 2, Ground floor - 15.625 m2 (Ground), Surface Area: 15.625m2 |                                |
| BuildingSurface:Detailed,   | !- Surface                     |
| Block2:Bed2_GroundFloor_0_0_0,  | !- Surface name                |
| Floor, ground floor,  | !- Class and Construction Name |
| Block2:Bed2,  | !- Zone Name                   |
| Ground, ,   | !- Outside Face Environment    |

|                                   |                          |
|-----------------------------------|--------------------------|
| NoSun,                            | !- Sun Exposure          |
| NoWind,                           | !- Wind Exposure         |
| AutoCalculate,                    | !- View Factor to Ground |
| 4,                                | !- Number vertices       |
| -71.1859455147, 38.1134826732, 0, | !- Vertex 1              |
| -71.1815603947, 41.8137719832, 0, | !- Vertex 2              |
| -66.9611367047, 41.8137719832, 0, | !- Vertex 3              |
| -66.9611367047, 38.1134826732, 0; | !- Vertex 4              |

! Block 2, bed 2, Partition - 11.407 m2 (Block 2, bed 3), Surface Area:

11.407

|   |                                |
|---|--------------------------------|
| BuildingSurface:Detailed,                 | !- Surface                     |
| Block2:Bed2_Partition_2_0_0,              | !- Surface name                |
| Wall, internal wall,                      | !- Class and Construction Name |
| Block2:Bed2,                              | !- Zone Name                   |
| Surface, Block2:Bed3_Partition_6_0_10017, | !- Outside Face Environment    |
| NoSun,                                    | !- Sun Exposure                |
| NoWind,                                   | !- Wind Exposure               |
| 0,  | !- View Factor to Ground       |
| 4,  | !- Number vertices             |
| -71.1859455147, 38.113482672, 0,          | !- Vertex 1                    |
| -66.9611367047, 38.113482672, 0,          | !- Vertex 2                    |
| -66.9611367047, 38.113482672, 2.7,        | !- Vertex 3                    |
| -71.1859455147, 38.113482672, 2.7;        | !- Vertex 4                    |

! Block 2, bed 2, Partition - 11.407 m2 (Block 2, bed 3), Surface Area:

11.407 <Other side>

|                                       |                                |
|---------------------------------------|--------------------------------|
| BuildingSurface:Detailed,             | !- Surface reverse definition  |
| Block2:Bed3_Partition_6_0_10017,      | !- Surface name                |
| Wall, internal wall_Rev,              | !- Class and Construction Name |
| Block2:Bed3,                          | !- Zone Name                   |
| Surface, Block2:Bed2_Partition_2_0_0, | !- Outside Face Environment    |
| NoSun,                                | !- Sun Exposure                |
| NoWind,                               | !- Wind Exposure               |
| 0,                                    | !- View Factor to Ground       |
| 4,                                    | !- Number vertices             |
| -66.9611367047, 38.113482672, 0,      | !- Vertex 1                    |
| -71.1859455147, 38.113482672, 0,      | !- Vertex 2                    |
| -71.1859455147, 38.113482672, 2.7,    | !- Vertex 3                    |
| -66.9611367047, 38.113482672, 2.7;    | !- Vertex 4                    |

! Block 2, bed 2, Partition - 9.991 m2 (Block 2, living area), Surface Area:

9.9908

|   |                                |
|---|--------------------------------|
| BuildingSurface:Detailed,                       | !- Surface                     |
| Block2:Bed2_Partition_3_0_0,                    | !- Surface name                |
| Wall, internal wall,                            | !- Class and Construction Name |
| Block2:Bed2,                                    | !- Zone Name                   |
| Surface, Block2:LivingArea_Partition_6_0_10018, | !- Outside Face                |

Environment

|                                  |                          |
|----------------------------------|--------------------------|
| NoSun,                           | !- Sun Exposure          |
| NoWind,                          | !- Wind Exposure         |
| 0,                               | !- View Factor to Ground |
| 4,                               | !- Number vertices       |
| -66.961136706, 38.1134826732, 0, | !- Vertex 1              |

|                                    |             |
|------------------------------------|-------------|
| -66.961136706, 41.8137719832, 0,   | !- Vertex 2 |
| -66.961136706, 41.8137719832, 2.7, | !- Vertex 3 |
| -66.961136706, 38.1134826732, 2.7; | !- Vertex 4 |

! Block 2, bed 2, Partition - 9.991 m2 (Block 2, living area), Surface Area: 9.9908 <Other side>

|  |                                |
|--|--------------------------------|
| BuildingSurface:Detailed,              | !- Surface reverse definition  |
| Block2:LivingArea_Partition_6_0_10018, | !- Surface name                |
| Wall, internal wall_Rev,               | !- Class and Construction Name |
| Block2:LivingArea,                     | !- Zone Name                   |
| Surface, Block2:Bed2_Partition_3_0_0,  | !- Outside Face Environment    |
| NoSun,                                 | !- Sun Exposure                |
| NoWind,                                | !- Wind Exposure               |
| 0,                                     | !- View Factor to Ground       |
| 4,                                     | !- Number vertices             |
| -66.961136706, 41.8137719832, 0,       | !- Vertex 1                    |
| -66.961136706, 38.1134826732, 0,       | !- Vertex 2                    |
| -66.961136706, 38.1134826732, 2.7,     | !- Vertex 3                    |
| -66.961136706, 41.8137719832, 2.7;     | !- Vertex 4                    |

! Block 2, bed 2, Partition - 3.602 m2 (Block 2, hallway), Surface Area: 2.0223

|  |                                |
|--|--------------------------------|
| BuildingSurface:Detailed,                    | !- Surface                     |
| Block2:Bed2_Partition_4_0_0,                 | !- Surface name                |
| Wall, internal wall,                         | !- Class and Construction Name |
| Block2:Bed2,                                 | !- Zone Name                   |
| Surface, Block2:Hallway_Partition_2_0_10019, | !- Outside Face Environment    |
| NoSun,                                       | !- Sun Exposure                |
| NoWind,                                      | !- Wind Exposure               |
| 0,   | !- View Factor to Ground       |
| 4,   | !- Number vertices             |
| -66.9611367047, 41.8137719852, 0,            | !- Vertex 1                    |
| -68.2952307047, 41.8137719852, 0,            | !- Vertex 2                    |
| -68.2952307047, 41.8137719852, 2.7,          | !- Vertex 3                    |
| -66.9611367047, 41.8137719852, 2.7;          | !- Vertex 4                    |

! Block 2, bed 2, Partition - 3.602 m2 (Block 2, hallway), Surface Area: 2.0223 <Other side>

|                                       |                                |
|---------------------------------------|--------------------------------|
| BuildingSurface:Detailed,             | !- Surface reverse definition  |
| Block2:Hallway_Partition_2_0_10019,   | !- Surface name                |
| Wall, internal wall_Rev,              | !- Class and Construction Name |
| Block2:Hallway,                       | !- Zone Name                   |
| Surface, Block2:Bed2_Partition_4_0_0, | !- Outside Face Environment    |
| NoSun,                                | !- Sun Exposure                |
| NoWind,                               | !- Wind Exposure               |
| 0,                                    | !- View Factor to Ground       |
| 4,                                    | !- Number vertices             |
| -68.2952307047, 41.8137719852, 0,     | !- Vertex 1                    |
| -66.9611367047, 41.8137719852, 0,     | !- Vertex 2                    |
| -66.9611367047, 41.8137719852, 2.7,   | !- Vertex 3                    |
| -68.2952307047, 41.8137719852, 2.7;   | !- Vertex 4                    |

! Door, 1.580m2

FenestrationSurface:Detailed, Block2:Bed2\_Partition\_4\_0\_0\_0\_0\_Door, !-

Door name

Door, Project internal door,                   !- Class and Construction Name  
Block2:Bed2\_Partition\_4\_0\_0,                   !- Base surface  
Block2:Hallway\_Partition\_2\_0\_0\_0\_0\_Door\_10021,   !- Corresponding

other surface

0,   !- View Factor to Ground  
,   !- Window shading control  
,   !- Frame divider name  
1,   !- Multiplier  
4,   !- Number vertices  
-67.1374820947, 41.8137719852, .002,       !- Vertex 1  
-67.9302737847, 41.8137719852, .002,       !- Vertex 2  
-67.9302737847, 41.8137719852, 1.99462412,   !- Vertex 3  
-67.1374820947, 41.8137719852, 1.99462412;   !- Vertex 4

! Door, 1.580m2

FenestrationSurface:Detailed,

Block2:Hallway\_Partition\_2\_0\_0\_0\_0\_Door\_10021,   !- Door name - reverse  
definition

Door, Project internal door\_Rev,               !- Class and Construction Name  
Block2:Hallway\_Partition\_2\_0\_10019,           !- Base surface  
Block2:Bed2\_Partition\_4\_0\_0\_0\_0\_Door,       !- Corresponding other door

subsurface

0,   !- View Factor to Ground  
,   !- Window shading control  
,   !- Frame divider name  
1,   !- Multiplier  
4,   !- Number vertices  
-67.9302737847, 41.8137719852, .002,       !- Vertex 1  
-67.1374820947, 41.8137719852, .002,       !- Vertex 2  
-67.1374820947, 41.8137719852, 1.99462412,   !- Vertex 3  
-67.9302737847, 41.8137719852, 1.99462412;   !- Vertex 4

! Block 2, bed 2, Wall - 9.991 m2 - 270.1°, Surface Area: 9.991m2

BuildingSurface:Detailed,

Block2:Bed2\_Wall\_6\_0\_0,                       !- Surface  
Wall, Project wall,                           !- Surface name  
Block2:Bed2,                                   !- Class and Construction Name  
Outdoors, ,                                   !- Zone Name  
SunExposed,                                   !- Outside Face Environment  
WindExposed,                                  !- Sun Exposure  
AutoCalculate,                               !- Wind Exposure  
4,   !- View Factor to Ground  
-71.1815603995, 41.8137719852, 0,           !- Number vertices  
-71.1859455097, 38.113482672, 0,           !- Vertex 1  
-71.1859455097, 38.113482672, 0,           !- Vertex 2  
-71.1859455097, 38.113482672, 2.7,       !- Vertex 3  
-71.1815603995, 41.8137719852, 2.7;       !- Vertex 4

! Window, 1.800m2

FenestrationSurface:Detailed, Block2:Bed2\_Wall\_6\_0\_0\_0\_0\_Win,   !- Window

name

Window,                                       !- Class  
1001,   !- Construction Name  
Block2:Bed2\_Wall\_6\_0\_0,                   !- Base surface

```
,                                !- corresponding other window
subsurface                        !- View Factor to Ground
    AutoCalculate,                !- Window shading control
    ,                             !- Frame divider name
    1,                           !- Multiplier
    1,                           !- Number vertices
    4,                            !- Vertex 1
    -71.1836770373, 40.0276886521, .6396404, !- Vertex 2
    -71.1849927649, 38.9174376917, .6396404, !- Vertex 3
    -71.1849927649, 38.9174376917, 2.26126565, !- Vertex 4
    -71.1836770373, 40.0276886521, 2.26126565;

! Block 2 - bed 3
Zone, Block2:Bed3,               !- Zone Name
    0,                          !- Relative North (to
building)                       !- X Origin (M)
    0,                          !- Y Origin (M)
    0,                          !- Z Origin (M)
    1 ,                         !- Zone Type
    1,                          !- Zone multiplier
    ,                           !- Zone ceiling height - Let
EnergyPlus work it out          !- Zone volume
    38.3962,                   !- Floor Area
    14.2238,                   !- Zone inside convection
    TARP,                      !- Zone outside convection
algorithm                       !- Part Of Total Floor Area
    ,
algorithm
    Yes;

PEOPLE, People Block2:Bed3,     !- Name
    Block2:Bed3,               !- Zone Name
    occupancy schedule,        !- Number of People SCHEDULE
Name                             !- Number of People
    People/Area,
Calculation Method              !- Number of People
    ,                          !- People per Zone Floor Area
    .1406,                     !- Zone Floor Area per Person
    ,                          !- radiant fraction
    .3,                        !- User Specified Sensible
    AutoCalculate,             !- Activity level SCHEDULE
Fraction                       !- CO2 generation rate per
    Activity Schedule 2536,
Name (units W/person, real)     !- Enable ASHRAE 55 comfort
    .0000000382,              !- MRT Calculation Type
unit of activity level (units m3/s-W
    No,                        !- no particular surface is
warnings
    ZoneAveraged,
    ,
weighted
```



|   |                               |
|---|-------------------------------|
| Work efficiency,                              | !- Work Efficiency SCHEDULE   |
| Name (0.0-1.0,real)                           |                               |
| ClothingInsulationSchedule,                   | !- Clothing Insulation        |
| Calculation Method                            |                               |
| ,   | !- Clothing Insulation        |
| Calculation Method Schedule Name              |                               |
| Clothing Schedule 2536,                       | !- Clothing Insulation        |
| SCHEDULE Name (real)                          |                               |
| AirVelocitySchedule;                          | !- Air Velocity SCHEDULE Name |
| (units m/s, real)                             |                               |
|   |                               |
| Schedule:Compact, Activity Schedule 2536,     | !- activity schedule W/person |
| Any Number,                                   | !- Type                       |
| Through: 12/31,                               | !- Type                       |
| For: AllDays,                                 | !- All days in year           |
| Until: 24:00, 81;                             | !- Constant value             |
|   |                               |
| Schedule:Compact, Clothing Schedule 2536,     | !- Clothing schedule clo      |
| Any Number,                                   | !- Type                       |
| Through: 4/1,                                 | !- Type                       |
| For: AllDays,                                 | !- All days in year           |
| Until: 24:00, .5,                             | !- Constant value             |
| Through: 9/30,                                | !- Type                       |
| For: AllDays,                                 | !- All days in year           |
| Until: 24:00, 1,                              | !- Constant value             |
| Through: 12/31,                               | !- Type                       |
| For: AllDays,                                 | !- All days in year           |
| Until: 24:00, .5;                             | !- Constant value             |
|   |                               |
| Lights, Block2:Bed3 ,                         | !- Name                       |
| Block2:Bed3,                                  | !- Zone Name                  |
| lighting schedule,                            | !- Lighting SCHEDULE Name     |
| Watts/Area,                                   | !- Design Level calculation   |
| method  |                               |
| ,   | !- Design lighting Level (W)  |
| 5,  | !- Watts per Zone Area {W/m2} |
| ,   | !- Watts per Person           |
| {watts/person}                                |                               |
| 0,  | !- Return Air Fraction        |
| .42,  | !- Radiant fraction           |
| .18,  | !- Fraction Visible           |
| 1,  | !- Fraction Replaceable       |
| ;   | !- LightsEndUseKey            |
|   |                               |
| ! Equipment gain 1                            |                               |
| OtherEquipment, Block2:Bed3 Equipment gain 1, | !- Name                       |
| Electricity,                                  | !- Fuel Type                  |
| Block2:Bed3,                                  | !- Zone Name                  |
| equipment schedule,                           | !- Equipment SCHEDULE Name    |
| Watts/Area,                                   | !- Design Level calculation   |
| method  |                               |
| ,   | !- Design Equipment Level (W) |
| 3.58,   | !- Watts per Zone Area        |
| {watts/m2}                                    |                               |

|  |                                |
|--|--------------------------------|
| ,  | !- Watts per Person            |
| {watts/person}   |                                |
| 0,   | !- Latent fraction             |
| .2,  | !- Radiant fraction            |
| 0,   | !- Fraction Lost               |
| 0,   | !- Carbon Dioxide Generation   |
| Rate   |                                |
| ELECTRIC EQUIPMENT#Block2:Bed3#05;                         | !- End-use category            |
| ! DHW 1  |                                |
| WaterUse:Equipment,  |                                |
| DHW Block2:Bed3,   | !- Name                        |
| DHW Block2:Bed3,   | !- End-Use Subcategory         |
| 2.39321079365079E-07,                                      | !- Peak Volumetric Flow Rate   |
| {m3/s}   |                                |
| Dwell_DomBed_Occ,  | !- DHW SCHEDULE Name           |
| DHW Supply Temperature Block2:Bed3,                        | !- Target Temperature Schedule |
| DHW Supply Temperature Block2:Bed3,                        | !- Hot Water Supply            |
| Temperature Schedule                                       |                                |
| DHW Mains Temperature Block2:Bed3,                         | !- Cold Water Supply           |
| Temperature Schedule                                       |                                |
| Block2:Bed3,   | !- Zone Name                   |
| ,  | !- Sensible Fraction Schedule  |
| ;  | !- Latent Fraction Schedule    |
| Schedule:Compact, DHW Supply Temperature Block2:Bed3,      | !- DHW Supply                  |
| Temperature Schedule                                       |                                |
| Temperature,   | !- Type                        |
| Through: 12/31,  | !- Type                        |
| For: AllDays,  | !- All days in year            |
| Until: 24:00, 65;  | !- All hours in day            |
| Schedule:Compact, DHW Mains Temperature Block2:Bed3,       | !- DHW Mains                   |
| Temperature Schedule                                       |                                |
| Temperature,   | !- Type                        |
| Through: 12/31,  | !- Type                        |
| For: AllDays,  | !- All days in year            |
| Until: 24:00, 10;  | !- All hours in day            |
| ZoneInfiltration:DesignFlowRate, Block2:Bed3 Infiltration, | !- Name                        |
| Block2:Bed3,   | !- Zone Name                   |
| On 24/7,   | !- Infiltration SCHEDULE Name  |
| Flow/zone,   | !- Design Volume Flow Rate     |
| calculation method   |                                |
| .007466,   | !- Design Volume Flow Rate     |
| (m3/s)   |                                |
| ,  | !- Flow per Zone Floor Area    |
| {m3/s/m2}  |                                |
| ,  | !- Flow per Exterior Surface   |
| Area {m3/s/m2}   |                                |
| ,  | !- Air Changes Per Hour        |
| 1,   | !- Constant Term Coefficient   |
| 0,   | !- Temperature Term            |
| Coefficient  |                                |

|             |                              |
|-------------|------------------------------|
| 0,          | !- Velocity Term Coefficient |
| 0;          | !- Velocity Squared Term     |
| Coefficient |                              |

! Block 2, bed 3, Ground floor - 17.909 m2 (Ground), Surface Area: 17.898m2

|                                   |                                |
|-----------------------------------|--------------------------------|
| BuildingSurface:Detailed,         | !- Surface                     |
| Block2:Bed3_GroundFloor_0_0_0,    | !- Surface name                |
| Floor, ground floor,              | !- Class and Construction Name |
| Block2:Bed3,                      | !- Zone Name                   |
| Ground, ,                         | !- Outside Face Environment    |
| NoSun,                            | !- Sun Exposure                |
| NoWind,                           | !- Wind Exposure               |
| AutoCalculate,                    | !- View Factor to Ground       |
| 4,                                | !- Number vertices             |
| -71.1897165447, 34.9313702632, 0, | !- Vertex 1                    |
| -71.1859455147, 38.1134826732, 0, | !- Vertex 2                    |
| -65.5568432147, 38.1134826732, 0, | !- Vertex 3                    |
| -65.5615178147, 34.9359295132, 0; | !- Vertex 4                    |

! Block 2, bed 3, Wall - 13.187 m2 - 180.0°, Surface Area: 13.187m2

|                                     |                                |
|-------------------------------------|--------------------------------|
| BuildingSurface:Detailed,           | !- Surface                     |
| Block2:Bed3_Wall_2_0_0,             | !- Surface name                |
| Wall, Project wall,                 | !- Class and Construction Name |
| Block2:Bed3,                        | !- Zone Name                   |
| Outdoors, ,                         | !- Outside Face Environment    |
| SunExposed,                         | !- Sun Exposure                |
| WindExposed,                        | !- Wind Exposure               |
| AutoCalculate,                      | !- View Factor to Ground       |
| 4,                                  | !- Number vertices             |
| -71.1897165428, 34.9313702668, 0,   | !- Vertex 1                    |
| -66.3056916185, 34.9313702668, 0,   | !- Vertex 2                    |
| -66.3056916185, 34.9313702668, 2.7, | !- Vertex 3                    |
| -71.1897165428, 34.9313702668, 2.7; | !- Vertex 4                    |

! Window, 0.878m2

|   |                               |
|---|-------------------------------|
| FenestrationSurface:Detailed, Block2:Bed3_Wall_2_0_0_0_0_0_Win, | !- Window                     |
| name  |                               |
| Window,   | !- Class                      |
| 1001,   | !- Construction Name          |
| Block2:Bed3_Wall_2_0_0,   | !- Base surface               |
| ,   | !- corresponding other window |
| subsurface  |                               |
| AutoCalculate,  | !- View Factor to Ground      |
| ,   | !- Window shading control     |
| 1,  | !- Frame divider name         |
| 1,  | !- Multiplier                 |
| 4,  | !- Number vertices            |
| -68.3695549147, 34.9313702668, 1.50492937,                      | !- Vertex 1                   |
| -67.2359794647, 34.9313702668, 1.50492937,                      | !- Vertex 2                   |
| -67.2359794647, 34.9313702668, 2.27910302,                      | !- Vertex 3                   |
| -68.3695549147, 34.9313702668, 2.27910302;                      | !- Vertex 4                   |

! Block 2, bed 3, Wall - 2.009 m2 - 179.6°, Surface Area: 2.009m2

|                                     |                                |
|-------------------------------------|--------------------------------|
| BuildingSurface:Detailed,           | !- Surface                     |
| Block2:Bed3_Wall_3_0_0,             | !- Surface name                |
| Wall, Project wall,                 | !- Class and Construction Name |
| Block2:Bed3,                        | !- Zone Name                   |
| Outdoors, ,                         | !- Outside Face Environment    |
| SunExposed,                         | !- Sun Exposure                |
| WindExposed,                        | !- Wind Exposure               |
| AutoCalculate,                      | !- View Factor to Ground       |
| 4,                                  | !- Number vertices             |
| -66.3056916185, 34.9313702668, 0,   | !- Vertex 1                    |
| -65.5615178133, 34.9359295168, 0,   | !- Vertex 2                    |
| -65.5615178133, 34.9359295168, 2.7, | !- Vertex 3                    |
| -66.3056916185, 34.9313702668, 2.7; | !- Vertex 4                    |

! Block 2, bed 3, Wall - 8.579 m2 - 90.1°, Surface Area: 8.579m2

|                                     |                                |
|-------------------------------------|--------------------------------|
| BuildingSurface:Detailed,           | !- Surface                     |
| Block2:Bed3_Wall_4_0_0,             | !- Surface name                |
| Wall, Project wall,                 | !- Class and Construction Name |
| Block2:Bed3,                        | !- Zone Name                   |
| Outdoors, ,                         | !- Outside Face Environment    |
| SunExposed,                         | !- Sun Exposure                |
| WindExposed,                        | !- Wind Exposure               |
| AutoCalculate,                      | !- View Factor to Ground       |
| 4,                                  | !- Number vertices             |
| -65.5615178133, 34.9359295168, 0,   | !- Vertex 1                    |
| -65.5568432134, 38.113482672, 0,    | !- Vertex 2                    |
| -65.5568432134, 38.113482672, 2.7,  | !- Vertex 3                    |
| -65.5615178133, 34.9359295168, 2.7; | !- Vertex 4                    |

! Block 2, bed 3, Partition - 3.792 m2 (Block 2, living area), Surface Area: 2.2074

|   |                                |
|---|--------------------------------|
| BuildingSurface:Detailed,                       | !- Surface                     |
| Block2:Bed3_Partition_5_0_0,                    | !- Surface name                |
| Wall, internal wall,                            | !- Class and Construction Name |
| Block2:Bed3,                                    | !- Zone Name                   |
| Surface, Block2:LivingArea_Partition_2_0_10021, | !- Outside Face Environment    |
| NoSun,  | !- Sun Exposure                |
| NoWind,   | !- Wind Exposure               |
| 0,  | !- View Factor to Ground       |
| 4,  | !- Number vertices             |
| -65.5568432147, 38.113482672, 0,                | !- Vertex 1                    |
| -66.9611367047, 38.113482672, 0,                | !- Vertex 2                    |
| -66.9611367047, 38.113482672, 2.7,              | !- Vertex 3                    |
| -65.5568432147, 38.113482672, 2.7;              | !- Vertex 4                    |

! Block 2, bed 3, Partition - 3.792 m2 (Block 2, living area), Surface Area: 2.2074 <Other side>

|  |                                |
|--|--------------------------------|
| BuildingSurface:Detailed,              | !- Surface reverse definition  |
| Block2:LivingArea_Partition_2_0_10021, | !- Surface name                |
| Wall, internal wall_Rev,               | !- Class and Construction Name |
| Block2:LivingArea,                     | !- Zone Name                   |
| Surface, Block2:Bed3_Partition_5_0_0,  | !- Outside Face Environment    |
| NoSun,                                 | !- Sun Exposure                |

```

Nowind,                                !- Wind Exposure
0,                                     !- View Factor to Ground
4,                                     !- Number vertices
-66.9611367047, 38.113482672, 0,      !- Vertex 1
-65.5568432147, 38.113482672, 0,      !- Vertex 2
-65.5568432147, 38.113482672, 2.7,    !- Vertex 3
-66.9611367047, 38.113482672, 2.7;    !- Vertex 4

! Door, 1.584m2
FenestrationSurface:Detailed, Block2:Bed3_Partition_5_0_0_0_0_Door, !-
Door name
    Door, Project internal door,        !- Class and Construction Name
    Block2:Bed3_Partition_5_0_0,        !- Base surface
    Block2:LivingArea_Partition_2_0_0_0_0_Door_10023, !- Corresponding
other surface
    0,                                     !- View Factor to Ground
    ,                                     !- Window shading control
    ,                                     !- Frame divider name
    1,                                     !- Multiplier
    4,                                     !- Number vertices
    -65.8511538647, 38.113482672, .002, !- Vertex 1
    -66.6436165047, 38.113482672, .002, !- Vertex 2
    -66.6436165047, 38.113482672, 2.0010644, !- Vertex 3
    -65.8511538647, 38.113482672, 2.0010644; !- Vertex 4

! Door, 1.584m2
FenestrationSurface:Detailed,
Block2:LivingArea_Partition_2_0_0_0_0_Door_10023, !- Door name - reverse
definition
    Door, Project internal door_Rev,      !- Class and Construction Name
    Block2:LivingArea_Partition_2_0_10021, !- Base surface
    Block2:Bed3_Partition_5_0_0_0_0_Door, !- Corresponding other door
subsurface
    0,                                     !- View Factor to Ground
    ,                                     !- Window shading control
    ,                                     !- Frame divider name
    1,                                     !- Multiplier
    4,                                     !- Number vertices
    -66.6436165047, 38.113482672, .002, !- Vertex 1
    -65.8511538647, 38.113482672, .002, !- Vertex 2
    -65.8511538647, 38.113482672, 2.0010644, !- Vertex 3
    -66.6436165047, 38.113482672, 2.0010644; !- Vertex 4

! Block 2, bed 3, Wall - 8.592 m2 - 270.1°, Surface Area: 8.592m2
BuildingSurface:Detailed,                !- Surface
Block2:Bed3_Wall_7_0_0,                  !- Surface name
Wall, Project wall,                      !- Class and Construction Name
Block2:Bed3,                             !- Zone Name
Outdoors, ,                              !- Outside Face Environment
SunExposed,                              !- Sun Exposure
WindExposed,                             !- Wind Exposure
AutoCalculate,                           !- View Factor to Ground
4,                                         !- Number vertices
-71.1859455097, 38.113482672, 0,        !- Vertex 1

```

```

-71.1897165428, 34.9313702668, 0,           !- Vertex 2
-71.1897165428, 34.9313702668, 2.7,         !- Vertex 3
-71.1859455097, 38.113482672, 2.7;          !- Vertex 4

! Window, 1.800m2
FenestrationSurface:Detailed, Block2:Bed3_Wall_7_0_0_0_0_Win, !- Window
name
    Window,                                   !- Class
    1001,                                     !- Construction Name
    Block2:Bed3_Wall_7_0_0,                  !- Base surface
    ,                                         !- corresponding other window
subsurface
    AutoCalculate,                           !- View Factor to Ground
    ,                                         !- Window shading control
    1,                                       !- Frame divider name
    1,                                       !- Multiplier
    4,                                       !- Number vertices
    -71.1874362364, 36.8555621896, .6396404, !- Vertex 1
    -71.188751964, 35.7453112292, .6396404, !- Vertex 2
    -71.188751964, 35.7453112292, 2.26126565, !- Vertex 3
    -71.1874362364, 36.8555621896, 2.26126565; !- Vertex 4

! Block 2 - hallway
Zone, Block2:Hallway,                        !- Zone Name
    0,                                       !- Relative North (to
building)
    0,                                       !- X Origin (M)
    0,                                       !- Y Origin (M)
    0,                                       !- Z Origin (M)
    1 ,                                     !- Zone Type
    1,                                       !- Zone multiplier
    ,                                       !- Zone ceiling height - Let
EnergyPlus work it out
    19.6998,                               !- Zone volume
    7.2962,                                 !- Floor Area
    TARP,                                   !- Zone inside convection
algorithm
    ,                                       !- Zone outside convection
algorithm
    Yes;                                   !- Part Of Total Floor Area

PEOPLE, People Block2:Hallway,              !- Name
    Block2:Hallway,                        !- Zone Name
    occupancy schedule,                    !- Number of People SCHEDULE
Name
    People/Area,                           !- Number of People
Calculation Method
    ,                                       !- Number of People
    .1156,                                 !- People per Zone Floor Area
    ,                                       !- Zone Floor Area per Person
    .3,                                    !- radiant fraction
    AutoCalculate,                         !- User Specified Sensible

```

|   |                               |
|---|-------------------------------|
| Fraction                                  |                               |
| Activity Schedule 2545,                   | !- Activity level SCHEDULE    |
| Name (units W/person, real)               |                               |
| .0000000382,                              | !- CO2 generation rate per    |
| unit of activity level (units m3/s-W      |                               |
| No,                                       | !- Enable ASHRAE 55 comfort   |
| warnings                                  |                               |
| ZoneAveraged,                             | !- MRT Calculation Type       |
| ,   | !- no particular surface is   |
| weighted                                  |                               |
| Work efficiency,                          | !- Work Efficiency SCHEDULE   |
| Name (0.0-1.0,real)                       |                               |
| ClothingInsulationSchedule,               | !- Clothing Insulation        |
| Calculation Method                        |                               |
| ,   | !- Clothing Insulation        |
| Calculation Method Schedule Name          |                               |
| Clothing Schedule 2545,                   | !- Clothing Insulation        |
| SCHEDULE Name (real)                      |                               |
| AirVelocitySchedule;                      | !- Air Velocity SCHEDULE Name |
| (units m/s, real)                         |                               |
|   |                               |
| Schedule:Compact, Activity Schedule 2545, | !- activity schedule W/person |
| Any Number,                               | !- Type                       |
| Through: 12/31,                           | !- Type                       |
| For: AllDays,                             | !- All days in year           |
| Until: 24:00, 162;                        | !- Constant value             |
|   |                               |
| Schedule:Compact, Clothing Schedule 2545, | !- Clothing schedule clo      |
| Any Number,                               | !- Type                       |
| Through: 4/1,                             | !- Type                       |
| For: AllDays,                             | !- All days in year           |
| Until: 24:00, .5,                         | !- Constant value             |
| Through: 9/30,                            | !- Type                       |
| For: AllDays,                             | !- All days in year           |
| Until: 24:00, 1,                          | !- Constant value             |
| Through: 12/31,                           | !- Type                       |
| For: AllDays,                             | !- All days in year           |
| Until: 24:00, .5;                         | !- Constant value             |
|   |                               |
| Lights, Block2:Hallway ,                  | !- Name                       |
| Block2:Hallway,                           | !- Zone Name                  |
| lighting schedule,                        | !- Lighting SCHEDULE Name     |
| Watts/Area,                               | !- Design Level calculation   |
| method                                    |                               |
| ,   | !- Design lighting Level (W)  |
| 5,  | !- Watts per Zone Area {W/m2} |
| ,   | !- Watts per Person           |
| {watts/person}                            |                               |
| 0,  | !- Return Air Fraction        |
| .42,                                      | !- Radiant fraction           |
| .18,                                      | !- Fraction Visible           |
| 1,  | !- Fraction Replaceable       |
| ;   | !- LightsEndUseKey            |

```

! Equipment gain 1
OtherEquipment, Block2:Hallway Equipment gain 1, !- Name
    Electricity, !- Fuel Type
    Block2:Hallway, !- Zone Name
    equipment schedule, !- Equipment SCHEDULE Name
    Watts/Area, !- Design Level calculation
method
    , !- Design Equipment Level (W)
    1.57, !- Watts per Zone Area
{watts/m2}
    , !- Watts per Person
{watts/person}
    0, !- Latent fraction
    .2, !- Radiant fraction
    0, !- Fraction Lost
    0, !- Carbon Dioxide Generation
Rate
    ELECTRIC EQUIPMENT#Block2:Hallway#05; !- End-use category

! DHW 1
WaterUse:Equipment,
    DHW Block2:Hallway, !- Name
    DHW Block2:Hallway, !- End-Use Subcategory
    3.25767620995228E-07, !- Peak Volumetric Flow Rate
{m3/s}
    Dwell_DomCirculation_Occ, !- DHW SCHEDULE Name
    DHW Supply Temperature Block2:Hallway, !- Target Temperature Schedule
    DHW Supply Temperature Block2:Hallway, !- Hot Water Supply
Temperature Schedule
    DHW Mains Temperature Block2:Hallway, !- Cold Water Supply
Temperature Schedule
    Block2:Hallway, !- Zone Name
    , !- Sensible Fraction Schedule
    ; !- Latent Fraction Schedule

Schedule:Compact, DHW Supply Temperature Block2:Hallway, !- DHW Supply
Temperature Schedule
    Temperature, !- Type
    Through: 12/31, !- Type
    For: AllDays, !- All days in year
    Until: 24:00, 65; !- All hours in day

Schedule:Compact, DHW Mains Temperature Block2:Hallway, !- DHW Mains
Temperature Schedule
    Temperature, !- Type
    Through: 12/31, !- Type
    For: AllDays, !- All days in year
    Until: 24:00, 10; !- All hours in day

ZoneInfiltration:DesignFlowRate, Block2:Hallway Infiltration, !- Name
    Block2:Hallway, !- Zone Name
    On 24/7, !- Infiltration SCHEDULE Name
    Flow/zone, !- Design Volume Flow Rate
calculation method

```



|                |                              |
|----------------|------------------------------|
| .003831,       | !- Design Volume Flow Rate   |
| (m3/s)         |                              |
| ,              | !- Flow per Zone Floor Area  |
| {m3/s/m2}      |                              |
| ,              | !- Flow per Exterior Surface |
| Area {m3/s/m2} |                              |
| ,              | !- Air Changes Per Hour      |
| 1,             | !- Constant Term Coefficient |
| 0,             | !- Temperature Term          |
| Coefficient    |                              |
| 0,             | !- Velocity Term Coefficient |
| 0;             | !- Velocity Squared Term     |
| Coefficient    |                              |

! Block 2, hallway, Ground floor - 8.418 m2 (Ground), Surface Area: 8.435m2

|                                   |                                |
|-----------------------------------|--------------------------------|
| BuildingSurface:Detailed,         | !- Surface                     |
| Block2:Hallway_GroundFloor_0_0_0, | !- Surface name                |
| Floor, ground floor,              | !- Class and Construction Name |
| Block2:Hallway,                   | !- Zone Name                   |
| Ground, ,                         | !- Outside Face Environment    |
| NoSun,                            | !- Sun Exposure                |
| NoWind,                           | !- Wind Exposure               |
| AutoCalculate,                    | !- View Factor to Ground       |
| 4,                                | !- Number vertices             |
| -68.2952307047, 41.8137719832, 0, | !- Vertex 1                    |
| -68.2814168747, 48.1698320332, 0, | !- Vertex 2                    |
| -66.9611367047, 48.1690248932, 0, | !- Vertex 3                    |
| -66.9611367047, 41.8137719832, 0; | !- Vertex 4                    |

! Block 2, hallway, Partition - 9.120 m2 (Block 2, bed 1), Surface Area: 7.5274

|   |                                |
|---|--------------------------------|
| BuildingSurface:Detailed,                 | !- Surface                     |
| Block2:Hallway_Partition_4_0_0,           | !- Surface name                |
| Wall, internal wall,                      | !- Class and Construction Name |
| Block2:Hallway,                           | !- Zone Name                   |
| Surface, Block2:Bed1_Partition_2_0_10023, | !- Outside Face Environment    |
| NoSun,                                    | !- Sun Exposure                |
| NoWind,                                   | !- Wind Exposure               |
| 0,  | !- View Factor to Ground       |
| 4,  | !- Number vertices             |
| -66.958272865, 44.7911169123, 0,          | !- Vertex 1                    |
| -66.961136706, 48.1690248883, 0,          | !- Vertex 2                    |
| -66.961136706, 48.1690248883, 2.7,        | !- Vertex 3                    |
| -66.958272865, 44.7911169123, 2.7;        | !- Vertex 4                    |

! Block 2, hallway, Partition - 9.120 m2 (Block 2, bed 1), Surface Area: 7.5274 <Other side>

|  |                                |
|--|--------------------------------|
| BuildingSurface:Detailed,                | !- Surface reverse definition  |
| Block2:Bed1_Partition_2_0_10023,         | !- Surface name                |
| Wall, internal wall_Rev,                 | !- Class and Construction Name |
| Block2:Bed1,                             | !- Zone Name                   |
| Surface, Block2:Hallway_Partition_4_0_0, | !- Outside Face Environment    |
| NoSun,                                   | !- Sun Exposure                |

```

Nowind,                                !- Wind Exposure
0,                                     !- View Factor to Ground
4,                                     !- Number vertices
-66.961136706, 48.1690248883, 0,      !- Vertex 1
-66.958272865, 44.7911169123, 0,      !- Vertex 2
-66.958272865, 44.7911169123, 2.7,    !- Vertex 3
-66.961136706, 48.1690248883, 2.7;    !- Vertex 4

! Door, 1.593m2
FenestrationSurface:Detailed, Block2:Hallway_Partition_4_0_0_0_0_Door,
!- Door name
    Door, Project internal door,        !- Class and Construction Name
    Block2:Hallway_Partition_4_0_0,     !- Base surface
    Block2:Bed1_Partition_2_0_0_0_0_Door_10025, !- Corresponding other
surface
    0,                                     !- View Factor to Ground
    ,                                     !- Window shading control
    ,                                     !- Frame divider name
    1,                                     !- Multiplier
    4,                                     !- Number vertices
    -66.9587191492, 45.3175103731, .002, !- Vertex 1
    -66.9593967891, 46.1167884358, .002, !- Vertex 2
    -66.9593967891, 46.1167884358, 1.99504658, !- Vertex 3
    -66.9587191492, 45.3175103731, 1.99504658; !- Vertex 4

! Door, 1.593m2
FenestrationSurface:Detailed,
Block2:Bed1_Partition_2_0_0_0_0_Door_10025, !- Door name - reverse definition
    Door, Project internal door_Rev,      !- Class and Construction Name
    Block2:Bed1_Partition_2_0_10023,      !- Base surface
    Block2:Hallway_Partition_4_0_0_0_0_Door, !- Corresponding other door
subsurface
    0,                                     !- View Factor to Ground
    ,                                     !- Window shading control
    ,                                     !- Frame divider name
    1,                                     !- Multiplier
    4,                                     !- Number vertices
    -66.9593967891, 46.1167884358, .002, !- Vertex 1
    -66.9587191492, 45.3175103731, .002, !- Vertex 2
    -66.9587191492, 45.3175103731, 1.99504658, !- Vertex 3
    -66.9593967891, 46.1167884358, 1.99504658; !- Vertex 4

! Block 2, hallway, Wall - 3.565 m2 - 0.0°, Surface Area: 3.565m2
BuildingSurface:Detailed,              !- Surface
    Block2:Hallway_Wall_5_0_0,          !- Surface name
    Wall, Project wall,                  !- Class and Construction Name
    Block2:Hallway,                      !- Zone Name
    Outdoors, ,                          !- Outside Face Environment
    SunExposed,                          !- Sun Exposure
    WindExposed,                         !- Wind Exposure
    AutoCalculate,                       !- View Factor to Ground
    4,                                   !- Number vertices
    -66.961136706, 48.1690248897, 0,    !- Vertex 1
    -68.2814168757, 48.1698320359, 0,    !- Vertex 2

```

-68.2814168757, 48.1698320359, 2.7,                   !- Vertex 3  
-66.961136706, 48.1690248897, 2.7;                   !- Vertex 4

! Door, 2.032m2

FenestrationSurface:Detailed, Block2:Hallway\_Wall\_5\_0\_0\_0\_0\_Door,   !-

Door name

|  |                                |
|--|--------------------------------|
| Door, Project external door,               | !- Class and Construction Name |
| Block2:Hallway_Wall_5_0_0,                 | !- Base surface                |
| ,  | !- Corresponding other surface |
| AutoCalculate,                             | !- View Factor to Ground       |
| ,  | !- Window shading control      |
| ,  | !- Frame divider name          |
| 1,   | !- Multiplier                  |
| 4,   | !- Number vertices             |
| -67.1087881882, 48.1691151557, .09807524,  | !- Vertex 1                    |
| -68.0554312313, 48.1696938808, .09807524,  | !- Vertex 2                    |
| -68.0554312313, 48.1696938808, 2.24461752, | !- Vertex 3                    |
| -67.1087881882, 48.1691151557, 2.24461752; | !- Vertex 4                    |

! Block 2 - kitchen

Zone, Block2:Kitchen,

!- Zone Name  
!- Relative North (to

0,

building)

0,

!- X Origin (M)

0,

!- Y Origin (M)

0,

!- Z Origin (M)

1 ,

!- Zone Type

1,

!- Zone multiplier

,

!- Zone ceiling height - Let

EnergyPlus work it out

33.8715,

!- Zone volume

12.545,

!- Floor Area

TARP,

!- Zone inside convection

algorithm

,

!- Zone outside convection

algorithm

Yes;

!- Part Of Total Floor Area

PEOPLE, People Block2:Kitchen,

!- Name

Block2:Kitchen,

!- Zone Name

occupancy schedule,

!- Number of People SCHEDULE

Name

People/Area,

!- Number of People

Calculation Method

,

!- Number of People

.1156,

!- People per Zone Floor Area

,

!- Zone Floor Area per Person

.3,

!- radiant fraction

AutoCalculate,

!- User Specified Sensible

Fraction

Activity Schedule 2555,

!- Activity level SCHEDULE

Name (units W/person, real)

|  |                               |
|--|-------------------------------|
| .0000000382,                                     | !- CO2 generation rate per    |
| unit of activity level (units m3/s-W             |                               |
| No,  | !- Enable ASHRAE 55 comfort   |
| warnings   |                               |
| ZoneAveraged,                                    | !- MRT Calculation Type       |
| ,  | !- no particular surface is   |
| weighted   |                               |
| Work efficiency,                                 | !- Work Efficiency SCHEDULE   |
| Name (0.0-1.0,real)                              |                               |
| ClothingInsulationSchedule,                      | !- Clothing Insulation        |
| Calculation Method                               |                               |
| ,  | !- Clothing Insulation        |
| Calculation Method Schedule Name                 |                               |
| Clothing Schedule 2555,                          | !- Clothing Insulation        |
| SCHEDULE Name (real)                             |                               |
| AirVelocitySchedule;                             | !- Air Velocity SCHEDULE Name |
| (units m/s, real)                                |                               |
|  |                               |
| Schedule:Compact, Activity Schedule 2555,        | !- activity schedule W/person |
| Any Number,                                      | !- Type                       |
| Through: 12/31,                                  | !- Type                       |
| For: AllDays,                                    | !- All days in year           |
| Until: 24:00, 144;                               | !- Constant value             |
|  |                               |
| Schedule:Compact, Clothing Schedule 2555,        | !- Clothing schedule clo      |
| Any Number,                                      | !- Type                       |
| Through: 4/1,                                    | !- Type                       |
| For: AllDays,                                    | !- All days in year           |
| Until: 24:00, .5,                                | !- Constant value             |
| Through: 9/30,                                   | !- Type                       |
| For: AllDays,                                    | !- All days in year           |
| Until: 24:00, 1,                                 | !- Constant value             |
| Through: 12/31,                                  | !- Type                       |
| For: AllDays,                                    | !- All days in year           |
| Until: 24:00, .5;                                | !- Constant value             |
|  |                               |
| Lights, Block2:Kitchen ,                         | !- Name                       |
| Block2:Kitchen,                                  | !- Zone Name                  |
| lighting schedule,                               | !- Lighting SCHEDULE Name     |
| Watts/Area,                                      | !- Design Level calculation   |
| method   |                               |
| ,  | !- Design lighting Level (W)  |
| 15,  | !- Watts per Zone Area {W/m2} |
| ,  | !- Watts per Person           |
| {watts/person}                                   |                               |
| 0,   | !- Return Air Fraction        |
| .42,   | !- Radiant fraction           |
| .18,   | !- Fraction Visible           |
| 1,   | !- Fraction Replaceable       |
| ;  | !- LightsEndUseKey            |
|  |                               |
| ! Equipment gain 1                               |                               |
| OtherEquipment, Block2:Kitchen Equipment gain 1, | !- Name                       |
| Electricity,                                     | !- Fuel Type                  |

|   |                                |
|---|--------------------------------|
| Block2:Kitchen,   | !- Zone Name                   |
| equipment schedule,   | !- Equipment SCHEDULE Name     |
| Watts/Area,   | !- Design Level calculation    |
| method  |                                |
| ,   | !- Design Equipment Level (W)  |
| 30.28,  | !- Watts per Zone Area         |
| {watts/m2}  |                                |
| ,   | !- Watts per Person            |
| {watts/person}  |                                |
| 0,  | !- Latent fraction             |
| .2,   | !- Radiant fraction            |
| 0,  | !- Fraction Lost               |
| 0,  | !- Carbon Dioxide Generation   |
| Rate  |                                |
| ELECTRIC EQUIPMENT#Block2:Kitchen#05;                         | !- End-use category            |
|   |                                |
| ! DHW 1   |                                |
| WaterUse:Equipment,   |                                |
| DHW Block2:Kitchen,   | !- Name                        |
| DHW Block2:Kitchen,   | !- End-Use Subcategory         |
| 9.62883771929825E-07,   | !- Peak Volumetric Flow Rate   |
| {m3/s}  |                                |
| Dwell_DomKitchen_Occ,   | !- DHW SCHEDULE Name           |
| DHW Supply Temperature Block2:Kitchen,                        | !- Target Temperature Schedule |
| DHW Supply Temperature Block2:Kitchen,                        | !- Hot Water Supply            |
| Temperature Schedule  |                                |
| DHW Mains Temperature Block2:Kitchen,                         | !- Cold Water Supply           |
| Temperature Schedule  |                                |
| Block2:Kitchen,   | !- Zone Name                   |
| ,   | !- Sensible Fraction Schedule  |
| ;   | !- Latent Fraction Schedule    |
|   |                                |
| Schedule:Compact, DHW Supply Temperature Block2:Kitchen,      | !- DHW Supply                  |
| Temperature Schedule  |                                |
| Temperature,  | !- Type                        |
| Through: 12/31,   | !- Type                        |
| For: AllDays,   | !- All days in year            |
| Until: 24:00, 65;   | !- All hours in day            |
|   |                                |
| Schedule:Compact, DHW Mains Temperature Block2:Kitchen,       | !- DHW Mains                   |
| Temperature Schedule  |                                |
| Temperature,  | !- Type                        |
| Through: 12/31,   | !- Type                        |
| For: AllDays,   | !- All days in year            |
| Until: 24:00, 10;   | !- All hours in day            |
|   |                                |
| ZoneInfiltration:DesignFlowRate, Block2:Kitchen Infiltration, | !- Name                        |
| Block2:Kitchen,   | !- Zone Name                   |
| On 24/7,  | !- Infiltration SCHEDULE Name  |
| Flow/zone,  | !- Design Volume Flow Rate     |
| calculation method  |                                |
| .006586,  | !- Design Volume Flow Rate     |
| (m3/s)  |                                |
| ,   | !- Flow per Zone Floor Area    |

|                |  |                              |
|----------------|--|------------------------------|
| {m3/s/m2}      |  |                              |
| ,              |  | !- Flow per Exterior Surface |
| Area {m3/s/m2} |  |                              |
| ,              |  | !- Air Changes Per Hour      |
| 1,             |  | !- Constant Term Coefficient |
| 0,             |  | !- Temperature Term          |
| Coefficient    |  |                              |
| 0,             |  | !- Velocity Term Coefficient |
| 0;             |  | !- Velocity Squared Term     |
| Coefficient    |  |                              |

|   |                                |
|---|--------------------------------|
| ! Block 2, kitchen, Ground floor - 13.717 m2 (Ground), Surface Area: 13.717m2 |                                |
| BuildingSurface:Detailed,   | !- Surface                     |
| Block2:Kitchen_GroundFloor_0_0_0,   | !- Surface name                |
| Floor, ground floor,  | !- Class and Construction Name |
| Block2:Kitchen,   | !- Zone Name                   |
| Ground, ,   | !- Outside Face Environment    |
| NoSun,  | !- Sun Exposure                |
| NoWind,   | !- Wind Exposure               |
| AutoCalculate,  | !- View Factor to Ground       |
| 4,  | !- Number vertices             |
| -66.9611367047, 41.8137719832, 0,   | !- Vertex 1                    |
| -66.9582728647, 44.7911169132, 0,   | !- Vertex 2                    |
| -62.3510640847, 44.7911169132, 0,   | !- Vertex 3                    |
| -62.3540797547, 41.8137719832, 0;   | !- Vertex 4                    |

|  |                                |
|--|--------------------------------|
| ! Block 2, kitchen, Wall - 8.039 m2 - 90.1°, Surface Area: 8.039m2 |                                |
| BuildingSurface:Detailed,  | !- Surface                     |
| Block2:Kitchen_Wall_3_0_0,   | !- Surface name                |
| Wall, Project wall,  | !- Class and Construction Name |
| Block2:Kitchen,  | !- Zone Name                   |
| Outdoors, ,  | !- Outside Face Environment    |
| SunExposed,  | !- Sun Exposure                |
| WindExposed,   | !- Wind Exposure               |
| AutoCalculate,   | !- View Factor to Ground       |
| 4,   | !- Number vertices             |
| -62.3540797519, 41.8137719852, 0,                                  | !- Vertex 1                    |
| -62.3510640884, 44.7911169094, 0,                                  | !- Vertex 2                    |
| -62.3510640884, 44.7911169094, 2.7,                                | !- Vertex 3                    |
| -62.3540797519, 41.8137719852, 2.7;                                | !- Vertex 4                    |

|  |                                |
|--|--------------------------------|
| ! Vent, 0.041m2  |                                |
| FenestrationSurface:Detailed, Block2:Kitchen_Wall_3_0_0_0_1_Vent, !- |                                |
| Vent name  |                                |
| Door, Holes and vents,   | !- Class and Construction Name |
| Block2:Kitchen_Wall_3_0_0,   | !- Base surface                |
| ,  | !- Corresponding other surface |
| AutoCalculate,   | !- View Factor to Ground       |
| ,  | !- Window shading control      |
| ,  | !- Frame divider name          |
| 1,   | !- Multiplier                  |
| 4,   | !- Number vertices             |
| -62.3516712241, 44.1916958228, 1.45303423,                           | !- Vertex 1                    |

-62.3514655163, 44.3947897886, 1.45303423, !- Vertex 2  
-62.3514655163, 44.3947897886, 1.65528742, !- Vertex 3  
-62.3516712241, 44.1916958228, 1.65528742; !- Vertex 4

! Window, 0.878m2

FenestrationSurface:Detailed, Block2:Kitchen\_Wall\_3\_0\_0\_1\_0\_0\_Win, !-

Window name

Window, !- Class  
1001, !- Construction Name  
Block2:Kitchen\_Wall\_3\_0\_0, !- Base surface  
, !- corresponding other window

subsurface

AutoCalculate, !- View Factor to Ground  
, !- Window shading control  
1, !- Frame divider name  
1, !- Multiplier  
4, !- Number vertices  
-62.3531230026, 42.758364308, 1.49303423, !- Vertex 1  
-62.3519748386, 43.8919391665, 1.49303423, !- Vertex 2  
-62.3519748386, 43.8919391665, 2.26721154, !- Vertex 3  
-62.3531230026, 42.758364308, 2.26721154; !- Vertex 4

! Block 2, kitchen, Partition - 12.439 m2 (Block 2, bed 1), Surface Area:

12.4395

BuildingSurface:Detailed, !- Surface  
Block2:Kitchen\_Partition\_4\_0\_0, !- Surface name  
Wall, internal wall, !- Class and Construction Name  
Block2:Kitchen, !- Zone Name  
Surface, Block2:Bed1\_Partition\_3\_0\_10025, !- Outside Face Environment  
NoSun, !- Sun Exposure  
NoWind, !- Wind Exposure  
0, !- View Factor to Ground  
4, !- Number vertices  
-62.3510640847, 44.7911169094, 0, !- Vertex 1  
-66.9582728647, 44.7911169094, 0, !- Vertex 2  
-66.9582728647, 44.7911169094, 2.7, !- Vertex 3  
-62.3510640847, 44.7911169094, 2.7; !- Vertex 4

! Block 2, kitchen, Partition - 12.439 m2 (Block 2, bed 1), Surface Area:

12.4395 <Other side>

BuildingSurface:Detailed, !- Surface reverse definition  
Block2:Bed1\_Partition\_3\_0\_10025, !- Surface name  
Wall, internal wall\_Rev, !- Class and Construction Name  
Block2:Bed1, !- Zone Name  
Surface, Block2:Kitchen\_Partition\_4\_0\_0, !- Outside Face Environment  
NoSun, !- Sun Exposure  
NoWind, !- Wind Exposure  
0, !- View Factor to Ground  
4, !- Number vertices  
-66.9582728647, 44.7911169094, 0, !- Vertex 1  
-62.3510640847, 44.7911169094, 0, !- Vertex 2  
-62.3510640847, 44.7911169094, 2.7, !- Vertex 3  
-66.9582728647, 44.7911169094, 2.7; !- Vertex 4

```

! Block 2 - living area
Zone, Block2:LivingArea,
    0,
building)
    0,
    0,
    0,
    1 ,
    1,
    ,
EnergyPlus work it out
    39.8529,
    14.7603,
    TARP,
algorithm
    ,
algorithm
    Yes;

```

```

!- Zone Name
!- Relative North (to
!- X Origin (M)
!- Y Origin (M)
!- Z Origin (M)
!- Zone Type
!- Zone multiplier
!- Zone ceiling height - Let
!- Zone volume
!- Floor Area
!- Zone inside convection
!- Zone outside convection
!- Part Of Total Floor Area

```

```

    PEOPLE, People Block2:LivingArea,
        Block2:LivingArea,
        occupancy schedule,
Name
    People/Area,
Calculation Method
    ,
    .1156,
    ,
    .3,
    AutoCalculate,
Fraction
    Activity Schedule 2562,
Name (units W/person, real)
    .0000000382,
unit of activity level (units m3/s-W
    No,
warnings
    ZoneAveraged,
    ,
weighted
    Work efficiency,
Name (0.0-1.0,real)
    ClothingInsulationSchedule,
Calculation Method
    ,
Calculation Method Schedule Name
    Clothing Schedule 2562,
SCHEDULE Name (real)
    AirVelocitySchedule;
(units m/s, real)

```

```

!- Name
!- Zone Name
!- Number of People SCHEDULE
!- Number of People
!- Number of People
!- People per Zone Floor Area
!- Zone Floor Area per Person
!- radiant fraction
!- User Specified Sensible
!- Activity level SCHEDULE
!- CO2 generation rate per
!- Enable ASHRAE 55 comfort
!- MRT Calculation Type
!- no particular surface is
!- Work Efficiency SCHEDULE
!- Clothing Insulation
!- Clothing Insulation
!- Clothing Insulation
!- Air Velocity SCHEDULE Name
!- activity schedule W/person

```

```

    Schedule:Compact, Activity Schedule 2562,

```



|  |                               |
|--|-------------------------------|
| Any Number,  | !- Type                       |
| Through: 12/31,  | !- Type                       |
| For: AllDays,  | !- All days in year           |
| Until: 24:00, 99;  | !- Constant value             |
| Schedule:Compact, Clothing Schedule 2562,                        | !- Clothing schedule clo      |
| Any Number,  | !- Type                       |
| Through: 4/1,  | !- Type                       |
| For: AllDays,  | !- All days in year           |
| Until: 24:00, .5,  | !- Constant value             |
| Through: 9/30,   | !- Type                       |
| For: AllDays,  | !- All days in year           |
| Until: 24:00, 1,   | !- Constant value             |
| Through: 12/31,  | !- Type                       |
| For: AllDays,  | !- All days in year           |
| Until: 24:00, .5;  | !- Constant value             |
| Lights, Block2:LivingArea ,                                      | !- Name                       |
| Block2:LivingArea,   | !- Zone Name                  |
| lighting schedule,   | !- Lighting SCHEDULE Name     |
| Watts/Area,  | !- Design Level calculation   |
| method   |                               |
| ,  | !- Design lighting Level (W)  |
| 7.5,   | !- Watts per Zone Area {W/m2} |
| ,  | !- Watts per Person           |
| {watts/person}   |                               |
| 0,   | !- Return Air Fraction        |
| .42,   | !- Radiant fraction           |
| .18,   | !- Fraction Visible           |
| 1,   | !- Fraction Replaceable       |
| ;  | !- LightsEndUseKey            |
| ! Equipment gain 1   |                               |
| OtherEquipment, Block2:LivingArea Equipment gain 1,              | !- Name                       |
| Electricity,   | !- Fuel Type                  |
| Block2:LivingArea,   | !- Zone Name                  |
| equipment schedule,  | !- Equipment SCHEDULE Name    |
| Watts/Area,  | !- Design Level calculation   |
| method   |                               |
| ,  | !- Design Equipment Level (W) |
| 3.9,   | !- Watts per Zone Area        |
| {watts/m2}   |                               |
| ,  | !- Watts per Person           |
| {watts/person}   |                               |
| 0,   | !- Latent fraction            |
| .2,  | !- Radiant fraction           |
| 0,   | !- Fraction Lost              |
| 0,   | !- Carbon Dioxide Generation  |
| Rate   |                               |
| ELECTRIC EQUIPMENT#Block2:LivingArea#05;                         | !- End-use category           |
| ZoneInfiltration:DesignFlowRate, Block2:LivingArea Infiltration, | !- Name                       |
| Block2:LivingArea,   | !- Zone Name                  |
| On 24/7,   | !- Infiltration SCHEDULE Name |

|                    |                              |
|--------------------|------------------------------|
| Flow/zone,         | !- Design Volume Flow Rate   |
| calculation method |                              |
| .007749,           | !- Design Volume Flow Rate   |
| (m3/s)             |                              |
| ,                  | !- Flow per Zone Floor Area  |
| {m3/s/m2}          |                              |
| ,                  | !- Flow per Exterior Surface |
| Area {m3/s/m2}     |                              |
| ,                  | !- Air Changes Per Hour      |
| 1,                 | !- Constant Term Coefficient |
| 0,                 | !- Temperature Term          |
| Coefficient        |                              |
| 0,                 | !- Velocity Term Coefficient |
| 0;                 | !- Velocity Squared Term     |
| Coefficient        |                              |

! Block 2, living area, Ground floor - 17.055 m2 (Ground), Surface Area: 17.061m2

|                                      |                                |
|--------------------------------------|--------------------------------|
| BuildingSurface:Detailed,            | !- Surface                     |
| Block2:LivingArea_GroundFloor_0_0_0, | !- Surface name                |
| Floor, ground floor,                 | !- Class and Construction Name |
| Block2:LivingArea,                   | !- Zone Name                   |
| Ground, ,                            | !- Outside Face Environment    |
| NoSun,                               | !- Sun Exposure                |
| NoWind,                              | !- Wind Exposure               |
| AutoCalculate,                       | !- View Factor to Ground       |
| 4,                                   | !- Number vertices             |
| -66.9611367047, 38.1134826732, 0,    | !- Vertex 1                    |
| -66.9611367047, 41.8137719832, 0,    | !- Vertex 2                    |
| -62.3540797547, 41.8137719832, 0,    | !- Vertex 3                    |
| -62.3578367547, 38.1045088632, 0;    | !- Vertex 4                    |

! Block 2, living area, Wall - 8.637 m2 - 180.2°, Surface Area: 8.637m2

|                                     |                                |
|-------------------------------------|--------------------------------|
| BuildingSurface:Detailed,           | !- Surface                     |
| Block2:LivingArea_Wall_3_0_0,       | !- Surface name                |
| Wall, Project wall,                 | !- Class and Construction Name |
| Block2:LivingArea,                  | !- Zone Name                   |
| Outdoors, ,                         | !- Outside Face Environment    |
| SunExposed,                         | !- Sun Exposure                |
| WindExposed,                        | !- Wind Exposure               |
| AutoCalculate,                      | !- View Factor to Ground       |
| 4,                                  | !- Number vertices             |
| -65.5568432134, 38.113482672, 0,    | !- Vertex 1                    |
| -62.3578367533, 38.1045088668, 0,   | !- Vertex 2                    |
| -62.3578367533, 38.1045088668, 2.7, | !- Vertex 3                    |
| -65.5568432134, 38.113482672, 2.7;  | !- Vertex 4                    |

! Door, 2.032m2

|  |                                |
|--|--------------------------------|
| FenestrationSurface:Detailed, Block2:LivingArea_Wall_3_0_0_1_0_0_Door, | !-                             |
| Door name  |                                |
| Door, Project external door,   | !- Class and Construction Name |
| Block2:LivingArea_Wall_3_0_0,  | !- Base surface                |
| ,  | !- Corresponding other surface |

```

AutoCalculate,                !- View Factor to Ground
,                              !- Window shading control
,                              !- Frame divider name
1,                             !- Multiplier
4,                             !- Number vertices
-65.2545003815, 38.1126345444, .1017294, !- Vertex 1
-64.307860886, 38.1099790454, .1017294, !- Vertex 2
-64.307860886, 38.1099790454, 2.24827167, !- Vertex 3
-65.2545003815, 38.1126345444, 2.24827167; !- Vertex 4

! Window, 1.800m2
FenestrationSurface:Detailed, Block2:LivingArea_Wall_3_0_0_0_1_Win, !-
Window name
    Window,                    !- Class
    1001,                      !- Construction Name
    Block2:LivingArea_Wall_3_0_0, !- Base surface
    ,                          !- corresponding other window
subsurface
    AutoCalculate,            !- View Factor to Ground
    ,                        !- Window shading control
    1,                       !- Frame divider name
    1,                       !- Multiplier
    4,                       !- Number vertices
    -63.8517391307, 38.1086995395, .58664643, !- Vertex 1
    -62.7414917589, 38.1055850901, .58664643, !- Vertex 2
    -62.7414917589, 38.1055850901, 2.20827167, !- Vertex 3
    -63.8517391307, 38.1086995395, 2.20827167; !- Vertex 4

! Block 2, living area, Wall - 10.015 m2 - 90.1°, Surface Area: 10.015m2
BuildingSurface:Detailed, !- Surface
    Block2:LivingArea_Wall_4_0_0, !- Surface name
    Wall, Project wall, !- Class and Construction Name
    Block2:LivingArea, !- Zone Name
    Outdoors, , !- Outside Face Environment
    SunExposed, !- Sun Exposure
    WindExposed, !- Wind Exposure
    AutoCalculate, !- View Factor to Ground
    4, !- Number vertices
    -62.3578367533, 38.1045088668, 0, !- Vertex 1
    -62.3540797519, 41.8137719852, 0, !- Vertex 2
    -62.3540797519, 41.8137719852, 2.7, !- Vertex 3
    -62.3578367533, 38.1045088668, 2.7; !- Vertex 4

! Window, 1.800m2
FenestrationSurface:Detailed, Block2:LivingArea_Wall_4_0_0_0_0_Win, !-
Window name
    Window,                    !- Class
    1001,                      !- Construction Name
    Block2:LivingArea_Wall_4_0_0, !- Base surface
    ,                          !- corresponding other window
subsurface
    AutoCalculate,            !- View Factor to Ground
    ,                        !- Window shading control
    1,                       !- Frame divider name

```

|  |                               |
|--|-------------------------------|
| 1,   | !- Multiplier                 |
| 4,   | !- Number vertices            |
| -62.3563552392, 39.5671981449, .64558629,  | !- Vertex 1                   |
| -62.3552306991, 40.6774493154, .64558629,  | !- Vertex 2                   |
| -62.3552306991, 40.6774493154, 2.26721154, | !- Vertex 3                   |
| -62.3563552392, 39.5671981449, 2.26721154; | !- Vertex 4                   |
|  |                               |
| ! Block 2 - bed 1                          |                               |
| Zone, Block2:Bed1,                         | !- Zone Name                  |
| 0,   | !- Relative North (to         |
| building)                                  |                               |
| 0,   | !- X Origin (M)               |
| 0,   | !- Y Origin (M)               |
| 0,   | !- Z Origin (M)               |
| 1 ,  | !- Zone Type                  |
| 1,   | !- Zone multiplier            |
| ,  | !- Zone ceiling height - Let  |
| EnergyPlus work it out                     |                               |
| 34.5731,                                   | !- Zone volume                |
| 12.8049,                                   | !- Floor Area                 |
| TARP,                                      | !- Zone inside convection     |
| algorithm                                  |                               |
| ,  | !- Zone outside convection    |
| algorithm                                  |                               |
| Yes;                                       | !- Part Of Total Floor Area   |
|  |                               |
| PEOPLE, People Block2:Bed1,                | !- Name                       |
| Block2:Bed1,                               | !- Zone Name                  |
| occupancy schedule,                        | !- Number of People SCHEDULE  |
| Name                                       |                               |
| People/Area,                               | !- Number of People           |
| Calculation Method                         |                               |
| ,  | !- Number of People           |
| .0781,                                     | !- People per Zone Floor Area |
| ,  | !- Zone Floor Area per Person |
| .3,  | !- radiant fraction           |
| AutoCalculate,                             | !- User Specified Sensible    |
| Fraction                                   |                               |
| Activity Schedule 2570,                    | !- Activity level SCHEDULE    |
| Name (units W/person, real)                |                               |
| .0000000382,                               | !- CO2 generation rate per    |
| unit of activity level (units m3/s-W       |                               |
| No,  | !- Enable ASHRAE 55 comfort   |
| warnings                                   |                               |
| ZoneAveraged,                              | !- MRT Calculation Type       |
| ,  | !- no particular surface is   |
| weighted                                   |                               |
| Work efficiency,                           | !- Work Efficiency SCHEDULE   |
| Name (0.0-1.0,real)                        |                               |
| ClothingInsulationSchedule,                | !- Clothing Insulation        |
| Calculation Method                         |                               |
| ,  | !- Clothing Insulation        |

Calculation Method Schedule Name

Clothing Schedule 2570,

!- Clothing Insulation

SCHEDULE Name (real)

AirVelocitySchedule;

!- Air Velocity SCHEDULE Name

(units m/s, real)

Schedule:Compact, Activity Schedule 2570,

!- activity schedule W/person

Any Number,

!- Type

Through: 12/31,

!- Type

For: AllDays,

!- All days in year

Until: 24:00, 81;

!- Constant value

Schedule:Compact, Clothing Schedule 2570,

!- Clothing schedule clo

Any Number,

!- Type

Through: 4/1,

!- Type

For: AllDays,

!- All days in year

Until: 24:00, .5,

!- Constant value

Through: 9/30,

!- Type

For: AllDays,

!- All days in year

Until: 24:00, 1,

!- Constant value

Through: 12/31,

!- Type

For: AllDays,

!- All days in year

Until: 24:00, .5;

!- Constant value

Lights, Block2:Bed1 ,

!- Name

Block2:Bed1,

!- Zone Name

lighting schedule,

!- Lighting SCHEDULE Name

Watts/Area,

!- Design Level calculation

method

,

!- Design lighting Level (W)

5,

!- Watts per Zone Area {W/m2}

,

!- Watts per Person

{watts/person}

0,

!- Return Air Fraction

.42,

!- Radiant fraction

.18,

!- Fraction Visible

1,

!- Fraction Replaceable

;

!- LightsEndUseKey

! Equipment gain 1

OtherEquipment, Block2:Bed1 Equipment gain 1,

!- Name

Electricity,

!- Fuel Type

Block2:Bed1,

!- Zone Name

equipment schedule,

!- Equipment SCHEDULE Name

Watts/Area,

!- Design Level calculation

method

,

!- Design Equipment Level (W)

3.58,

!- Watts per Zone Area

{watts/m2}

,

!- Watts per Person

{watts/person}

0,

!- Latent fraction

.2,

!- Radiant fraction

0,

!- Fraction Lost

|  |                                |
|--|--------------------------------|
| 0,   | !- Carbon Dioxide Generation   |
| Rate   |                                |
| ELECTRIC EQUIPMENT#Block2:Bed1#05;                         | !- End-use category            |
|  |                                |
| ! DHW 1  |                                |
| WaterUse:Equipment,  |                                |
| DHW Block2:Bed1,   | !- Name                        |
| DHW Block2:Bed1,   | !- End-Use Subcategory         |
| 2.15447523809524E-07,                                      | !- Peak Volumetric Flow Rate   |
| {m3/s}   |                                |
| Dwell_DomBed_Occ,  | !- DHW SCHEDULE Name           |
| DHW Supply Temperature Block2:Bed1,                        | !- Target Temperature Schedule |
| DHW Supply Temperature Block2:Bed1,                        | !- Hot Water Supply            |
| Temperature Schedule                                       |                                |
| DHW Mains Temperature Block2:Bed1,                         | !- Cold Water Supply           |
| Temperature Schedule                                       |                                |
| Block2:Bed1,   | !- Zone Name                   |
| ,  | !- Sensible Fraction Schedule  |
| ;  | !- Latent Fraction Schedule    |
|  |                                |
| Schedule:Compact, DHW Supply Temperature Block2:Bed1,      | !- DHW Supply                  |
| Temperature Schedule                                       |                                |
| Temperature,   | !- Type                        |
| Through: 12/31,  | !- Type                        |
| For: AllDays,  | !- All days in year            |
| Until: 24:00, 65;  | !- All hours in day            |
|  |                                |
| Schedule:Compact, DHW Mains Temperature Block2:Bed1,       | !- DHW Mains                   |
| Temperature Schedule                                       |                                |
| Temperature,   | !- Type                        |
| Through: 12/31,  | !- Type                        |
| For: AllDays,  | !- All days in year            |
| Until: 24:00, 10;  | !- All hours in day            |
|  |                                |
| ZoneInfiltration:DesignFlowRate, Block2:Bed1 Infiltration, | !- Name                        |
| Block2:Bed1,   | !- Zone Name                   |
| On 24/7,   | !- Infiltration SCHEDULE Name  |
| Flow/zone,   | !- Design Volume Flow Rate     |
| calculation method   |                                |
| .006723,   | !- Design Volume Flow Rate     |
| (m3/s)   |                                |
| ,  | !- Flow per Zone Floor Area    |
| {m3/s/m2}  |                                |
| ,  | !- Flow per Exterior Surface   |
| Area {m3/s/m2}   |                                |
| ,  | !- Air Changes Per Hour        |
| 1,   | !- Constant Term Coefficient   |
| 0,   | !- Temperature Term            |
| Coefficient  |                                |
| 0,   | !- Velocity Term Coefficient   |
| 0;   | !- Velocity Squared Term       |
| Coefficient  |                                |

! Block 2, bed 1, Ground floor - 15.567 m2 (Ground), Surface Area: 15.567m2

|                                   |                                |
|-----------------------------------|--------------------------------|
| BuildingSurface:Detailed,         | !- Surface                     |
| Block2:Bed1_GroundFloor_0_0_0,    | !- Surface name                |
| Floor, ground floor,              | !- Class and Construction Name |
| Block2:Bed1,                      | !- Zone Name                   |
| Ground, ,                         | !- Outside Face Environment    |
| NoSun,                            | !- Sun Exposure                |
| NoWind,                           | !- Wind Exposure               |
| AutoCalculate,                    | !- View Factor to Ground       |
| 4,                                | !- Number vertices             |
| -66.9582728647, 44.7911169132, 0, | !- Vertex 1                    |
| -66.9611367047, 48.1690248932, 0, | !- Vertex 2                    |
| -62.3476455647, 48.1662044532, 0, | !- Vertex 3                    |
| -62.3510640847, 44.7911169132, 0; | !- Vertex 4                    |

! Block 2, bed 1, Wall - 9.113 m2 - 90.1°, Surface Area: 9.113m2

|                                     |                                |
|-------------------------------------|--------------------------------|
| BuildingSurface:Detailed,           | !- Surface                     |
| Block2:Bed1_Wall_4_0_0,             | !- Surface name                |
| Wall, Project wall,                 | !- Class and Construction Name |
| Block2:Bed1,                        | !- Zone Name                   |
| Outdoors, ,                         | !- Outside Face Environment    |
| SunExposed,                         | !- Sun Exposure                |
| WindExposed,                        | !- Wind Exposure               |
| AutoCalculate,                      | !- View Factor to Ground       |
| 4,                                  | !- Number vertices             |
| -62.3510640884, 44.7911169094, 0,   | !- Vertex 1                    |
| -62.3476455633, 48.1662044568, 0,   | !- Vertex 2                    |
| -62.3476455633, 48.1662044568, 2.7, | !- Vertex 3                    |
| -62.3510640884, 44.7911169094, 2.7; | !- Vertex 4                    |

! Window, 1.800m2

FenestrationSurface:Detailed, Block2:Bed1\_Wall\_4\_0\_0\_0\_0\_Win, !- Window

name

|                         |                               |
|-------------------------|-------------------------------|
| Window,                 | !- Class                      |
| 1001,                   | !- Construction Name          |
| Block2:Bed1_Wall_4_0_0, | !- Base surface               |
| ,                       | !- corresponding other window |

subsurface

|  |                           |
|--|---------------------------|
| AutoCalculate,                             | !- View Factor to Ground  |
| ,  | !- Window shading control |
| 1,   | !- Frame divider name     |
| 1,   | !- Multiplier             |
| 4,   | !- Number vertices        |
| -62.3496374026, 46.1996744728, .64558629,  | !- Vertex 1               |
| -62.3485128625, 47.3099256433, .64558629,  | !- Vertex 2               |
| -62.3485128625, 47.3099256433, 2.26721154, | !- Vertex 3               |
| -62.3496374026, 46.1996744728, 2.26721154; | !- Vertex 4               |

! Block 2, bed 1, Wall - 12.456 m2 - 0.0°, Surface Area: 12.456m2

|                           |                                |
|---------------------------|--------------------------------|
| BuildingSurface:Detailed, | !- Surface                     |
| Block2:Bed1_Wall_5_0_0,   | !- Surface name                |
| Wall, Project wall,       | !- Class and Construction Name |
| Block2:Bed1,              | !- Zone Name                   |
| Outdoors, ,               | !- Outside Face Environment    |

|                                     |                          |
|-------------------------------------|--------------------------|
| SunExposed,                         | !- Sun Exposure          |
| WindExposed,                        | !- Wind Exposure         |
| AutoCalculate,                      | !- View Factor to Ground |
| 4,                                  | !- Number vertices       |
| -62.3476455633, 48.1662044568, 0,   | !- Vertex 1              |
| -66.961136706, 48.1690248897, 0,    | !- Vertex 2              |
| -66.961136706, 48.1690248897, 2.7,  | !- Vertex 3              |
| -62.3476455633, 48.1662044568, 2.7; | !- Vertex 4              |

! Window, 0.878m2

FenestrationSurface:Detailed, Block2:Bed1\_Wall\_5\_0\_0\_0\_0\_Win, !- Window

name

|                         |                               |
|-------------------------|-------------------------------|
| Window,                 | !- Class                      |
| 1001,                   | !- Construction Name          |
| Block2:Bed1_Wall_5_0_0, | !- Base surface               |
| ,                       | !- corresponding other window |

subsurface

|  |                           |
|--|---------------------------|
| AutoCalculate,                             | !- View Factor to Ground  |
| ,  | !- Window shading control |
| 1,   | !- Frame divider name     |
| 1,   | !- Multiplier             |
| 4,   | !- Number vertices        |
| -64.8093907279, 48.1677094314, 1.34490121, | !- Vertex 1               |
| -65.9429659661, 48.1684024365, 1.34490121, | !- Vertex 2               |
| -65.9429659661, 48.1684024365, 2.11907852, | !- Vertex 3               |
| -64.8093907279, 48.1677094314, 2.11907852; | !- Vertex 4               |

! Shading data - building component blocks

! Modified schedule: On 24/7

Schedule:Compact,  
Transmittance schedule for Building 1 - eave 1,  
Any Number,  
Through: 12/31,  
For: AllDays,  
Until: 24:00, 0;

Shading:Building:Detailed, Building 1 - eave 1 - Surface 1 (1), !- Area =  
4.03463m2, Transmission = 0

|   |                           |
|---|---------------------------|
| Transmittance schedule for Building 1 - eave 1, | !- Transmittance schedule |
| 4 ,   | !- Number of vertices     |
| -61.7576379133, 34.9359295211, 2.64706685,      | !- Vertex 1               |
| -61.7576379133, 48.1716004211, 2.64706685,      | !- Vertex 2               |
| -62.057836748, 48.1716004168, 2.7000000006,     | !- Vertex 3               |
| -62.057836748, 34.9359295168, 2.7000000006;     | !- Vertex 4               |

! Modified schedule: On 24/7

Schedule:Compact,  
Transmittance schedule for Building 1 - eave 2,  
Any Number,  
Through: 12/31,



For: AllDays,  
Until: 24:00, 0;

Shading:Building:Detailed, Building 1 - eave 2 - Surface 1 (2), !- Area =  
4.03463m2, Transmission = 0

Transmittance schedule for Building 1 - eave 2, !- Transmittance schedule  
4 , !- Number of vertices  
-71.7742247528, 48.1716004168, 2.6470668494, !- Vertex 1  
-71.7742247528, 34.9359295168, 2.6470668494, !- Vertex 2  
-71.4740259181, 34.9359295211, 2.7, !- Vertex 3  
-71.4740259181, 48.1716004211, 2.7; !- Vertex 4

! Modified schedule: On 24/7  
Schedule:Compact,  
Transmittance schedule for Building 1 - entry verandah,  
Any Number,  
Through: 12/31,  
For: AllDays,  
Until: 24:00, 0;

Shading:Building:Detailed, Building 1 - entry verandah - Surface 1 (3), !- Area  
= .5665m2, Transmission = 0

Transmittance schedule for Building 1 - entry verandah, !- Transmittance  
schedule  
4 , !- Number of vertices  
-65.5526034033, 38.1137651768, 0, !- Vertex 1  
-65.5684390133, 32.4686392068, 0, !- Vertex 2  
-65.5684390133, 32.4686392068, .1003507965, !- Vertex 3  
-65.5526034033, 38.1137651768, .1003507965; !- Vertex 4

Shading:Building:Detailed, Building 1 - entry verandah - Surface 2 (4), !- Area  
= 18.03501m2, Transmission = 0

Transmittance schedule for Building 1 - entry verandah, !- Transmittance  
schedule  
4 , !- Number of vertices  
-65.5526034033, 38.1137651768, .1003507965, !- Vertex 1  
-65.5684390133, 32.4686392068, .1003507965, !- Vertex 2  
-62.3736715433, 32.4596772868, .1003507965, !- Vertex 3  
-62.3578359233, 38.1048032468, .1003507965; !- Vertex 4

Shading:Building:Detailed, Building 1 - entry verandah - Surface 3 (5), !- Area  
= .3206m2, Transmission = 0

Transmittance schedule for Building 1 - entry verandah, !- Transmittance  
schedule  
4 , !- Number of vertices  
-62.3578359233, 38.1048032468, 0, !- Vertex 1  
-65.5526034033, 38.1137651768, 0, !- Vertex 2  
-65.5526034033, 38.1137651768, .1003507965, !- Vertex 3  
-62.3578359233, 38.1048032468, .1003507965; !- Vertex 4

Shading:Building:Detailed, Building 1 - entry verandah - Surface 4 (6), !- Area

$$= 18.03501 \text{ m}^2, \text{ Transmission} = 0$$

Transmittance schedule for Building 1 - entry verandah,    !- Transmittance  
schedule

```
4 ,                               !- Number of vertices
-65.5684390133, 32.4686392068, 0, !- Vertex 1
-65.5526034033, 38.1137651768, 0, !- Vertex 2
-62.3578359233, 38.1048032468, 0, !- Vertex 3
-62.3736715433, 32.4596772868, 0; !- Vertex 4
```

Shading:Building:Detailed, Building 1 - entry verandah - Surface 5 (7), !- Area = .3206m2, Transmission = 0

Transmittance schedule for Building 1 - entry verandah,    !- Transmittance  
schedule

```
4 ,                               !- Number of vertices
-65.5684390133, 32.4686392068, 0, !- Vertex 1
-62.3736715433, 32.4596772868, 0, !- Vertex 2
-62.3736715433, 32.4596772868, .1003507965, !- Vertex 3
-65.5684390133, 32.4686392068, .1003507965; !- Vertex 4
```

Shading:Building:Detailed, Building 1 - entry verandah - Surface 6 (8), !- Area = .5665m2, Transmission = 0

Transmittance schedule for Building 1 - entry verandah,      !- Transmittance  
schedule

```
4 ,                !- Number of vertices
-62.3736715433, 32.4596772868, 0,          !- Vertex 1
-62.3578359233, 38.1048032468, 0,          !- Vertex 2
-62.3578359233, 38.1048032468, .1003507965, !- Vertex 3
-62.3736715433, 32.4596772868, .1003507965; !- Vertex 4
```

! Modified schedule: On 24/7

Schedule: Compact,

Transmittance schedule for Building 1 - back door verandah,

Any Number,

Through: 12/31,

For: AllDays,

```
Until: 24:00, 0;
```

Shading:Building:Detailed, Building 1 - back door verandah - Surface 1 (9), !-  
Area = .11808m2, Transmission = 0

Transmittance schedule for Building 1 - back door verandah, !-

## Transmittance schedule

```
4 ,                                !- Number of vertices
-68.1726556733, 49.3490892368, 0,  !- Vertex 1
-68.1759563933, 48.172441441, 0,   !- Vertex 2
-68.1759563933, 48.172441441, .1003507965, !- Vertex 3
-68.1726556733, 49.3490892368, .1003507965; !- Vertex 4
```

Shading:Building:Detailed, Building 1 - back door verandah - Surface 2 (10), !-  
Area = .12231m2, Transmission = 0

Transmittance schedule for Building 1 - back door verandah, !-

Transmittance schedule

```
4 ,                               !- Number of vertices
```

```
-66.9538470133, 49.3456702568, 0,           !- Vertex 1
-68.1726556733, 49.3490892368, 0,           !- Vertex 2
-68.1726556733, 49.3490892368, .1003507965, !- Vertex 3
-66.9538470133, 49.3456702568, .1003507965; !- Vertex 4
```

Shading:Building:Detailed, Building 1 - back door verandah - Surface 3 (11), !-  
Area = 1.43412m2, Transmission = 0

Transmittance schedule for Building 1 - back door verandah, !-  
Transmittance schedule

```
4 ,                                           !- Number of vertices
-68.1726556733, 49.3490892368, .1003507965, !- Vertex 1
-68.1759563933, 48.172441441, .1003507965,  !- Vertex 2
-66.9571477133, 48.1690224468, .1003507965, !- Vertex 3
-66.9538470133, 49.3456702568, .1003507965; !- Vertex 4
```

Shading:Building:Detailed, Building 1 - back door verandah - Surface 4 (12), !-  
Area = .12231m2, Transmission = 0

Transmittance schedule for Building 1 - back door verandah, !-  
Transmittance schedule

```
4 ,                                           !- Number of vertices
-68.1759563933, 48.172441441, 0,            !- Vertex 1
-66.9571477133, 48.1690224468, 0,           !- Vertex 2
-66.9571477133, 48.1690224468, .1003507965, !- Vertex 3
-68.1759563933, 48.172441441, .1003507965; !- Vertex 4
```

Shading:Building:Detailed, Building 1 - back door verandah - Surface 5 (13), !-  
Area = 1.43412m2, Transmission = 0

Transmittance schedule for Building 1 - back door verandah, !-  
Transmittance schedule

```
4 ,                                           !- Number of vertices
-68.1759563933, 48.172441441, 0,            !- Vertex 1
-68.1726556733, 49.3490892368, 0,           !- Vertex 2
-66.9538470133, 49.3456702568, 0,           !- Vertex 3
-66.9571477133, 48.1690224468, 0;          !- Vertex 4
```

Shading:Building:Detailed, Building 1 - back door verandah - Surface 6 (14), !-  
Area = .11808m2, Transmission = 0

Transmittance schedule for Building 1 - back door verandah, !-  
Transmittance schedule

```
4 ,                                           !- Number of vertices
-66.9571477133, 48.1690224468, 0,           !- Vertex 1
-66.9538470133, 49.3456702568, 0,           !- Vertex 2
-66.9538470133, 49.3456702568, .1003507965, !- Vertex 3
-66.9571477133, 48.1690224468, .1003507965; !- Vertex 4
```

! Modified schedule: On 24/7

Schedule:Compact,

Transmittance schedule for Building 1 - Component block 1,

Any Number,

Through: 12/31,

For: AllDays,

Until: 24:00, 0;

Shading:Building:Detailed, Building 1 - Component block 1 - Surface 1 (15), !-  
Area = .88421m2, Transmission = 0

Transmittance schedule for Building 1 - Component block 1, !- Transmittance  
schedule

|                                     |                       |
|-------------------------------------|-----------------------|
| 4 ,                                 | !- Number of vertices |
| -62.3476455644, 49.3456702579, -.1, | !- Vertex 1           |
| -71.1897165444, 49.3456702579, -.1, | !- Vertex 2           |
| -71.1897165444, 49.3456702579, 0,   | !- Vertex 3           |
| -62.3476455644, 49.3456702579, 0;   | !- Vertex 4           |

Shading:Building:Detailed, Building 1 - Component block 1 - Surface 2 (16), !-  
Area = 149.22791m2, Transmission = 0

Transmittance schedule for Building 1 - Component block 1, !- Transmittance  
schedule

|                                   |                       |
|-----------------------------------|-----------------------|
| 4 ,                               | !- Number of vertices |
| -71.1897165444, 49.3456702579, 0, | !- Vertex 1           |
| -71.1897165444, 32.4686392079, 0, | !- Vertex 2           |
| -62.3476455644, 32.4686392079, 0, | !- Vertex 3           |
| -62.3476455644, 49.3456702579, 0; | !- Vertex 4           |

Shading:Building:Detailed, Building 1 - Component block 1 - Surface 3 (17), !-  
Area = 1.6877m2, Transmission = 0

Transmittance schedule for Building 1 - Component block 1, !- Transmittance  
schedule

|                                     |                       |
|-------------------------------------|-----------------------|
| 4 ,                                 | !- Number of vertices |
| -71.1897165444, 49.3456702579, -.1, | !- Vertex 1           |
| -71.1897165444, 32.4686392079, -.1, | !- Vertex 2           |
| -71.1897165444, 32.4686392079, 0,   | !- Vertex 3           |
| -71.1897165444, 49.3456702579, 0;   | !- Vertex 4           |

Shading:Building:Detailed, Building 1 - Component block 1 - Surface 4 (18), !-  
Area = 149.22791m2, Transmission = 0

Transmittance schedule for Building 1 - Component block 1, !- Transmittance  
schedule

|                                     |                       |
|-------------------------------------|-----------------------|
| 4 ,                                 | !- Number of vertices |
| -71.1897165444, 32.4686392079, -.1, | !- Vertex 1           |
| -71.1897165444, 49.3456702579, -.1, | !- Vertex 2           |
| -62.3476455644, 49.3456702579, -.1, | !- Vertex 3           |
| -62.3476455644, 32.4686392079, -.1; | !- Vertex 4           |

Shading:Building:Detailed, Building 1 - Component block 1 - Surface 5 (19), !-  
Area = 1.6877m2, Transmission = 0

Transmittance schedule for Building 1 - Component block 1, !- Transmittance  
schedule

|                                     |                       |
|-------------------------------------|-----------------------|
| 4 ,                                 | !- Number of vertices |
| -62.3476455644, 32.4686392079, -.1, | !- Vertex 1           |
| -62.3476455644, 49.3456702579, -.1, | !- Vertex 2           |
| -62.3476455644, 49.3456702579, 0,   | !- Vertex 3           |
| -62.3476455644, 32.4686392079, 0;   | !- Vertex 4           |

Shading:Building:Detailed, Building 1 - Component block 1 - Surface 6 (20), !-  
Area = .88421m2, Transmission = 0

Transmittance schedule for Building 1 - Component block 1, !- Transmittance

```

schedule
  4 ,                                     !- Number of vertices
  -71.1897165444, 32.4686392079, -.1,    !- Vertex 1
  -62.3476455644, 32.4686392079, -.1,    !- Vertex 2
  -62.3476455644, 32.4686392079, 0,     !- Vertex 3
  -71.1897165444, 32.4686392079, 0;     !- Vertex 4

```

! Modified schedule: On 24/7

```

Schedule:Compact,
Transmittance schedule for Building 1 - Component block 2,
Any Number,
Through: 12/31,
For: AllDays,
Until: 24:00, 0;

```

Shading:Building:Detailed, Building 1 - Component block 2 - Surface 1 (21), !-  
Area = .60582m2, Transmission = 0

Transmittance schedule for Building 1 - Component block 2, !- Transmittance  
schedule

```

  4 ,                                     !- Number of vertices
  -71.1897111398, 31.4795478, 2.1448959465, !- Vertex 1
  -62.3671297482, 31.4795478, 2.1448959465, !- Vertex 2
  -62.3671297482, 31.4699912762, 2.2128941466, !- Vertex 3
  -71.1897111398, 31.4699912762, 2.2128941466; !- Vertex 4

```

Shading:Building:Detailed, Building 1 - Component block 2 - Surface 2 (22), !-  
Area = .24m2, Transmission = 0

Transmittance schedule for Building 1 - Component block 2, !- Transmittance  
schedule

```

  4 ,                                     !- Number of vertices
  -71.1897111398, 34.9358123949, 2.6306422549, !- Vertex 1
  -71.1897111398, 31.4795478, 2.1448959465, !- Vertex 2
  -71.1897111398, 31.4699912762, 2.2128941466, !- Vertex 3
  -71.1897111398, 34.9359295131, 2.7000000018; !- Vertex 4

```

Shading:Building:Detailed, Building 1 - Component block 2 - Surface 3 (23), !-  
Area = 30.87903m2, Transmission = 0

Transmittance schedule for Building 1 - Component block 2, !- Transmittance  
schedule

```

  4 ,                                     !- Number of vertices
  -71.1897111398, 31.4699912762, 2.2128941466, !- Vertex 1
  -62.3671297482, 31.4699912762, 2.2128941466, !- Vertex 2
  -62.3671297482, 34.9359295168, 2.7, !- Vertex 3
  -71.1897111398, 34.9359295131, 2.7000000018; !- Vertex 4

```

Shading:Building:Detailed, Building 1 - Component block 2 - Surface 4 (24), !-  
Area = 30.79285m2, Transmission = 0

Transmittance schedule for Building 1 - Component block 2, !- Transmittance  
schedule

```

  4 ,                                     !- Number of vertices
  -62.3671297482, 31.4795478, 2.1448959465, !- Vertex 1
  -71.1897111398, 31.4795478, 2.1448959465, !- Vertex 2

```

```
-71.1897111398, 34.9358123949, 2.6306422549, !- Vertex 3
-62.3671297447, 34.9358124024, 2.6306422587; !- Vertex 4
```

```
Shading:Building:Detailed, Building 1 - Component block 2 - Surface 5 (25),  !-
Area = .24m2, Transmission = 0
    Transmittance schedule for Building 1 - Component block 2,  !- Transmittance
schedule
    4 ,  !- Number of vertices
    -62.3671297482, 31.4795478, 2.1448959465,  !- Vertex 1
    -62.3671297447, 34.9358124024, 2.6306422587,  !- Vertex 2
    -62.3671297482, 34.9359295168, 2.7,  !- Vertex 3
    -62.3671297482, 31.4699912762, 2.2128941466;  !- Vertex 4
```

```
Shading:Building:Detailed, Building 1 - Component block 2 - Surface 6 (26),  !-
Area = .61192m2, Transmission = 0
    Transmittance schedule for Building 1 - Component block 2,  !- Transmittance
schedule
    4 ,  !- Number of vertices
    -62.3671297447, 34.9358124024, 2.6306422587,  !- Vertex 1
    -71.1897111398, 34.9358123949, 2.6306422549,  !- Vertex 2
    -71.1897111398, 34.9359295131, 2.7000000018,  !- Vertex 3
    -62.3671297482, 34.9359295168, 2.7;  !- Vertex 4
```

```
! Modified schedule: On 24/7
Schedule:Compact,
Transmittance schedule for Building 1 - Component block 3,
Any Number,
Through: 12/31,
For: AllDays,
Until: 24:00, 0;
```

```
Shading:Building:Detailed, Building 1 - Component block 3 - Surface 1 (27),  !-
Area = .48944m2, Transmission = 0
    Transmittance schedule for Building 1 - Component block 3,  !- Transmittance
schedule
    4 ,  !- Number of vertices
    -62.859940346, 49.6489862235, 2.0809970916,  !- Vertex 1
    -69.268206974, 49.6489862235, 2.0809970916,  !- Vertex 2
    -69.268206974, 49.6751086143, 2.1527677707,  !- Vertex 3
    -62.859940346, 49.6751086143, 2.1527677707;  !- Vertex 4
```

```
Shading:Building:Detailed, Building 1 - Component block 3 - Surface 2 (28),  !-
Area = 10.07508m2, Transmission = 0
    Transmittance schedule for Building 1 - Component block 3,  !- Transmittance
schedule
    4 ,  !- Number of vertices
    -69.268206974, 49.6489862235, 2.0809970916,  !- Vertex 1
    -62.859940346, 49.6489862235, 2.0809970916,  !- Vertex 2
    -62.8599403447, 48.1716004221, 2.6187215478,  !- Vertex 3
    -69.2682069747, 48.1716004221, 2.6187215478;  !- Vertex 4
```

Shading:Building:Detailed, Building 1 - Component block 3 - Surface 3 (29), !-

Area = .12114m2, Transmission = 0

Transmittance schedule for Building 1 - Component block 3,   !- Transmittance schedule

|  |                       |
|--|-----------------------|
| 4 ,  | !- Number of vertices |
| -62.8599403447, 48.1716004221, 2.6187215478, | !- Vertex 1           |
| -62.859940346, 49.6489862235, 2.0809970916,  | !- Vertex 2           |
| -62.859940346, 49.6751086143, 2.1527677707,  | !- Vertex 3           |
| -62.859940346, 48.1716004232, 2.7;           | !- Vertex 4           |

Shading:Building:Detailed, Building 1 - Component block 3 - Surface 4 (30),   !- Area = .12114m2, Transmission = 0

Transmittance schedule for Building 1 - Component block 3,   !- Transmittance schedule

|  |                       |
|--|-----------------------|
| 4 ,  | !- Number of vertices |
| -69.268206974, 49.6489862235, 2.0809970916,  | !- Vertex 1           |
| -69.2682069747, 48.1716004221, 2.6187215478, | !- Vertex 2           |
| -69.268206974, 48.1716004232, 2.7,           | !- Vertex 3           |
| -69.268206974, 49.6751086143, 2.1527677707;  | !- Vertex 4           |

Shading:Building:Detailed, Building 1 - Component block 3 - Surface 5 (31),   !- Area = 10.25323m2, Transmission = 0

Transmittance schedule for Building 1 - Component block 3,   !- Transmittance schedule

|   |                       |
|---|-----------------------|
| 4 ,   | !- Number of vertices |
| -62.859940346, 49.6751086143, 2.1527677707, | !- Vertex 1           |
| -69.268206974, 49.6751086143, 2.1527677707, | !- Vertex 2           |
| -69.268206974, 48.1716004232, 2.7,          | !- Vertex 3           |
| -62.859940346, 48.1716004232, 2.7;          | !- Vertex 4           |

Shading:Building:Detailed, Building 1 - Component block 3 - Surface 6 (32),   !- Area = .52085m2, Transmission = 0

Transmittance schedule for Building 1 - Component block 3,   !- Transmittance schedule

|  |                       |
|--|-----------------------|
| 4 ,  | !- Number of vertices |
| -69.2682069747, 48.1716004221, 2.6187215478, | !- Vertex 1           |
| -62.8599403447, 48.1716004221, 2.6187215478, | !- Vertex 2           |
| -62.859940346, 48.1716004232, 2.7,           | !- Vertex 3           |
| -69.268206974, 48.1716004232, 2.7;           | !- Vertex 4           |

WindowProperty:FrameAndDivider, 1,

|           |                              |
|-----------|------------------------------|
| 0.04,     | !- Frame/divider name        |
| 0.0,      | !- Frame width               |
| 0.0,      | !- Frame outside projection  |
| 0.0,      | !- Frame inside projection   |
| 33.98556, | !- Frame Conductance         |
| 1.0,      | !- Ratio of frame-edge glass |

conductance to centre of glass conductance

|              |                              |
|--------------|------------------------------|
| 0.3,         | !- Frame Solar Absorptance   |
| 0.3,         | !- Frame Visible Absorptance |
| 0.3,         | !- Frame Thermal Emissivity  |
| DividedLite, | !- Divider Type              |
| 0.020,       | !- Divider Width             |

|  |                                |
|--|--------------------------------|
| 1,   | !- Number of Horizontal        |
| Dividers                                   |                                |
| 1,   | !- Number of Vertical Dividers |
| 0.0,                                       | !- Divider Outside Projection  |
| 0.0,                                       | !- Divider Inside Projection   |
| 33.98556,                                  | !- Divider Conductance         |
| 1.0,                                       | !- Ratio of divider-edge glass |
| conductance to centre of glass conductance |                                |
| 0.3,                                       | !- Divider Solar Absorptance   |
| 0.3,                                       | !- Divider Visible Absorptance |
| 0.3,                                       | !- Divider Thermal Emissivity  |
| 0.3,                                       | !- Outside Reveal Solar        |
| Absorptance                                |                                |
| 0.0,                                       | !- Inside Sill Depth           |
| 0.3,                                       | !- Inside Sill Solar           |
| Absorptance                                |                                |
| 0.0,                                       | !- Inside Reveal Depth         |
| 0.3;                                       | !- Inside Reveal Solar         |
| Absorptance                                |                                |

|   |                           |
|---|---------------------------|
| Schedule:Year, Zone Control Type Sched, Control Type, | !- Control types schedule |
| Summer Control Type Week Sch, 1, 1, 3, 31,            | !- End summer             |
| Winter Control Type Week Sch, 4, 1, 9, 30,            | !- Winter                 |
| Summer Control Type Week Sch, 10, 1, 12, 31;          | !- Start summer           |

! Modified schedule: Off 24/7  
Schedule:Compact,  
Block2:Wc Heating Setpoint Schedule,  
Any Number,  
Through: 12/31,  
For: AllDays,  
Until: 24:00, -50;

! Modified schedule: Off 24/7  
Schedule:Compact,  
Block2:Wc Heating Availability Sch,  
Any Number,  
Through: 12/31,  
For: AllDays,  
Until: 24:00, 0;

! Modified schedule: Dwell\_DomToilet\_Cool  
Schedule:Compact,  
Block2:Wc Cooling SP Sch,  
Temperature,  
Through: 31 Dec,  
For: Weekdays SummerDesignDay,  
Until: 04:00, 100,



```

Until: 10:00, 25,
Until: 16:00, 100,
Until: 22:00, 25,
Until: 24:00, 100,
For: Weekends,
Until: 04:00, 100,
Until: 10:00, 25,
Until: 16:00, 100,
Until: 22:00, 25,
Until: 24:00, 100,
For: Holidays,
Until: 04:00, 100,
Until: 10:00, 25,
Until: 16:00, 100,
Until: 22:00, 25,
Until: 24:00, 100,
For: WinterDesignDay AllOtherDays,
Until: 24:00, 100;

```

```

! Modified schedule: Dwell_DomToilet_Cool
Schedule:Compact,
Block2:Wc Cooling Availability Sch,
Temperature,
Through: 31 Dec,
For: Weekdays SummerDesignDay,
Until: 04:00, 0,
Until: 10:00, 1,
Until: 16:00, 0,
Until: 22:00, 1,
Until: 24:00, 0,
For: Weekends,
Until: 04:00, 0,
Until: 10:00, 1,
Until: 16:00, 0,
Until: 22:00, 1,
Until: 24:00, 0,
For: Holidays,
Until: 04:00, 0,
Until: 10:00, 1,
Until: 16:00, 0,
Until: 22:00, 1,
Until: 24:00, 0,
For: WinterDesignDay AllOtherDays,
Until: 24:00, 0;

```

```

Sizing:Zone,
    Block2:Wc,
    SupplyAirTemperature,
Air Temperature Input Method
12,

```

```

!- Zone or ZoneList Name
!- Zone Cooling Design Supply
!- Zone Cooling Design Supply

```

|   |                               |
|---|-------------------------------|
| Air Temperature (C)   |                               |
| 0,  | !- Zone Cooling Design Supply |
| Air Temperature Difference  |                               |
| SupplyAirTemperature,   | !- Zone Heating Design Supply |
| Air Temperature Input Method  |                               |
| 35,   | !- Zone Heating Design Supply |
| Air Temperature (C)   |                               |
| 0,  | !- Zone Heating Design Supply |
| Air Temperature Difference  |                               |
| 0.0077,   | !- Zone Cooling Design Supply |
| Air Humidity Ratio (kgWater/kgDryAir)                                     |                               |
| 0.0156,   | !- Zone Heating Design Supply |
| Air Humidity Ratio (kgWater/kgDryAir)                                     |                               |
| ,   | !- Design Specification       |
| Outdoor Air Object Name   |                               |
| 1.25,   | !- Zone Heating Sizing Factor |
| 1.15,   | !- Zone Cooling Sizing Factor |
| DesignDay,  | !- Cooling Design Air Flow    |
| Method  |                               |
| ,   | !- Cooling Design Air Flow    |
| Rate (m3/s)   |                               |
| ,   | !- Cooling Minimum Air Flow   |
| per Zone Floor Area (m3/s-m2)   |                               |
| ,   | !- Cooling Minimum Air Flow   |
| (m3/s)  |                               |
| 0,  | !- Cooling Minimum Air Flow   |
| Fraction  |                               |
| DesignDay,  | !- Heating Design Air Flow    |
| Method  |                               |
| ,   | !- Heating Design Air Flow    |
| Rate (m3/s)   |                               |
| ,   | !- Heating Maximum Air Flow   |
| per Zone Floor Area (m3/s-m2)   |                               |
| ,   | !- Heating Maximum Air Flow   |
| (m3/s)  |                               |
| ,   | !- Heating Maximum Air Flow   |
| Fraction  |                               |
| Block2:Wc;  | !- Design Specification Zone  |
| Air Distribution Object Name  |                               |
| DesignSpecification:ZoneAirDistribution,                                  |                               |
| Block2:Wc,  | !- Name                       |
| 1,  | !- Zone Air Distribution      |
| Effectiveness in Cooling Mode (dimensionless)                             |                               |
| 1;  | !- Zone Air Distribution      |
| Effectiveness in Heating Mode (dimensionless)                             |                               |
| ZoneControl:Thermostat, Block2:Wc Thermostat, Block2:Wc,                  | !-                            |
| ZoneControl:Thermostat Name   |                               |
| Zone Control Type Sched,  |                               |
| ThermostatSetpoint:DualSetpoint, Dual Setpoint - Zone Block2:Wc;          |                               |
| ThermostatSetpoint:DualSetpoint, Dual Setpoint - Zone Block2:Wc,Block2:Wc |                               |
| Heating Setpoint Schedule,Block2:Wc Cooling SP Sch;                       |                               |

```

ZoneHVAC:EquipmentConnections,
    Block2:Wc, Block2:Wc Equipment, Block2:Wc Inlets, , Node Block2:Wc Zone, Node
Block2:Wc Out;

ZoneHVAC:EquipmentList, Block2:Wc Equipment,
    SequentialLoad, ZoneHVAC:IdealLoadsAirSystem, Block2:Wc Ideal Loads Air, 1,
1;

ZoneHVAC:IdealLoadsAirSystem, Block2:Wc Ideal Loads Air,    !- Ideal Loads Air
Name
    ,                                     !- Availability Schedule Name
    Node Block2:Wc In,                   !- Zone Supply Air Node Name
    ,                                     !- Zone Exhaust Air Node Name
    ,                                     !- System Inlet Air Node Name
    35,                                   !- Maximum Heating Supply Air
Temperature {C}
    12,                                   !- Minimum Cooling Supply Air
Temperature {C}
    0.0156,                               !- Maximum Heating Supply Air
Humidity Ratio {kg-H2O/kg-air}
    0.0077,                               !- Minimum Cooling Supply Air
Humidity Ratio {kg-H2O/kg-air}
    ,                                     !- Heating Limit
    0,                                    !- Maximum Heating Air Flow
Rate {m3/s}
    ,                                     !- Maximum Sensible Heating
Capacity
    LimitFlowRateAndCapacity,            !- Cooling Limit
    Autosize,                            !- Maximum Cooling Air Flow
Rate {m3/s}
    Autosize,                            !- Maximum Total Cooling
Capacity
    Block2:Wc Heating Availability Sch,   !- Heating Availability
Schedule
    Block2:Wc Cooling Availability Sch,   !- Cooling availability
schedule
    None,                                 !- Dehumidification Control
Type
    ,                                     !- Cooling Sensible Heat Ratio
    None,                                 !- Humidification Control Type
    ,                                     !- Design Specification
Outdoor Air Object Name
    ,                                     !- Outdoor Air Inlet Node Name
    ,                                     !- Demand Controlled
Ventilation Type
    NoEconomizer,                        !- Outdoor Air Economizer Type
    ,                                     !- Heat Recovery Type
    ,                                     !- Sensible Heat Recovery
Effectiveness
    ;                                     !- Latent Heat Recovery
Effectiveness

```

```
NodeList,  
  Block2:Wc Inlets,  
  Node Block2:Wc In;
```

```
! Modified schedule: Off 24/7  
Schedule:Compact,  
Block2:Laundry Heating Setpoint Schedule,  
Any Number,  
Through: 12/31,  
For: AllDays,  
Until: 24:00, -50;
```

```
! Modified schedule: Off 24/7  
Schedule:Compact,  
Block2:Laundry Heating Availability Sch,  
Any Number,  
Through: 12/31,  
For: AllDays,  
Until: 24:00, 0;
```

```
! Modified schedule: Dwell_DomToilet_Cool  
Schedule:Compact,  
Block2:Laundry Cooling SP Sch,  
Temperature,  
Through: 31 Dec,  
For: Weekdays SummerDesignDay,  
Until: 04:00, 100,  
Until: 10:00, 25,  
Until: 16:00, 100,  
Until: 22:00, 25,  
Until: 24:00, 100,  
For: Weekends,  
Until: 04:00, 100,  
Until: 10:00, 25,  
Until: 16:00, 100,  
Until: 22:00, 25,  
Until: 24:00, 100,  
For: Holidays,  
Until: 04:00, 100,  
Until: 10:00, 25,  
Until: 16:00, 100,  
Until: 22:00, 25,  
Until: 24:00, 100,  
For: WinterDesignDay AllOtherDays,  
Until: 24:00, 100;
```

```

! Modified schedule: Dwell_DomToilet_Cool
Schedule:Compact,
Block2:Laundry Cooling Availability Sch,
Temperature,
Through: 31 Dec,
For: Weekdays SummerDesignDay,
Until: 04:00, 0,
Until: 10:00, 1,
Until: 16:00, 0,
Until: 22:00, 1,
Until: 24:00, 0,
For: Weekends,
Until: 04:00, 0,
Until: 10:00, 1,
Until: 16:00, 0,
Until: 22:00, 1,
Until: 24:00, 0,
For: Holidays,
Until: 04:00, 0,
Until: 10:00, 1,
Until: 16:00, 0,
Until: 22:00, 1,
Until: 24:00, 0,
For: WinterDesignDay AllOtherDays,
Until: 24:00, 0;

```

|                                       |                               |
|---------------------------------------|-------------------------------|
| Sizing:Zone,                          |                               |
| Block2:Laundry,                       | !- Zone or ZoneList Name      |
| SupplyAirTemperature,                 | !- Zone Cooling Design Supply |
| Air Temperature Input Method          |                               |
| 12,                                   | !- Zone Cooling Design Supply |
| Air Temperature (C)                   |                               |
| 0,                                    | !- Zone Cooling Design Supply |
| Air Temperature Difference            |                               |
| SupplyAirTemperature,                 | !- Zone Heating Design Supply |
| Air Temperature Input Method          |                               |
| 35,                                   | !- Zone Heating Design Supply |
| Air Temperature (C)                   |                               |
| 0,                                    | !- Zone Heating Design Supply |
| Air Temperature Difference            |                               |
| 0.0077,                               | !- Zone Cooling Design Supply |
| Air Humidity Ratio (kgWater/kgDryAir) |                               |
| 0.0156,                               | !- Zone Heating Design Supply |
| Air Humidity Ratio (kgWater/kgDryAir) |                               |
| ,                                     | !- Design Specification       |
| Outdoor Air Object Name               |                               |
| 1.25,                                 | !- Zone Heating Sizing Factor |
| 1.15,                                 | !- Zone Cooling Sizing Factor |
| DesignDay,                            | !- Cooling Design Air Flow    |
| Method                                |                               |
| ,                                     | !- Cooling Design Air Flow    |
| Rate (m3/s)                           |                               |



|  |                                |
|--|--------------------------------|
| Humidity Ratio {kg-H2O/kg-air}           |                                |
| 0.0077,                                  | !- Minimum Cooling Supply Air  |
| Humidity Ratio {kg-H2O/kg-air}           |                                |
| ,  | !- Heating Limit               |
| 0,                                       | !- Maximum Heating Air Flow    |
| Rate {m3/s}                              |                                |
| ,  | !- Maximum Sensible Heating    |
| Capacity                                 |                                |
| LimitFlowRateAndCapacity,                | !- Cooling Limit               |
| Autosize,                                | !- Maximum Cooling Air Flow    |
| Rate {m3/s}                              |                                |
| Autosize,                                | !- Maximum Total Cooling       |
| Capacity                                 |                                |
| Block2:Laundry Heating Availability Sch, | !- Heating Availability        |
| Schedule                                 |                                |
| Block2:Laundry Cooling Availability Sch, | !- Cooling availability        |
| schedule                                 |                                |
| None,                                    | !- Dehumidification Control    |
| Type                                     |                                |
| ,  | !- Cooling Sensible Heat Ratio |
| None,                                    | !- Humidification Control Type |
| ,  | !- Design Specification        |
| Outdoor Air Object Name                  |                                |
| ,  | !- Outdoor Air Inlet Node Name |
| ,  | !- Demand Controlled           |
| Ventilation Type                         |                                |
| NoEconomizer,                            | !- Outdoor Air Economizer Type |
| ,  | !- Heat Recovery Type          |
| ,  | !- Sensible Heat Recovery      |
| Effectiveness                            |                                |
| ;  | !- Latent Heat Recovery        |
| Effectiveness                            |                                |

```

NodeList,
  Block2:Laundry Inlets,
  Node Block2:Laundry In;

```

```

! Modified schedule: Off 24/7
Schedule:Compact,
Block2:Shower Heating Setpoint Schedule,
Any Number,
Through: 12/31,
For: AllDays,
Until: 24:00, -50;

```

```

! Modified schedule: Off 24/7
Schedule:Compact,
Block2:Shower Heating Availability Sch,
Any Number,

```

Through: 12/31,  
For: AllDays,  
Until: 24:00, 0;

! Modified schedule: Dwell\_DomToilet\_Cool  
Schedule:Compact,  
Block2:Shower Cooling SP Sch,  
Temperature,  
Through: 31 Dec,  
For: Weekdays SummerDesignDay,  
Until: 04:00, 100,  
Until: 10:00, 25,  
Until: 16:00, 100,  
Until: 22:00, 25,  
Until: 24:00, 100,  
For: Weekends,  
Until: 04:00, 100,  
Until: 10:00, 25,  
Until: 16:00, 100,  
Until: 22:00, 25,  
Until: 24:00, 100,  
For: Holidays,  
Until: 04:00, 100,  
Until: 10:00, 25,  
Until: 16:00, 100,  
Until: 22:00, 25,  
Until: 24:00, 100,  
For: WinterDesignDay AllOtherDays,  
Until: 24:00, 100;

! Modified schedule: Dwell\_DomToilet\_Cool  
Schedule:Compact,  
Block2:Shower Cooling Availability Sch,  
Temperature,  
Through: 31 Dec,  
For: Weekdays SummerDesignDay,  
Until: 04:00, 0,  
Until: 10:00, 1,  
Until: 16:00, 0,  
Until: 22:00, 1,  
Until: 24:00, 0,  
For: Weekends,  
Until: 04:00, 0,  
Until: 10:00, 1,  
Until: 16:00, 0,  
Until: 22:00, 1,  
Until: 24:00, 0,  
For: Holidays,  
Until: 04:00, 0,



Until: 10:00, 1,  
 Until: 16:00, 0,  
 Until: 22:00, 1,  
 Until: 24:00, 0,  
 For: WinterDesignDay AllOtherDays,  
 Until: 24:00, 0;

|  |                               |
|--|-------------------------------|
| Sizing:Zone,                             |                               |
| Block2:Shower,                           | !- Zone or ZoneList Name      |
| SupplyAirTemperature,                    | !- Zone Cooling Design Supply |
| Air Temperature Input Method             |                               |
| 12,                                      | !- Zone Cooling Design Supply |
| Air Temperature (C)                      |                               |
| 0,                                       | !- Zone Cooling Design Supply |
| Air Temperature Difference               |                               |
| SupplyAirTemperature,                    | !- Zone Heating Design Supply |
| Air Temperature Input Method             |                               |
| 35,                                      | !- Zone Heating Design Supply |
| Air Temperature (C)                      |                               |
| 0,                                       | !- Zone Heating Design Supply |
| Air Temperature Difference               |                               |
| 0.0077,                                  | !- Zone Cooling Design Supply |
| Air Humidity Ratio (kgWater/kgDryAir)    |                               |
| 0.0156,                                  | !- Zone Heating Design Supply |
| Air Humidity Ratio (kgWater/kgDryAir)    |                               |
| ,  | !- Design Specification       |
| Outdoor Air Object Name                  |                               |
| 1.25,                                    | !- Zone Heating Sizing Factor |
| 1.15,                                    | !- Zone Cooling Sizing Factor |
| DesignDay,                               | !- Cooling Design Air Flow    |
| Method                                   |                               |
| ,  | !- Cooling Design Air Flow    |
| Rate (m3/s)                              |                               |
| ,  | !- Cooling Minimum Air Flow   |
| per Zone Floor Area (m3/s-m2)            |                               |
| ,  | !- Cooling Minimum Air Flow   |
| (m3/s)                                   |                               |
| 0,                                       | !- Cooling Minimum Air Flow   |
| Fraction                                 |                               |
| DesignDay,                               | !- Heating Design Air Flow    |
| Method                                   |                               |
| ,  | !- Heating Design Air Flow    |
| Rate (m3/s)                              |                               |
| ,  | !- Heating Maximum Air Flow   |
| per Zone Floor Area (m3/s-m2)            |                               |
| ,  | !- Heating Maximum Air Flow   |
| (m3/s)                                   |                               |
| ,  | !- Heating Maximum Air Flow   |
| Fraction                                 |                               |
| Block2:Shower;                           | !- Design Specification Zone  |
| Air Distribution Object Name             |                               |
| DesignSpecification:ZoneAirDistribution, |                               |

[illegible]

```

    None,
    ,
Outdoor Air Object Name
    ,
    ,
Ventilation Type
    NoEconomizer,
    ,
    ,
Effectiveness
    ;
Effectiveness

```

```

!- Humidification Control Type
!- Design Specification

!- Outdoor Air Inlet Node Name
!- Demand Controlled

!- Outdoor Air Economizer Type
!- Heat Recovery Type
!- Sensible Heat Recovery

!- Latent Heat Recovery

```

```

NodeList,
    Block2:Shower Inlets,
    Node Block2:Shower In;

```

```

! Modified schedule: Off 24/7
Schedule:Compact,
Block2:Bed2 Heating Setpoint Schedule,
Any Number,
Through: 12/31,
For: AllDays,
Until: 24:00, -50;

```

```

! Modified schedule: Off 24/7
Schedule:Compact,
Block2:Bed2 Heating Availability Sch,
Any Number,
Through: 12/31,
For: AllDays,
Until: 24:00, 0;

```

```

! Modified schedule: Dwell_DomBed_Cool
Schedule:Compact,
Block2:Bed2 Cooling SP Sch,
Temperature,
Through: 31 Dec,
For: Weekdays SummerDesignDay,
Until: 09:00, 25,
Until: 20:00, 100,
Until: 24:00, 25,
For: Weekends,
Until: 09:00, 25,
Until: 20:00, 100,
Until: 24:00, 25,
For: Holidays,

```

Until: 09:00, 25,  
Until: 20:00, 100,  
Until: 24:00, 25,  
For: WinterDesignDay AllOtherDays,  
Until: 24:00, 100;

! Modified schedule: Dwell\_DomBed\_Cool  
Schedule:Compact,  
Block2:Bed2 Cooling Availability Sch,  
Temperature,  
Through: 31 Dec,  
For: Weekdays SummerDesignDay,  
Until: 09:00, 1,  
Until: 20:00, 0,  
Until: 24:00, 1,  
For: Weekends,  
Until: 09:00, 1,  
Until: 20:00, 0,  
Until: 24:00, 1,  
For: Holidays,  
Until: 09:00, 1,  
Until: 20:00, 0,  
Until: 24:00, 1,  
For: WinterDesignDay AllOtherDays,  
Until: 24:00, 0;

|                                       |                               |
|---------------------------------------|-------------------------------|
| Sizing:Zone,                          |                               |
| Block2:Bed2,                          | !- Zone or ZoneList Name      |
| SupplyAirTemperature,                 | !- Zone Cooling Design Supply |
| Air Temperature Input Method          |                               |
| 12,                                   | !- Zone Cooling Design Supply |
| Air Temperature (C)                   |                               |
| 0,                                    | !- Zone Cooling Design Supply |
| Air Temperature Difference            |                               |
| SupplyAirTemperature,                 | !- Zone Heating Design Supply |
| Air Temperature Input Method          |                               |
| 35,                                   | !- Zone Heating Design Supply |
| Air Temperature (C)                   |                               |
| 0,                                    | !- Zone Heating Design Supply |
| Air Temperature Difference            |                               |
| 0.0077,                               | !- Zone Cooling Design Supply |
| Air Humidity Ratio (kgWater/kgDryAir) |                               |
| 0.0156,                               | !- Zone Heating Design Supply |
| Air Humidity Ratio (kgWater/kgDryAir) |                               |
| ,                                     | !- Design Specification       |
| Outdoor Air Object Name               |                               |
| 1.25,                                 | !- Zone Heating Sizing Factor |
| 1.15,                                 | !- Zone Cooling Sizing Factor |
| DesignDay,                            | !- Cooling Design Air Flow    |
| Method                                |                               |

```

,                                     !- Cooling Design Air Flow
Rate (m3/s)
,                                     !- Cooling Minimum Air Flow
per Zone Floor Area (m3/s-m2)
,                                     !- Cooling Minimum Air Flow
(m3/s)
0,                                     !- Cooling Minimum Air Flow
Fraction                             !- Heating Design Air Flow
DesignDay,                           !- Heating Design Air Flow
Method                               !- Heating Maximum Air Flow
,                                     !- Heating Maximum Air Flow
Rate (m3/s)                           !- Heating Maximum Air Flow
per Zone Floor Area (m3/s-m2)
,                                     !- Heating Maximum Air Flow
(m3/s)
,                                     !- Design Specification Zone
Fraction                             !- Name
Block2:Bed2;                         !- Zone Air Distribution
Air Distribution Object Name          !- Zone Air Distribution

DesignSpecification:ZoneAirDistribution,
Block2:Bed2,
1,
Effectiveness in Cooling Mode (dimensionless)
1;
Effectiveness in Heating Mode (dimensionless)

ZoneControl:Thermostat, Block2:Bed2 Thermostat, Block2:Bed2, !-
ZoneControl:Thermostat Name
Zone Control Type Sched,
ThermostatSetpoint:DualSetpoint, Dual Setpoint - Zone Block2:Bed2;

ThermostatSetpoint:DualSetpoint, Dual Setpoint - Zone Block2:Bed2,Block2:Bed2
Heating Setpoint Schedule,Block2:Bed2 Cooling SP Sch;

ZoneHVAC:EquipmentConnections,
Block2:Bed2, Block2:Bed2 Equipment, Block2:Bed2 Inlets, , Node Block2:Bed2
Zone, Node Block2:Bed2 Out;

ZoneHVAC:EquipmentList, Block2:Bed2 Equipment,
SequentialLoad, ZoneHVAC:IdealLoadsAirSystem, Block2:Bed2 Ideal Loads Air, 1,
1;

ZoneHVAC:IdealLoadsAirSystem, Block2:Bed2 Ideal Loads Air, !- Ideal Loads Air
Name
,                                     !- Availability Schedule Name
Node Block2:Bed2 In,                 !- Zone Supply Air Node Name
,                                     !- Zone Exhaust Air Node Name
,                                     !- System Inlet Air Node Name
35,                                  !- Maximum Heating Supply Air
Temperature {C}
12,                                  !- Minimum Cooling Supply Air
Temperature {C}

```

|  |                                |
|--|--------------------------------|
| 0.0156,                                | !- Maximum Heating Supply Air  |
| Humidity Ratio {kg-H2O/kg-air}         |                                |
| 0.0077,                                | !- Minimum Cooling Supply Air  |
| Humidity Ratio {kg-H2O/kg-air}         |                                |
| ,                                      | !- Heating Limit               |
| 0,                                     | !- Maximum Heating Air Flow    |
| Rate {m3/s}                            |                                |
| ,                                      | !- Maximum Sensible Heating    |
| Capacity                               |                                |
| LimitFlowRateAndCapacity,              | !- Cooling Limit               |
| Autosize,                              | !- Maximum Cooling Air Flow    |
| Rate {m3/s}                            |                                |
| Autosize,                              | !- Maximum Total Cooling       |
| Capacity                               |                                |
| Block2:Bed2 Heating Availability Sch,  | !- Heating Availability        |
| Schedule                               |                                |
| Block2:Bed2 Cooling Availability Sch,  | !- Cooling availability        |
| schedule                               |                                |
| None,                                  | !- Dehumidification Control    |
| Type                                   |                                |
| ,                                      | !- Cooling Sensible Heat Ratio |
| None,                                  | !- Humidification Control Type |
| ,                                      | !- Design Specification        |
| Outdoor Air Object Name                |                                |
| ,                                      | !- Outdoor Air Inlet Node Name |
| ,                                      | !- Demand Controlled           |
| Ventilation Type                       |                                |
| NoEconomizer,                          | !- Outdoor Air Economizer Type |
| ,                                      | !- Heat Recovery Type          |
| ,                                      | !- Sensible Heat Recovery      |
| Effectiveness                          |                                |
| ;                                      | !- Latent Heat Recovery        |
| Effectiveness                          |                                |
|  |                                |
| NodeList,                              |                                |
| Block2:Bed2 Inlets,                    |                                |
| Node Block2:Bed2 In;                   |                                |
|  |                                |
| ! Modified schedule: Off 24/7          |                                |
| Schedule:Compact,                      |                                |
| Block2:Bed3 Heating Setpoint Schedule, |                                |
| Any Number,                            |                                |
| Through: 12/31,                        |                                |
| For: AllDays,                          |                                |
| Until: 24:00, -50;                     |                                |
|  |                                |
| ! Modified schedule: Off 24/7          |                                |
| Schedule:Compact,                      |                                |
| Block2:Bed3 Heating Availability Sch,  |                                |

Any Number,  
Through: 12/31,  
For: AllDays,  
Until: 24:00, 0;

! Modified schedule: Dwell\_DomBed\_Cool  
Schedule:Compact,  
Block2:Bed3 Cooling SP Sch,  
Temperature,  
Through: 31 Dec,  
For: Weekdays SummerDesignDay,  
Until: 09:00, 25,  
Until: 20:00, 100,  
Until: 24:00, 25,  
For: Weekends,  
Until: 09:00, 25,  
Until: 20:00, 100,  
Until: 24:00, 25,  
For: Holidays,  
Until: 09:00, 25,  
Until: 20:00, 100,  
Until: 24:00, 25,  
For: WinterDesignDay AllOtherDays,  
Until: 24:00, 100;

! Modified schedule: Dwell\_DomBed\_Cool  
Schedule:Compact,  
Block2:Bed3 Cooling Availability Sch,  
Temperature,  
Through: 31 Dec,  
For: Weekdays SummerDesignDay,  
Until: 09:00, 1,  
Until: 20:00, 0,  
Until: 24:00, 1,  
For: Weekends,  
Until: 09:00, 1,  
Until: 20:00, 0,  
Until: 24:00, 1,  
For: Holidays,  
Until: 09:00, 1,  
Until: 20:00, 0,  
Until: 24:00, 1,  
For: WinterDesignDay AllOtherDays,  
Until: 24:00, 0;

Sizing:Zone,  
Block2:Bed3,  
SupplyAirTemperature,

!- Zone or ZoneList Name  
!- Zone Cooling Design Supply

|  |                               |
|--|-------------------------------|
| Air Temperature Input Method                                       |                               |
| 12,  | !- Zone Cooling Design Supply |
| Air Temperature (C)  |                               |
| 0,   | !- Zone Cooling Design Supply |
| Air Temperature Difference   |                               |
| SupplyAirTemperature,  | !- Zone Heating Design Supply |
| Air Temperature Input Method                                       |                               |
| 35,  | !- Zone Heating Design Supply |
| Air Temperature (C)  |                               |
| 0,   | !- Zone Heating Design Supply |
| Air Temperature Difference   |                               |
| 0.0077,  | !- Zone Cooling Design Supply |
| Air Humidity Ratio (kgWater/kgDryAir)                              |                               |
| 0.0156,  | !- Zone Heating Design Supply |
| Air Humidity Ratio (kgWater/kgDryAir)                              |                               |
| ,  | !- Design Specification       |
| Outdoor Air Object Name  |                               |
| 1.25,  | !- Zone Heating Sizing Factor |
| 1.15,  | !- Zone Cooling Sizing Factor |
| DesignDay,   | !- Cooling Design Air Flow    |
| Method   |                               |
| ,  | !- Cooling Design Air Flow    |
| Rate (m3/s)  |                               |
| ,  | !- Cooling Minimum Air Flow   |
| per Zone Floor Area (m3/s-m2)                                      |                               |
| ,  | !- Cooling Minimum Air Flow   |
| (m3/s)   |                               |
| 0,   | !- Cooling Minimum Air Flow   |
| Fraction   |                               |
| DesignDay,   | !- Heating Design Air Flow    |
| Method   |                               |
| ,  | !- Heating Design Air Flow    |
| Rate (m3/s)  |                               |
| ,  | !- Heating Maximum Air Flow   |
| per Zone Floor Area (m3/s-m2)                                      |                               |
| ,  | !- Heating Maximum Air Flow   |
| (m3/s)   |                               |
| ,  | !- Heating Maximum Air Flow   |
| Fraction   |                               |
| Block2:Bed3;   | !- Design Specification Zone  |
| Air Distribution Object Name                                       |                               |
| DesignSpecification:ZoneAirDistribution,                           |                               |
| Block2:Bed3,   | !- Name                       |
| 1,   | !- Zone Air Distribution      |
| Effectiveness in Cooling Mode (dimensionless)                      |                               |
| 1;   | !- Zone Air Distribution      |
| Effectiveness in Heating Mode (dimensionless)                      |                               |
| ZoneControl:Thermostat, Block2:Bed3 Thermostat, Block2:Bed3, !-    |                               |
| ZoneControl:Thermostat Name  |                               |
| Zone Control Type Sched,   |                               |
| ThermostatSetpoint:DualSetpoint, Dual Setpoint - Zone Block2:Bed3; |                               |





```
NodeList,  
    Block2:Bed3 Inlets,  
    Node Block2:Bed3 In;
```

```
! Modified schedule: Off 24/7  
Schedule:Compact,  
Block2:Hallway Heating Setpoint Schedule,  
Any Number,  
Through: 12/31,  
For: AllDays,  
Until: 24:00, -50;
```

```
! Modified schedule: Off 24/7  
Schedule:Compact,  
Block2:Hallway Heating Availability Sch,  
Any Number,  
Through: 12/31,  
For: AllDays,  
Until: 24:00, 0;
```

```
! Modified schedule: Dwell_DomCirculation_Cool  
Schedule:Compact,  
Block2:Hallway Cooling SP Sch,  
Temperature,  
Through: 31 Dec,  
For: Weekdays SummerDesignDay,  
Until: 05:00, 100,  
Until: 10:00, 25,  
Until: 17:00, 100,  
Until: 23:00, 25,  
Until: 24:00, 100,  
For: Weekends,  
Until: 05:00, 100,  
Until: 24:00, 25,  
For: Holidays,  
Until: 05:00, 100,  
Until: 23:00, 25,  
Until: 24:00, 100,  
For: WinterDesignDay AllOtherDays,  
Until: 24:00, 100;
```

```
! Modified schedule: Dwell_DomCirculation_Cool  
Schedule:Compact,
```

Block2:Hallway Cooling Availability Sch,  
 Temperature,  
 Through: 31 Dec,  
 For: Weekdays SummerDesignDay,  
 Until: 05:00, 0,  
 Until: 10:00, 1,  
 Until: 17:00, 0,  
 Until: 23:00, 1,  
 Until: 24:00, 0,  
 For: Weekends,  
 Until: 05:00, 0,  
 Until: 24:00, 1,  
 For: Holidays,  
 Until: 05:00, 0,  
 Until: 23:00, 1,  
 Until: 24:00, 0,  
 For: WinterDesignDay AllOtherDays,  
 Until: 24:00, 0;

|                                       |                               |
|---------------------------------------|-------------------------------|
| Sizing:Zone,                          |                               |
| Block2:Hallway,                       | !- Zone or ZoneList Name      |
| SupplyAirTemperature,                 | !- Zone Cooling Design Supply |
| Air Temperature Input Method          |                               |
| 12,                                   | !- Zone Cooling Design Supply |
| Air Temperature (C)                   |                               |
| 0,                                    | !- Zone Cooling Design Supply |
| Air Temperature Difference            |                               |
| SupplyAirTemperature,                 | !- Zone Heating Design Supply |
| Air Temperature Input Method          |                               |
| 35,                                   | !- Zone Heating Design Supply |
| Air Temperature (C)                   |                               |
| 0,                                    | !- Zone Heating Design Supply |
| Air Temperature Difference            |                               |
| 0.0077,                               | !- Zone Cooling Design Supply |
| Air Humidity Ratio (kgWater/kgDryAir) |                               |
| 0.0156,                               | !- Zone Heating Design Supply |
| Air Humidity Ratio (kgWater/kgDryAir) |                               |
| ,                                     | !- Design Specification       |
| Outdoor Air Object Name               |                               |
| 1.25,                                 | !- Zone Heating Sizing Factor |
| 1.15,                                 | !- Zone Cooling Sizing Factor |
| DesignDay,                            | !- Cooling Design Air Flow    |
| Method                                |                               |
| ,                                     | !- Cooling Design Air Flow    |
| Rate (m3/s)                           |                               |
| ,                                     | !- Cooling Minimum Air Flow   |
| per Zone Floor Area (m3/s-m2)         |                               |
| ,                                     | !- Cooling Minimum Air Flow   |
| (m3/s)                                |                               |
| 0,                                    | !- Cooling Minimum Air Flow   |
| Fraction                              |                               |
| DesignDay,                            | !- Heating Design Air Flow    |
| Method                                |                               |

```

,                                     !- Heating Design Air Flow
Rate (m3/s)
,                                     !- Heating Maximum Air Flow
per Zone Floor Area (m3/s-m2)
,                                     !- Heating Maximum Air Flow
(m3/s)
,                                     !- Heating Maximum Air Flow
Fraction
    Block2:Hallway;                 !- Design Specification Zone
Air Distribution Object Name

DesignSpecification:ZoneAirDistribution,
    Block2:Hallway,                 !- Name
    1,                             !- Zone Air Distribution
    Effectiveness in Cooling Mode (dimensionless)
    1;                             !- Zone Air Distribution
    Effectiveness in Heating Mode (dimensionless)

ZoneControl:Thermostat, Block2:Hallway Thermostat, Block2:Hallway, !-
ZoneControl:Thermostat Name
    Zone Control Type Sched,
    ThermostatSetpoint:DualSetpoint, Dual Setpoint - Zone Block2:Hallway;

ThermostatSetpoint:DualSetpoint, Dual Setpoint - Zone
Block2:Hallway,Block2:Hallway Heating Setpoint Schedule,Block2:Hallway Cooling
SP Sch;

ZoneHVAC:EquipmentConnections,
    Block2:Hallway, Block2:Hallway Equipment, Block2:Hallway Inlets, , Node
Block2:Hallway Zone, Node Block2:Hallway Out;

ZoneHVAC:EquipmentList, Block2:Hallway Equipment,
    SequentialLoad, ZoneHVAC:IdealLoadsAirSystem, Block2:Hallway Ideal Loads Air,
    1, 1;

ZoneHVAC:IdealLoadsAirSystem, Block2:Hallway Ideal Loads Air,    !- Ideal Loads
Air Name
,                                     !- Availability Schedule Name
    Node Block2:Hallway In,         !- Zone Supply Air Node Name
,                                     !- Zone Exhaust Air Node Name
,                                     !- System Inlet Air Node Name
    35,                             !- Maximum Heating Supply Air
    Temperature {C}
    12,                             !- Minimum Cooling Supply Air
    Temperature {C}
    0.0156,                         !- Maximum Heating Supply Air
    Humidity Ratio {kg-H2O/kg-air}
    0.0077,                         !- Minimum Cooling Supply Air
    Humidity Ratio {kg-H2O/kg-air}
,                                     !- Heating Limit
    0,                             !- Maximum Heating Air Flow
    Rate {m3/s}
,                                     !- Maximum Sensible Heating
    Capacity

```

```

    LimitFlowRateAndCapacity,
    Autosize,
Rate {m3/s}
    Autosize,
Capacity
    Block2:Hallway Heating Availability Sch,
Schedule
    Block2:Hallway Cooling Availability Sch,
schedule
    None,
Type
    ,
    None,
    ,
Outdoor Air Object Name
    ,
    ,
Ventilation Type
    NoEconomizer,
    ,
    ,
Effectiveness
    ;
Effectiveness

```

```

!- Cooling Limit
!- Maximum Cooling Air Flow

!- Maximum Total Cooling

!- Heating Availability

!- Cooling availability

!- Dehumidification Control

!- Cooling Sensible Heat Ratio
!- Humidification Control Type
!- Design Specification

!- Outdoor Air Inlet Node Name
!- Demand Controlled

!- Outdoor Air Economizer Type
!- Heat Recovery Type
!- Sensible Heat Recovery

!- Latent Heat Recovery

```

```

NodeList,
    Block2:Hallway Inlets,
    Node Block2:Hallway In;

```

```

! Modified schedule: Off 24/7
Schedule:Compact,
Block2:Kitchen Heating Setpoint Schedule,
Any Number,
Through: 12/31,
For: AllDays,
Until: 24:00, -50;

```

```

! Modified schedule: Off 24/7
Schedule:Compact,
Block2:Kitchen Heating Availability Sch,
Any Number,
Through: 12/31,
For: AllDays,
Until: 24:00, 0;

```

```

! Modified schedule: Dwell_DomKitchen_Cool
Schedule:Compact,

```

```

Block2:Kitchen Cooling SP Sch,
Temperature,
Through: 31 Dec,
For: Weekdays SummerDesignDay,
Until: 05:00, 100,
Until: 10:00, 25,
Until: 17:00, 100,
Until: 24:00, 25,
For: Weekends,
Until: 05:00, 100,
Until: 10:00, 25,
Until: 17:00, 100,
Until: 24:00, 25,
For: Holidays,
Until: 05:00, 100,
Until: 10:00, 25,
Until: 17:00, 100,
Until: 24:00, 25,
For: WinterDesignDay AllOtherDays,
Until: 24:00, 100;

```

```

! Modified schedule: Dwell_DomKitchen_Cool
Schedule:Compact,
Block2:Kitchen Cooling Availability Sch,
Temperature,
Through: 31 Dec,
For: Weekdays SummerDesignDay,
Until: 05:00, 0,
Until: 10:00, 1,
Until: 17:00, 0,
Until: 24:00, 1,
For: Weekends,
Until: 05:00, 0,
Until: 10:00, 1,
Until: 17:00, 0,
Until: 24:00, 1,
For: Holidays,
Until: 05:00, 0,
Until: 10:00, 1,
Until: 17:00, 0,
Until: 24:00, 1,
For: WinterDesignDay AllOtherDays,
Until: 24:00, 0;

```

```

Sizing:Zone,
    Block2:Kitchen,
    SupplyAirTemperature,
Air Temperature Input Method
    12,
Air Temperature (C)

```

```

!- Zone or ZoneList Name
!- Zone Cooling Design Supply
!- Zone Cooling Design Supply

```

|  |                               |
|--|-------------------------------|
| 0,   | !- Zone Cooling Design Supply |
| Air Temperature Difference   |                               |
| SupplyAirTemperature,  | !- Zone Heating Design Supply |
| Air Temperature Input Method   |                               |
| 35,  | !- Zone Heating Design Supply |
| Air Temperature (C)  |                               |
| 0,   | !- Zone Heating Design Supply |
| Air Temperature Difference   |                               |
| 0.0077,  | !- Zone Cooling Design Supply |
| Air Humidity Ratio (kgWater/kgDryAir)  |                               |
| 0.0156,  | !- Zone Heating Design Supply |
| Air Humidity Ratio (kgWater/kgDryAir)  |                               |
| ,  | !- Design Specification       |
| Outdoor Air Object Name  |                               |
| 1.25,  | !- Zone Heating Sizing Factor |
| 1.15,  | !- Zone Cooling Sizing Factor |
| DesignDay,   | !- Cooling Design Air Flow    |
| Method   |                               |
| ,  | !- Cooling Design Air Flow    |
| Rate (m3/s)  |                               |
| ,  | !- Cooling Minimum Air Flow   |
| per Zone Floor Area (m3/s-m2)  |                               |
| ,  | !- Cooling Minimum Air Flow   |
| (m3/s)   |                               |
| 0,   | !- Cooling Minimum Air Flow   |
| Fraction   |                               |
| DesignDay,   | !- Heating Design Air Flow    |
| Method   |                               |
| ,  | !- Heating Design Air Flow    |
| Rate (m3/s)  |                               |
| ,  | !- Heating Maximum Air Flow   |
| per Zone Floor Area (m3/s-m2)  |                               |
| ,  | !- Heating Maximum Air Flow   |
| (m3/s)   |                               |
| ,  | !- Heating Maximum Air Flow   |
| Fraction   |                               |
| Block2:Kitchen;  | !- Design Specification Zone  |
| Air Distribution Object Name   |                               |
| DesignSpecification:ZoneAirDistribution,                                       |                               |
| Block2:Kitchen,  | !- Name                       |
| 1,   | !- Zone Air Distribution      |
| Effectiveness in Cooling Mode (dimensionless)                                  |                               |
| 1;   | !- Zone Air Distribution      |
| Effectiveness in Heating Mode (dimensionless)                                  |                               |
| ZoneControl:Thermostat, Block2:Kitchen Thermostat, Block2:Kitchen,             | !-                            |
| ZoneControl:Thermostat Name  |                               |
| Zone Control Type Sched,   |                               |
| ThermostatSetpoint:DualSetpoint, Dual Setpoint - Zone Block2:Kitchen;          |                               |
| ThermostatSetpoint:DualSetpoint, Dual Setpoint - Zone                          |                               |
| Block2:Kitchen,Block2:Kitchen Heating Setpoint Schedule,Block2:Kitchen Cooling |                               |
| SP Sch;  |                               |

```

ZoneHVAC:EquipmentConnections,
    Block2:Kitchen, Block2:Kitchen Equipment, Block2:Kitchen Inlets, , Node
Block2:Kitchen Zone, Node Block2:Kitchen Out;

ZoneHVAC:EquipmentList, Block2:Kitchen Equipment,
    SequentialLoad, ZoneHVAC:IdealLoadsAirSystem, Block2:Kitchen Ideal Loads Air,
1, 1;

ZoneHVAC:IdealLoadsAirSystem, Block2:Kitchen Ideal Loads Air,    !- Ideal Loads
Air Name
    ,                                !- Availability Schedule Name
    Node Block2:Kitchen In,         !- Zone Supply Air Node Name
    ,                                !- Zone Exhaust Air Node Name
    ,                                !- System Inlet Air Node Name
    35,                              !- Maximum Heating Supply Air
Temperature {C}
    12,                              !- Minimum Cooling Supply Air
Temperature {C}
    0.0156,                          !- Maximum Heating Supply Air
Humidity Ratio {kg-H2O/kg-air}
    0.0077,                          !- Minimum Cooling Supply Air
Humidity Ratio {kg-H2O/kg-air}
    ,                                !- Heating Limit
    0,                                !- Maximum Heating Air Flow
Rate {m3/s}
    ,                                !- Maximum Sensible Heating
Capacity
    LimitFlowRateAndCapacity,       !- Cooling Limit
    Autosize,                       !- Maximum Cooling Air Flow
Rate {m3/s}
    Autosize,                       !- Maximum Total Cooling
Capacity
    Block2:Kitchen Heating Availability Sch, !- Heating Availability
Schedule
    Block2:Kitchen Cooling Availability Sch, !- Cooling availability
schedule
    None,                            !- Dehumidification Control
Type
    ,                                !- Cooling Sensible Heat Ratio
    None,                            !- Humidification Control Type
    ,                                !- Design Specification
Outdoor Air Object Name
    ,                                !- Outdoor Air Inlet Node Name
    ,                                !- Demand Controlled
Ventilation Type
    NoEconomizer,                   !- Outdoor Air Economizer Type
    ,                                !- Heat Recovery Type
    ,                                !- Sensible Heat Recovery
Effectiveness
    ;                                !- Latent Heat Recovery
Effectiveness

```



```
NodeList,  
  Block2:Kitchen Inlets,  
  Node Block2:Kitchen In;
```

```
! Modified schedule: Off 24/7  
Schedule:Compact,  
Block2:LivingArea Heating Setpoint Schedule,  
Any Number,  
Through: 12/31,  
For: AllDays,  
Until: 24:00, -50;
```

```
! Modified schedule: Off 24/7  
Schedule:Compact,  
Block2:LivingArea Heating Availability Sch,  
Any Number,  
Through: 12/31,  
For: AllDays,  
Until: 24:00, 0;
```

```
! Modified schedule: Dwell_DomLounge_Cool  
Schedule:Compact,  
Block2:LivingArea Cooling SP Sch,  
Temperature,  
Through: 31 Dec,  
For: Weekdays SummerDesignDay,  
Until: 14:00, 100,  
Until: 23:00, 25,  
Until: 24:00, 100,  
For: Weekends,  
Until: 14:00, 100,  
Until: 23:00, 25,  
Until: 24:00, 100,  
For: Holidays,  
Until: 14:00, 100,  
Until: 23:00, 25,  
Until: 24:00, 100,  
For: WinterDesignDay AllOtherDays,  
Until: 24:00, 100;
```

```
! Modified schedule: Dwell_DomLounge_Cool  
Schedule:Compact,  
Block2:LivingArea Cooling Availability Sch,  
Temperature,  
Through: 31 Dec,
```

```

For: Weekdays SummerDesignDay,
Until: 14:00, 0,
Until: 23:00, 1,
Until: 24:00, 0,
For: Weekends,
Until: 14:00, 0,
Until: 23:00, 1,
Until: 24:00, 0,
For: Holidays,
Until: 14:00, 0,
Until: 23:00, 1,
Until: 24:00, 0,
For: WinterDesignDay AllOtherDays,
Until: 24:00, 0;

```

|                                       |                               |
|---------------------------------------|-------------------------------|
| Sizing:Zone,                          |                               |
| Block2:LivingArea,                    | !- Zone or ZoneList Name      |
| SupplyAirTemperature,                 | !- Zone Cooling Design Supply |
| Air Temperature Input Method          |                               |
| 12,                                   | !- Zone Cooling Design Supply |
| Air Temperature (C)                   |                               |
| 0,                                    | !- Zone Cooling Design Supply |
| Air Temperature Difference            |                               |
| SupplyAirTemperature,                 | !- Zone Heating Design Supply |
| Air Temperature Input Method          |                               |
| 35,                                   | !- Zone Heating Design Supply |
| Air Temperature (C)                   |                               |
| 0,                                    | !- Zone Heating Design Supply |
| Air Temperature Difference            |                               |
| 0.0077,                               | !- Zone Cooling Design Supply |
| Air Humidity Ratio (kgWater/kgDryAir) |                               |
| 0.0156,                               | !- Zone Heating Design Supply |
| Air Humidity Ratio (kgWater/kgDryAir) |                               |
| ,                                     | !- Design Specification       |
| Outdoor Air Object Name               |                               |
| 1.25,                                 | !- Zone Heating Sizing Factor |
| 1.15,                                 | !- Zone Cooling Sizing Factor |
| DesignDay,                            | !- Cooling Design Air Flow    |
| Method                                |                               |
| ,                                     | !- Cooling Design Air Flow    |
| Rate (m3/s)                           |                               |
| ,                                     | !- Cooling Minimum Air Flow   |
| per Zone Floor Area (m3/s-m2)         |                               |
| ,                                     | !- Cooling Minimum Air Flow   |
| (m3/s)                                |                               |
| 0,                                    | !- Cooling Minimum Air Flow   |
| Fraction                              |                               |
| DesignDay,                            | !- Heating Design Air Flow    |
| Method                                |                               |
| ,                                     | !- Heating Design Air Flow    |
| Rate (m3/s)                           |                               |
| ,                                     | !- Heating Maximum Air Flow   |
| per Zone Floor Area (m3/s-m2)         |                               |

|   |                               |
|---|-------------------------------|
| ,   | !- Heating Maximum Air Flow   |
| (m3/s)  |                               |
| ,   | !- Heating Maximum Air Flow   |
| Fraction  |                               |
| Block2:LivingArea;  | !- Design Specification Zone  |
| Air Distribution Object Name  |                               |
| DesignSpecification:ZoneAirDistribution,  |                               |
| Block2:LivingArea,  | !- Name                       |
| 1,  | !- Zone Air Distribution      |
| Effectiveness in Cooling Mode (dimensionless)                                   |                               |
| 1;  | !- Zone Air Distribution      |
| Effectiveness in Heating Mode (dimensionless)                                   |                               |
| ZoneControl:Thermostat, Block2:LivingArea Thermostat, Block2:LivingArea, !-     |                               |
| ZoneControl:Thermostat Name   |                               |
| Zone Control Type Sched,  |                               |
| ThermostatSetpoint:DualSetpoint, Dual Setpoint - Zone Block2:LivingArea;        |                               |
| ThermostatSetpoint:DualSetpoint, Dual Setpoint - Zone                           |                               |
| Block2:LivingArea,Block2:LivingArea Heating Setpoint Schedule,Block2:LivingArea |                               |
| Cooling SP Sch;   |                               |
| ZoneHVAC:EquipmentConnections,  |                               |
| Block2:LivingArea, Block2:LivingArea Equipment, Block2:LivingArea Inlets, ,     |                               |
| Node Block2:LivingArea Zone, Node Block2:LivingArea Out;                        |                               |
| ZoneHVAC:EquipmentList, Block2:LivingArea Equipment,                            |                               |
| SequentialLoad, ZoneHVAC:IdealLoadsAirSystem, Block2:LivingArea Ideal Loads     |                               |
| Air, 1, 1;  |                               |
| ZoneHVAC:IdealLoadsAirSystem, Block2:LivingArea Ideal Loads Air, !- Ideal       |                               |
| Loads Air Name  |                               |
| ,   | !- Availability Schedule Name |
| Node Block2:LivingArea In,  | !- Zone Supply Air Node Name  |
| ,   | !- Zone Exhaust Air Node Name |
| ,   | !- System Inlet Air Node Name |
| 35,   | !- Maximum Heating Supply Air |
| Temperature {C}   |                               |
| 12,   | !- Minimum Cooling Supply Air |
| Temperature {C}   |                               |
| 0.0156,   | !- Maximum Heating Supply Air |
| Humidity Ratio {kg-H2O/kg-air}  |                               |
| 0.0077,   | !- Minimum Cooling Supply Air |
| Humidity Ratio {kg-H2O/kg-air}  |                               |
| ,   | !- Heating Limit              |
| 0,  | !- Maximum Heating Air Flow   |
| Rate {m3/s}   |                               |
| ,   | !- Maximum Sensible Heating   |
| Capacity  |                               |
| LimitFlowRateAndCapacity,   | !- Cooling Limit              |
| Autosize,   | !- Maximum Cooling Air Flow   |
| Rate {m3/s}   |                               |
| Autosize,   | !- Maximum Total Cooling      |

|   |                                |
|---|--------------------------------|
| Capacity                                    |                                |
| Block2:LivingArea Heating Availability Sch, | !- Heating Availability        |
| Schedule                                    |                                |
| Block2:LivingArea Cooling Availability Sch, | !- Cooling availability        |
| schedule                                    |                                |
| None,                                       | !- Dehumidification Control    |
| Type  |                                |
| ,   | !- Cooling Sensible Heat Ratio |
| None,                                       | !- Humidification Control Type |
| ,   | !- Design Specification        |
| Outdoor Air Object Name                     |                                |
| ,   | !- Outdoor Air Inlet Node Name |
| ,   | !- Demand Controlled           |
| Ventilation Type                            |                                |
| NoEconomizer,                               | !- Outdoor Air Economizer Type |
| ,   | !- Heat Recovery Type          |
| ,   | !- Sensible Heat Recovery      |
| Effectiveness                               |                                |
| ;   | !- Latent Heat Recovery        |
| Effectiveness                               |                                |

```

NodeList,
  Block2:LivingArea Inlets,
  Node Block2:LivingArea In;

```

```

! Modified schedule: Off 24/7
Schedule:Compact,
Block2:Bed1 Heating Setpoint Schedule,
Any Number,
Through: 12/31,
For: AllDays,
Until: 24:00, -50;

```

```

! Modified schedule: Off 24/7
Schedule:Compact,
Block2:Bed1 Heating Availability Sch,
Any Number,
Through: 12/31,
For: AllDays,
Until: 24:00, 0;

```

```

! Modified schedule: Dwell_DomBed_Cool
Schedule:Compact,
Block2:Bed1 Cooling SP Sch,
Temperature,
Through: 31 Dec,
For: Weekdays SummerDesignDay,

```

```

Until: 09:00, 25,
Until: 20:00, 100,
Until: 24:00, 25,
For: Weekends,
Until: 09:00, 25,
Until: 20:00, 100,
Until: 24:00, 25,
For: Holidays,
Until: 09:00, 25,
Until: 20:00, 100,
Until: 24:00, 25,
For: WinterDesignDay AllOtherDays,
Until: 24:00, 100;

```

```

! Modified schedule: Dwell_DomBed_Cool
Schedule:Compact,
Block2:Bed1 Cooling Availability Sch,
Temperature,
Through: 31 Dec,
For: Weekdays SummerDesignDay,
Until: 09:00, 1,
Until: 20:00, 0,
Until: 24:00, 1,
For: Weekends,
Until: 09:00, 1,
Until: 20:00, 0,
Until: 24:00, 1,
For: Holidays,
Until: 09:00, 1,
Until: 20:00, 0,
Until: 24:00, 1,
For: WinterDesignDay AllOtherDays,
Until: 24:00, 0;

```

|                                       |                               |
|---------------------------------------|-------------------------------|
| Sizing:Zone,                          |                               |
| Block2:Bed1,                          | !- Zone or ZoneList Name      |
| SupplyAirTemperature,                 | !- Zone Cooling Design Supply |
| Air Temperature Input Method          |                               |
| 12,                                   | !- Zone Cooling Design Supply |
| Air Temperature (C)                   |                               |
| 0,                                    | !- Zone Cooling Design Supply |
| Air Temperature Difference            |                               |
| SupplyAirTemperature,                 | !- Zone Heating Design Supply |
| Air Temperature Input Method          |                               |
| 35,                                   | !- Zone Heating Design Supply |
| Air Temperature (C)                   |                               |
| 0,                                    | !- Zone Heating Design Supply |
| Air Temperature Difference            |                               |
| 0.0077,                               | !- Zone Cooling Design Supply |
| Air Humidity Ratio (kgWater/kgDryAir) |                               |

|   |                               |
|---|-------------------------------|
| 0.0156,   | !- Zone Heating Design Supply |
| Air Humidity Ratio (kgWater/kgDryAir)   |                               |
| ,   | !- Design Specification       |
| Outdoor Air Object Name   |                               |
| 1.25,   | !- Zone Heating Sizing Factor |
| 1.15,   | !- Zone Cooling Sizing Factor |
| DesignDay,  | !- Cooling Design Air Flow    |
| Method  |                               |
| ,   | !- Cooling Design Air Flow    |
| Rate (m3/s)   |                               |
| ,   | !- Cooling Minimum Air Flow   |
| per Zone Floor Area (m3/s-m2)   |                               |
| ,   | !- Cooling Minimum Air Flow   |
| (m3/s)  |                               |
| 0,  | !- Cooling Minimum Air Flow   |
| Fraction  |                               |
| DesignDay,  | !- Heating Design Air Flow    |
| Method  |                               |
| ,   | !- Heating Design Air Flow    |
| Rate (m3/s)   |                               |
| ,   | !- Heating Maximum Air Flow   |
| per Zone Floor Area (m3/s-m2)   |                               |
| ,   | !- Heating Maximum Air Flow   |
| (m3/s)  |                               |
| ,   | !- Heating Maximum Air Flow   |
| Fraction  |                               |
| Block2:Bed1;  | !- Design Specification Zone  |
| Air Distribution Object Name  |                               |
| DesignSpecification:ZoneAirDistribution,                                      |                               |
| Block2:Bed1,  | !- Name                       |
| 1,  | !- Zone Air Distribution      |
| Effectiveness in Cooling Mode (dimensionless)                                 |                               |
| 1;  | !- Zone Air Distribution      |
| Effectiveness in Heating Mode (dimensionless)                                 |                               |
| ZoneControl:Thermostat, Block2:Bed1 Thermostat, Block2:Bed1, !-               |                               |
| ZoneControl:Thermostat Name   |                               |
| Zone Control Type Sched,  |                               |
| ThermostatSetpoint:DualSetpoint, Dual Setpoint - Zone Block2:Bed1;            |                               |
| ThermostatSetpoint:DualSetpoint, Dual Setpoint - Zone Block2:Bed1,Block2:Bed1 |                               |
| Heating Setpoint Schedule,Block2:Bed1 Cooling SP Sch;                         |                               |
| ZoneHVAC:EquipmentConnections,  |                               |
| Block2:Bed1, Block2:Bed1 Equipment, Block2:Bed1 Inlets, , Node Block2:Bed1    |                               |
| Zone, Node Block2:Bed1 Out;   |                               |
| ZoneHVAC:EquipmentList, Block2:Bed1 Equipment,                                |                               |
| SequentialLoad, ZoneHVAC:IdealLoadsAirSystem, Block2:Bed1 Ideal Loads Air, 1, |                               |
| 1;  |                               |
| ZoneHVAC:IdealLoadsAirSystem, Block2:Bed1 Ideal Loads Air, !- Ideal Loads Air |                               |
| Name  |                               |

|                                       |                                |
|---------------------------------------|--------------------------------|
| ,                                     | !- Availability Schedule Name  |
| Node Block2:Bed1 In,                  | !- Zone Supply Air Node Name   |
| ,                                     | !- Zone Exhaust Air Node Name  |
| ,                                     | !- System Inlet Air Node Name  |
| 35,                                   | !- Maximum Heating Supply Air  |
| Temperature {C}                       |                                |
| 12,                                   | !- Minimum Cooling Supply Air  |
| Temperature {C}                       |                                |
| 0.0156,                               | !- Maximum Heating Supply Air  |
| Humidity Ratio {kg-H2O/kg-air}        |                                |
| 0.0077,                               | !- Minimum Cooling Supply Air  |
| Humidity Ratio {kg-H2O/kg-air}        |                                |
| ,                                     | !- Heating Limit               |
| 0,                                    | !- Maximum Heating Air Flow    |
| Rate {m3/s}                           |                                |
| ,                                     | !- Maximum Sensible Heating    |
| Capacity                              |                                |
| LimitFlowRateAndCapacity,             | !- Cooling Limit               |
| Autosize,                             | !- Maximum Cooling Air Flow    |
| Rate {m3/s}                           |                                |
| Autosize,                             | !- Maximum Total Cooling       |
| Capacity                              |                                |
| Block2:Bed1 Heating Availability Sch, | !- Heating Availability        |
| Schedule                              |                                |
| Block2:Bed1 Cooling Availability Sch, | !- Cooling availability        |
| schedule                              |                                |
| None,                                 | !- Dehumidification Control    |
| Type                                  |                                |
| ,                                     | !- Cooling Sensible Heat Ratio |
| None,                                 | !- Humidification Control Type |
| ,                                     | !- Design Specification        |
| Outdoor Air Object Name               |                                |
| ,                                     | !- Outdoor Air Inlet Node Name |
| ,                                     | !- Demand Controlled           |
| Ventilation Type                      |                                |
| NoEconomizer,                         | !- Outdoor Air Economizer Type |
| ,                                     | !- Heat Recovery Type          |
| ,                                     | !- Sensible Heat Recovery      |
| Effectiveness                         |                                |
| ;                                     | !- Latent Heat Recovery        |
| Effectiveness                         |                                |
| NodeList,                             |                                |
| Block2:Bed1 Inlets,                   |                                |
| Node Block2:Bed1 In;                  |                                |
| Sizing:Parameters,                    |                                |
| 1.25,                                 | !- Heating Sizing Factor       |
| 1.15,                                 | !- Cooling Sizing Factor       |
| 2;                                    | !- Time steps in averaging     |
| window                                |                                |

Output:Table:SummaryReports, AnnualBuildingUtilityPerformanceSummary,  
DemandEndUseComponentsSummary,  
SensibleHeatGainSummary,  
InputVerificationandResultsSummary,  
AdaptiveComfortSummary,  
Standard62.1Summary,  
ClimaticDataSummary,  
EquipmentSummary,  
EnvelopeSummary,  
LightingSummary,  
HVACsizingSummary,  
SystemSummary,  
ComponentSizingSummary,  
OutdoorAirSummary,  
ObjectCountSummary,  
EndUseEnergyConsumptionOtherFuelsMonthly,  
PeakEnergyEndUseOtherFuelsMonthly;

OutputControl:Table:Style, CommaAndHTML, JtoKWH;

Output:EnvironmentalImpactFactors,  
Daily; !- Reporting\_Frequency

Output:EnvironmentalImpactFactors,  
Monthly; !- Reporting\_Frequency

Output:EnvironmentalImpactFactors,  
RunPeriod; !- Reporting\_Frequency

EnvironmentalImpactFactors,  
0.3, !- District Heating  
Efficiency  
3.0, !- District Cooling COP  
0.25, !- Steam Conversion Efficiency  
80.7272, !- Total Carbon Equivalent  
Emission Factor From N2O  
6.2727, !- Total Carbon Equivalent  
Emission Factor From CH4  
0.2727; !- Total Carbon Equivalent  
Emission Factor From CO2

Output:Meter,Electricity:Facility,daily;  
Output:Meter,Gas:Facility,daily;  
Output:Meter,InteriorEquipment:Electricity,daily;  
Output:Meter,InteriorLights:Electricity,daily;  
Output:Meter,Electricity:Facility,monthly;  
Output:Meter,Gas:Facility,monthly;  
Output:Meter,InteriorEquipment:Electricity,monthly;  
Output:Meter,InteriorLights:Electricity,monthly;  
Output:Meter,Electricity:Facility,runperiod;  
Output:Meter,Gas:Facility,runperiod;  
Output:Meter,InteriorEquipment:Electricity,runperiod;



Output:Meter,InteriorLights:Electricity,runperiod;

OutputControl:IlluminanceMap:Style,  
Comma;

!- Column separator

Output:Variable, \*, Zone Mean Air Temperature, daily, On;  
Output:Variable, \*, Zone Mean Radiant Temperature, daily, On;  
Output:Variable, \*, Zone Operative Temperature, daily, On;  
Output:Variable, \*, Zone Air Relative Humidity, daily, On;  
Output:Variable, \*, Zone Mean Air Temperature, monthly, On;  
Output:Variable, \*, Zone Mean Radiant Temperature, monthly, On;  
Output:Variable, \*, Zone Operative Temperature, monthly, On;  
Output:Variable, \*, Zone Air Relative Humidity, monthly, On;  
Output:Variable, \*, Zone Mean Air Temperature, runperiod, On;  
Output:Variable, \*, Zone Mean Radiant Temperature, runperiod, On;  
Output:Variable, \*, Zone Operative Temperature, runperiod, On;  
Output:Variable, \*, Zone Air Relative Humidity, runperiod, On;  
Output:Variable, \*, Zone Infiltration Air Change Rate, daily;  
Output:Variable, \*, Zone Ventilation Air Change Rate, daily;  
Output:Variable, \*, Zone Infiltration Air Change Rate, monthly;  
Output:Variable, \*, Zone Ventilation Air Change Rate, monthly;  
Output:Variable, \*, Zone Infiltration Air Change Rate, runperiod;  
Output:Variable, \*, Zone Ventilation Air Change Rate, runperiod;  
Output:Variable, \*, Zone Total Internal Latent Gain Energy, daily;  
Output:Variable, \*, Zone Total Internal Latent Gain Energy, monthly;  
Output:Variable, \*, Zone Total Internal Latent Gain Energy, runperiod;  
Output:Variable, \*, Zone Ideal Loads Supply Air Sensible Cooling Rate, daily;  
Output:Variable, \*, Zone Ideal Loads Supply Air Total Cooling Rate, daily;  
Output:Variable, \*, Zone Ideal Loads Supply Air Total Heating Rate, daily;  
Output:Variable, \*, Zone Ideal Loads Heat Recovery Sensible Heating Rate, daily;  
Output:Variable, \*, Zone Ideal Loads Heat Recovery Total Heating Rate, daily;  
Output:Variable, \*, Zone Ideal Loads Heat Recovery Sensible Cooling Rate, daily;  
Output:Variable, \*, Zone Ideal Loads Heat Recovery Total Cooling Rate, daily;  
Output:Variable, \*, Zone Ventilation Fan Electric Energy, daily;  
Output:Variable, \*, Fan Electric Power, daily;  
Output:Variable, \*, Water Use Equipment Heating Rate, daily;  
Output:Variable, \*, Facility Total Produced Electric Energy, daily;  
Output:Variable, \*, Zone Air System Sensible Heating Rate, daily;  
Output:Variable, \*, Zone Air System Sensible Cooling Rate, daily;  
Output:Variable, \*, Zone Radiant HVAC Heating Rate, daily;  
Output:Variable, \*, Zone Ideal Loads Supply Air Sensible Cooling Rate, monthly;  
Output:Variable, \*, Zone Ideal Loads Supply Air Total Cooling Rate, monthly;  
Output:Variable, \*, Zone Ideal Loads Supply Air Total Heating Rate, monthly;  
Output:Variable, \*, Zone Ideal Loads Heat Recovery Sensible Heating Rate,  
monthly;  
Output:Variable, \*, Zone Ideal Loads Heat Recovery Total Heating Rate, monthly;  
Output:Variable, \*, Zone Ideal Loads Heat Recovery Sensible Cooling Rate,  
monthly;  
Output:Variable, \*, Zone Ideal Loads Heat Recovery Total Cooling Rate, monthly;  
Output:Variable, \*, Zone Ventilation Fan Electric Energy, monthly;  
Output:Variable, \*, Fan Electric Power, monthly;  
Output:Variable, \*, Water Use Equipment Heating Rate, monthly;  
Output:Variable, \*, Facility Total Produced Electric Energy, monthly;

Output:Variable, \*, Zone Air System Sensible Heating Rate, monthly;  
Output:Variable, \*, Zone Air System Sensible Cooling Rate, monthly;  
Output:Variable, \*, Zone Radiant HVAC Heating Rate, monthly;  
Output:Variable, \*, Zone Ideal Loads Supply Air Sensible Cooling Rate, runperiod;  
Output:Variable, \*, Zone Ideal Loads Supply Air Total Cooling Rate, runperiod;  
Output:Variable, \*, Zone Ideal Loads Supply Air Total Heating Rate, runperiod;  
Output:Variable, \*, Zone Ideal Loads Heat Recovery Sensible Heating Rate, runperiod;  
Output:Variable, \*, Zone Ideal Loads Heat Recovery Total Heating Rate, runperiod;  
Output:Variable, \*, Zone Ideal Loads Heat Recovery Sensible Cooling Rate, runperiod;  
Output:Variable, \*, Zone Ideal Loads Heat Recovery Total Cooling Rate, runperiod;  
Output:Variable, \*, Zone Ventilation Fan Electric Energy, runperiod;  
Output:Variable, \*, Fan Electric Power, runperiod;  
Output:Variable, \*, Water Use Equipment Heating Rate, runperiod;  
Output:Variable, \*, Facility Total Produced Electric Energy, runperiod;  
Output:Variable, \*, Zone Air System Sensible Heating Rate, runperiod;  
Output:Variable, \*, Zone Air System Sensible Cooling Rate, runperiod;  
Output:Variable, \*, Zone Radiant HVAC Heating Rate, runperiod;  
Output:Variable, \*, Zone People Sensible Heating Rate, daily;  
Output:Variable, \*, Zone Windows Total Transmitted Solar Radiation Rate, daily;  
Output:Variable, \*, Zone Interior Windows Total Transmitted Diffuse Solar Radiation Rate, daily;  
Output:Variable, \*, Zone Interior Windows Total Transmitted Beam Solar Radiation Rate, daily;  
Output:Variable, \*, Zone Infiltration Sensible Heat Loss Energy, daily;  
Output:Variable, \*, Zone Infiltration Sensible Heat Gain Energy, daily;  
Output:Variable, \*, Zone Ventilation Sensible Heat Loss Energy, daily;  
Output:Variable, \*, Zone Ventilation Sensible Heat Gain Energy, daily;  
Output:Variable, \*, Zone Mixing Sensible Heat Loss Energy, daily;  
Output:Variable, \*, Zone Mixing Sensible Heat Gain Energy, daily;  
Output:Variable, \*, Zone Mixing Standard Density Volume Flow Rate, daily;  
Output:Variable, \*, Other Equipment Total Heating Rate, daily;  
Output:Variable, \*, Zone Lights Electric Power, daily;  
Output:Variable, \*, Lights Total Heating Rate, daily;  
Output:Variable, \*, Zone Electric Equipment Total Heating Rate, daily;  
Output:Variable, \*, Zone Gas Equipment Total Heating Rate, daily;  
Output:Variable, \*, Zone Other Equipment Total Heating Rate, daily;  
Output:Variable, \*, Water Use Equipment Heating Rate, daily;  
Output:Variable, \*, Site Outdoor Air Drybulb Temperature, daily;  
Output:Variable, \*, Site Outdoor Air Dewpoint Temperature, daily;  
Output:Variable, \*, Site Wind Speed, daily;  
Output:Variable, \*, Site Wind Direction, daily;  
Output:Variable, \*, Site Direct Solar Radiation Rate per Area, daily;  
Output:Variable, \*, Site Diffuse Solar Radiation Rate per Area, daily;  
Output:Variable, \*, Site Solar Azimuth Angle, daily;  
Output:Variable, \*, Site Solar Altitude Angle, daily;  
Output:Variable, \*, Site Outdoor Air Barometric Pressure, daily;  
Output:Variable, \*, Zone People Sensible Heating Rate, monthly;  
Output:Variable, \*, Zone Windows Total Transmitted Solar Radiation Rate, monthly;

Output:Variable, \*, Zone Interior Windows Total Transmitted Diffuse Solar Radiation Rate, monthly;  
Output:Variable, \*, Zone Interior Windows Total Transmitted Beam Solar Radiation Rate, monthly;  
Output:Variable, \*, Zone Infiltration Sensible Heat Loss Energy, monthly;  
Output:Variable, \*, Zone Infiltration Sensible Heat Gain Energy, monthly;  
Output:Variable, \*, Zone Ventilation Sensible Heat Loss Energy, monthly;  
Output:Variable, \*, Zone Ventilation Sensible Heat Gain Energy, monthly;  
Output:Variable, \*, Zone Mixing Sensible Heat Loss Energy, monthly;  
Output:Variable, \*, Zone Mixing Sensible Heat Gain Energy, monthly;  
Output:Variable, \*, Zone Mixing Standard Density Volume Flow Rate, monthly;  
Output:Variable, \*, Other Equipment Total Heating Rate, monthly;  
Output:Variable, \*, Zone Lights Electric Power, monthly;  
Output:Variable, \*, Lights Total Heating Rate, monthly;  
Output:Variable, \*, Zone Electric Equipment Total Heating Rate, monthly;  
Output:Variable, \*, Zone Gas Equipment Total Heating Rate, monthly;  
Output:Variable, \*, Zone Other Equipment Total Heating Rate, monthly;  
Output:Variable, \*, Water Use Equipment Heating Rate, monthly;  
Output:Variable, \*, Site Outdoor Air Drybulb Temperature, monthly;  
Output:Variable, \*, Site Outdoor Air Dewpoint Temperature, monthly;  
Output:Variable, \*, Site Wind Speed, monthly;  
Output:Variable, \*, Site Wind Direction, monthly;  
Output:Variable, \*, Site Direct Solar Radiation Rate per Area, monthly;  
Output:Variable, \*, Site Diffuse Solar Radiation Rate per Area, monthly;  
Output:Variable, \*, Site Solar Azimuth Angle, monthly;  
Output:Variable, \*, Site Solar Altitude Angle, monthly;  
Output:Variable, \*, Site Outdoor Air Barometric Pressure, monthly;  
Output:Variable, \*, Zone People Sensible Heating Rate, runperiod;  
Output:Variable, \*, Zone Windows Total Transmitted Solar Radiation Rate, runperiod;  
Output:Variable, \*, Zone Interior Windows Total Transmitted Diffuse Solar Radiation Rate, runperiod;  
Output:Variable, \*, Zone Interior Windows Total Transmitted Beam Solar Radiation Rate, runperiod;  
Output:Variable, \*, Zone Infiltration Sensible Heat Loss Energy, runperiod;  
Output:Variable, \*, Zone Infiltration Sensible Heat Gain Energy, runperiod;  
Output:Variable, \*, Zone Ventilation Sensible Heat Loss Energy, runperiod;  
Output:Variable, \*, Zone Ventilation Sensible Heat Gain Energy, runperiod;  
Output:Variable, \*, Zone Mixing Sensible Heat Loss Energy, runperiod;  
Output:Variable, \*, Zone Mixing Sensible Heat Gain Energy, runperiod;  
Output:Variable, \*, Zone Mixing Standard Density Volume Flow Rate, runperiod;  
Output:Variable, \*, Other Equipment Total Heating Rate, runperiod;  
Output:Variable, \*, Zone Lights Electric Power, runperiod;  
Output:Variable, \*, Lights Total Heating Rate, runperiod;  
Output:Variable, \*, Zone Electric Equipment Total Heating Rate, runperiod;  
Output:Variable, \*, Zone Gas Equipment Total Heating Rate, runperiod;  
Output:Variable, \*, Zone Other Equipment Total Heating Rate, runperiod;  
Output:Variable, \*, Water Use Equipment Heating Rate, runperiod;  
Output:Variable, \*, Site Outdoor Air Drybulb Temperature, runperiod;  
Output:Variable, \*, Site Outdoor Air Dewpoint Temperature, runperiod;  
Output:Variable, \*, Site Wind Speed, runperiod;  
Output:Variable, \*, Site Wind Direction, runperiod;  
Output:Variable, \*, Site Direct Solar Radiation Rate per Area, runperiod;  
Output:Variable, \*, Site Diffuse Solar Radiation Rate per Area, runperiod;

```
Output:Variable, *, Site Solar Azimuth Angle, runperiod;  
Output:Variable, *, Site Solar Altitude Angle, runperiod;  
Output:Variable, *, Site Outdoor Air Barometric Pressure, runperiod;
```

```
Output:Surfaces:Drawing, DXF, Triangulate3DFace;  
Output:Surfaces:List, Details;  
Output:Constructions, Constructions;  
OutputControl:ReportingTolerances,1.11,1.11;  
Output:Diagnostics, DisplayAdvancedReportVariables;
```