

Air System Sizing Summary for AHU-1R [Mens RR]

Project Name: 2021-0153 Telero Clubhouse 06_23_21
Prepared by: Kamm Consulting

06/30/2021
10:42AM

Air System Information

Air System Name **AHU-1R [Mens RR]**
Equipment Class **UNDEF**
Air System Type **SZCAV**

Number of zones **1**
Floor Area **196.0** ft²
Location **West Palm Beach, Florida**

Sizing Calculation Information

Calculation Months **Jan to Dec**
Sizing Data **Calculated**

Zone CFM Sizing **Sum of space airflow rates**
Space CFM Sizing **Individual peak space loads**

Central Cooling Coil Sizing Data

Total coil load **0.7** Tons
Total coil load **8.3** MBH
Sensible coil load **6.3** MBH
Coil CFM at Jul 1800 **281** CFM
Max block CFM **281** CFM
Sum of peak zone CFM **281** CFM
Sensible heat ratio **0.759**
CFM/Ton **404.6**
ft²/Ton **282.7**
BTU/(hr·ft²) **42.5**
Water flow @ 10.0 °F rise **1.67** gpm

Load occurs at **Jul 1800**
OA DB / WB **88.2 / 77.3** °F
Entering DB / WB **78.6 / 66.6** °F
Leaving DB / WB **57.7 / 57.0** °F
Coil ADP **56.1** °F
Bypass Factor **0.070**
Resulting RH **50** %
Design supply temp. **55.0** °F
Zone T-stat Check **1 of 1** OK
Max zone temperature deviation **0.0** °F

Central Heating Coil Sizing Data

Max coil load **6.6** MBH
Coil CFM at Des Htg **281** CFM
Max coil CFM **281** CFM
Water flow @ 20.0 °F drop **0.66** gpm

Load occurs at **Des Htg**
BTU/(hr·ft²) **33.5**
Ent. DB / Lvg DB **64.2 / 85.9** °F

Supply Fan Sizing Data

Actual max CFM **281** CFM
Standard CFM **280** CFM
Actual max CFM/ft² **1.43** CFM/ft²

Fan motor BHP **0.00** BHP
Fan motor kW **0.00** kW
Fan static **0.00** in wg

Outdoor Ventilation Air Data

Design airflow CFM **50** CFM
CFM/ft² **0.26** CFM/ft²

CFM/person **50.00** CFM/person

Air System Sizing Summary for AHU-2R [Womens RR]

Project Name: 2021-0153 Telero Clubhouse 06_23_21
Prepared by: Kamm Consulting

06/30/2021
10:42AM

Air System Information

Air System Name **AHU-2R [Womens RR]**
Equipment Class **UNDEF**
Air System Type **SZCAV**

Number of zones **1**
Floor Area **225.0** ft²
Location **West Palm Beach, Florida**

Sizing Calculation Information

Calculation Months **Jan to Dec**
Sizing Data **Calculated**

Zone CFM Sizing **Sum of space airflow rates**
Space CFM Sizing **Individual peak space loads**

Central Cooling Coil Sizing Data

Total coil load **0.7** Tons
Total coil load **9.0** MBH
Sensible coil load **6.9** MBH
Coil CFM at Jul 1600 **295** CFM
Max block CFM **295** CFM
Sum of peak zone CFM **295** CFM
Sensible heat ratio **0.770**
CFM/Ton **394.4**
ft²/Ton **301.2**
BTU/(hr·ft²) **39.8**
Water flow @ 10.0 °F rise **1.79** gpm

Load occurs at **Jul 1600**
OA DB / WB **90.6 / 77.9** °F
Entering DB / WB **78.9 / 66.4** °F
Leaving DB / WB **57.2 / 56.4** °F
Coil ADP **55.5** °F
Bypass Factor **0.070**
Resulting RH **49** %
Design supply temp. **55.0** °F
Zone T-stat Check **1 of 1** OK
Max zone temperature deviation **0.0** °F

Central Heating Coil Sizing Data

Max coil load **7.1** MBH
Coil CFM at Des Htg **295** CFM
Max coil CFM **295** CFM
Water flow @ 20.0 °F drop **0.71** gpm

Load occurs at **Des Htg**
BTU/(hr·ft²) **31.3**
Ent. DB / Lvg DB **64.5 / 86.7** °F

Supply Fan Sizing Data

Actual max CFM **295** CFM
Standard CFM **294** CFM
Actual max CFM/ft² **1.31** CFM/ft²

Fan motor BHP **0.03** BHP
Fan motor kW **0.02** kW
Fan static **0.50** in wg

Outdoor Ventilation Air Data

Design airflow CFM **50** CFM
CFM/ft² **0.22** CFM/ft²

CFM/person **50.00** CFM/person