

1. Executive Summary

The Ventilation Rate Procedure as described in section 6 of ASHRAE 62.1 is used to calculate the required outdoor air supplied for the Miller Children’s Hospital Pediatric Inpatient Addition. The Pediatric Inpatient Addition has 7 air handling units supplying a constant air volume with heat coils for each of the spaces.

The Pediatric Inpatient Addition is a 4-story, 127,000 sq. ft. building attached to the existing Miller Children’s Hospital. The building consists of 7 operating rooms, 27 patient rooms, a neonatal intensive care unit, physicians’ rooms, offices, conference rooms, a gift shop, and sanctuary. The mechanical penthouse is located on the roof, housing all 7 AHUs and supplies to each of the 4 levels through two centrally-located mechanical shafts.

The ventilation rates have been determined using ASHRAE 62.1 for each space based on zone population, area, and function and then combined for each AHU. Using the mechanical drawings, the design airflows were calculated for each space and then combined for each AHU. The results can be seen in Table 1. Also an analysis of section 5 requirements of ASHRAE 62.1 reveals compliance in the area of systems and equipment to prevent re-entry of contaminated air and mold growth.

Table 1: Standard 62.1 Compliance Summary

AHU	Min OA Req'd (cfm)	Max OA Supplied (cfm)	ASHRAE 62.1 Compliance
1	3,173	20,000	Yes
2	2,764	7,000	Yes
3	3,837	15,000	Yes
4	4,691	20,000	Yes
5	9,786	18,000	Yes
6	5,862	20,000	Yes
7	5,769	11,000	Yes

Table 1 is a summary of the OA requirements per ASHRAE 62.1 and the supplied OA by the AHU for each of the 7 units located in the Miller Children’s Hospital Inpatient Addition. Each AHU more than complies with the standard.