



CASE STUDY NOTES:

Location: Southern coastal area beside large body of water

Type / Construction: 4BR Student Housing – Garden-style apartments

Issues: Relative humidity remains high year-round and several units are experiencing various moisture-related issues from mild to severe.

SUMMARY: A building consultant performed an inspection and completed a scope of work including a number of envelope-related enhancements as well as the installation of IW-25 in-wall dehumidifiers throughout the garden-style units. Two apartments were selected for installation of trial units to measure effectiveness of the IW-25 as a solution. The first IW-25 was installed in UNIT 619; a 4BR unit with various enhancements completed including replacement windows. Installation of the IW-25 was successful pulling relative humidity down to acceptable levels within two hours.

The second IW-25 was installed in UNIT 419; a 4BR unit without replacement windows. The intent of this study is to determine whether the IW-25 could sufficiently manage RH levels without the benefit of replacement windows.



Model Bedroom Bath
4 Bedroom 4 2



Monitoring of UNIT 419 commenced on Tuesday afternoon, December 16, 2014, using an iMonnit data logger with cellular gateway. Temperature and Relative Humidity (RH) were measured in 10-minute increments over a 48-hour period. At approximately 3:30pm on Wednesday, December 17, the IW-25 was set to 45% RH. By approximately 3:00am the next morning, RH in the unit had been reduced to 47%. Over the course of the next several hours, RH inside UNIT 419 was further reduced to 45%.



Ambient humidity remained high at or in excess of 90% for a large duration of the sample period. The next chart represents ambient temperature and humidity measurements logged over the same monitored period.



CONCLUSION: The results of this study demonstrated the ability of the IW-25 to impact a 4BR student housing unit with and without the benefit of replacement windows. As a result of this test, our client now has the option to postpone or eliminate window replacements on several hundred units, potentially realizing extensive savings while resolving issues related to excessive moisture and humidity.

For more information regarding the award-winning IW-25 in-wall dehumidifier or to request our assistance with measurement and monitoring of your multifamily housing property at no charge, contact us at the number below or email info@innovatedehu.com.