



**City of Milpitas
Building and Safety Department**

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**MECHANICAL VENTILATION
THROUGH INFILTRATION**

Policy:

BDP-ME05

Effective Date:

5/9/2013

Proposed by:

RQ

Last Reviewed/
Revised:

Reviewed/
Revised by:

Approved By:

Keyvan Irannejad P.E.
Chief Building Official

Background:

Mechanical contractors and engineers have proposed the use of exhaust only fans in multifamily buildings as a means of mechanical ventilation to provide fresh natural air into residential dwelling units when natural ventilation is not provided. The claim is that a continuously running or intermittently running exhaust fan is allowed because it brings in natural air through infiltration of the building envelope, specifically the exterior wall. The proposal has no method to supply fresh air through a supply duct or opening to the exterior. This system solely relies on the use of infiltration.

Our position on this type of system is that the exhaust only fan will pull air from all areas including corridors, other dwelling units and the exterior through infiltration. This is in direct violation of T-24 and ASHRAE 62.2-2007 as stated below.

Findings:

For low rise residential (three stories or less), T-24 and ASHRAE Standard 62.2-2007 states that “Dwelling units shall be designed and constructed to provide ventilation air directly from the outdoors and not as transfer air from adjacent dwelling units or other spaces, such as garages, unconditioned crawl spaces, or unconditioned attics. Measures shall be taken to prevent air movement across envelope components separating attached, adjacent dwelling units and between dwelling units and other spaces, both vertically and horizontally.”

For high rise residential (four stories or more), T-24 states that “Airflow through the openings must come directly from the outdoors; air may not flow through any intermediate spaces such as other occupied spaces, unconditioned spaces, corridors, or atriums.”

Policy:

Based on our research and findings above, the City of Milpitas **does not** allow the use of exhaust only fans to achieve the fresh outside air requirement through infiltration.