This installation certificate is required for compliance for alterations and additions in existing dwellings to space conditioning systems and duct systems.

Note: For existing dwellings, a completely new or replacement duct system can also include existing parts of the original duct system (e.g., register boots, air handler, coil, plenums, etc.) if those parts are accessible and they can be sealed. For a completely new or replacement duct system installed in an existing dwelling, use the Installation Certificate titled "Duct Leakage Test – Completely New or Replacement Duct System."

Duct Leakage Diagnostic Test – Existing Duct System

☑ Outside air (OA) ducts for Central Fan Integrated (CFI) ventilation systems, shall not be sealed/taped off during duct leakage testing. CFI OA ducts that utilize controlled motorized dampers, that open only when OA ventilation is required to meet ASHRAE Standard 62.2, and close when OA ventilation is not required, may be configured to the closed position during duct leakage testing.

☑ All supply and return register boots must be sealed to the drywall if smoke test is utilized for compliance – applies to duct leakage compliance option 3 (leakage reduction by 60%) and option 4 (fix all accessible leaks) described above

☑ New duct installations cannot utilize building cavities as plenums or platform returns in lieu of ducts.

☑ Mastic and draw bands must be used in combination with cloth backed rubber adhesive duct tape to seal leaks at all new duct connections.

Select one compliance method from the following four choices.

○ Option 1. Measured leakage less than 15% of Fan Airflow.

○ Option 2. Measured leakage to outside less than 10% of Fan Airflow.

◉ Option 3. Reduce leakage by 60% or more, and conduct smoke test to seal all accessible leaks.

○ Option 4. Fix all accessible leaks using smoke test, and HERS rater must verify.

Note: (Option 1 must be attempted before utilizing Option 4)

Determine nominal Fan Airflow using one of the following three calculation methods.

◉ 1 Cooling system method: Size of condenser in Tons [3] x 400 = [1200] CFM

○ 2 Heating system method: 21.7 x [ ] Heating Output Capacity (kBtuh) = [ ] CFM

○ 3 Measured system airflow using RA3.3 airflow test procedures: [ ] CFM

XML - C169

3 **Option 3** used then:

Initial leakage prior to start of work = [ ] XML - C162

Final leakage after sealing all accessible leaks using smoke test = [ ] XML - C163 CFM

Initial leakage [ ] XML - C164 - Final leakage [ ] XML - C165 = Leakage reduction [ ] XML - C166 CFM

(Leakage reduction [ ] XML - C167 /Initial leakage [ ]) x 100% = [ ] XML - C168 %

Reduction

Pass if % Reduction > 60%

○ Pass ○ Fail

DECLARATION STATEMENT

- I certify under penalty of perjury, under the laws of the State of California, the information provided on this form is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for construction, or an authorized representative of the person responsible for construction (responsible person).
- I certify that the installed features, materials, components, or manufactured devices identified on this certificate (the installation) conforms to all applicable codes and regulations, and the installation is consistent with the plans and specifications approved by the enforcement agency.
- I understand that a HERS rater will check the installation to verify compliance, and that that if such checking identifies defects, I am required to take corrective action at my expense. I understand that Energy Commission and HERS provider representatives will also perform quality assurance checking of installations, including those approved as part of a sample group but not checked by a HERS rater, and if those installations fail to meet the requirements of such quality assurance checking, the required corrective action and additional checking/testing of other installations in that HERS sample group will be performed at my expense.