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| **A. General Information**  Note: Submit one Installation Certificate for each duct system that is taking credit for duct location. | | |
| 01 | SC System Identification or Name |  |
| 02 | SC System Location or Area Served |  |
| 03 | Indoor Unit Name or Description of Area Served |  |
| 04 | Status – Less than 12 ft Ducts in Conditioned Space Performance Credit |  |
| 05 | Status – Ducts Located In Conditioned Space Performance Credit |  |
| 06 | Status – All Ducts Entirely in Directly Conditioned Space R-value Exception |  |
| 07 | Status – Ducts Located in Wall Cavities R-Value Exception |  |
| 08 | Status – Portions of Exposed Ducts in Directly Conditioned Space R-Value Exception |  |

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| **B. 12 Linear Feet or Less of Duct Located Outside of Conditioned Space** **- RA3.1.4.1.2** | | |
| 01 | A visual inspection shall confirm space conditioning systems with air handlers located outside the conditioned space have 12 linear feet or less of duct located outside the conditioned space including air handler and plenum. | |
| 02 | Verification Status: | * Pass - all applicable requirements are met; or * Fail - one or more applicable requirements are not met. Enter reason for failure in corrections notes field below; or * All N/A - This entire table is not applicable |
| 03 | Correction Notes: | |
| **The responsible person’s signature on this compliance document affirms that all applicable requirements in this table have been met unless otherwise noted in the Verification Status and the Corrections Notes in this table.** | | |

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| **C. Ducts Located In Conditioned Space - RA3.1.4.1.3** | | |
| 01 | A visual inspection shall confirm the space conditioning system is located entirely in conditioned space. | |
| 02 | Verification Status: | * Pass - all applicable requirements are met; or * Fail - one or more applicable requirements are not met. Enter reason for failure in corrections notes field below; or * All N/A - This entire table is not applicable |
| 03 | Correction Notes: | |
| **The responsible person’s signature on this compliance document affirms that all applicable requirements in this table have been met unless otherwise noted in the Verification Status and the Corrections Notes in this table.** | | |

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| **D. All Ducts Located Entirely in Directly Conditioned Space R-Value Exception - RA3.1.4.3.8** | | | | |
| 01 | | A Visual Inspection Shall Confirm the Space Conditioning Distribution System Location | | |
| 02 | | Actual System Duct Leakage Rate (cfm) Measured Using RA3.1.4.3.4 Duct Leakage to Outside from Fan Pressurization of Ducts | |  |
| 03 | | Compliance Statement: | |  |
| **E. Exceptions to Minimum Duct R-Value Requirement** | | | | |
| 01 | Portions of the duct system with less than minimum R-value insulation located in wall cavities are entirely inside the building’s thermal envelope. | | | |
| 02 | Portions of the duct system with less than minimum R-value insulation located in directly conditioned space are completely exposed and surrounded by directly conditioned space. | | | |
| 03 | Duct transitions to unconditioned space are air-sealed and insulated to a minimum of R-6. | | | |
| 04 | Verification Status: | | * Pass - all applicable requirements are met; or * Fail - one or more applicable requirements are not met. Enter reason for failure in corrections notes field below; or * All N/A - This entire table is not applicable | |
| 05 | Correction Notes: | | | |
| **The responsible person’s signature on this compliance document affirms that all applicable requirements in this table have been met unless otherwise noted in the Verification Status and the Corrections Notes in this table.** | | | | |

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| **F. Determination of HERS Verification Compliance**  All applicable sections of this document shall indicate compliance with the specified verification protocol requirements in order for this Certificate of Verification as a whole to be determined to be in compliance. | |
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| **Documentation Author's Declaration Statement** | | | |
| 1. I certify that this Certificate of Verification documentation is accurate and complete. | | | |
| Documentation Author Name: | Documentation Author Signature: | | |
| Company: | Date Signed: | | |
| Address: | CEA/HERS Certification Information (if applicable): | | |
| City/State/Zip: | Phone: | | |
| **Responsible Person's Declaration statement** | | | |
| I certify the following under penalty of perjury, under the laws of the State of California:   1. The information provided on this Certificate of Verification is true and correct. 2. I am the certified HERS Rater who performed the verification identified and reported on this Certificate of Verification (responsible rater). 3. The installed features, materials, components, manufactured devices, or system performance diagnostic results that require HERS verification identified on this Certificate of Verification comply with the applicable requirements in Reference Appendices RA2, RA3, and the requirements specified on the Certificate of Compliance for the building approved by the enforcement agency. 4. The information reported on applicable sections of the Certificate(s) of Installation (CF2R) signed and submitted by the person(s) responsible for the construction or installation conforms to the requirements specified on the Certificate(s) of Compliance (CF1R) approved by the enforcement agency. 5. I will ensure that a registered copy of this Certificate of Verification shall be posted, or made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a registered copy of this Certificate of Verification is required to be included with the documentation the builder provides to the building owner at occupancy. | | | |
| **BUILDER OR INSTALLER INFORMATION AS SHOWN ON THE CERTIFICATE OF INSTALLATION** | | | |
| Company Name (Installing Subcontractor, General Contractor, or Builder/Owner): | | | |
| Responsible Builder or Installer Name: | | CSLB License: | |
| **HERS PROVIDER DATA REGISTRY INFORMATION** | | | |
| Sample Group Number (if applicable): | | | Dwelling Test Status in Sample Group (if applicable): |
| **HERS RATER INFORMATION** | | | |
| HERS Rater Company Name: | | | |
| Responsible Rater Name: | | | Responsible Rater Signature: |
| Responsible Rater Certification Number w/ this HERS Provider: | | | Date Signed: |

**CF2R-MCH-21-H User Instructions**

**Section A. General Information**

1. *HVAC System Identification or Name*: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
2. *HVAC System Location or Area Served*: This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
3. *Indoor Unit Name:* This field is filled out automatically. It is referenced from the CF2R-MCH-01, which must be completed prior to this document.
4. *Status – Less than 12 ft Ducts in Conditioned Space Performance Credit:* This field is automatically filled based on the information given on the CF1R. If “True” appears here, it means that this credit was taken in the performance calculations, is required for compliance and must be field verified.
5. *Status – Ducts Located in Conditioned Space Performance Credit:* This field is automatically filled based on the information given on the CF1R. If “True” appears here, it means that this credit was taken in the performance calculations, is required for compliance and must be field verified.
6. *Status – All Ducts Located Entirely in Directly Conditioned Space R-Value Exception:* This field is automatically filled based on the information given on the CF1R. If “True” appears here, it means that this credit was taken in the performance calculations, is required for compliance and must be field verified.
7. *Status – Ducts Located in Wall Cavities R-Value Exception* – This field is automatically filled based on the information given on the CF1R. If “True” appears here, it means that portions of the duct system are located in wall cavities and are allowed to be installed with insulation less than the minimum R-Value.
8. *Status – Portions of Exposed Ducts in Directly Conditioned Space R-Value Exception – This field is automatically filled based on the information given on the CF1R. If “True” appears here, it means that portions of the duct system are located in directly conditioned space and are allowed to be installed with insulation less than the minimum R-Value.*

**Section B. 12 Linear Feet or Less of Duct Located Outside of Conditioned Space**

1. This field is informational and pertains to the following fields.
2. *Verification Status:* If this Section does not apply, then select “All N/A”. If the system meets the criteria for *12 Linear Feet or Less of Supply Duct Located Outside of Conditioned Space* credit then select “Pass”, otherwise select “Fail”. The latter selection means that the system does not meet the requirements and the CF1R will have to be revised, or the system will need to be modified to meet the requirements.
3. This field is used by the Rater to notify the contractor what needs to be corrected if this verification status is marked as fail.

**Section C. Ducts Located in Conditioned Space**

1. This field is informational and pertains to the following fields.
2. *Verification Status:* If this Section does not apply, then select “All N/A”. If the system meets the criteria for *Ducts Located in Conditioned Space* credit then select “Pass”, otherwise select “Fail”. The latter selection means that the system does not meet the requirements and the CF1R will have to be revised, or the system will need to be modified to meet the requirements.
3. This field is used by the Rater to notify the contractor what needs to be corrected if this verification status is marked as fail.

**Section D. All Ducts Located Entirely in Directly Conditioned Space R-Value Exception**

1. *A Visual Inspection Shall Confirm the Distribution System is in Conditioned Space:* If a visual inspection confirms that the ducts appear to be entirely within conditioned space, then select “entirely in conditioned space”, otherwise select “not entirely in conditioned space”. The latter selection means that the system does not meet the requirements and the CF1R will have to be revised or the system will need to be modified such that the ducts are located entirely within conditioned space.
2. *Actual System Duct Leakage Rate (cfm) Measured using RA3.1.4.3.4 Duct Leakage to Outside from Fan Pressurization of Ducts:* Enter the measured duct leakage rate (cfm) using the procedures found in RA3.1.4.3.4.
3. *Compliance Statement:* This field is automatically filled.

**Section E. Exceptions to Minimum Duct R-Value Requirement**

1. This field is informational and pertains to the following fields.
2. This field is informational and pertains to the following fields.
3. This field is informational and pertains to the following fields.
4. *Verification Status:* If this Section does not apply, then select “All N/A”. If the system meets the criteria for Exceptions to Minimum Duct R-Value Requirement then select “Pass”, otherwise select “Fail”.
5. This field is used by the Rater to notify the contractor what needs to be corrected if this verification status is marked as fail.

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| **A. General Information**  Note: Submit one Installation Certificate for each duct system that is taking credit for duct location. | | |
| 01 | SC System Identification or Name | <<Text referenced from MCH-01>> |
| 02 | SC System Location or Area Served | <<Text referenced from MCH-01>> |
| 03 | Indoor Unit Name or Description of Area Served | <<Text referenced from MCH-01>> |
| 04 | Status – Less than 12 ft Ducts in Conditioned Space Performance Credit | <<calculated field: if Less than 12ft Ducts Outside of Conditioned Space Flagged on CF1R = true , then display message “true” and display Table B below; else display message "not applicable” >> |
| 05 | Status – Ducts Located In Conditioned Space Performance Credit | <<calculated field: if Ducts Located In Conditioned Space Compliance Credit Claimed on CF1R = true , then display message “true” and display Table C below; else display message "not applicable” >> |
| 06 | Status – All Ducts Entirely in Directly Conditioned Space R-value Exception | <<calculated Field: if Exemption from Minimum R-Value for Ducts In Conditioned Space reported on MCH-01 = yes, then display message “true” and display Table D below; else display message "not applicable” >> |
| 07 | Status – Ducts Located in Wall Cavities R-Value Exception | <<calculated Field: if Exemption from Minimum R-Value for Duct Portions Located in Wall Cavities reported on MCH-01 = yes, then display message “true” and display Table E below; else display message "not applicable” >> |
| 08 | Status – Portions of Exposed Ducts in Directly Conditioned Space R-Value Exception | <<calculated Field: if Exemption from Minimum R-Value for Duct Portions Located in Directly Conditioned Space reported on MCH-01 = yes, then display message “true” and display Table E below; else display message "not applicable” >> |

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| **B. 12 Linear Feet or Less of Duct Located Outside of Conditioned Space** **- RA3.1.4.1.2**  *<<This table only shown if A04 indicates the table is applicable, else display the "section does not apply" message >>* | | |
| 01 | A visual inspection shall confirm space conditioning systems with air handlers located outside the conditioned space have 12 linear feet or less of duct located outside the conditioned space including air handler and plenum. | |
| 02 | Verification Status: | <<user pick from list:  \*\*\* Pass - all applicable requirements are met; or  \*\*\* Fail - one or more applicable requirements are not met. Enter reason for failure in corrections notes field below; or  \*\*\* All n/a - This entire table is not applicable>> |
| 03 | Correction Notes: <<if Verification Status= Fail, then text entry in this Corrections Notes field is required; user input text>> | |
| **The responsible person’s signature on this compliance document affirms that all applicable requirements in this table have been met unless otherwise noted in the Verification Status, Corrections Notes and the Compliance Statement in this table.** | | |

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| **C. Ducts Located In Conditioned Space - RA3.1.4.1.3**  *<<This table only shown if A05 indicates the table is applicable, else display the "section does not apply" message >>* | | |
| 01 | A visual inspection shall confirm the space conditioning system is located entirely in conditioned space. | |
| 02 | Verification Status: | <<user pick from list:  \*\*\* Pass - all applicable requirements are met; or  \*\*\* Fail - one or more applicable requirements are not met. Enter reason for failure in corrections notes field below; or  \*\*\* All n/a - This entire table is not applicable>> |
| 03 | Correction Notes: <<if Verification Status= Fail, then text entry in this Corrections Notes field is required; user input text>> | |
| **The responsible person’s signature on this compliance document affirms that all applicable requirements in this table have been met unless otherwise noted in the Verification Status, Corrections Notes and the Compliance Statement in this table.** | | |

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| **D. All Ducts Located Entirely in Directly Conditioned Space R-Value Exception - RA3.1.4.3.8**  *<<This table only shown if A06 indicates the table is applicable, else display the "section does not apply" message>>* | | |
| 01 | A Visual Inspection Shall Confirm the Space Conditioning Distribution System Location | <<user pick from list:  \*\*\*Entirely in conditioned space; or  \*\*\*Not entirely in conditioned space - does not comply>> |
| 02 | Actual System Duct Leakage Rate (cfm) Measured Using RA3.1.4.3.4 Duct Leakage to Outside from Fan Pressurization of Ducts | <<user input, numeric xxx.x>> |
| 03 | Compliance Statement: <<if measured duct leakage in D02 is less than or equal to 25 cfm, and visual inspection result in D01 = Entirely in conditioned space; then display text: "the space conditioning system is considered to be entirely in conditioned space and Duct R-Value less than minimum is allowable", else the system does not meet the criteria for ducts entirely in conditioned space.>> | |

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| **E. Exceptions to Minimum Duct R-Value Requirement**  *<<This table only shown if A07 or A08 indicates the table is applicable, else display the "section does not apply" message >>* | | |
| 01 | Portions of the duct system with less than minimum R-value insulation located in wall cavities are entirely inside the building’s thermal envelope. | |
| 02 | Portions of the duct system with less than minimum R-value insulation located in directly conditioned space are completely exposed and surrounded by directly conditioned space. | |
| 03 | Duct transitions to unconditioned space are air-sealed and insulated to a minimum of R-6. | |
| 04 | Verification Status: | <<user pick from list:  \*\*\* Pass - all applicable requirements are met; or  \*\*\* Fail - one or more applicable requirements are not met. Enter reason for failure in corrections notes field below; or  \*\*\* All n/a - This entire table is not applicable>> |
| 05 | Correction Notes: <<if Verification Status= Fail, then text entry in this Corrections Notes field is required; user input text>> | |
| **The responsible person’s signature on this compliance document affirms that all applicable requirements in this table have been met unless otherwise noted in the Verification Status, Corrections Notes and the Compliance Statement in this table.** | | |

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| **F. Determination of HERS Verification Compliance**  All applicable sections of this document shall indicate compliance with the specified verification protocol requirements in order for this Certificate of Verification as a whole to be determined to be in compliance. | |
| 01 | <<calculated field: if Section B is applicable and B02≠fail, if Section C is applicable and C02≠fail, if Section D is applicable and D03="the space conditioning system is considered to be entirely in conditioned space and Duct R-Value less than minimum is allowable", and if Section E is applicable and E04≠fail; then display: “Complies: All specified verification protocol requirements on this document are met”; else display: “Does not comply: One or more specified verification protocol requirements on this document are not met” >> |