

## Technical Bulletin: Rater Photo Library

### Residential New Construction Program

When completing any home energy rating, raters need to communicate effectively with home builders about issues and results. However, the technical knowledge raters need to relay to home builders can be complicated and difficult to convey at times. To help raters communicate issues, this technical bulletin will outline resources the RNC Program is offering raters to incorporate into inspection results.

## Final Inspection Results

When creating emails for homebuilders, raters need to relay if a retest is needed for RNC Program incentives and the significance of the results. The tables in the examples below are available as images on a Google drive the RNC Program is managing. Raters can quickly inform a homebuilder of the testing results by pasting the tables in emails or reports. The tables in the Google drive have the rows already highlighted, so the rater just needs to use the picture that reflects the results. Raters should email the RNC Program at [DERNC@icfprogram.com](mailto:DERNC@icfprogram.com) to request access to the drive.

Blower Door Results		
Blower door ACH50	Result	Pass/Fail
5 or greater	<b>Bad</b>	<b>Fails</b> standard and HERO code
4 to 5	<b>Okay</b>	<b>Fails</b> HERO code but <b>passes</b> standard code
3 to 4	<b>Good</b>	<b>Passes</b> minimum HERO code
3 or less	<b>Great</b>	<b>Exceeds</b> HERO code

An example of a table reflecting a blower door results of 4 to 5 ACH50

Duct Leakage Results		
Duct leakage percentage	Result	Pass/Fail
4% or greater	<b>Bad</b>	<b>Fails</b> standard and HERO code
3% to 4%	<b>Okay</b>	<b>Fails</b> HERO code but <b>passes</b> standard code
2% to 3%	<b>Good</b>	<b>Passes</b> minimum HERO code
2% or less	<b>Great</b>	<b>Exceeds</b> HERO code

An example of a table reflecting duct leakage results of 2% to 3%.

## Pre-Drywall Results

For pre-drywall inspection, ensuring the home builder understands corrective items is vitally important as they affect the home's performance and are difficult to fix after hanging drywall. In addition to the testing results tables, the Google drive also includes examples of good and bad photos of building science topics as well as example of photos of issues.

It is also best to outline issues found in an inspection using bullet points and start with an overview of the inspection. An example of an email that that incorporates the photos from the RNC program Google drive and best practices for builder communication is on the next page.

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Hello Supervisor,

My inspection found three issues in the home. Please refer to the following list and images for an overview of the issues, that are detailed in the attached report. Please let me know if you have any questions.

- Improperly installed top plates for sill seal gasketing
- Missing rim joist air barriers
- Common walls not blocked and sealed

#### **Issue:** Sill seal not in contact with top plates



Bad example

**Problem:** Sill seal needs a top plate to gasket against and prevent air leakage.



Good example

**Solution:** Place a new top plate in the wall cavity so the sill seal can prevent air leakage.

#### **Issue:** Rim joist air barriers missing



Bad example

**Problem:** Missing rim joists prevent air leaking into floor cavities and should be present on all floors connecting to unconditioned spaces



Good example

**Solution:** Install air barriers and seal around the perimeter and penetrations.

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#### **Issue:** Corner blocking in townhomes



Bad example

**Problem:** Corners of common walls for townhomes are a large source of air leakage and need to be sealed.



Good example

**Solution:** Due to the difficulty in sealing corners in common walls, its best to block the corner and seal the blocking.