

Achieving Success with High Performance Attics and High Performance Walls

PROJECT DETAILS

PROJECT NAME	Sierra Crest
LOCATION	Clovis
CLIMATE ZONE	13
CONSTRUCTION COMMENCEMENT	2015
LOTS COMPLETED	16/39



PROJECT TEAM

BUILDER	DeYoung Properties
MANUFACTURER	Johns Manville
INSTALLER	Broken Drum
HERS RATER	DuctTesters, Inc.
ENERGY CONSULTANT	DuctTesters, Inc.

PROGRAM SUMMARY

The California investor owned utilities developed the CAHP Master Builder program to support measures in the 2016 California building code, Title 24—specifically high performance attics and high performance walls—before code took effect on January 1, 2017. Participating builders could adopt either or both of the measures, and received intensive, one-on-one technical support throughout the duration of their projects. This included regular check-in meetings with all project team members (e.g., builder, installer, energy consultant, site superintendent, and implementer), coordination with the Workforce Instruction for Standards in Efficiency, and program-facilitated design charrettes. The program also conducted site visits and coordination meetings with projects to share high performance measure installation approaches with building officials. The program also had a monitoring component to assess moistures and humidity and inform measure adoption practices.

De Young Properties is committed to cutting-edge building science and technology with the DeYoung SmartHome. We strive for continual improvement, so incorporating high performance walls and high performance attics in our Sierra Crest community in Clovis, CA was the next logical step. Features like HPWs and HPAs ensure that our homebuyers will have lower energy bills and that they live in more comfortable and healthy homes, which are also better for the environment. In addition, features like these help us differentiate and even helped our sales velocity at Sierra Crest. In fact, we sold all 39 homes in this community prior to the completion of the first home!

— Brandon DeYoung, DeYoung Properties

PROJECT SUMMARY

Located in Clovis, California, the Sierra Crest community included development of 39 homes. All homes will have sealed attics and high performance walls; DeYoung Properties has completed construction on 16 of the 39 and continues to carry out construction on the remaining lots. For the sealed attic, DeYoung Properties installed Johns Manville fiberglass R-30 batts beneath the roof deck with no insulation at the ceiling. In the walls, DeYoung Properties employed 2x6 framing, with 16" OC, high density batt R-21 insulation, and 1" R-4 continuous external insulation. As part of the CAHP Master Builder initiative, DeYoung Properties adopted the sealed attic and high performance walls prior to the implementation of the 2016 building energy code.



Sealed roof and attic insulation

MEASURE ADOPTION SUCCESS

During early lot construction, DeYoung Properties aligned wall studs with roof trusses, requiring careful planning and coordination. However, through additional review from advanced framing experts at the APA Engineered Wood Foundation, the project team learned that a double top plate could remove the requirement for aligning wall studs and roof trusses, thus easing the construction planning and implementation process.



California corner framing



2x6 framing lined up with roof trusses