

# *THE **unseen** VALUE of AIR SEALING*



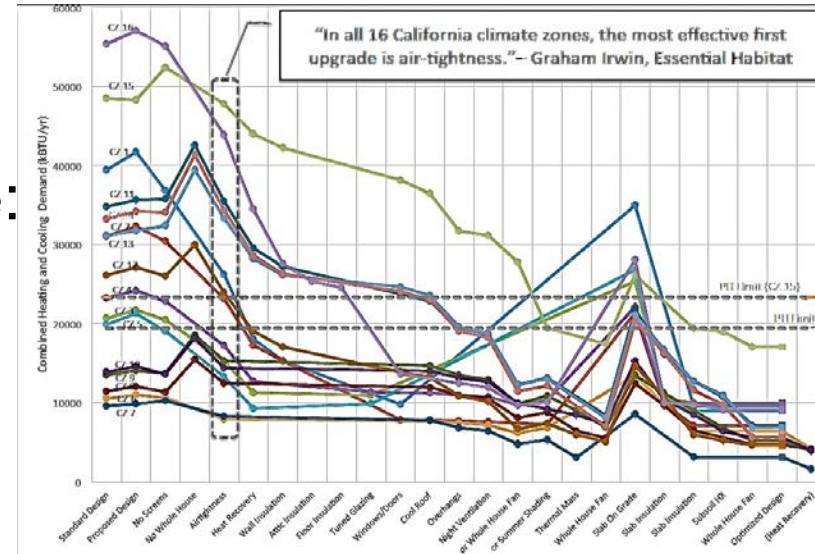
*Terry Nordbye  
Air Sealing  
Solutions*

**Why make a building  
air tight?**

**“Approximately 30% to 50% of  
space conditioning energy  
consumption in buildings is  
(lost) due to air leakage  
through the building  
enclosure”**

“In a 2013 California study of a code-compliant single-family house: Of all the(19) upgrade measures available, air sealing was the #1 most effective upgrade.”

*Graham Irwin- Essential Habitat*



“Dollar for dollar air-sealing generally will produce a more noticeable improvement in comfort and a higher Return-On-Investment than any other upgrade you could make.”

*Home performance Services*

# *Dept Of Energy Air Leakage Guide*

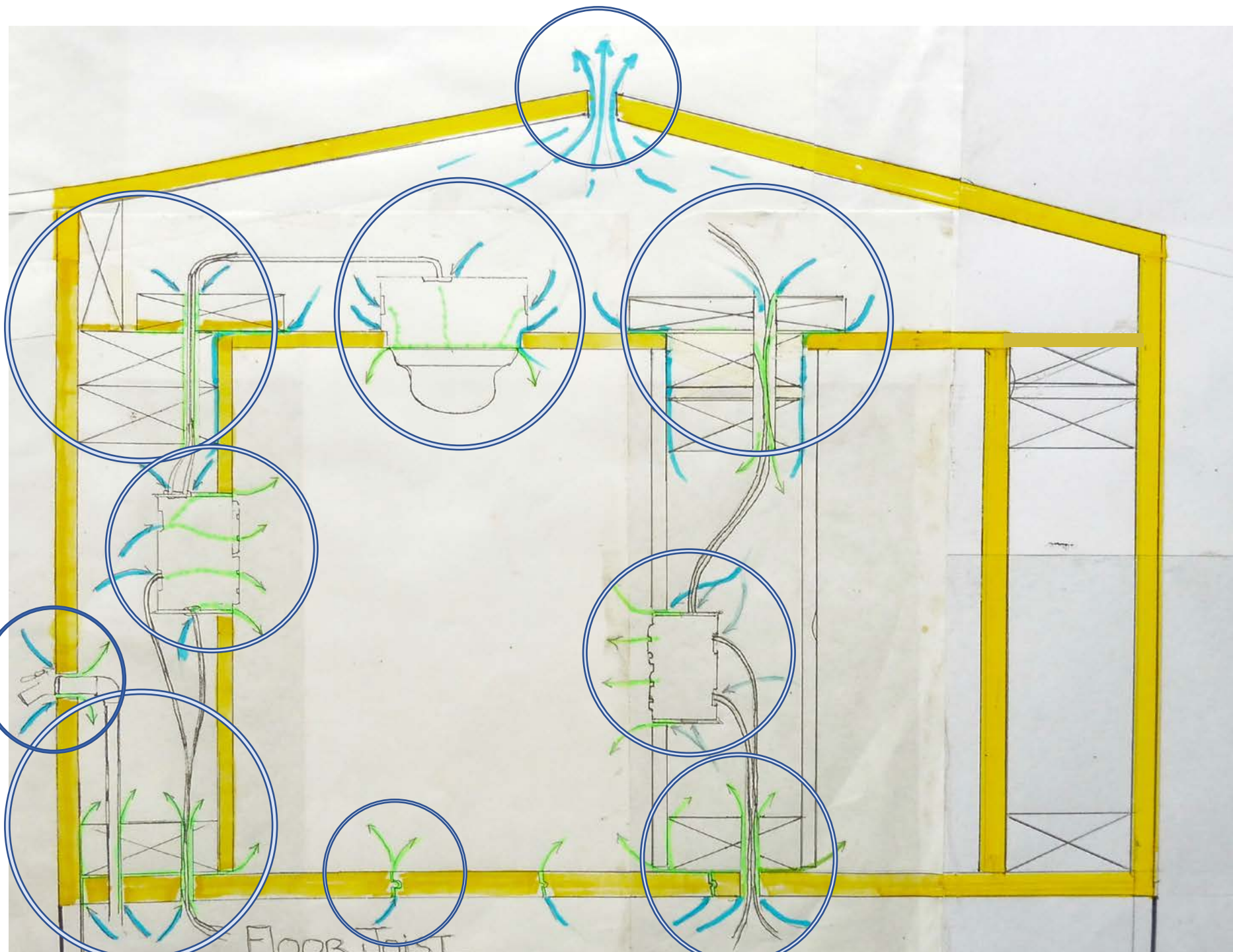
“A tight house will:”

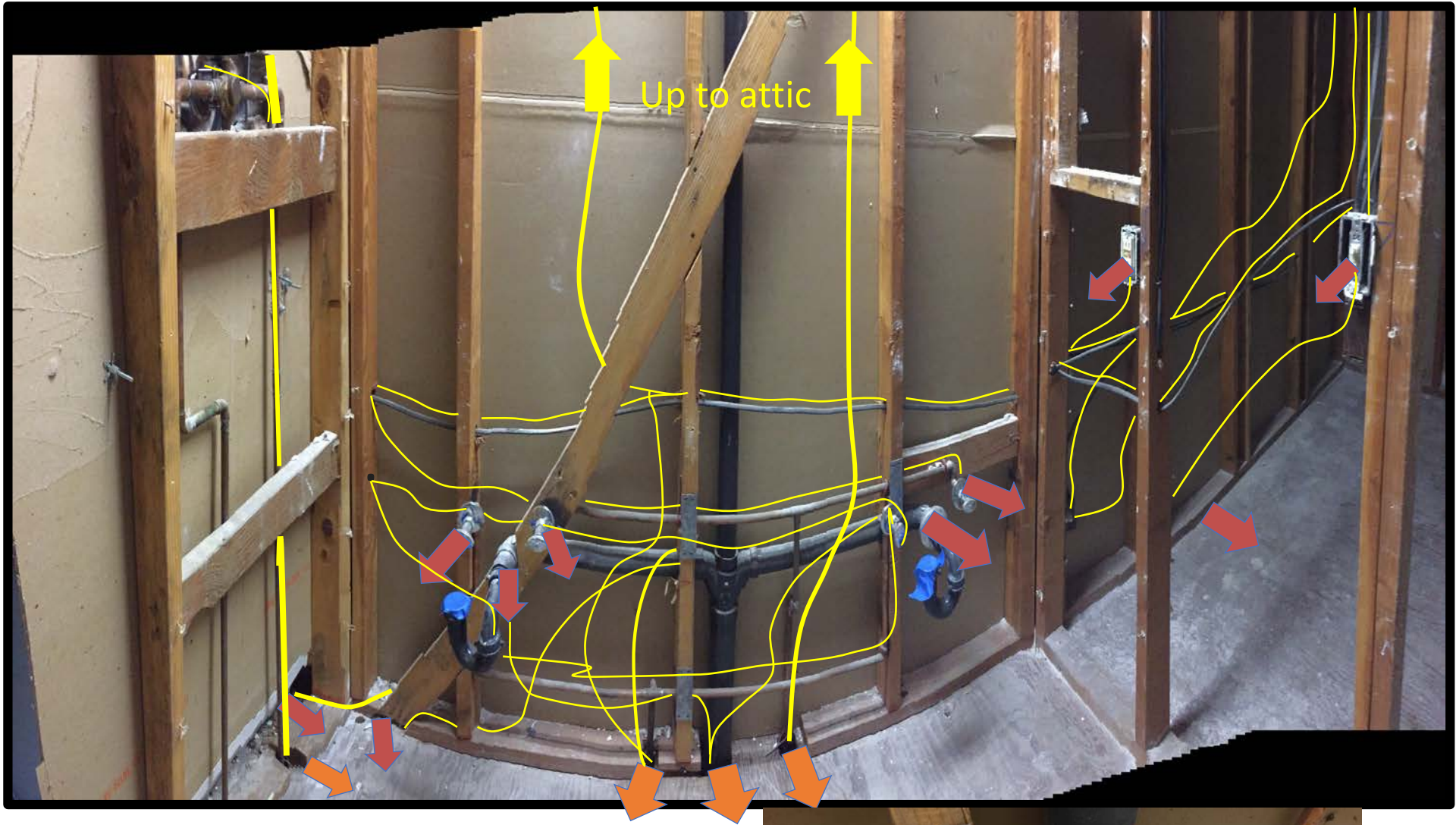
- ✓ Have **lower heating bills** due to less heat loss
- ✓ Have **fewer drafts** and be more comfortable
- ✓ **Reduce the chance of mold and rot** because moisture is less likely to enter and become trapped in cavities
- ✓ Have a **better performing ventilation** system
- ✓ Potentially require **smaller heating and cooling equipment** capacity

# **HOW AIR GETS IN or out**

The anatomy of air leakage

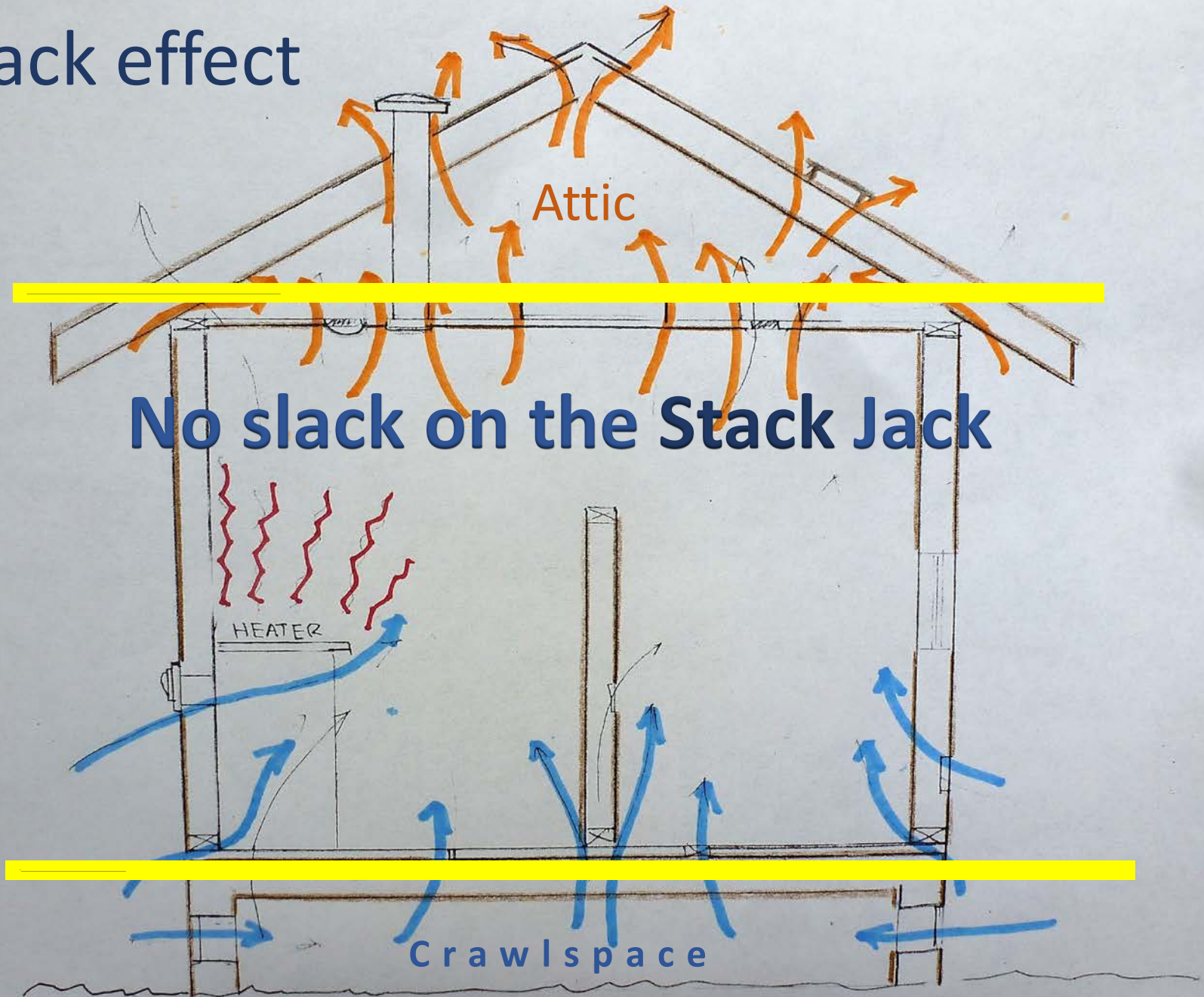








# Stack effect



**No slack on the Stack Jack**

Crawlspace

# The four absolutes of air sealing

**Flexibility**  
**Adhesion**  
**Longevity**

**Access**

# the five decrees of successful air sealing

*The road to success is paved with leaks*

# #1

## ALLOCATION

Money talk has to be part of the bidding conversation







# #2 Plan ahead

Sit down with architect and builder  
and plan out air sealing strategies

- 1. Gaskets (to gaskets)
- 2. Rough opening deck
- 3. ceiling DW (to weather)
- 4. F. Gasket - other gasket + wall cavity the 5
- 5. wall drywall w/ gaskets (after sealing brick bay)
- 6. Flashings
- 3.2
- 3.1
- 3.1

# #3

501  
SD5

502  
SD5

## On the plans

503  
SD5

504  
SD5

A.D.

GARAGE SLAB PER  
PLAN NOTES

1/2" FELT EXPANSION JOINT

THICKEN EDGES TO 8" MIN.  
WIDE x 8" MIN. DEEP w/  
(1) #4 CONT. AT BOTTOM

AS AN ALTERNATE  
USE COND. IN DTL

1/2" FELT EXPANSION JOINT

TAPE SEAL PLY SEAM  
GASKET  
Tape Seal  
PLY TO FOOTING

DOUBLE GASKET  
SEAL UNDER  
BOTT PLATE

STEM WALL, FOOTING  
AND REINF.  
PER DETAIL

A  
SD5

STEM WALL, FO  
AND REINF.  
PER DETAIL

509A AT HIGH STEM WALL CONDITION

GARAGE SLAB AT INTERIOR STEM WALL

**#4**

# Informed crew





# #5

# Specialization

- There should **ONE** designated **Air Sealing Person** on the job who oversees all the trades
- Nothing should be covered up until the Specialist has inspected it.
- The **Air Sealing Specialist** is responsible for all the holes





**Can I make my house too tight?**

**Won't it grow mold?**

**It needs to breathe!**

Attend my air sealing class through PG&E

to find out more

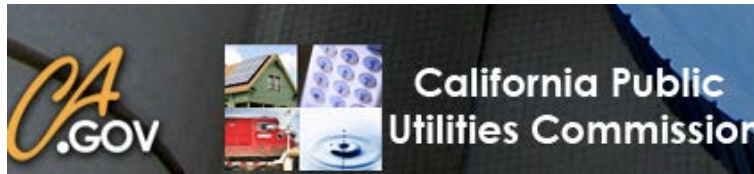
<http://usi.pge.com>



References for more information



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[passivehousecal.org](http://passivehousecal.org)



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