THE VERMONT RESIDENTIAL ENERGY CODE 2015
WORKSHOP CONTENT

- The Energy Code
  - Background / Overview
  - Which buildings, when?
  - Obligations of the builder
- What’s Required?
  - Basic Requirements
  - Performance Requirements
  - Filing the Paperwork
TODAY’S PRESENTATION

Hosted by the ICC Building Safety Association of Vermont

Delivered by Efficiency Vermont
MAJOR CHANGES FOR 2015

• Compliance with Stretch code required for Act 250 projects
• New insulation requirements and packages
• ASHRAE 62.2 option for ventilation
• Makeup air requirements for exhaust hoods
• Air tightness reduced from 5 to 3 ACH50
• 75% of lights must be high efficacy
THE LEGISLATION -- ACT 20 OF 1997
“RESIDENTIAL BUILDING ENERGY STANDARDS”

• Based on International Energy Conservation Code
  • Performance-based standard
  • Some Vermont-specific additions/exemptions
• Self-certification by builder
• Three-year revision cycle
  • Public review process
• 2015 code applies to all projects that start construction on or after March 1, 2015
WHICH BUILDINGS MUST COMPLY?

- New construction, low-rise residential
  - One and two family dwellings
  - Multifamily housing three stories or less
  - Does not include commercial buildings
    - But does include residential part of mixed-use
- Existing low-rise residential buildings
  - Additions
    - Only the addition needs to conform
  - Renovations, window & equipment replacement
ALTERATIONS & RENOVATIONS

• Applies to additions, alterations, renovations or repairs to an existing building, building system or portion thereof (unaltered portions need not comply)
• Applies to change of unconditioned to conditioned space
• Applies to insulation projects
• Replacement windows must comply
• Storm windows and glass replacement exempt
ALTERATIONS & RENOVATIONS

• Walls exempt if cavities are not exposed or if they are already full of insulation
• Reroofing exempt unless sheathing or insulation is exposed and cavity is empty
• Replacement of less than 50% of light fixtures and replacement of bulb & ballast in existing fixtures is exempt
LOG HOMES

• Vermont code distinguishes between log homes and everything else
• In general, log homes are allowed to be less efficient
  • But there are more stringent requirements for other parts of the building to partially make up for the difference
EXEMPTIONS

• Extreme low energy use
  • less than 1 watt per square foot peak load

• Mobile homes
  • Title VI, National Manufactured Housing Construction & Safety Standards Act of 1974
  • Site-constructed components still must comply

• Buildings (or areas) not heated or cooled

• Hunting Camps

• Historic buildings can apply for exemption
OWNER/BUILDER PROJECTS

• Specifically exempted from meeting the technical requirements of the code
• Owner must direct the details of construction, including energy items, must live in the building
• Must do calculations, complete and file the Owner/Builder Disclosure Statement
• Must disclose in writing to potential buyers before purchase and sale agreement
LIABILITY

• Homeowner may take civil action against person certifying building
• Damages may include increased energy costs and costs to bring the building into compliance (as well as court, attorneys’ fees)
• Claims must be filed within six years
STRETCH CODE

- Separate, more stringent code
- As of Dec 1, 2015, all Act 250 projects need to meet stretch code
- Available for towns to voluntarily adopt
STRETCH CODE REQUIREMENTS

- Increased thermal efficiency
- Air tightness (blower door) test required
  - BPI, RESNET or VT certified person, standardized procedure
- Electric vehicle charging for 10 or more units
RESPONSIBILITY OF TOWNS

• Towns are required to notify building permit applicants about the code
• Towns that issue Certificates of Occupancy must confirm that code certificate is on file in town records before issuing COO
REAL ESTATE TRANSACTIONS

- Lack of code certificate does not cloud title
  - So sale can go through
- Lack of certificate may raise questions of value
- Some banks won’t issue mortgage without certificate
THERMAL REQUIREMENTS

• The next few slides outline the thermal requirements of the new code
• For average houses, installing these levels will meet the code
• But the code requires overall performance, and there are many ways to get there
• So you can install assemblies less efficient than this, but you have to make up for it somewhere else in the building, and you have to use a method that accommodates that trade-off
WINDOWS

• Fenestration (except skylights)
  • Maximum 0.32 U-value (0.30 for log homes)
• Skylights
  • Maximum 0.55 U-value
• Glazing area
  • Maximum 20%
• Up to 15 sq ft of glazing and one door is exempt
INSULATION

• Ceilings
  • Minimum R-49
  • For flat ceilings, R-38 deemed to meet R-49 if full height uncompressed over top wall plate
  • Sloped ceilings OK @ R-30 if not more than 500 sq ft or 20% of ceiling area, whichever is less
  • Installer must certify details, sign, post in conspicuous location. Depth markers required for blown attics
INSULATION

• Wood frame walls
  • Minimum R-25
  • R-13 cavity insulation plus R-10 insulated sheathing deemed to comply.

• Mass walls
  • Minimum R-15
  • R-20 required if more than half of the insulation is on the interior
  • (Log homes exempt from wall R-value requirement)
INSULATION

- Floors
  - Minimum R-30 (R-38 for log homes)
  - Minimum R-20 OK if it fills the whole cavity
  - Must maintain permanent contact with underside of subfloor
INSULATION

- Basement walls
  - Minimum R-15 continuous or R-20 cavity
  - From top of wall to 10 ft below grade or to basement floor, whichever is less
  - Exterior insulation must have protective covering
INSULATION

- Unvented crawl space:
  - Minimum R-15 continuous or R-20 interior cavity
  - Permanently fastened to wall down to floor and then vertically and/or horizontally for at least an additional 24 inches
  - Must have Class I vapor barrier on floor, attached to wall, seams taped
  - No vents to outside
- Vented crawl space
  - Insulate floor above
INSULATION

- **Slab edge**
  - Minimum R-15 perimeter
  - Four feet high or high + wide total
- **Heated slab**
  - Minimum R-15 underneath continuous
- **Exposed exterior insulation must have a protective covering**
WHAT’S REQUIRED?

• Basic Requirements
• Performance Requirements -- Three Methods
  ☀ Prescriptive Method
  ☐ REScheck Software
  ☆ Home Energy Rating
• Certification
WHEN TO DO THE ANALYSIS

- Not required until after, but...
- Should determine where you stand before committing to a design
  - Or especially, before framing & backfilling
### BASIC REQUIREMENTS

1. **Air Tightness**
   - Seal all joints, access holes and other such openings in the building envelope, as well as connections between building assemblies. Air barrier insulation must follow criteria established in section here.

2. **Vapor Retarder**
   - For non-ventilated framed ceilings, walls and floors, install a vapor retarder (e.g., 6 mil plastic or vapor barrier panel) on the warm-in-winter side of the insulation.

3. **Duct Insulation**
   - In unconditioned basements, crawlspaces and attics, install supply and return ducts for heating and cooling systems in R-8. Insulate ducts outside the building in R-6.

4. **Duct Sealing**
   - In unconditioned spaces, seal ducts using mastic with fibres backing tape. (Penetration sensitive tape may be used only for duct-board systems, in accordance with NAIMA standards.) Duct tape is not permitted.

5. **Programmable Thermostat**
   - Where the primary heating system is a forced-air furnace, forced air split system heat pump, packaged unit heat pump, water heater, or steam boiler, at least one programmable thermostat per home must be installed.

6. **Solid Fuel Burning Appliances and Fireplaces**
   - All solid fuel burning appliances and fireplaces must have tight-fitting, gasketed metal, glass or ceramic doors with compression closure or compression latch system.

7. **Exhaust Fans**
   - Exhaust dampers are required for kitchen, bath and dryer fans.

8. **Ventilation & Combustion Air**
   - All homes must have an automatically controlled ventilation system. Chimney-vented combustion devices must have combustion air. See Chapter 3 for details.

9. **Maximum Fenestration U-Factor**
   - The area-weighted average maximum fenestration U-factor permitted using trade-offs is 0.32 for windows and 0.35 for skylights.

10. **Mechanical System Piping Insulation**
    - Mechanical system piping capable of carrying fluids above 105°F (41°C) or below 18°F (-8°C) must be insulated to a minimum of R-3.

11. **Lighting**
    - A minimum of 30 percent of the lamps in permanently installed lighting fixtures must be high-efficiency lamps.

12. **Circulating Hot Water Systems**
    - All circulating service hot water piping must be insulated to at least R-3. Circulating hot water systems must also include an automatic or readily accessible manual switch that can turn off the hot water circulating pump when the system is not in use.

13. **Equipment Sizing**
    - Heating and cooling equipment must be sized in accordance with ACCA Manual 5 based on existing loads calculated in accordance with ACCA Manual 1 or other approved heating and cooling calculation methodologies. In addition, heating and cooling equipment must be sized in accordance with section here.

14. **Certification**
    - Complete a Vermont Residential Building Energy Standards Certificate for each dwelling. Send one copy to the Vermont Department of Public Service and one copy to the town clerk of the town in which the property is located, and affix the original or near the home’s electrical panel or heating equipment.

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For details about any of these requirements, see Appendix C.
AIR LEAKAGE

- Air leakage locations must be sealed
- Applies to leakage points between:
  - Conditioned space and outside
  - Conditioned and unconditioned spaces
- Testing option
  - Less than 3 ACH @ 50 Pa
    - Everything open except chimney dampers, continuously operating vent system, adjustable passive vents
- Visual inspection option
VISUAL AIR BARRIER INSPECTION

• Continuous, durable air barrier
• Breaks or joints in the air barrier sealed
• Space between fenestration jambs and framing sealed with minimum expanding foam
• All plumbing and wiring penetrations shall be sealed to the air barrier
VISUAL AIR BARRIER INSPECTION

- Junctions of the foundation and sill plate, sill plate and rim-band, and rim band and subfloor, and tops of walls sealed
- When air permeable insulation is installed at the rim joist, a durable, rigid interior air barrier shall be installed
- Air barrier shall be installed at any exposed edge of floor insulation.
VISUAL AIR BARRIER INSPECTION

• Duct shafts, utility penetrations, and flue shafts opening to exterior or unconditioned space shall be air sealed
• Air sealing shall be provided between the garage and conditioned spaces
• Exterior walls adjacent to showers and tubs shall have a durable, rigid air barrier separating the exterior wall from the shower and tubs
VISUAL AIR BARRIER INSPECTION

- Air barrier extends behind electrical or communication boxes or air-sealed type boxes shall be installed or created.
- Air barrier shall be installed in common wall between dwelling units. Common walls shall be sealed at junctions with outside walls and at the top pressure plane of the house.
- HVAC register boots that penetrate building thermal envelope shall be sealed to subfloor or drywall.
- Log homes have their own criteria (ICC-400).
RECESSED LIGHTS

- Must be IC (Insulation Contact) rated
- Must be airtight or low leakage fixtures
  - No penetrations between the inside of the recessed fixture and ceiling cavity; sealed or gasketed to prevent air leakage
ACCESS HATCHES

• Access doors must be weatherstripped and insulated to a level equivalent to the insulation on the surrounding surfaces.
• Access must be provided to all equipment that prevents damaging or compressing the insulation.
• A wood framed or equivalent baffle or retainer is required when loose fill insulation is installed.
VAPOR RETARDER

- Class I or II (aluminum foil, poly, kraft facing) required on frame walls
  - Except basement walls & below grade walls
- Class III (paint) allowed if:
  - Vented cladding over fiberboard or gypsum
  - Insulated sheathing R-7.5 on 2x4 wall
  - Insulated sheathing R-11.25 on 2x6 wall
DUCTS

- Ducts outside the thermal envelope must be insulated to the same R-value as required for immediately adjacent surfaces.
- All ducts must be air sealed.
- Can’t use building cavities as supply ducts. May be used as return ducts, but only interior cavities.
If air handler or any ductwork is located outside conditioned space, ducts must be tested and have:

- Less than 4 CFM@25 Pa leakage to outdoors per 100 sq ft of conditioned floor area (postconstruction), or
- Less than 3 CFM@25 Pa total leakage per 100 sq ft of conditioned floor area (rough-in)
HEATING CONTROLS

• Programmable thermostat required if furnace, heat pump or boiler
• Not required for solid fuel or spaces served by radiant floors
COMBUSTION AIR FOR GAS & OIL

• All chimney-vented gas and oil appliances (Category I or Category II) must have combustion air as specified in the gas and oil codes (NFPA 54 & 31), even if those codes have not been adopted in the local area.
• All new homes are “unusually tight construction” as defined in the gas & oil codes, so air must be supplied, regardless of the volume of the space.
• Also, taking combustion and dilution air from attics or crawl spaces is specifically prohibited.
• All chimney-vented equipment must establish spill-free draft within 2 minutes under worst-case conditions
SOLID FUEL COMBUSTION

- Must have gasketed doors with compression closure or compression latch system
- Solid fuel combustion air must be delivered directly to the firebox (except older stoves where not possible)
- Site-built exterior air inlet must meet detailed installation requirements
MECHANICAL VENTILATION

- Whole house ventilation
  - Including local exhaust
- Automatic controls
- Minimum flow rates
- Installation requirements
HOW MUCH AIR?

• Two ways to comply with code
  • Prescriptive
    • Install required minimum rated capacity
  • Performance
    • Have system tested
## Basic Requirements

### Minimum Rated Capacities

<table>
<thead>
<tr>
<th>Number of Bedrooms</th>
<th>Minimum Rated Capacity (CFM)</th>
<th>Minimum Number of Fans (if not central system)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>50</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>75</td>
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</tr>
<tr>
<td>3</td>
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<tr>
<td>4</td>
<td>125</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>150</td>
<td>2</td>
</tr>
<tr>
<td>&gt; 3000 sq ft</td>
<td>0.05 x sq ft</td>
<td>2</td>
</tr>
</tbody>
</table>
PERFORMANCE TESTING

• Measured flow must be at least 15 C FM plus 15 per bedroom
  • 2 bedroom – 45 C FM
  • 3 bedroom – 60 C FM
  • 4 bedroom – 75 C FM
  • 5 bedroom – 90 C FM
LOCAL VENTILATION

- Bathrooms must have exhaust
  - 50 CFM capacity for intermittent
  - 20 for continuous
  - Can use the whole-house system or a separate fan
- Kitchen exhausts over 400 CFM must have make-up air
NOISE

- Quiet is important
  - Or occupants will turn it off
- Equipment within 4 feet of louvers, grills or openings must be rated no more than 1.5 sones
- Remotely-mounted equipment must be acoustically isolated from framing and isolated from ducting by short (1-2 ft) runs of insulated flex duct
CONTROLS

- Code requires continuous operation or automatic control (no reliance on humans)
- Continuous operation
  - Must have labeled, remotely-mounted switch
  - No local way of turning off
- Automatic Control
  - Must have timer or other fully automatic control
  - Crank timers, dehumidistats, switches not allowed
VENTILATION DUCTWORK

- Fan housings and inlet grills must be sealed to ceiling or wall
- Duct runs over 8 feet must be a smooth wall material
- Ducts in unheated locations must be insulated
- Fans must be connected to ducts with mechanical fasteners
- Joints & connections must be air sealed
BATH FAN SELECTION

- Must be rated for "continuous duty"
- Must not exceed 50 watts
  - As listed by manufacturer
  - Fan power only, not lights, heater, etc
  - Fans under 20 watts available
- Must be no more than 1.5 sones
  - Fans under 1 sone available
The average area-weighted U-value of windows may not exceed 0.32
- May be more stringent requirements for ENERGY STAR or Efficiency Vermont programs.
- Skylights may not exceed U-0.55
HOT WATER PIPES

- Mechanical system piping in unconditioned spaces capable of carrying fluids above 105 degrees F must be insulated to a minimum R-3
- Applies to space heating pipes only, not domestic hot water
At least 75% of lighting fixtures must be high-efficiency lamps
- CFL or equivalent
SYSTEM SIZING

- Heat load calculation must be done
  - Manual J or other approved methodology
- Air conditioners and heat pumps must not be oversized by more than 15%
- Fuel-fired appliances must not be oversized by more than 40%
- Or use smallest available unit
WANNA SHORT BREAK?
COMPLIANCE METHODS

Prescriptive Method
Software Method
Home Energy Rating
PRESCRIPTIVE METHOD

Advantages
- Simplest method
- Minimal calculations
- Low cost (do it yourself)

Drawbacks
- Least flexible, limited types of homes
- Must comply with conditions
  - Attic hatch insulated equal to attic floor
  - Basement wall insulation full-height
  - Specified depth for slab, crawl space insulation
PRESCRIPTIVE METHOD

Drawbacks

- Least flexible, limited types of homes
- Must comply with conditions
  - Attic hatch insulated equal to attic floor
  - Basement wall insulation full-height
  - Specified depth for slab, crawl space insulation
PRESCRIPTIVE METHOD: PROCESS

Find the right Fast Track table for your building type
Choose desired package
Complete and file Certificate after building is finished
For tables, basement wall insulation must extend from the top of the wall to the floor.
CRAWLSPACE INSULATION

- **Vented crawlspace:**
  - The floor above a vented crawlspace must be insulated
  - Must be separated from conditioned basement

- **Unvented crawlspace w/ wall insulation:**
  - Wall insulation must go from top of wall to at least 12” below grade
“a” must be 12” minimum (inside or outside frost wall)
SLAB-ON-GRADE FLOORS

- Insulation is required when top of slab is:
  - At or above grade
  - Less than 12” below grade
- Insulation requirement applies to walk out portion of conditioned basement (includes unheated basement below an uninsulated floor)
- Insulation depth (or total of depth + width) must be at least 48”
“a” must be 48” (inside or outside frost wall)
SLAB INSULATION--EXAMPLE 2

Prescriptive Method

a + b must total 48” (other configurations possible)
FLOORS

- If exposed floor (over outdoors):
  - Ceiling R-values apply
- If over unconditioned space (basement, crawl space or garage):
  - Floor R-values apply
ATTIC INSULATION AT THE EAVES

- Table assumes diminished insulation at eaves
  - R-49 required
- If full R-value extends to above outside face of exterior wall, only R-38 required
RAISED TRUSS EXAMPLES

Raised rafter (engineered)

Rigid foam

Raised heel truss

Prescriptive Method
OTHER CONDITIONS FOR TABLES

• 1% of window area and up to one door exempt from U-value requirements
  • Still must include square footage in glazing percentage
  • Allows use of decorative window or door
## Prescriptive Requirements

### Single-Family and Multi-Family Homes ~ Fast-Track Method

<table>
<thead>
<tr>
<th>Component</th>
<th>Package 1</th>
<th>Package 2</th>
<th>Package 3</th>
<th>Package 4</th>
<th>Package 5</th>
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<tbody>
<tr>
<td>3. Floor R-value</td>
<td>R-30</td>
<td>R-30</td>
<td>R-30</td>
<td>R-30</td>
<td>R-30</td>
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<tr>
<td>4. Basement/Crawl Space Wall R-value</td>
<td>R-15/20</td>
<td>R-15/20</td>
<td>R-15/20</td>
<td>R-15/20</td>
<td>R-15/20</td>
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<tr>
<td>5. Slab Edge R-value</td>
<td>R-15, 4ft.</td>
<td>R-15, 4ft.</td>
<td>R-15, 4ft</td>
<td>R-15, 4 ft</td>
<td>R-10, 4 ft</td>
</tr>
<tr>
<td>6. Heated Slab R-value (Edge and Under)</td>
<td>R-15</td>
<td>R-15</td>
<td>R-15</td>
<td>R-15</td>
<td>R-15</td>
</tr>
<tr>
<td>7. Window and Door U-value</td>
<td>0.32</td>
<td>0.28</td>
<td>0.32</td>
<td>0.28</td>
<td>0.28</td>
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<tr>
<td>8. Skylight U-value</td>
<td>0.55</td>
<td>0.55</td>
<td>0.55</td>
<td>0.55</td>
<td>0.55</td>
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<tr>
<td>9. Maximum Air Leakage</td>
<td>3 ACH50</td>
<td>3 ACH50</td>
<td>3 ACH50</td>
<td>3 ACH50</td>
<td>3 ACH50</td>
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<tr>
<td>10. Maximum Duct Leakage</td>
<td>4 CFM25/100 CFA</td>
<td>4 CFM25/100 CFA</td>
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### Prescriptive Requirements

**Stretch Code ~ Single-Family and Multi-Family Homes**

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<th>Package 4</th>
<th>Package 5</th>
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</thead>
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<tr>
<td>3. Floor R-value</td>
<td>R-30</td>
<td>R-38</td>
<td>R-38</td>
<td>R-30</td>
<td>R-30</td>
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<td>6. Heated Slab R-value (Edge and Under)</td>
<td>R-15</td>
<td>R-15</td>
<td>R-15</td>
<td>R-15</td>
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<tr>
<td>7. Window and Door U-value</td>
<td>U-0.28</td>
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<tr>
<td>9. Maximum Air Leakage</td>
<td></td>
<td></td>
<td></td>
<td>&lt; 3 ACH50</td>
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<tr>
<td>10. Maximum Duct Leakage</td>
<td>4 CFM25/ 100 CFA</td>
<td>Inside thermal boundary</td>
<td>Inside thermal boundary</td>
<td>Inside thermal boundary</td>
<td>Inside thermal boundary</td>
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<tr>
<td>11. Heating System AFUE</td>
<td>ENERGY STAR (85% Blr/95% Fur)</td>
<td>ENERGY STAR (85% Blr/95% Fur)</td>
<td>ENERGY STAR (85% Blr/95% Fur)</td>
<td>NAECA (82% Blr/78% Fur)</td>
<td>ENERGY STAR (85% Blr/95% Fur)</td>
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<tr>
<td>12. Cooling System SEER</td>
<td>ENERGY STAR (14.5 SEER)</td>
<td>ENERGY STAR (14.5 SEER)</td>
<td>ENERGY STAR (14.5 SEER)</td>
<td>NAECA (13 SEER)</td>
<td>ENERGY STAR (14.5 SEER)</td>
</tr>
</tbody>
</table>
SOFTWARE METHOD

Advantages

• Easy to try variations, update changes
• Reduces calculation time and errors
• Use for wide variety of designs
• Do-it-yourself, with basic computer skills
• Generates report automatically
DEFINITION: BUILDING ENVELOPE

• Components that separate conditioned spaces from outdoors, or from unconditioned spaces
MEASURING BUILDING COMPONENTS

- **Gross wall area**: exterior dimensions, including windows and doors; including band joists between insulated walls. Includes slopes within 30 degrees of vertical.
- **Window, Skylight, Door**: use rough opening size.
- **Basement walls**: Treat each wall separately. For conditioned basements, walls that are mostly above grade are included with the other above-grade walls.
BASEMENTS

- **Conditioned** -- heated basement, or unheated basement below an uninsulated floor:
  - Foundation walls must be insulated
  - Ducts and pipes do not need insulation or sealing

- **Unconditioned** -- unheated basement below an insulated floor:
  - Foundation walls need not be insulated
  - Insulate walls of basement stairs, stairs to second floor
  - Insulate ducts and pipes
MEASURING CONDITIONED BASEMENTS

- Include foundation walls that are 50% or more above grade with other exterior walls.
- Foundation walls that are more than 50% below grade, are considered “basement walls” (lower R-value requirement).
- If the basement is conditioned, include all windows and door areas from basement walls.
WALKOUT BASEMENT EXAMPLE

- A, B and C are “basement walls” (mostly below grade)
- D is added to “gross wall area” and insulated as such
- Slab edge insulation is required for exposed edge at wall D
SOFTWARE METHOD: THINGS TO REMEMBER

Use gross ceiling and wall areas

Different R-values within the same component type are entered separately

Include all basement windows and doors in a conditioned basement

Enter access hatches as separate areas if R-value is different from surrounding area
HOME ENERGY RATING

Advantages
- High degree of flexibility
- Calculations done by energy specialist
- Gives credit for air sealing and passive solar gains (can be easier to pass)

Drawbacks
- Complete building design required

Can pay for the rating, but most are done as part of Efficiency Vermont’s Residential New Construction program
HOME ENERGY RATING: PROCESS

Send in sketch or plans with dimensions, fill out sheet with insulation, heating plans
Review report, decide on any changes
Two inspection, one pre-drywall, one upon completion
Final report includes energy code certificate, filled out and ready for signature
THE CERTIFICATE

- Provides:
  - Details about the house
  - Builder’s word that house meets code
- Fill out & file
  - Post in house, file with town, copy to state
CERTIFICATION

- Certificates are available from Energy Code Assistance Center; others are acceptable if substantially similar
- Must be signed and posted on or near heating or cooling equipment or electrical service panel
- Copies must be sent to the Department of Public Service, and recorded in the town land records within 30 days of completion
OWNER-BUILDER DISCLOSURE STATEMENT

• Very similar to certificate
• Must meet certain conditions to qualify
  • Owner must actually be in charge of construction
  • Owner must live in building
  • Owner must disclose non-compliance (with details) to potential buyer, and file Owner/Builder Disclosure Statement with DPS and town land records within 30 days of sale
SUMMARY -- WHAT’S REQUIRED?

• Basic Requirements
• Performance Requirements -- Three Methods
  ☘️ “Fast Track” Method
  ☧️ Software Method
  ✨ Home Energy Rating
• Certification
RESOURCES

- Efficiency Vermont
  - Residential New Construction program
  - Home Performance with ENERGY STAR
- Vermont Green Home Alliance
  - LEED for Homes, Vermont Builds Greener, National Green Building Standard, Passive House
ENERGY CODE ASSISTANCE CENTER

- Information on products and techniques
- Copies of handbook, certificates, software
- Referrals to other programs

1-855-887-0673

Thanks to the
ICC Building Safety Association of Vermont
for hosting today