Developing with Insulated Concrete Forms
What are Insulated Concrete Forms?
Developing With ICF

Ken Miller Homes, Inc.

Presented By:

Developing With ICF
Kendal Lofts – Waukesha, Wisconsin – 42 Units

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Manseau Flats - Ashwaubenon, Wisconsin – 78 Units
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Admiral’s Wharf – Milwaukee, Wisconsin – 133 Units

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Developing With ICF
Cost Comparison?

ICF
vs.
Wood Frame
Oconomowoc, Wisconsin

Total Square Foot of Wood Frame Construction = 176,444

Cost of Wood Framing including Exterior Insulation = $4,320,000 or $24.48 SqFt

Cost of Wood Framing MINUS Exterior Walls = $3,400,000 or $19.27 SqFt
Cost of Insulated Concrete Form Exterior Walls = $950,000 or $5.38 SqFt

Wood Frame Total: $4,320,000

ICF + Wood Frame Interior Total: $4,350,000

PROs of ICF during Construction:

1. Ability to pour Stair Towers and Elevator Shafts concurrent with structure, also making both more sound proof
2. Eliminate exterior vapor barrier
3. Continuous R-22 or greater insulation with added bonus of concrete thermal mass
4. Can pour in winter conditions
5. Structural integrity of wall for various possibilities – hanging balconies, masonry tower or trash chute tie offs, skip hoist tie offs, etc.
6. Improves sound transfer through exterior wall
Cost Comparison?

ICF

vs.

Wood/Steel Stud
Sarasota, Florida

Total Square Footage = 71,769

Wood Frame @ $24.00 SqFt = $1,722,456

All Concrete/Steel Stud:
  ICF = $920,000
  Precast Concrete w/ Stairs & Topping = $680,000
  Steel Stud Interior Walls = $175,000
Total ICF/Steel Stud = $1,775,000

PROs of ICF in Florida:
  1. Disaster Resistant
  2. Mold Resistant
  3. Termite Proof
  4. Energy Efficient
Ownership

1. Retention
   - Comfort, Safety, Efficiency
   - Approx. 30-40% annual turn over of units with wood frame, ICF 15-25%
   **Math:** 100 units, turn over/ re-rental costs of $500/unit

   Wood Frame: $15,000-$20,000
   ICF: $7,500-$12,500
   $7,500 increase to NOI or $136k of value at 5.5%CAP

2. Reserves/Deferred Maintenance
   - With ICF we are able to reduce our reserves by 30%.
   **Math:** 100 units, $250/unit per year

   Wood Frame: $25,000
   ICF: $17,500
   $7,500 increase to NOI or $136k of value at 5.5%CAP
Ownership

3. Energy Efficiency
   - Conservatively speaking 50% savings in heating and cooling
     
     **Math:** 100 units, Average heating and cooling common areas = $2,500 month

     Wood Frame: $30,000
     ICF: $15,000
     $15,000 increase to NOI or $272k of value at 5.5%CAP

4. Insurance
   - Possible savings of 10-15% off annual insurance premiums
     
     **Math:** 100 units, $400/unit per year
     Wood Frame: $40,000
     ICF: $34,000-$36,000
     $4,000 to $6,000 increase to NOI or $72-$109k of value at 5.5%CAP
Ownership

+$34,000 to NOI
OR
+$618,000 to Value at 5.5%CAP

Additional: If owner is responsible for utilities....

Math: 100 units, $100 average monthly heating/cooling costs

Wood Frame: $120,000/year
ICF: $60,000/year
$60,000 addition to NOI or $1,090,000 in Value at 5.5%CAP