

# Ryerson University – Harvest Home

## Strategic Approach:

- Type of Project:  
Three Story Townhome
- Location/Climate: Denver, CO, CZ 5
- Design Strategy:  
To design an affordable Passive House which is flexible and maximizes daylighting to create a comfortable environment. Secondary objectives included Net-Zero Energy ready and locally materials.
- Technical Strategy
  - Super Insulated, airtight envelope with minimal thermal bridging
  - Envelope durability and constructability
  - High performance windows with controlled solar gains.
  - Balanced Mechanical ventilation
- Construction Cost Strategy:  
Compact efficient layout with conventional framing. Reduced heating and cooling system.

## Technical Specifications:

Wall R-Value: **R-44**

Ceiling R-Value: **R-56**

Foundation R-Value: **R-48**

Window R-Value: **R-6**

Window SHGC: **.50**

Heat Pump HSPF: **8.9**

Heat Pump SEER: **18.0**

Water Heater EF: **2.40**

## Key Statistics:

Location: **Denver, Colorado**

2009 IECC Climate Zone: **5**

Square Feet: **1,275**

Number of Stories: **3**

Number of Bedrooms: **2**

Number of Bathrooms: **2**

Estimated Construction Cost: **\$181,345**

