

Hart's Mill  
Prototypes  
Design Goals and Considerations  
Version 4

A. Overall Design Goals and Considerations

1. Budget
  - 1.1 Aiming for around \$150 per square foot.
2. Schedule
  - 2.1
3. Ecologically Responsible and Regenerative Construction
  - 3.1 Sustainability: Our ways of living and building should do the least environmental harm and aim, as far as practical, to have a net regenerative impact on the environment.
  - 3.2 Build to high performance standards, but do not plan to pursue certifications.
  - 3.3 Incorporate passive solar principles to the greatest degree as practical.
  - 3.4 Balance energy efficiency and cost of construction.
  - 3.5 Aim for net-zero energy.
  - 3.6 Affordable while being as “natural” as possible with the least negative environmental impact.
  - 3.7 Various alternative construction approaches are under consideration.
4. Architectural Design and Character
  - 4.1 Simple blend of traditional “cottage” and modern character.
  - 4.2 Orient roofs for solar panel installations.
  - 4.3 Orient layouts for passive solar.
  - 4.4 Lots of natural light into the interior of living spaces and bedrooms.
  - 4.5 9' ceilings minimum, vaulted where the opportunity arises.
  - 4.6 Feel like the house is alive and breathing, incorporating natural materials, nature inspired design elements, natural ventilation, natural lighting.
  - 4.7 Provide for personal adaptations and added unique character.
  - 4.8 Favor two stories in order to minimize footprints and impervious surface.
  - 4.9 Good sound buffering.
  - 4.10 Review and agree number and types of units to be designed to which accessibility provisions. JL to research and propose.
5. Lifestyle
  - 5.1 Common spaces to foster community.
  - 5.2 Intentional community lifestyle.
  - 5.3 Aim to live in harmony with each other and the land.

- 5.4 Aim to be as self-sustaining as possible.
- 5.5 Layered relationships from indoors to outdoors and private to public.
- 6. Functionality
  - 6.1 Ground floor common use areas should be wheel chair accessible.
- 7. Construction Materials and Finishes
  - 7.1 Easy maintenance
  - 7.2 Low carbon footprint
  - 7.3 High carbon sequestration
  - 7.4 Locally and responsibly sourced when possible
  - 7.5 Non or low toxicity
  - 7.6 Natural rough wood
  - 7.7 Natural materials
  - 7.8 Durable materials
- 8. HVAC
  - 8.1 Favor mini-split HVAC systems.
- 9. Solar
  - 9.1 Photovoltaic arrays on roofs. Use rule of thumb area for potential net zero energy.
- 10. Hot water
  - 10.1 ?
- 11. Other systems, elements, and considerations
  - 11.1 Allow space in bathrooms for the substitution of self-contained composting toilet in place of regular toilets at a later time.
- 12. Special Wishes for some units
  - 12.1 East facing bedrooms.
  - 12.2 Sleeping porches.
- 13. Site
  - 13.1 Create and integrated fabric of built structures and site features
  - 13.2 Character and placement of outdoor spaces is very important
  - 13.3 There will be approximately 20' - 30' between units. Many units will be staggered per the site layout.
  - 13.4 Possible decks and patio areas in addition to porches. Possible community outdoor cooking areas sprinkled throughout.
  - 13.5 Range of available outdoor spaces from private, to semi-private, to public.
  - 13.6 Kitchen gardens, possibly "half-hidden".
  - 13.7 Courtyard spaces
  - 13.8 Paths and goals
- B. Prototype B: Common area and (4) single room suites
  - 1. Common Area, Rooms and Spaces
    - 1.1 Small entry porch
    - 1.2 Foyer



**WHAT ON EARTH ARCHITECTURE**

828 236 2947

jonathan@whatoneartharchitecture.com

www.whatoneartharchitecture.com

- 1.3 Having a foyer is not a Priority. Open floor plan with Kitchen, Living, and Dining areas together
  - Living spaces oriented to the South.
- 1.4 Living
  - Furniture?
- 1.5 Dining
  - Need large dining space
  - Furniture?
- 1.6 Kitchen
  - Refrigerator
  - Place for wall oven(s).
  - Stove top
  - Double sink
  - Pantry closet, full height
  - Place for pot rack
  - Possible pass-through to porch
  - Lots of light
  - Views in different directions if possible
- 1.7 Flexible Utility Room
  - Place for washer dryer hookup
  - Possibly designed to serve as a mudroom
  - Possibly including a half bath that would be accessible without going through the living area
- 1.8 Half Bath
  - Sink on vanity
  - Toilet
- 1.9 Porch
  - Possible screened and/or three season porch
  - Sink on and counter on porch?
- 1.10 Other outdoor spaces, deck, patio?
- 1.11 Room Placement and Adjacencies
  - Connection from Kitchen/Dining to screened porch
- 2. Suite, One Room, (4)
  - 2.1 Separate entry with small roof cover, if not through shared porch.
  - 2.2 Small porch
  - 2.3 Bedroom with small wet bar, 5' long.
  - 2.4 Closet
    - Walk-in
  - 2.5 Bathroom

- Shower with bench
  - Toilet
  - Vanity with sink
- C. Prototype C: Two Bedroom house with two room suite added.
1. House, Two Bedroom, Rooms and Spaces
    - 1.1 With the two room suite, this could be considered a three bedroom house with a Master Suite.
    - 1.2 Small entry porch
    - 1.3 Foyer
      - Having a foyer is not a priority.
    - 1.4 Open floor plan with Kitchen, Living, and Dining areas together
      - Living spaces oriented to the South
    - 1.5 Living
      - Furniture?
    - 1.6 Dining
      - Furniture?
    - 1.7 Kitchen
      - Refrigerator
      - Range
      - Double sink
      - Pantry closet, full height
    - 1.8 Half Bath
    - 1.9 Laundry Closet
      - For stacked washer/dryer.
    - 1.10 Screened porch, possibly adjacent to Kitchen
      - Do not block views from living areas
    - 1.11 Other outdoor spaces, deck, patio?
    - 1.12 (2) Bedroom
      - Bedroom
      - Closet, walk-in
    - 1.13 Shared Bathroom
      - Shower with bench
      - Toilet
      - Vanity with sink
  2. Suite, Two Room
    - 2.1 Separate entry with small roof cover.
    - 2.2 Small Porch
    - 2.3 Sitting Room with large wet bar 8' - 10' long
    - 2.4 Bedroom

2.5 Closet

- Walk-in

2.6 Bathroom

- Shower with bench
- Toilet
- Vanity with sink