

COMPACT HOUSE DESIGN

- Designing and building your own home to any degree can be a great way to liberate yourself and improve the place where you probably spend the majority of your time and energy.
- BE EMPOWERED, BE ENCOURAGED. YOU CAN DO THIS! IT'S JUST A MATTER OF MANAGING TIME AND MONEY.
- IF YOU ARE NOT AN EXPERIENCED BUILDING PROFESSIONAL, PLEASE CONSULT AN EXPERIENCED BUILDING PROFESSIONAL BEFORE DOING MUCH, IF ANYTHING, ON YOUR PROJECT!!! IT MAY SEEM EXPENSIVE TO PAY SOMEONE UPWARDS OF \$30/HR, BUT IT WILL SAVE YOU TIME AND MONEY IN THE LONG RUN!!!
- How to Design
 - Start with your existing spaces, spaces you've lived, spaces you've spent considerable time in or talked with the person who does. Measure and record.
 - Sketch simple rough drafts
 - Tape things off / setup temporary divisions
 - Make scaled house components to move around on graph paper
- 2D vs 3D design
 - 2d graph paper design can be a cheap, easy way to get started.
 - 3d design allows for faster modification and insight, but takes some time to learn. Sketchupfree is a great personal 3d drawing/modeling program.
- How big?

- By building code, house can be any size, but there are minimums (with some exceptions)
- All dwellings must have one room of minimum 120 sq ft
- Bedroom 70 sq ft w/ 7' minimum horizontal dimension
- Kitchens excluded from above minimums
- General minimum ceiling height of 7'
- Tiny houses on wheels can be difficult because there are no standards for them in the building code other than factory manufactured structures (i.e. typical mobile homes)

- Where's it going?
 - Buy your own land, rent/park on someone else's land

- Money
 - Traditional bank loans require "comps". Depending on your area, there may or may not be houses that have "legally" been built/sold to show the bank there is demand for a smaller than average home.
 - Alternative funding can be highly appealing.
 - Smaller homes tend to cost more per square foot. \$200/SF is a safe starting point for a professionally built, inspected, turn-key home. Does not necessarily include land.

- DIY vs Professional
 - DIY can save you a lot of money, but still requires a lot of your time. YOUR TIME IS VALUABLE! If you have plenty of spare time and a comfortable degree of experience, this may be a great option.
 - Professionals with years of experience can save you lots of time, money, and headache.

- Professional GC vs. Owner General Contractor

- Being your own GC is allowed in some localities. You may even be able to do your own electrical, plumbing, HVAC.
- Requirements vary by locality.
- You can be your own GC and still hire professional crews to perform each stage of construction.
- Professional GCs often have a network of preferred sub-contractors that allow for a smoother flow of work and expectations.

- To permit or not to permit?
 - The building inspection process and corresponding code can seem overwhelming and unnecessary. It also does not provide much room for alternative construction methods. It is there to provide a basic level of comfort and safety in housing for the occupants, neighbors, and community in general.
 - You may be able to get away without building to code, but I recommend you AT LEAST understand it and refer to it through construction and design.
 - Without inspection your house may be difficult to occupy, sell, and may be considered completely invaluable as anything other than an uninhabitable outbuilding.
 - Certificate of Occupancy (C.O.) usually required for electrical utility connection.
 - The building code is often a slightly modified version of the IRC (International Residential Code) from a few years back.

- Lots to Design...
 - Site plan, tree removal, grading, driveway, parking
 - Water Source
 - Layout/floor plan
 - Foundation
 - Structure
 - Windows/Doors

- Exterior Finishes (Roofing, Siding, Window/door/soffit/fascia Trim, Gutters)
- Electrical
- Plumbing (Water Supply, DWV, gas)
- HVAC (Heating, Ventilation, Air Conditioning)
- Insulation
- Interior Finishes
 - Walls/Ceiling ($\frac{1}{2}$ " sheetrock minimum usually, $\frac{5}{8}$ " in some places)
 - Trim (Windows, doors, baseboard, etc)
 - Flooring finishes (Wood, tile, marmoleum, cork)
- Stairs and ramps
- Bath and Kitchen
 - Tubs, showers, wet walls
 - Fixtures
 - Sink/vanity
 - Cabinets/countertops
- Appliances
 - Hot water
 - Water pump, pressure tank/regulator, water filtration, holding tank
 - Range/fan
 - Vent fans
 - Fridge, Washer/dryer, Dishwasher
- My home design and building experiences.....