A. **Purchase Container** (Assuming standard 20 footer)

1. Used vs. One-Way Container
    a. Used
        i. 1200 - 1800 dollars
        ii. Requires cleaning and painting.
        iii. Side dinged by forklifts usually
    b. One-Way
        i. 2000 dollars
        ii. Better deal. Brokers don't make as much.
        iii. Minimal wear. Looks professional.
2. Shipping
    a. Around 500 dollars on flatbed truck.
    b. Calculate space and turning radius for truck. i.e. 20 + 20.
    Tilt-bed trailer trucks need a lot of space.
3. Elevate on pressure treated wood or bricks
    a. Prevents water from damaging steel bottom. Rust spreading.
    b. Keeps the container drier and vented.
4. Specialized containers
    a. Insulated, high top, chem storage etc.
    b. More expensive but feasible and exciting

B. **Structural Modifications**

1. Unibody
    a. Same engineering physics as cardboard box.
    b. The sum of all parts (and especially doors) compose the total structural integrity.
    c. Roof is weakest side, make sure water does not pool. Avoid standing on roof.
2. Welding
    a. Reinforcements from rail to rail, prior to window or skylights installation.
    b. Weld along (parallel to ridges) not across
3. Skylight vs. Side Window
    a. Security
    b. Privacy
    c. Light dispersion
    d. Water Leakages (skylight is more leak prone)
    e. Total wall area needed.
4. Entrance
    a. Options for creativity because it is only serving as a weather/privacy screen
5. Ventilation
    a. Are there vents already?
    b. Condensation from weather change and human bodies
    c. Equalizing humidity between outside and inside

d. Create draft. Error on drafty and compensate with bigger stove (?).
e. Stove draws moisture out

6. Double and Triple-Wall Polycarbonate
   a. Available at Home Depot (around 100 dollars)
   b. Cost effective window/insulation material.
   c. Opaque

C. **Heat**

1. *Pellet vs. Wood Stove*
   a. Pellet
      i. needs electric usually
      ii. Sourcing of pellets (order ahead of time)
   b. Wood stove
      i. Can irritate neighbors
      ii. May violate codes in city
2. BTU needed around 40,000. *Check BTU calculator (use poor insulation factors)*
3. Safety
   a. CO Detector
   b. Oxygen source/draft Don't seal all the windows and doors airtight!

D. **Electricity** (*Current = Amps x Voltage!)*

1. Solar Panel
   a. Higher wattage panel charge batteries faster. 270 watt is good
2. Charge controller
   a. Keeps batteries topped off.
   b. Xantrax is excellent charge controller – allows more panels and batteries to be added.
3. DC breaker (not AC).
4. Ground wire to container
5. Batteries
   a. Get double the amp hours needed
   b. Batteries last exponentially longer the less they are used
   c. AGM
6. Inverter (for 110v).
   a. Avoid using too much (as it drains power) by wiring things directly from 12v or 24v battery setup.
   b. Abbreviated sine wave doesn't work with all appliances. *Test with surge protector.*
   c. Laptops and computers seem to work fine. *ie: table, chop saw and projectors will not*.
7. 12v or 24v configuration? Depends on what will be powered.
8. AltE website, DMSolar and Amazon are best for purchasing.
9. LED lights
   a. 16' strips (not incredibly strong, hard to get right color, but good for diffusing).

b. Incandescent style bulbs are nice or LED Edison bulbs.

10. Lower voltage DC current (24v/48v) can be more dangerous than higher volt AC (110v)

E. **Other**

1. Compostable toilet?
2. ADA. Ramp or “Mind your Step” sign
3. Magnets for hanging
   a. Rare earth and heavy duty through Amazon can take a lot of weight
   b. Home Depot magnets worthless. Plan ahead and avoid HD if possible.