

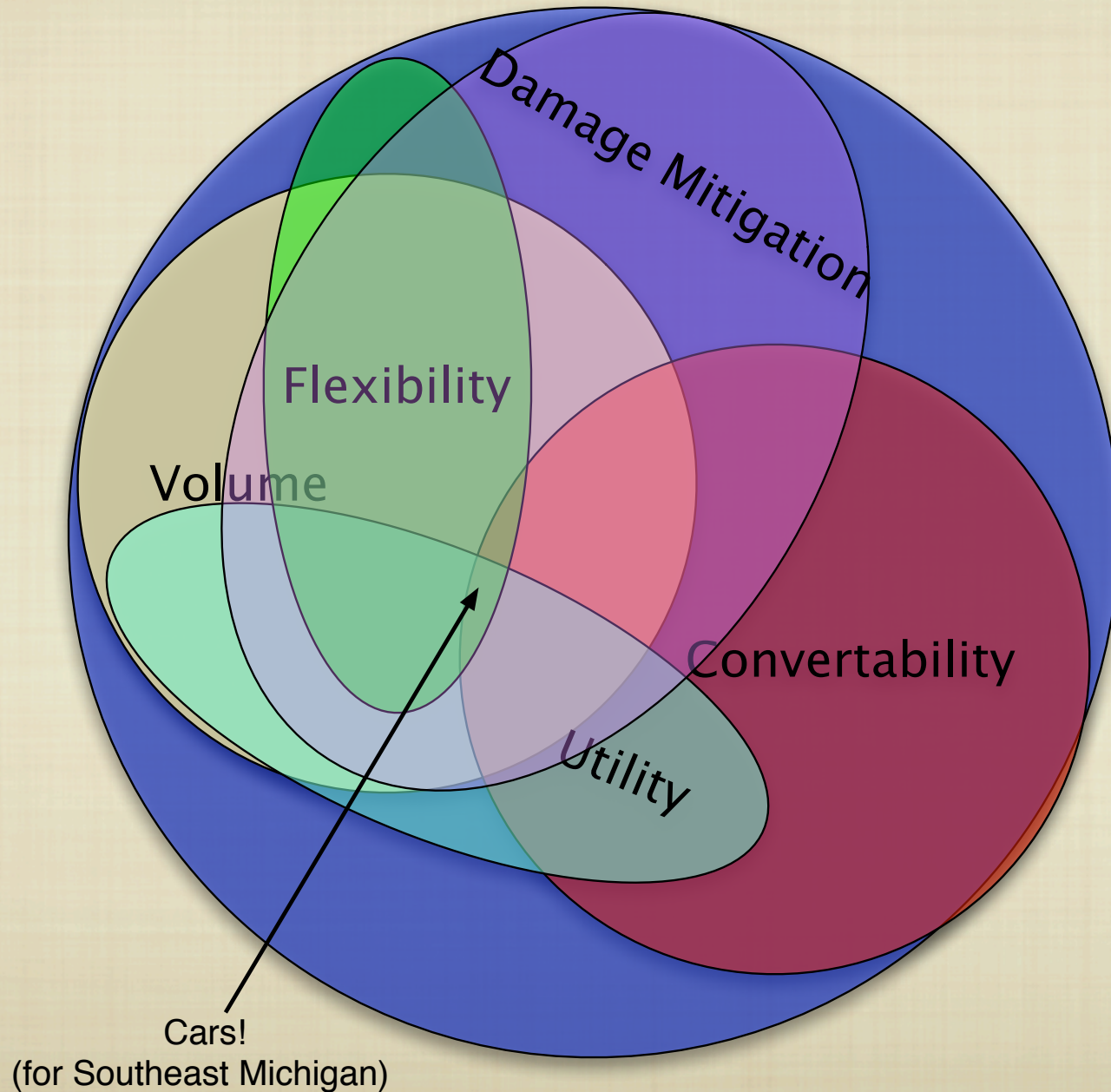
MATERIALS FLOW ANALYSIS

Zeroing in on a Waste to use as a Material

1. **Availability**—What waste flows exist?
2. **Volume**—Pick wastes high in volume
3. **Convertibility**—Pick wastes that require low conversion inputs
 - Hierarchy of reprocessing:
 - *Reuse*
 - *Remanufacture*
 - **Refabrication—This is our cutoff**
 - *Recycling*
 - *Downcycling*
4. **Resource Utility**—Pick wastes that have a high *resource value*
5. **Resource Flexibility**—Pick wastes that become a *range of resource-forms*
6. **Damage Mitigation**— Pick *Active Wastes before Passive Wastes*

MFA FOR SOUTH EASTERN MICHIGAN

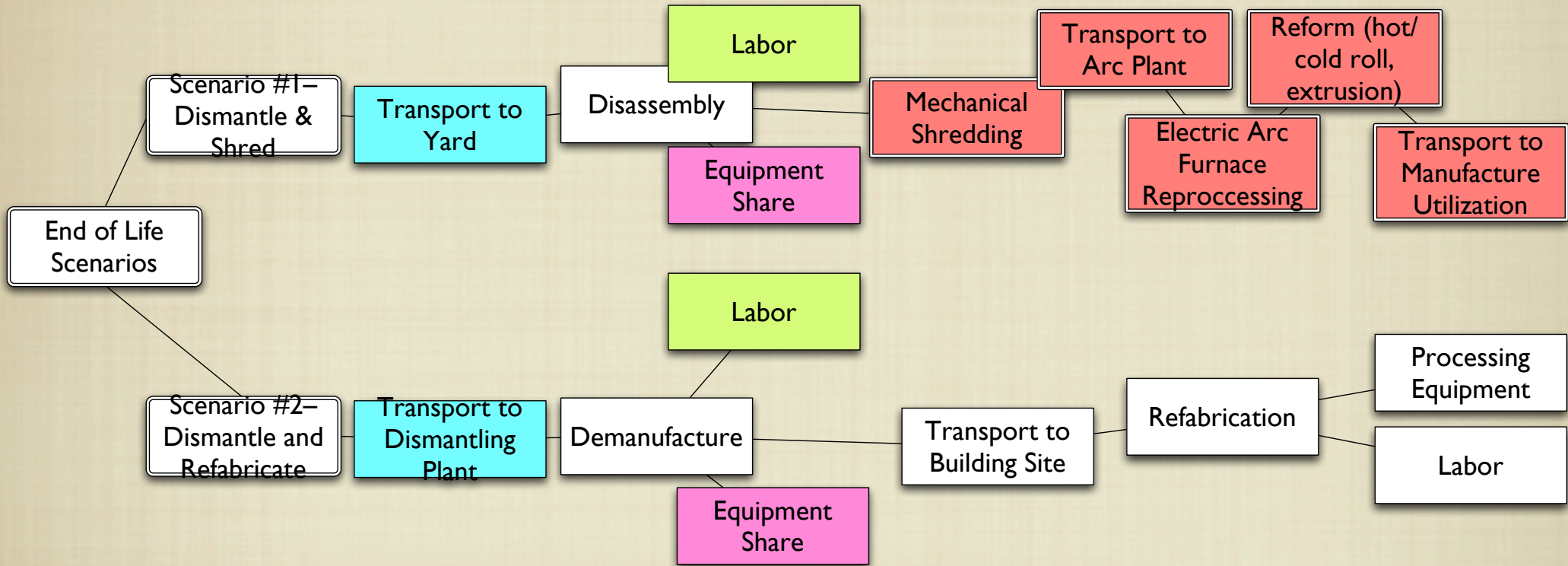
Available Materials Flows

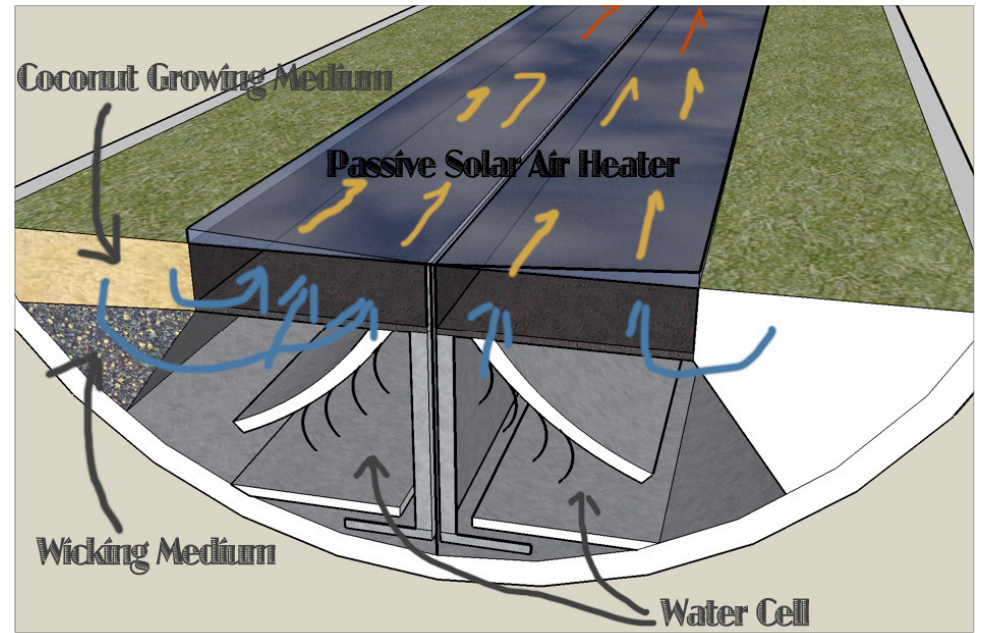
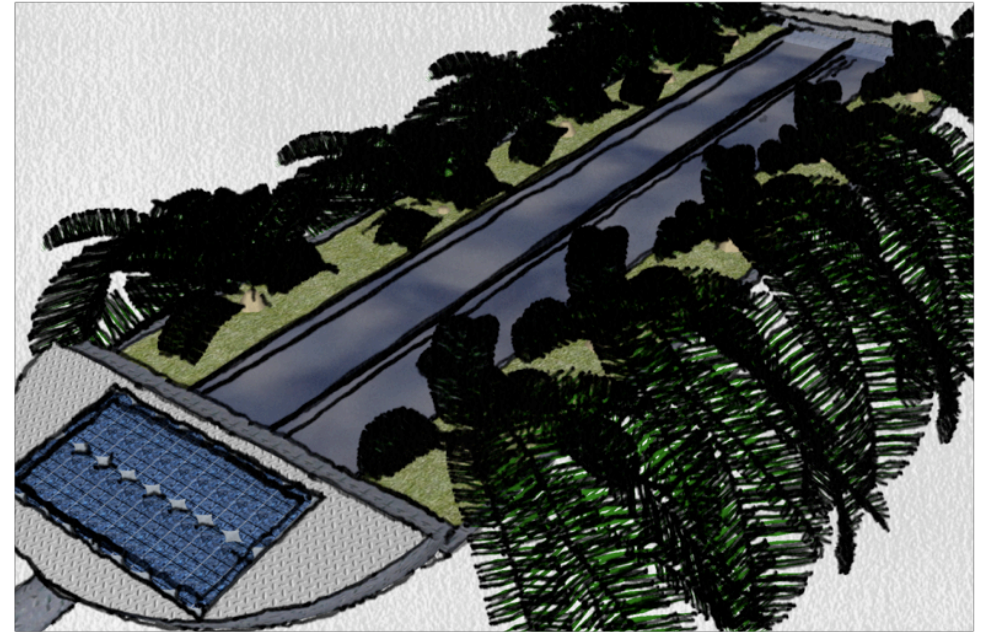
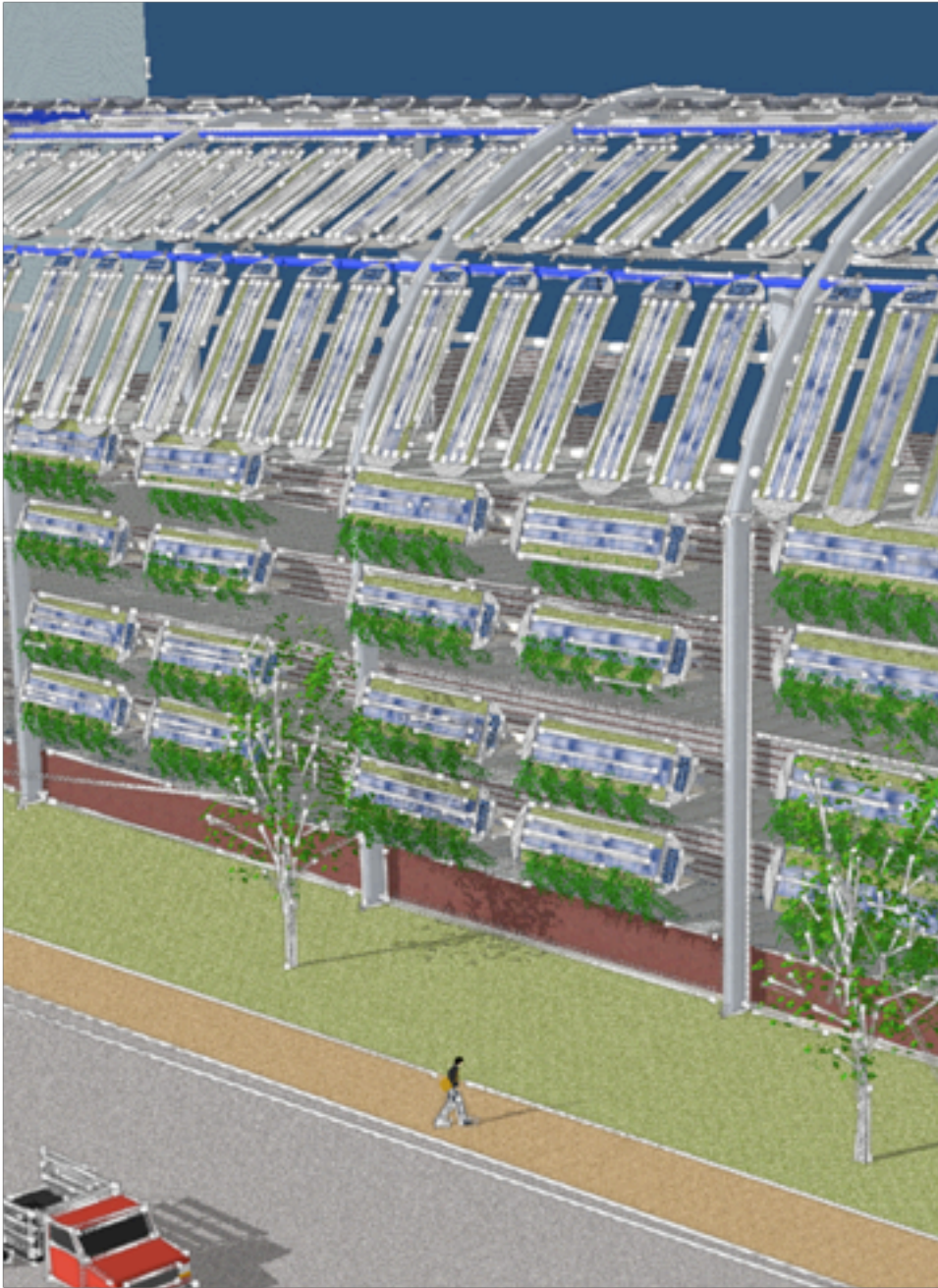


CAR HOODS AS WASTE STREAM

- 156,000 Cars and light Trucks are retired in the Detroit Area each year
- At an average area of 1.4 sq/m per hood
- with 80% utilization
- ...this covers 134,000 sq/m

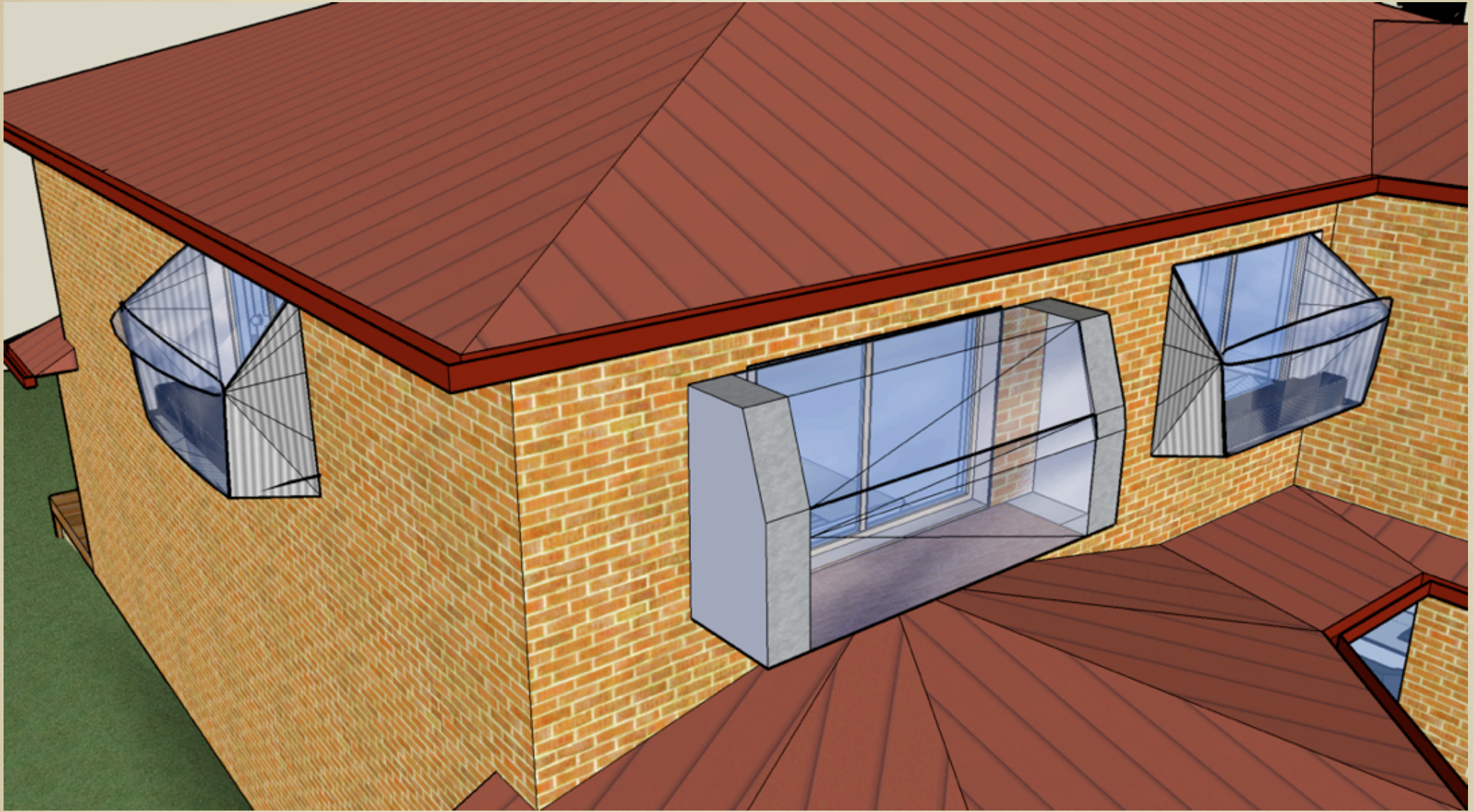
CAR HOOD END OF LIFE SCENARIOS





Green Facade Solar Siphon

PASSIVE THERMAL WINDOW BOX



QUESTIONS:

1 . For the wrap, we want to *inspire the audience to explore the possibilities for the form and function* of repurposed waste.

If we want the audience to make the connection between repurposed waste and solving functional design problems, is this best done with:

- Something functional that is also kinda pretty
- Something beautiful that inspires you to think of what functional ways it could be employed

2. What "charismatic product" might best sell our process and the idea of waste recapture and re-fabrication?

3. If you were going to try to replicate this process with another material **and a specific design problem**, what parts of this process do you think are critical to have documented and explained?