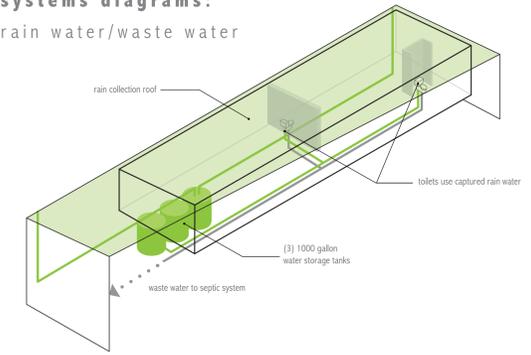


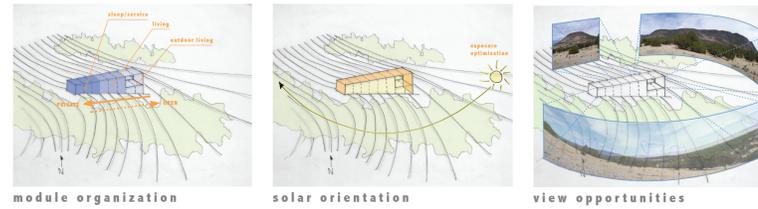
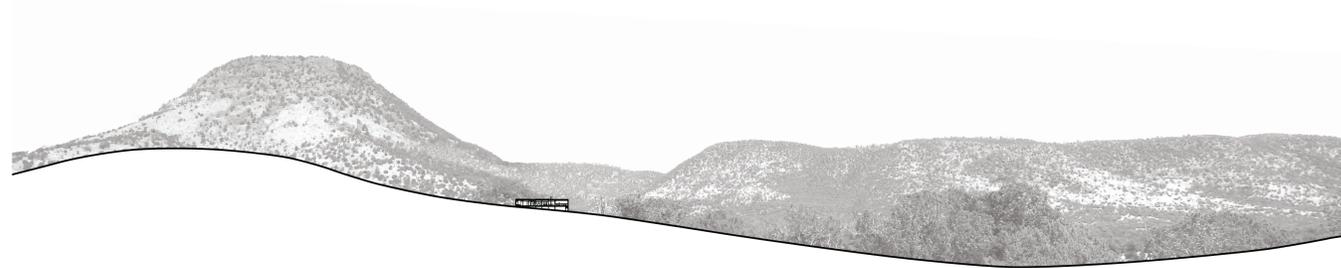
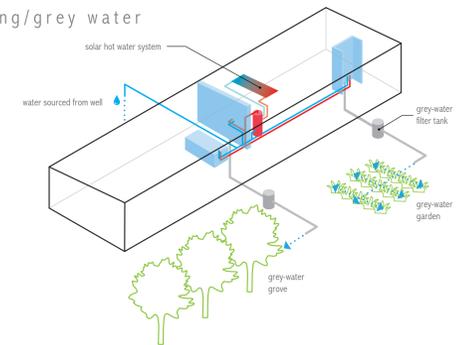
Structural, programmatic and climatic constraints result in a linear organization of the house. The repetition of identical structural bays gains economy in fabrication and simplicity of construction. The long East/West orientation minimizes the harshest desert solar gains while maximizing the more beneficial and controllable southern solar exposure. Additionally, this layout allows large expanses of the Northern facade to be opened to the beautiful mountain views, and creates a sheltered walkway and entry from the prevailing winds coming for the salt plains to the South.

The program of the house is organized from West to East moving from private to public, with the protected master bedroom situated at the hillside end of the house and the open, outdoor living area located at the West end of the house. As the ground gently falls away to the West a lower parking area is created under the outdoor deck, while the living area up above is afforded tree-house-like views above the local pinon pine and mesquite trees. Finally, the linear layout allows all of the program to be universally accessible from the guest parking to the West, ensuring that as the owners and guest age the house can accommodate any and all inhabitants.

systems diagrams:
rain water/waste water

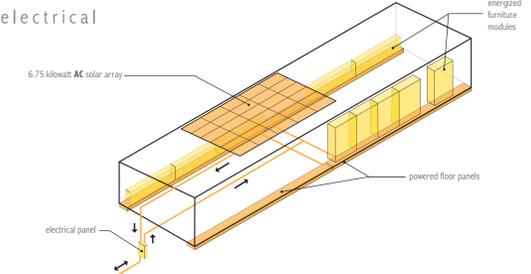


plumbing/grey water

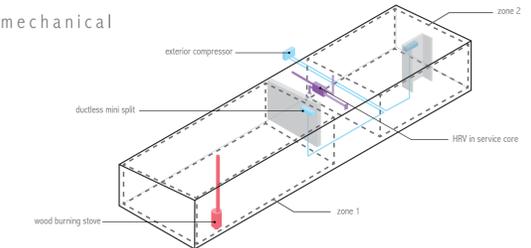


All of the componentry for the Remote Home was selected after setting strict criteria and weighing the benefits of portability, availability, and performance. Typically the lightest and most durable (steel) components were selected, although in the case of the panelized envelope OSB SIPs were selected due to their availability and ubiquity within the residential construction industry. The goal of establishing these criteria was to allow the design to adapt in the future with a different site or a more restricted set of material choices. This underlies the essence of this project's prefabrication: it is an organizational system rather than a specific set of components, and that system can be adapted to the site and the clients' needs in different situations. It is meant to be fabricated by any fabricator using local materials according to availability and labor skills. Since there are no specific parts, just simple and ubiquitous components, no tooling or extra training is needed, and the design is flexible enough to accommodate any common building material.

electrical



mechanical



criteria/performance

- foundations**
 - PRECAST CONCRETE: heavy structural, light for the ground, compatible with sloped sites
 - CONCRETE FOUNDATION: heavy ground work, added for better light, helps insulate below the house
- structural frame - 2ft. module**
 - STEEL: weather-resistant, resistant, made from partially recycled materials, recyclable, excellent insulation, easily assembled
 - OSB SIPs: made from locally sourced materials, available, excellent insulation, easy to assemble
 - CONCRETE FRAMED WOOD: readily available material, accepted technology, able to integrate systems
 - ALUMINUM: lightweight, 100% recyclable, easily cut and used in application
- roof**
 - STEEL SIPs: weather-resistant, resistant, made from partially recycled materials, recyclable, excellent insulation, easily assembled
 - OSB SIPs: made from locally sourced materials, available, excellent insulation, easy to assemble
 - CONCRETE FRAMED WOOD: readily available material, accepted technology, able to integrate systems
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 - LIGHT COVER: cheap, light weight, quickly easily replaceable
- exterior walls - 2ft. module**
 - STEEL SIPs: weather-resistant, resistant, made from partially recycled materials, recyclable, excellent insulation, easily assembled
 - OSB SIPs: made from locally sourced materials, available, excellent insulation, easy to assemble
 - CONCRETE FRAMED WOOD: readily available material, accepted technology, able to integrate systems
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- floor**
 - WOOD FRAMED: readily available and renewable, cheap, generally recyclable
 - CONCRETE FRAMED: possible for natural energy storage
 - SYSTEMS PRE-INTEGRATED: radiant, water, waste, heating/cooling
- interior walls**
 - STEEL SIPs: fire and trailer resistant, lightweight, true dimensions, adaptable
 - WOOD FRAMED: readily available and renewable, cheap, generally recyclable
 - CONCRETE FRAMED: possible for natural energy storage
 - SYSTEMS PRE-INTEGRATED: "heavy walls" will have all MEP pre-installed with quick connect fittings
- hardware**
 - CONSUMER HARDWARE: cheap, readily available, tested, warranted, durable
 - CONCRETE HARDWARE: "heavy walls" will have all MEP pre-installed with quick connect fittings
 - INTEGRATED INTO WALL PANELS: all hardware will be pre-installed in exterior wall panels with established modules

selection

- foundations**
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