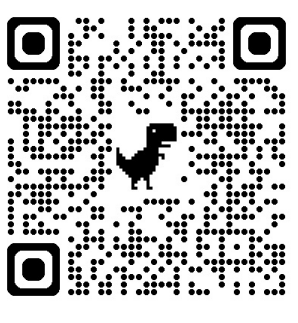


SustAIN HAUS



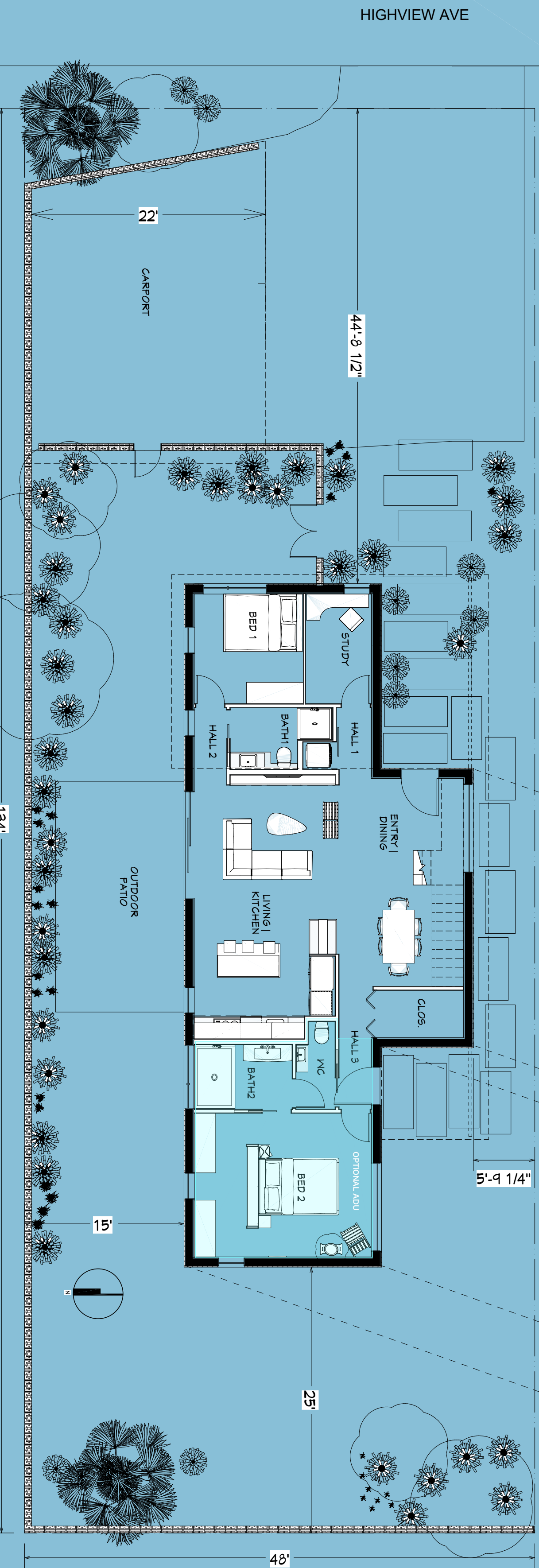
SustAIN HAUS pays homage to the work of lesser-known modernist architect, Gregory Ain, many of whose iconic homes were destroyed by the January 7th, 2025 Eaton Fire. For this design we selectively borrowed from Ain's restrained forms and details, but detached his row house form to improve fire separation. The front-loaded carport design used in his Highview Avenue Park Homes remains. This helps to reduce both construction costs and on-site paving, while providing privacy from the street. We recognize that while this carport location is no longer strictly compliant with current Altadena zoning codes, its historic precedence and notable benefits should allow it to be admissible under the 'nonconforming' pathway.

Other notable Ain-inspired features include options to reconfigure the interior space. SustAIN HAUS offers similar flexibility, including an option to turn the rear bedroom and bathroom into an attached studio, or adapt the upstairs mezzanine area for multiple other uses.

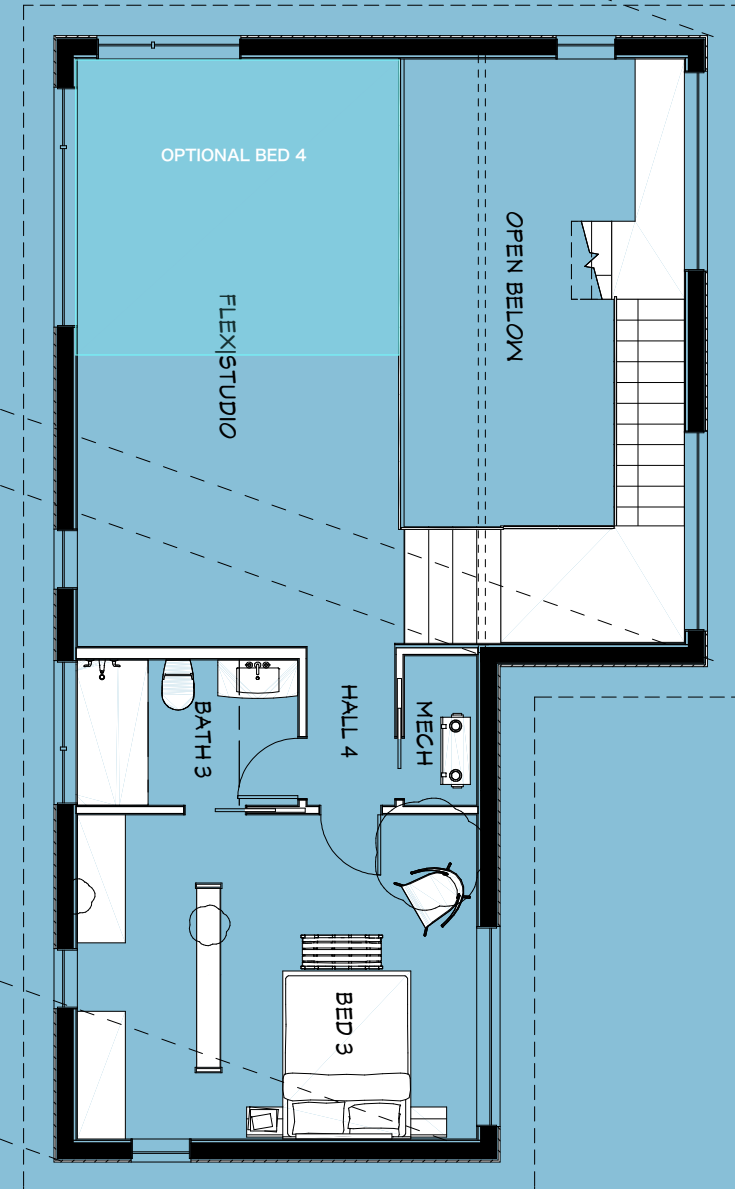
On the exterior, we've used the pared-down materials favoured by AIN and his contemporaries. White stucco walls and standing seam roofing offset the contrasting dark windows and doors, with horizontal muntins that echo those of Ain's Dunsuir Flats. Fully enclosed pre-fabricated eaves provide robust fire-hardening, along with encased roof gutters and external shades. [A simplified exterior shading option, using perforated metal screens, may be offered in lieu of the exterior venetian blinds shown in the current rendering.] The primary bedroom suite on the lower level offers accessibility and allows for aging in place.

Full Passive House detailing was applied to all parts of this design, starting with the insulated concrete form footings, to the sub-slab insulation, along with multiple options for exterior shading. In Los Angeles's mild climate, we found that minimal sub-slab insulation was necessary, but that perimeter insulation was still beneficial. Other PH-typical details such as continuous smoke-tight membranes; heat recovery ventilation; and thermal-bridge free connections further improve both fire- and climate-resilience. A deep open-web truss structure was specifically selected for the second floor structure to allow easy ducting distribution for the easily accessible HRV. This deliberate choice allows for future reconfiguration of plumbing and wiring. We note that triple-pane glazing is unnecessary in this climate to meet Passive House metrics, but we have historically found that triple-pane options are now cost-effective and offer added fire and acoustic separation benefits.

We've chosen to design SustAIN HAUS specifically for prefabrication using the standardized wall, roof and floor panels produced in New Mexico by B.PUBLIC PREFAB. These low embodied carbon panels offer a simplified building process that expedites site construction timeline. Our design has further optimized the prefabrication process by including the roof overhang elements as a custom panel developed in collaboration with B.PUBLIC. The use of prefabricated systems again aligns with the pioneering work of Gregory Ain, who similarly explored off-site construction in a bid to make his designs accessible and affordable to all.



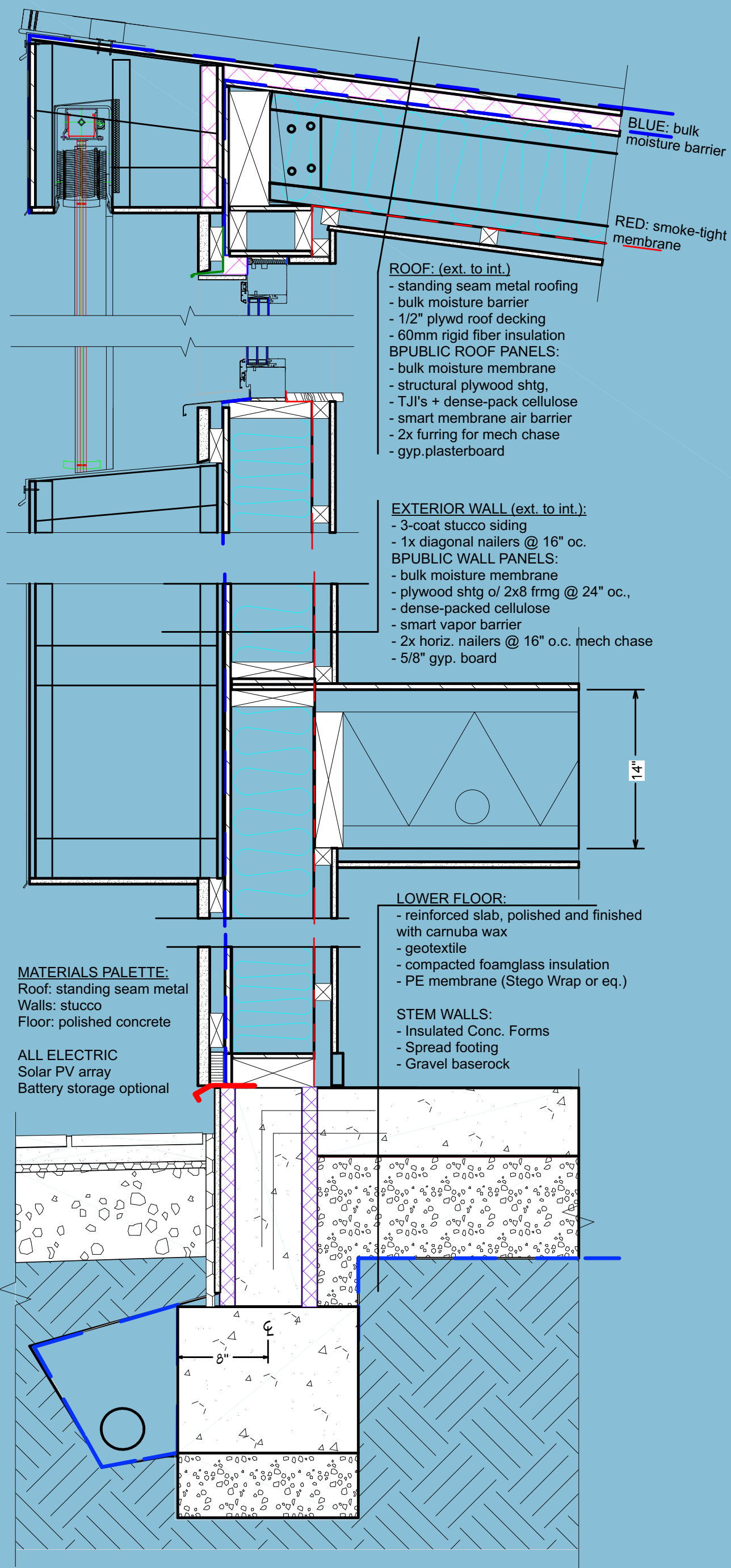
SITE & 1st FLR PLAN



2nd FLR PLAN

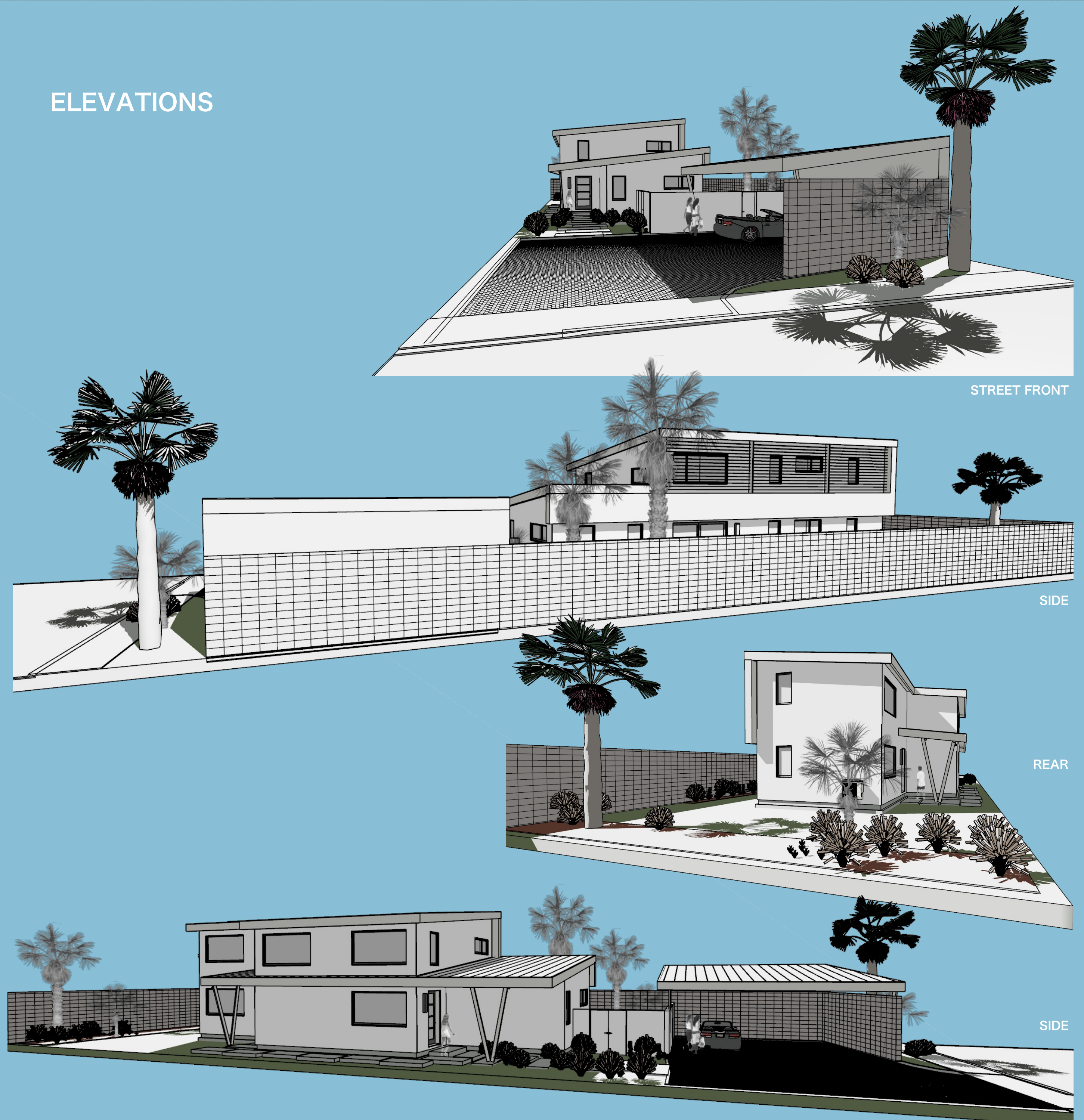


passive
house



SECTION DETAILS

ELEVATIONS



STREET FRONT

SIDE

REAR

SIDE