

CASE STUDY 2.0

REBUILDING LOS ANGELES



SPARCHS
STEPHEN PHILLIPS ARCHITECTS

DELIVERABLES

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INTRODUCTION

ABOUT US



At **Stephen Phillips Architects (SPARCHS)**, we believe it is our responsibility to design livable and socially engaging contemporary environments that satisfy the needs and desires of our clientele. We believe that no design is too small or too large to support greater human values, and that every design has a responsibility to engage in a dialogue with contemporary world culture.

As architects, historians, and educators, we have over 25 years of award-winning professional California experience building passive, fire-resistant, and ecologically sensitive residential designs at a variety of scales. At SPARCHS we engage in the study of a rich building tradition that impacts contemporary design, as we offer to our client's valuable insights that support innovative ideas alongside pragmatic solutions.

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BOULDER RANCH



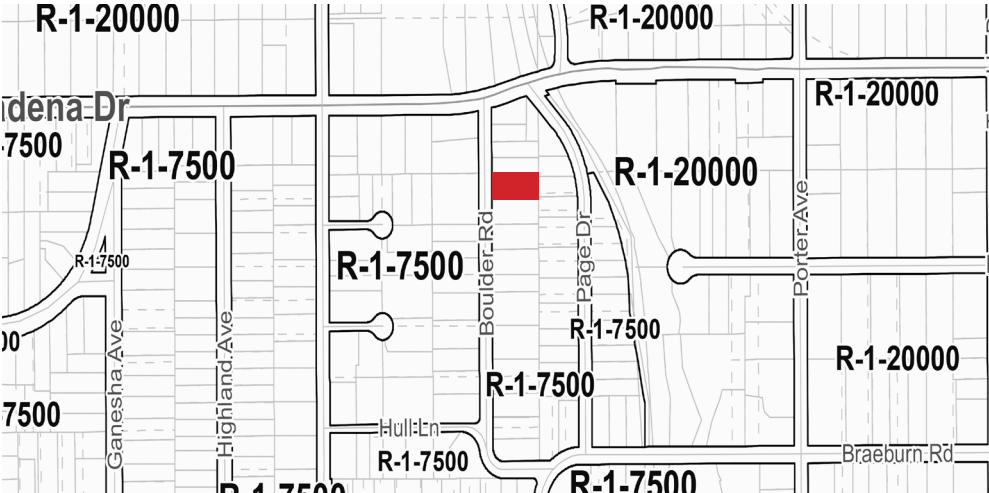
Designed as a like-for-like rebuild for a family who lost their home in the Eaton Fire, this five-bedroom residence re-imagines California's architectural legacy through a contemporary interpretation of Mid-Century Modern, Arts and Crafts, and Art Deco traditions. A distinctive composition of woven butterfly, ridge, and valley roof forms establishes the home's architectural identity while responding to climate, views, and passive environmental performance. At its center, a dramatic double-height living space connects the home's north, east, and west wings, promoting abundant daylight, passive cross-ventilation, and seamless indoor-outdoor living.

Warm wood interiors, perforated metal shading screens, and an earth-toned material palette create an architecture that is unmistakably Californian while embracing contemporary fire-resilient design. Fire-resistant construction, passive environmental strategies, and durable, locally sourced materials are thoughtfully integrated without compromising architectural expression. Rather than relying on generic contemporary forms or technology-driven solutions, the project demonstrates how resilience, sustainability, and regional identity can coexist through timeless design, offering a thoughtful model for rebuilding communities in California's evolving landscape.

PROJECT FACT SHEET

5 BEDROOM 4.5 BATH CONFIGURATION

PARCEL INFORMATION



PROJECT DATA

Address: 2564 Boulder Road, Altadena, CA, 91001

Lot Area: 13,125 sf

Zoning: R1-1-7500

Site Dimensions: 75 ft x 175 ft

Maximum Envelope Height: 30 ft above max grade

L.A.M.C 12.21 C.10 (D)(1)(I): 23 ft located within 15 feet of property line

SETBACKS

Front Setback: 20 ft

Side Setback: 7.5 ft

Rear Setback: 25 ft

Lot Coverage: 3,720 sf (28% of 13,125 sf)

BUILDING AREA

Floor 1: 3,249 sf

Floor 2: 1,005 sf

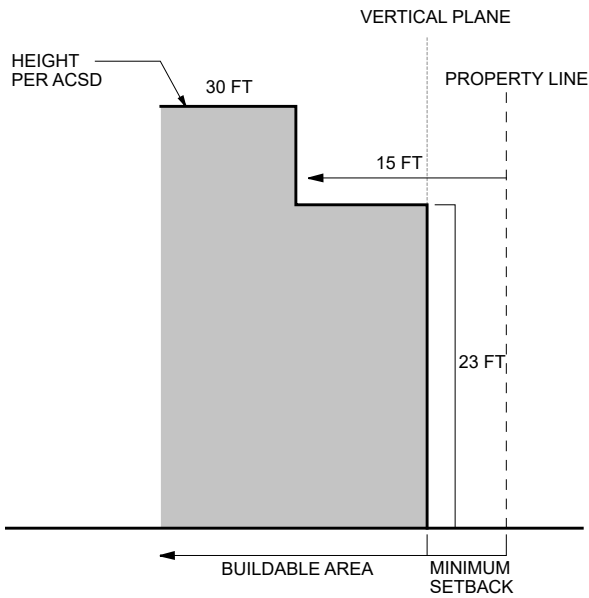
Exterior Balconies: 408 sf

2-Car Garage: 472 sf

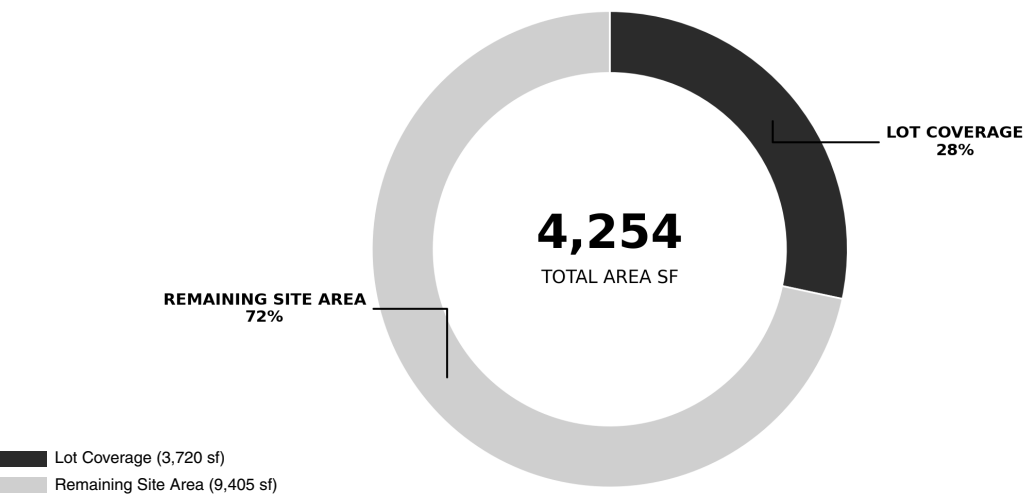
Total Area: 4,254 sf

Building Height: 27 ft

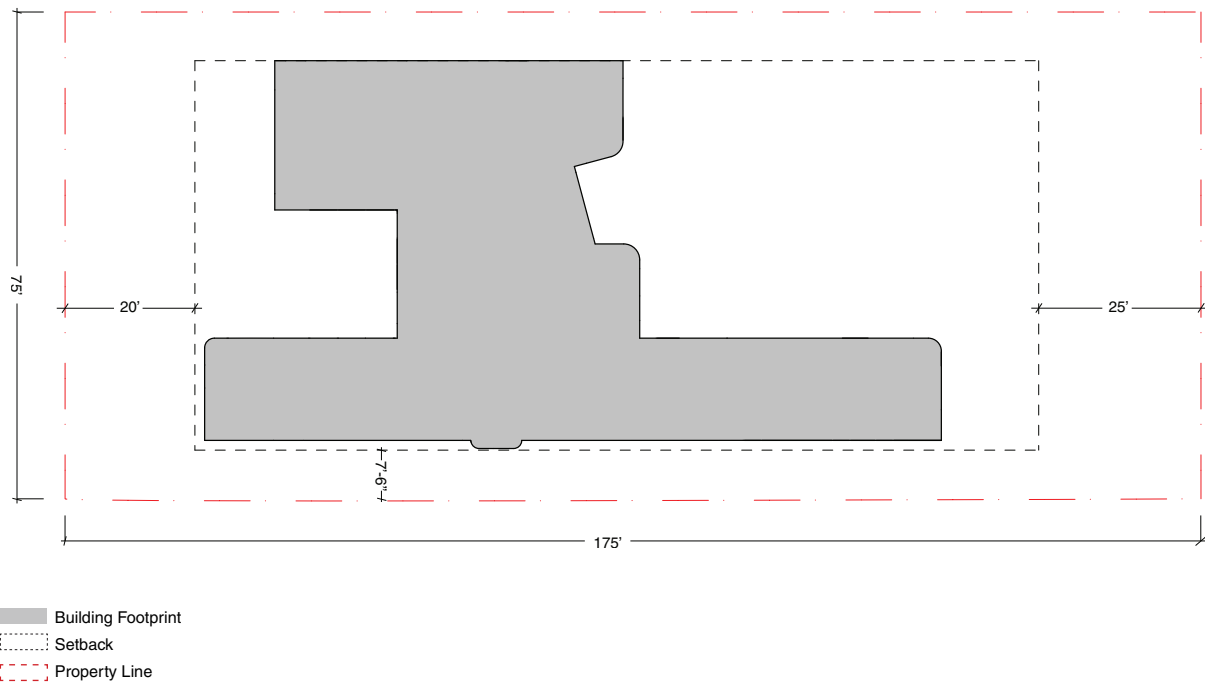
BUILDING HEIGHT DIAGRAM



FLOOR AREA SUMMARY



BUILDING ENVELOPE & SETBACK DIAGRAM



DESIGN FEATURES



FIRE RESISTANCE

Designed for California’s High and Very High Fire Hazard Severity Zones, the home integrates fire-resistant assemblies, noncombustible exterior materials, tempered glazing, and ember-resistant detailing to improve long-term resilience without compromising architectural quality.



ROOFING

A standing-seam metal roof combines woven butterfly, ridge, and valley forms to efficiently shed water, reduce maintenance, and provide exceptional resistance to fire while enhancing passive ventilation and daylight.



BUILDING SIDING

The exterior siding is made of non-combustible cement board panels, manufacturer painted aluminum panels as well as low cast-in-place concrete walls. These materials contribute to a clean and contemporary aesthetic while providing fire hardening and resistance.



WINDOWS & DOORS

High-performance exterior windows and doors are made using aluminum frames, and all glass panes dual-glazed and tempered as required for strength and durability, especially during extreme heat events. Triple glazing is an available option. Openings are strategically located to optimize views, natural cross-ventilation, and daylight access.



DEFENSIBLE SPACE INTEGRATION

Low concrete walls surrounding building property lines, dry garden (gravel and pebbles) with fire-resistant and water efficient native plants, pre-cast concrete tile patios and walkways surrounding 5’-0” of all buildings.



VENTS

All roof, floor, eave, overhang, and wall cavities are ventless reducing risk of flame intrusion. Electric heat-pump ducted HVAC (w/ balanced ventilation system where desired) creates an economical heating and cooling solution; ember and flame resistant vents at exhausts vents where required.



EMBER-RESISTANT FEATURES

Class-A Roof, ventless eaves, non-combustible materials, gutter screens, and concrete hardscape within 5’-0” of buildings all reduce risk of ember ignition.



SUSTAINABILITY

Roof overhangs and glazing are designed to shade sun during the summer, and allow solar gain during winter for passive temperature control and natural lighting.



DESIGN QUALITIES

Inspired by California Mid-Century Modern, Arts and Crafts, and Art Deco traditions, the home combines expressive roof geometry, warm materiality, and contemporary detailing into a timeless architectural composition.



CONSTRUCTION METHODOLOGY

Locally available standard 2x6 timber frame construction with no primary steel structural members reduces costs and build time. SIP panels can be substituted using pre-fabrication technology.



EFFICIENCY

A high-performance building envelope, energy-efficient mechanical systems, and passive cooling strategies reduce energy consumption while providing exceptional year-round comfort.



STYLE FEATURES

A dynamic composition of woven butterfly, ridge, and valley roof forms creates a distinctive silhouette inspired by California’s architectural heritage. The interplay of geometry, light, and material establishes a timeless contemporary identity.



ADDITIONAL SPECIAL FEATURES

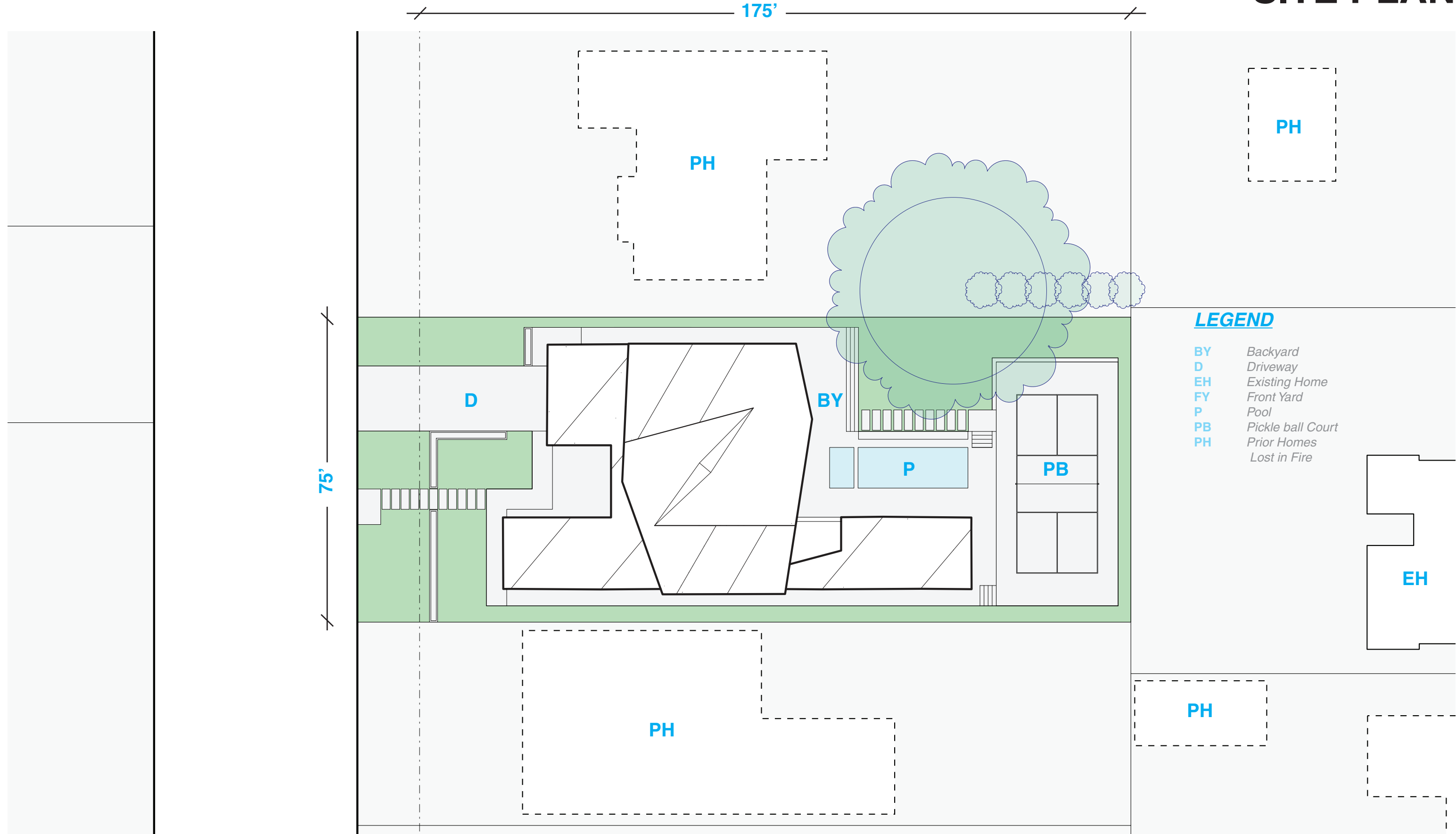
The dramatic double-height great room serves as the heart of the home, connecting public living spaces while maximizing natural light, passive airflow, and panoramic views across the site.



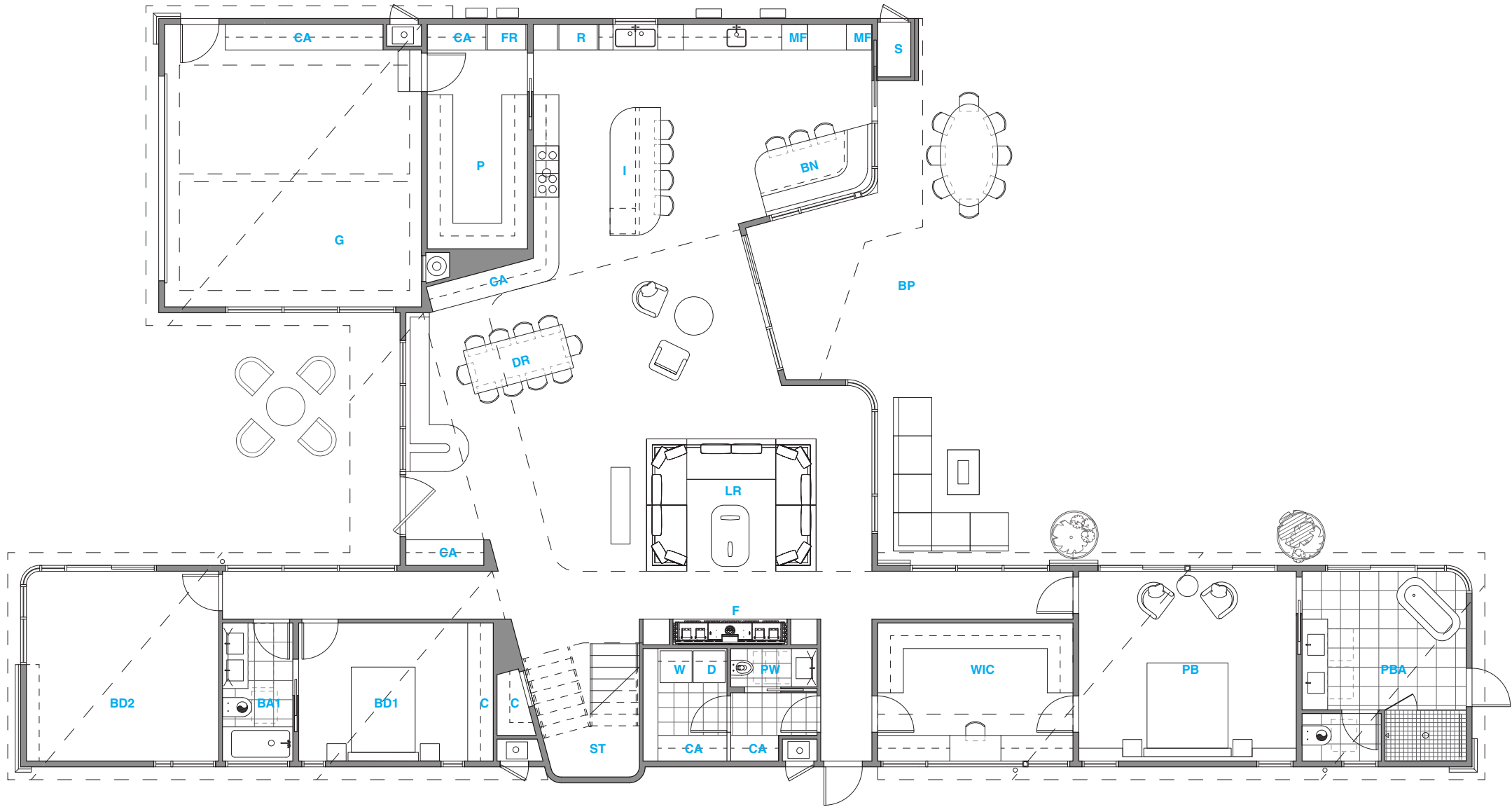
CUSTOMIZATION POTENTIAL

The design can be adapted to a variety of sites, orientations, and client needs while maintaining its architectural character, fire-resilient performance, and passive environmental strategies.

SITE PLAN



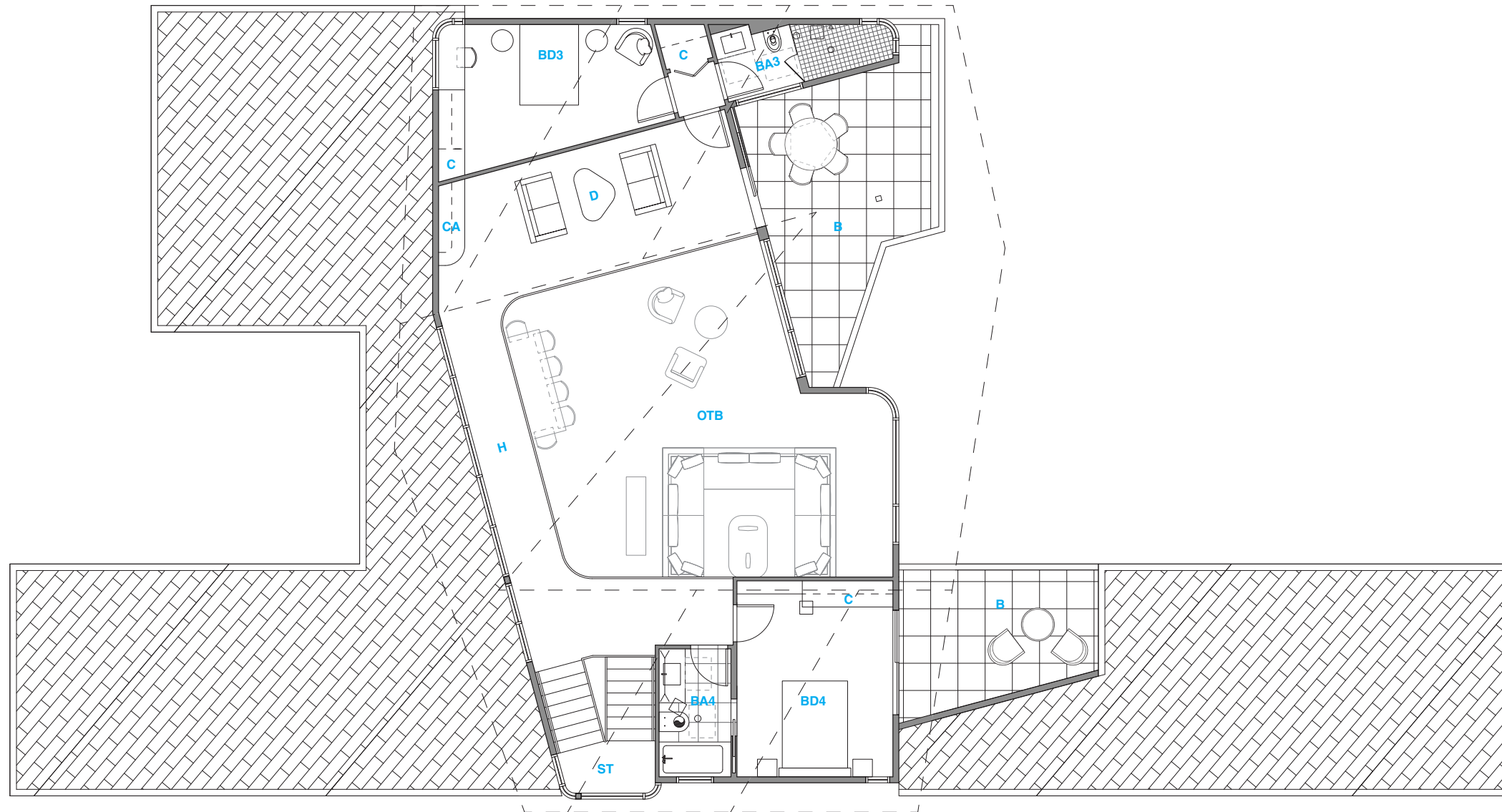
FIRST FLOOR PLAN



LEGEND

BD#	Bedroom #
BA#	Bathroom #
BN	Breakfast Nook
BP	Back Patio
C	Closet
CA	Cabinetry
DR	Dining Room
F	Fireplace
FE	Front Entry
FR	Freezer
G	Garage
I	Island
K	Kitchen
LR	Living Room
MF	Mini Fridge
P	Pantry
PW	Powder Room
PB	Primary Bedroom
PBA	Primary Bathroom
R	Refrigerator
S	Storage
ST	Stair
W/D	Washer / Dryer
WIC	Walk-in Closet

SECOND FLOOR PLAN

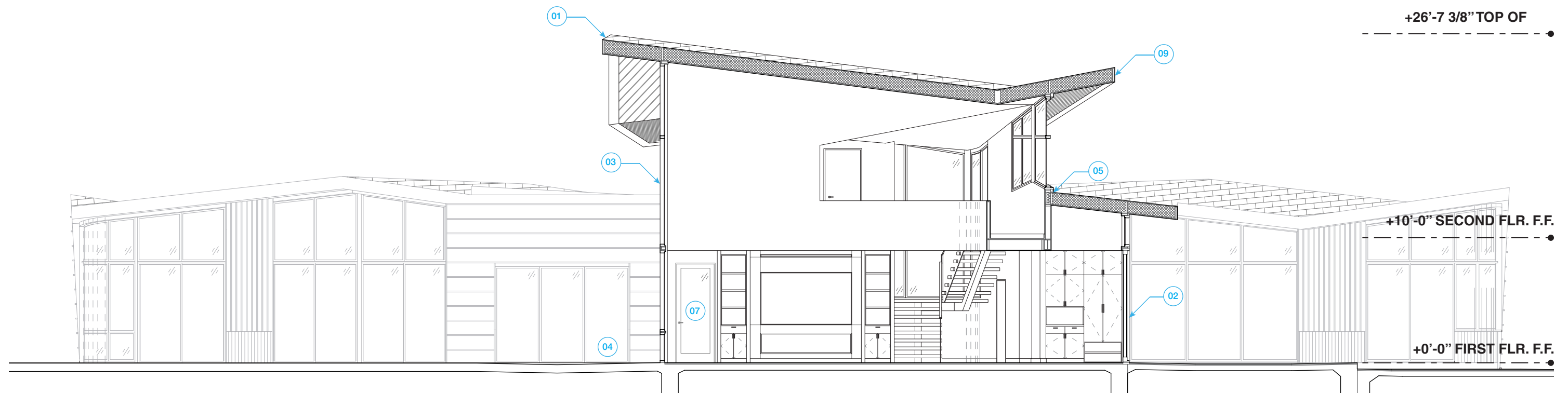


LEGEND

B	Balcony
BD#	Bedroom #
BA#	Bathroom #
C	Closet
CA	Cabinetry
D	Den
H	Hallway
OTB	Open to Below
ST	Stair
WD	Washer / Dryer

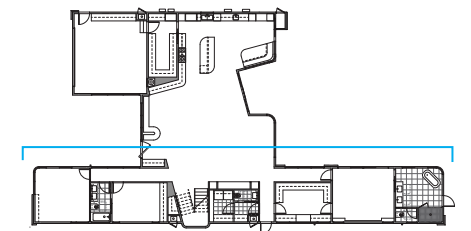
SECTIONS

LONGITUDINAL SECTION



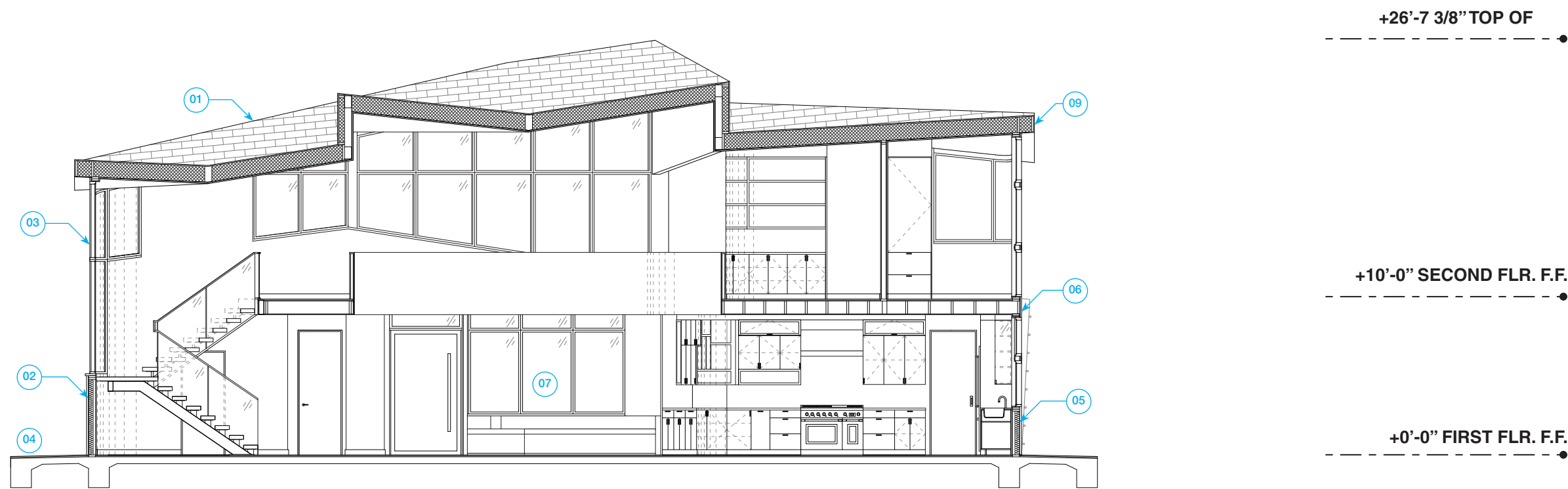
SUSTAINABLE & FIRE RESISTANT DESIGN FEATURES

- | | |
|---|---|
| <p>01 Class 'A' roof with ventless eaves and overhangs</p> <p>02 Non-combustible cement board panels, painted aluminum panels, and low cast-in-place concrete walls</p> <p>03 High-performance, dual glazed, tempered window and door glazing. Non-combustible aluminum frames</p> <p>04 Pre-cast concrete tile patios and walkways 5' width alongside all buildings</p> <p>05 Meets and exceeds California's Title 24 requirements, using an R-38 insulated roof and R-21 wall mineral wool insulated enclosure</p> | <p>06 Locally available timber-framed construction without primary steel structural members reducing cost/build time</p> <p>07 Primary living and dinning spaces are visually and spatially connected with paved back patio using custom sliding door and window system</p> <p>08 Non-combustible exterior materials, ventless eaves, gutter screens, and concrete hardscape</p> <p>09 Roof overhangs and glazing are designed to shade summer sun and allow solar gain during winter for passive heating</p> |
|---|---|



SCALE: 0' 5' 10' 20'

LATITUDINAL SECTION



SUSTAINABLE & FIRE RESISTANT DESIGN FEATURES

- 01

Class ‘A’ roof with ventless eaves and overhangs
- 02

Non-combustible cement board panels, painted aluminum panels, and low cast-in-place concrete walls
- 03

High-performance, dual glazed, tempered window and door glazing. Non-combustible aluminum frames
- 04

Pre-cast concrete tile patios and walkways 5’ width alongside all buildings
- 05

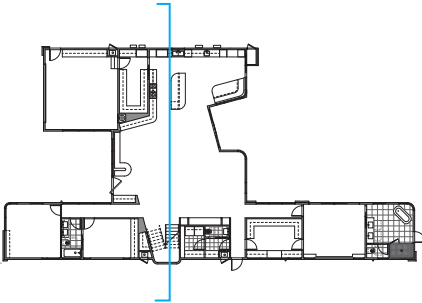
Meets and exceeds California’s Title 24 requirements, using an R-38 insulated roof and R-21 wall mineral wool insulated enclosure
- 06

Locally available timbe-framed construction without primary steel structural members reducing cost/build time
- 07

Primary living and dinning spaces are visually and spatially connected with paved back patio using custom sliding door and window system
- 08

Non-combustible exterior materials, ventless eaves, gutter screens, and concrete hardscape
- 09

Roof overhangs and glazing are designed to shade sumer sun and allow solar gain during winter for passive heating



ELEVATIONS

ELEVATIONS

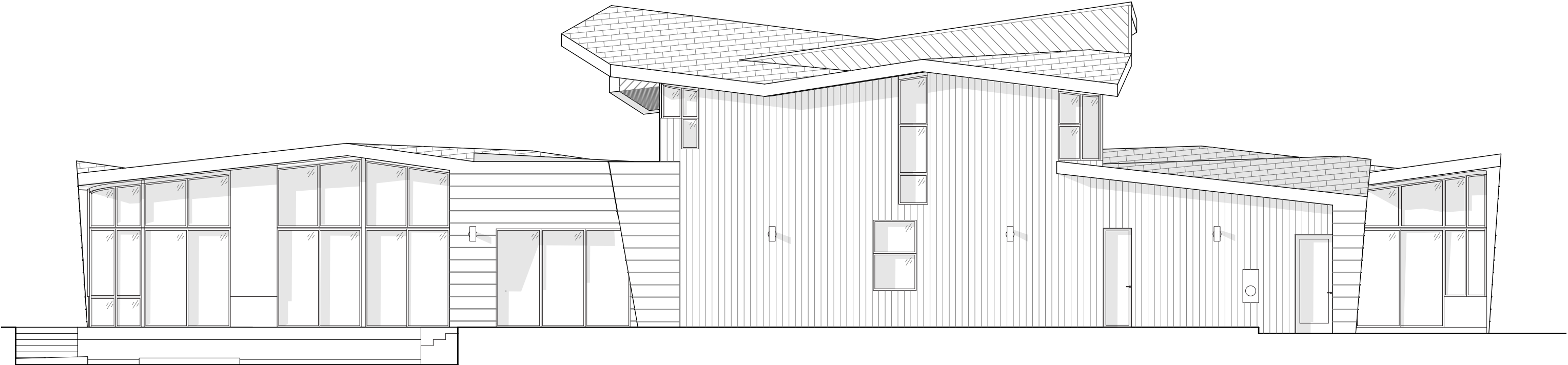


WEST FACING



EAST FACING

ELEVATIONS



NORTH FACING



SOUTH FACING

RENDERINGS



EXTERIOR VIEW - FRONT



INTERIOR VIEW - FRONT ENTRY



INTERIOR VIEW - MAIN LIVING & KITCHEN



INTERIOR VIEW - DINING ROOM & KITCHEN



INTERIOR VIEW - SECOND FLOOR DEN

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