



Miles Kozatch

M.Arch.

PARSONAGE MEADOW HOUSE

Residential project in Sagaponack, New York
Completed August 2018

Architect: Barnes Coy Architects
Architectural Designer: Miles Kozatch
Project Manager: Emerson Mahecha

Responsibilities:

I assisted the design, drafting and project management, completing all phases from concept to design development, through the construction documentation and construction administration phases.

I coordinated and managed parts of the construction, working directly with the builder, structural engineers, lighting designers, landscape designers, interior designers, and steel fabricators. I was also responsible for all 3D modeling & rendering.

Concept:

The house is designed around a central courtyard on axis with the core living room space where 14'-0" tall steel windows seamlessly connect the exterior and interior spaces. The second floor master suite, clad in bleached center-match cedar, cantilevers over the front entry wall, made from custom ceramic panels designed to mimic coreten steel. The windows are a custom cold-rolled steel profile developed by working closely with the manufacturer's engineers in Italy.

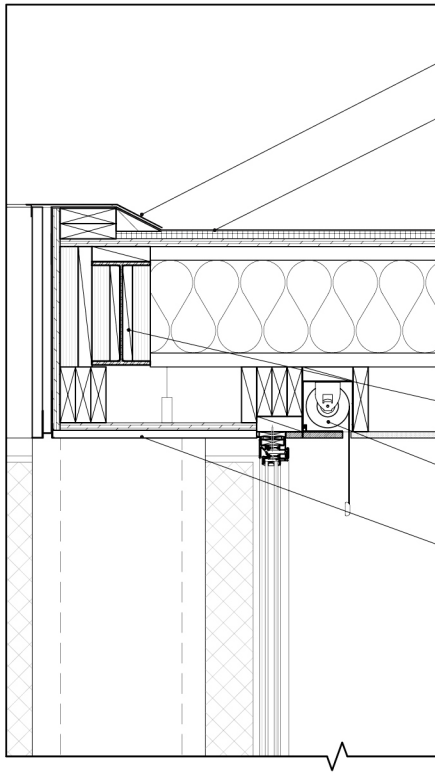
The different exterior materials: granite, bluestone, stucco, cedar, teak, porcelain, steel, and glass offered countless opportunities to express elegant moments in the construction. We were able to hold impossibly consistent fabrication standards by working closely with the sub-contractors, and holding frequent detail-oriented site meetings with the builder during the construction administration phase.

Green Building:

Using computer modeling and the expertise of our MEP, we designed the fenestration of the house to optimize the heating systems throughout the winter and reduce solar heat gain during the summer. The operable window units are designed to move cool air from the shaded central courtyard through the house's long open spaces.

The green-wall facade covering the garage was one of the most innovative methods to reduce the carbon footprint and increase the energy performance of the house.





LEAD COATED COPPER FLASHING
6-PLY COLD FLUID APPLIED ROOFING SYSTEM BY KEMPER OR EQUAL

B.O. FINISH CEILING
EL: +9'-0"

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STRUCTURAL STEEL BEAM FRAMED WITH LVL NAILER

B.O. FINISH CEILING
EL: +9'-0"

STRUCTURAL STEEL BEAM FRAMED WITH STRUCTURAL LVL BLOCKING/NAILER

5 1/2" POCKET SHADE BY LUTRON w/ REMOVABLE MDF PLATE COVER - PAINTED WHITE

CEMENT STUCCO SOFFIT over 3/4" CDX PLYWOOD HUNG FROM CEILING GRID BY USG OR EQUAL

STEEL WINDOWS & DOORS BY BROMBAL - SLIM SECO PROFILE - BLACK POWDER COATED GALVANIZED STEEL

PORCELAIN PAVER 'L' PROFILE TO MATCH PAVERS

T.O. FINISH FLOOR
EL: +9'-0"

T.O. EXT. TERRACE
EL: +9'-0"

3/4" PORCELAIN PAVERS over SETTING BED over CONCRETE SLAB

FOUNDATION WALL LEDGE SUPPORTS SLAB ON GRADE

STONE LINTEL PITCHED TO SHED WATER. 1/4" DRIP EDGE

FLASHING UNDER WINDOW SYSTEM

FLOOR FRAMING - RIM JOIST 14" x 1 3/4" LVL

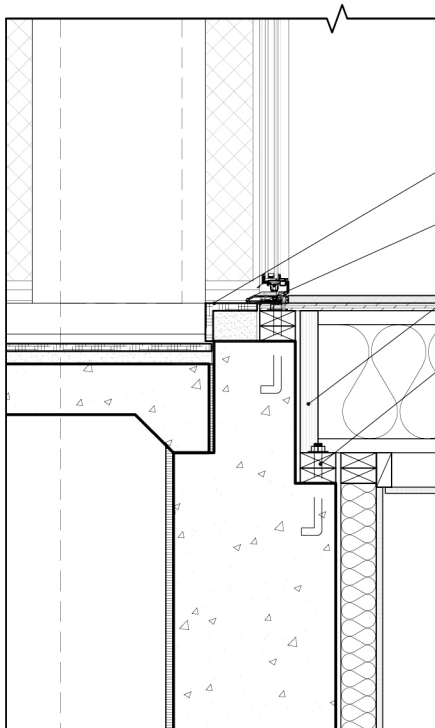
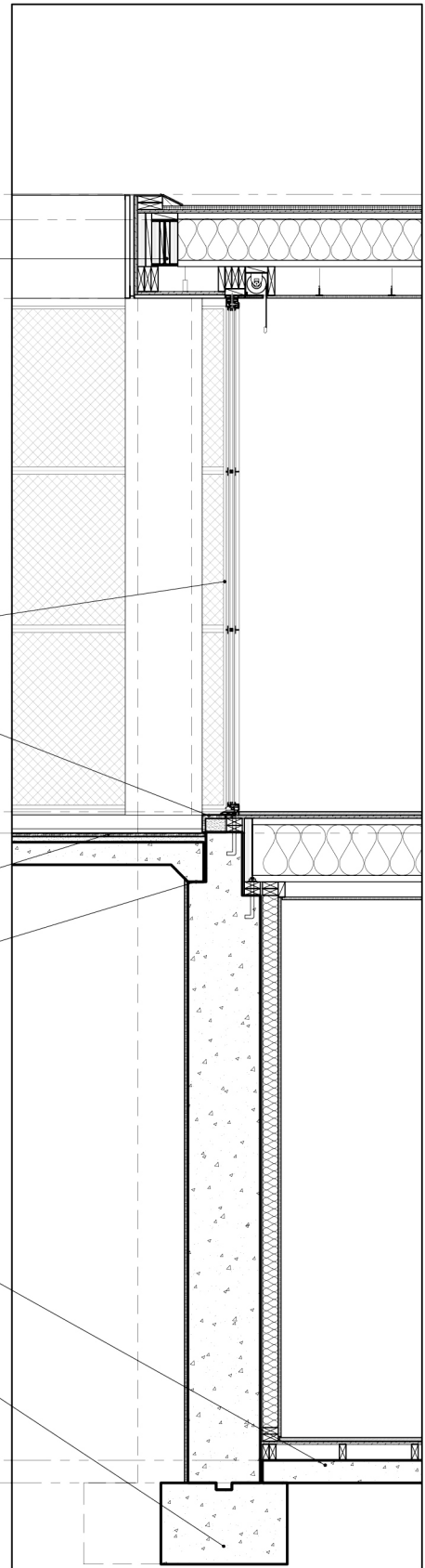
(x2) 2x8 WOOD FRAMING PLATES ANCHORED TO FOUNDATION WALL

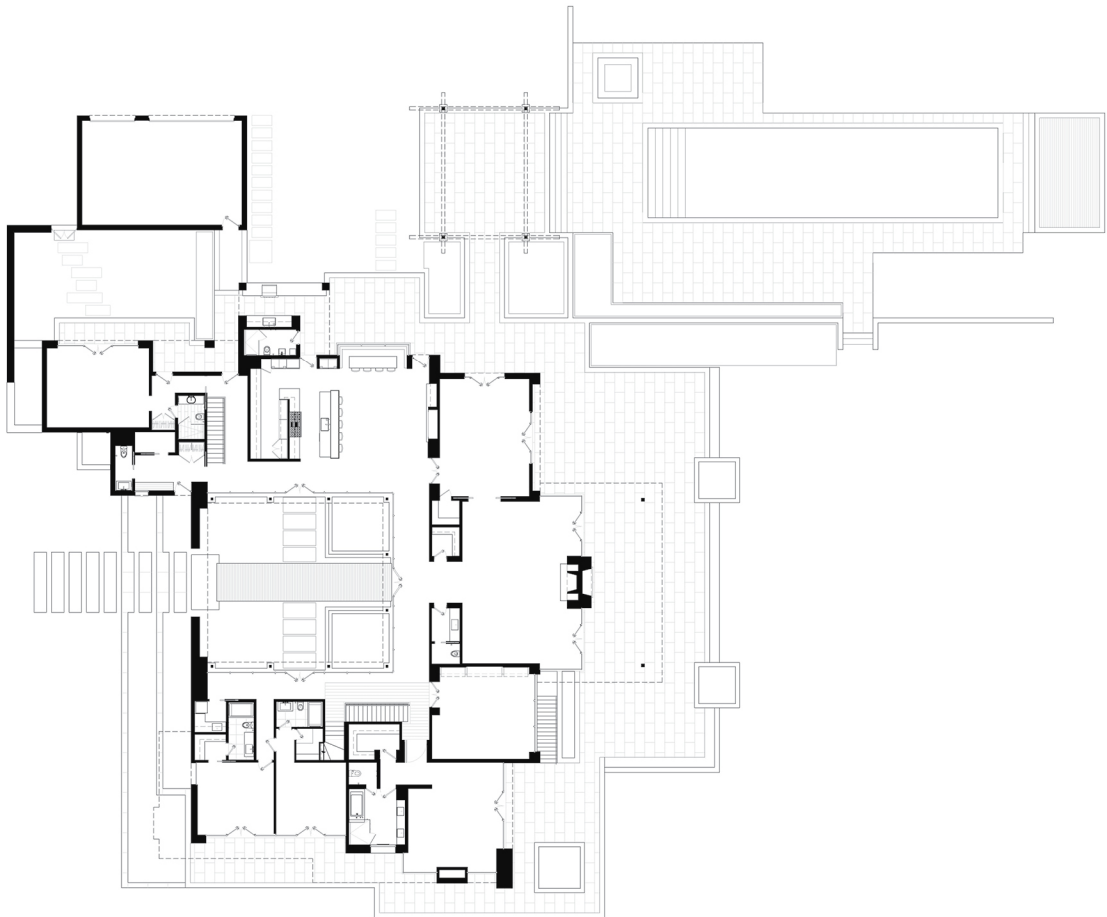
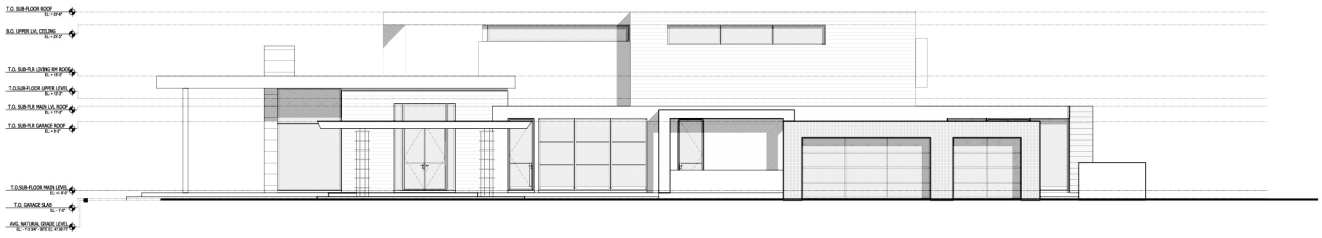
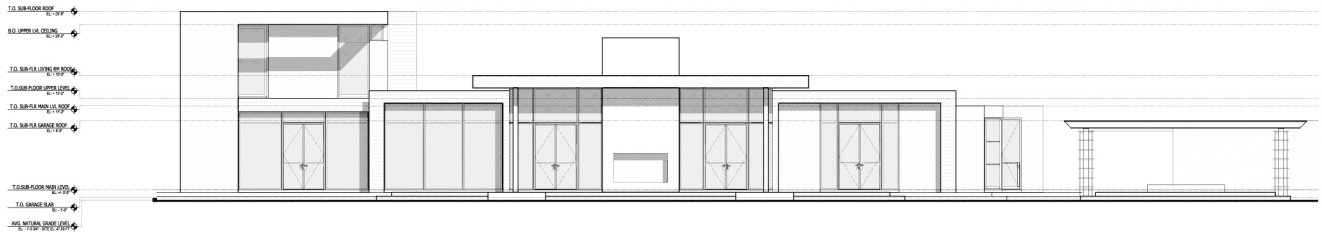
POURED CONCRETE SLAB OVER MECHANICALLY COMPACTED SOIL - PROVIDE 1/2" PERIMETER EXPANSION JOINT

30" x 24" POURED CONCRETE FOOTING w/ 2" x 3" UNIFORM KEYWAY

T.O. CONCRETE SLAB
EL: -11'-10 3/4"

T.O. CONCRETE FOOTING
EL: -12'-3 3/4"









FAVELA RECYCLING CENTER

Closed-Loop Recycling Project in Rio de Janeiro
Completed May 2015
MArch Thesis Project

Project: Miles Kozatch
Mentor: Cordula Roser Gray, AIA

Program: Raw Aluminum Processing, Material Production, Innovation Lab, Open Air Market, Public Space

Goals: Landslide prevention, closed-loop recycling, using material research and digital fabrication to democratize architectural knowledge and provide safe building materials that support slum architecture and the favela vernacular.

In Brazil, Rio's favelas are growing at nine times the rate of the formal urban fabric. The absence of infrastructure on the fringes of the city has led these thriving micro-urban centers to create their own building vernacular. The built fabric of Rocinha, the most populated favela in Brazil, appears to undulate, multiply and spill into the deep valley between two mountains.

The goal of this project was to provide immediate infrastructural support on a site prone to landslides along the main road through the favela. The aluminum recycling center is built into the face of the cliff, stabilizing the land and creating a public green space. The material research institute provides roof-top public space and elevator access to the Laboriaux neighborhood.

Rocinha has an estimated population of 235,000 people living in an area of just 1.5 sq. kilometers. The favela sprawls over the Southeastern area of Rio de Janeiro where the ridge of the two mountains that tower over the city forms dangerously steep slopes. The recycling center, like other publicly funded projects, is located along the main road, Estrada da Gávea. The first and only reliable transportation and sanitation route, the street is known as the backbone of the favela's informal infrastructure.

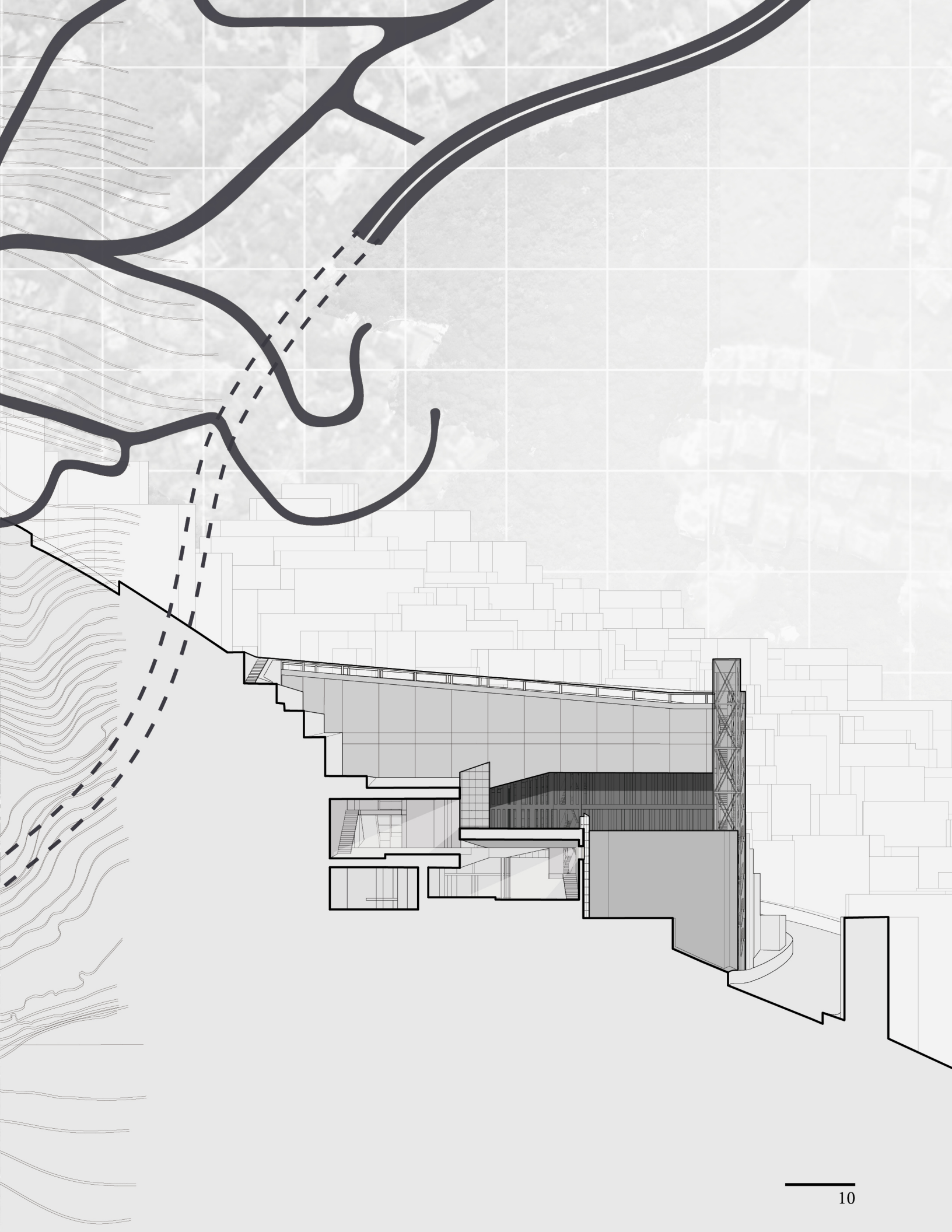
This site is a void in the favela fabric caused by a steep ridge that left crumbling structures along the road after a fatal landslide. It is currently used as an informal dumping site for two neighborhoods. The center is a sustainable model for small-scale aluminum processing capable of generating income and providing architectural components in a closed-loop system.

Rocinha uses an informal system of recycling aluminum that rests on the backs of over one thousand catadores who separate the material by hand from dumping sites along the slum's main road. Dozens of independent truck drivers then transport the recyclable waste to massive processing facilities located far outside the city.

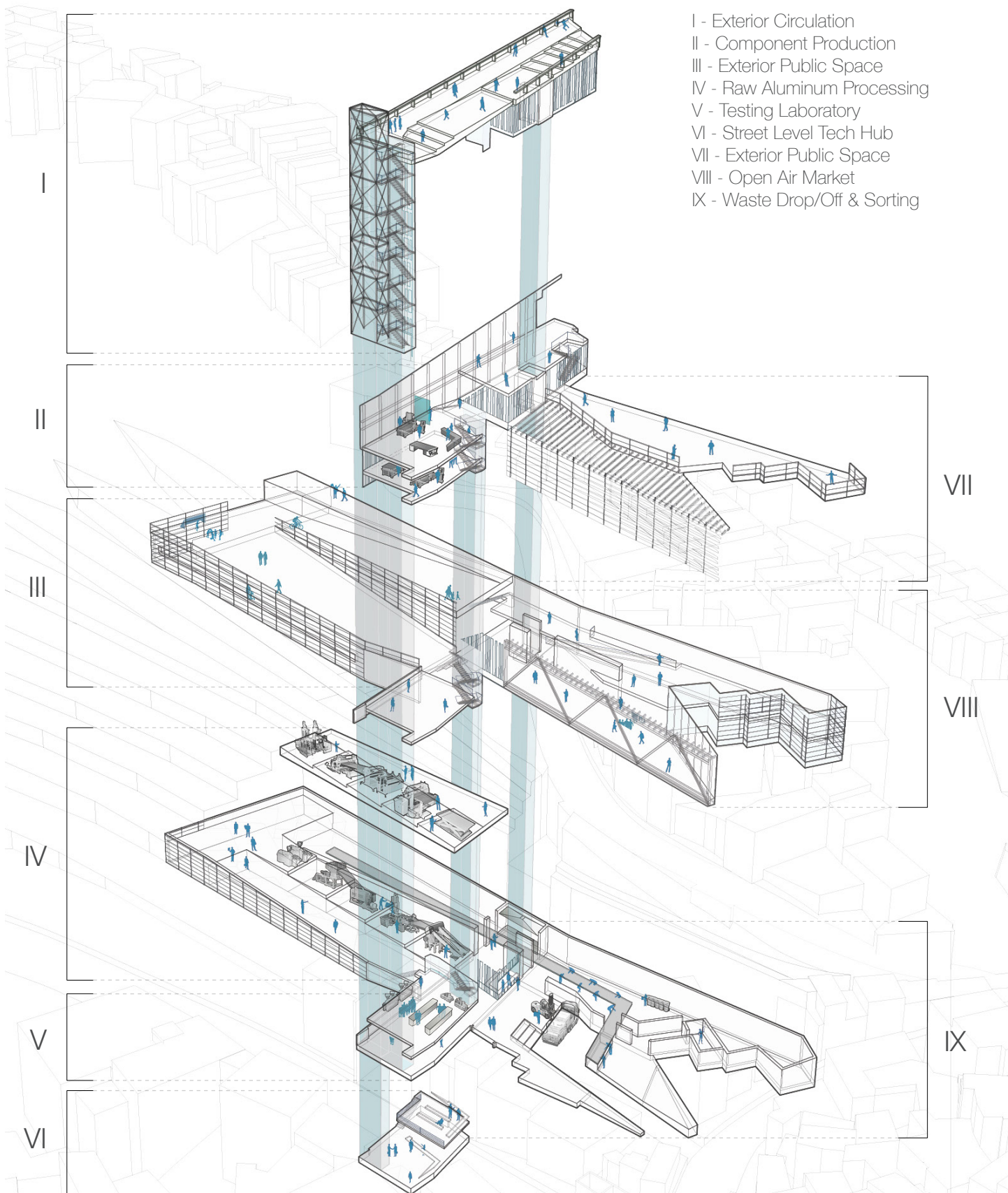
The Recycling Center is designed to harness the informal aluminum collection system the catadores who live in the favela have created, and produce valuable raw materials for the favela's profit. The Institute is equipped to process small quantities of recycled aluminum to produce construction materials such as honeycomb panels, window treatments and other custom architectural components, in an effort to democratize architectural knowledge and support the favela architectural vernacular.











GEORGICA MODERN ADDITION

Residential project in East Hampton, New York
Completed January 2019

Architect: Barnes Coy Architects
Project Architect: Miles Kozatch

Responsibilities:

I led the design, drafting and project management, completing all phases from concept to design development, through the construction documentation and construction administration phases.

I coordinated and managed the permitting process, working directly with the lawyers and local government officials to receive the zoning variances required to expand the original building footprint. During the 8-month construction, I held regular meetings with the builder, structural engineer, landscape designers, and aluminum window & door fabricators. I was responsible for all drafting, 3D modeling & rendering.

Concept:

The project is a garage addition to an award-winning Barnes Coy house built in 2008. Due to an update in the area's wetlands boundaries, the site presented a unique opportunity for an accessory building for the client's favorite two cars in their collection. After intense preparation and persuasion, the town permitted a structure that would respect the context, and appear an original part of the modern home.

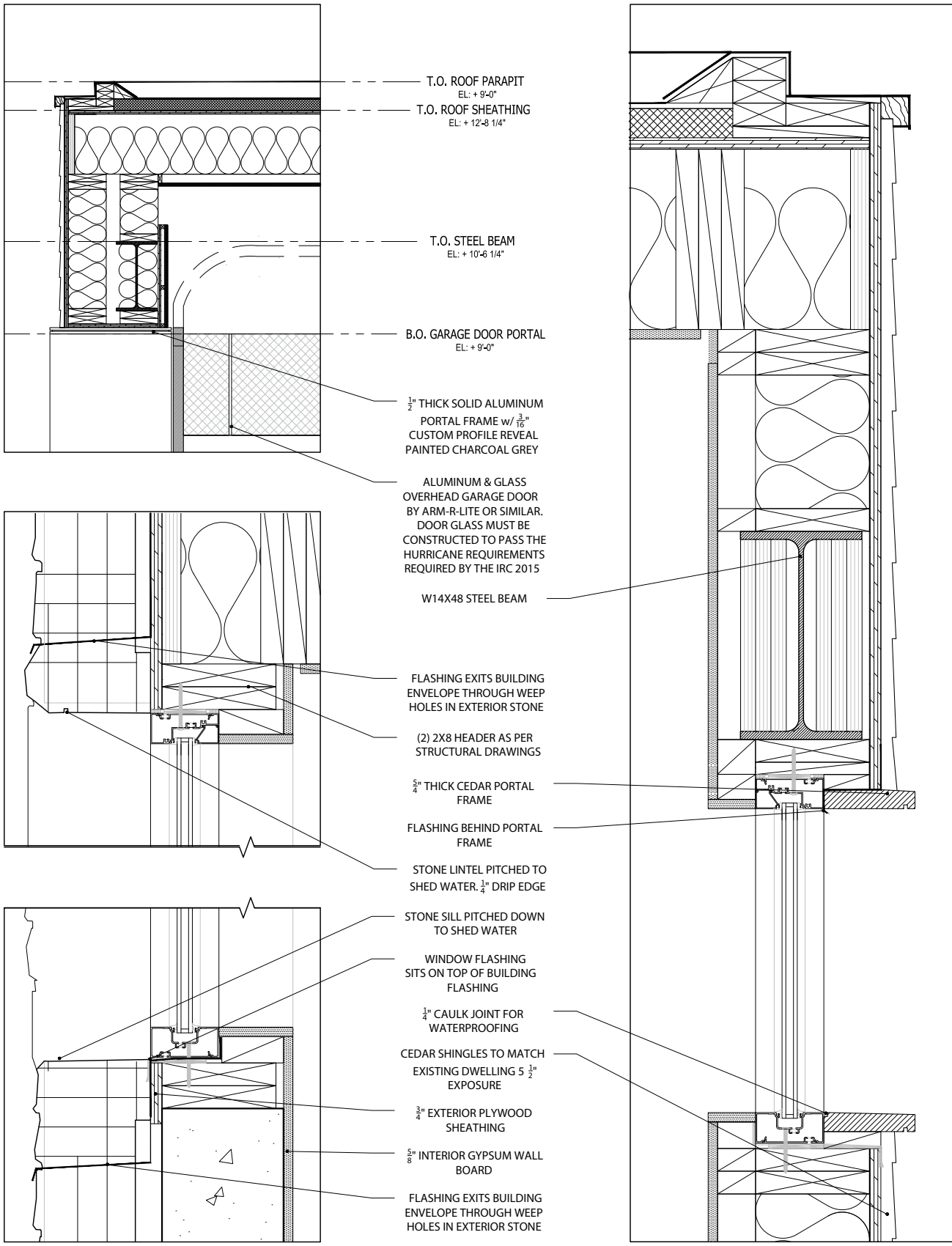
The different exterior materials: concrete, bluestone, cedar shingles, painted aluminum, and glass were chosen as an exact match to the original house. However, the details were carefully re-considered, as certain advancements had been made in the technology of building materials. A hydraulic car lift makes the most of the minimal interior space, and exposes the car through the clerestory window.

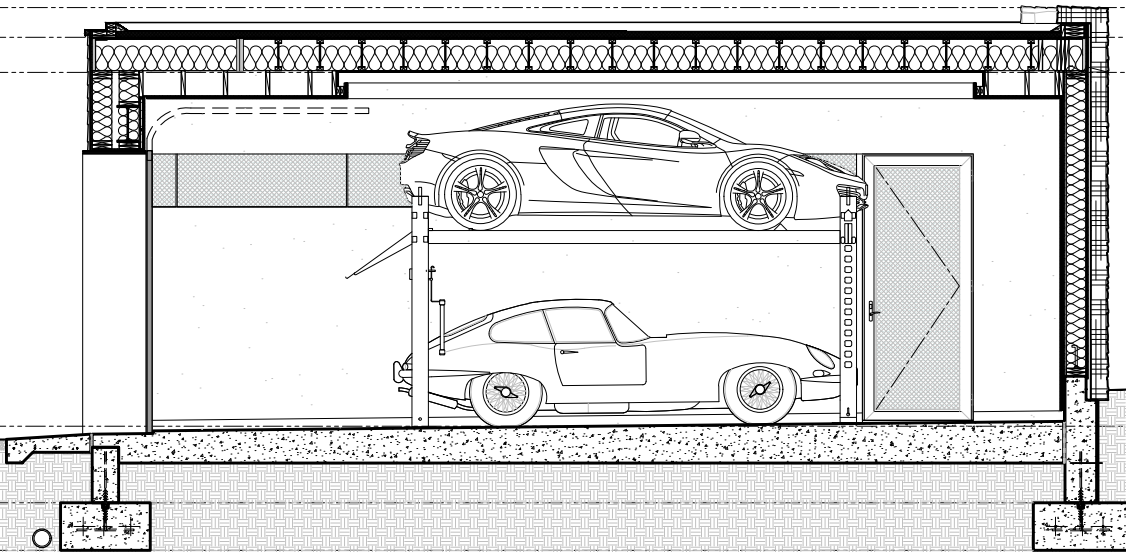
Green Building:

The garage is designed to harness an energy recovery ventilator (ERV) in an effort to minimize the building's energy footprint. Thanks to a tight building envelope, the north-western orientation of the windows, and highly efficient insulation, the ERV provides a continuous supply of fresh, filtered air to the building while recovering the heat of the exhaust air during the winter.

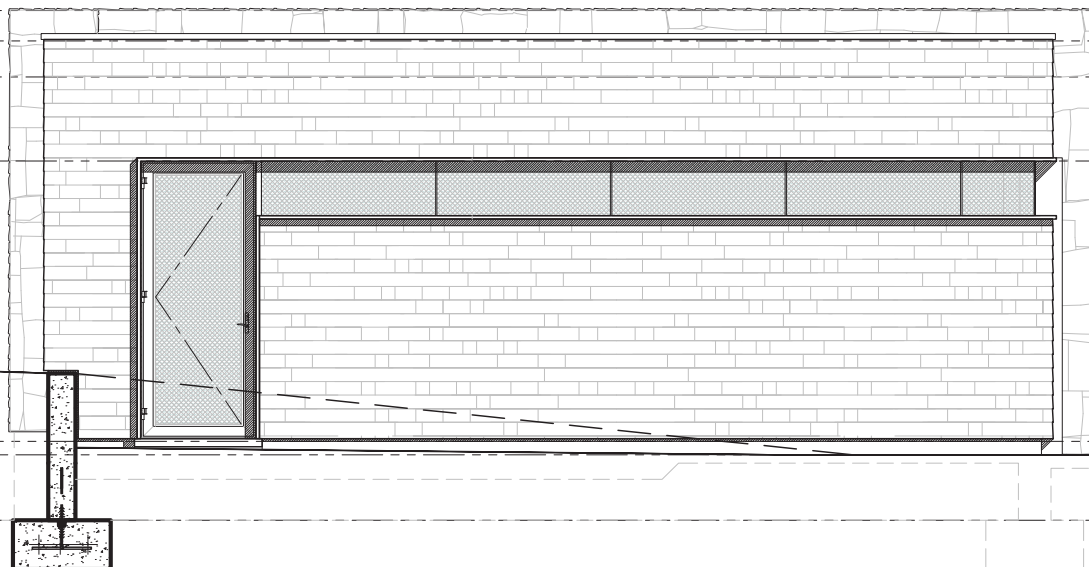
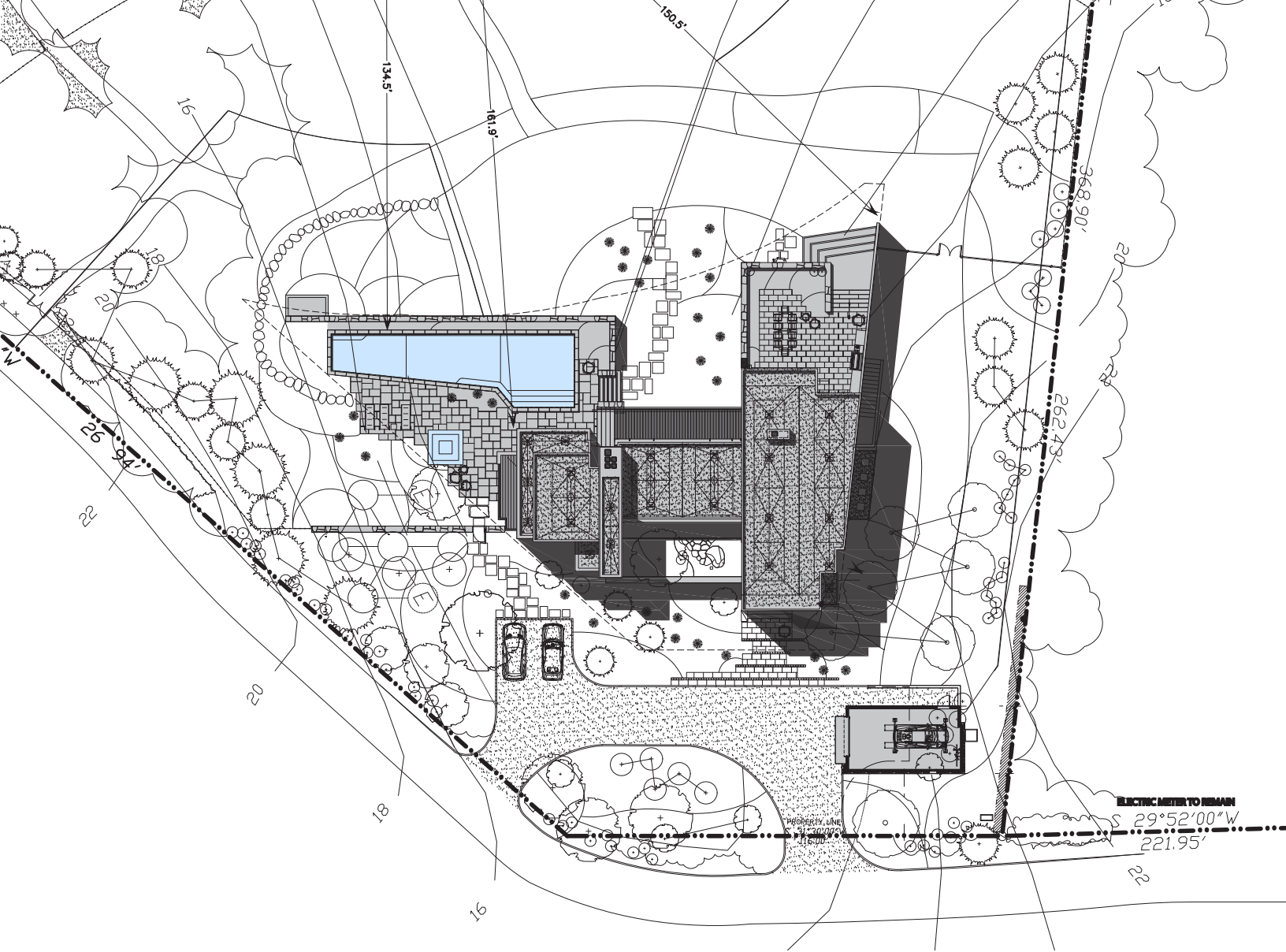
In the summer, the thermal mass of the stone wall on the southern side, and a low-wattage dehumidifier hidden in the wall keep the interior cool and dry.















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Multi

CAUTION
KEEP HANDS CLEAR

CAUTION
DO NOT OPERATE
WITHOUT EYE
PROTECTION