

December 6, 2021

City of Miami Beach
Design Review Board
1700 Convention Center Drive,
Miami Beach, FL 33139

Re: Request for Design Review Approval for the total demolition of an existing pre-1942, single-family residence, and Board approval of the design and construction for a new, 2-story single-family residence located at 394 S Hibiscus Dr, Miami Beach, FL 33139

Design Review Board members and Planning staff:

Let this letter serve as the Letter of Intent in support of the owner's request for Design Review Board (DRB) approval for the total demolition of an existing, pre-1942 residence, and for Board approval for the design and construction of a new, 8,900 sq ft, 2-story single-family residence with understory area, located at 394 S Hibiscus Dr, Miami Beach, FL 33139. The proposed design meets all applicable RS-3 required zoning criteria for: Building height, Lot Coverage, Unit Size, and open space yard requirements at front and rear yards for pervious and impervious ground cover. The project is not seeking any waivers nor variances.

The subject property falls entirely within an AE 10 flood zone with the minimum required Base Flood Elevation established at 10.0' NGVD. The first habitable level (by right) has been set at the maximum Design Flood Elevation of 15.0' NGVD (BFE + 5' Freeboard). This forward thinking approach takes full advantage of available, allowable solutions for resiliency and adaptation which are outlined by FEMA, FBC, and Floodplain Management in response to rising sea levels.

The landscape proposal utilizes drought-tolerant plantings contained within well-drained planting areas. Permeable pavers, bonded aggregates, and gravel areas will decorate foot traffic areas and pathways. Feature trees at the front yard and courtyard will provide colors to complement the design, and fall back against the natural stone, wood, and concrete material palette found across the building design.

The front entry leads guests up a sloped earthen 'ramp' with embedded natural stone steps and lush landscaping that borders the approach. Once inside the 12-ft front entry door, views of Biscayne Bay are immediately in front, with views of the articulated courtyard and floating stair-sets to the left. Living spaces flow inside and outside across the rear exterior terrace, and the overflowing vanishing edges of the main pool treat the surrounding areas with soothing white noise. A floating lap pool lines the West side yard and ends with a 90-degree, clear acrylic, open corner pool wall extending towards the Bay.

The current estimated project cost of construction is calculated at \$7,650,000, based on area surveying and unit cost methods at \$850 per square foot across ~9,000 SF.

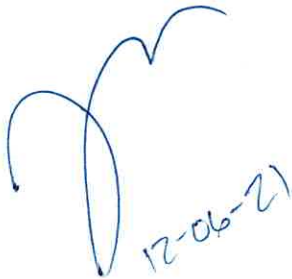
The proposed design incorporates an open-air understory layout below the habitable living spaces. The understory is entered through the main driveway and side yard pathway towards an expansive, exterior, open-to-air-above courtyard mid-way through the site. The courtyard brings in ample light to the two interior floor levels, while breaking apart and creating movement along the East side yard façade to meet development criteria. The courtyard and understory continue through an open-air covered pathway, leading to the rear yard hardscapes, outdoor seating and BBQ area – which all tie harmoniously back to the adjacent pool and rear terrace living spaces.

The follow pages summarize the proposed design's response to, and integration of, adaptive sea level rise measures and resiliency criteria per CoMB Municode Sec. 133-50.

We ask for your support and your vote in favor of the proposed design so that our clients may proceed with the project as desired. We ask that the Board approve the application as submitted, allowing the project teams to initiate the next steps of continued development and building permit submission in which all applicable zoning and building code criteria shall be reviewed for compliance before approval.

Should you have any questions regarding the application, please do not hesitate to contact our offices at the number listed below.

Sincerely,



James J Wall, Design Director
Thirlwall Design

ARTICLE II. - SEA LEVEL RISE AND RESILIENCY REVIEW CRITERIA (Sec. 133-50. – Criteria)**a) Criteria for development orders:**

- 1) A recycling or salvage plan for partial or total demolition shall be provided.
Applicable recycling plans and debris mitigation notes shall be included with the Demolition Permit Submission for the existing residence, upon Board Approval.
- 2) Windows that are proposed to be replaced shall be hurricane proof impact windows.
The proposed project has been designed to meet the HVHZ requirements of the Florida Building code for the +175 mph Miami-Dade wind-load criteria.

Applicable product approvals for exterior envelope systems and fenestration shall be submitted at time of permitting for building department review and approval.
Rational and/or comparative analysis performed by licensed and qualified PE shall be provided in lieu of available product approvals for custom assemblies requiring wind-load analysis.

- 3) Where feasible and appropriate, passive cooling systems, such as operable windows, shall be provided.
Operable sliding glass doors along the front and rear facades open on opposite ends of the home, at both levels, providing opportunity for crossing Bay open up interior spaces to allow cross breeze to pass through the living areas
- 4) Resilient landscaping (salt tolerant, highly water-absorbent, native, or Florida-friendly plants) shall be provided, in accordance with chapter 126 of the city Code.
Refer to the Landscape Drawings for resilient species selections and locations
- 5) The project applicant shall consider the adopted sea level rise projections in the Southeast Florida Regional Climate Action Plan, as may be revised from time-to-time by the Southeast Florida Regional Climate Change Compact. The applicant shall also specifically study the land elevation of the subject property and the elevation of surrounding properties.
The proposed design anticipates, and responds to, rising sea level by taking advantage of the allowable, maximum design flood elevation for the property (BFE + 5' freeboard) and sets the first habitable floor level at 15' NGVD. The new property seawall (under separate permit) will be elevated to adapt to rising sea level change.

A network of dedicated retention swales and exfiltration trenches located along side yards and within the ample courtyard space (almost 2,000 sq ft) will sit just below finished grade to provide adequate drainage throughout. Through utilizing the understory concept, the proposed site elevations on average will limit the depth of any new, introduced fill across the grading of the lot by 2 feet. This helps to mitigate drastic changes in existing drainage patterns and maintain compatibility with surrounding properties.

- 6) The ground floor, driveways, and garage ramping for new construction shall be adaptable to the raising of public rights-of-way and adjacent land, and shall provide sufficient height and space to ensure that the entry ways and exits can be modified to accommodate a higher street height of up to three additional feet in height.
The proposed design accounts for the CoMB road raising efforts, and the current survey that has been provided within the submission materials reflects the new, elevated street elevations of Hibiscus Island which previously underwent the CIP improvements. The finish floor elevation understory level is raised above the already-raised-Crown-of-Road elevation between 6-8 inches along the property front. This, combined with the civil drainage and site runoff principals outlined in item #5 above, will help to maintain the dry and resilient understory environment.

- 7) As applicable to all new construction, all critical mechanical and electrical systems shall be located above base flood elevation. All redevelopment projects shall, whenever practicable and economically reasonable, include the relocation of all critical mechanical and electrical systems to a location above base flood elevation.

Primary Building support systems including mechanical and electrical systems and components are located at the proposed Design Flood Elevation, further solidifying the proposal's attempts to promote resiliency and compatibility amongst sea level rise.

- 8) Existing buildings shall, wherever reasonably feasible and economically appropriate, be elevated up to base flood elevation, plus City of Miami Beach Freeboard N/A

- 9) When habitable space is located below the base flood elevation plus City of Miami Beach Freeboard, wet or dry flood proofing systems will be provided in accordance with chapter 54 of the city Code.

All habitable, conditioned space below base flood elevation at the understory has been limited to vertical egress only, at the stair and elevator vestibule, and the square footage of this vestibule has appropriately been accounted for within the project's Unit Size calculations.

The vestibule area below BFE shall be constructed of flood-resistant materials. The egress vestibule will be equipped with passive, insulated flood vents which will allow flood water to freely discharge out towards the side yard in the event of flood surge, complying with Chapter 54 of CoMB Municode for effective Flood Management practices.

- 10) As applicable to all new construction, stormwater retention systems shall be provided.

A network of dedicated retention swales and exfiltration trenches located along side yards and within the ample courtyard space (almost 2,000 sq ft) will sit just below finished grade to provide adequate drainage throughout. Through utilizing the understory concept, the proposed site elevations on average will limit the depth of any new, introduced fill across the grading of the lot by 2 feet. This helps to mitigate drastic changes in existing drainage patterns and maintain compatibility with surrounding properties.

- 11) Cool pavement materials or porous pavement materials shall be utilized.

Porous pavement and custom turf block hardscape materials are utilized throughout the understory level at driveways, side yard pathways, and covered open-air understory areas.

- 12) The design of each project shall minimize the potential for heat island effects on-site.

A high albedo 'white metal' decorative structure at the roof level elevates itself 18" above the primary roof level (staying within allowable height encroachments for it's particular category of decorative architectural elements) and helps to shade large areas of the roof which it hovers over. Dedicated green roof areas at first floor ceilings above the office and living room spaces help create a natural insulation layer of planting medium and air which mitigates the intense variation between interior and exterior environment. The rest of the project's building material palette calls for light toned marbles and light washed, finished architectural concrete.

b) Criteria for ordinances, resolutions, or recommendations:

For Items (b)(1-3), refer to the responses above on how the proposed design responds to the impacts of sea level rise. Resiliency measures, flood management practices, and future FEMA projections have been considered and implemented as noted.

- 1) Whether the proposal affects an area that is vulnerable to the impacts of sea level rise, pursuant to adopted projections.
- 2) Whether the proposal will increase the resiliency of the city with respect to sea level rise.
- 3) Whether the proposal is compatible with the city's sea level rise mitigation and resiliency efforts.