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ARCHITECTURE AND DESIGN

January 5, 2025

FROM:
Dakota Hendon, AIA
ANDstudio Architecture and Design
2420 SW 27th Avenue
Miami, FL 33145

TO:
Miami Beach Design Review Board
1700 Convention Center Drive
Miami Beach, FL 33139

Dear Members of the Design Review Board Staff,

I am writing to request the approval of an innovative design for a new Single-Family Residence at 424 W Di Lido Drive in the City of Miami Beach to replace an existing residence that was constructed in 1994. Your approval is required due to the incorporation of an understory as part of the residences design. We hope that the following letter of intent helps inform you of how we arrived at the particular design so that you can consider granting variances to allow the proposed design as further elaborated below.

Introduction
The design of this residence is informed by our firm's extensive professional experience and research related to the adaptation of urban structures to account for climate change and rising sea levels. As part of an inter-disciplinary team of professionals at the New York City Department of City Planning, I helped to study, illustrate and author a guide for residents and professionals on ways to adapt buildings for climate change, titled "Retrofitting Buildings for Flood Risk" (available here). Following publishing of the report, I shifted my focus to implementing the recommendations as part of New York City's Department of Design and Construction on their recovery efforts from Hurricane Sandy, including personal involvement on the rehabilitation, elevation or reconstruction of over 250 homes that were damaged. A consistent issue that we faced when elevating or reconstructing homes to new flood elevations was the disconnect that was caused between the building and the street. We experimented with several ways to mitigate this impact, but we found that the most successful designs incorporated elements that allowed for gradual increases in scale from the street. That was sometimes found in the form of a stair that provided multiple landings as it rises to the door as opposed to a straight run stair from the sidewalk which often appeared imposing or taller than it actually was. We used this knowledge and experience to inform our approach to the West Di Lido Residence, ensuring it is designed with resilience, adaptability, and sustainability at its core.

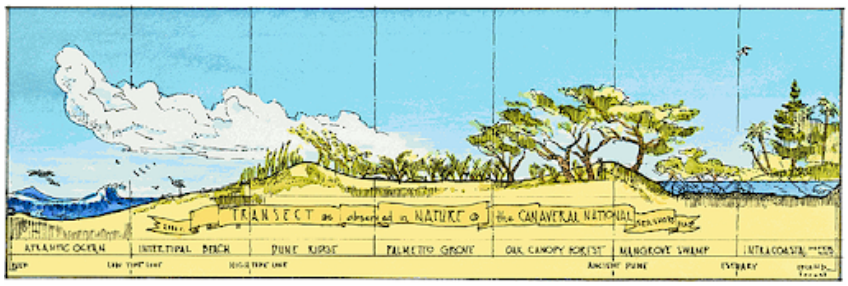
Project Description
Our proposal for the West Di Lido Residence embodies a thoughtful integration of resilient design principles to better integrate the home with the surrounding neighborhood. The home is designed to exceed regulatory flood safety standards by utilizing the maximum freeboard (BFE + 5') as our Design Flood Elevation (DFE). Additionally, the majority of the first floor is elevated to an additional 18 inches above the maximum allowed freeboard to provide finished floor elevation of +15'-6" NGVD within the Flood Zone AE 9. In addition to elevating the home, we are proposing to elevate the sea wall to +9'-3 ½" NGVD as well as the entire site. For the elevation of the site, we are proposing a unique strategy of using varying terrace levels to create gradual elevation changes to lessen the impact of the additional elevation on the street and neighboring properties. Additional information regarding the terracing approach and the need for a variance can be found later in this letter.

Other design elements that have been incorporated to further enhance resilience include: ground floor and garage ramping are adaptable to potential future street height increases based on the future crown of road and is adaptable to up to 3 feet of additional height; operable impact-rated exterior doors and

windows are utilized throughout for passive cooling and ventilation and to better withstand extreme weather; mechanical and electrical equipment is strategically located well above the base flood elevation within screened mechanical roof areas; landscaping features native, salt-tolerant, and Florida-friendly plants to manage stormwater effectively, along with permeable and cool pavement materials to mitigate heat island effects. In coordination with the Southeast Florida Regional Climate Action Plan, we have closely studied the surrounding elevations of the project site, including the large elevation change that occurs along the Venetian Causeway as you approach the venetian causeway bridge. We have considered the future raising of the Venetian Causeway, which informed heavily the design of the project and the decision to provide a raised seawall and elevated yard areas. For the limited amounts of habitable space below the Design Flood Elevation, we've incorporated wet flood-proofing techniques to ensure that the home can withstand future weather events. Together, these elements create a home that is both resilient and sustainable.

Variance Request for Understory Grading

As part of our design for the West Di Lido Residence, we are requesting a variance to allow for the grading of the understory level in accordance with our proposed site plan. The proposal seeks to mimic the natural topography of a coastal barrier island by creating landscaped dunes and terraces which work to both hide the additional height of the structure while appearing to integrate naturally with the surrounding neighborhood.



When looking at the understory plan, you will notice that a majority of the area below the structure is unoccupied open space which is visually screened by precast concrete breezeblock wall at the perimeter with a minimum openness ratio of 50%. A small portion of the understory is used to incorporate covered outdoor dining and cooking as well as a garage and staircase to the first habitable floor.

Due to the elevations of the site and the desire to raise the yard elevations to adapt to future climate risk, much of the space below the structure does not provide sufficient height for occupiable space. We believe the proposed grading creates a seamless and aesthetically pleasing transition between the property and its surrounding landscape while meeting flood safety requirements and the Sea Level Rise and Resiliency Criteria. The variance request aligns with the hardship criteria outlined in the land development regulations as follows:

1. **Special conditions and circumstances exist which are peculiar to the land, structure, or building involved and which are not applicable to other lands, structures, or buildings in the same zoning district.**
   The site is uniquely located at the corner of the Venetian Causeway and adjacent to a fixed height bridge which is significantly higher than the future crown of road for which the project is being designed. This unique site condition creates a hardship that prevents the use of the understory without creating spaces that are lower than the grade elevations at the bridge. For example, the height of the Venetian Causeway bridge adjacent to the Site reaches 7'-6" NGVD, which is significantly higher than the future crown of road. It is also significantly higher than the grade elevation at the front of the property which is approximately 4'-3". The proposal seeks to seamlessly transition between these large variations in elevation across the site.

2. **The special conditions and circumstances do not result from the action of the applicant.**
   These special conditions are related to the project's unique location and are not created by the applicant. The grading proposal responds directly to the topography and existing conditions of the site, which are independent of any actions taken by the applicant.

3. **Granting the variance requested will not confer on the applicant any special privilege that is denied by these land development regulations to other lands, buildings, or structures in the same zoning district.**
   The requested variance does not seek any advantage beyond what is necessary to address the unique conditions of the site and effectively respond to the Sea Level Rise and Resiliency Review Criteria of the land development regulations.

4. **Literal interpretation of the provisions of these land development regulations would deprive the applicant of rights commonly enjoyed by other properties in the same zoning district under the terms of these land development regulations and would work unnecessary and undue hardship on the applicant.**
   Without the variance, the project would face significant design limitations that would compromise the ability to integrate the home harmoniously with the natural slope of the site. This would impose an undue hardship on the applicant, preventing reasonable and compliant use of the property.

5. **The variance granted is the minimum variance that will make possible the reasonable use of the land, building, or structure.**
   The requested variance represents the least deviation necessary to address the site's unique conditions while ensuring compliance with flood safety standards and preserving the aesthetic quality of the neighborhood.

6. **The granting of the variance will be in harmony with the general intent and purpose of these land development regulations and that such variance will not be injurious to the area involved or otherwise detrimental to the public welfare.**
   The proposed grading will enhance the streetscape, improve flood resilience, and maintain the neighborhood's integrity, ensuring no adverse impact on the surrounding area or public welfare.

7. **The granting of this request is consistent with the comprehensive plan and does not reduce the levels of service as set forth in the plan.**
   By addressing flood safety and aesthetic integration, the variance aligns with the goals of the comprehensive plan and supports long-term sustainability without diminishing service levels.

8. **The granting of the variance will result in a structure and site that complies with the sea level rise and resiliency review criteria in chapter 7, article I, as applicable.**
   The variance is key to our approach to comply with City's sea level rise and resiliency review criteria and granting the variance will result in a building that meets all criteria as further explained in the project description above.

Request to Increase Solid Wall Height

As part of your review of the project, we also seek approval to increase the permitted height of the solid wall along the Venetian Causeway to account for the grade change as the site slopes towards the Venetian Causeway Bridge. Since we are designing the project to the Future Adjusted Grade, we are permitted as of right to build a wall that is 5'-0" above the future adjusted grade, however those portions of the wall above 4' in height shall be composed of pickets with a minimum spacing of 3". Due to the site's unique elevation differences between grade, future adjusted grade and the crown of road at the Venetian causeway bridge, we are asking for a modest increase to the allowable wall height for portions of the perimeter wall closest to the Venetian (from 5' maximum to 5'-6" maximum) and to allow those portions of the wall above 4' to be solid. You can find additional details on Sheet A101-a and A2-01. We believe this adjustment has minimal impact on the street since the current site wall already exists at this height or higher and the proposed wall is designed with enhanced materials and lighting.

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Conclusion
Our design for the West Di Lido Residence exemplifies a commitment to resilience, sustainability, and thoughtful neighborhood integration. By addressing flood risks, aligning with the City's sea level rise mitigation efforts, and enhancing the streetscape, this project aims to serve as a model for sustainable urban design. We look forward to the opportunity to present our vision in further detail and are committed to working collaboratively to address any questions or concerns the Board may have.

Thank you for considering our proposal.

Sincerely,

Dakota Hendon, AIA
Principal Architect, ANDstudio

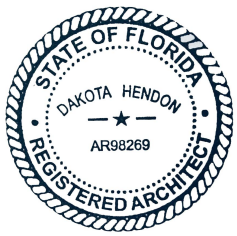

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EXHIBIT A

LEGAL DESCRIPTION:

LOTS 19 AND 20 IN BLOCK 2, OF DI LIDO, AN ISLAND IN BISCAYNE BAY, ACCORDING TO THE PLAT THEREOF, RECORDED IN PLAT BOOK 8 AT PAGE 36 OF THE PUBLIC RECORDS OF DADE COUNTY, FLORIDA; TOGETHER WITH ALL COMMON LAW AND STATUORY RIPARIAN RIGHTS, INCLUDING WATER PRIVELEGES APPURTENANT, ADJACENT AND BELONGING THERETO; ALSO: AN EIGHT (8) FOOT STRIP OF LAND CONTIGOUSTO THE WESTERLY BOUNDRY LINES OF LOTS 19 AND 20, BLOCK 2 OF 'DI LIDO ISLAND, ACCORDING TO THE PLAT THEROF, AS RECORDED IN PLAT BOOK 8 AT PAGE 36 OF, THE PUBLIC RECORDS OF DADE COUNTY,FLORIDA, LYING BETWEEN THE WESTERLY EXTENSIONSOF THE NORTHERLY BOUNDRY LINES AND THE SOUTHERLY BOUNDRY LINES OF LOTS 19 AND 20, BLOCK 2, TOGETHER WITH ALL COMMON LAW AND STATUTORY RIPARIAN RIGHTS INCLUDING WATER PRIVLEGES APPURTENANT, ADJACENT AND BELONGING THERETO.

COST ESTIMATE

There is no formal cost estimate available for the project at this early stage, however, we estimate the cost of construction to be between $400 and $500 a square foot for each square foot of unit size. The estimated cost of construction is approximately $2.98 million.