WOODS ENGINEERING
Creative Solutions

February 10, 2023

Mr. John Stewart
Boardwalk Place, LLC
1629 Margret Ridge Drive
Mathews, NC 28105

RE: Structural Engineering Design Proposal – Rev. 1
Boardwalk Place
Oak Island, NC

Dear Mr. Stewart,

I am pleased to submit this Proposal for the Structural Engineering Design services required for bidding, permitting, and constructing the proposed **Boardwalk Place – Rev. 1** to be located in Oak Island, NC. The proposed project will have approximately 232,000 square feet of heated and unheated space. There will be approximately 83,000sf of on grade parking below the podium transfer slab. The first elevated floor will be a transfer podium which will have an approximate area of 83,000sf. The podium will be cut into two structures with an expansion joint adjacent to the openings. The podium will support two levels of hotel spaces that will be approximately 54,250sf of heated space and have 100 rooms, 10,000sf of retail spaces and a 7,000sf restaurant. The podium will also support a swimming pool, terrace space and outdoor dining. The ground floor will be a concrete slab-on-grade. The second-floor structure will most likely be a 12"-14" post-tensioned concrete podium/transfer flat slab with wood framed construction above. The exterior and interior walls above the transfer level will be 2x wood framing with pre-engineered wood I-Joist floor and roof framing. The lateral resistance system will utilize concrete shear walls from the foundations up to the transfer level and wood shear walls above. Foundations will be deep pile foundations. Woods Engineering will also design the boardwalk which will be wood framed on wood pilings. This proposal is based on your request for proposal and Revit model provided by Mark Loudermilk Architecture, PLLC dated 02/08/23.

The Proposed Structural Engineering Scope of Work is outlined as follows:

- Provide foundation plans. Woods Engineering, PA will coordinate the foundation design with the Owner's Geotechnical Engineer.
- Provide a first-floor slab on grade plan for the Parking areas.
- Provide foundation and slab on grade detail sheets as required to define construction conditions and to accommodate existing site conditions.
- Provide a second-floor podium framing plan. This level will be a post-tensioned concrete transfer flat slab that will be designed and detailed by Woods Engineering.
- Provide a third-floor framing plan for the hotel.
- Provide a roof framing plan for the restaurant, event space building, and hotel.
- Provide framing detail sheets as required.
- Design and detail structural backup for exterior wall conditions.
- Provide shear wall elevations and schedules as required.
- Design and detail the structure for gravity, wind and seismic loadings as prescribed in the *2018 North Carolina State Building Code*, *2015 International Building Code and ASCE 7-16.*

- Issue Design Development drawings, which will have most lateral and gravity structural elements identified. These documents may be used for budget pricing.
- Issue sealed Construction Documents designed in accordance with the *2018 NCSBC, 2015 IBC* and *ASCE 7-16*. Design documents will be generated with Revit 2022.
- Provide book form specifications and provide material specifications on general notes sheet.
- Answer Contractor questions during bidding and construction phases of the project.
- Review and action on submittals and shop drawings.
- Review and action on substitution requests.
- Respond to Requests for Information (RFIs), resolve questions, and prepare clarification drawings due to conflicts, lack of clarity, or omissions related to the contract documents.
- Six construction site visits are included in this Proposal.

Special Inspections Scope of Work is as follows:

- Provide Statement of Special Inspections as required by the 2018 NCSBC and IBC 2015. This document will provide guidance regarding what inspections are required, when they are required and by whom. A NC DOA 2018 form will also be completed and submitted as part of the building permit application.
- Assist in Testing Agency selection process.
- Conduct a Special Inspection kick-off meeting with the Contractor, Architect, Owner, Testing Agency, and the local County Inspections Department.
- Six construction site visits (listed above) are included in this Proposal to satisfy Special Inspection requirements and to ensure compliance with structural documents.
- Review all test reports and make sure all discrepancies are resolved and that all corrective actions are completed.
- Issue Letter of Compliance to Building Inspections Dept. at the end of the project to obtain the building Certificate of Occupancy.

Clarifications:

1. All permits are by others.
2. A Geotechnical Report will be provided by others.
3. This Proposal does not include material inspections or testing. This service must be provided by the Owner's Independent Testing Agency.

Schedule:

- To be determined

Compensation:

Woods Engineering, PA proposes to perform the outlined **Structural Engineering Scope of Work** for a lump sum fee of **$117,500.00, (One Hundred Seventeen Thousand Five Hundred Dollars & .00/100)**. The Structural Engineering Design Services fee breakdown is as follows:

Schematic Design	@ 5%	$ 5,875.00
Design Development	@ 30%	$ 35,250.00
Construction Documents	@ 45%	$ 52,875.00
Bidding	@ 5%	$ 5,875.00
	Total Design Fee =	$ 99,875.00
Construction Administration:	@ 15%	$ 17,625.00
	Total Structural Engineering Fee =	$117,500.00

If Additional Services are requested, they will be negotiated prior to the start of work and be billed at the following hourly rates:

Principals	$175
Senior Professional Engineers	$150
Professional Engineers	$135
Engineer Intern	$105
Structural Designer	$ 85
Administration	$ 65

Payment:

1. The project will be billed monthly based on a percentage complete and/or with each submittal, as appropriate.
2. Payment will be considered past due if not paid in full within thirty days after the date of invoice. Past due accounts are subject to a finance charge of 1.5% per month, 18% annually.

Please do not hesitate to contact my office if you have any questions. I appreciate this opportunity and look forward to working with you on this project.

Respectfully,

Don R. Woods, PE, SE
Principal

Acceptance:

If this **Schematic Design Phase @ $5,875.00** for the Boardwalk Place to be located in Oak Island, NC is acceptable, please complete the following, return a signed copy to us, and keep the signed original for your records.

Signature_____

Printed Name_____

Title_____

Date_____

Acceptance:

If this **Design Development Phase @ $32,250.00** for the Boardwalk Place to be located in Oak Island, NC is acceptable, please complete the following, return a signed copy to us, and keep the signed original for your records.

Signature_____

Printed Name_____

Title_____

Date_____

Acceptance:

If this **Construction Document Phase @ $52,875.00** for the Boardwalk Place to be located in Oak Island, NC is acceptable, please complete the following, return a signed copy to us, and keep the signed original for your records.

Signature_____

Printed Name_____

Title_____

Date_____

Acceptance:

If this **Bid Phase @ $5,875.00** for the Boardwalk Place to be located in Oak Island, NC is acceptable, please complete the following, return a signed copy to us, and keep the signed original for your records.

Signature_____

Printed Name_____

Title_____

Date_____

Acceptance:

If this **Construction Administration Phase @ $17,625.00** for the Boardwalk Place to be located in Oak Island, NC is acceptable, please complete the following, return a signed copy to us, and keep the signed original for your records.

Signature_____

Printed Name_____

Title_____

Date_____