peter wallis and associates
structural engineers

December 7, 2017

L16049.K07

Mr. George Merlin
George Merlin Associates, Inc.
7729 Holiday Drive
Sarasota, Florida, 34231

RE: GARRO RESIDENCE - Sarasota County Building Permit # 2017 150193 00B1

The following is in response to plans review memo by D. Greenough of Sarasota County, dated 10/31/2017, and our response is in the order of items on such memo:

5. Net pre-engineered wood roof truss uplift reactions in excess of 1000 pounds has been indicated on the roof framing plans on Sheets S103 and S104, with further note that the Contractor shall provide EOR and Building dept. final signed and sealed truss manufacturer's engineering for confirmation of location and magnitude of all wood truss bearing points and loads and obtain EOR's approval of such and post such at jobsite for government building inspector's review prior to pouring any concrete.

8. There are no pile caps on this project. Below the DEP allowed shear walls at the elevator/stairs there is a transitional pile supported concrete element/footing (SWF per S101) with top located at 8'-5" NAVD and bottom located at 6'-5" NAVD. The intent of this wall transition element is to locate pile supports for shear walls as high as possible to reduce the obstruction of flood waters due to the shear walls. If these elements were lowered the shear walls would also need to be extended down creating a larger obstruction to the flow of storm induced surge and flood waters within the scour zone. These elements do not rely on any soil for support as they are deep pile supported and will remain in place without any displacement or movement due to storm surge waters. The setting of this element above design grade has been reviewed and the entire structure has been designed to resist the increased associated loads from storm surge.

9. Refer to Sections on S105 thru S109 for details of column and wall connection to the concrete slab.

12. Refer to Detail 1 and Section W on S107 for pre-engineered wood girder truss supporting upper floor and wall and roof system above that level. Only the webbing layout of this girder truss need be detailed by truss manufacturer's specialty engineering and be submitted to EOR along with all other trusses for review and approval by EOR.

13. The slab reinforcement has been indicated on plan. Additional reinforcement beyond the required specified reinforcement to trim openings, support cantilevers or any other conditions has been indicated on the plans, with further note that the Contractor shall provide EOR and Building dept. actual slab reinforcement placement shop drawings and obtain approval of such and post such on jobsite for government building inspector's review prior to pouring any concrete.

14. The pool has been detailed as structurally independent from the main concrete slab for the residence and exterior deck.

15. Refer to Sheet S105 for break- away wall detail. There is to be no connection of the wall at the ends to the structure – only top and bottom. The break-away walls are not physically connected to any portions of the pile support system for the permanent structure.

16. The second set of stairs outside Garage 31 has been clarified to be indicated as break-away. Refer to Sheet S101, S102 and S103.

PETER WALLIS LICENSE No 34418 STATE OF FLORIDA PROFESSIONAL ENGINEER

peter wallis

Digitally signed by peter wallis
DN: c=US, o=IdenTrust ACES Unaffiliated Individual, cn=peter wallis, 0.9.2342.19200300.100.1.1=A01098000000015E5D424ADA000 0FB23
Date: 2017.12.07 18:35:10 -05'00'

PDS

JAN 02 2018

Permitting/Inspections

JOB SITE PLANS
This set of plans must be kept on the job site at all times per Sarasota County Ordinance
Sarasota County Planning & Development Services

8470 enterprise circle - suite 321
lakewood ranch, florida, 34202

tel. 941-907-9192
peter.wallis.eng@gmail.com

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PLANNING AND DEVELOPMENT SERVICES
BUSINESS CENTER

1001 Sarasota Center Blvd., Sarasota, FL 34240
4000 S. Tamiami Trail, Room 122, Venice, FL 34293
Sarasota (941) 861-6678 Venice (941) 861-3029

Coastal Construction Control Line (CCCL) Certificate

This form is required for New Construction and Substantial Improvements to structures seaward of the Coastal Construction Control Line (CCCL)*

Name: GARRO RESIDENCE - NEW **Permit No:** _____

Street Address: 13 N. CASEY KEY RD

City: OSPREY **State** FL **Zip Code** 34229

SECTION I – Flood Insurance Rate Map (FIRM) Information

Community Number	Panel Number	Suffix	FIRM Index date	Flood Zone/s	Base Flood Elevation	FDEP Elevation+
125144	0236	F	NOV 04,2016	AE-10	10' NAVD	18.3' NAVD

SECTION II – Proposed Elevation Information

1.	**Bottom of Lowest Horizontal Structural Member**	18.3' NAVD OR 19.4' NGVD ft.
2.	**Elevation Requirement**	18.3' NAVD OR 19.4' NGVD ft.
3.	**Elevation of Highest Adjacent Grade**	10.0' NAVD ft.
4.	**Elevation of Lowest Adjacent Grade**	8.5' NAVD ft.
5.	**Elevation of Bottom of Pilings or Foundation**	-25.0' NAVD ft.
6.	**Elevation of Top of Pile Cap or Grade Beam**	N/A ft.

SECTION III – Certification Statement
(Registered engineer or architect to sign and seal SECTION V)

I certify that based upon development and/or review of structural design specifications, and plans for construction including consideration of the hydrostatic, hydrodynamic, and impact loading involved, that the designs and methods of construction are in accordance with accepted standards of practice for meeting the following provisions:

The bottom of the lowest horizontal structural member supporting the Lowest Floor (excluding the pilings or columns) is elevated to or above Base Flood Elevation or FDEP elevation requirement, whichever is higher.

GEORGE MERLIN

STATE OF FLORIDA GEORGE MERLIN AR0010623 REGISTERED ARCHITECT

*** Sarasota County Code Article XVI, Floodzone Areas, and Latest Edition of the Florida Building Code**
+ For new construction and substantial improvements that extend wholly or partially seaward of CCCL.

The pile or column foundation, pile cap and/or grade beam, and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads associated with the design flood elevations acting simultaneously on all of the structural components.

SECTION IV – Breakaway Construction Certification Statement
(Registered engineer or architect to sign and seal SECTION V)

I certify that based upon the development and/or review of structural design, specifications and plans for subject construction that the design and methods of construction of the breakaway walls are in accordance with accepted standards of practice for meeting the following provisions:

Breakaway Wall collapse shall result from a water load less than that which would occur during the Base Flood; and

Access to such enclosure shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of items used in connection with the premises (standard exterior door) or access to the habitable space above (stairway or elevator).

"Breakaway Wall" means a partition independent of supporting structural members that will withstand design wind forces, but will fail under hydrostatic, wave and run-up forces associated with the design storm surge. Under such conditions, the wall will fail in a manner such that it dissolves or breaks up into components that will not act as potentially damaging missiles.

SECTION V- Certification

Certifier's Name: GEORGE MERLIN **Title:** ARCHITECT

License Number: AR0010623 **Company Name:** GEORGE MERLIN ASSOCIATES, INC

Street Address: 7729 HOLIDAY DRIVE

City: SARASOTA **State:** FLORIDA **Zip Code:** 34231

Telephone Number: 941 923 8868 **Fax:** 941 9239148

Signature: GEORGE MERLIN **Seal:**