

# PRODUCT APPROVAL SPECIFICATION SHEET

# 0705-24

Location: Bluebird Preserve Lot 35

Project Name: Hornsby

As required by Florida Statute 553.842 and Florida Administrative Code 9B-72, please provide the information and the product approval number(s) on the building components listed below if they will be utilized on the construction project for which you are applying for a building permit on or after April 1, 2004. We recommend you contact your local product supplier should you not know the product approval number for any of the applicable listed products. More information about statewide product approval can be obtained at [www.floridabuilding.org](http://www.floridabuilding.org)

Category/Subcategory	Manufacturer	Product Description	Approval Number(s)
<b>1. EXTERIOR DOORS</b>	<u>CGI</u>	<u>Impact resistant aluminum</u>	<u>FL-4809.12</u> <u>NOA-06-012702</u>
1. Swinging	"		
2. Sliding			
3. Sectional			
4. Roll up			
5. Automatic			
6. Other			
<b>2. WINDOWS</b>	<u>CGI</u>	<u>Impact resistant aluminum</u>	<u>NOA 02-0122.05</u>
1. Single hung			
2. Horizontal Slider			
3. Casement			
4. Double Hung			
5. Fixed			
6. Awning			
7. Pass-through			
8. Projected			
9. Mullion			
10. Wind Breaker			
11. Dual Action			
12. Other			
<b>3. PANEL WALL</b>			
1. Siding			
2. Soffits			
3. EIFS			
4. Storefronts			
5. Curtain walls			
6. Wall louver			
7. Glass block			
8. Membrane			
9. Greenhouse			
10. Other			
<b>4. ROOFING PRODUCTS</b>	<u>Tamko</u>	<u>Lamarite Slate</u>	<u>FL 4087-R1</u> <u>NOA 05-0615.01</u>
1. Asphalt Shingles			
2. Underlayments			
3. Roofing Fasteners			
4. Non-structural Metal Rf			
5. Built-Up Roofing			
6. Modified Bitumen			
7. Single Ply Roofing Sys			
8. Roofing Tiles			
9. Roofing Insulation			
10. Waterproofing			
11. Wood shingles /shakes			
12. Roofing Slate			

Category/Subcategory (cont.)	Manufacturer	Product Description	Approval Number(s)
13. Liquid Applied Roof Sys			
14. Cements-Adhesives -- Coatings			
15. Roof Tile Adhesive			
16. Spray Applied Polyurethane Roof			
17. Other			
<b>E. SHUTTERS</b>			
1. Accordion			
2. Bahama			
3. Storm Panels			
4. Colonial			
5. Roll-up			
6. Equipment			
7. Others			
<b>F. SKYLIGHTS</b>			
1. Skylight			
2. Other			
<b>G. STRUCTURAL COMPONENTS</b>			
1. Wood connector/anchor			
2. Truss plates			
3. Engineered lumber			
4. Railing			
5. Coolers-freezers			
6. Concrete Admixtures			
7. Material			
8. Insulation Forms			
9. Plastics			
10. Deck-Roof			
11. Wall			
12. Sheds			
13. Other			
<b>H. NEW EXTERIOR ENVELOPE PRODUCTS</b>			
1.			
2.			

The products listed below did not demonstrate product approval at plan review. I understand that at the time of inspection of these products, the following information must be available to the inspector on the jobsite; 1) copy of the product approval, 2) the performance characteristics which the product was tested and certified to comply with, 3) copy of the applicable manufacturers installation requirements.

I understand these products may have to be removed if approval cannot be demonstrated during inspection.

W. Magana Magana Construction, Inc.  
 Contractor or Contractor's Authorized Agent Signature  
Lot 35 Bluebird Preserve  
 Location

Print Name

Date

Permit # (FOR STAFF USE ONLY)



#0705-23  
#0705-24  
**Cal-Tech Testing, Inc.**

- Engineering
- Geotechnical
- Environmental

**LABORATORIES**

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February 19, 2007

Mary and Wade Hornsby  
13662 Mallard Way  
Palm Beach Gardens, Florida 33418

Reference: Hornsby Residence  
Lot 35, Bluebird Preserve  
High Springs, Florida  
Cal-Tech Project No. 05-592

Dear Mr. and Mrs. Hornsby:

Cal-Tech Testing, Inc. has completed the subsurface investigation and engineering evaluation for the proposed residence in High Springs, Florida. Our work was performed in conjunction with and authorized by you.

Introduction

We understand you will construct a two-story, wood-frame Residential structure covering an area of approximately 3,500 square feet. An adjacent 1,100 square foot guest house and 1,200 square foot equipment shed will also be constructed, both single story and of wood frame construction. Support for the structures is to be provided by conventional, shallow spread footings. Detailed foundation loads have not been provided; however, we assume column and wall loads will not exceed 20 kips and 2.0 kips per foot, respectively. The proposed structure is fairly close to an adjoining creek, and we assume the structure will be elevated by extending the foundations vertically.

We previously performed an investigation for these structures on this site. The results of this investigation were presented in our report dated December 9, 2005. Briefly, one of our soil test borings encountered conditions that indicated possible sinkhole activity, and we recommended that the structures be moved.

The purposes of our recent investigation were to evaluate the existing subgrade soils at the relocated building locations for an allowable bearing pressure, presence of any sinkhole activity and to present recommendations for foundation design and construction.

### Site Investigation

The subsurface conditions were investigated by performing thirteen (13) Standard Penetration Test borings advanced to depths of 15 to 20 feet. The borings were performed at the approximate locations indicated on the attached Report of Soil Borings and were located in the field within a cleared area for the proposed residence.

The Standard Penetration Test (ASTM D-1586) is performed by driving a standard split-barrel sampler into the soil by blows of a 140-pound hammer falling 30 inches. The number of blows required to drive the sampler 1 foot, after seating 6 inches, is designated the penetration resistance, or N-value; this value is an index to soil density or consistency.


### Findings

In general, all of the borings initially encountered loose to medium dense fine sands to a depth of about 12 feet. This was underlain by medium dense to very dense limestone to the termination depth. We did not encounter very loose material directly above the limestone that would indicate sinkhole activity.

Ground water was not encountered at the maximum boring depth of 15 to 20 feet.

For a more detailed description of the subsurface conditions encountered, please refer to the attached Report of Soil Borings. Note that the transition between soil layers may be gradual and not abrupt as indicated by the logs; therefore, the thickness of soil layers should be considered approximate.

### Discussion and Recommendations



The site soils appear to be very loose to loose near the ground surface and increase in consistency/density with depth. Based upon these findings, moderate site improvement should be performed; however, it is our opinion the site soils are suitable to provide support for the structures using conventional, shallow spread footings. We recommend that the foundations be sized using a maximum soil bearing pressure of 2,500 psf; however, we recommend foundations have minimum widths of 18 and 24 inches for strip and isolated footings, respectively, even though the allowable soil bearing pressure may not be developed. The bottoms of foundations should be embedded a minimum of 18 inches below the lowest adjacent grade (finished surface grade, for example).



The site should be stripped of topsoil, grass, roots, stumps and other deleterious materials that may be present. Excavation should then be performed as required to establish the appropriate grades. Clean, sandy soils should be stockpiled for later use as fill as required.

The subgrade should then be proof-rolled using heavy rubber-tired equipment (a large, loaded, front-end loader, for example). Proof rolling helps to compact the bearing soils and to locate zones of especially loose or soft soil that may be present. Such zones should be undercut and back-filled or otherwise treated as directed by the geotechnical engineer.

The subgrade should then be proof-compacted to a minimum of 95% of the Modified Proctor maximum dry density to a depth of at least 2.0 feet below bearing grade.

Fill to raise the site may be placed as required. Fill should consist of relatively clean, fine sand containing less than 10% passing the No. 200 sieve. Fill should be placed in maximum 12-inch, loose lifts, and each lift should be proof-compacted to a minimum of 95% of the Modified Proctor maximum dry density. Foundation cuts may be placed in compacted fill, but disturbed fill should be recompacted prior to placement of the foundations or floor slabs.

Field density testing should be performed in the compacted subgrade, in each lift of fill, and in foundation excavations to verify the recommended compaction has been achieved.

There are no presently available theories or procedures for predicting the type, location, size, and frequency of sinkhole occurrences at a specific site. However, it is possible to qualitatively evaluate sinkhole potential for a given region, if the general geology of that region is understood. Although our borings did not encounter any voids or other indications of sinkhole activity within the construction areas, our past exploration and the available engineering/geological literature suggests the potential for development of sinkholes at the project site during the life of the structures.

Our evaluation is based upon subsurface conditions encountered at this site and as presented within this report. However, subsurface conditions may exist that differ from our findings. We request that we be notified if substantially different subsurface conditions are encountered.

We appreciate the opportunity to be of service on this project and look forward to a continued association. Please do not hesitate to contact us should you have questions concerning this report or if we may be further assistance.

Respectfully submitted,  
Cal-Tech Testing, Inc.

*Linda Creamer, CEO*

Linda Creamer  
President / CEO

*Robert W. Clark*  
Robert W. Clark, P.E. 2/19/07  
Geotechnical Engineer  
Registered Florida No. 52210

brought into compliance with the following chapters and the assumptions in Section 101.4.2.1 are used:

1. Commercial buildings and residential buildings greater than three stories: Method A of Subchapter 13-4.
2. Single-family residential buildings and multiple-family buildings of three or less stories: Method A of Subchapter 13-6.

**13-101.4.2.1 Assumptions for existing building efficiencies.** The following restrictions apply if the entire building is used to demonstrate code compliance:

1. The owner shall demonstrate to the building department's satisfaction that all *R*-values and equipment efficiencies claimed are present. If the building was built after 1980, the original energy code submittal may be used to demonstrate efficiencies.
2. If it is apparent from inspection that no insulation is present in the existing walls, floors or ceilings, or if inspection is not possible, an *R*-value of zero (0) shall be used for that component in the calculation. If as part of the addition and renovation project, insulation or equipment in the existing structure is upgraded, the new values may be used in the calculation. Multipliers for insulation levels not on Form 600A may be found in Section 2.0 of Appendix 13-C to this chapter.
3. If, upon inspection, insulation is found but the *R*-value is unknown, then an *R*-value shall be determined by an energy audit utilizing current acceptable practice based on insulation thickness, density and type.
4. Equipment efficiencies shall be demonstrated, either from manufacturer's literature or certified equipment directories, or by the procedure provided in Section 407.1.ABC.3 or Section 607.1.ABC.3 based on system capacity and total on-site energy input. Equipment to be added shall meet the applicable minimum equipment efficiency from Tables 407.1.ABC.3.2A through 407.1.ABC.3.2D and 408.1.ABC.3.2E through 408.1.ABC.3.2G for commercial occupancies and from Tables 607.1.ABC.3.2A through 607.1.ABC.3.2D and 608.1.ABC.3.2E through 608.1.ABC.3.2F for residential occupancies. Existing equipment efficiencies not meeting the values given in Tables 407.1.ABC.3.2A through 407.1.ABC.3.2D and 408.1.ABC.3.2E through 408.1.ABC.3.2G for commercial occupancies shall utilize the cooling or heating system multipliers provided by FLA/COM. Existing residential equipment not meeting the efficiencies in Tables 607.1.ABC.3.2A through 607.1.ABC.3.2D and 608.1.ABC.3.2E through 608.1.ABC.3.2F shall utilize the cooling or heating system multipliers provided in Tables 6-16 to 6-17 of Appendix C to this chapter. Residential ducts with less than R-4.2

insulation shall use the multipliers provided in Tables 6-18 to 6-20 in Appendix 13-C to this chapter.

5. Any nonvertical roof glass shall be calculated as horizontal glazing.

**13-101.5 Exempt buildings.** Buildings exempt from compliance with this chapter include those described in Sections 101.5.1 through 101.5.7.

**13-101.5.1** Existing buildings except those considered renovated buildings, changes of occupancy type, or previously unconditioned buildings to which comfort conditioning is added.

**13-101.5.2** Any building or portion thereof whose peak design rate of energy usage for all purposes is less than 1 watt (3.4 British thermal units per hour) per square foot of floor area for all purposes.

**13-101.5.3** Any building which is neither heated nor cooled by a mechanical system designed to control or modify the indoor temperature and powered by electricity or fossil fuels. Such buildings shall not contain electrical, plumbing or mechanical systems which have been designed to accommodate the future installation of heating or cooling equipment.

**13-101.5.4** Any building for which federal mandatory standards preempt state energy codes.

**13-101.5.5** Any historical building as described in Section 267.021, Florida Statutes.

➔ **13-101.5.6** Any building of less than 1,000 square feet (93 m<sup>2</sup>) whose primary use is not as a principal residence and which is constructed and owned by a natural person for hunting or similar recreational purposes; however, no such person may build more than one exempt building in any 12-month period.

**13-101.5.7** Any building where heating or cooling systems are provided which are designed for purposes other than general space comfort conditioning. Buildings included in this exemption include:

1. Buildings containing a system(s) designed and sold for dehumidification purposes only and controlled only by a humidistat. No thermostat shall be installed on systems thus exempted from this code.
2. Commercial service areas where only ceiling radiant heaters or spot coolers are to be installed which will provide heat or cool only to a single work area and do not provide general heating or cooling for the space.
3. Buildings heated with a system designed to provide sufficient heat only to prevent freezing of products or systems. Such systems shall not provide heating above 50°F (10°C).
4. Pre-manufactured freezer or refrigerated storage buildings and areas where the temperature is set below 40°F (4°C) and in which no operators work on a regular basis.
5. Electrical equipment switching buildings which provide space conditioning for equipment only and in which no operators work on a regular basis.