



**GeoEngineering, Inc.**

**FILE COPY**

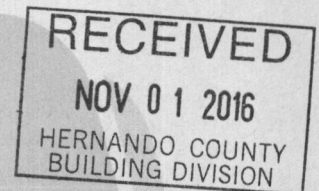
1330406

Report # GEO-9501-08-16

**UNDERPINNING INSTALLATION MONITORING REPORT**

**The "Florida Eagle Investments LLC" Property  
2392 Fairview Road  
Spring Hill, Florida 34609**

**Prepared for:  
Mr. Dennis Maxwell  
Florida Eagle Investments LLC.  
8323 Arcola Ave., Hudson, FL 34667**



**GeoEngineering, Inc.**  
10737 Pictorial Park Drive  
Tampa, FL 33647  
Tel: (813) 988-8600  
Fax: (813) 944-5011

September 22, 2016



GeoEngineering, Inc.  
10737 Pictorial Park Drive  
Tampa, FL 33647

Tel: (813) 988-8600 Fax: (813) 944-5011

*Engineering & Environmental Consultants*

1330406  
**FILE COPY**

September 22, 2016

Florida Eagle Investments LLC  
Mr. Dennis Maxwell  
8323 Arcola Ave.  
Hudson, FL 34667

**RE: Limited/Partial Underpinning Installation Monitoring Report**

**Property:** "Florida Eagle Investments LLC"

**ADDRESS:** 2392 Fairview Road  
Spring Hill, FL 34609  
GEI Project # GEO-9501-08-16

Dear Mr. Maxwell:

GeoEngineering, Inc. (GEI) was retained by "Florida Eagle Investments LLC" to provide engineering plans and field monitoring of the limited/partial underpinning system installation at the above referenced property. GEI prepared the plans for county permitting.

"Concrete Systems" was the contractor retained by Florida Eagle Investments LLC to install the underpinning system. The proposed underpinning system at the above mentioned property was requested by the property owner to support specific targeted area of the foundation as identified by the property owner. This letter report summarizes the implementation of GEI's proposed plan by "Concrete Systems". This report shows step by step pin installation and photographic documentation of selected field activities.

The installed seven (7) underpins were placed at the targeted areas of the structure as shown in the attached plan presented in attachment "I" of this report. The limited/partial underpinning system was installed to depths ranging from (21) to (27) feet below the land surface. The underpinning system installation was completed on September 19, 2016.

Attachment "I" of this report includes approximate locations of the installed pressure pier underpinning system and installation charts; while, attachment "II" of this report includes photographs showing the progress of this project.

***GEI does not anticipate further subsidence to the limited/partial repaired areas of the structure. It is GEI's opinion that the foundation at the targeted locations of the structure has been repaired, stabilized and there is no observed evidence of unrepaired areas of the foundation at the time of this project completion.***

1330406

# FILE COPY

## Limitations:

GeoEngineering, Inc. is acting as a third party to monitor, document and record all depths during the period of this project. GEI is not responsible for unforeseen soil shifts, movements, or building cracking that may result as part of implementing this stabilization process. The proposed plan was prepared by GEI was based on the client request to assist in stabilization of the limited area of the structure and to document the work performed at the site at subject property (2392 Fairview Road, Spring Hill, Florida 34609). It was not intended to deal with sinkhole or any other deep soil conditions that might be present at the residence or to be a replacement for a deep grouting plan to fill up cavities if present at the residence. GEI assumes no liability whatsoever associated with the misuse of the information included in the proposed plan or documented in this report.

GEI makes no warranties to the effectiveness of the work performed, it is our understanding that the contractor warrants that the work and materials are free from defects and it is up to Florida Building Code as defined in chapter 18. The scope of this report does not cover problems that may occur in areas beyond the limits of this repair work.

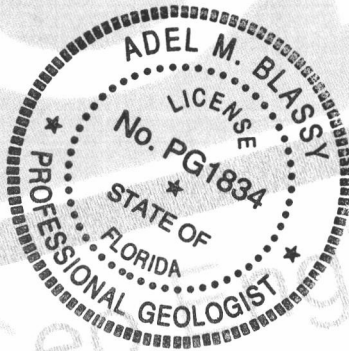
Respectfully submitted:

*Adel M. Blassy* 9/22/16

Adel M. Blassy, P.G. # 1834  
Professional Geologist Consultant

*Abdul Waris* 9/22/16

Abdul Waris, P.E. # 44797  
Professional Engineer, State of FL



1330406

**FILE COPY**

## **ATTACHMENT "I"**

- Proposed Underpinning Layout
- Installation Charts





**GeoEngineering, Inc.**  
**5802 E. Fowler Ave., Suite 7**  
**Tampa, FL 33617**  
**Tel: (813) 988-8600 Fax: (813) 944-5011**  
**Engineering & Environmental Consultants**

**EXTERIOR PRESSURE PIER INSTALLATION CHART**

**Project Number:** GEO-9501-08-16  
**Property:** "Florida Eagle Investments LLC" Property  
**Address:** 2392 Fairview Road, Spring Hill, FL 34609  
**Contractor Name:** Concrete Systems

<b>Pier # 1</b>	<b>Date</b> 09/19/16	<b>Pier # 2</b>	<b>Date</b> 09/19/16	<b>Pier # 3</b>	<b>Date</b> 09/19/16	<b>Pier # 4</b>	<b>Date</b> 09/19/16
<b>Feet</b>	<b>PSI</b>	<b>Feet</b>	<b>PSI</b>	<b>Feet</b>	<b>PSI</b>	<b>Feet</b>	<b>PSI</b>
3ft	600	3ft	600	3ft	600	3ft	400
6ft	1100	6ft	1000	6ft	900	6ft	900
9ft	1200	9ft	1100	9ft	1200	9ft	1100
12ft	1500	12ft	1200	12ft	1600	12ft	1100
15ft	1800	15ft	1700	15ft	2200	15ft	1500
18ft	2400	18ft	2400	18ft	2500	18ft	1900
21ft	2600	21ft	3000	21ft	2800	21ft	2600
24ft	2900	24ft	Lift	24ft	3000	24ft	3000
27ft	Lift	27ft		27ft	Lift	27ft	Lift
30ft		30ft		30ft		30ft	
33ft		33ft		33ft		33ft	
36ft		36ft		36ft		36ft	
39ft		39ft		39ft		39ft	
42ft		42ft		42ft		42ft	
<b>Pier # 5</b>	<b>Date</b> 09/19/16	<b>Pier # 6</b>	<b>Date</b> 09/19/16	<b>Pier # 7</b>	<b>Date</b> 09/19/16		
<b>Feet</b>	<b>PSI</b>	<b>Feet</b>	<b>PSI</b>	<b>Feet</b>	<b>PSI</b>		
3ft	1000	3ft	500	3ft	600		
6ft	800	6ft	600	6ft	600		
9ft	1200	9ft	1100	9ft	1000		
12ft	1200	12ft	1500	12ft	1200		
15ft	1500	15ft	1800	15ft	1800		
18ft	2100	18ft	2100	18ft	1800		
21ft	2600	21ft	2600	21ft	2200		
24ft	3000	24ft	2800	24ft	2700		
27ft	Lift	27ft	3000	27ft	3000		
30ft		30ft	Lift	30ft	Lift		
33ft		33ft		33ft			
36ft		36ft		36ft			
39ft		39ft		39ft			
42ft		42ft		42ft			

Monitor By: Adel Blassy

# ATTACHMENT "II"

- Site Photographs



Photo 1: General view of the House.



Photo 2: View of Pin installation along the targeted repaired area of the house.



Photo 3: View of Pin installation along the targeted repaired area of the house



Photo 4: View of a typical completed pin and bracket.