STATE OF FLORIDA
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

FLORIDA BOARD OF PROFESSIONAL
ENGINEERS,

Petitioner,

v. FEMC Case Nos. 2017031256, 2017029746

HAYTHAM MAHMOUD, P.E.,

Respondent,

FINAL ORDER ADOPTING SETTLEMENT STIPULATION

THIS CAUSE came before the FLORIDA BOARD OF PROFESSIONAL ENGINEERS
(“Board”), pursuant to Sections 120.569 and 120.57(4), Florida Statutes, on October 3, 2019 in
Daytona, Florida, for the purpose of considering a Settlement Stipulation (attached hereto as
“Exhibit A to Final Order”) entered into between the parties in this cause. Upon consideration of
the stipulation, the documents submitted in support thereof, and the arguments of the parties, it is
hereby:

ORDERED AND ADJUDGED that the Settlement Stipulation as submitted be and is
hereby adopted in toto and incorporated herein by reference. Accordingly, the parties shall
adhere to and abide by all the terms and conditions of the stipulation, with the following
modification:

1. The Respondents shall pay an ADMINISTRATIVE FINE of $2,000.00($1,000.00
per Count) and COSTS of $7500.00 to be paid in twelve (12) quarterly payments to
the Board. The payments shall be made in one (1) quarterly payment of $837.50 and
eleven (11) quarterly payments of $787.50 to the Board three (3) Years from the date that the Final Order adopting this Stipulation is filed with the Agency Clerk.

This Final Order shall take effect upon being filed with the Clerk of the Department of Business and Professional Regulation.

DONE AND ORDERED this 10__ day of October__, 2019.

FLORIDA BOARD OF PROFESSIONAL ENGINEERS

Zana Raybon, Executive Director
For KENNETH TODD, P.E., CHAIR

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing filed Final Order Adopting Settlement Stipulation has been furnished by U.S. First Class Mail to Haytham Mahmoud, P.E. by service upon his attorney of record: E Jorge L. Cruz, P.E., Esquire, Daniels Rodriguez Berkeley Daniels & Cruz, PA, 4000 Ponce De Leon, Blvd. Suite 800, Coral Gables, Florida 33146 this 11__ day of October__, 2019.

Rebecca Valentine,
Paralegal
STATE OF FLORIDA
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

FLORIDA BOARD OF PROFESSIONAL ENGINEERS,

Petitioner,

v. FEMC Case Nos. 2017031256, 2017029746

HAYTHAM MAHMOUD, P.E.,

Respondent,

__________________________

SETTLEMENT STIPULATION

HAYTHAM MAHMOUD, P.E. ("Respondent") and the Florida Engineers Management Corporation ("FEMC") hereby stipulate and agree to the following Joint Settlement Stipulation ("Stipulation") and to entry of a Final Order of the Florida Board of Professional Engineers ("Board"), incorporating this Stipulation in the above-styled matter.

STIPULATED FACTS

1. For all times pertinent hereto, Respondent, HAYTHAM MAHMOUD, P.E., was a licensed engineer in the State of Florida, having been issued license number PE 78453.

2. Respondent was charged with violations of Chapter 471, Florida Statutes, in Administrative Complaints filed by the Florida Engineers Management Corporation, and properly served upon Respondent. True and correct copies of the filed Administrative Complaints are attached hereto and incorporated herein by reference as "Composite Exhibit A to Settlement Stipulation".
STIPULATED CONCLUSIONS OF LAW

1. Respondent, in Respondent’s capacities as a licensed professional engineer admits that, in such capacity, Respondent is subject to the provisions of Chapter 471, Florida Statutes, and the jurisdiction of the Department of Business and Professional Regulation (“Agency” or “Department”), FEMC, and the Board.

2. Respondent admits that the facts set forth in the Administrative Complaints, if proven, constitute violations of Chapter 471, Florida Statutes, as alleged in the Complaint.

STIPULATED DISPOSITION OF LAW

1. Respondent shall, in the future, comply with Chapters 471 and 455, Florida Statutes, and the rules promulgated pursuant thereto.

2. Should Respondent fail to comply with the terms of the Final Order, an administrative complaint for failure to comply with final order will automatically be opened against Respondent.

3. Respondent shall pay an ADMINISTRATIVE FINE of $2,000.00($1,000.00 per Count) and COSTS of up to $7500.00. Respondent, at the APPEARANCE described below in Paragraph 5, shall be permitted to request that the Board reduce the COSTS amount due to Respondent’s asserted lack of financial ability to pay the amount set out herein. Respondent agrees to abide by the Board’s decision on this issue and waives any right to challenge any decision to grant or deny in whole or in part this request. Furthermore, the Board shall set a payment schedule for the FINE and COSTS at the time Respondent APPEARS and after hearing Respondent’s request. The payment schedule shall provide that payments shall be made over a period of not less than one year but may be for a longer period at the Board’s sole discretion.

4. Respondent’s license to practice engineering shall be REPRIMANDED.
5. Respondent shall **APPEAR** before the Board when this Stipulation is presented. Respondent must be prepared to discuss: how this situation occurred, what improvements and quality control measures Respondent plans to implement to improve Respondent’s work product, and how Respondent intends to prevent this circumstance from occurring in the future.

6. Respondent’s license shall be **RESTRICTED** from practicing any electrical and mechanical engineering until such time that he completes, passes and submits proof of passing the **NCEES 8 HOUR Electrical and the NCEES 8 HOUR Mechanical HVAC** examinations. The terms “Electrical Engineering” and “Mechanical Engineering” encompasses all services encompassed by Rule Chapter 61G15-33 and 61G15-34, Florida Administrative Code.

   a. Subsequent to taking and passing the NCEES Electrical Examination, Respondent shall submit to the Board a detailed list of all completed Electrical Engineering projects (signed, sealed, and dated), by the Respondent for **PROJECT REVIEW** at six (6) and eighteen (18) month intervals from the date on which Respondent passes the examination. The projects shall include: all Electrical Engineering projects and reports signed and sealed by Respondent.

   b. A FEMC Consultant will select two (2) projects from each submitted list for review. The Respondent is responsible for promptly furnishing any set of completed plans (signed, sealed, and dated), calculations, and any other supporting documentation requested by the Consultant. The Respondent must sign, date, and seal all materials that are submitted for project review using a non-embossed, rubber stamp seal. Sealed project review materials may be copied and submitted electronically, if desired, by the Respondent. Respondent is also responsible for the Consultant’s fees for reviewing the projects, and shall remit payment in the amount of $2,000.00 by check or money order made payable in the name of the Board’s Consultant at the time that the
project lists are submitted to FEMC. In the event that the project reviews cost exceed $2,000.00, then the Respondent is responsible for the deficiency. In the event that the cost of the reviews is less than $2,000.00, then the unused portion will be refunded to Respondent. Should the Consultant return an unfavorable report concerning Respondent’s projects, that report shall be submitted to the Probable Cause Panel for determination of whether additional disciplinary proceedings should be initiated.

c. If the Respondent has not performed engineering services on a sufficient number of projects to make the submissions required by 6a., above, the initial or, if applicable, the subsequent submission required by the terms of the project review shall be extended for a period of six (6) months to allow Respondent to perform the services necessary for the required review. However, if, after the extension has expired, Respondent does not perform sufficient engineering services to meet the requirements of the terms of probation, Respondent’s license will be placed on voluntary inactive status as defined in Section 455.227, Florida Statutes, by the Board, without any further necessity for action on the part of Respondent. Respondent’s license shall remain on such status, provided Respondent meets the requirements of Section 455.227, unless and until Respondent notifies the Board that he wishes to recommence practice and obtains Board authorization to reactivate his license under such terms of probation that the Board deems appropriate at that time.

d. Should the FEMC Consultant return a favorable report after reviewing the set of plans reviewed during the first project review, the requirements for the second project review may be waived. A “favorable report” is herein defined as a report that, in the sole opinion of the Consultant with the concurrence of the Board, finds that the plans reviewed were considered to be free of any material deficiencies.
e. Should the Respondent fail to timely comply with the terms of the Final Order with regard to the Project Reviews discussed herein, this case will be submitted to the Probable Cause Panel for review and determination of whether additional disciplinary action should be taken.

f. Subsequent to taking and passing the NCEES Mechanical HVAC Examination, Respondent shall submit to the Board a detailed list of all completed Mechanical Engineering projects (signed, sealed, and dated), by the Respondent for PROJECT REVIEW at six (6) and eighteen (18) month intervals from the date on which Respondent passes the examination. The projects shall include: all Mechanical Engineering projects and reports signed and sealed by Respondent

g. A FEMC Consultant will select two (2) projects from each submitted list for review. The Respondent is responsible for promptly furnishing any set of completed plans (signed, sealed, and dated), calculations, and any other supporting documentation requested by the Consultant. The Respondent must sign, date, and seal all materials that are submitted for project review using a non-embossed, rubber stamp seal. Sealed project review materials may be copied and submitted electronically, if desired, by the Respondent. Respondent is also responsible for the Consultant’s fees for reviewing the projects, and shall remit payment in the amount of $2,000.00 by check or money order made payable in the name of the Board’s Consultant at the time that the project lists are submitted to FEMC. In the event that the project reviews cost exceed $2,000.00, then the Respondent is responsible for the deficiency. In the event that the cost of the reviews is less than $2,000.00, then the unused portion will be refunded to Respondent. Should the Consultant return an unfavorable report concerning Respondent’s projects, that report shall be
submitted to the Probable Cause Panel for determination of whether additional disciplinary proceedings should be initiated.

h. If the Respondent has not performed engineering services on a sufficient number of projects to make the submissions required by 6f., above, the initial or, if applicable, the subsequent submission required by the terms of the project review shall be extended for a period of six (6) months to allow Respondent to perform the services necessary for the required review. However, if, after the extension has expired, Respondent does not perform sufficient engineering services to meet the requirements of the terms of probation, Respondent’s license will be placed on voluntary inactive status as defined in Section 455.227, Florida Statutes, by the Board, without any further necessity for action on the part of Respondent. Respondent’s license shall remain on such status, provided Respondent meets the requirements of Section 455.227, unless and until Respondent notifies the Board that he wishes to recommence practice and obtains Board authorization to reactivate his license under such terms of probation that the Board deems appropriate at that time.

i. Should the FEMC Consultant return a favorable report after reviewing the set of plans reviewed during the first project review, the requirements for the second project review may be waived. A “favorable report” is herein defined as a report that, in the sole opinion of the Consultant with the concurrence of the Board, finds that the plans reviewed were considered to be free of any material deficiencies.

j. Should the Respondent fail to timely comply with the terms of the Final Order with regard to the Project Reviews discussed herein, this case will be submitted to the Probable Cause Panel for review and determination of whether additional disciplinary action should be taken.

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FBPE vs. Haytham Mahmoud, P.E., FBPE Case No.: 2017031256, 2017029746
Settlement Stipulation
7. Respondent shall be placed on **PROBATION** for two (2) years from the date the Final Order adopting this Stipulation is filed with the Agency Clerk., with the following terms:

   a. Respondent shall successfully complete a Board-approved course in **BASIC ENGINEERING PROFESSIONALISM AND ETHICS** within one (1) year of the date the Final Order adopting this Stipulation is filed with the Agency Clerk. **Prior to that date,** Respondent shall submit to the Board a Certificate of Completion of the course. **It is the Respondent’s responsibility to notify the Board that he has completed the course in a timely manner.** Respondent may contact the Florida Engineering Society ("FES"), 125 South Gadsden St., Tallahassee, FL 32301, (850)224-7121, for information regarding the availability of such courses in Florida; however, if the FES provides any information regarding such a course to the Respondent, the Respondent **must** submit that course information to the FEMC for review and determination as to whether or not it will comply with the Board’s requirements. Respondent may also elect to complete one of the following correspondence courses offered by:

   Murdough Center for Engineering Professionalism  
   Texas Tech University, PO Box 41023, Lubbock, Texas 79409  
   **Engineering Ethics Basic**  
   **Engineering Ethics Intermediate**  
   **Engineering Ethics Advanced**  
   Telephone 806-742-3525; Fax 806-742-0444; E-mail: engineering.ethics@ttu.edu

   EPD Program  
   Auburn University  
   Engineering Extension Service  
   217 Ramsay Hall, Auburn, Alabama 36849-5331  
   Ethics and Professionalism  
   Phone 800-446-0382 or 334-844-4370

   An Accredited College or University course if that course information is first submitted to the FEMC for review and determination as to whether or not it will comply with the Board’s requirements.
Courses offered by Continuing Education Programs or Professional Business Programs (Exp: SunCam, Inc., C2Ed), are not Board Certified, and will not meet the requirements.

b. Respondent shall successfully complete the **STUDY GUIDE** which has been prepared by the Board and which will be furnished to Respondent, regarding the Engineering Practice Act, Chapter 471, Florida Statutes, and the Rules of the Board. Respondent is required to provide a personal email address that will be used to access the on-line study guide. The study guide must be completed within thirty (30) days of the date on which the Final Order incorporating this Stipulation is filed with the Agency Clerk.

c. Respondent shall submit to the Board a detailed list of all completed projects (signed, sealed, and dated), by the Respondent for **PROJECT REVIEW** at six (6) and eighteen (18) month intervals from the date the Final Order adopting this Stipulation is filed with the Agency Clerk. The projects shall include: all structural completed engineering projects and reports signed and sealed by Respondent.

d. **A FEMC Consultant** will select two (2) projects from each submitted list for review. **Respondent is responsible for promptly furnishing any set of completed plans (signed, sealed, and dated), calculations, and any other supporting documentation requested by the Consultants.** The Respondent must sign, date, and seal all materials that are submitted for project review using a non-embossed, seal. Sealed project review materials may be copied and submitted electronically, if desired by the Respondent. Respondent is also responsible for the Consultant’s fees for reviewing the projects, and shall remit payment in the amount of $2,000.00 by check or money order made payable in the name of the Board’s Consultant at the time that the project lists are submitted to FEMC. In the event that the project review cost exceeds $2,000.00, then the Respondent is responsible for the deficiency. In the event that the cost of the reviews is
less than $2,000.00, then the unused portion will be refunded to. Should the Consultant return an unfavorable report concerning Respondent's projects, that report shall be submitted to the Probable Cause Panel for determination of whether additional disciplinary proceedings should be initiated.

e. If the Respondent has not performed engineering services on a sufficient number of projects to make the submissions required by 7c., above, the initial or, if applicable, the subsequent submission required by the terms of probation shall be extended for a period of six (6) months to allow Respondent to perform the services necessary for the required review. However, if, after the extension has expired, Respondent does not perform sufficient structural engineering services to meet the requirements of the terms of probation, Respondent's license will be placed on voluntary inactive status as defined in Section 455.227, Florida Statutes, by the Board, without any further necessity for action on the part of Respondent. Respondent's license shall remain on such status, provided Respondent meets the requirements of Section 455.227, unless and until Respondent notifies the Board that he wishes to recommence practice and obtains Board authorization to reactivate his license under such terms of probation that the Board deems appropriate at that time.

f. Should the Respondent fail to timely comply with the terms of the Final Order with regard to the Project Reviews discussed herein, this case will be submitted to the Probable Cause Panel for review and determination of whether additional disciplinary action should be taken.

8. Respondent acknowledges that neither Respondent's attendance at the Board Meeting when this Stipulation is presented, nor any continuing education or college level courses taken as a requirement of the terms of this Stipulation may be used to comply with the continuing education requirements of Chapter 61G15-22, Florida Administrative Code.
9. It is expressly understood that this Stipulation is subject to approval of the Board and FEMC and has no force or effect until the Board issues a Final Order adopting this Stipulation.

10. This Stipulation is executed by Respondent for the purpose of avoiding further administrative action with respect to this cause. In this regard, Respondent authorizes the Board to review and examine all investigative file materials concerning Respondent prior to, or in conjunction with, consideration of this Stipulation. Furthermore, should this Stipulation not be accepted by the Board, it is agreed that presentation to and by the Board shall not unfairly or illegally prejudice the Board or any of its members from further participation, consideration, or resolution of these proceedings.

11. Respondent expressly waives all further procedural steps and expressly waives all rights to seek judicial review of or otherwise challenge or contest the validity of the joint Stipulated Facts, Conclusions of Law, imposition of discipline, and the Final Order of the Board incorporating this Stipulation.

12. Respondent waives the right to seek any attorney’s fees or costs from the Board in connection with this disciplinary proceeding.

WHEREFORE, the parties hereto request the Board to enter a Final Order accepting and implementing the terms contained herein.

Haytham Mahmoud, P.E.,
Respondent
Case Nos. 2017031256, 2017029746
Dated: 06/11/2019

APPROVED this 12 day of June, 2019.

Zana Raybon, Executive Director
Florida Board of Professional Engineers

FBPE vs. Haytham Mahmoud, P.E., FBPE Case No.: 2017031256, 2017029746
Settlement Stipulation
BY: John J. Rimes, III
Chief Prosecuting Attorney
FLORIDA BOARD OF PROFESSIONAL ENGINEERS,

Petitioner,

v.

HAYTHAM MAHMOUD, P.E.,

Respondent,

FEMC Case No. 2017031256

ADMINISTRATIVE COMPLAINT

COMES NOW the Florida Engineers Management Corporation (FEMC) on behalf of Petitioner, Florida Board of Professional Engineers, hereinafter referred to as “Petitioner,” and files this Administrative Complaint against HAYTHAM MAHMOUD, P.E., hereinafter referred to as “Respondent.” This Administrative Complaint is issued pursuant to Sections 120.60 and 471.038, Florida Statutes. Any proceeding concerning this complaint shall be conducted pursuant to Section 120.57, Florida Statutes. In support of this complaint, Petitioner alleges the following:

1. Petitioner, Florida Board of Professional Engineers, is charged with regulating the practice of engineering pursuant to Chapter 455, Florida Statutes. This complaint is filed by the Florida Engineers Management Corporation (FEMC) on behalf of Petitioner. FEMC is charged with providing administrative, investigative, and prosecutorial services to the Florida Board of Professional Engineers pursuant to Section 471.038, Florida Statutes (1997).

2. Respondent is, and has been at all times material hereto, a licensed professional engineer in the State of Florida, having been issued license number PE 78453. Respondent’s last known address is 29002 Alessandra Circle, Bonita Springs, Florida 34135.
3. Section 471.033(1)(g), Florida Statutes, provides that an engineer is subject to discipline for engaging in negligence in the practice of engineering. Rule 61G15-19.001(4), Fla. Admin. Code, provides that negligence constitutes "failure by a professional engineer to utilize due care in performing in an engineering capacity or failing to have due regard for acceptable standards of engineering principles."

4. Rule 61G15-19.001(4), Fla. Admin. Code, also provides that "[f]ailure to comply with the procedures set forth in the Responsibility Rules as adopted by the Board of Professional Engineers shall be considered as non-compliance with this section unless the deviation or departures therefrom are justified by the specific circumstances of the project in question and the sound professional judgment of the professional engineer."

5. Rule 61G15-30.002(1), Fla. Admin. Code, mandates that Respondent, as the engineer of record for all engineering work delineated in the Specific Allegations, is professionally responsible for the documents prepared. As such, Respondent is responsible for producing documents that comply with the applicable portions of the Responsibility Rules.

6. Respondent acted as the Electrical Engineer of Record for the Kasireddy Residence Project located at 11050 Ranchette Road, Fort Myers, FL (Kasireddy Residence Project) as that term is defined in Rules 61G15-30.002(1), 61G15-31.002(2), 61G15-33.002(1) and 61G15-34.002(1), Fla. Admin. Code. As such, all engineering documents prepared, signed, sealed and dated by Respondent must contain the information set out in Rule 61G15-30.003(1):

When prepared for inclusion with an application for a general building permit, the Documents shall meet all Engineer's Responsibility Rules, set forth in Chapters ...61G15-33, and 61G15-34, F.A.C., and be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that the proposed work will conform to all applicable standards, codes, laws, ordinances, rules and regulations in effect at the time the Documents are sealed, signed and dated, as determined by the AHJ. The Documents shall include:
(a) Information that provides material specifications required for the safe operation of the system that is a result of engineering calculations, knowledge and experience.

(b) If the Engineering Documents are intended to comply with requirements of any edition of federal, state, municipal, or county standards, codes, ordinances, laws, or rules, other than those currently in effect, the Engineering Documents must clearly state the edition and effective dates the Documents are intended to conform to.

(c) Information, as determined by the Engineer of Record, needed for the safe and efficient operation of the system.

(d) List engineering design criteria; reference project specific studies, reports, and delegated Engineering Documents.

(e) Identify clearly elements of the design that vary from the governing standards and depict/identify the alternate method used to ensure compliance with the stated purpose of these Responsibility Rules.

7. The Florida Building Code (2014) – Building (FBC-B) Section 107.2.1 “Information on construction documents” states, in material part: “Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations,...” FBC-B Section 2701.1 “Scope” states: “This chapter governs the electrical components, equipment and systems used in buildings and structures covered by this code. Electrical components, equipment and systems shall be designed and constructed in accordance with the provisions of the NFPA 70, National Electrical Code (NEC).” FBC-B Section 107.3.5 “Minimum plan review criteria for buildings” states: The examination of the documents by the building official shall include the following minimum criteria and documents: Electrical: Wiring, services, electrical feeders and branch circuits, Overcurrent protection, Grounding, Wiring methods and Materials, GFCIs; Equipment; Load calculations.
8. Rule 61G15-33.001 "Responsibility Rules of Professional Engineers Concerning the Design of Electrical Systems" "General Responsibility" states in material part that: "Electrical Engineering documents shall be prepared in accordance with applicable technology and with the requirements of the authority having jurisdiction. The documents shall identify the Engineer of record for the electrical systems project. Electrical Engineering documents shall demonstrate compliance with the requirements of the applicable codes and standards . . . ."

9. Rule 61G15-33.003(2) "Design of Power Systems," requires in material part that "Electrical Engineering Documents applicable to the design of electrical power systems shall, at a minimum, indicate the following: (a) Power Distribution Riser Diagram with short circuit values. (c) Circuit interrupting devices and fault current interrupting capability. (d) Location and characteristics of surge protection devices. (f) Voltage drop calculations for the feeders and customer-owned service conductors . . . (g) Circuitry of all outlets equipment and devices. (h) Load computations. (j) Grounding and bonding. (l) Record documents applicable to power systems shall, at a minimum, contain information as required by Florida Building Code.

10. Rule 61G15-33.004(2) "Design of Lighting Systems," requires that Electrical Engineering Documents applicable to the design of lighting systems shall, at a minimum, indicate the following: (a) Lighting fixture performance specifications and arrangements. (d) Lighting control and circuiting. (e) Calculated values to demonstrate compliance with the Florida Energy code for Building Construction.

11. Respondent acted as Structural Engineer of Record for the Kasireddy Residence Project as that term is defined in Rules 61G15-30.002(1) and 61G15-31.002(1), Fla. Admin. Code. As such, all structural documents prepared, signed, sealed and dated by Respondent must contain the information required by Rules 61G15-30.003(1), (4) and 61G15-31.002(5), Fla. Admin. Code. The plans and specifications for the Kasireddy Residence Project do not contain this information thus fail to comply with the Responsibility Rules.

FBPE vs. Haytham Mahmoud, P.E., Case No. 2017031256
12. Rule 61G15-31.001 "General Responsibility" states:

The Engineer of Record is responsible for all structural aspects of the design of the structure including the design of all of the structure's systems and components. As noted herein the engineer of record may delegate responsibility for the design of a system or component part of the structure to a delegated engineer. In either case the structural engineering documents shall address, as a minimum, the items noted in the following subsections covering specific structural systems or components. The Engineer of Record's structural engineering documents shall identify delegated systems and components. Both the Engineer of Record for the structure and the delegated engineer, if utilized, shall comply with the requirements of the general responsibility rules, Chapter 61G15-30, F.A.C., and with the requirements of the more specific structural responsibility rules contained herein. The Engineer of Record for the Structural System(s) shall provide design requirements in writing to the delegated engineer if one is used and shall review the design documents of the delegated engineer for conformance with his written instructions in accordance with Rule 61G15-30.005, F.A.C. When information collected from the engineer or the engineer's authorized representative from a site visit is part of the engineer's deliverative process, the engineer is responsible for the accuracy of such information.


The Engineer of Record is responsible for all structural aspects of the design of the structure including the design of all of the structure's systems and components. As noted herein the engineer of record may delegate responsibility for the design of a system or component part of the structure to a delegated engineer. In either case the structural engineering documents shall address, as a minimum, the items noted in the following subsections covering specific structural systems or components. The Engineer of Record's structural engineering documents shall identify delegated systems and components. Both the Engineer of Record for the structure and the delegated engineer, if utilized, shall comply with the requirements of the general responsibility rules, Chapter 61G15-30,
F.A.C., and with the requirements of the more specific structural responsibility rules contained herein. The Engineer of Record for the Structural System(s) shall provide design requirements in writing to the delegated engineer if one is used and shall review the design documents of the delegated engineer for conformance with his written instructions in accordance with Rule 61G15-30.005, F.A.C. When information collected from the engineer or the engineer’s authorized representative from a site visit is part of the engineer’s deliverative process, the engineer is responsible for the accuracy of such information.

**ELECTRICAL DESIGN DOCUMENTS**

14. Respondent’s Electrical Engineering Design Documents for the Kasireddy Residence Project are materially deficient as follows:

   (a) The Cover Sheet (Sheet CS) for the Kasireddy Residence Project lists the applicable Electrical Code for this project to be the 2011 Edition of the NEC. Electrical Sheets (Sheets A14 and A15) list the applicable codes for this project to be the 2008 Edition of the NEC. Respondent signed, dated and sealed all three sheets. The designation of two different Editions of the NEC as the applicable Electrical Code for this project constitutes a violation of Rule 61G15-30.003(1)(b).

   (b) The drawings contain no Electrical Riser Diagram, no short circuit values, and no voltage drop calculations for the feeders and customer-owned service conductors. These omissions constitute violations of FAC Responsibility Rule 61G15-33.003(2)(a) and (f).

   (c) The drawings show no circuit interrupting devices, no fault current capability, and no circuitry for outlets, lighting, equipment or devices. The absence of circuit interrupting devices and fault current capability, and the absence of circuitry for electrical power and lighting loads constitutes violations of Rule 61G15-33.003(2)(c) and (g) and Rule 61G15-33.004(2)(d).

   (d) NEC Section 210.52(E)(1) requires that: For a one-family dwelling . . . . that is at grade level, at least one receptacle outlet accessible while standing at grade level and located

FBPE vs. Haytham Mahmoud, P.E., Case No. 2017031256
not more than 6.5 ft above grade shall be installed at the front and back of the dwelling. NEC Section 210.52(E)(3) requires that: Balconies, decks, and porches that are accessible from inside the dwelling unit shall have at least one receptacle outlet installed within the perimeter of the balcony, deck, or porch. NEC Section 210.52(A)(1) requires that: Receptacles shall be installed such that no point measured horizontally along the floor line of any wall (interior) space is more than 6 ft. from a receptacle outlet. NEC Section 210.52(C)(1) requires that: A receptacle outlet shall be installed at each kitchen countertop space that is 12 in. or wider. Receptacle outlets shall be installed so that no point along the wall line (countertop) is more than 24 in. measured horizontally from a receptacle outlet in that space. NEC Section 210.8 Ground-Fault Circuit-Interrupter (GFCI) Protection for Personnel requires as follows: (A) Dwelling Units. All 125-volt, single-phase, 15- and 20-ampere receptacles installed in the locations specified as follows . . . shall have ground-fault circuit-interrupter (GFCI) protection for personnel. (2) Garages. (3) Outdoors. (6) Kitchens – where the receptacles are installed to serve the countertop surfaces. The absence of outdoor receptacles at the front and rear of the dwelling and on the Lanai, the absence of adequately-spaced receptacles along all interior walls and kitchen countertops, and the absence of GFCI receptacles at numerous locations in the dwelling violates the requirements of NEC Sections 210.52(E)(1), 210.52(E)(3), 210.52(A)(1), 210.52(C)(1) and 210.8(A)(2, 3 and 6).

(e) No surge protective devices are shown on the drawings. This constitutes a violation of Rule 61G15-33.003(2)(d).

(f) The drawings contain no electrical load computations. The absence of load computations constitutes a violation of Rule 61G15-33.003(2)(h).

(g) The electrical drawings include no specification, design or description of any grounding and bonding of any aspect of the electrical system. The absence of any requirements for grounding and bonding violates Rule 61G15-33.003(2)(j).
(h) The drawings do not contain information as required by the FBC-B. FBC-B Section 107.3.5 "Minimum plan review criteria for buildings" states: The examination of the documents by the building official shall include the following minimum criteria and documents: Electrical 1. Wiring Services, Electrical feeders and branch circuits, Overcurrent protection, Grounding, wiring methods and materials, GFCIs. 2. Equipment. 7. Load Calculations. The absence of these FBC-B requirements constitutes a violation of Rule 61G15-33.003(2)(i).

(i) The legend contains symbols for twenty-one different lighting fixtures, but the drawings contain no information on the specifications of any fixtures. This constitutes a violation of Rule 61G15-33.004(2)(a).

(j) The drawings contain no calculated values to demonstrate compliance with the Florida Energy Code for Building Construction. These omissions constitute a violation of Rule 61G15-33.004(2)(e).

STRUCTURAL ENGINEERING DOCUMENTS

15. Respondent’s Structural Engineering Design Documents for the Kasireddy Residence Project are materially deficient as follows:

Project Classification and Design Criteria

(a) The design criteria shown on Sheet GN (General Notes) states that the project is a "Remodel and Renovation and a Level II Alteration." However, the design drawings and calculations appear to be intended for new construction. This erroneous statement is a violation of Rule 61G15-30.003.

(b) Sheets CS, GN, and A1 contain wind load design criteria that is contradictory and in error, particularly with regard to the nominal design wind speed and the exposure category. This information also conflicts with the wind conversion data provided in Table R301.2.1.3, as shown on Sheets A7, A8, A9, and A13, and information referenced in the structural calculations. This is a violation of FBC, Sections 107 and 1603, and Rule 61G15-30.003.
(c) Sheet SP provides a site plan layout of the proposed structure, but there is no information regarding the site topography and drainage, or landscaping. This is a violation of FBC, Section 107.2.5 and Rule 61G15-30.003.

Foundation System

(d) Sheet GN states that the "foundations have been designed in accordance with the geotechnical report" and "an allowable bearing pressure of 3,000 psf." The note also requires the contractor to follow the recommendations of the geotechnical engineer in site preparation activities. The submitted drawing set does not identify a geotechnical engineering company, a geotechnical engineer, or a report date. Other notes/details that are inconsistent with the direction provided above include: (1) Notes on Sheet A3 (Foundation Plan) and Sheet A9 (Proposed Beam Plan) state that the gravity loads and foundation design were based on a soil bearing capacity of 2,500 psf. However, the structural calculations provided indicate that the soil was assumed to be sand with an allowable bearing pressure of 2,000 psf.; (2) A detail on Sheet A4 shows a 10" by 10" pile, but there is no information regarding the depth, number, or type of pile to be used. The above deficiencies found in the design of the foundation system violate Rule 61G15-30.003 (1) and FBC Sections 107, 1603, and 1803.

Main Wind-force Resisting System (Exterior Walls)

(e) Sheet A3 notes that the structure is to be constructed with the Quad-Lock Building System and refers the contractor to the manufacturer's details. The information provided by the Respondent is incomplete, misleading, and/or inconsistent with other notes and specifications. These deficiencies include: (1) The structural calculations (partially reproduced on Sheet A20) show that a wind load analysis was performed on the main wind-force resisting system. There is no reference in the calculations to the Quad-Lock wall system or any other analysis pertaining to the connection of the exterior walls to the floor and roof diaphragms. There also are no references on the drawings or in the calculations to code-approved evaluation reports for the selected wall system or the

FBPE vs. Haytham Mahmoud, P.E., Case No. 2017031256
components and cladding; (2) The exterior wall finishes are not identified on Sheet GN or on the exterior elevations (Sheets A10 and A11). The Quad-Lock wall details show either "siding" (A13.1), "board and batten" (A 16), or "brick" (A 17) finishes on the exterior walls, but the specific locations for these materials is not identified. Each of these materials requires unique design solutions for weatherproofing, flashing and sealant details at wall and roof transitions, and details at wall penetrations (doors and windows); (3) Several different wall systems are available on the Quad-Lock website, depending on the design criteria and local building code requirements. It is the responsibility of the Respondent to choose appropriate building components and ensure that those components comply with the specified loading criteria and applicable sections of the building code. That information is missing in the design; (4) Two of the details on Sheet A16 appear to depict a basement, which is not otherwise shown on the drawings. There also are window and door details that conflict with the details shown on Sheet A3 (which are illegible). Additionally, the support for the slab on grade and connection to the exterior walls is inconsistent with other details. The above deficiencies, contradictions, and lack of design clarity regarding the design of the exterior load-bearing walls and finish materials violate Rule 61G15-30.003 and FBC, Sections 107 and Chapter 14, and Chapter 16, Section 1603.

**Roof, Floor, and Balcony Precast/Prestressed Concrete Panels**

(f) Sheets A13 and A13.1 show hollow-core concrete panels at the second floor, the front and rear balconies, and the upper and lower roof sections. A note on Sheet A13 refers to Sheets A18 through A21 for details and appears to suggest that the floor panel layout on the shop drawings supersedes the design drawings. Details for the panels at the second floor are shown on Sheets A18 and A19 (presumably, similar details would be used at the roof). Sheet A20 provides excerpts from the wind load calculations and Sheet A21 provides details for the balcony railings. The prestress design is materially deficient as follows: (1) The submitted design plans and details do not identify the expected total floor or roof slab thickness or explicitly call for a topping slab. (2) The precast
panel concrete shop drawings show 5-inch thick solid concrete slabs at the front and rear balconies, with a 2-inch-thick topping slab. The weight of the topping slab is included in the loading criteria, but not the required balcony live load of 60 psf. The shop drawings show dashed lines at the outer ends of the panels, and the details depict concrete bond beams or masonry walls below. These beams or walls are not clearly identified on the submitted design drawings. (3) Concrete footings and columns were provided on the design drawings for vertical support of the outer ends of the balcony panels. There is no indication of the Respondent's intent regarding the outer end supports for the panels (presumably beams spanning between the columns). The submitted structural calculations also do not appear to address the design of these balcony beams. (4) The details on Sheets A18 and A19 depict several configurations of hollow-core panels and their supports, including steel beams and wall studs. There is one detail that shows an interior bearing condition at a Quad-Lock wall panel. However, Respondent states "there will be no interior bearing wall." (5) The details shown on the precast panel shop drawing show the structural support for the hollow-core and solid precast panels will be either steel beams or concrete bond beams erected on top of masonry walls (both to be designed by others). Several of the details refer to interior bearing conditions. There are no details of the roof cantilevers, and the cantilevers are shorter than shown on the design drawings; (6) The details shown on Sheets A18 and A19 apparently were obtained from the website for Kerkstra Precast. Respondent is responsible for ensuring that the information included in the details is appropriate and applicable to their design, or the details should be modified/updated as required. Two of the details provided on the submitted design drawings still refer to Kerkstra, which suggests that they will be installing the floor and roof components. The details also state that Kerkstra can be contacted for additional engineering support. This reference should be to the installer and the delegated engineer who designed the panels; (8) Some of the original Kerkstra details called for embedded steel plates with anchors at the ends of the panels. These plates would be welded to the supporting steel beams. Although the reference note remains on the design drawings, the embedded
plates and anchors no longer are depicted; (9) Some of the details on Sheets A18 and A19 refer to camber in the floor panels, but no camber is mentioned in the shop drawing submittal; (10) Several details on Sheet A19 depict steel wall studs as load-bearing support for the floor panels. The project specifications, plans, and notes do not identify the size and gauge of these steel studs, identify the location of these load-bearing walls, or provide an appropriate foundation system to transfer the gravity loads to the supporting soil. The structural calculations also do not mention these critical load-bearing components. The above deficiencies regarding the precast/prestressed concrete roof, floor and balcony panels violate Rules 61G15-30.003, 61G15-31.005 and FBC, Section 1603.

**Roof and Site Drainage Systems**

(g) The Drawing Index on Sheet CS does not reference any sheet designated as a Roof Plan, and there is no explicit means of removing water from the low-slope (flat) roof or an efficient means of site drainage. Sheet A13.1 (not listed in the Index), is titled "Proposed Roof Plan" and apparently was included to provide a proposed layout of the precast hollow-core roof panels. This drawing notes that all of the roof sections are considered to be "flat," but also specifies a minimum roof slope of $\frac{1}{4}:12$. There is no detail or note regarding how the contractor is to achieve the specified slope, such as built-up structural components or tapered insulation. Other notes/details that illustrate deficiencies with the roof and site drainage systems include: (1) A "Typical Roof Note" on Sheet A13.1 specifies the Gaco Silicon Roof Coating System and states that the roof drainage system is to be hidden in the precast panels, with the drains to be selected by the owner. The same note also can be found on Sheets A1 and A13. According to information found at Gaco's website, this product typically is used as a coating over an existing (weathered) roof; (2) Specifications on Sheet A13 indicate the roof slope is to be a minimum of 1:12 and the roof overhangs are to be 3-feet wide. Sheet A13.1 contains a Typical Wall Section that does not depict any roof overhang or perimeter means of draining the roof, such as "hidden drains" or perimeter gutters and downspouts; (3) The shop drawings for the precast/prestressed concrete panels also do not depict any type of roof.
drainage system hidden in the panels or provide for camber or slope of the panels. The drawings depict 2-foot wide roof overhangs at the exterior walls, which is inconsistent with the information shown on the submitted design drawings; (4) A portion of an underground yard drainage system is depicted beneath the building section shown on Sheet A12 and the Typical Wall Section shown on Sheet A13.1. There is no information regarding the size of the drainage pipes, whether they are to connect to interior roof drains or perimeter downspouts, or what happens to the water once it is in the underground drainage system; (5) A note on Sheet A13 provides direction to a truss manufacturer regarding shop drawing submittals. Trusses also are mentioned on Sheet GN and noted on the interior ceiling attachment detail shown on Sheet A5. The ceiling detail also depicts a steep-sloped roof surface, which is inconsistent with the roof design shown elsewhere on the design drawings. The above inconsistencies, contradictions, and lack of design clarity regarding the design of the roof and site drainage systems violate Rule 61G15-30.003 and FBC, Chapter 15.

COUNT I

ELECTRICAL DESIGN DOCUMENTS

16. Petitioner realleges and incorporates Paragraphs One (1) through Ten (10) and Fourteen (14) as if fully set forth in this Count One.

17. Respondent's electrical engineering drawings for the Kasireddy Residence Project contain deficiencies including; but not limited to, those set forth in Paragraph Fourteen (14). As a result of those deficiencies, Respondent violated the provisions of Section 471.033(1)(g), Florida Statutes, and Rule 61G15-19.001(4), F. A. C., by sealing and signing electrical engineering documents that were issued and filed for public record when such documents were materially deficient in that Respondent: (1) did not exercise due care in the preparation of the final engineering documents for the Kasireddy Residence Project and (2) the final engineering documents for the Kasireddy Residence Project were not issued in compliance with acceptable engineering principles.

FBPE vs. Haytham Mahmoud, P.E., Case No. 2017031256

13
18. Based on the foregoing, Respondent is charged with violating Section 471.033(1)(g), Florida Statutes, and Rule 61G15-19.001(4), F. A. C., by being negligent in the practice of engineering.

COUNT II

STRUCTURAL DESIGN DOCUMENTS

19. Petitioner realleges and incorporates Paragraphs One (1) through Six (6), Eleven (11) through Thirteen (13) and Fifteen (15) as if fully set forth in this Count Two.

20. Respondent's structural and life safety engineering drawings for the Kasireddy Residence Project contain deficiencies including; but not limited to, those set forth in Paragraph Fifteen (15). As a result of those deficiencies, Respondent violated the provisions of Section 471.033(1)(g), Florida Statutes, and Rule 61G15-19.001(4), F. A. C., by sealing and signing structural and life safety engineering documents that were issued and filed for public record when such documents were materially deficient in that Respondent: (1) did not exercise due care in the preparation of the final engineering documents for the Kasireddy Residence Project and (2) the final engineering documents for the Kasireddy Residence Project were not issued in compliance with acceptable engineering principles.

21. Based on the foregoing, Respondent is charged with violating Section 471.033(1)(g), Florida Statutes, and Rule 61G15-19.001(4), F. A. C., by being negligent in the practice of engineering.

WHEREFORE, the Petitioner respectfully requests the Board of Professional Engineers to enter an order imposing one or more of the following penalties: permanent revocation or suspension of the Respondent’s license, restriction of the Respondent’s practice, imposition of an administrative fine, issuance of a reprimand, placement of the Respondent on probation, the assessment of costs related to the investigation and prosecution of this case, other than costs associated with an attorney’s
time, as provided for in Section 455.227(3), Florida Statutes, and/or any other relief that the Board
dees appropriate.

SIGNED this 24th day of November, 2018.

Zana Raybon
Executive Director

BY: John J. Rimes, III
Prosecuting Attorney

COUNSEL FOR FEMC:

John J. Rimes, III
Prosecuting Attorney
Florida Engineers Management Corporation
2639 North Monroe Street, Suite B-112
Tallahassee, Florida 32303
Florida Bar No. 212008
JR/rv
PCP DATE: November 07, 2018
PCP Members: MATTHEWS, DRURY & ALBERGO

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing was furnished to Haytham Mahmoud, P.E. at 29002
Alessandria Circle, Bonita Springs, Florida 34135, by certified mail and First Class U. S. Mail, on
the 28th of November, 2018.

Rebecca Valentine, Paralegal
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

Petitioner,

v.

HAYTHAM MAHMOUD, P.E.,

Respondent,

FEMC Case No. 2017029746

ADMINISTRATIVE COMPLAINT

COMES NOW the Florida Engineers Management Corporation (FEMC) on behalf of Petitioner, Florida Board of Professional Engineers, hereinafter referred to as “Petitioner,” and files this Administrative Complaint against HAYTHAM MAHMOUD, P.E., hereinafter referred to as “Respondent.” This Administrative Complaint is issued pursuant to Sections 120.60 and 471.038, Florida Statutes. Any proceeding concerning this complaint shall be conducted pursuant to Section 120.57, Florida Statutes. In support of this complaint, Petitioner alleges the following:

1. Petitioner, Florida Board of Professional Engineers, is charged with regulating the practice of engineering pursuant to Chapter 455, Florida Statutes. This complaint is filed by the Florida Engineers Management Corporation (FEMC) on behalf of Petitioner. FEMC is charged with providing administrative, investigative, and prosecutorial services to the Florida Board of Professional Engineers pursuant to Section 471.038, Florida Statutes (1997).

2. Respondent is, and has been at all times material hereto, a licensed professional engineer in the State of Florida, having been issued license number PE 78453. Respondent’s last known address is 29002 Alessandra Circle, Bonita Springs, Florida 34135.
3. Section 471.033(1)(g), Florida Statutes, provides that an engineer is subject to discipline for engaging in negligence in the practice of engineering. Rule 61G15-19.001(4), Fla. Admin. Code, provides that negligence constitutes "failure by a professional engineer to utilize due care in performing in an engineering capacity or failing to have due regard for acceptable standards of engineering principles."

4. Rule 61G15-19.001(4), Fla. Admin. Code, also provides that "failure to comply with the procedures set forth in the Responsibility Rules as adopted by the Board of Professional Engineers shall be considered as non-compliance with this section unless the deviation or departures therefrom are justified by the specific circumstances of the project in question and the sound professional judgment of the professional engineer."

5. Rule 61G15-30.002(1), Fla. Admin. Code, mandates that Respondent, as the engineer of record for all engineering work delineated in the Specific Allegations, is professionally responsible for the documents prepared. As such, Respondent is responsible for producing documents that comply with the applicable portions of the Responsibility Rules.

6. Respondent acted as the Electrical Engineer of Record for the LLJA Investments Project located at 5132 26th Street SW, Lehigh Acres, FL 33973 as that term is defined in Rules 61G15-30.002(1), 61G15-31.002(1), 61G15-33.002(1) and 61G15-34.002(1), Fla. Admin. Code. As such, all engineering documents prepared, signed, sealed and dated by Respondent must contain the information set out in Rule 61G15-30.003(1):

When prepared for inclusion with an application for a general building permit, the Documents shall meet all Engineer's Responsibility Rules, set forth in Chapters ...61G15-31, 61G15-33, and 61G15-34, F.A.C., and be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of the Florida Building Code[FBC],
adopted in Section 553.73, F.S., and applicable laws, ordinances, rules and regulations, as determined by
the Authority Having Jurisdiction (AHJ). The Documents shall include:

(a) Information that provides material specifications required for the safe operation of
the system that is a result of engineering calculations, knowledge and experience.

(b) List Federal, State, Municipal, and County standards, codes, ordinances, laws, and
rules, with their effective dates, that the Engineering Documents are intended to conform to.

(c) Information, as determined by the Engineer of Record, needed for the safe and
efficient operation of the system.

(d) List engineering design criteria; reference project specific studies, reports, and
delegated Engineering Documents.

(e) Identify clearly elements of the design that vary from the governing standards and
depict/identify the alternate method used to ensure compliance with the stated purpose of these
Responsibility Rules.

7. The Florida Building Code (2010) – Building (FBC-B) Section 107.2.1 “Information on
construction documents” states: “Construction documents shall be of sufficient clarity to indicate the
location, nature and extent of the work proposed and show in detail that it will conform to the provisions
of this code and relevant laws, ordinances, rules and regulations,...” FBC-B Section 2701.1 “Scope”
states: “This chapter governs the electrical components, equipment and systems used in buildings and
structures covered by this code. Electrical components, equipment and systems shall be designed and
constructed in accordance with the provisions of the NFPA 70, National Electrical Code (NEC).” FBC-
B Section 107.3.5 “Minimum plan review criteria for buildings” states: “The examination of the
documents by the building official shall include the following minimum criteria and documents:
Electrical: Wiring ... branch circuits, Overcurrent protection, Grounding, Wiring methods and Materials,
GFCIs; Emergency systems; Mechanical: Energy calculations; Exhaust systems: Kitchen equipment exhaust; Make-up air; Duct systems; Ventilation; Combustion air.”

8. Rule 61G15-33.001 “Responsibility Rules of Professional Engineers Concerning the Design of Electrical Systems” “General Responsibility” states in material part that: “Electrical Engineering documents shall be prepared in accordance with applicable technology and with the requirements of the authority having jurisdiction. The documents shall identify the Engineer of record for the electrical systems project. Electrical Engineering documents shall demonstrate compliance with the requirements of the applicable codes and standards . . . .”

9. Rule 61G15-33.003(2) “Design of Power Systems,” requires in material part that “Electrical Engineering Documents applicable to the design of electrical power systems shall, at a minimum, indicate the following: (a) Power Distribution Riser Diagram with short circuit values. (c) Circuit interrupting devices and fault current interrupting capability. (d) Location and characteristics of surge protective devices. (f) Voltage drop calculations for the feeders and customer-owned service conductors . . . . (g) Circuitry of all outlets equipment and devices. (h) Load computations. (j) Grounding and bonding. (l) Record documents applicable to power systems shall, at a minimum, contain information as required by Florida Building Code.”

10. Rule 61G15-33.004(2) "Design of Lighting Systems," requires that “Electrical Engineering Documents applicable to the design of lighting systems shall, at a minimum, indicate the following: (a) Lighting fixture performance specifications and arrangements. (d) Lighting control and circuiting. (e) Calculated values to demonstrate compliance with the Florida Energy Code for Building Construction.”

11. Respondent acted as Structural Engineer of Record for the LLIA Investments Project as that term is defined in Rules 61G15-30.002(1) and 61G15-31.002(1), Fla. Admin. Code. As such, all structural documents prepared, signed, sealed and dated by Respondent must contain the information
required by Rules 61G15-30.003(1), and 61G15-31.002(5), Fla. Admin. Code. The plans and specifications for the LLIA Investments Project fail to contain this information and thus fail to comply with the Responsibility Rules.

12. Rule 61G15-31.001 “General Responsibility” states:

The Engineer of Record is responsible for all structural aspects of the design of the structure including the design of all of the structure’s systems and components. As noted herein the engineer of record may delegate responsibility for the design of a system or component part of the structure to a delegated engineer. In either case the structural engineering documents shall address, as a minimum, the items noted in the following subsections covering specific structural systems or components. The Engineer of Record’s structural engineering documents shall identify delegated systems and components. Both the Engineer of Record for the structure and the delegated engineer, if utilized, shall comply with the requirements of the general responsibility rules, Chapter 61G15-30, F.A.C., and with the requirements of the more specific structural responsibility rules contained herein. The Engineer of Record for the Structural System(s) shall provide design requirements in writing to the delegated engineer if one is used and shall review the design documents of the delegated engineer for conformance with his written instructions in accordance with Rule 61G15-30.005, F.A.C. When information collected from the engineer or the engineer’s authorized representative from a site visit is part of the engineer’s deliberative process, the engineer is responsible for the accuracy of such information.


“The structural drawings, specifications and other documents setting forth the overall design and requirements for the construction, alteration, repair, removal, demolition, arrangement and/or use of the structure, prepared by and signed and sealed by the engineer of record for the structure.
Structural engineering documents shall identify the project and specify design criteria both for the overall structure and for structural components and structural systems. The drawings shall identify the nature, magnitude and location of all design loads to be imposed on the structure. The structural engineering documents shall provide construction requirements to indicate the nature and character of the work and to describe, detail, label and define the structure's components, systems, materials, assemblies, and equipment."

**ELECTRICAL DESIGN DOCUMENTS**

14. Respondent's Electrical Engineering Design Documents for the LLIA Investments Project are materially deficient as follows:

(a) The drawings contain no Electrical Riser Diagram, no short circuit values, and no voltage drop calculations for the feeders and customer-owned service conductors. These omissions constitute violations of FAC Responsibility Rule 61G15-33.003(2)(a) and (f).

(b) The drawings show no circuit interrupting devices, no fault current capability, and no circuitry for outlets, lighting, equipment or devices. The absence of circuit interrupting devices and fault current capability, and the absence of circuitry for electrical power and lighting loads constitutes violations of Rule 61G15-33.003(2)(c) and (g) and Rule 61G15-33.004(2)(d).

(c) NEC Section 210.52(E)(1) requires that: For a one-family dwelling . . . that is at grade level, at least one receptacle outlet accessible while standing at grade level and located not more than 6.5 ft above grade shall be installed at the front and back of the dwelling. NEC Section 210.52(E)(3) requires that: Balconies, decks, and porches that are accessible from inside the dwelling unit shall have at least one receptacle outlet installed within the perimeter of the balcony, deck, or porch. NEC Section 210.52(A)(1) requires that: Receptacles shall be installed such that no point measured horizontally along the floor line of any wall space is more than 6 ft. from a receptacle outlet. NEC Section 210.52(C)(1)
requires that: A receptacle outlet shall be installed at each kitchen countertop space that is 12 in. or wider. Receptacle outlets shall be installed so that no point along the wall line is more than 24 in. measured horizontally from a receptacle outlet in that space. NEC Section 210.8 Ground-Fault Circuit-Interrupter Protection for Personnel requires as follows: (A) Dwelling Units. All 125-volt, single-phase, 15- and 20-ampere receptacles installed in the locations specified as follows... shall have ground-fault circuit-GFCI interrupter protection for personnel. (2) Garages. (3) Outdoors. (6) Kitchens – where the receptacles are installed to serve the countertop surfaces. (10) Laundry areas. The absence of outdoor receptacles at the front and rear of the dwelling and on the Lanai, the absence of adequately-spaced receptacles along all walls and kitchen countertops, and the absence of GFCI receptacles at numerous locations at the two dwellings violates the requirements of NEC Sections 210.52(E)(1), 210.52(E)(3), 210.52(A)(1), 210.52(C)(1) and 210.8.

(d) No surge protective devices are shown on the drawings. This constitutes a violation of Rule 61G15-33.003(2)(d).

(e) The drawings contain no electrical load computations. The absence of load computations constitutes a violation of Rule 61G15-33.003(2)(h).

(f) The electrical drawings include no specification, design or description of any grounding and bonding of any aspect of the electrical system. The absence of any requirements for grounding and bonding violates Rule 61G15-33.003(2)(j).

(g) The drawings do not contain information as required by the FBC-B. FBC-B Section 107.3.5 "Minimum plan review criteria for buildings" states: The examination of the documents by the building official shall include the following minimum criteria and documents: Electrical 1. Services, Electrical feeders and branch circuits, Overcurrent protection, Grounding, wiring methods and materials,
GFCIs. 2. Equipment. 7. Load Calculations. The absence of these FBC-B requirements constitutes a violation of Rule 61G15-33.003(2)(l).

(h) The legend contains symbols for nineteen different lighting fixtures, but the drawing contains no information on the specifications of any fixtures. This constitutes a violation of Rule 61G15-33.004(2)(a).

(i) The drawings show no circuiting for any lighting fixtures on this project. This constitutes a violation of FAC Responsibility Rule 61G15-33.004(2)(d).

(j) The drawings contain no calculated values to demonstrate compliance with the Florida Energy Code for Building Construction. These omissions constitute a violation of Rule 61G15-33.004(2)(e).

STRUCTURAL ENGINEERING DOCUMENTS

15. Respondent's Structural Engineering Design Documents for the LLIA Investments Project are materially deficient as follows:

Project Classification and Design Criteria

(a) The design criteria shown on Sheets CS (Cover Sheet) and GN (General Notes) are incorrect and inconsistent. This project is considered new construction and should not be classified as a "Remodel and Renovation and a Level II Alteration." Although the governing building code is the 2014 FBC, Sheet GN also references the 2010 FBC. Additionally, the wind load design criteria shown on the drawings is inconsistent and is in conflict with information referenced in the calculations. These notes on the construction documents are in violation of Rule 61G15-30.003 and FBC, Sections 107 and 1603.

(b) Sheet SP (Site Plan) shows the proposed layout of the new structure relative to the existing property lines. The drawing provides no information regarding the existing site topography and
existing structures, proposed finished grades, or site drainage. This is a violation of Rule 61G15-30.003 and FBC, Section 107.2.5.

**Foundation System**

(c) Sheet GN states that the "foundations have been designed in accordance with the geotechnical report" and "an allowable bearing pressure of 3,000 psf." The note also requires the contractor to follow the recommendations of the geotechnical engineer in site preparation activities. The submitted drawing set does not identify a geotechnical engineering company, a geotechnical engineer, or a report date. Notwithstanding the foregoing, a separate note on Sheet GN states that the foundations were designed for an allowable bearing pressure of 2,000 psf and instructs the contractor to verify this in the field, and the initial engineering calculation submittal referenced 2,500 psf as the allowable bearing pressure. The above inconsistencies, contradictions, and lack of design clarity regarding the design of the foundation system violate Rule 61G15-30.003(1) and FBC Sections 107, 1603, and 1803.

(d) Sheet A2 (Foundation Plan) depicts six new interior steel tube columns that would be welded to the top and bottom side rails of the cargo containers. Sheet S1 shows 12 new interior tube columns. A steel column footing detail (SC-1) apparently was added to Sheet A2 in response to a query from the building department plan reviewer; however, the calculations for this detail appear to refer to the footing design for support of the container corner columns. Additionally, the steel baseplate that is to be used with this detail is shown as both ½-inch and ¾-inch thick. Sheet A2 depicts continuous wall footings along the perimeter walls and at the common demising wall between the two halves of the duplex. The details for these footings (F1 and F2) do not show how the container walls or bottom side rails would be anchored to the concrete foundation for proper transfer of gravity and lateral loads. There also are no notes or details showing how to connect the interior bottom side rails to the concrete slab and to each other. Detail F6 refers to a double footing to support new steel columns adjacent to the garage.
door openings. The columns are not identified on the drawings, and information shown on the footing detail is not consistent with a note on the foundation plan drawing. Sheet A2 (Foundation Plan) in the drawing submittal dated July 12, 2017, still references a slab elevation, but the slab details and specifications were removed. There still are six interior steel tube columns, but no footings to transfer their loads to the supporting soil. Details F2, F4, and F7 are referenced, but are not shown on the drawing. The above inconsistencies, contradictions, and lack of design clarity regarding the design of the foundation system violate F.A.C., 61G15-30.003(1) and FBC Sections 107, 1603, and 1803.

Main Wind-force Resisting System

(e) The main wind-force resisting system (MWFRS) for this project is the combined steel frame that would be formed when the eight steel shipping containers are welded together at the corner posts. The submitted design/construction drawings call for the removal or cutting away of portions of the container side wall panels to provide door and window openings and to provide a large open space within the building. The lateral wind loads imposed on the building would be expected to be transferred to the foundation via the roof structure and the remaining exterior side and end wall panels. The drawings call for the existing top and bottom side rails to remain "as is," apparently without even welding or bolting the top side rails to each other to form a continuous roof diaphragm. As noted, the interior bottom side rails also are not anchored to each other or to the concrete slab. No lateral bracing and no additional beams or other stiffening elements were provided for structural support and stability of the unsupported container top and bottom side rails. The above inconsistencies, contradictions, and errors are in violation of Rule 61G15-30.003(1) and FBC, Section 107 and Chapter 16.

(f) All of the submitted design drawings and structural calculations state that the design complies with the wind load requirements of the 2014 FBC. The calculations and analysis are incomplete, misleading, and contradictory in several critical areas, most notably the lack of a proper
lateral load transfer mechanism via the roof diaphragm and vertical bracing or shear walls. In the project, small steel tubes that previously had been used for the top side rails of the shipping containers are now being used as structural roof supports that span up to 45 feet, with no intermediate vertical supports or lateral bracing. No calculations have been provided demonstrating that these structural components are capable of supporting the imposed gravity loads and transferring the anticipated lateral loads to the rest of the structural frame. The specified structural modifications to the shipping containers will result in structural members carrying loads in a manner for which they were not designed originally and for which they have not been properly checked. The above inconsistencies, contradictions, and errors are in violation of Rule 61G15-30.003(1) and FBC, Section 107 and Chapter 16.

Roof and Exterior Cladding Systems

(g) Sheet A5 (Roof Plan) depicts the roof surface sloping downward from south to north for drainage. Details and notes below the roof plan indicate that plywood sheathing would be nailed to roof trusses, but there are no trusses on this project. There also is a detail that shows a modified bitumen membrane system that is to be applied over insulation boards and metal decking. The plan also indicates that there is to be a 6-inch wide overhang around the entire building. The materials to be used for the roof overhangs are not identified, and there are no details showing how the overhangs are to be attached to the tops of the container walls. There also is no information regarding the required thickness of the roof insulation or how it is to be attached to the existing steel roof panels. The above deficiencies, contradictions, and lack of design clarity regarding the design of the roof and exterior building envelope are in violation of Rule 61G15-30.003 and FBC, Sections 107, 1603, and 1609, and Chapters 14 and 15.

(h) The building elevations on Sheets A6 and A7 show parapet walls extending above the roof surface along the north and south sides of the building. There are no details or notes specifying the construction materials to be used for the parapet walls, how they are to be attached to the building, or
the locations and sizes of scuppers through the parapet wall at the north side of the building. The above deficiencies, contradictions, and lack of design clarity regarding the design of the roof and exterior building envelope are in violation of Rule 61G15-30.003 and FBC, Sections 107, 1603, and 1609, and Chapters 14 and 15.

(i) The exterior wall finishes are not identified on Sheet GN or Sheets A6 and A7. The elevation and plan drawings depict window and door openings, but there is no information regarding the selected window/door manufacturer, building code acceptance reports, or details and specifications for attachment to the container walls and weatherproofing the exterior building envelope. Details and specifications for wind-borne debris protection of the window openings are shown on Sheet A5. It is evident that the information shown on the drawing (wood studs and plywood) is not applicable to the involved project. The above deficiencies, contradictions, and lack of design clarity regarding the design of the roof and exterior building envelope are in violation of Rule 61G15-30.003 and FBC, Sections 107, 1603, and 1609, and Chapters 14 and 15.

(j) The submitted calculations make no reference to an analysis of the effects of roof deflection on the drainage system or an analysis of the wind-resistive capabilities of the components and cladding systems for this project. There also is no indication that these tasks were delegated to another licensed professional engineer. The above deficiencies, contradictions, and lack of design clarity regarding the design of the roof and exterior building envelope are in violation of Rule 61G15-30.003 and FBC, Sections 107, 1603, and 1609, and Chapters 14 and 15.

COUNT I

ELECTRICAL DESIGN DOCUMENTS

16. Petitioner realleges and incorporates Paragraphs One (1) through Ten (10) and Fourteen (14) as if fully set forth in this Count One.
17. Respondent's electrical engineering drawings for the LLIA Investments Project contain deficiencies including; but not limited to, those set forth in Paragraph Fourteen (14). As a result of those deficiencies, Respondent violated the provisions of Section 471.033(1)(g), Florida Statutes, and Rule 61G15-19.001(4), F. A. C., by sealing and signing electrical engineering documents that were issued and filed for public record when such documents were materially deficient in that Respondent: (1) did not exercise due care in the preparation of the final engineering documents for the LLIA Investments Project and (2) the final engineering documents for the LLIA Investments Project were not issued in compliance with acceptable engineering principles.

18. Based on the foregoing, Respondent is charged with violating Section 471.033(1)(g), Florida Statutes, and Rule 61G15-19.001(4), F.A.C., by being negligent in the practice of engineering.

COUNT II

STRUCTURAL DESIGN DOCUMENTS

19. Petitioner realleges and incorporates Paragraphs One (1) through Seven (7), Eleven (11) through Thirteen (13) and Fifteen (15) as if fully set forth in this Count Two.

20. Respondent's structural and life safety engineering drawings for the LLIA Investments Project contain deficiencies including; but not limited to, those set forth in Paragraph Fifteen (15). As a result of those deficiencies, Respondent violated the provisions of Section 471.033(1)(g), Florida Statutes, and Rule 61G15-19.001(4), F. A. C., by sealing and signing structural and life safety engineering documents that were issued and filed for public record when such documents were materially deficient in that Respondent: (1) did not exercise due care in the preparation of the final engineering documents for the LLIA Investments Project and (2) the final engineering documents for the LLIA Investments Project were not issued in compliance with acceptable engineering principles.
21. Based on the foregoing, Respondent is charged with violating Section 471.033(1)(g), Florida Statutes, and Rule 61G15-19.001(4), F. A. C., by being negligent in the practice of engineering.

WHEREFORE, the Petitioner respectfully requests the Board of Professional Engineers to enter an order imposing one or more of the following penalties: permanent revocation or suspension of the Respondent’s license, restriction of the Respondent’s practice, imposition of an administrative fine, issuance of a reprimand, placement of the Respondent on probation, the assessment of costs related to the investigation and prosecution of this case, other than costs associated with an attorney’s time, as provided for in Section 455.227(3), Florida Statutes, and/or any other relief that the Board deems appropriate.

SIGNED this 28 day of January, 2019.

Zana Raybon
Executive Director

BY: John J. Rimes, III
Prosecuting Attorney

COUNSEL FOR FEMC:

John J. Rimes, III
Prosecuting Attorney
Florida Engineers Management Corporation
2639 North Monroe Street, Suite B-112
Tallahassee, Florida 32303
Florida Bar No. 212008
JR/rv
PCP DATE: January 16, 2019
PCP Members: MATTHEWS, DRURY & ALBERGO

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing was furnished to Haytham Mahmoud, P.E. at 29002 Alessandria Circle, Bonita Springs, Florida 34135, by certified mail and First Class U. S. Mail, on the 29th of January, 2019.

Rebecca Valentine, Paralegal

FBPE vs. Haytham Mahmoud, P. E., Case No. 2017029746