



PENSACOLA
STATE COLLEGE

1000 College Blvd, Pensacola, FL 32504

ITB 5-2023-2024

**Pensacola State College
Truck Driving Course Lighting**

SPECIFICATIONS BOOKLET



4286 Woodbine Road
Pace, FL 32570
850.243.6723

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SECTION 00 11 00 - INVITATION TO BID

Sealed Bids will be received by the District Board of Trustees, Pensacola State College, Building 7, Room 737, 1000 College Boulevard, Pensacola, Florida 32504-8998, until **2:00 P.M., local time November 3, 2023**, at which time and place all bids will be publicly opened and read aloud, for the construction of:

**PSC TRUCK DRIVING COURSE LIGHTING
FOR
PENSACOLA STATE COLLEGE – TRUCK DRIVING COURSE MILTON, FL**

For the District Board of Trustees, Pensacola State College, Pensacola, Florida, according to the contract documents, drawings, specifications and general conditions pertaining thereto for the work as prepared by the Engineer:

**HG Engineers
4286 Woodbine Road
Pace, FL 32570
Ph: (850) 243-6723
Fax: (850) 664-5420**

Any early bids (prior to 1:50 PM, on the Bid Opening Date) shall be delivered to: College Purchasing and Auxiliary Services Office, Building 7, Room 737, on the Pensacola Campus of Pensacola State College.

Any Bids received after the stipulated time of bid opening will be returned unopened.

In the case of discrepancies occurring in stated amounts in the Contractor's Bid, the Owner (District Board of Trustees, Pensacola State College) reserves the right to adopt prices written in words, or to reject the bid.

The general contractors and prime bidders who provide bids may inspect contract Documents, including drawings, specifications and general conditions relative thereto, at the Office of the Architect.

General Contractors and prime bidders may obtain Sets of Printed Documents (drawings and specifications) at their cost from Bay Area Printing and Graphics Solution, 700 S. Pace Blvd., Pensacola, FL 32502 (850-433-6864) after registering with the HG Engineers, 4286 Woodbine Road Pace, FL 32570 (to facilitate distribution of possible addendums and clarifications). General Contractors may also obtain One Electronic Set of Reproducible Documents (drawings and specifications) from HG Engineers, 4286 Woodbine Road, Unit D, Pace, FL 32570.

A bid bond or deposit, in the amount of five percent (5%) of the base bid will be required to accompany each bid, as guarantee that the successful bidder, will enter into a contract with the Owner, if desired by same. Any bid deposit must be in the form of a Certified Check, or a Cashier's Check. The bid bond or deposit will be held as liquidated damages, in the event that the successful bidder refuses to enter into a contract with the Owner. In addition, the successful bidder shall provide a one hundred percent (100%) Performance Bond and one hundred percent (100%) Labor and Material Payment Bond(s), with a surety insurer authorized to do business in the State of Florida as surety, satisfactory to the Owner.

Failure to file a protest within the time prescribed in F.S. 120.57(3), or failure to post the bond or other security as required by F.S. 287.042(2)(c) shall constitute a waiver of proceedings under Chapter 120, Florida Statutes. All protests must be delivered to the Director of Purchasing & Auxiliary Services, Pensacola State College, 1000 College Blvd., Pensacola, FL. 32504 within the time prescribed in Chapter 120, Florida Statutes to be considered valid.

The Owner (District Board of Trustees, Pensacola State College, Florida) reserves the rights to reject any and all bids, to waive informalities in bidding and to accept the bid that embraces such combination of proposals and alternates as may promote the best interest of the Owner.

The bid shall remain in force for thirty (30) days after the time of opening.

In accordance with F.S. 286.011 (1), the bid evaluation committee meeting is scheduled to be held in the **Barfield Administration Building, Room 737, November 3, 2023, at 2:30 PM.**

Any person(s) requiring reasonable accommodations, in accordance with the provisions of the Americans With Disabilities Act, for attendance at the scheduled bid opening, shall contact the Office of the Director of Purchasing and Auxiliary Services, at least seventy-two (72) hours in advance of the scheduled bid opening deadline.

A mandatory **Pre-Bid Meeting Will Be Held October 24, 2023, at 9:00 a.m.**, at the truck driving course, 5957 Jeff Ates Rd, Milton, FL 32583. The purpose of this meeting is to allow all bidders access to the site in order that they may familiarize themselves with all existing conditions that relate to the project.

The contract shall be for General Contractor or Electrical Contractor who shall be responsible for work of all trades.

END OF SECTION 00 11 00

SECTION 00 21 13 - INSTRUCTIONS TO BIDDERS**PROCUREMENT OF DOCUMENTS:**

Refer to Section 00 11 00 - Invitation to Bid.

EXAMINATION OF DOCUMENTS AND SITE:

Bidders shall carefully examine the Bidding Documents, the existing facility and the construction site to obtain first hand knowledge of the existing conditions. Each bidder shall fully inform himself prior to bidding as to all existing conditions and limitations under which the work is to be performed.

INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS:

Each Bidder shall examine the Bidding Documents carefully; and, no later than seven (7) days prior to the date for receipt of Bids, he/she shall make a written request to the Engineer for interpretation or correction of any ambiguity, inconsistency or error which he may discover. All interpretations or corrections will be issued as addenda. The Engineer and/or Owner will not be responsible for oral clarifications. Only written addenda will become a part of the contract documents. Should any conflicts exist in the contract specifications and/or drawings, the most stringent of the items in conflict shall apply.

SUBSTITUTIONS:

Each Bidder represents that his Bid is based upon the materials and equipment described in the Bidding Documents. No substitution will be considered unless written request has been submitted to and received by the Engineer for approval at least ten (10) days prior to the date for receipt of Bids. In addition to the manufacturers printed literature, each request shall include a complete description of the proposed substitute, the name of the material or equipment for which it is to be substituted, drawings, cuts, performance test data and any other data or information necessary for a complete evaluation.

If the Engineer approves any proposed substitution, such approval will be set forth in an addendum. The contractor is responsible for ensuring that the prices provided include all items suitable for this project.

FAMILIARITY WITH LAWS:

The Bidder shall be familiar with all Federal, State and local laws, ordinances, rules and regulations affecting the work. Ignorance of them on the part of the Bidder shall in no way relieve him from responsibility of complying with the requirements stated therein.

FLORIDA PRODUCTS AND LABORS:

The Bidder's attention is called to Section 255.04, Florida Statutes, which requires that on public building contracts, Florida products and labor shall be used wherever price and quality are equal.

BASIS OF BID:

The Bidder shall include with his Bid all unit cost items, quantity estimates and alternates indicated on the Bid Form. Failure to comply may be cause for rejection.

If the Owner wishes to learn the relative or additional construction cost of an alternative use type of material, or an increase or decrease in scope of the project, these items will be defined as alternates and will be specifically described by the Drawings and/or Specifications. Alternates will be listed in the Bid Form in such a manner that the Bidder shall be able to clearly indicate what sums he will add to or deduct from his Base Bid.

Such alternates may or may not be accepted, but if so, it is the intention of the Owner to accept them in any order or combination he chooses and not necessarily in the order listed on the Bid Form.

No segregated Bids or assignments will be considered.

PREPARATION AND SUBMISSION OF BIDS:

Bid Form: (Submit in triplicate) Bidders shall submit an original and two copies.

Each Bidder shall use the Bid Form supplied and/or bound herein and indicate his Bid prices thereon in the proper spaces for the entire Work and for the alternatives on which he bids. Any erasures or other corrections in the Bid must be explained or noted over the signature of the Bidder. Bids containing any conditions, or irregularities of any kind may be rejected by the Owner.

List of Subcontractors:

The Contractor shall, with his bid, submit to the Owner a list of all his subcontractors. This list shall include each company name, if it is a subcontractor, the character of his work or the materials it supplies, the address and telephone number and the name of the person with whom the Contractor is dealing.

Bid Guarantee - Five Percent (5%):

Bids shall be accompanied by a Bid Guarantee which shall be a Bid Bond, Cashier's Check, or Bank Draft, made payable to:

Pensacola State College

Such check or bond shall be submitted with the understanding that it shall guarantee that the Bidder will not withdraw his Bid for a period of thirty (30) days after the scheduled closing time for the receipt of Bids; that, if in accordance with the form of agreement included as part of the Contract Documents; that the required bond will be given; and that, in the event of the withdrawal of Bid within said period, or failure to enter into Contract and give bond within ten (10) days after he has received notice of acceptance of his Bid, and receipt of Contract Agreement, the Bidder shall be liable to the Owner for the full amount of the Bid Guarantee as representing the damage to the Owner on account of the default of the Bidder in any particular thereof.

The Bid Guarantee shall be returned by mail to all except the three lowest Bidders after the formal opening of Bids. The Owner reserves the right to hold the Bid guarantee of the lowest

three Bidders until after they have executed the Contract with the accepted Bidder and the Performance and payment Bond have been certified by the Owner.

If the Owner fails to issue an "Acceptance of Bid" to a Bidder within thirty (30) days after the date of the opening of the Bids, then the Bid Guarantee of any Bidder will be returned upon his request.

Submission of Bids:

Submit Bid in an opaque, sealed envelope. Identify the envelope with project name and name of Bidder. Submit in accordance with Invitation to Bid.

BIDDER'S QUALIFICATIONS:

1. The apparent successful bidder shall, upon the request of the Engineer, furnish documentation of the following:
 - a. He or She is currently registered with or hold an unexpired Certificate issued by the Florida Construction Industry Licensing Board in accordance with current applicable regulations, Licensing of Construction Industry, Florida Statutes.
 - b. He or She presently maintains a permanent bona fide place of business practicing this type of work and has had the appropriate experience.
 - c. He or She has available, or can obtain, adequate equipment and financial resources to undertake and execute the Contract properly and expeditiously, in accordance with present day practices.
 - d. All subcontractors shall be fully licensed in the State of Florida and shall be bondable. Submit copies of current license and documentation from bonding company showing compliance.
 - e. He or She shall submit with the Bid the enclosed document entitled "Sworn Statement under Section 287.133(3) (a), Florida Statutes. On Public Crimes".
2. The apparent successful bidder shall also, at the request of the Engineer, submit a fully executed "Contractor's Qualification Statement" AIA Document A305. Copies of A305 are available for examination at the office of the Engineer.

LICENSE:

In accordance with Chapter 489.113, Florida Statutes, all individuals or entities engaging in and providing construction services shall be licensed in the State of Florida for that activity. This license requirement includes general and sub-contractors.

The successful low bidder shall be required to submit a list of all contractors to be involved in said project with applicable license numbers (see form included in these documents), including a photographic copy of current license certificates. Submittal of proof of license shall be made with, and as a part of signed contract.

Prime Contractor shall submit proof of licensure with the Bid Form. Failure to submit required proof of license shall be cause for Owner to reject bid as non-responsive, and award bid to second lowest qualified bidder.

DISQUALIFICATION OF BIDDER:

More than one Bid from an individual, firm, partnership, corporation or association under the same or different names will not be considered. Reasonable grounds for believing that a Bidder is interested in more than one Bid for the same will cause the rejection of all Bids which such Bidder is believed to be interested. Bids will be rejected if there is reason to believe that collusion exists between Bidders. Bids in which the prices are obviously unbalanced may be rejected.

MODIFICATION OF BID:

Bid modifications will be accepted from Bidders if addressed to the Owner at the place where Bids are to be received and if received prior to the opening of the Bids. Modifications may be in written or telegraphic form. Modifications will be acknowledged by the Owner before opening of formal Bids.

WITHDRAWAL OF BIDS:

Bids may be withdrawn by written or telegraphic request received from Bidders prior to the time fixed for opening. Negligence on the part of the Bidder in preparing the Bid confers no right for the withdrawal of the Bid after it has been opened.

RECEIPT OF OPENING BIDS:

Bids will be opened publicly at the time and place stated in the Invitation. The person whose duty it is to open them will decide when the specified time has arrived and no Bids received thereafter will be considered. No responsibility shall be attached to any person for the premature opening of a Bid not properly addressed and identified.

At the time fixed for the opening of Bids, the contents of the Bid Form will be made public for the information of the Bidders and other interested, who may be present either in person or by representative.

REJECTION OF BIDS:

The Owner reserves the right to reject any or all Bids when such rejection is in the interest of the Owner, and to reject the Bid of a Bidder, in the Engineer's opinion, who is not in a position to perform the Contract, or whose list of subcontractors is improperly prepared.

AWARD OF CONTRACT:

The Contract will be awarded within thirty (30) days to the lowest qualified Bidder, provided his Bid is reasonable and it is in the best interest of the Owner to accept it.

The Owner reserves the right to waive any informality in Bids received when such a waiver is in the best interest of the Owner.

BUILDING PERMIT:

The contract work is not covered under Pensacola State College permitting jurisdiction. Permitting shall be the responsibility of the contractor as described in section 260500.

SECURITY:

The Contractor shall be responsible for maintaining security, and the contractor shall be responsible for replacement or repair of items and/or equipment stolen, lost or damaged while the building security is under the care of the Contractor. The Contractor shall be responsible for having a job superintendent present whenever work is in progress. The Contractor shall not change superintendent without the Owners approval.

SPECIAL POLICY AND PROCEDURES:

Contractor and subcontractor personnel are not permitted to use the campus facilities.

Smoking is not permitted in any campus facility.

Profane language or improper behavior will result in immediate termination from the construction site.

The Contractor shall erect temporary barricades and fencing as required to keep the unauthorized out of the construction area, and provide signs that read. "This area is a designated construction site; anyone who trespasses on this property commits a felony per Florida Statute 810.09(2d).

END OF SECTION 00 21 13

SECTION 00 41 00 - BID FORM

TO: **District Board of Trustees
Pensacola State College, Florida
1000 College Boulevard
Pensacola, Florida 32504**

REFERENCE: **PSC TRUCK DRIVING COURSE LIGHTING
FOR
PENSACOLA STATE COLLEGE– TRUCK DRIVING COURSE MILTON, FL**

Gentlemen:

The undersigned, hereinafter called "Bidder", having visited the site of the proposed Project and having become familiar with the local conditions, nature and extent of the Work, and having examined carefully the drawings and the Project Manual, proposes to furnish all labor, material, equipment and other items, facilities, and services for the proper execution and completion of the above referenced project, in full accordance with the Contract Documents prepared by **HG Engineers 4286 Woodbine Road Pace, FL 32570**, with the Invitation to Bid, Instruction to Bidders, Agreement, Technical Specification, and all other documents relating thereto on file in the Office of the Architect and if awarded the Contract, to complete said Work within the time limits specified for the following bid price.

PROVIDE NUMERICAL AND WRITTEN DOLLAR AMOUNTS

BASE BID:

_____ (\$ _____)
Dollar Amount Included in Base Bid

There is enclosed a certified check, cashier's check, treasurer's check, bank draft, or Bid Bond in the amount of not less than five percent (5%) of the Base Bid payable to Pensacola State College, as a guarantee for the purpose set out in the Instructions to Bidders.

The bidder hereby agrees that:

- a. The above Proposal shall remain in full force and effect for a period of thirty (30) calendar days after the time of the opening of this Proposal and that the Bidder will not revoke or cancel this Proposal or withdraw from the competition within the said thirty (30) calendar days.
- b. In the event the contract is awarded to this Bidder, the Bidder will enter into a formal written Agreement with the Owner in accordance with the accepted bid within ten (10) calendar days after said agreement is submitted to the Bidder and will furnish to the Owner a Performance Bond and a Labor and Material Payment Bond with good and sufficient sureties, satisfactory to the Owner, in the amount of 100% of the accepted bid, on the forms and terms required in the construction documents. The Bidder further agrees that in the event of the bidder's default or breach of any of the agreements of this Proposal, the bid deposit shall be forfeited as liquidated damages.
- c. The Bidder must agree to commence work within ten (10) calendar days after the written "Notice to Proceed" and substantially complete the work on **April 5, 2024**. Bidder must further agree to fully complete the work, including any and all punch list

- items within thirty (30) calendar days from the date of substantial completion. The number of days allowed for construction includes an allowance for time missed due to inclement weather.
- d. Liquidated damages shall be assessed against the final payment in the amount of \$1,000 for each consecutive calendar day the Contractor is late in achieving Substantial Completion and \$500 for each consecutive day the Contractor is late in achieving Final Completion.
 - e. The Contractor shall list on a separate page the 'List of Subcontractors' and submit the list with his bid as required by 00 21 13, Page 2.
 - f. All work shall comply with applicable codes, specifications, local ordinances and industry standards including, but not limited to the handling, removal, and disposal of fluorescent bulbs and ballasts. Provide Pensacola State College with a copy of the "Waste Manifest".

Acknowledgment is hereby made or receipt to the following Addenda issued during the bidding period.

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Florida Construction Industries Licensing Board Certification

 (Name of Holder)
 (Certification Number)

Signed and sealed this _____ day of _____, 20_____.

Check accordingly: Firm Name: _____

We operate as _____
 By: _____

Individual Owner () _____

Partnership () Title: _____

Corporation () _____

Address: _____

Telephone: _____
 FAX: _____

Attachments:

- 00 41 01 – TRENCH SAFETY ADDENDUM
- 00 41 02 – DRUG-FREE WORKPLACE CERTIFICATION
- 00 41 03 – PUBLIC ENTITY CRIMES STATEMENT
- 00 43 00 – LIST OF SUBCONTRACTORS
- 00 43 13 – BID BOND

END OF SECTION 00 41 00

SECTION 00 41 01 – TRENCH SAFETY ADDENDUM

Contractor shall comply with the FLORIDA TRENCH SAFETY ACT ACKNOWLEDGEMENT. If this project involves trench excavations that will exceed a depth of 5 feet, pursuant to Florida Statutes, Chapter 553, Part VI, Trench Safety Act will be in effect and the undersigned Bidder hereby certifies that such Act will be complied with during the construction of this Project.

Bidder acknowledges that included in the various items of the bid and in the total price are costs for complying with the Florida Trench Safety Act. Bidder further identifies the cost to be as summarized below:

Trench Safety Measure (Description)	Units of Measure (LF SY)	Quantity	Unit Cost	Extended cost
A. _____				
B. _____				
C. _____				
D. _____				
				Total \$ _____

END OF SECTION 00 41 01

SECTION 00 41 02 – DRUG-FREE WORKPLACE CERTIFICATION

- A. A copy of the Drug Free Certification form is included in these bid documents as required by the Pensacola State College Board of Trustees.
- B. A copy of the Drug-Free Certification form is contained herein. The completed form must be submitted in the bid submittal along with the other required documents.

DRUG-FREE WORKPLACE CERTIFICATION

The below signed bidder certifies that it has implemented a Drug-Free Workplace Program. In order to have a Drug-Free Workplace Program, a business shall:

- 1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
- 2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling rehabilitation and employee assistance programs and the penalties that may be imposed upon employees for drug abuse violations.
- 3. Give each employee engaged in providing the commodities or contractual services that are under proposal a copy of the statement specified in subsection 1.
- 4. In the statement specified in subsection 1., notify the employees that, as a condition of working on the commodities or contractual services that are under proposal, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation occurring in the workplace no later than five (5) working days after such conviction.
- 5. Impose a sanction on, or require the satisfactory participation in drug abuse assistance or rehabilitation program of such is available in the employee's community, by any employee who is convicted.
- 6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign this statement, I certify that this firm complies fully with the above Drug-Free Workplace requirements.

DATE: _____

COMPANY: _____

ADDRESS: _____

CITY: _____ STATE: ____ ZIP CODE: _____

TELEPHONE: _____

SIGNATURE: _____

NAME (PRINTED): _____

TITLE: _____

END OF SECTION 00 41 02

SECTION 00 41 03 - PUBLIC ENTITY CRIMES STATEMENT

- A. The following information is included in these bid documents as required by Florida Statute.
- B. All invitations to bid as defined by Section 287.012(11), Florida Statutes; requests for proposals as defined by Section 287.012(16), Florida Statutes; and any contract document described by Section 287.058, Florida Statutes, shall contain a statement informing persons of the provisions of paragraph (2)(a) of Section 287.133, Florida Statutes.
- C. A copy of the Sworn Statement form is contained herein. The completed form shall be submitted in the bid submittal along with the other required documents.

SWORN STATEMENT UNDER SECTION 287.133 (3) (A)
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICER AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted with Bid, Proposal or Contract for

2. This sworn statement is submitted by
whose business address is

and (if applicable) Federal Employer Identification Number (FEIN) is _____ (If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement:

3. My name is _____ and my relationship to the entity named above is

4. I understand that a "public entity crime" as defined in Paragraph 287.133 (1) (g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or any agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

5. I understand that "convicted" or "convicted" as defined in paragraph 287.133 (1) (b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime with or without an adjudication of guilt, in any federal or state trial court of records relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, non-jury trial, or entry of a plea of guilty or nolo contendere.

6. I understand that an "affiliate" as defined in Paragraph 287 .133 (1) (a), Florida Statutes, means:

1. A predecessor or successor of a person convicted of a public entity crime; or

2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one of shares constituting a controlling income among persons when not for fair interest in another person, or a pooling of equipment or income among persons when not for fair market value under an length agreement, shall be a prima facie case that one person controls another person. A person who knowingly convicted of a public entity crime, in Florida during the preceding 36 months shall be considered an affiliate.

7. I understand that a "person" as defined in paragraph 287 .133 (1) (e), Florida Statutes, means any natural person or entity organized under the laws of the state or of the United States with the legal power to enter into a binding contract provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity.

The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

8. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies)

_____ Neither the entity submitting this sworn statement, nor any officers, directors, executive, partners, shareholders, employees. member, or agents who are active in management of the entity, nor affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.

_____ The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989 And (please attach a copy of the final order)

_____ The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in public interest to remove the person or affiliate from the convicted vendor list. (please attach a copy of the final order.)

_____ The person or affiliate has not been placed on the convicted vendor list. (Please describe any action taken by, or pending with, the department of General Services.)

(Signature)

Date:

STATE OF FLORIDA
COUNTY OF _____

PERSONALLY APPEARED BEFORE ME, the undersigned authority, who, after first being sworn by me, affixed his/her signature at the space provided above on this _____ day of _____, 20____, and is personally known to me, or has provided _____ as identification.

Notary Public

My Commission expires:

END OF SECTION 00 41 03

SECTION 00 43 00 - LIST OF SUBCONTRACTORS

(List of Sub-Contractor's proposed for this project will be required at time of bidding.)

TO: _____

This list is an integral part of the Bid submitted by:

Name and address of Contractor: _____

for the construction of the **Truck Driving Course Lighting**, Pensacola State College District Board of Trustees, Pensacola State College.

The undersigned, hereafter called "Bidder", lists below the names of the subcontractors who will perform the phases of the work indicated:

<u>Division:</u>	<u>Name of Subcontractor:</u>
Concrete Work	_____
Structural Steel	_____
Carpentry	_____
Acoustical Ceiling	_____
Painting	_____
Fire Protection	_____
Plumbing	_____
Mechanical	_____
Electrical	_____
Fire Alarm	_____

The undersigned declares that he/she has fully investigated each subcontractor listed and has determined to his/her own complete satisfaction that such subcontractor maintains a fully equipped organization, capable, technically and financially, of performing the pertinent work, and that he/she has made similar installation in a satisfactory manner.

FIRM: _____
(Name of Firm)

BY: _____
(Signature of Bidder)

(Name of Bidder)

TITLE: _____
(Title of Bidder)

DATE: _____

END OF SECTION 00 43 00

SECTION 00 43 13 – BID BOND

- A. The “Bid Bond”, The American Institute of Architect’s (AIA) Document A310-1970, 1970 Edition, two (2) pages, and (AIA) Document D401 – 2003 “Certification of Document’s Authenticity,” one (1) page is for reference only. Document shall be issued, as modified, on this Project as the Agreement Form. Copy upon request,

END OF SECTION 00 43 13

SECTION 00 52 00 – AGREEMENT FORMS

The “Standard Form of Agreement Between Owner and Contractor Where the Basis of Payment is a Stipulated Sum,” The American Institute of Architects (AIA) Document A101-2007, is for reference only. Document shall be issued, as modified, on this Project as the Agreement Form. Copy upon request.

END OF SECTION 00 52 00

SECTION 00 61 13 – PERFORMANCE BOND AND PAYMENT BOND

- A. The “Performance Bond” and the “Payment Bond”, The American Institute of Architect’s (AIA) Document A312-1984, 1984 Edition, seven (7) pages, “Additions and Deletions Report for AIA Document A312 – 1984,” one (1) page and (AIA) Document D401 – 2003 “Certification of Document’s Authenticity,” one (1) page, is for reference only. Copy upon request.

END OF SECTION 00 61 13

SECTION 00 72 00 – GENERAL CONDITIONS

The “General Conditions of the Contract for Construction” The American Institute of Architects (AIA) Document A201-2007, is for reference only. Document shall be issued, as modified, on this Project as the Agreement Form. Copy upon request.

END OF SECTION 00 72 00

SECTION 00 73 80 - WEATHER DELAY LOG

- A. Project: Pensacola State Truck Driving Course Lighting**
- B. Date:**
- C. Weather Event:**
- D. Work On Progress:**
- E. Is the work on the Critical Path?**
- F. Length of Delay:**
- G. If the work is not on the Critical Path, how many days of delay until this work category will be on the Critical Path?**

Instructions:

1. The above information is required to be submitted with each payment request on a monthly basis.
2. This information will be required as back-up to grant a Time Extension request for delays caused by weather events.
3. Direct delays for work stoppages that are on the critical path will be given accordingly.
4. Delays for work not on the critical path shall be logged and delay logs for that category of work shall be accumulated and submitted in the event the work enters the critical path and causes a delay of the project.
5. Delays will be granted only on the basis of adverse effect on the Critical Path of work for the project.
6. Weather delays will only be allowed in regards to delivery and unloading of the equipment. Furthermore, weather delays will only be allowed if the rainfall exceeds 1.5" of rain per day as determined by the Mobile Weather Service.

References:**CONTRACT FOR CONSTRUCTION, EXHIBIT C, DIVISION 1 (CONTRACT)**

8. Any time or day lost to a weather-related delay including wet ground conditions, rain, other forms of precipitation, and cold weather conditions, shall be an extension to the construction time regardless whether the period is under normal or adverse weather conditions.

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Article 4.3.7.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated and had an adverse effect on the scheduled construction.

Submitted by:**Signature:****Contractor:****END OF SECTION 00 73 80**

SECTION 00 74 00 – PAYMENT

The “Payment”, The American Institute of Architect’s (AIA) Document G702-1992 Edition, one (1) page, G703-7992 Edition, one (1) page and G704–2000 one (1) page, included herein and shall be used, on this Project for application and process of payment is for reference only. Document shall be issued, as modified, on this Project as the Agreement Form. Copy upon request.

END OF SECTION 00 74 00

SECTION 00 90 00 - SUPPLEMENTARY GENERAL CONDITIONS

SCOPE: The following supplements modify, change, delete or add to the "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION", AIA Document A201, 2007 Edition. Those portions of this document which remain unaltered by these supplements shall remain in effect as published.

ARTICLE 1: GENERAL PROVISIONS**1.1 BASIC DEFINITIONS**

1.1.9 (ADD) Unless otherwise expressly stated, wherever in the Contract Documents the work 'provide' is used, it shall mean furnished and installed in place, complete and tested.

1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

1.2.4 (ADD) the following: "If a discrepancy occurs on drawings, in specifications, or between drawings and specifications, the greater quantity or value takes precedence."

ARTICLE 3: CONTRACTOR**3.5 WARRANTY:**

3.5.1 (ADD) The warranty herein guarantees the proper operation of all structures, components and systems constructed or installed by the contractor for a period of one year after the date of substantial completion.

If within the guarantee period, repairs or changes are required in connection with the guarantee work, which in the opinion of the engineer is rendered necessary as the result of the use of materials, equipment, or workmanship, which are defective, or inferior, or not in accordance with the terms of the Contract, the Contractor shall, promptly upon receipt of notice from the Owner, and without expense to the Owner, proceed to:

Place in satisfactory condition in every particular all of such guaranteed work, correct all defects therein; and

Make good all damages to the structure or site, or equipment or contents thereof which, in the opinion of the Architect are the result of the use of materials, equipment or workmanship which are inferior, defective, or not in accordance with the terms of the Contract, or the equipment and contents or structures or site disturbed in fulfilling any such guarantee.

3.18 INDEMNIFICATION:

3.18.1 (REVISE) "The Contractor shall, for the sum of one hundred dollars (\$100.00) and other good and valuable consideration paid by the Owner and Architect, individually, receipt of which is hereby acknowledged by the Contractor, indemnify and hold harmless the Owner and Architect and their agents and

employees from and against all claims, damages, losses and expenses, including attorney's fees, out of or resulting from the performance of the work provided that such claims, damage, loss or expense: (1) is attributable to bodily injury, sickness, disease or death, or injury to or destruction of tangible property other than the work itself, including the loss of use resulting there-from, and (2) is caused in whole or in part by a negligent act or omission of the Contractor, subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any one of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. This obligation shall not be construed to reduce or negate any other right or obligation of indemnity which would otherwise exist as to any party or person described in Paragraph 3.18."

ARTICLE 5: SUBCONTRACTORS

5.2.2 Substitute the following for Subparagraph 5.2.2:

"The Contractor shall not contract with any person or entity declared ineligible under Federal laws or regulations from participating in federally assisted construction projects or to whom the Owner or the Architect has made reasonable objection under the provisions of Subparagraph 5.2.1. The Contractor shall not be required to contract with anyone to whom has a reasonable objection."

ARTICLE 7: CHANGES IN WORK

7.1 General

7.1.1 (ADD) "Maximum percentages of overhead and profit which may be added by the Contractor to actual costs of such changes in the work are specifically set forth as follows:

For all work done by his organization, or subsidiaries of his organizations, including work traditionally considered as subcontractor work, the Contractor may add 15% of his actual costs for combined overhead and profit.

For any work performed by a subcontractor or forces under the respective subcontractor including any sub-subcontractors or persons not in the direct employ of the subcontractor, a total of 15% of the cost of the change, with 10% to be assigned to the subcontractor and any forces under him and the General Contractor may add 5% of the above subcontractor's cost for his overhead and profit.

The above percentages shall be considered reasonable allowance for overhead and profit due to the contractor.

The Contractor shall submit receipts or other evidence showing his costs and his right to the payment claims. All changes in work shall be provided with a detailed cost breakdown indicating material and labor units for all work to be performed. In addition, the cost breakdown shall contain all current tax and labor burden. The allowable amount for the material tax shall be 7.25% and for labor burden shall be 30%.

ARTICLE 11: INSURANCE AND BONDS

11.1 CONTRACTORS LIABILITY INSURANCE

11.1.2 (ADD) "The Contractor shall not commence any work in connection with this agreement until he has obtained all of the following types of insurance with the Owner as additional named insured and such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor to commence work on his subcontract until all similar insurance required of the subcontractor to commence work on his subcontract has been obtained and approved.

All insurance policies shall be with insurers qualified and doing business in Florida.

THE CONTRACTOR SHALL PROCURE AND MAINTAIN FOR THE LIFE OF THIS CONTRACT:

1. Workers Compensation and Employers' Liability as follows:
 - a. WC Statutory Limits per FS 440
 - b. E.L. - Each Accident \$500,000
 - c. E.L. Disease – Each Employee \$500,000
 - d. E.L. Disease – Policy Limit \$500,000
2. Comprehensive General Liability with minimum limits as follows:
 - a. Each Occurrence - \$ 1,000,000
 - b. Damage to Rented Premises (Each occurrence)- \$100,000
 - c. Medical Expense (Any one person) \$5,000
 - d. Personal Advertising Injury - \$1,000,000
 - e. General Aggregate - \$2,000,000
 - f. Products-Completed Aggregate - \$2,000,000
 - g. General Aggregate applies to Per Project
3. Automobile Liability providing coverage on any auto to include all owned, hired and non-owned vehicle with following minimum limits:
 - a. Combined Single Limit (Each Accident) - \$1,000,000 OR
 - b. Bodily Injury per person - \$500,000, Bodily Injury per Accident - \$1,000,000, Property Damage per Accident - \$500,000
4. Excess/Umbrella Liability on Occurrence Form with following limit:
 - a. \$1,000,000 each occurrence
 - b. \$2,000,000 aggregate
 - c. Retention /Deductible - \$5,000

11.1.2 (ADD) "The Contractor liability policy shall provide "XCU" (Explosion, Collapse, Underground Damage) coverage for those classifications in which they are included.

Broad Form Property Damage shall be required on Contractor's public liability so that completed operations coverage extends to work performed by the Contractor.

11.1.5 (ADD) Builders Risk Insurance: Contractor shall purchase and maintain in effect a completed value builder's risk policy issued by an admitted carrier in an amount equal to the full completed value of the project. Such insurance shall be issued on an all risk form. The Contractor shall be responsible for any deductible amounts.

11.4.3 (ADD) The Contractor shall furnish a Performance Bond in an amount equal to one hundred percent (100%) of the Contract Sum as security for the faithful performance of this Contract and also a Labor and Material Payment Bond in an amount not less than one hundred percent (100%) of the Contract Sum or in a penal sum not less than that prescribed by State, Territorial or local law, as security for the payment of persons performing labor on the Project under this Contract and furnishing materials in connection with this Contract. The Performance Bond and the Labor and Material Payment Bond may be in one or in separate instruments in accordance with local law and shall be delivered to the Owner not later than the date of execution of the Contract. The premium for the required bonds shall be paid by the Contractor. "These bonds shall be executed on behalf of the Contractor in the same manner and by the same person who executed the agreement.

11.4.4 (ADD) "To be acceptable as surety on Performance and Payment Bonds, a surety company shall comply with the following provisions:

The Surety Company must be admitted to do business in the State of Florida. The surety Company shall have been in business and have a record of successful continuous operations for at least five years. The Surety Company shall have at least the following minimum ratings:

Contract Amount	Policy Holders	Required Rating
0 - 100,000	B	CLASS VII
100,000 - 500,000	A	CLASS VIII
500,000 - 750,000	A	CLASS IX
750,000 - 1,000,000	A	CLASS X
1,000,000 - 1,250,000	A	CLASS XI
1,250,000 - 1,500,000	A	CLASS XI
1,500,000 - 2,000,000	A	CLASS XII
2,000,000 - 2,500,000	A	CLASS XII

*From Best's key rating guide.

Best's Policy Holder's Rating of "A" and "B" (which signifies A--Excellent, and B-Good, based upon good underwriting, economic management, adequate reserves for undisclosed liabilities, net resources for unusual stock and sound investment) or an equivalent rating from the Insurance Commissioner, if not rated by Best's. Neither the Surety Company nor any reinsurer shall expose itself to any loss on any one risk in an amount exceeding ten (10%) percent of its surplus to policyholders.

In the case of a surety insurance company, there shall be deducted in addition to the deduction for reinsurance, the amount assumed by any co-surety, the value

of any security deposited, pledged or held subject to the content of the Surety and for the protection of the Surety."

Furnish in triplicate a Performance Bond and a Payment Bond, each in the amount of 100% of the Contract Sum, written by a surety licensed to do business in the state where the Project is located. The prescribed form of the Performance Bond and Payment Bond is AIA Document A313.

ARTICLE 15: CLAIMS AND DISPUTES

15.4 ARBITRATION- Delete sections 15.4 through 15.4.4.3 in their entirety.

END OF SECTION 00 90 00

SECTION 26 05 00
ELECTRICAL GENERAL REQUIREMENTS

PART I GENERAL

1.01 RELATED DOCUMENTS: The Electrical General Requirements are supplementing and applicable to Division 26 Sections and shall apply to all phases of work specified herein, shown on the Drawings, or required to provide a complete installation of electrical systems.

1.02 JOB CONDITIONS:

- A. Site Inspections: Before submitting proposals, each bidder should visit the site and fully familiarize himself with all job conditions and shall be fully informed as to the extent of his work. No consideration will be given after bid opening date for alleged misunderstanding as to the requirements of work involved in connecting to the utilities or as to requirements of materials to be furnished.
- B. Existing Conditions: All utilities, existing system and conditions shown on the plans as existing are approximate, and the Contractor shall verify before any work is started.
- C. Scheduled Interruptions: Planned interruptions of utilities service, to any facility affected by this contract, shall be carefully planned and approved by Engineer at least ten (10) days in advance of the requested interruption. The Contractor shall not interrupt services until the Engineer has granted specific approval. The request shall indicate services to be affected, date and time of interruption and duration of outage. Request for interruption of service will not be approved until all equipment and materials required for the completion of that particular phase of work are on the job site. The work may have to be scheduled after normal working hours.
- D. Accidental Interruptions: All excavation and/or remodeling work required shall be performed with care so as not to interrupt other existing services (water, gas, electrical, sewer, sprinklers, etc.). If accidental utility interruption resulting from work performed by the Contractor occurs, service shall be immediately restored to its original condition without delay, by and at the expense of the Contractor, using skilled workmen of the trade required.
- E. Maintaining Service:
 - 1. Any existing service (or operating system) which must be interrupted for any length of time shall be supplied with a temporary service if necessary for continuation of the normal operation of this facility.
 - 2. Any existing system or part of an existing system currently in operation shall remain so after all additions or renovations are made and all work is completed.

1.03 REGULATORY REQUIREMENTS:

- A. Permits, Fees, and Inspections: This Contractor shall secure and pay for all permits, and inspections required on work performed under this section of the Specifications. He shall assume full responsibility for all assessments and taxes necessary for the completion and acceptance of the work.
- B. Applicable Standards and Codes: The electrical installation shall comply with all applicable building codes; local, state, and federal ordinances. In case of a discrepancy among these applicable regulatory codes and ordinances, the most stringent requirement shall govern. The Contractor shall notify the Engineer in writing of any such discrepancy. Should the Contractor perform any work that does not comply with the applicable regulatory codes and ordinances he shall bear all cost arising in correcting the deficiencies. Application standards and codes shall include all local ordinances, all state laws, and the applicable requirements of the following:
1. American National Standards Institute - ANSI
 2. National Electrical Manufacturer's Association - NEMA
 3. National Fire Protection Association – NFPA (latest editions)
 4. Florida Building Code – 2020 Edition
 5. Underwriters' Laboratories, Inc. – UL
 6. The National Electrical Code – NFPA 70, 2017 Edition
 7. The Life Safety Code – NFPA 101, 2018 Edition
 8. The National Fire Alarm and Signaling Code – NFPA 72, 2019 Ed.
- C. Drawings and Specifications: The drawings and these specifications are complementary each to the other. What is called for by one shall be as binding as if called for by both. Omissions from the drawings and specifications of details of work which are evidently necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve the Contractor from performing such work. In any case of discrepancy in the figures or catalog numbers, the matter shall be submitted to the Engineer, who shall promptly make a determination in writing. In any case of conflict between the drawings and specifications, the most stringent requirement shall apply unless a determination is made otherwise. Any adjustment by the Contractor shall be at the Contractor's own risk and expense. Electrical drawings are diagrammatic only. Do not scale these drawings. All equipment shall be installed in accordance with manufacturer's recommendations and any conflicting data shall be verified before bidding.
- D. Letters Certifying Compliance and Review: The Contractor's bid shall be accompanied by a letter stating that these Documents will be revised, as required by any legal authority having jurisdiction and by any serving utility, with no additional cost to the Owner. As soon as practical after bidding, and before any work is commenced, the Contractor shall meet with all legal authorities having jurisdiction, review all materials and details of this project and agree on any required revisions. A letter shall be written to the Engineer listing the names, dates, places of such review, the revisions required (at no additional cost). A copy of the letter shall also be sent to the reviewing authority. The Contractor shall also meet with each serving utility and repeat the above procedure. A letter certifying each meeting shall be written also with the information as described above.

The Contractor shall after completion of the work, furnish the Engineer a certificate of final inspection and approval from the applicable local inspection department. Any necessary changes that must be made for the final approval shall be made at no additional cost to the Owner.

1.04 NOT USED

1.05 WORKMANSHIP: All work shall be executed in a neat and substantial manner by skilled workman, well qualified, and regularly engaged in the type of work required. Substandard work shall be removed and replaced by the Contractor at no cost to the Owner.

1.06 APPROVAL OF MATERIALS AND EQUIPMENT:

A. Prior-submittals: The Contractor shall base his proposal on the materials specified herein and on the drawings. Reference to a particular product by manufacturer, trade name, or catalog number establishes the quality standards of material and equipment required for this installation and is not intended to exclude products equal in quality and similar design. The Engineer reserves the sole right to decide the equality of materials proposed for use in lieu of these specified. It shall be the Contractor's responsibility to furnish the information and data sufficient to establish the quality and utility of the items in question, including furnishing of samples if required. If other equipment manufacturers determine that their equipment will fit in the space and meet the recommended clearances, suit all job conditions, equal or exceed the quality of the specified items, then a request may be made in writing to the Engineer at least ten (10) days prior to bid date for permission to be included in the approved equipment list. All data required for evaluation shall accompany the above request.

B. Submittals:

1. Submittals: The Contractor shall submit a list of equipment proposed for installation. He shall submit catalog data and shop drawings on all proposed systems and their components. Where substitutions alter the design or space requirements, the Contractor shall defray all items of cost for the revised design and construction including costs to all allied trades involved. Provide six (6) copies of submittals and shop drawings as a minimum unless the General Conditions requires a greater number of copies.

a. Submittals Schedule: Submittals shall be submitted within thirty (30) days after the contract is awarded. It is not the responsibility of the Engineer to expedite the review of submittals if the contractor has not adequately prepared the submittals in a time efficient manner. The contractor bears all the responsibility for the added time requirements of resubmittals.

b. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Engineer's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals

enough in advance of the Work to permit processing, including resubmittals.

- 1) Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Engineer will advise Contractor when a submittal being processed must be delayed for coordination.
 - 2) Resubmittal Review: Allow 15 days for review of each resubmittal.
- c. Identification: Place a permanent label or title block on each submittal for identification. Each major section of submittals such as power equipment, lighting equipment, fire alarm, etc., shall be secured in a booklet or stapled with a covering index which lists the following information:
- 1) Project name and date
 - 2) Name, address, and phone number of General contractor and project manager.
 - 3) Name, address, and phone number of Sub-contractor and project manager.
 - 4) Supplier of equipment with phone number and person responsible for this project.
 - 5) Index of each item covered in submittal and model number.
 - 6) Any deviation from contract documents shall be specifically noted on submittal cover index and specifically identified with highlighting, encircling, or boldly on specific submittal sheet.
- d. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
- 1) Include previous submittal review comments.
 - 2) For each item being resubmitted, include previous review comment and explain how resubmitted item meets the criteria of the previous review comment.
 - 3) Only two (2) resubmittals will be accepted. If the resubmittals do not meet the review comments on the initial submittal or the intent of the contract documents the contractor shall provide the original specified equipment.
- e. Determinations of Equipment Quality: The final authority on the determination of the quality of any piece of equipment specified, submitted, or resubmitted is solely the Professional Engineer's. As much information as is provided by the Contractor will be used to consider a submitted item to the specified item to determine compliance. The Contractor may provide the actual submitted piece of equipment and the specified item to the Engineer for a table top comparison at his convenience. In the event of a table top

comparison, the equipment brought to the Engineer shall become the property of the Engineer upon its delivery.

1.07 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Protection: Take necessary precautions to protect all material, equipment, apparatus and work from damage. Failure to do so to the satisfaction of the Engineer will be sufficient cause for the rejection of the material, equipment or work in question. Contractor is responsible for the safety and good condition of the materials installed until final acceptance by the owner.
- B. Cleaning: Conduit openings shall be capped or plugged during installation. Fixtures and equipment shall be tightly covered and protected against dirt, moisture, chemical and mechanical injury. At the completion of the work the fixtures, material and equipment shall be thoroughly cleaned and delivered in condition satisfactory to the Engineer.

1.08 NOT USED

1.09 OPERATING AND MAINTENANCE INSTRUCTIONS/AS BUILT DRAWINGS

- A. Four (4) complete sets of instructions containing the manufacturer's operating and maintenance instructions for each piece of equipment shall be furnished to the Owner. Each set shall be permanently bound and shall have a hard cover. One complete set shall be furnished at the time that the test procedure is submitted, and remaining sets shall be furnished before the Contract is completed. Flysheets shall be placed before instructions covering each subject. The instruction sheets shall be approximately 8-1/2" by 11" with large sheets of Drawings folded in. The instructions shall include information for major pieces of equipment and systems.
- B. Upon completion of the work and at the time designated, the services of one project engineer shall be provided by the Contractor to instruct the representative of the Owner in the operation and maintenance of the systems.
- C. This Contractor shall provide as-built Drawings at the completion of the job. Drawings shall show all significant changes in equipment, wiring, routing, location, etc. All underground conduit routing shall be accurately indicated with locations dimensioned.

- 1.10 **GUARANTEE AND SERVICE**: Upon completion of all tests and acceptance, the Contractor shall furnish the Owner a written guarantee covering the electrical work done for a period of one (1) year from date of acceptance. Guarantee includes equipment capacity and performance ratings specified without excessive noise levels. Upon notice from the Engineer or the Owner, the Contractor shall, during the guarantee period, rectify and replace any defective material or workmanship and repair any damage caused thereby without additional cost.

PART 2 – NOT USED

PART 3 – EXECUTION

3.01 COMMON REQUIREMENTS FOR ELECTRICAL INSTALLATION

- A. Comply with NECA 1.
- B. Measure indicated mounting heights to bottom of unit for suspended items and to center of unit for wall-mounting items.
- C. Headroom Maintenance: If mounting heights or other location criteria are not indicated, arrange and install components and equipment to provide maximum possible headroom consistent with these requirements.
- D. Equipment: Install to facilitate service, maintenance, and repair or replacement of components of both electrical equipment and other nearby installations. Connect in such a way as to facilitate future disconnecting with minimum interference with other items in the vicinity.

END OF SECTION

SECTION 26 05 10
ELECTRICAL METHODS AND BASIC MATERIALS

PART I GENERAL

1.01 SECTION INCLUDES:

- A. Grounding and Bonding
- B. Supports
- C. Excavation, Trenching, and Backfilling
- D. Cutting and Patching
- E. Equipment Connection
- F. Identification of Equipment
- G. Cleaning and Painting
- H. Demolition
- I. Salvaged Materials

PART II PRODUCTS

2.01 GROUNDING MATERIALS:

- A. Grounding Electrode (Ground Rod): 16 feet x $\frac{3}{4}$ " diameter or as indicated on the Drawings, copper clad steel, sectional driven.
- B. Ground Connectors: Approved ground clamp type manufactured of cast bronze construction with matching bolts, nuts, and washers.
- C. Exothermic Welds: Materials shall be from the same source. Welding process shall be Cadweld or approved equal.
- D. Grounding Conductors:
 - 1. Insulated Conductors: Green colored and coded insulated copper (#12 AWG minimum) wire or cable.
 - 2. Bare Copper Conductors:
 - a. Solid Conductors: ASTM B3.
 - b. Stranded Conductors: ASTM B8
 - c. Bonding Conductor: #4 or #6 AWG, stranded conductor.
 - d. Bonding Cable: 28 kcmil, 14 strands of #17 AWG conductor.
 - e. Bonding Jumper: Copper tape, braided conductors, terminated with copper ferrules.

2.02 SUPPORTS:

- A. Framing Steel: Galvanized or painted rolled steel of standard shapes and sizes.
- B. Manufactured Channel: Hot dipped galvanized with all hardware required for mounting as manufactured by Unistrut, Steel City, or approved equal.
- C. Miscellaneous Hardware: Standard sizes treated for corrosion resistance.

2.03 IDENTIFICATION:

- A. Nameplates: Laminated black micarta with ¼" high engraved white letters.
- B. Panel Directories: Typewritten under plastic cover.
- C. Wire and Cable Markers: Cloth, split sleeve, or tubing type.

PART III EXECUTION**3.01 INSTALLATION**

- A. Products shall be installed in accordance with manufacturer's instructions.
- B. Except where specifically indicated otherwise, all exposed non-current-carrying metallic parts of electrical equipment, metallic raceway systems, and service neutral of the electrical system shall be grounded.
 - 1. Equipment grounding shall be accomplished by installing a separate grounding conductor in each raceway of the system. The Conductor shall be provided with a distinctive green insulation or marker and shall be sized in accordance with Article 250 of the National Electrical Code.
 - 2. The maximum resistance of the driven ground shall be tested with a ground resistance Megger and shall not exceed 25 ohms under normally dry conditions. If this cannot be obtained with a single rod, additional or parallel rods shall be installed 7'-6" on center until 25 ohms or less is achieved without connection to the building water piping.
- C. Install support systems sized and fastened to accommodate weight of equipment and conduit, including wiring, which they carry.
 - 1. Fasten hanger rods, conduit clamps, and outlet junction boxes to building structure using precast insert system, expansion anchors, preset inserts, beam clamps, or spring steel clips.
 - 2. Use toggle bolts or hollow wall fasteners in hollow masonry, plaster, or gypsum board partitions and walls; expansion anchors or preset inserts in solid masonry walls; self-drilling anchors or expansion and anchors on

concrete surfaces; sheet metal screws in sheet metal studs; and wood screws in wood construction.

3. Do not fasten supports to piping, ceiling support wires, ductwork, mechanical equipment, or conduit.
 4. Do not use powder-actuated anchors.
 5. Do not drill structural steel members.
 6. Fabricate supports from structural steel or steel channel.
 7. Install surface mounted cabinets and panelboards with minimum of four anchors.
 8. Provide steel channel supports to stand cabinets one inch off wall in wet locations.
 9. Bridge studs top and bottom with channels to support flush mounted cabinets and panelboards in stud walls.
 10. Install freestanding electrical equipment on concrete pads.
- D. Excavating, trenching, and backfilling shall be accomplished as indicated on the Drawings or where required to install systems and/or equipment.
1. Trenches for all underground conduits or equipment shall be excavated to the required depths. Where soft, wet, or unstable soil is encountered, the bottom of the trench shall be filled with 6 inches of compacted gravel and sand fill. All trench bottoms shall be tamped hard. Trenches shall be shored as required to meet OSHA requirements and general safe working conditions.
 2. After conduits or equipment have been inspected and approved by the Architect and prior to backfilling, all forms shall be removed and the excavation shall be cleaned of all trash and debris. Material for backfilling shall consist of the excavation, or borrow of sand, gravel, or other materials approved by the Engineer and shall be free of trash, lumber or other debris. Backfill shall be placed in horizontal layers, not exceeding 9 inches in depth and properly moistened to approximate optimum requirements. Each layer shall be compacted by hand, or machine tamped to a density equivalent to surrounding soil. Backfill shall be brought to suitable elevation above ground to provide for anticipated settlement and shrinkage. All paving broken up shall be repaired and returned to the original condition.
- E. Cutting and Patching: This Contractor shall provide all cutting, digging, etc., incident to his work and shall make all required repairs thereafter to the satisfaction of the Engineer, but in no case shall the Contractor cut into any major structural element, beam, or column without written approval of the Engineer.
1. Pavements, sidewalks, roads, curbs, walls, ceilings, floors, and roofs shall be sawcut, patched, repaired and/or replaced as required to permit the installation of

- the electrical work. Existing concrete floors and other slabs, which require vertical piercing for installation of conduit raceways shall be neatly core drilled. The Contractor shall carefully lay out his drilling in advance and arrange it to minimize exposed work.
2. The Contractor shall bear the expense of all cutting, patching, painting, repairing, or replacing of the work of other trades required because of his fault, error, or tardiness or because of any damage done by him.
 3. All patching and finishing shall be performed by the General Contractor at this Contractor's expense.
- F. Make electrical connections to equipment in accordance with equipment manufacturer's instructions.
1. Verify that wiring and outlet rough-in work is complete and that equipment is ready for electrical connection, wiring, and energization.
 2. Make wiring connections in control panel or in wiring compartment of pre-wired equipment. Provide interconnecting wiring where indicated.
 3. Install and connect disconnect switches, controllers, control stations, and control devices as indicated.
 4. Make conduit connections to equipment using flexible conduit. Use liquid-tight flexible conduit in damp or wet locations.
 5. Install pre-fabricated cord set where connections with attachment plug is indicated or specified, or use attachment plug with suitable strain-relief clamps.
 6. Provide suitable strain-relief clamps for cord connections to outlet boxes and equipment connection boxes.
- G. Identify electrical distribution and control equipment, and loads served, to meet regulatory requirements and as specified herein.
1. Degrease and clean surface to receive nameplates.
 2. Secure nameplates to equipment fronts using screws or rivets with edges parallel to equipment lines.
 3. Each new and existing panel shall have an external nameplate. Disconnect switches, starters or similar devices shall have a micarta engraved nameplate mechanically affixed indicating the load served and the location, such as "A/C 2" or "A/C 3" above ceiling". Letters shall be 1/4" white on a black background. Panels shall be designated in this manner:

"Panel A
120/208 Volts
3 Phase 4 Wire
Served from Panel MP"

4. Panel directories shall accurately indicate load served and location of load.
 5. Engrave plates as indicated on the Drawings.
- H. Raceway junction boxes for each system shall be identified by painting the inside of the junction box cover for exposed work and both sides of the covers for concealed work according to the following code:

Receptacle Circuits	Black
227 V. Lighting Circuits	Orange
120 V. Lighting Circuits	White
277/480 V. Power & Misc.	Yellow
120/208 V. Power & Misc.	Green
Fire Alarm System	Red
Closed Circuit T.V.	Brown
T.V. Distribution System	Blue
Intercom System	Gray

If the established color code at this site conflicts with the above, the contractor shall so state in a letter outlining his proposed colors to maintain conformity

- I. Install wire markers on each conductor in panelboard gutters, boxes, and at load connections.
 1. Use distribution panel and branch circuit or feeder number to identify power and lighting circuits.
 2. Use control wire number as indicated on schematic and interconnection diagrams or equipment manufacturer's shop drawings to identify control wiring.
- J. Cleaning and Painting: The respective Contractors for the various phases of work shall clear away all debris, surplus materials, etc., resulting from their work or operations, leaving the job and equipment furnished in the clean first class condition.
 1. All fixtures and equipment shall be thoroughly cleaned of plaster, stickers, rust, stains and other foreign matter or discoloration, leaving every part in an acceptable condition ready for use.
 2. The Contractor shall refinish and restore to the original condition and appearance, all electrical equipment, which has sustained damage to manufacturer's prime and finish coats or enamel or paint. Materials and workmanship shall be equal to the requirements described for other painting.
- K. Salvaged Materials: Materials and equipment removed from the construction site shall remain the property of the Owner. This contractor shall remove and store materials until directed by the Owner as to disposition. Materials may be salvaged by the Owner at his discretion or disposed of by the contractor as directed by the Owner.

END OF SECTION

SECTION 26 05 33
RACEWAY SYSTEMS

PART I GENERAL

1.01 SECTION INCLUDES:

- A. Conduit and Conduit Fittings
- B. Electrical Boxes and Fittings
- C. Wireway

PART II PRODUCTS

2.01 CONDUIT AND FITTINGS:

A. Conduit:

- 1. Metal conduit: Galvanized steel as manufactured by Pittsburgh Standard galvanized rigid conduit, National Electric Products, Shearduct, or Youngstown Buckeye hot galvanized rigid conduit.
- 2. Metal tubing: Galvanized steel as manufactured by Pittsburgh Standard, Youngstown Buckeye or National Electric Products.
- 3. Flexible Conduit: Steel.
- 4. Liquid-tight Flexible Conduit: Flexible steel conduit with PVC jacket as manufactured by Anaconda or engineer approved equal.
- 5. Plastic Conduit and Tubing: NEMA TC 2; PVC. Use Schedule 40 conduit.

B. Conduit Fittings:

- 1. Conduit Fittings and Conduit Bodies: NEMA FB 1. Conduit fittings to be steel threaded type, as manufactured by Appleton, Thomas and Betts, Crouse-Hinds or Pyle-National.
- 2. Tubing Fittings: NEMA FB 1. Tubing fittings to be steel compression type for conduit up to 2" in diameter and set screw type for conduit 2-1/2" and larger, as manufactured by Appleton, Thomas and Betts, Crouse-Hinds or Pyle-National.
- 3. Flexible Conduit Fittings: NEMA FB 1. Flexible conduit fittings to be steel set screw or screw-in type.
- 4. Liquid-tight Flexible Conduit Fittings: NEMA FB 1. Liquid-tight flexible conduit fittings to be steel compression type.

5. Plastic Fittings and Conduit Bodies: NEMA TC 3.

2.02 ELECTRICAL BOXES:

A. Boxes:

1. Sheet Metal: NEMA OS 1; galvanized steel 4" octagonal x 1-1/2" minimum. Communications outlets shall be 2-1/2" deep minimum. Provide galvanized plaster/tile ring for recessed outlet boxes. Boxes shall be manufactured by Appleton, Steel City or Raco.
2. Cast Metal: Aluminum or cast ferroalloy, deep type, finished square corner, gasketed cover, threaded hubs as manufactured by Bell or engineer approved equal.
3. Nonmetallic: NEMA OS 2.

2.03 WIREWAY:

- A. Enclosure: General purpose or raintight type with knockouts.
- B. Cover: Screw type with full gasketing.
- C. Fittings: Lay-in type with removable cover and drip shield for outdoor installation.
- D. Finish: Rust inhibiting primer coating with enamel finish.

PART III EXECUTION

3.01 EXAMINATION AND PREPARATION:

- A. Examine supporting surfaces to determine that surfaces are ready to receive work.
- B. Electrical boxes shown on Drawings are approximate locations unless dimensioned. Obtain verification from Architect/Engineer of [floor box locations and] locations of outlets prior to rough-in. Outlets may be relocated to a distance of ten feet prior to rough-in with no additional cost to the Owner.

3.02 INSTALLATION:

1. Outdoors: Apply raceway products as specified below unless otherwise indicated:
 1. Exposed Conduit: GRC IMC.
 2. Concealed Conduit, Aboveground: GRC IMC EMT RNC, Type EPC-40-PVC.
 3. Underground Conduit: RNC, Type EPC-40-PVC, direct buried concrete encased.

4. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): LFNC.
 5. Boxes and Enclosures, Aboveground: NEMA 250, Type 3R.
2. Indoors: Apply raceway products as specified below unless otherwise indicated:
1. Exposed, Not Subject to Physical Damage: EMT.
 2. Exposed, Not Subject to Severe Physical Damage: EMT.
 3. Exposed and Subject to Severe Physical Damage: IMC. Raceway locations include the following:
 - Loading dock.
 - Corridors used for traffic of mechanized carts, forklifts, and pallet-handling units.
 - Mechanical rooms.
 - Gymnasiums.
- A. Size raceways for conductor type installed.
1. Minimum Size Conduit: $\frac{3}{4}$ " in underground locations, $\frac{1}{2}$ " in all other locations.
 2. Maximum Size Conduit in Slab Above Grade: 1 – inch; do not route conduits larger than $\frac{3}{4}$ " to cross each other.
- B. Arrange conduit and tubing to maintain headroom and to present a neat mechanical appearance.
1. Route exposed raceway parallel and perpendicular to walls and adjacent piping.
 2. Maintain minimum 6 inch clearance to piping and 12 inch clearance to heat surfaces such as flues, steam piping, and heating appliances.
 3. Maintain required fire, acoustic, and vapor barrier rating when penetrating walls, floors, and ceilings.
 4. Route conduit through roof openings for piping and ductwork where possible; otherwise, route through roof jack with pitch pocket.
 5. Group in parallel runs where practical. Use rack constructed of steel channel. Maintain spacing between raceways or de-rate circuit ampacities to NFPA 70 requirements.
 6. Use conduit hangers and clamps; do not fasten with wire or perforated pipe straps.
 7. Use conduit bodies to make sharp changes in direction.
 8. Terminate all conduits with insulated bushings.

9. Use suitable caps to protect installed raceway against entrance of moisture and dirt.
 10. Provide a pull cord in all empty raceways.
 11. Install expansion joint fittings where raceway crosses building expansion joints.
 12. Install plastic conduit and tubing in strict accordance with the manufacturer's recommendations. When plastic conduit is installed, use galvanized rigid elbows for 90 degree bends.
- C. Install electrical boxes as shown on the Drawings, and as required for splices, taps, wire pulling, equipment connections and regulatory requirements.
1. Use cast outlet box in exterior locations, wet locations, and exposed interior locations
 2. Use large enclosure for interior pull and junction boxes larger than 12 inches in any dimension.
 3. Locate and install electrical boxes to allow access. Provide access panels if required.
 4. Locate and install electrical boxes to maintain headroom and to present a neat mechanical appearance.
 5. Install pull boxes and junction boxes above accessible ceilings or in unfinished areas.
 6. Provide knockout closure for unused openings.
 7. Align wall-mounted outlet boxes plumb and level for switches, and similar devices.
 8. Coordinate mounting heights and locations of outlets above counters and backsplashes
 9. Install lighting outlets to locate luminaries as shown on the Drawings.
- D. Use recessed outlet boxes in finished areas where indicated.
1. Secure boxes to interior wall and partition studs, accurately positioning to allow for surface finish thickness, and plaster/tile ring installation.
 2. Use stamped steel stud bridges for flush outlets in hollow stud wall, and adjustable steel channel fasteners for flush ceiling outlet boxes.
 3. Locate boxes in masonry walls to require cutting corner only. Coordinate masonry cutting to achieve neat openings for boxes

4. Do not install boxes back-to-back in walls; provide 6 inch separation, minimum. In acoustic-rated walls provide 24 inch separation minimum.
 5. Do not damage insulation.
- E. Install wireway in accordance with manufacturer's instructions.
1. Bolt wireway to wall using two-piece hangers or steel channels fastened to the wall or on a self-supporting structure. Install level.
 2. Mount raintight gutter in horizontal position only.
- J. Interface outlet boxes, service fittings, floor boxes, etc. with connection of equipment.

END OF SECTION

SECTION 26 27 26
WIRE, CABLE, AND DEVICES

PART I GENERAL

1.01 RELATED DOCUMENTS:

- A. Section 26050 – Electrical General Requirements, apply to the work specified in this Section, with additions and modifications specified herein.

1.02 SECTION INCLUDES:

- A. Wire and Cable
- B. Wiring Devices

PART II PRODUCTS

2.01 WIRE AND CABLE:

- A. Building Wire:
 - 1. Feeder and Branch Circuits 10 AWG and Smaller: Copper, solid conductor, 600 volt insulation, THHN/THWN.
 - 2. Feeder and Branch Circuits 8 AWG and 6 AWG: Copper, stranded conductor, 600 volt insulation, THHN/THWN.
 - 3. Feeder and Branch Circuits Larger than 6 AWG: Copper, stranded, conductor, 600 volt insulation, THW.
 - 4. Control Circuits: Copper, stranded conductor, 600 volt insulation, THHN/THWN.

2.02 WIRING DEVICES AND WALLPLATES:

- A. Manufacturers:
 - 1. Hubbell.
 - 2. Pass and Seymour.
 - 3. Slater.
- C. Receptacle:
 - 1. Convenience Receptacle Configuration: Type 5-20R, plastic face, ivory color. Model GF-5362-I manufactured by Hubbell.

2. Specific Purpose Receptacle: Configuration indicated on Drawings with black plastic face.
3. Provide straight-blade receptacles to NEMA WD 1.
4. Provide locking-blade receptacles to NEMA WD 5.
5. GFCI Receptacles: Duplex convenience receptacle with integral ground fault current interrupter. Model GF-5362-I manufactured by Hubbell.

PART III - EXECUTION:

3.01 EXAMINATION AND PREPERATION:

- A. Verify that interior of building has been physically protected from weather.
- B. Verify that mechanical work which is likely to injure conductors has been completed.
- C. Completely and thoroughly swab raceway system before installing conductors.

3.02 INSTALLATION:

- A. Wiring Methods:
 1. Concealed Interior Locations: Building wire in raceway.
 2. Exposed Interior Locations: Building wire in raceway.
 3. Above Accessible Ceilings: Building wire in raceway.
 4. Wet or Damp Interior Locations: Building wire in raceway.
 5. Exterior Locations: Building wire in raceway.
 6. Underground Locations: Building wire in raceway.
- B. Use no wire smaller than 12 AWG for power and lighting circuits, and no smaller than 14 AWG for control wiring.
 1. Use 10 AWG conductor for 20 ampere, 120 volt branch circuit home runs longer than 100 feet; and for 20 ampere, 277 volt branch circuit home runs longer than 200 feet..
- C. Neatly train and secure wiring inside boxes, equipment and panelboards.
- D. Use UL listed wire pulling lubricant for pulling conductors in raceways.
- E. Protect exposed cables.

- F. Support cables above accessible ceilings to keep them from resting on ceiling tiles.
- G. Make splices, taps, and terminations to carry full ampacity of conductors without perceptible temperature rise.
- H. Terminate spare conductors with electrical tape.
- I. Devices shall mount flush or as indicated on the Drawings.
- J. Install wiring devices in accordance with manufacturer's instructions.
 - 1. Install wall switches 48 inches above floor, "OFF" position down.
 - 2. Install GFCI receptacles at all outdoor locations and all indoor locations as required by NFPA70, and as indicated.
 - 3. Install specific purpose receptacles at heights shown on Drawings.
- K. Install wall plates flush and level.
 - 1. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface mounted outlets.
 - 2. Install weatherproof coverplates on all devices/boxes in wet or outdoor locations.

3.03 FIELD QUALITY CONTROL:

- A. Perform field inspection and testing of circuits under provisions of Section 16000.
 - 1. Inspect wire and cables for physical damage and proper connection.
 - 2. Torque test conductor connections and terminations to manufacturer's recommended values.
 - 3. Perform continuity test on all power and equipment branch circuit conductors. Verify proper phasing connections.

END OF SECTION

SECTION 26 40 00
SERVICE AND DISTRIBUTION

I. GENERAL

1. SECTION INCLUDES:
 - A. GROUNDING AND BONDING
 - B. UTILITY REQUIREMENTS
 - C. PANELBOARDS
 - D. CONTACTORS
2. PROJECT CONDITIONS: Verify field measurements for the equipment to ensure proper fit within the space provided.
3. UTILITY REQUIREMENTS:
 - A. The serving utility is Florida Power and Light.
5. EQUIPMENT APPLICATION: All equipment and materials shall have ratings established by a recognized independent agency or laboratory. The Contractor shall apply the items used on this project within those ratings and application shall be subject to any stipulations or exceptions established by the independent agency or laboratory. Use of equipment or materials in applications beyond that certified by the agency or beyond that recommended by the manufacturer shall be cause for removal and replacement of such mis-applied items.

II. PRODUCTS

1. GROUNDING MATERIALS:
 - A. GROUND ROD: 16 feet x 3/4" diameter, copper clad steel, sectional driven.
 - B. GROUND CONNECTORS: Approved ground clamp manufactured of cast bronze construction with matching bolts, nuts, and washers.
 - C. EXOTHERMIC WELDS: Materials shall be from the same source. Welding process shall be Cadweld or approved equal.
 - D. GROUNDING CONDUCTORS: Green colored and coded insulated copper (#12 AWG minimum) or bare soft drawn copper as indicated on Drawings.
2. PANELBOARDS:
 - B. LIGHT AND POWER PANELBOARDS: NEMA PB 1; circuit breaker type.
 - (1) Bus Material: Tin-plated Aluminum.

- (2) Ground Bus: Copper.
 - (3) Enclosures: Type 1 or 3R as shown on the Drawings.
 - (4) Mounting: Surface or flush mount as indicated on the Drawings.
 - (5) Door: Hinged with lock.
 - (6) Circuit Breakers: Bolt-on, ratings as shown on Drawings.
- C. ACCESSORIES: Provide panel and branch device accessories as indicated on the Drawings
- D. FUTURE PROVISIONS: Where space provisions are indicated on the Drawings, provide bussing, bus extensions, etc. required to mount future circuit breakers. Where spare provisions are indicated on the Drawings, provide circuit breakers complete and ready for connection.
- E. MANUFACTURERS:
- (1) Square D Company
 - (2) Cutler – Hammer
 - (3) General Electric
 - (4) ITE - Siemens
8. CONTACTORS:
- A. MECHANICALLY HELD CONTACTORS: NEMA ICS 2; mechanically held, electrically operated.
 - B. COIL OPERATING VOLTAGE: 120 volts, 60 Hz.
 - C. ENCLOSURES: NEMA ICS 6; Type 1 or 3R as required.

III. EXECUTION

1. INSTALLATION:
- A. Install equipment in accordance with manufacturer's instructions.
 - C. Except where specifically indicated otherwise, all exposed non-current-carrying metallic parts of electrical equipment, metallic raceway systems, and service neutral of the electrical system shall be grounded.
 - (1) Equipment grounding shall be accomplished by installing a separate grounding conductor in each raceway of the system. The Conductor shall be provided with a distinctive green insulation or marker and shall be sized in accordance with Article 250 of the National Electrical Code.

- D. Install panelboards to NEMA PB 1.1.
- E. Provide labels for all switchboards, panelboards, and distribution equipment.
- F. Provide label for each breaker/switch position in switchboards.
- G. Provide typewritten directory inside panel door for all panelboards.
- I. Provide neatly typed label inside each motor starter enclosure door identifying motor served, nameplate horsepower, full load amperes, code letter, service factor, and voltage/phase rating. Provide nameplate on cover exterior to indicate motor served.

END OF SECTION