

CONSTRUCTION CONTRACT eDPW- 051922-2  
DELAWARE COUNTY DEPARTMENT OF PUBLIC WORKS MEDIA,  
DELAWARE COUNTY, PENNSYLVANIA

PROJECT MANUAL

EMERGENCY SERVICES BUILDING ELECTRICAL SURVEY-  
PHASE 2

PREPARED BY GILLAN & HARTMANN, INC.  
P.O. BOX 345  
VALLEY FORGE, PA 19481

DELAWARE COUNTY COUNCIL: DR. MONICA TAYLOR, CHAIR  
ELAINE PAUL SCHAEFER, VICE CHAIR  
KEVIN M. MADDEN  
CHRISTINE A. REUTHER  
RICHARD R. WOMACK, JR.



Gillan and Hartmann, Inc.

G&H No.: 2021-137

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**CONTRACT NO. eDPW-051922-2**

Invitations for Bids for  
**EMERGENCY SERVICES BUILDING ELECTRICAL SURVEY**  
**PHASE 2**

The undersigned Delaware County Council will receive Proposals via Penn Bids UNTIL **11:00 a.m. Local Time**, on **May 19, 2022**, for the **EMERGENCY SERVICES BUILDING ELECTRICAL SURVEY-PHASE 2**. There are one (1) Prime Contracts:

Electrical

eDPW-051922-2.4.

Bids must be accompanied by a bid bond with a corporate surety authorized to do business in Pennsylvania, in accordance with the project specifications in the amount of 10% of the total bid amount. A Performance Bond in the amount of 100% of the contract shall be furnished by the successful bidder prior to award of the contract.

**Failure to accompany this bid with an appropriate bid security noted above will automatically disqualify the bidder.**

The contractor shall list related experience with appropriate references and complete the attached AIA Document A305 and submit with bid. In addition, the bidder shall submit with his bid a written statement describing his Apprentice Training Program and Affirmative Action Program. **In accordance with the County of Delaware Ordinance No. 2007-05, the contractor shall submit with his bid a completed Contractor Responsibility Certification Form.**

Specifications and bidding documents may be reviewed or downloaded on [WWW.PennBid.procurement.com/login](http://WWW.PennBid.procurement.com/login). Registration is required.

All workmen performing work on this project shall be paid the general minimum **Prevailing Wage Rates** supplied herein, as determined by the Secretary of the Pennsylvania Department of Labor and Industry, in accordance with the Regulations for Pennsylvania Prevailing Wage Act.

***A highly recommended virtual Pre-Proposal Conference will be held on Thursday, May 12, 2022 at 11:00 a.m. via "Teams" (meeting invitation will be emailed to all registrants prior to the conference).***

**Section A**  
**Invitation for Bids**

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The Delaware County Council reserves the right to reject any and all bids or parts thereof and to determine whether the quality and type of equipment and/or service to be furnished meet the requirements for which it is intended. They further reserve the right to insist or waive any technicalities required for the best interest of the County and to consider competency and responsibility of the bidder before the award of the Contract and award bids accordingly.

**Delaware County Council:**

Dr. Monica Taylor, Chair  
Elaine Paul Schaefer, Vice Chair  
Kevin M. Madden  
Christine A. Reuther  
Richard R. Womack  
Delaware County Council

**EMERGENCY SERVICES BUILDING ELECTRICAL SURVEY- PHASE 2**

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*Name and Address of Bidder*

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*Phone Number*

Terms (if offered, list here):

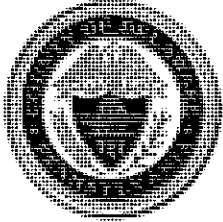
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COUNTY OF DELAWARE  
GOVERNMENT CENTER BUILDING  
201 WEST FRONT STREET  
MEDIA, PENNSYLVANIA 19063

**DEPARTMENT OF PUBLIC WORKS**

Phone: 610-891-4668  
Fax: 610-891-4482

**COUNCIL**

**BRIAN P. ZIDEK**  
CHAIRMAN

**DR. MONICA TAYOLR**  
VICE CHAIR

**KEVIN M. MADDEN**  
**ELAINE PAUL SCHAEFER**  
**CHRISTINE A. REUTHER**

**JACOB A. BIERLING, JR.**  
DIRECTOR

RE: COVID-19 SAFETY PLANS

DATE: MAY 21, 2019

ALL PUBLIC WORKS DEPARTMENT CONSTRUCTION OR MAINTENANCE/SERVICE PROJECTS VENDORS ARE REQUIRED TO SUBMIT APPROVED COVID-19 SAFETY PLANS INACCORDANCE WITH CDC, PA DEPARTMENT OF HEALTH AND OSHA GUILDLINES AND REGULATIONS.

## SPECIAL NOTICE

1. Prospective bidders must provide the full name of their insurance carrier or carriers and their bonding company, in writing, along with their Proposal as a requirement of this Bid. Failure to supply the foregoing information will automatically disqualify Bid.
2. THE INSURANCE REQUIREMENTS ARE A CRITICAL PORTION OF THIS SPECIFICATION, THE REQUIREMENTS ARE SET FORTH ON PAGE IR-1 AND IR-2. NO EXCEPTIONS WILL BE MADE.
3. BONDING REQUIREMENTS ARE SET FORTH IN SECTION “GENERAL CONDITIONS”, PARAGRAPH 49.

COUNTY OF DELAWARE

VENDOR/CONTRACTOR'S INSURANCE REQUIREMENTS

COMPREHENSIVE GENERAL LIABILITY

Before the Contract is awarded, the Contractor shall take out and maintain during the life of this contract such Public Liability and Property Damage Insurance as shall protect him and any sub-contractors, if any, performing work covered by this Contract, from all claims for loss arising from Property damage, personal injury and bodily injury including accidental death. Such Insurance Policy shall include Products and Completed Operations coverage and include coverage for damages which may arise from the Operations of the Contractor or by any sub-contractor or by anyone directly or indirectly employed by either of them. The Combined Single Limit of Liability required is \$3,000,000 per occurrence with a deductible of no more than \$1,000.

VEHICLES

Comprehensive Business Automobile Coverage shall be maintained with a Combined Single Limit of Liability in an amount no less than \$1,000,000 per occurrence with no deductible.

CATASTROPHE UMBRELLA LIABILITY

One million dollars in excess of Primary General.

WORKER'S COMPENSATION

Worker's Compensation Insurance required by Pennsylvania law covering all Owners employees and all employees of the general contractors and all sub-contractors. In the alternative, a current certificate of Exempt status from the Pennsylvania Department of Labor and Industry is acceptable if the Owner is an Exempt Self-Insurer in the State of Pennsylvania.

EMPLOYER'S LIABILITY INSURANCE

Employer's Liability Insurance with limits not less than \$500,000 per accident or employee disease.

The County of Delaware shall be named as an additional insured on all policies insofar as the specific contract is concerned. In addition, the Contractor shall furnish the County with a certificate of insurance showing the type, amount, class of operations covered, effective dates and dates of expiration. All policies should also contain a sixty (60) day notice of cancellation clause.

COUNTY OF DELAWARE

VENDOR/CONTRACTOR'S INSURANCE REQUIREMENTS

NOTE

IF THE OWNER MAINTAINS A SELF-INSURANCE PROGRAM OR A LIMITED SELF-INSURANCE PROGRAM FOR ANY OR ALL OF THE EXPOSURES LISTED ABOVE, A COMPLETE DESCRIPTION OF THE PROGRAM WITH INFORMATION ON EXCESS CARRIERS AND FUNDING ARRANGEMENTS SHOULD BE PROVIDED. IN THE EVENT THAT THE WORKER'S COMPENSATION IS SELF-INSURED, A COPY OF THE CURRENT EXEMPTION CERTIFICATE SHALL BE PROVIDED.



**DELAWARE COUNTY COUNCIL**  
**COUNTY OF DELAWARE, PENNSYLVANIA**

**ORDINANCE NO. 2007 - 05**

**AN ORDINANCE ESTABLISHING MINIMUM STANDARDS OF CONTRACTOR  
RESPONSIBILITY AND ELIGIBILITY RELATING TO CERTAIN  
PROCUREMENT CONTRACTS**

**Section 1. Purpose**

The County of Delaware recognizes that there is a need to ensure that all work on public construction and maintenance contracts is performed by responsible, qualified firms that maintain the capacity, expertise, personnel and other qualifications and resources necessary to successfully perform such contracts in a timely, reliable and cost-effective manner.

To effectuate the purpose of selecting "responsible" contractors for public contracts and to protect the County of Delaware investments in such contracts, prospective contractors and sub-contractors should be required to meet pre-established, clearly defined, minimum standards relating to contractor responsibility. Such standards include requirements and criteria concerning technical qualifications, competency, experience, adequacy of resources, including equipment, financial and personnel, and satisfactory records regarding past project performance, safety, law compliance and business integrity.

Further, due to the critical impact that skilled construction craft labor has on public works projects, and due to the limited availability of skilled construction craft labor and imminent craft labor skill shortages, it is necessary to require contractors and subcontractors to participate in established, bona fide apprenticeship training programs for the purpose of both promoting successful project delivery and ensuring future workforce development. The County of Delaware also recognizes that it is beneficial to the local community to ensure that firms receiving public contracts provide adequate wages and benefits to their employees and utilize fair business, employment and training practices that have a positive impact on local communities affected by such contracts.

Therefore, the County of Delaware shall require compliance with the provisions of this ordinance by business entities seeking to provide services to the County of Delaware as specified herein. The requirements of this ordinance are intended to supplement, not replace, existing contractor qualification and performance standards or criteria currently required by law, public policy or contracting documents. However, in the event that any of the provisions of this ordinance conflict with any law, public policy or contracting documents, of the County of Delaware, this act shall prevail.

## **Section 2. Responsible Contractor Requirements**

- (a) All contractors and subcontractors of any tier that perform work valued at over \$50,000 on any public facility or public works project, including construction, alteration, renovation, repair, and maintenance work, shall meet the requirements of this ordinance.
- (b) All firms engaged in contracts covered by this ordinance shall be qualified, responsible contractors or subcontractors that have sufficient capabilities in all respects to successfully perform contracts on which they are engaged, including the necessary experience, equipment, technical skills and qualifications and organizational, financial and personnel resources. Qualified, responsible firms shall also have a satisfactory past performance record and a satisfactory record of law compliance, integrity and business ethics.

## **Section 3. Contractor Responsibility Certifications.**

- (a) As a condition of performing work on a public works contract subject to this ordinance, a general contractor, construction manager or other lead or prime contractor seeking award of a contract shall submit a Contractor Responsibility Certification at the time it submits its bid for a contract.
- (b) The Contractor Responsibility Certification shall be completed on a form provided by the Central Purchasing Department and shall reference the project for which a bid is being submitted by name and contract or project number.
- (c) In the Contractor Responsibility Certification the construction manager, general contractor or other lead or prime contractor shall confirm the following facts regarding its past performance and work history and its current qualifications and performance capabilities:
  - (1) The firm has or will obtain all valid, effective licenses, registrations or certificates required by federal, state, county, or local law, including, but not limited to, licenses, registrations or certificates required to:
    - (A) do business in the designated locale; and,
    - (B) perform the contract work it seeks to perform, including but not limited to, licenses, registrations or certificates for any type of trade work or specialty work which the firm proposes to self-perform.
  - (2) The firm meets the bonding requirements for the contract, required by applicable law or contract specifications and any insurance requirements, as required by applicable law or contract specifications, including general liability insurance, workers

compensation insurance and unemployment insurance requirements.

- (3) The firm has not been debarred on any project by a federal, state or local government agency or authority in the past three (3) years.
- (4) The firm has not defaulted on any project in the past three (3) years.
- (5) The firm has not had any type of business, contracting or trade license, registration or other certification suspended or revoked in the past three (3) years.
- (6) The firm has not committed a willful violation of federal or state safety laws as determined by a final decision of a court or government agency in the past three (3) years.
- (7) The firm and its owners have not been convicted of any crime relating to the contracting business by a final decision of a court or government agency for the past ten (10) years.
- (8) The firm has not within the past three (3) years been found by a final decision of a court or government agency in violation of any law applicable to its contracting business, including, but not limited to, licensing laws, tax laws, prompt payment laws, wage and hour laws, prevailing wage laws, environmental laws or others, where the result of such violation was the imposition of a fine, back pay damages or any other type of penalty in the amount of \$1,000.00 or more.
- (9) The firm will pay all craft employees that it employs on the project the current wage rates and benefits as required under applicable state or federal law for the duration of the referenced project.
- (10) The firm participates in a Class A Apprenticeship Program for each separate trade or classification in which it employs craft employees and shall continue to participate in such program or programs for the duration of the project.

(A) For purposes of this section a "Class A Apprenticeship Program" is an apprenticeship program that is currently registered with and approved by the U.S. Department of Labor or a state apprenticeship agency and has graduated apprentices to journeyman status for three (3) of the past (5) years.

(B) If a firm is identified as the lowest responsible bidder or otherwise selected as the prospective awardee or as a subcontractor of an awardee, it shall provide appropriate documentation, as

determined by the Central Purchasing Department and/or Department of Public Works, to verify it meets the requirements of this section for each trade or classification of craft workers it will employ on the project. This verification shall be provided prior to performance of work by the firm.

- (11) The firm has all other technical qualifications and resources, including equipment, personnel and financial resources, to perform the referenced contract, or will obtain same through the use of qualified, responsible subcontractors.
- (d) Execution of the Contractor Responsibility Certification required by this ordinance shall not establish a presumption of contractor responsibility and the Central Purchasing Department and/or Department of Public Works may require any other additional information it deems necessary to evaluate a prospective contractor's technical qualifications, financial capacity or other resources and performance capabilities. The Central Purchasing Department and/or Department of Public Works may require that such information be included in a separate Statement of Qualifications and Experience or as an attachment to the Contractor Responsibility Certification.
- (e) In the Contractor Responsibility Certification, the submitting firm shall stipulate that if it receives a Notice of Intent to Award Contract it will provide a Subcontractor List and required subcontractor information as specified in Section 5 of this ordinance.
- (f) If the submitting firm has ever operated under another name or controls or is controlled by another company or business entity or in the past five (5) years controlled or was controlled by another company or business entity, whether as a parent company, subsidiary or in any other business relation, it shall attach a separate statement to its Contractor Responsibility Certification that explains in detail the nature of any such relationship. Additional information may be required from such an entity if the relationship in question could potentially impact contract performance.
- (g) Contractor Responsibility Certifications shall be executed by a person who has sufficient knowledge to address all matters in the certification and shall include an attestation stating, under the penalty of perjury, that all information submitted is true, complete and accurate.
- (h) If a firm fails to provide a Contractor Responsibility Certification required by this section, it may be disqualified from bidding. No action of any nature shall lie against the County of Delaware because of its refusal to accept a bid for failing to provide information required by this section.

**Section 4. Notice of Intent to Award Contract.**

- (a) After if has received bids for a project, the County of Delaware shall issue a Notice of Intent to Award Contract to the firm offering the lowest responsive bid.
- (b) Such Notice shall be issued immediately or as soon as practicable after bids are submitted and shall stipulate that the contract award will be conditioned on the issuance of a written Contractor Responsibility Determination, as required by Section 6 of this ordinance and any other conditions determined appropriate by the County of Delaware.

**Section 5. Subcontractor Lists, Subcontractor Responsibility Certifications.**

- (a) Within seven (7) days from the date of Notice of Intent to Award Contract, a prospective awardee shall submit to the Central Purchasing Department a Subcontractor List containing the names of subcontractors that will be used for the referenced project, their addresses and a description of the work each listed subcontractor will perform on the project.
- (b) At the time a prospective awardee submits the Subcontractor List it shall also submit Subcontractor Responsibility Certifications for all listed subcontractors to the Central Purchasing Department. Subcontractor Responsibility Certifications shall be executed by the respective subcontractors and contain the same information and representations required in Contractor Responsibility Certifications.
- (c) Subcontractor Responsibility Certifications shall be executed by persons having sufficient knowledge to address all matters in the certification and shall include an attestation stating, under the penalty of perjury, that all information submitted is true, complete and accurate.

**Section 6. Contractor Responsibility Review and Determination**

- (a) After a Notice of Intent to Award Contract has been issued, the Central Purchasing Department shall undertake a review process for a period of at least thirty 30 days to determine whether the prospective awardee is a qualified, responsible contractor in accordance with the requirements of this ordinance and other applicable laws and regulations and has the resources and capabilities to successfully perform the contract.
- (b) As part of this review process, the Central Purchasing Department shall ensure that the Contractor Responsibility Certification, the Subcontractor List and Subcontractor Responsibility Certifications,

as required by this ordinance, have been submitted and properly executed.

- (c) The Central Purchasing Department may conduct any additional inquiries to verify the prospective awardee and its subcontractors have the technical qualifications and performance capabilities necessary to successfully perform the contract and that the firms have a sufficient record of law compliance and business integrity to justify the award of a public contract. In conducting such inquiries, the Central Purchasing Department may seek relevant information from the firm, its prior clients or customers, its subcontractors or any other relevant source.
- (d) If at the conclusion of its internal review, the Central Purchasing Department determines that all responsibility certifications have been properly completed and executed and if it concludes that the qualifications, background and responsibility of the prospective awardee and the firms on its Subcontractor List are satisfactory, it shall issue a written Contractor Responsibility Determination verifying that the prospective awardee is a qualified, responsible contractor. In the event a firm is determined to be non-responsible, the Central Purchasing Department shall advise the firm of such finding in writing and proceed to conduct a responsibility review of the next lowest, responsive bidder or, if necessary, re-bid the project.
- (e) The Contractor Responsibility Determination shall be issued at least thirty (30) days after the date of the Notice of Intent to Award Contract. This Responsibility Determination may be revoked or revised in any manner at any time in the event the Central Purchasing Department obtains relevant information warranting such revocation or revisions.

#### **Section 7. Subcontractor Responsibility Review Requirements.**

- (a) A construction manager, general contractor or other lead or prime contractor shall not be permitted to use a subcontractor on any work performed for the County of Delaware unless it has identified the subcontractor on its Subcontractor List and provided a Subcontractor Responsibility Certification in accordance with the requirements of Section 5 of this ordinance.
- (b) A subcontractor listed on a firm's Subcontractor List shall not be substituted unless written authorization is obtained from Central Purchasing Department and a Subcontractor Responsibility Certification is provided for the substitute subcontractor.
- (c) In the event that the Central Purchasing Department or the Department of Public Works determines that a prospective subcontractor listed by the apparent low bidder does not meet the

responsibility standards of this Section, it may, after informing the prospective awardee, exercise one of the following options:

- (1) permit the awardee to substitute a qualified, responsible subcontractor in accordance with the requirements of this section;
  - (2) require the awardee to self-perform the work in question if the firm has the required experience, licenses and other qualifications to perform the work in question; or
  - (3) disqualify the prospective awardee.
- (d) In the event that a subcontractor is disqualified under this ordinance, the general contractor, construction manager or other lead or prime contractor shall not be permitted to make any type of contractual claim against the Central Purchasing Department or Public Works Department and County of Delaware on the basis of a subcontractor disqualification.

#### **Section 8. Public Review Process**

- (a) The Contractor Responsibility Certification for a firm identified in a Notice of Intent to Award Contract, Subcontractor Lists and Subcontractor Responsibility Certifications shall be made immediately available to the public for inspection through a publicly accessible website or other comparable means.
- (b) During the Public Review Period, any person or organization may protest a contractor or subcontractor for failing to meet applicable requirements of this ordinance or on any other relevant grounds by submitting a written objection with supporting evidence to the Central Purchasing Department or the Public Works Department.
- (c) If the Central Purchasing Department determines that the Contractor or Subcontractor Responsibility Certification contains false or misleading material information that was provided knowingly or with reckless disregard for the truth or omits material information that was omitted knowingly or with reckless disregard of the truth, the firm for which the certification was submitted may be prohibited from performing work for the County of Delaware for a period of up to three (3) years. Such firms may also be subject to any other penalties and sanctions, including contract termination, available to the County of Delaware under law. A contract terminated under these circumstances shall further entitle the County of Delaware to withhold payment of any monies due to the firm as damages.
- (d) A procurement contract subject to this ordinance shall not be executed until all requirements of this ordinance have been fulfilled and until Contractor and Subcontractor Responsibility Certifications and

Subcontractor Lists have been made available for public inspection for at least twenty-one (21) days.

- (e) The applicability of this ordinance to any contract shall be determined by the Director of the Central Purchasing Department and such applicability may be waived in the event of emergency or in such other event when, in the opinion of the Director of Central Purchasing and with the approval of County Council, it is determined that such action would be in the best interest of the County of Delaware.

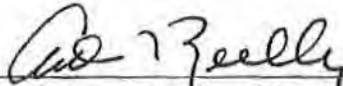
**Section 9. Severability, Effective Date.**

- (a) If any provision of this ordinance shall be held to be invalid or unenforceable by a court of competent jurisdiction, any such holding shall not invalidate any other provisions of this ordinance and all remaining provisions shall remain in full force and effect.
- (b) This ordinance shall become effective October 4, 2007, but the Central Purchasing Department and Public Works Department shall take such anticipatory administrative action in advance as shall be necessary for the implementation of this ordinance.
- (c) The requirements of this ordinance shall not apply to contracts executed prior to the effective date of this ordinance, except that the exercise of an option on a contract covered by this ordinance shall be deemed to create a new contract for purposes of this ordinance.

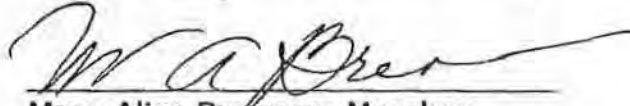
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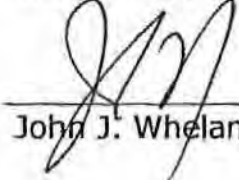
ENACTED AND ORDAINED by County Council of the County of Delaware, Pennsylvania, this 11th day of September 2007.

  
Andrew J. Reilly, Chairman

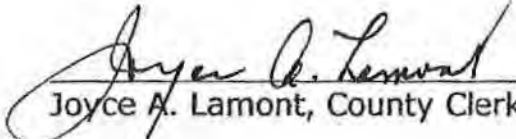
  
Linda A. Cartisano, Vice-Chairman

  
Mary Alice Brennan, Member

  
Michael Puppio, Member

  
John J. Whelan, Member

ATTEST:

  
Joyce A. Lamont, County Clerk

## **NONDISCRIMINATION/SEXUAL HARASSMENT CLAUSE**

The Contactor agrees:

1. In the hiring of any employee(s) for the manufacture of supplies, performance of work, or any other activity required under the contract or any subcontract, the Contractor, each subcontractor, or any person acting on behalf of the Contractor or subcontractor, shall not discriminate in violation of the *Pennsylvania Human Relations Act* (PHRA) and applicable federal laws against any citizen, who is qualified and available to perform the work to which the employment relates.
2. Neither the Contractor nor any subcontractor nor any person on their behalf shall in any manner discriminate in violation of the PHRA and applicable federal laws against or intimidate any employee involved in the manufacture of supplies, the performance or work, or any other activity required under the contract.
3. The Contractor and each subcontractor shall establish and maintain a written nondiscrimination and sexual harassment policy and shall inform their employees of the policy. The policy must contain a provision that sexual harassment will not be tolerated and employees who practice it will be disciplined. Posting this Nondiscrimination/Sexual Harassment Clause conspicuously in easily-accessible and well- lighted places customarily frequented by employees at or near where the contract services are performed shall satisfy this requirement.
4. The Contractor and each subcontractor shall not discriminate in violation of PHRA and applicable federal laws against any subcontractor or supplier who is qualified to perform the work to which the contract relates.
5. The Contractor and each subcontractor represents that it is presently in compliance with and will maintain compliance with all applicable federal, state and local laws and regulations relating to nondiscrimination and sexual harassment. The Contractor and each subcontractor further represents that it has filed a Standard Form 100 Employer Information Report (“EEO-1”) with the U.S. Equal Employment Opportunity Commission (“EEOC”) and shall file an annual EEO-1 report with the EEOC as required for employers’ subject to Title VII of the Civil Rights Act of 1964, as amended, that have 100 or more employees and employers that have federal government contracts or first-tier subcontracts and have 50 or more employees. The Contractor and each subcontractor shall, upon request and within the time periods requested by the County, furnish all necessary employment documents and records, including EEO-1 reports and permit access to their books, records and accounts by the contracting agency and the Bureau of Small Business Opportunities (BSBO), for purpose of ascertaining compliance with provisions of the Nondiscrimination/Sexual Harassment Clause.

6. The Contractor shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subcontract so those provisions applicable to subcontractors will be binding upon each subcontractor.
  
7. The Contractor's and each subcontractor's obligation pursuant to these provisions are ongoing from and after the effective date of the contract through termination date thereof. Accordingly, the Contractor and each subcontractor shall have an obligation to inform the County if, at any time during the term of the contract, it becomes aware of any actions or occurrences that would result in violation of these provisions.
  
8. The County may cancel or terminated the contract and all money due or to become due under the contract may be forfeited for a violation of the terms and conditions of the Nondiscrimination/Sexual Harassment Clause.

## Contractor Responsibility Certification

Firm Name: \_\_\_\_\_

Firm Address: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Fax No.: \_\_\_\_\_

Email Address: \_\_\_\_\_

Project Name: \_\_\_\_\_

Project Number: \_\_\_\_\_

The submitting firm is required to certify compliance with the contractor responsibility standards set forth below by checking appropriate boxes. Specifically, to perform work for Delaware County, submitting firms must answer "Yes" to Questions 1, 2 and 9, 10, 11, 12, 13 and 14 and answer "No" to Questions 3 through 8.

- (1) Does the firm have or will it obtain all valid, effective licenses, registrations or certificates required by federal, state, county, or local law, including, but not limited to, licenses, registrations or certificates required to: (a) do business in the designated locale; and (b) perform the contract work it seeks to perform. These shall include, but not be limited to, licenses, registrations or certificates for any type of trade work or specialty work which the firm proposes to self-perform?

Yes      No

- (2) Does the firm meet the bonding requirements for the contract, as required by applicable law or contract specifications and any insurance requirements, as required by applicable law or contract specifications, including general liability insurance, workers compensation insurance and unemployment insurance requirements?

Yes      No

- (3) Has the firm been debarred by any federal, state or local government agency or authority in the past three (3) years?

Yes      No

(4) Has the firm defaulted on any project in the past three (3) years?

Yes No

(5) Has the firm had any type of business, contracting or trade license, registration, or other certification suspended or revoked in the past three (3) years?

Yes No

(6) Has the firm been cited for a willful violation of federal or state safety laws as determined by a final decision of a court or government agency in the past three (3) years?

Yes No

(7) Has the firm or its owners been convicted of any crime relating to the contracting business as determined by a final decision of a court or government agency in the past ten (10) years?

Yes No

(8) Has the firm, in the past three (3) years, been found by a final decision of a court or government agency in violation of any law applicable to its contracting business, including, but not limited to, licensing laws, tax laws, prompt payment laws, wage and hour laws, prevailing wage laws, environmental laws or others, where the result of such violation was the payment of a fine, back pay damages or any other type of penalty in the amount of \$1,000.00 or more?

Yes No

(9) Does the firm agree to pay all craft employees that it employs on the project the current wage rates and benefits as required under applicable federal or state wage laws for the duration of the referenced project?

Yes No

(10) Does the firm participate in a Class A Apprenticeship Program for each separate trade or classification in which it employs craft employees and agree to continue to participate in such program or programs for the duration of the referenced project?

(A) For purposes of this section, a "Class A Apprenticeship Program" is an apprenticeship program that is currently registered with and approved by the U.S. Department of Labor or a state apprenticeship agency and has graduated apprentices to journeyperson status for at least three (3) of the past five (5) years.

(B) If a firm is identified as the lowest responsible bidder or otherwise selected as the prospective awardee or as a subcontractor of an awardee, it shall provide appropriate documentation, as determined by the Central Purchasing Department, to verify it meets the requirements of this section for each trade or classification of craft workers it will employ on the project. This verification shall be provided prior to performance of work by the firm and the documentation shall clearly indicate which crafts the firm employs and which crafts are covered by the identified apprenticeship programs.

Yes    No  
   

(11) Does the firm have all other technical qualifications and resources, including equipment, personnel and financial resources, to perform the referenced contract, or agree that it will obtain same through the use of qualified, responsible subcontractors?

Yes    No  
   

(12) Does the firm agree to notify the Central Purchasing Department of any material changes to any matters attested to in this certification within seven (7) days?

Yes    No  
   

(13) Does the firm understand and agree that, if it is a general contractor, construction manager or other prime contract and it receives a Notice of Intent to Award Contract, it shall provide the Central Purchasing Department within seven (7) days a Subcontractor List that identifies any subcontractors it will use in connection with the project and furnish Contractor Responsibility Certifications for all identified subcontractors with all required supporting documentation.

Yes    No

(14) Does the firm understand and agree that this certification must be completed by an authorized representative of the firm that that sufficient knowledge and information to address all matter addressed herein.

Yes      No

In executing this Responsibility Certification, the submitting firm understands and agrees that if the Central Purchasing Department determines that this certification contains false or misleading material information that was provided knowingly or with reckless disregard for the truth or omits material information knowingly or with reckless disregard of the truth, the firm may be prohibited from performing work for the County of Delaware for a period of three (3) years. Such circumstances shall also subject the firm to any other penalties and sanctions, including contract termination, available to the County of Delaware under law. A contract terminated under these circumstances shall further entitle the County of Delaware to withhold payment of any monies due to the firm as damages.

I certify that the foregoing representations regarding the past performance and present qualifications of the undersigned firm are true and correct.

\_\_\_\_\_

Print and Sign Name

\_\_\_\_\_

Title

\_\_\_\_\_

Name of Firm

\_\_\_\_\_

Date

Subscribed and sworn to  
before me this \_\_\_\_ day  
of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
Notary Public  
My Commission Expires: \_\_\_\_\_

## EMPLOYEE BACKGROUND CHECK

- A. All contractors are advised that the County of Delaware requires employee background checks in accordance with Act 34 of 1985 Background Clearance Procedures 24 PS1-111, as amended (Act 114 of 2006, Act 70 of 2004, Act 48 of 2003, Act 153 of 2002, Act 30 of 1997, and Act 211 of 1990) 22 PA Code Chapter 8, as amended, Act 43 Public Works Employment Verification Act 43 PS-167.1-167.11, and Act 151 of 1997 (Child Abuse), as amended. Contractor shall include in his bid all costs associated with obtaining and maintaining currency of these clearance reports.
- B. Information of the PA State Criminal History can be obtained via the PA State Police website at <http://www.psp.state.pa.us/psp/cwp/view.asp? A=4&0=48275>.
- C. Information on the Federal (FBI) Criminal History Report (as of March 30, 2007) can be found at [www.pa.cogentid.com](http://www.pa.cogentid.com).
- D. Information on the Public Works Employment Verification Act can be obtained from the Department of General Services, Public Works Employment Verification Compliance Office, Room 105 Tent Building, Public Works Department, 18<sup>th</sup> & Herr Streets, Harrisburg, PA 17125.
- E. Child Abuse Reports Information can be obtained through the PA Department of Public Welfare at <http://www.dpw.state.pa.us/general/formspub/003671038.htm>.



ELECTRICAL CONSTRUCTION  
CONTRACT NO. eDPW-051922-2

PROPOSAL

\_\_\_\_\_, 2022

Delaware County Council  
Government Center Building  
2nd and Orange Streets  
Media, Pennsylvania 19063

Council Members:

**Item No. 1.** The undersigned hereby proposed for furnish all equipment, labor, tools and materials for the Electrical Prime Contract for **EMERGENCY SERVICES BUILDING ELECTRICAL SURVEY- PHASE 2**, at the following price:

**Amount Written** \_\_\_\_\_

**Dollar Amount (\$)** \_\_\_\_\_

If the required quantities of the following items are increased or decreased by Change Order, the adjustment unit price set forth below shall apply to such increased or decreased quantities.

It is understood that THE INSURANCE REQUIREMENTS ARE A CRITICAL PORTION OF THIS SPECIFICATION. THE REQUIREMENTS AS SET FORTH ON PAGES IR. 1 AND IR. 2 AND SECURITY REQUIREMENTS AS SET FORTH ON PAGE GC-20, MUST BE COMPLETELY SATISFIED.

IT IS UNDERSTOOD THAT NO EXCEPTIONS WILL BE MADE.

IT IS UNDERSTOOD THAT NO EXCLSIONS OR EXCEPTIONS SHALL BE ALLOWED TO BE ATTACHED TO THIS PROPOSAL.

It is further understood that upon notice to furnish the County with the necessary Contract and Bonds, we will execute the attached Form of Contract and Bonds with the County of Delaware within twenty (20) days after receipt of such notice.

It is understood that the County Council reserves the right to reject any and all bids and that if the Successful Bidder fails to execute the attached Contract and Bond within twenty (20) calendar days after receiving notice from the County to do so, the County Council shall be free to notify the next lowest, responsible bidder. It is understood that if the Successful Bidder shall fail to execute a Contract as set forth in these General Conditions, deposit will be forfeited as

liquidated damages. Award will be based on bids for the Base Bid(s) or a combination of Base Bid(s) and Alternates.

It is understood that this Bid may not be withdrawn for a period of sixty (60) days after the opening thereof.

It is understood that we will commence work within five (5) days after execution of Contract and shall complete work in accordance with the schedule given in the Special Conditions. Liquidated damages (if any) shall be assessed as defined in the Special Conditions for all days past this limit. It is understood that the County may, on its own decision or initiate, extend the completion date by giving notice of all parties to this Contract of its intention to extend.

Owner shall not be liable for any expenses, damages, loss of profits, anticipated or otherwise.

It is understood that if our Bonding Company is not a Pennsylvania Company, the Performance Bond must be countersigned by a Pennsylvania Resident Agent, with Power of Attorney so to do.

The undersigned acknowledges receipt of the following Addenda or Bulletins and that he has prepared this bid accordingly:

Addendum

Dated

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Insert the number of all addenda received. In none were received, insert the word "None".

It is understood that each bidder prepare and present satisfactory evidence of this experience, qualification, and financial abilities to carry out the terms of the Contract. Also, Prime Contractor shall prepare and present satisfactory evidence of his qualification and references related to the work.

It is understood that the Proposal Page must have two (2) signatures, and if the firm is a corporation, the corporate seal must also be affixed when submitting bid.

Material Safety Data Sheets (MSDS) must be submitted for respective products before award, in compliance with the Federal Hazard Communication Standard Act (29 CFR 1910, 1200) and various State Right-to-Know laws, as applicable.

Our signature on this proposal Page signifies that we have read and agree to comply with all parts of the Invitation, Proposal, General Conditions, Special Conditions and Specifications of this Bid and will carry out all the conditions of the above.

***The undersigned hereby certifies that this proposal is genuine and not a sham or collusive, or made in the interest or in behalf of any person, firm or corporation not herein named, and that the undersigned has not, directly or indirectly, induced or solicited any other bidder to submit a sham bid or any other person, firm or corporation to refrain from bidding, and the undersigned has not in any manner sought by collusion to secure for himself an advantage over any other bidder.***

Respectfully submitted,

Name of Bidder

Title

ATTEST:

Secretary or Assistant Secretary

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---

Address of Bidder

NOTES:

If the Bidder is a partnership, the names of all members of the firm, as well as the trading name, shall be set forth. If the Bidder is a corporation, the Bid must be executed by the President or Vice-President, and attested by the Secretary or Assistant Secretary of the corporation, with the corporate seal applied. No other names will be accepted unless accompanied by the proper certification from the corporation permitting other than the President or Vice-President and Secretary to sign contracts. If the business is operated by a sole Owner, only his signature is required, and it should be noted under signature that he is the sole Owner.

**ELECTRICAL CONSTRUCTION PROPOSAL  
LIST OF REQUIRED BID DOCUMENTS  
EMERGENCY SERVICES BUILDING ELECTRICAL SURVEY- PHASE 2  
AT THE  
EMERGENCY SERVICES BUILDING  
LIMA, PA  
FOR THE COUNTY OF DELAWARE**

The following documents shall be included with a Bidders Construction Proposal. Failure to submit all documents indicated below may be cause for rejection of the Bidder's Proposal.

**DOCUMENT**

- |                                                                                                                                                                                                                                    | <b><u>X</u></b>          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 1. Form of Proposal (One original and one copy of original). Copy attached.<br>No exclusions or exceptions shall be allowed attached to this proposal. If so, the Proposal shall be immediately rejected and deemed null and void. | <input type="checkbox"/> |
| 2. Bid Bond or Certified Check (10% of Bid Amount).                                                                                                                                                                                | <input type="checkbox"/> |
| 3. Contractor Responsibility Certification (page 1 thru page 4). Copy attached.                                                                                                                                                    | <input type="checkbox"/> |
| 4. Written statement describing the Apprentice Training Program and Affirmative Action Program.                                                                                                                                    | <input type="checkbox"/> |
| 5. Contractor's Qualification Statement (AIA Document A305). Copy attached.                                                                                                                                                        | <input type="checkbox"/> |
| 6. Identification in writing of the Bidders Insurance Carrier & Bonding Company.<br>Failure to supply this information will result in automatic disqualification.                                                                  | <input type="checkbox"/> |
| 7. Public Works Employment Verification Form.                                                                                                                                                                                      | <input type="checkbox"/> |



# AIA<sup>®</sup> Document A305<sup>™</sup> – 1986

## Contractor's Qualification Statement

The Undersigned certifies under oath that the information provided herein is true and sufficiently complete so as not to be misleading.

SUBMITTED TO:

ADDRESS:

SUBMITTED BY:

NAME:

ADDRESS:

PRINCIPAL OFFICE:

- Corporation
- Partnership
- Individual
- Joint Venture
- Other

NAME OF PROJECT: *(If applicable)*

TYPE OF WORK: *(File a separate form for each Classification of Work.)*

- General Construction
- HVAC
- Electrical
- Plumbing
- Other: *(Specify)*

This form is approved and recommended by the American Institute of Architects (AIA) and The Associated General Contractors of America (AGC) for use in evaluating the qualifications of contractors. No endorsement of the submitting party or verification of the information is made by AIA or AGC.

### § 1.0 ORGANIZATION

§ 1.1 How many years has your organization been in business as a Contractor?

§ 1.2 How many years has your organization been in business under its present business name?

§ 1.2.1 Under what other or former names has your organization operated?

§ 1.3 If your organization is a corporation, answer the following:

§ 1.3.1 Date of incorporation:

§ 1.3.2 State of incorporation:

§ 1.3.3 President's name:

§ 1.3.4 Vice-president's name(s):

§ 1.3.5 Secretary's name:

§ 1.3.6 Treasurer's name:

§ 1.4 If your organization is a partnership, answer the following:

§ 1.4.1 Date of organization:

§ 1.4.2 Type of partnership, if applicable:

§ 1.4.3 Name(s) of general partner(s):

§ 1.5 If your organization is individually owned, answer the following:

§ 1.5.1 Date of organization:

§ 1.5.2 Name of owner:

§ 1.6 If the form of your organization is other than those listed above, describe it and name the principals:

**§ 2.0 LICENSING**

§ 2.1 List jurisdictions and trade categories in which your organization is legally qualified to do business, and indicate registration or license numbers, if applicable.

§ 2.2 List jurisdictions in which your organization's partnership or trade name is filed.

**§ 3.0 EXPERIENCE**

§ 3.1 List the categories of work that your organization normally performs with its own forces.

**§ 3.2 Claims and Suits**

*(If the answer to any of the questions below is yes, attach details.)*

§ 3.2.1 Has your organization ever failed to complete any work awarded to it?

§ 3.2.2 Are there any judgments, claims, arbitration proceedings or suits pending or outstanding against your organization or its officers?

§ 3.2.3 Has your organization filed any law suits or requested arbitration with regard to construction contracts within the last five years?

§ 3.3 Within the last five years, has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a construction contract?

*(If the answer is yes, attach details.)*

§ 3.4 On a separate sheet, list major construction projects your organization has in progress, giving the name of project, owner, architect, contract amount, percent complete and scheduled completion date.

§ 3.4.1 State total worth of work in progress and under contract:

**§ 3.5** On a separate sheet, list the major projects your organization has completed in the past five years, giving the name of project, owner, architect, contract amount, date of completion and percentage of the cost of the work performed with your own forces.

**§ 3.5.1** State average annual amount of construction work performed during the past five years:

**§ 3.6** On a separate sheet, list the construction experience and present commitments of the key individuals of your organization.

**§ 4.0 REFERENCES**

**§ 4.1** Trade references:

**§ 4.2** Bank references:

**§ 4.3 Surety**

**§ 4.3.1** Name of bonding company:

**§ 4.3.2** Name and address of agent:

**§ 5.0 FINANCING**

**§ 5.1 Financial Statement**

**§ 5.1.1** Attach a financial statement, preferably audited, including your organization's latest balance sheet and income statement showing the following items:

- .1 Current Assets (e.g., cash, joint venture accounts, accounts receivable, notes receivable, accrued income, deposits, materials inventory and prepaid expenses);
- .2 Net Fixed Assets;
- .3 Other Assets;
- .4 Current Liabilities (e.g., accounts payable, notes payable, accrued expenses, provision for income taxes, advances, accrued salaries and accrued payroll taxes); and
- .5 Other Liabilities (e.g., capital, capital stock, authorized and outstanding shares par values, earned surplus and retained earnings).



§ 5.1.2 Name and address of firm preparing attached financial statement, and date thereof:

§ 5.1.3 Is the attached financial statement for the identical organization named on page one?

§ 5.1.4 If not, explain the relationship and financial responsibility of the organization whose financial statement is provided (e.g., parent-subsiary).

§ 5.2 Will the organization whose financial statement is attached act as guarantor of the contract for construction?

**§ 6.0 SIGNATURE**

§ 6.1 Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

Name of organization:

By:

Title:

**§ 6.2**

M \_\_\_\_\_ being  
duly sworn deposes and says that the information provided herein is true and sufficiently complete so as not to be  
misleading.

Subscribed and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

Notary Public:

My commission expires:

**CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.**

FORM OF CONTRACT

Articles of Agreement made this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_ between \_\_\_\_\_  
\_\_\_\_\_ (hereinafter called Contractor) and the  
County of Delaware (hereinafter called County).

WITNESSETH:

That the Contractor covenants, promises and agrees to and with the County to \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

for the price or sum of \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

as per its annexed Bid, and to in all respects comply with the terms and conditions of the Annexed  
Proposal, Invitation to Bidders, General Conditions, Specifications and Drawings and the County  
covenants, promises and agrees to and with the Contractor to pay it in the price of \_\_\_\_\_  
\_\_\_\_\_

for \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

It is further mutually agreed by said parties, in consideration of their aforesaid mutual covenants, that  
the annexed Invitation to Bidders, Proposal, General Conditions and Specifications annexed thereto  
constitute and are a part of the Contract as though fully set forth therein.

In Witness Whereof, the Contractor and the County have hereunto caused their common of corporate  
Seals to be affixed hereto duly attested by their proper Officers the day and year aforesaid.

Attest: \_\_\_\_\_  
Secretary or Assistant Secretary \_\_\_\_\_  
\_\_\_\_\_

COUNTY OF DELAWARE

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Attest: \_\_\_\_\_  
County Clerk

Date: \_\_\_\_\_

PERFORMANCE BOND

Know all Persons by These Presents, that \_\_\_\_\_

\_\_\_\_\_ (PRINCIPAL) and \_\_\_\_\_ (SURETY)

and held and firmly bound unto the County of Delaware in the Commonwealth of Pennsylvania (hereinafter called County) in the sum of:

\_\_\_\_\_ lawful money of the United States of America, to which payment well and truly to be made, we do hereby jointly and severally bind and oblige ourselves and our respective successors and assignees firmly by these presents:

Sealed with our Seals this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

Whereas, the above bounden Principal has entered into a written Contract with the County to

\_\_\_\_\_

for the prices set forth in said Proposal, which said Contract, is by reference made a part thereof.

Now the Condition of this obligation is such that if the above bounden Principal shall well and truly perform said Contract and fully and faithfully carry out and complete the same in all respects then this obligation shall be void and of no effect, otherwise, to continue in full force and virtue.

AND FURTHER, we do in the event of default, hereby authorize and empower any attorney of the Court of Common Pleas of the County of Delaware, Pennsylvania, or any other Court of record elsewhere, or any Prothonary or Clerk of said Courts, to appear for us, our heirs, executors, administrators, successors or assigns, at the suit of the County of Delaware, its successors, or assigns obligee in the above obligations as of any term, after the date thereof, or hereof, and thereupon to confess judgement against us or against our heirs, executors, administrators, successors or assigns for the above sum of \_\_\_\_\_ Dollars(\$ \_\_\_\_\_) debt, besides the cost of suit and any attorney's fee of ten percent (10%) without stay of execution and inquisition upon any levy upon real estate is hereby waived, and condemnation agreed to and the exemption of personal property from levy and sale on any execution under and by virtue of any exemption law now in force, or which may be hereafter passed, is also waived.

In Witness Whereof, the Principal and the Surety have hereunto caused their common or Corporate Seals to be affixed hereto duly attested by their Officers, the day and year aforesaid.

Attest: \_\_\_\_\_  
Secretary or Assistant Secretary

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
(Principal)

Sealed and delivered in the presence of: \_\_\_\_\_

\_\_\_\_\_  
(Surety)

LABOR AND MATERIALS BOND

Know all Persons by These Presents that \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (Principal)  
\_\_\_\_\_ (Surety)

and held and firmly bound unto the County of Delaware in the Commonwealth of Pennsylvania, (hereinafter call County), in the sum of \_\_\_\_\_ lawful money of the United States of America, to which payment well and truly to be made, we do hereby jointly and severally bind and oblige ourselves, and our respective successors and assigns firmly by these presents.

Sealed with our Seals this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

Whereas, the bounden Principal has entered into a written Contract with the County to \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

for the price or sum of \_\_\_\_\_ which Contract by reference is made a part hereof:

Now, therefore, the condition of this obligation is such that if the above bounden Principal shall and will promptly pay or cause to be paid all sums of money which may be due any person, co-partnership, association or corporation for all materials furnished and labor supplied or performed in the prosecution of the work whether or not the same material or labor enter into and become component parts of the work or improvement contemplated, then this obligation to be void and of no effect, otherwise, to continue in full force and virtue.

The Principal and Surety further and severally agree with the Obligee herein that every person, co-partnership, association or corporation who whether as subcontractor or otherwise, has furnished material or supplied or performed labor in the prosecution of the work as above mentioned and who has not been paid therefore, may sue in assumpsit on this bond in the name of the County of Delaware, Obligee for his, their or its use, prosecute the same to final judgement for each sum or sums as may be justly due him, them or it, and have execution thereon, provided, however, that Obligee shall not be liable for the payment of any costs or expense of any such suit.

Recovery by any person, co-partnership, association or corporation hereunder shall be subject to the provisions of the Act of the General Assembly No. 869 approved December 20, 1967, to the same extent as if said Provisions were fully incorporated in this Bond.

It is further agreed that any alterations which may be made in terms of the Contractor in the work to be done or materials to be furnished or labor to be supplied or performed under it or the giving of the Obligee or the Principal and the Surety or Sureties or either or any of them, their prospective successors and assigns, from their liability hereunder, notice to the Surety or Sureties of any such alteration, extension or forbearance being hereby waived.

LABOR AND MATERIALS BOND

In Witness Whereof, the Principal and the Surety have hereunto caused their Common Corporate Seals to be affixed hereto duly attested by their proper Officers the day and year aforesaid.

Attest: \_\_\_\_\_  
Secretary or Assistant Secretary

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
(Principal)

Sealed and delivered in the presence of:  
\_\_\_\_\_

\_\_\_\_\_  
(Surety)

MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

THAT WE \_\_\_\_\_  
(Name of Contractor with Address)

OR WE \_\_\_\_\_  
(Name of Partnership with Address)

(or if a corporation with address and state in which incorporated) (hereinafter called the  
"Principal"), as Principal, and

\_\_\_\_\_  
(Name of Surety with Address)

a corporation of the State of \_\_\_\_\_ with offices in the Commonwealth of Pennsylvania and licensed to do business in the Commonwealth of Pennsylvania (hereinafter call "Surety"), as Surety are held and firmly bound unto the County of Delaware in said Commonwealth (hereinafter called "Owner"), in the full and just sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) lawful money of the United States of America, to be paid to the said Principal and Surety bind themselves and their respective heirs, administrators, executors, successors and assigns, jointly and severally firmly by these presents.

Signed, sealed and dated this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

WHEREAS, the Principal has entered into a certain contract with the Owner dated \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ to furnish:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

in said County and Commonwealth, in strict conformance with the Specifications, a copy of which is or may be hereto attached.

NOW THE CONDITION OF THIS OBLIGATION IS SUCH, That if the said Principal shall remedy, without cost to the said Owner, any defect which may develop during the period of one (1) year from the date of completion, and acceptance of the work performed under said Contract, provided such defects, in the judgment of said Owner, are caused by defective or inferior materials or workmanship, then this obligation shall be null and void, otherwise remain in full force and virtue. AND FURTHER, we do in the event of default, hereby authorize and empower any attorney of the Court of Common Pleas of the County of Delaware, Pennsylvania, or any other Court or record elsewhere, or any Prothonotary or Clerk of Said Courts, to appear for us, our heirs, executors, administrators, successors or assigns, at the suit of the Owner, its successors, or assigns obligee in the above obligations as of any term, after the date thereof or hereof and thereupon to confess judgement against us of against our heirs, executors, administrators, successors or assigns for the above sum of:

MAINTENANCE BOND

Dollars (\$ \_\_\_\_\_) debt, besides the cost of suit and an attorney's fee of ten percent (10%) without stay of execution and inquisition upon any levy upon real estate is hereby waived, and condemnation agreed to and the exemption of personal property from levy and sale on any execution under and by virtue of any exemption law now in force, or which may be hereafter be passed, is also waived.

Attest: \_\_\_\_\_

\_\_\_\_\_

Secretary o

\_\_\_\_\_  
(Principal)

Sealed and delivered in the presence of:

\_\_\_\_\_

\_\_\_\_\_  
(Surety)

DELAWARE COUNTY

STATEMENT OF SURETY COMPANY

\_\_\_\_\_ Contract No.

In accordance with the provisions of the Contract dated \_\_\_\_\_ between the  
County of Delaware, Delaware County, Pennsylvania, and

\_\_\_\_\_

The \_\_\_\_\_ company of \_\_\_\_\_  
\_\_\_\_\_ Surety on the Bonds of \_\_\_\_\_

\_\_\_\_\_ after a careful examination of the books and records of said  
Contractor or after receipt of an Affidavit from Contractor, which examination or Affidavit  
satisfies this Company that all claims for labor and materials have been satisfactorily settled,  
hereby approve the final payment of the said \_\_\_\_\_

Contractor and by these presents witnesseth that payment to the Contractor of the final payment  
shall not relieve the Surety Company of any of its obligations to the County of Delaware,  
Delaware County, Pennsylvania, as set forth in the said Surety Company's Bonds.

IN WITNESS WHEREOF, the said Surety Company has hereunto set its hand and seal this  
\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_

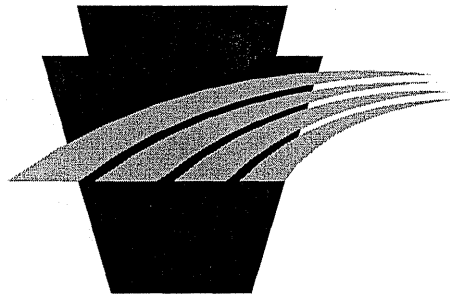
Attest:

(SEAL) \_\_\_\_\_ BY \_\_\_\_\_  
President

NOTE: This statement, if executed by any person other than the President of the Company, must  
be accompanied by a certificate of even date showing authority conferred upon the  
person so signing to execute such instruments on behalf of the company represented.  
This statement must be executed and submitted to the Engineer by the Bonding  
Company before final payment can be certified.



# THE APPRENTICESHIP AND TRAINING ACT



DEPARTMENT OF  
**LABOR & INDUSTRY**  
COMMONWEALTH OF PENNSYLVANIA

BUREAU OF LABOR LAW COMPLIANCE

**"THE APPRENTICESHIP AND TRAINING ACT"**  
**Act of 1961, P.L. 604, No. 304**

**AN ACT**

Relating to apprenticeship and training; creating a State Apprenticeship and Training Council in the Department of Labor and Industry to formulate an apprenticeship and training policy and program, and defining its powers and duties and providing for administration.

The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

**Section 1. Declaration of Policy.**

It is declared to be the policy of this act,

(1) to encourage the development of an apprenticeship and training system through the voluntary cooperation of management and labor and interested State agencies and in cooperation with other states and the Federal Government;

(2) to provide for the establishment and furtherance of standards of apprenticeship and training to safeguard the welfare of apprentices and trainees;

(3) to aid in providing maximum opportunities for unemployed and employed persons to improve and modernize their work skills; and

(4) to contribute to a healthy economy by aiding in the development and maintenance of a skilled labor force sufficient in numbers and quality to meet the expanding needs of Pennsylvania industry and to attract new industry.

**Section 2. Short Title.**

This act shall be known and may be cited as "The Apprenticeship and Training Act."

**Section 3. State Apprenticeship and Training Council.**

There is hereby created a State Apprenticeship and Training Council (hereinafter called "The Council") as a departmental agency in the Department of Labor and Industry to be composed of eleven members who shall be appointed by the Governor. Four members shall be representatives of employes and four members shall be representatives of employers and three members shall be representatives of the general public. Members of the council, other than the ex-officio members, shall be appointed for a term of four years and until their successors are appointed, except that two of the original members shall be appointed for a term of one year, two for a term of two years, and two for a term of three years, and two for a term of four years. Members of the council shall be eligible for reappointment. In case of a vacancy, the Governor shall make an appointment for the unexpired term. A Deputy Secretary of the Department of Labor and Industry, the Director of the State Employment Service of the Bureau of Employment Security of the Department of Labor and Industry, the Executive Director of the Advisory Board on Problems of Older Workers of the Department of Labor and Industry, and the Coordinator of Industrial Education of the Department of Public Instruction, and Chief of the Bureau of Rehabilitation of the Department of Labor and Industry, shall be ex-officio members of the council but shall not be entitled to vote, except that in the event of a tie vote, the Deputy Secretary of Labor and Industry shall have the right to cast the tie-breaking vote. The council shall organize immediately upon its appointment, and annually thereafter, by the election of one of its members as chairman and another as vice-chairman, one of whom shall be a representative of employes and the other a representative of employers. Each member of the State Apprenticeship and Training Council, except ex-officio members, shall receive actual traveling expenses and per diem compensation at the rate of twenty-five dollars (\$25) per day for the time actually devoted to the business of the council.

#### **Section 4. Powers and Duties.**

(a) The council shall

(1) establish standards for apprenticeship in conformity with the provisions of this act and applicable statutes and regulations of the Federal Government;

(2) adopt such rules and regulations, subject only to the approval of the Secretary of Labor and Industry, as may be necessary to carry out the intent and purpose of this act;

(3) compile such data on population and employment trends, industrial production, vocational and industrial education and job requirements as may be deemed necessary to carry out the intent and purpose of this act;

(4) to terminate or cancel any apprenticeship agreements in accordance with the provisions of such agreements or order modifications of such agreements;

(5) maintain close liaison with Bureau of Apprenticeship and Training, the United States Department of Labor, the State Board of Vocational Education, the Department of Public Instruction, the Department of Commerce, Bureau of Rehabilitation of the Department of Labor and Industry, and Juvenile Forestry Camps under the Department of Public Welfare, and such other agencies which carry on programs closely related to the purposes of this act;

(6) conduct studies, surveys and investigations of the special problems of retraining or training unemployed or employed persons to improve or modernize work skills and make appropriate recommendations to cooperating agencies described above, local community organizations, local school boards and the Secretary of Labor and Industry;

(7) act as a convening agency in local communities to bring together local representatives of employees, employers, educational agencies and industrial development agencies in order to promote closer local cooperation in establishing better apprenticeship and other training programs including programs for employed persons who wish to improve and modernize their work skills;

(8) use appropriate media of information and education to acquaint employers, employees and the public at large with the advantages and availability of apprenticeship and other occupational training programs;

(9) study the effectiveness of apprenticeship agreements and make recommendations in accordance with the provisions of such agreements for their improvement; and

(10) perform such other duties as may be necessary to give full effect to the provisions of this act.

(b) The council shall make a report to the Secretary of the Department of Labor and Industry, on or before February fifteenth, each year, indicating the extent of apprenticeship and other occupational training programs during the previous year, trends in employment requiring adjustments in apprenticeship training and other occupational programs, needs for expansion of apprenticeship and other occupational training programs, activities of the council and such recommendations as are in accord with the purposes of this act.

(c) No action affecting the status of an agreement shall be taken by the council until an attempt has been made to bring the employees and employer together to settle the problem in conformity with the standards of the council.

Compiler's Note: The Department of Commerce, referred to in subsec. (a), was renamed the Department of Community and Economic Development by Act 58 of 1996.

## **Section 5. Meetings.**

Meetings of the council shall be held monthly and as often as is necessary in the opinion of the majority of the council. The chairman shall designate the time and place of the meetings and the secretary shall notify all council members at least one week in advance of each meeting. A majority of the voting membership of the council shall constitute a quorum if at least one representative from both the employe and employer groups is present.

## **Section 6. Administration.**

The Secretary of the Department of Labor and Industry shall appoint a Director of Apprenticeship and Training who shall be responsible to the Secretary of Labor and Industry in carrying out the provisions of this act and who shall serve as ex-officio secretary of the council. The Secretary of the Department of Labor and Industry is authorized to appoint or make available to the Director of Apprenticeship and Training such clerical, technical and professional services necessary to the performance of his duties.

## **Section 7. Director Duties.**

The Director of Apprenticeship and Training shall carry out the purposes of this act. His duties shall include, but shall not be limited to,

- (1) encouragement and promotion of the standards established in accordance with this act and with the basic standards of the Federal Committee on Apprenticeship;
- (2) bringing about the settlement of differences arising out of apprenticeship agreements when the differences cannot be adjusted locally or in accordance with established trade procedure;
- (3) supervision of the execution of agreements and maintenance of standards;
- (4) registration of apprenticeship agreements as the council shall authorize as conforming to the established standards;
- (5) keeping a record of apprenticeship agreements and, upon performance thereof, issuing certificates of completion of apprenticeship;
- (6) execution of the actions of the council in all of its powers and duties under section 4 of this act;
- (7) encouragement of liaison and cooperation between all private, State and Federal agencies concerned with apprenticeship, trade and industrial training;
- (8) promotion of employe, employer and public awareness of apprenticeship and other occupational training; and
- (9) keeping a record of the progress of apprenticeship and training programs initiated in accordance with the provisions of this act and informing the council periodically as to the results.

## **Section 8. Limitation.**

The provisions of this act shall apply only to persons, copartnerships, associations, corporations and political subdivisions, and employer associations or organizations or associations of employes as voluntarily elect to conform with its provisions.

## **Section 9. General Repeal.**

All acts or parts of acts inconsistent herewith are hereby repealed.

**Section 10.** This act shall become effective June 1, 1961.

# STATEMENTS OF POLICY

## DEPARTMENT OF GENERAL SERVICES

[ 4 PA. CODE CH. 66 ]

### Guidelines for Administering and Enforcing the Public Works Employment Verification Act

[42 Pa.B. 7821]

[Saturday, December 29, 2012]

The Department of General Services (Department) adopts a statement of policy in Chapter 66 (relating to employment verification—statement of policy) to read as set forth in Annex A. Chapter 66 implements the Public Works Employment Verification Act (act) (43 P. S. §§ 167.1—167.11).

Chapter 66 establishes guidelines for administering and enforcing the act, which requires public works contractors and subcontractors performing work on public works projects in this Commonwealth to comply with the Federal E-Verify program to ensure employees are authorized to work in the United States. The E-Verify program is a free Internet-based program operated by the United States Department of Homeland Security that compares information from an employee's Form I-9, Employment Eligibility Verification, to data from the United States Department of Homeland Security and Social Security Administration records to confirm employment eligibility. The purpose of this statement of policy is to establish guidelines for administering and enforcing the act.

#### *Fiscal Impact*

Civil penalties collected in the enforcement of the act will be retained by the Department to offset the costs of administering the Pennsylvania Public Works Employment Verification Program.

#### *Effective Date*

This statement of policy is effective January 1, 2013.

#### *Contact Person*

Specific questions regarding this statement of policy should be directed to the Department of General Services, Public Works Employment Verification Compliance Office, Room 105 Tent Building, Public Works Deputate, 18th and Herr Streets, Harrisburg, PA 17125.

SHERI PHILLIPS,  
Secretary

*(Editor's Note: Title 4 of the Pennsylvania Code is amended by adding statements of policy in §§ 66.1—66.9 to read as set forth in Annex A.)*

**Fiscal Note:** 8-17. This action will not result in a loss of revenue to the Commonwealth or its political subdivisions. This program may increase program costs for the administration and enforcement; however, such costs will be offset by any civil penalties collected through the enforcement of the act.

## **Annex A**

### **TITLE 4. ADMINISTRATION**

#### **PART III. DEPARTMENT OF GENERAL SERVICES**

##### **Subpart C. CONSTRUCTION AND PROCUREMENT**

#### **ARTICLE II. CONSTRUCTION**

### **CHAPTER 66. EMPLOYMENT VERIFICATION—STATEMENT OF POLICY**

Sec.

- 66.1. Background and purpose.
- 66.2. Scope of work subject to the act.
- 66.3. Definitions.
- 66.4. General requirements for public works contractors and subcontractors.
- 66.5. Specific requirements for public works contractors.
- 66.6. Specific requirements for public works subcontractors.
- 66.7. Public Works Employment Verification Form.
- 66.8. Violations.
- 66.9. Enforcement.

#### **§ 66.1. Background and purpose.**

(a) To prevent unauthorized employment, the Federal government created the EVP system to ensure that companies employ a legal workforce. The EVP system is an Internet-based system operated by the United States Department of Homeland Security that compares information from an employee's Form I-9, Employment Eligibility Verification, to data from United States Department of Homeland Security and Social Security Administration records to confirm employment eligibility.

(b) The purpose of this chapter is to set forth the Department's policy guidelines for the scope, administration and enforcement of the act.

(c) The Department is responsible to implement the Commonwealth's process of notification, investigation and compliance with the act. Contractors and subcontractors performing work on a public works project shall comply with the act as set forth in this chapter by utilizing the EVP.

### **§ 66.2. Scope of work subject to the act.**

(a) The act applies to public works contractors and subcontractors performing on a public works contract paid for in whole or in part out of the funds of a public body when the cost of the total project is in excess of \$25,000.

(b) The cost of the total project must include the sum of prime contracts to be issued by the public body for the project.

(c) To the extent the cost of the total project is in excess of \$25,000, contracts and subcontracts, regardless of value, shall comply with the act.

(d) The act does not apply to work performed under a manpower or rehabilitation training program.

### **§ 66.3. Definitions.**

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

*Act*—The Public Works Employment Verification Act (43 P. S. §§ 167.1—167.11).

*Contract*—A type of written agreement, regardless of what it may be called, for the procurement of construction work.

*Department*—The Department of General Services of the Commonwealth.

*EVP—E-Verify program*—The program operated by the United States Department of Homeland Security that electronically verifies employment eligibility.

*Employee*—An individual hired by a public works contractor or a subcontractor after January 1, 2013, for whom a public works contractor or subcontractor is required by law to file a Form W-2 with the Internal Revenue Service.

*Form*—Public Works Employment Verification Form.

*Maintenance work*—Annual inspection or routine upkeep of an existing facility which does not alter the use or size of the facility.

*Public body*—The Commonwealth of Pennsylvania, its political subdivisions, authorities created by the General Assembly of the Commonwealth and instrumentalities or agencies of the Commonwealth.

*Public works*—

(i) The construction, reconstruction, demolition, alteration or repair work other than maintenance work done under contract and paid for in whole or in part out of the funds of a public body when the estimated cost of the total project is in excess of \$25,000.

(ii) The term does not include work performed under a manpower or rehabilitation training program.

*Public works contractor*—A contractor that provides work under a contract involving public works.

*Secretary*—The Secretary of the Department.

*Subcontractor*—

(i) A person, other than a natural person, including a staffing agency, that performs work for a public works contractor under a contract for public works.

(ii) The term includes subcontractors of every level, that is, sub-subcontractors, sub-sub-subcontractors, and the like.

(iii) The term does not include persons that supply materials for a project.

*Willful*—An action or conduct undertaken intentionally or with reckless disregard for or deliberate ignorance of the requirements and obligations established under the act.

#### **§ 66.4. General requirements for public works contractors and subcontractors.**

(a) Public works contractors and every subcontractor performing work under a public works contract shall utilize the EVP system to verify the employment eligibility of each new employee hired after January 1, 2013.

(b) Public works contractors and every subcontractor performing work under a public works contract shall submit the Form to the contracting public body to ensure compliance with the act.

(c) In addition to the Form, public works contractors and every subcontractor shall maintain documentation of continued compliance with the act by utilizing the EVP for new employees hired throughout the duration of the public work contract.

#### **§ 66.5. Specific requirements for public works contractors.**

(a) As a precondition to the award of a contract for public work, a public works contractor shall submit a completed Form to the public body that is bidding and awarding the public work contract. With respect to a contract that has been awarded but has not been fully executed as of January 1, 2013, a public works contractor is required to submit a completed Form to the contracting public body prior to contract execution. During a public works contract, a new employee hired by a public works contractor, regardless of whether he will be working onsite or offsite of a public work or otherwise, shall be verified within 5 business days of his start date.



(b) Subcontracts between a public works contractor and its subcontractors are required to contain notification of the applicability of the act, information regarding the use of EVP and reference to the Department's web site at [www.dgs.state.pa.us](http://www.dgs.state.pa.us) to obtain a copy of the Form.

(c) A public works contractor shall cooperate with the Department during an investigation or audit arising under the act.

#### **§ 66.6. Specific requirements for public works subcontractors.**

(a) Prior to beginning either onsite or offsite work on a public works project when the public works contractor's contract was executed after January 1, 2013, every subcontractor shall submit a completed Form to the contracting public body. During a public works contract, a new employee hired by a public works subcontractor, regardless of whether he will be working onsite or offsite of a public work or otherwise, shall be verified within 5 business days of his start date.

(b) Subcontracts between a subcontractor and its subcontractors are required to contain notification of the applicability of the act, information regarding the use of EVP and reference to the Department's web site at [www.dgs.state.pa.us](http://www.dgs.state.pa.us) to obtain a copy of the Form.

(c) A subcontractor shall cooperate with the Department during an investigation or audit arising under the act.

#### **§ 66.7. Public Works Employment Verification Form.**

(a) The Form for use by public bodies, public works contractors and subcontractors is posted on the Department's web site at [www.dgs.state.pa.us](http://www.dgs.state.pa.us). The Form may not be changed or altered.

(b) The Form shall be signed by an authorized representative of the public works contractor or subcontractor. The representative shall have sufficient knowledge to make the representations and certifications in the Form.

(c) The Department may require the public works contractor or subcontractor to provide supporting documentation that the representative signing the Form had authority to legally bind the public works contractor or subcontractor.

(d) The submitted Forms shall be retained by the public body for the duration of the public work contract.

#### **§ 66.8. Violations.**

A public works contractor or subcontractor violates the act if it does either of the following:

(1) Fails to verify the employment eligibility of a new employee hired after January 1, 2013, through EVP in accordance with the act and this chapter.

(2) Makes a false statement or misrepresentation in connection with the completion or submission of the Form to a public body.

## § 66.9. Enforcement.

The Department will enforce the act through investigations, audits, sanctions and civil penalties in accordance with the following guidelines.

(1) *Investigations of complaints.* The Department will accept, review and investigate timely and credible complaints filed on the Complaint Form posted on the Department's web site.

(i) A complaint must contain sufficient information to enable the Department to investigate the allegation. The Department reserves the right to reject complaints that do not provide sufficient information. The Department will consider the timeliness of the complaint in assessing its credibility.

(ii) Public bodies, public works contractors and subcontractors shall cooperate with the Department during the investigation of a complaint.

(2) *Audits.* The Department will conduct complaint-based and random audits of public works contractors and subcontractors performing a public works contract for a public body in this Commonwealth. The Department reserves the right to determine the time, place and nature of audits.

(i) Public bodies, public works contractors and subcontractors shall cooperate with the Department during an audit.

(ii) Upon an audit, the Department may request, and the public works contractors and subcontractors shall provide, the following:

(A) Documentation of the date of hire of all employees.

(B) Documentation of compliance with the act through the utilization of EVP.

(C) Other information required by the Department to ensure compliance with the act and utilization of EVP.

(3) *Sanctions.*

(i) If the Department's investigation determines that a public works contractor or subcontractor failed to verify an employee through the use of EVP in accordance with the act and this chapter, the Department will issue sanctions as follows:

(A) *First violation.* The Department will issue a warning letter to the public works contractor or subcontractor detailing the violation. This letter will be posted on the Department's E-Verify web site at [www.dgs.state.pa.us](http://www.dgs.state.pa.us). A violation by a public works contractor or subcontractor that occurs 10 years or more after a prior violation will be deemed to be a first violation for purposes of sanctions.

(B) *Second violation.* The Department will initiate debarment proceedings against the public works contractor or subcontractor. Once final, these proceedings will prevent a public works contractor or subcontractor from submitting a bid or being awarded a contract

or subcontract on a public works contract in this Commonwealth for 30 calendar days from the date of debarment.

(C) *Third and subsequent violations.* The Department will initiate debarment proceedings against the public works contractor or subcontractor. Once final, these proceedings will prevent a public work contractor or a subcontractor from submitting a bid or being awarded a contract or subcontract on a public works contract in this Commonwealth for not less than 180 days and not more than 1 year from the date of debarment.

(ii) *Willful violation.* If the Department investigates and forms a reasonable belief that there has been a willful violation of the act, the Secretary will file a petition in Commonwealth Court seeking the Court to issue a rule to show cause why a public works contractor or subcontractor did not engage in a willful violation of the act. If the Court finds that there was a willful violation, the Department will petition to have the public works contractor or subcontractor debarred from public work contracts for 3 years from the date of the Court's determination.

(4) *Civil penalties.* If the Secretary or a designee makes a written determination that the violation is for failing to submit a complete Form or making a false statement or misrepresentation in the Form, the Department will assess a civil penalty of not less than \$250 and not more than \$1,000 for each violation. The amount of the penalty is at the Department's discretion. The Department will consider the severity of the violation, and prior violations in imposing civil penalties.

(5) *Notice and appeal.* Sanctions or civil penalties imposed by the Department, other than those violations found to be willful, are subject to the notice, appeal and other provisions of 2 Pa.C.S. (relating to administrative law and procedure).

[Pa.B. Doc. No. 12-2525. Filed for public inspection December 28, 2012, 9:00 a.m.]

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COMMONWEALTH OF PENNSYLVANIA

**PUBLIC WORKS EMPLOYMENT VERIFICATION FORM**

Date \_\_\_\_\_

Business or Organization Name (Employer) \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Contractor  Subcontractor (check one)

Contracting Public Body \_\_\_\_\_

Contract/Project No \_\_\_\_\_

Project Description \_\_\_\_\_

Project Location \_\_\_\_\_

As a contractor/subcontractor for the above referenced public works contract, I hereby affirm that as of the above date, our company is in compliance with the Public Works Employment Verification Act ('the Act') through utilization of the federal E-Verify Program (EVP) operated by the United States Department of Homeland Security. To the best of my/our knowledge, all employees hired post January 1, 2013 are authorized to work in the United States.

It is also agreed to that all public works contractors/subcontractors will utilize the federal EVP to verify the employment eligibility of each new hire within five (5) business days of the employee start date throughout the duration of the public works contract. Documentation confirming the use of the federal EVP upon each new hire shall be maintained in the event of an investigation or audit.

I, \_\_\_\_\_, authorized representative of the company above, attest that the information contained in this verification form is true and correct and understand that the submission of false or misleading information in connection with the above verification shall be subject to sanctions provided by law.

\_\_\_\_\_  
Authorized Representative Signature

## GENERAL CONDITIONS

These General Conditions shall apply to the Contract as a whole, and to each and all branches or sub-divisions and contractors for same, should the work be divided. Approved subcontractors should be supplied with a copy of these General Conditions and no Contract or arrangements with them shall be such as to conflict herewith.

1. DEFINITIONS - The following terms shall have the meanings indicated below:
  - A. The Contract Documents consist of the Agreement, the Instructions to Bidders, the General Conditions, the Proposal, the Drawings and Specifications, including all modifications thereof incorporated in the Documents before their execution.
  - B. The term "Owner" shall mean the County of Delaware.
  - C. The term "Officers of Owner" shall mean the County Council of the County of Delaware.
  - D. The term "Architect/Engineer" shall mean the Design Professional who has prepared these Specifications.
  - E. The term "Contractor" shall mean the person, firm, or corporation named in the Agreement, who will execute the work.
  - F. The term "Sub-contractor" includes only those having a direct Contract with a Prime Contractor of the performance of the work required under the Prime Contract, and it includes one who furnished materials worked to a special design according to the Drawings or Specifications for this work, but does not include one who merely furnishes material not so worked.
  - G. Throughout the Contract Documents, the term "Owner", "Architect/Engineer", "Contractor and Sub-Contractor" are treated as if each were of the singular number.
  - H. The term "Work" of the Contractor and Sub-contractor includes labor, materials and services, or any of them.
  - I. Where "as shown", "as detailed", or words of similar import are used, it shall be understood that reference to the Drawings accompanying this specification is made, unless otherwise stated.
  - J. Where "as directed", "as required", "as permitted", "approved", "acceptance" or words of similar import are used, it shall be understood that the directions,

requirements, permission, approval, or acceptance of the Owner is intended, unless otherwise stated.

- K. As used herein, "provided" should be understood to mean, "Provided complete in place", that is , "furnished and installed".
- L. "Change Order" shall mean any changes in the work which alter the terms of conditions of the Contract, including, but not limited to, any extension of time for completion of the Contract of any additional to, or deduction from the Contract Sum for extra work or changes in the work. Change orders shall be processed on standard A.I.A. forms and shall be signed by the Owner and the Contractor prior to the start of any work affected by or included in the scope of the change.

The term "Notice", as used herein, shall mean and include all written notices, demands, instructions, claims, approvals and disapprovals required to obtain compliance with Contract requirements. Written notice by either party to the contract shall be deemed to have been duly served if delivered to or at the last known business address of the person, firm or corporation, the other party to the Contract, or to his, their or its duly authorized Agent, representative or Officer; or when enclosed in a postage prepaid envelope addressed to such last known business address and deposited in the United States mail.

- M. The words "Time of Completion", "Contract Time" or similar shall be as indicated in the Contract Documents.
- N. The law of the place of building shall govern the construction of this Contract.

## 2. ARCHITECT/ENGINEER'S INSPECTION

All work shall be subject to Architect/Engineer's inspection; he shall make all decisions regarding the work; shall interpret the contract documents and any authorized alterations in work; shall confirm in writing any oral orders, may stop work when necessary; have no authority to approve or order changes in work.

## 3. ARCHITECT/ENGINEER'S DECISION

All questions or disputes arising respecting any matter pertaining to the Contract or any part of it, or any breach of the contract, or any questions and disagreements between Owner and Contractor relating to the Meaning of the Drawings and Specifications or to the kind and quality of work and materials required thereby, shall be decided by the

Architect/Engineer. Reference of questions under this provision must be presented prior to the final payment.

#### 4. INTENT OF CONTRACT DOCUMENTS

The Contract Documents are complementary. What is called for by any one of them, shall be as binding as if called for by all. The intention of the contract Documents is to include in the Contracts Price, the cost of all labor and materials, scaffold, ladders, runs centering, shoring, staging, rigging, hoists, water, fuel, tools, plant equipment, lights, power, transportation, shop drawings, samples, tests, tools, warranties, taxes, insurance and all other service and expenses necessary for and incidental to the proper execution and completion of the work, unless distinctly specified otherwise. In interpreting the Contract Documents, words describing materials or work which have a well-known technical or trade meaning, unless otherwise specifically defined in the Contract Documents, shall be construed in accordance with such well-known meaning, recognized by Architects, Engineers and Trades.

The Specifications, Drawings, Conditions, Instructions in Directions as set forth are intended to cooperate and agree, and they shall be interpreted so that the work exhibited in the Drawings and not mentioned in the Specifications, or vice versa, shall be included the same as if it were mentioned in the Specifications and set forth in the Drawing themselves. Any such discrepancies shall be interpreted, explained and decided by the Architect/Engineer, who shall have the right to correct any errors or omissions in them as are necessary for the proper fulfillment of their intentions, either before or during the prosecution of the work, and the Contractor shall conform to an abide by whatever supplementary Drawings and explanations may be furnished by the Architect/Engineer for the purpose of illustrating the work.

Where the work is shown the complete detail on only half or a portion of a Drawing or there is indication of continuation, the remainder being shown in outline, the work drawn out in detail shall be understood to apply to other portions of the structure. On all work of additions, or alterations, it shall be the responsibility of the Contractor, by personal inspection, to satisfy himself as to the correctness of any information given which may affect the quantity, size and quality of material required for a satisfactorily completed Contract, whether or not such information is indicated on the Drawings or within the Specifications.

#### 5. WORK IMPLIED

Should any incidental work or materials be required but not set forth in the Specifications and Drawings, either directly or indirectly, but which is nevertheless necessary for the proper carrying out of the intent thereof, it shall be deemed to be implied and required, and the Contractor shall furnish and install all such work and materials as fully as if they were particularly delineated and described, without additional cost to the Owner.

6. ACTUAL MEASUREMENTS

In all Cases where dimensions are governed by conditions already established, the Contractor must depend entirely upon measurements taken by himself, scale or figured dimensions to the contrary notwithstanding, but no deviation from the specified dimension shall be made unless duly authorized by the Architect/Engineer.

7. ERRORS AND DISCREPANCIES

If the Contractor, in the course of the work, finds any discrepancy between the Drawings or Specifications and the physical conditions of the premises or buildings, or any errors, in the Drawings or Specifications or in the layout as given by the points and instructions, it shall be his duty to immediately inform the Architect/Engineer, in writing. Should any work be undertaken after the discrepancy has been noted and prior to decision by the Architect/Engineer, it is understood that the Contractor will rectify, at his own expense, such work as may have been accomplished and which does not comply with the decision of the Architect/Engineer.

8. ASSUMPTION OF RISK

The Contractor represents that he has had an opportunity to examine, and has carefully examined all of the Specifications, Drawings, Instruction and Directions in connection with the work; that he has fully acquainted himself with the actual levels, the excavations and filling required, visible obstructions or known obstructions below the surface, and all other conditions relevant to the work, the site of the work and its surroundings; and is fully aware of any variances between the actual conditions relevant to the work and the same as shown or represented in said Specifications, Drawings and Directions, as far as such variances can be determined by an inspection of the site; that he has made all investigations essential to a full understanding of the difficulties which may be encountered in performing the work and that anything in any of said Documents or in any representation, statements, or information made or furnished by Owner or Architect/Engineer notwithstanding, the Contractor will, regardless of any such conditions relevant to the work, the site of the work or its surroundings, complete the work for the compensation agreed upon (except in the case of changes in the work made by the Owner or Architect/Engineer and conditions at the site that cannot be determined by inspection, in connection with which the Contractor will be paid as provided in the Article regarding Changes), and will assume full and complete responsibility therefore and all risk in connection therewith. In addition thereto, the Contractor represents that he has special qualifications for doing the work and will complete the said work to the satisfaction of Owner and Architect/Engineer.

9. SIGNING OF DOCUMENTS

The Contract Documents shall be signed, in duplicate, by the Owner and the Contractor.



10. ASSIGNMENT OF CONTRACT

The Contractor shall not assign the Contract or any part thereof without the written consent of the County of Delaware. He shall not sub-Contract without prior written approval from the County of Delaware.

11. SUB-CONTRACTS

As soon as practicable and before awarding any sub-contracts, the Contractor shall notify the Architect/Engineer and Owner in writing, of the names of the sub-contractors proposed for the principal parts of the work, and for such other parts as the Architect/Engineer or Owner may direct.

The Contractor shall not sublet or sub-Contract any work to be performed, or any materials to be furnished in the performance of the contract without the written consent of the Architect/Engineer or Owner.

The Contractor shall not be required to employ any sub-Contractor against whom he has a reasonable objection.

If the Contractor shall sublet or sub-Contract any part of the Contract, the Contractor shall be as fully responsible to the Owner of the acts and omissions of his sub-Contractor as he is for the acts and omissions of persons directly employed by himself. The Architect/Engineer shall, on request, furnish to any sub-Contractor, whatever practicable, evidence of the amounts certified on his account.

Nothing contained in the Contract Documents shall create any contractual relationship between any sub-Contractor and the Owner. The Contractor agrees to bind every sub-Contractor and every sub-Contractor shall agree to be bound by the terms of the Instructions to Bidders, Special Conditions, General Conditions, Drawings and Specification as far as applicable to his work.

12. OTHER CONTRACTS

The Owner reserves the right to let other Contrasts in connection with this work even if of like character to the work under this Contract. The Contractor shall afford other Contractors adequate opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate his work with their work.

If any part of the Contractor's work depends for proper execution or results upon the work of any other Contractor, the Contractor shall inspect and promptly report to the Architect/Engineer and Owner, any defects in such work that render it unsuitable for such

proper acceptance of the other Contractor's work as fit and proper acceptance of the Contractor's work as fit and proper for the reception of his work, except as to defects which may develop in the other Contractor's work after the execution of subsequent work.

To ensure the proper execution of this subsequent work, the Contractor shall measure work already in place and shall at once report to the Architect/Engineer any discrepancy between the executed work and the drawings.

13. TAXES

All Federal, State and Local Taxes, including Excise Tax, Sales and Use Taxes, when applicable, shall be included in the Proposal and shall be paid by the Contractor.

14. OWNER'S RIGHT TO OCCUPY

The Owner reserves the right to occupy any portion of the project, before it has been entirely completed, with the distinct understanding that such occupancy shall in no way constitute acceptance of the work in whole or any part thereof, or of any work performed under the Contract.

15. DEFAULT ON PART OF CONTRACTOR

If the Architect/Engineer shall at any time be of the opinion that the Contractor is not progressing with the work as rapidly as necessary to insure its completion by the date set forth in the Contract or is neglecting to remedy any imperfections or to repair damage to public or private property; or continues to employ or re-employ negligent or careless persons; or is conducting the work in a manner disapproved by the Architect/Engineer or if the Contractor stops or abandons work on any part of the construction without the written consent of the Architect/Engineer, or is violating any of the provisions of the Contract, the Architect/Engineer shall give the Contractor written notice of the specific deficiencies and direct the Contractor to remedy same. If, at the end of seven (7) days from the date of such notice, the Contractor shall have failed to comply therewith, then the Owner may withhold all payments until the provisions of such notice are carried out and may also place additional forces, equipment, tools and materials on parts of the work at the Contractor's expense as specified or it may annul the Contract.

In case the Owner should augment the Contractor's forces, equipment, etc., as herein provided, the cost incurred in carrying on such parts of the work shall be paid by the Contractor. The Owner may retain the amount of the cost of such work from any sum or sums due or to become due the Contractor under this Contract. If such costs exceed such unpaid balance, the Contractor shall pay the difference to the Owner.

If the Contractor should be adjudged a bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, or if he files any proceedings under the provisions of the Bankruptcy Act, or if he should persistently or repeatedly refuse, or should fail, except in cases for which extension of time is provided to supply enough properly skilled workmen or proper materials, or if he should fail to make prompt payment to sub-contractors or for material or labor, or persistently disregard laws, ordinances or the instruction of the Architect/Engineer or otherwise be guilty of a substantial violation of any provision of the Contract, then the Owner, upon the Certificate of the Architect/Engineer that sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the Contractor, and his surety, if any, seven (7) days written notice, terminate the employment of the Contractor and take possession of the premises by whatever method he may deem expedient, including, but not limited to, contracting with another Contractor. The Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the Contract price shall exceed the expense of finishing the work, including compensation for additional engineering, managerial and administrative services, such balance shall be paid to the Contractor; should the unpaid balance be insufficient to complete the work, including compensation for engineering, managerial and administrative services, the Contractor shall pay the difference to the Owner. The expense incurred by the Owner as herein provided, and the damage incurred through the Contractor's default, shall be certified by the Architect/Engineer.

16. REMOVAL OF EQUIPMENT

No equipment shall be removed from the work by the Contractor, except as herein designated until the usefulness of such equipment on the work has ceased, or except with the written consent of the Architect/Engineer, otherwise such removal may be considered by the Owner as an abandonment on the part of the Contractor.

In the case of annulment or rescission, or termination of this Contract for any cause whatsoever before the completion of this Project, no equipment, material or supplies shall be removed from the site without the prior authorization in writing from the Owner. Upon written notice from the Architect/Engineer to do so, the Contractor shall promptly remove such equipment and supplies from the property of the Owner. The Contractor's failure to carry out the provisions of such notice shall give the right to the Owner to remove such equipment and supplies at the expense of the Contractor.

17. MATERIALS AND WORKMANSHIP

Unless otherwise specifically stipulated in the Specifications, all workmanship shall be of the best quality and all equipment, materials and articles incorporated in the work under the Contract shall be new and of the best grade of their respective kinds for the purpose. The Contractor shall, if required, furnish evidence as to kind and quality of materials.

Should any dispute arise as to the quality and fitness of workmanship, equipment, materials and articles, the decision shall rest strictly with the Architect/Engineer and shall be based

upon the requirements of the Contract, and what is usual and customary in the execution of other work shall in no way enter any consideration or decision whatsoever.

Where equipment, materials or articles are referred to in the Specifications as equal to any particular standard, the Architect/Engineer shall decide the question of quality. The Contractor shall furnish to the Architect/Engineer for his approval, the name of the manufacturer of machinery, mechanical and other equipment which he contemplates incorporating in the work, together with their performance, capacities and other pertinent information.

Where required by the Specifications or when called for by the Architect/Engineer, the Contractor shall furnish the Architect/Engineer for approval, full information concerning the materials or articles which he contemplates incorporating in the work. Machinery, equipment, materials and articles installed or used without such approval shall be at the risk of subsequent rejection.

When the Specifications give the Contractor the option of using one of several definitely named makes or kinds of a particular item or "Approved" equal, the Contractor shall use one of the named items or submit a written request to the Architect/Engineer for approval and obtain his approval of an equal before purchasing such material.

Where the Specifications call for any stipulated items, "or equal thereto and approved" or other words to that effect, the Architect/Engineer shall be the sole judge of the equality of any article or material offered and reserves the right to demand the particular items stipulated.

#### 18. CHANGES IN SPECIFICATIONS

The Owner reserves the right to make any change in the location of any piece of apparatus or equipment, or roughing-in dimensions up to the time of roughing-in and to make any changes in the Drawings and Specifications, should any be found desirable previous to commencing or during the progress of the work, without in any other respect or particular invalidating the original provisions of the Contract, without additional expense to the Owner unless such changes require additional labor and/or material. If such a change requires a less amount of labor and/or material than the original work shown or specified, the Owner will be entitled to a credit equal to the difference of the cost and installation. The greater or lesser amount, if any, to be paid the Contractor by the Owner by reason of such changes, shall be as herein specified or as agreed upon between them.

No part of the work shall be altered from that shown on the Drawings or described in the Specifications, nor shall any work in the nature of additional work, or any work not contemplated by the Contract Documents be performed except on written order of the Architect/Engineer, approved by the Owner, and if any extra, additional or different work

be proceeded with or executed by the Contractor without previous order given, in writing, under the hand of the Architect/Engineer, as herein provided, the Contractor shall not be entitled to charge for such extra work.

19. ADDITIONAL OR OMITTED WORK

It is understood that the Owner shall have the right during the progress of construction to make any alterations, additions or omissions of work or material herein specified or shown on the Drawings that may be desired and the same shall be carried into effect by the Contractor without in any way violating the Contract. The amount of money to be added or deducted shall be agreed to, in writing, signed by the two contracting parties before any changes in the Contract Documents will be in force.

Unless specifically directed otherwise by the Architect/Engineer, the Contractor shall promptly submit his itemized prices for additions, alterations or deductions prior to proceeding with the changes, which prices, if approved by the Owner, shall be added to or deducted from the Contract price.

When so directed, the Contractor shall submit separate unit prices on work for both additions to and deductions from the Contract price; adjustment, if any, in the amounts to be paid to the Contractor by reason of any change, addition or reduction shall be determined by one or more of the following methods:

1. By unit price contained in the Contractor's Proposal and incorporated in the Contract which unit prices include all charges.
2. By an acceptable lump sum Proposal from the Contractor. Such Proposal shall indicate costs for materials and labor and shall indicate overhead and profit.
3. By actual time and material costs, verified by the Owner's representative, to which it is agreed that an overhead charge of 10% and a profit of 10% will be added.
4. No extra work or change shall be made unless in pursuance of a written order from the Owner signed or countersigned by the Architect/Engineer.

20. SUPERVISION AND LABOR

The Contractor shall provide continuous supervision of all work embraced in the Contract, from the beginning of the work to the date of final completion, by a duly authorized and competent Superintendent who shall be acceptable to the Architect/Engineer. The Superintendent shall be at all times in charge of the work and shall be provided with such assistants as are necessary to properly carry on the individual branches of the work. The Superintendent shall represent the Contractor in his absence from the work, and all

directions, instruction, or notices given to the Superintendent by the Architect/Engineer shall be as binding as if given to the Contractor.

The Contractor shall at all times enforce good order and conduct among his employees. Every employee shall be a first-class workman and competent to perform the work assigned to him. Employees shall not be permitted to trespass or conduct themselves contrary to the rules and regulations governing the Owner's premises. Any employee of the Contractor whom the Architect/Engineer considers to be detrimental to the proper carrying out of the work is to be removed promptly on the request of the Architect/Engineer, and the services of such person shall not be employed on the project site without the written consent of the Architect/Engineer.

## 21. ENGINEERING AND LAYOUTS

If applicable, the Contract shall provide competent engineering and layout services, approved by the Architect/Engineer, from the beginning of the work to the date of final completion of the Contract, to execute the work in accordance with the Contract requirements.

## 22. RIGHTS OF VARIOUS INTERESTS

Wherever work is being done by workmen other than those employed by the Contractor, but contiguous to his work, the respective rights of the parties involved shall, if necessary, be established by the Architect/Engineer. Requests in writing for such determination shall be submitted in a timely manner by the Contractor.

## 23. INSPECTION OF WORK

The Contractor shall afford the Architect/Engineer every facility for inspection. All materials and workmanship shall be, at all times, subject to the inspection and acceptance of the Architect/Engineer who shall have full power at any time during the progress of the work to reject any materials or workmanship which the Architect/Engineer may deem unsuitable for the purpose for which they are intended, or which are not in strict conformity with the Specifications. The Architect/Engineer shall also have the power to cause any inferior or unsafe work to be taken down and altered at the cost of the Contractor. When deemed necessary for the proper protection of materials or building, the materials must be

sorted and handled as directed by the Architect/Engineer. Every part of the work shall be executed to the entire satisfaction and acceptance of the Architect/Engineer and Owner.

24. WORK MAY BE PULLED DOWN AND OPENED UP FOR EXAMINATION AND INSPECTION

If directed by the Owner and the Architect/Engineer, the Contractor shall pull down, undo or uncover any part of completed or partially completed work or make openings therein to enable the Architect/Engineer to make a proper and thorough inspection and the Contractor, after such inspection, shall repair or reconstruct such affected work to the satisfaction of the Architect/Engineer.

If, in the opinion of the Architect/Engineer, the work should be found unsatisfactory in any respect, the cost of exposing, removing, replacement and restoring it shall be defrayed by the Contractor.

Should the work thus exposed be found not faulty by the Architect/Engineer, and if adequate opportunity was afforded for inspection of the work before it was covered or completed, the cost and expense thereby incurred shall be defrayed by the Owner or the Architect/Engineer to the extent to which they mutually accept responsibility for such required corrective work.

25. ROYALTIES AND PATENTS

The Contractor shall obtain all necessary consents and shall pay all royalties, licenses, and fees for the use of any patented invention, article, composition or process in the work done or the materials furnished or any part thereof embraced in this Contract. The Contractor guarantees to save harmless the Owner, its Officers, members, Agents and employees from the liability of any kind of nature including cost and expense on account of suits and claims of any kind for the violation or infringement of any such patent rights by the Contractor or by anyone directly or indirectly employed by him, for, by reason of the use of any art, process, method, manufacture, or composition of matter patented or unpatented in the performance of this Contract, in violation or infringement of any such patented rights.

26. PERMITS, LICENSES AND CERTIFICATES

The Contractor shall arrange for the issuance of all Local permits required, both temporary and permanent, and the Contractor shall include in his price the cost of any of these items.

The Contractor shall deliver to the Architect/Engineer certificates of inspection and certificate of occupancy where such are required.

The Contractor shall furnish to the local authorities all necessary bonds or cash deposits required as a pledge and security for the protection or maintenance of any public property.

The Contractor and each of his sub-contractors shall secure and pay for all inspections and certification of their work as required by laws and regulations in effect in the locality in which the project is built including those of the Underwriter's and other regulatory bodies.

27. BUILDING REGULATIONS

The requirements of all applicable laws, rules and regulations of Local and State Departments governing building construction and equipment, shall be followed, and all work shall be carried out in strict accordance with such requirements even though each item involved be not herein particularly mentioned.

Work required by the Drawings and Specifications above or in excess of the standards required by the above mentioned laws and regulations shall be provided as specified.

If the Drawings and Specifications are at variance with the above mentioned laws and regulations, the Contractor shall promptly notify the Architect/Engineer, in writing, and any necessary changes shall be adjusted as proved in the Contract. If the Contractor performs any work contrary to such laws, rules and regulations, and without such notice to the Architect/Engineer, he shall bear all costs arising therefrom.

28. COOPERATION

The Contractor shall cooperate with the other Contractors on the work and with the Owner so that the completion of all portions of the work may proceed with all possible speed. The Contractor will be required to furnish any and all other Contractors, whose work is fitted to his, detail and erection Drawings giving full information regarding the fabrication and assembly of his work.

So far as possible Drawings shall show checked field measurements. The Contractor shall further cooperate in timing his work to join with the work of the Contractors or the Owner.

29. MOVING MATERIALS

If it becomes necessary at any time during the execution of the work to move materials or equipment which have been temporarily placed, the Contractor or Sub-Contractor furnishing said materials shall, when so directed by the Architect/Engineer, move them or cause them to be moved without additional charge.



30. RECEIVING MATERIAL FURNISHED BY OTHERS

Whenever the Contractor or any Sub-Contractor shall receive items from another Contractor or the Owner for storage, erection or installations, the Contractor or Sub-Contractor receiving such items shall give receipt for the items delivered, and thereafter will be held responsible for the care, storage and any necessary replacing of items received.

31. INJURY TO PROPERTY

Should any direct or indirect injury be done to any existing installation or structures, or to public or private property of any kind or to any structure, materials, or fixtures, resulting from any act or omission on the part of the Contractor, his Sub-Contractor, Employees or Agents, the Contractor shall, at his own cost and expense, restore the same equal to its condition before the said damage or injury was done by repairing, replacing, rebuilding or otherwise as may be required by the Owner, Architect/Engineer or the Owner of the damaged property.

32. BONDS

Should any surety upon the bonds for the performance of the Contract and payment for materials and labor become unsatisfactory to the Owner, the Contractor shall promptly furnish such additional security as may be required from time to time to protect the interest of the Owner and of persons supplying materials and labor in the prosecution of the work required by the Contract, including any change therein.

33. CUTTING AND PATCHING

The General Contractor shall do all demolition, cutting, patching, removals, additions, adjustments and replacements of building construction and finishes necessary for the installation of work of mechanical, electrical and other separate Contractors. All work shall be performed so as to leave the buildings and structures complete and watertight and in a condition satisfactory to the Architect/Engineer.

The Contractor for mechanical and electrical construction shall furnish all labor, material and equipment and perform all operations for the demolition, removal, salvaging, disposition of materials and alternations to the installations and equipment, utilities and services of their respective trades. Any cost of cutting and fitting caused by defective or ill-times work shall be borne by the party responsible therefore.

The Contractor shall not endanger any work by cutting, fitting or otherwise. The Contractor shall not cut or alter the work of any other Contractor.

34. ORDER OF COMPLETION

The Contractor shall complete any portion or portions of the work in such order as may be stated in the Specifications. All work shall be so arranged and Contractors shall so coordinate their work as to complete the work by the date as set forth in the Contract.

35. SUSPENSION OF WORK DUE TO UNFAVORABLE CONDITIONS

If, in the judgment of the Architect/Engineer, the Contractor is taking undue risk in the interruption of ongoing site operation and risk of damage to any part of the building by proceeding with the work during unfavorable weather or other conditions, the Architect/Engineer shall immediately notify verbally the Contractor or his representative on the site, confirming the same in writing, with copies to the Owner. The Owner may thereupon suspend the work temporarily either wholly or in part, for such periods as may be necessary on account of unsuitable weather or other conditions unfavorable for the safe and proper prosecution of the work. In case of such suspension, no allowance will be made to the Contractor for any expense resulting therefrom. The Owner shall not be liable to the Contractor in any manner for any other charges whatsoever arising out of a suspension in the work of either this Contractor or any Contractor engaged on this Project. It shall be clearly understood that the failure of the Owner or Architect/Engineer to suspend the work shall not relieve the Contractor of his responsibility for compliance with the conditions of the Contract.

36. SUSPENSION OF WORK DUE TO FAULT OF CONTRACTOR

Should the Contractor fail to comply with any order of the Architect/Engineer relative to any particular part of the work, the Architect/Engineer shall have the right to suspend the work on any or all parts until his orders respecting the particular parts are complied with. In case of such suspension, which shall be considered due to the fault of the Contractor, it shall be at the expense of the Contractor on account of idle equipment or forces during the terms of such suspension.

37. SUSPENSION OF WORK DUE TO UNFORESEEN CAUSES

If the Contractor shall be delayed in the completion of his work by reason of unforeseeable causes beyond his control and without his fault or knowledge; such as acts of God or of a public enemy, fire, flood, epidemic, quarantine, restriction, strike, riot, civil commotion or freight embargo, the period may be extended as hereinafter provided. Suspension of work as outlined above shall not in themselves operate to extend the Contract date of completion.

38. REQUEST FOR EXTENSION

The request for extension of time shall be submitted by the Contractor to the Owner and the Architect/Engineer setting forth his reasons therefore. In submitting such requests, the Contractor shall state the completion date as stated in the existing Contract, any changes that have been authorized, and the date he is now requesting as a new completion date. The Owner will grant or deny such request at such time as he deems proper.

The Owner shall not be liable to the Contractor in any manner for any expenses, damages, loss of profits, anticipated or otherwise, or any other charge whatsoever arising out of an extension in the completion date of the work of either this Contractor or any Contractor engaged on this Project.

39. STOPPAGE OF WORK BY ARCHITECT/ENGINEER

Should conditions arise which, in the opinion of the Architect/Engineer, warrant a stoppage of work, then the Architect/Engineer may so direct. If the work is stopped and the Architect/Engineer subsequently directs its resumption, the Contractor shall resume full operation within the period of ten (10) days after date of written notice. The Owner shall not be liable to the Contractor in any manner for any expenses, damages, loss of profits, anticipated or otherwise, or any other charges whatsoever arising out of the stoppage of the work of either this Contractor or any Contractor engaged on this project. Any work done by the Contractor during the period of suspension shall be at his sole risk and he shall receive no pay therefore, unless the construction is subsequently ordered to be and is resumed and the work during the intervals of the suspension can be utilized in the resumed work.

In the event the Owner determines that any or all of the work as outlined in the Contract shall be terminated, the Contractor shall request payment for the percentage of the work which he actually has completed under the Contract.

The Owner will then determine the percentage of such work that has been completed and the Contractor will accept as full payment the sum of money determined by applying that percentage to the sum that would have been paid under the terms of the Contract, had all of the work been completed.

40. MONTHLY ESTIMATES AND PAYMENTS

Immediately following the receipt of executed copy of Contract, the Contractor shall submit, on forms approved by the Architect/Engineer, a detailed breakdown of all items of work entering into the Contract. This detailed breakdown will show quantities of the respective items and the allowances for labor, materials and other costs entering into each item. The detailed breakdown when approved by the Architect/Engineer shall be used as a basis by the Contractor in preparing monthly estimates for payment and shall, as accurately

as possible, reflect the true division of cost of the respective items entering into the Contract.

As long as the work herein contracted for its prosecuted in accordance with the provisions of this Contract and with such progress as may insure completion by the set forth in the Contract and to the satisfaction of the Architect/Engineer and owner, then the Owner will make payment to the Contractor for the value of the work completed at monthly intervals.

Monthly estimates shall be prepared by the Contractor on forms approved by the Architect/Engineer and will indicate the quantity and value of the work done and materials incorporated by the Contractor to the end of the monthly estimate period. The monthly estimate will be forwarded by the Contractor, for approval to the Architect/Engineer and he shall, in turn, forward it to the Owner. Materials in reasonable quantities which are delivered and accepted for incorporation in the work but not yet so used, may be included on monthly estimates for payment.

The Contractor shall submit with the monthly estimate, reflecting the unincorporated material, original and two (2) copies of itemized receipt invoices showing payment for such material by the Contractor and delivery slips certifying to the delivery of the quantities set forth on the estimate to the site of this work, upon the property of the Owner.

The Contractor shall mark or identify such material and shall be solely responsible for its safekeeping and usability of the time it is to be incorporated in the structure or project, and shall, at his own expense, care for and protect the same and take out insurance against theft, loss from any other cause, damage, destruction and/or such other risks as may be involved, which would render the aforesaid materials unfit or unavailable for incorporation in the project.

Payment for materials stored at the site shall be based on 50% of actual cost for same as shown by the receipted invoices and shall not exceed the cost of materials as indicated on the approved "Breakdown Sheet" for the particular items involved. Monthly payments to the Contractor will be made on the basis of submission prepared by the Contractor as above explained. The form will require breakdown of total work completed to date of submission. From this total will be deducted ten percent (10%). From the resultant amount will be deducted all previous payments. The remainder, as approved, will constitute current amount due. The retained ten percent (10%) will be paid when the project has been finally accepted by the Owner. No estimates given or payment made shall be conclusive of the performance of the Contract either wholly or in part and no estimates or certificates of final payment shall be construed to be an acceptance of inferior or defective work or materials.

In Contracts exceeding \$50,000.00 for the construction, reconstruction, alteration or repair of any public building or other public work or public improvement, including heating or

plumbing contracts, under the terms of which the Contractor is required to give a performance bond and labor and material payment bond, the Owner, in order to insure the proper performance of the Contract, shall withhold from the Contractor sums not to exceed 10% of the amount due the Contractor until 50% of the Contract is completed. The sum or sums withheld by the Owner from the Contractor after the Contract is 50% completed shall not exceed 5% of the amount due the Contractor.

41. ACCEPTANCE AND FINAL PAYMENT

Whenever, in the opinion of the Architect/Engineer, the Contractor shall have completed his Contract in accordance with terms thereof, the Owner and the Architect/Engineer shall make a final inspection of the entire work and, if satisfied that the Contractor has completely performed the Contract, the Contractor shall be instructed to submit a final estimate showing the entire amount of each class of work performed and the value thereof with such deductions as may be due the Owner under the Contracts or of such additions as may be due the Contractors. The total payments due the Contractor cannot, however, exceed the sum authorized by the Owner under the terms of the Contract. The Architect/Engineer shall certify to the Owner the aggregate amount of said final estimates due the Contractor and that all work in the Contract has been fully completed.

The final payment shall not become due and payable until the Contractor shall have furnished the Owner with satisfactory evidence that all labor and materials, outstanding claims and indebtedness of whatsoever nature arising out of the performance of the Contract have been paid, and until the Contractor shall have furnished a written General Release statement to such effect executed by Contractor and Sureties, which will further provide that payment to the Contractor of the final estimate shall not relieve any Surety of its obligation to the Owner as set forth in the Surety Bonds.

Where one or more claims against the Contractor, which are in controversy, appear unsatisfied, the Owner shall have the discretion to direct final payment to be withheld or a partial payment to be made from the retained percentage, should it be determined that the withholding of the entire final payment would work a hardship on the Contractor or delay the final payments to other Contractors on the project. If only partial payment is permitted under the paragraph from the retained percentage, final payment shall not be made until the Contractor shall have furnished satisfactory evidence and a statement from the Surety that all claims against the Contractor have been paid; that payment to the Contractor of the Contract balance shall not relieve any Surety of any of its obligations to the Owner as provided in the Surety Bond. The acceptance by the Contractor of the final payment made as aforesaid, shall operate as and be a release to the Owner and every member and agent thereof from all claims and liabilities to the Contractor for (1) anything done or furnished for, or relating to the work or (2) any act or neglect of the Owner, or of any person relating to or affecting the work, but his final payment shall not relieve the Contractor from his indemnity obligations under the terms of the Contract.

42. ESTOPPEL AND WAIVER OF LEGAL RIGHTS

Neither the Owner nor the Architect/Engineer shall be precluded or stopped by the measurements, estimate, or certificate, made or given by any of them or by any of their agents or employees, under any provision of the Contract, at any time, either before or after the completion and acceptance of the work and payment thereof, pursuant to any measurements, estimates, or certificate, from showing the true and correct amount or character of the work performed and materials furnished by the Contractor, nor from showing, at any time, that any such measurements, estimate or certificate is untrue or incorrectly made in any particular, or that the work or materials or any parts thereof do not conform in fact to Specifications and Contract. The Owner shall have the right to reject the whole or any part of the aforesaid work or materials should the said measurements, estimate, certificate or payments be found or be known to be inconsistent with terms of the Contract, or otherwise improperly given, and the Owner shall not be precluded or stopped notwithstanding any such measurements, estimate, or certificate or payment in accordance therewith from demands and recovering from the Contractor and/or his surety such damages as may sustain by reason of his failure to comply with the terms of the Specification and Contract, or on account of any over payments made on any estimate or certificate. Neither the acceptance by the Owner or Architect/Engineer or any of their agents or employees, nor any certificate approved for payment of money; nor any payments for, nor acceptance of, the whole or any part of the work by the Owner, nor any extension of time nor any possession taken by the Owner or its employees shall operate as a waiver of any portion of the Contract or any power therein reserved by the Owner, or any right to damages herein provided, nor shall any waiver of any breach of the Contract be held to be a waiver of any other or subsequent breach.

43. CHASES, THIMBLES, SLEEVES

The General Contractor shall construct, or have build into the building walls, floors, ceilings and partitions all chases, thimbles, sleeves, inserts, bolts, hangers and fastening devices that are necessary. All other prime or separate Contractors shall furnish to the General Contractor, for installation, all material in required locations.

If the foregoing has not been complied with within such time as may be necessary so that the work can progress along with the structure, then the Sub-Contractor or separate Prime Contractor whose work is affected shall make and bear expenses for such changes incidental to the construction as may be required so that his work can be properly installed. All such work shall be undertaken only after securing the Architect/Engineer's approval.

44. HIRING, ETC.

That, in the hiring of employees for the performance of work under this Contract or any sub-Contract hereunder, no Contractor, Sub-Contractor, nor any other person acting on behalf of such Contractor or Sub-Contractor, shall by reason of race, creed, or color or sex discriminate against any citizen of the Commonwealth of Pennsylvania who is qualified and available to perform the work to which employment relates.

#### 45. SHOP DRAWINGS AND SAMPLES

Shop Drawings are drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are prepared by the Contractor or Sub-Contractor, manufacturer, supplier or distributor and which illustrate some portion of the work; samples are physical examples furnished by the Contractor to illustrate materials, equipment or workmanship and to establish standards by which the work will be judged.

The Contractor shall review, stamp with his approval and submit, with reasonable promptness and in orderly sequence so as to cause no delay in the work or in the work of any other Contractor, all shop drawings and samples required by the Contract Documents or subsequently by the Architect/Engineer as covered by Modifications. Shop drawings and samples shall be properly identified as specified, or as the Architect/Engineer may require, Contractor shall notify the Architect/Engineer in writing of any deviation in the shop drawings or samples from the requirements of the Contract Documents at the time of submission.

The Contractor shall make any corrections required by the Architect/Engineer and shall resubmit the required number of corrected copies of shop drawings or new samples until approved. The Contractor shall direct specific attention in writing or on resubmitted shop drawings to revisions other than the corrections requested by the Architect/Engineer on previous submissions.

The Architect/Engineer's approval of Shop Drawings or Samples shall not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents unless the Contractor has informed the Architect/Engineer in writing of such deviation at the time of submission and the Architect/Engineer has given written approval to the specific deviation, nor shall the Architect/Engineer's approval relieve the Contractor from responsibility for errors or omissions in the Shop Drawings or Samples.

For each Shop Drawing required, the Contractor shall submit one copy of an acceptable, legible, reproducible (sepia) print of the original tracing, along with two (2) prints. The Architect/Engineer will mark as previously specified and return corrected sepia print to Contractor. This process shall be repeated until approved shop drawings are received. Five (5) prints of approval sepia, along with the sepia print, will be finally submitted. All sepia prints will become the property of the Owner.

#### 46. MAINTENANCE MANUAL

At termination of work and before final payment, submit rough draft of a Maintenance Manual, presenting full details for care and maintenance of all visible surfaces, exterior and interior. Use printed catalogue information where possible. Special attention shall be given to the mechanical and electrical equipment.

Operating characteristics, care and maintenance instructions for all equipment shall be carefully prepared. Name and address of all service organizations should be given. The manual should be properly compiled during progress of the work and not be considered as minor items of a few miscellaneous catalogues hastily assembled.

After approval, submit three (3) corrected bound copies.

47. REQUIRED BREAKDOWN OF PROJECT COSTS AND FORM FOR MONTHLY BILLINGS

American Institute of Architects Document G702, "Application and Certificate for Payment", and Document G702A, "Continuation Sheet", will be used for all monthly billings on this project.

48. PREVAILING WAGE RATES

If Prevailing Wage Rates apply, the Contractor shall conform to and be bound by the laws of the Commonwealth of Pennsylvania, relating to conditions of employment with respect to Act. No. 442. Prevailing Wage Rates apply to any project over \$25,000.00

49. CONTRACTOR'S SECURITY

Upon notice to the Contractor that he is the low bidder, and before award of the Contract, the Contractor shall furnish two (2) Bonds with Surety acceptable to the County, as follows:

One in the full amount of the Contract conditioned for the faithful performance of said Contract, including the indemnification of the Owner, in all respects set forth in these General Conditions and Specifications.

And the other for the full amount of the Contract conditioned to pay for all labor and materials which may be furnished to the Contract or which may enter into the Contract with right in all persons, firms or Corporation furnishing such labor or materials to sue on said Bond in the name of the Owner, for his, their, or its use.

The Delaware County Council will also require a Maintenance Bond in the amount of ten percent (10%) of the Contract price conditioned that the Principal shall remedy, without cost to the Owner, any defects which may develop during the period of one (1) year from date of completion and acceptance of the work performed under the Contract.



To each Bond shall be attached a recent financial statement of the Surety, along with a Power of Attorney showing that the person signing the Bonds on behalf of the Surety has power to do so.

The surety Bonds are subject to the approval of County Council. No surety Bond will be approved unless the bonding Company shall have a rating of at least "B+" in Best's Key Rating Guide and shall be approved by the United States Department of the Treasury as a surety Company acceptable on Federal Bonds. In addition, the bonding Company shall have been registered with the Office of judicial support and the Office for Recording of Deeds of the County of Delaware. The bonds shall be duly executed by the successful bidder as principal and by the signers of the Agreement of Prepared Surety, or Sureties. If the Council determines that the Sureties are not acceptable, the bidder shall replace the bond with bonds offered by Sureties which are acceptable to the Council within ten (10) days of notification by the Council.

50. STEEL PRODUCTS

In accordance with the Pennsylvania Steel Products Procurement Act #1978-3, it is required that if any steel products are to be used or supplied in the performance of the Contract only steel products as defined in said act shall be used or supplied in the performance of the Contract or any subcontracts thereunder.

Steel products as defined in said act are products made from steel made in the United States by the open hearth, basic oxygen, electric furnace, Bessemer or other steel making process. These steel products include products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more of such operations.

51. MATERIAL SAFETY DATA SHEETS (MSDS)

Material Safety Data Sheets (MSDS) must be submitted for respective products with your bid proposal, in compliance with the Federal Hazard Communication Standard Act (29 CFR 1910, 1200) and various State Right-to-Know laws.

52. GENERAL NOTES

Contracts shall be awarded to the lowest responsible bidder. In determining "lowest responsible bidder", in addition to price, the Central Purchasing Department in its pre-award evaluation shall, in consultation with the affected department head, ascertain and consider:

- A. The expertise of the bidder to perform the Contract or provide the service required;

- B. Whether the bidder can perform the Contract or provide the service promptly, or within the time specified and with adequate supervisory personnel;
- C. The character, integrity, reputation and judgment of the bidder;
- D. The quality of performance on previous contracts and services;
- E. The previous and existing compliance by the bidder with laws and ordinances relating to the Contract or service;
- F. The sufficiency of the financial resources of the bidder to perform the Contract or provide the service;
- G. The ready availability of supplies necessary to discharge performance in a prompt and workmanlike manner;
- H. The ability of the bidder to provide future maintenance and service for the use of the subject of the Contract;
- I. The number and scope of conditions attached to the bid.

(The acceptance of all bids for contracts is made expressly conditional upon a satisfactory rating from a pre-award investigation conducted by the Central Purchasing Department).

The following will automatically disqualify a low bidder:

- A. Default on the payment of taxes, licenses, or other monies due the County.
- B. Default, breach or repudiation on past contracts which reflect a course of performance deemed deleterious to the County's best interest.

When the award is not given to the lowest bidder, a full and complete statement of the reasons for placing the order elsewhere shall be prepared by the Central Purchasing Department and filed with the other papers relating to the transaction.

No verbal instructions or information will be binding. The specifications will be considered clear and complete unless attention is directed in writing to the Director of Building and Maintenance, County of Delaware, Delaware County Government Center, Media, Pennsylvania, to any apparent discrepancies or omissions thereof,

before the opening of the Bids. Bidders should act promptly and allow sufficient time for reply to reach them before the submission of their Bids. Should any change in Specifications be required, an Addendum will be issued to all Bidders and receipt by the Bidders of the Form of Addendum must be acknowledged in space provided on Proposal Page.

Forms of Proposal are provided in these Specifications. This form must be used in submitting Proposal, and must be signed by the Bidder.

END OF GENERAL CONDITIONS

## SPECIAL CONDITIONS

These Special Conditions shall apply to the work as a whole, and to each branch or subdivision and subcontractor for same should the work be divided. Subcontractors shall have access to read a copy of these Special Conditions and no Contractor or arrangements with them shall be such as to conflict herewith. Any requirements contained in the General Conditions which differ from any requirements contained in these "Special Conditions" shall be superseded by the requirements of these "Special Conditions".

### 1. ARRANGEMENT OF THE SPECIFICATIONS

A. The Contractor is advised that the arrangement of the technical sections of the Specifications is furnished for his convenience only. The allocation of items of work between his Subcontractors is entirely the responsibility of the Contractor.

B. Prime Contractors shall have a project foreman on-site whenever a SubContractor of such Prime Contractor is on-site to perform work. SubContractors shall submit all Owner related items to project foreman including operational and facility inquiries, building/room access, scheduling conflicts and site coordination requests. It is the sole responsibility of the Prime Contractors to engage with Owner and Engineer, or their designated representatives to satisfy the SubContractors request.

C. Where separate prime contractors are stipulated, the work indicated on the trade drawings shall be considered the work designated for that prime contractor, unless specifically noted otherwise on the drawings or herein specified and shall be as follows:

#### 1. Electrical Construction

a. All work indicated on the Electrical Drawings.

b. All work indicated on the Electrical Drawings and indicated in the specifications.

D. Materials and installation shall comply with the appropriate technical section of this specification unless otherwise indicated.

### 2. SAFETY DURING CONSTRUCTION

A. The Contractor shall enforce suitable rules and provide the required guards, and protective devices for the safe prosecution of the work and for the safety and health of the men employed in it and the public in general, both inside and outside the limit of Contract. The contractors are responsible for compliance with the Federal Occupational Safety and Health Act.

- B. The Prime Contractor and all Subcontractors shall immediately report all accidents, injuries, or health hazards to the Owner and Engineer, or their designated representatives, in writing.

3. STANDARD OF QUALITY

See General Conditions, Paragraph 17.

4. SUBSTITUTIONS OF MATERIAL

Bidders wishing to obtain acceptance on items other than those specified by name shall submit their request to the Engineer not less than ten (10) days before the bid opening, provided that such request is in accordance with the terms of conditions of the Contract Documents.

Acceptance by the Engineer will be in the form of an addendum to the Specifications issued to all prospective bidders indicating that the additional brand or brands are approved as equal to those specified so far as the requirements of the project are concerned. If the bidders do not elect to obtain prior approval during the time so specified, they have thereby evidenced their intention and are bound to provide all those articles and brand names stated in Specifications.

5. CASH ALLOWANCES

In accordance with the Commonwealth of Pennsylvania Laws and Regulations, no cash allowances are included in the Project Manual and Contracts.

The Drawings and/or Specifications indicate the standard of quality and the finite quantity of materials and work, specialities, and items of work required, where such quantities can be determined prior to commencement of the work.

In those instances where it is known that quantities required may exceed those specified, as the result of conditions impossible to anticipate, the Contractor shall state in his Proposal the unit price for such additional work, but no cash allowance for such additional quantity will be permitted.

6. DAMAGE TO PROPERTY

See General Conditions, Paragraph 31.

7. CLEAN-UP

The Contractor shall be responsible for periodic cleaning up of the building and premises. He shall remove all refuse of any kind regardless as to who may have left them. No rubbish shall be burned at the site. Contractor shall also be responsible for keeping all property outside of the immediate work areas and material storage areas clean and free from all equipment, materials and debris. If any condition in violation of this requirement persists more than twenty-four (24) hours after notification by the Owner or Engineer, the Owner shall have the right to abate the condition (without notice to the Contractor responsible) and charge the cost of abatement to the responsible Contractor.

## 8. DRAWINGS AND SPECIFICATIONS FURNISHED TO CONTRACTORS

Following the execution of their respective Contracts, Contractors shall be entitled to receive from the Engineer, without charge, sets of Contract Drawings and Specifications as follows:

### A. Prime Contractors - 3 sets

Should a Contractor require a greater number of copies of Drawings and Specifications than above provided, he shall arrange to obtain them from the Engineer and pay the cost involved.

## 9. WARRANTY

Supplementing any specific guarantee or warranties provided for in any other provision of this Contract for the work to be performed hereunder; each Contractor covenants and agrees to remedy without cost to the Owner, any defect which may develop within one (1) year from the date of completion and acceptance of the work performed under this Contract, or damage which may be caused by such defects, provided such defects, in the judgment of the Owner, are caused by inferior materials and workmanship.

## 10. OPERATIONS AND STORAGE AREAS

All operations of the Contractor (including storage of materials) shall be confined to areas authorized or approved by the Owner. No unauthorized or unwarranted entry upon, passage through, or storage or disposal of material shall be made upon area not so authorized or approved. The Contractor responsible shall be liable for any and all damage caused by him to such area.

## 11. SCAFFOLDS, LADDERS, RUNS, AND HOISTS

The Contractor shall construct and maintain such temporary scaffolds, ladders, runs, hoists, centering, shoring, and other facilities as required to construct the work under his contract.

12. TIME FOR COMMENCEMENT AND COMPLETION

See General Conditions, Paragraph 34.

13. CODES AND PERMITS

See General Conditions, Paragraph 26 and 27.

14. GENERAL SCOPE OF WORK

See General Conditions, Paragraph 4.

15. INDEMNIFICATION AGAINST SUITS

The Contractor shall indemnify and save harmless the Owner, the Board, its members and officers, the Engineer, his assistants, and all others who may act for the Board or the Owner from all suits and actions of every kind, nature and description brought by anyone whatsoever against them or any of them in any manner connected with the contract here proposed or the work thereunder; provided that nothing herein stated shall be construed to preclude the Contractor from maintaining an action at law for money which may be due him under the Contract.

16. COMPETENT WORKMEN - RATES OF WAGES

No person shall be employed to do work under such Contract except competent and first-class workmen and mechanics. No workmen shall be regarded as competent and first-class, within the meaning of this clause, except those who are fully skilled in their respective branches of labor, and who shall be paid not less than such rates of wages and for such hours' work as shall be the established and current rate of wages paid for such hours by employers or organized labor in doing of similar work in the general geographical location of the project.

17. LINES, LEVELS, ETC.

The contractor shall, at his own expense, procure datum information, grades, elevations, verify existing construction, etc., at the site, before starting work, otherwise any cost of correction shall be entirely at the contractor's expense.

18. REGULATIONS FOR PENNSYLVANIA PREVAILING WAGE ACT

- A. The general prevailing minimum wage rates including contributions for employee benefits as shall have been determined by the Secretary which must be paid to the workmen employed in the performance of the contracts.

The Contractor shall pay no less than the wage rates as determined in the decision of the Secretary of Labor and Industry and shall comply with the conditions of the Pennsylvania Prevailing Wage Act approved August 15, 1961 (No. 442), as amended August 9, 1963 (No. 342), and the Regulations issued pursuant thereto, to assure the full and proper payment of said wages.

- B. The contract provisions shall apply to all work performed on the contract by the contractor and to all work performed on the contract by subcontractors.
- C. The Contractor shall insert in each of the subcontracts all of the stipulations contained in these required provisions and such other stipulations as may be required.
- D. The contract shall provide that no workmen may be employed on the public work except in accordance with the classifications set forth in the decision of the Secretary. In the event that additional or different classifications are necessary the procedure set forth in Section 7 of these Regulations shall be followed.
- E. The contract shall provide that all workmen employed or working on the public work shall be paid unconditionally, regardless of whether any contractual relationship exists or the nature of any contractual relationship which may be alleged to exist between any contractor, subcontractor and workmen, not less than once a week without deduction or rebate, on any account, either directly or indirectly, except authorized deductions, the full amounts due at the time of payment, computed at the rates applicable to the time worked in the appropriate classification. Nothing in the contract, the Act or these Regulations shall prohibit the payment of more than the general prevailing minimum wage rates as determined by the Secretary to any workmen on public work.
- F. The contract shall provide that the contractor and each subcontractor shall post for the entire period of construction the wage determination decisions of the Secretary, including the effective date of any changes thereof, in a prominent and easily accessible place or places used by them to pay workmen their wages. The posted notice of wage rates must contain the following information:
1. Name of Project.
  2. Name of public body for which it is being constructed.
  3. The crafts and classifications of workmen listed in the Secretary's general prevailing minimum wage rate determination for the particular project.



4. The general prevailing minimum wage rates determination for each craft and classification and the effective date of any changes.
5. A statement advising workmen that if they have been paid less than the general prevailing minimum wage rate for their job classification or that the contractor and/or subcontractor are not complying with the Act or these Regulations in any manner whatsoever they may file a protect in writing with the Secretary of Labor and Industry within three months of the date of the occurrence, objecting to the payment to any contractor to the extent of the amount of amounts due or to become due to them as wages for work performed on the public work project.

Any workmen paid less than the rate specified in the contract shall have a civil right of action for the difference between the wage paid and the wages stipulated in the contract, which right of action must be exercised within six months from the occurrence of the event creating such right.

- G. The contract shall provide that the contractor and all subcontractors shall keep an accurate record showing the name, craft and/or classification, number of hours worked per day, and the actual hourly rate of wage paid (including employee benefits) to each workmen employed by him in connection with the public work and such record must include any deductions from each workman. The record shall be preserved for two years from the date of payment and shall be open at all reasonable hours to the inspection of the public body awarding the contract and to the Secretary or his duly authorized representatives.
- H. The contract shall provide that apprentices shall be limited to such numbers as shall be in accordance with a bona fide apprenticeship program registered with and approved by the Pennsylvania Apprenticeship and Training Council and only apprentices whose training and employment are in full compliance with the provisions of the Apprenticeship and Training Act approved July 14, 1961 (No. 304) and the Rules and Regulations issued pursuant thereto shall be employed on the public work project. Any workman using the tools of a craft who does not qualify as an apprentice within the provisions of this subsection shall be paid the rate predetermined for journeyman in that particular craft and/or classification.
- I. Wages shall be paid without any deductions except authorized deductions. Employers not parties to a contract requiring contributions for employee benefits which the Secretary has determined to be included in the general prevailing minimum wage rate shall pay the monetary equivalent thereof directly to the workmen.
- J. Payment of compensation to workmen for work performed on public work on a lump sum basis, or a piece work system, or a price certain for the completion of a certain amount of work, or the production of a certain result shall be deemed a violation of the Act and these Regulations, regardless of the average hourly earnings resulting therefrom.

- K. The contract shall also provide that each contractor and each subcontractor shall file a statement each week and a final statement at the conclusion of the work on the contract with the contracting agency, under oath, and in form satisfactory to the Secretary, certifying that all workmen have been paid wages in strict conformity with the provisions of the contract as prescribed by this Section 3 of these Regulations, or if any wages remain unpaid to set forth the amount of wages due and owing to each workman respectively.
- L. The provisions of the Act and the Regulations are hereby incorporated by reference in the contract.

19. LIQUIDATED DAMAGES

- A. The Owner will suffer damages if the construction contract(s) is not complete as set forth in Proposal Form(s).
- B. The contractor and contractor's surety company shall be liable for and shall pay to the Owner the sum of \$500.00 per day as Liquidated Damages for each calendar day of delay until the construction contract is complete.

20. SITE RESTRICTIONS

- A. The Contractor shall prepare a "sign-in" log book for the site labor force. The book shall be located in the facility's Maintenance Department and be supervised by the Owner. Contract employees working on-site shall initial the log adjacent to their name and receive a contractor's identification badge daily. Badges are to be returned to the Owner when leaving the site. Badges shall be worn at all times on the site.
- B. Unauthorized photographs are not allowed. No photographs of County personnel or residents are permitted.
- C. Failure to comply with the above restrictions shall be cause for eviction from the site.

21. PROJECT SCHEDULE (Responsibility of the **Prime Electrical Contractor**)

- A. Refer to the following:

General Conditions, Paragraph 34 "Order of Completion"

General Requirements Division 1, "Project Coordination"

General Requirements Division 1, "Summary of Work"- paragraph 1.5, The Work.

- B. Include within the Progress Schedule the related work activities of all trades by task/event with completion time frame, allowable slippage and critical start and finish dates. Incorporate milestones for Owner responsibilities.
- C. Acceptable format for presentation of Project Schedule include:
  - 1. Simplified overlapping and coordinated bar charts with a timeline and activity dates and duration.
  - 2. A network schedule using the critical path method (cpm) of plotting network nodes (events) and connecting arrows (activities).
- D. Update the Project Schedule as required to accommodate field and project conditions. Issue an updated Project Schedule to the Owner for review and approval every three weeks or as required to inform the Owner of deviations and revisions.
- E. The project shall be complete and operational on August 26, 2022. The date herein stated shall be considered the contract limit and completion date as defined in the Proposal Form on page PF-2. It is understood that the County may, on its own decision or initiate, extend the completion date by giving notice to all parties to this contract of its intention to extend. The County shall not be liable for any expenses, damages, loss of profits, anticipated or otherwise for extending this contract.

22. APPRENTICESHIP TRAINING:

- A. A bidder and all subcontractors they may eventually employ on this Project shall each be a participant in a state or federally approved Apprenticeship Training Program. Each bidder shall submit with his/her proposal a complete description of the Apprenticeship Training Program in which the bidder participates. The bidder shall also provide with his/her bid a written statement that if awarded a contract, the bidder will employ apprentices enrolled in a state or federally approved Apprenticeships Training Program under the direction of experienced supervisors.
- B. If requested by the Owner, the bidder shall submit within three days of the date of the request, the name, address, and telephone number of the state and federal agency which certifies the bidder's Apprentice/Training Program and the bidders identification number (if any) that would enable the Owner's representative to verify the information provided by the bidder.

- C. Failure of a bidder to provide information as required under this paragraph shall be cause for disqualification of the bidder's proposal.

23. AFFIRMATIVE ACTION PROGRAM:

- A. Each bidder shall have a formal documented Affirmative Action Program and must provide with his/her proposal a written statement describing the exact nature, scope and history of their Affirmative Action Program in the interest of extending work opportunities to qualified minority workers.
- B. Failure of a bidder to provide information as required under this paragraph shall be cause for disqualification of the bidder's proposal.

END OF SPECIAL CONDITIONS

**BUREAU OF LABOR LAW COMPLIANCE  
PREVAILING WAGES PROJECT RATES**

Project Name:	Emergency Services Building Electrical Survey- Phase 2
Awarding Agency:	The County of Delaware
Contract Award Date:	7/7/2022
Serial Number:	22-01686
Project Classification:	Building
Determination Date:	2/28/2022
Assigned Field Office:	Philadelphia
Field Office Phone Number:	(215)560-1858
Toll Free Phone Number:	
Project County:	Delaware County

**BUREAU OF LABOR LAW COMPLIANCE  
PREVAILING WAGES PROJECT RATES**

<b>Project: 22-01686 - Building</b>	<b>Effective Date</b>	<b>Expiration Date</b>	<b>Hourly Rate</b>	<b>Fringe Benefits</b>	<b>Total</b>
Asbestos & Insulation Workers	5/29/2017		\$47.30	\$34.85	\$82.15
Asbestos & Insulation Workers	5/1/2018		\$49.30	\$35.85	\$85.15
Asbestos & Insulation Workers	5/1/2019		\$51.20	\$36.95	\$88.15
Asbestos & Insulation Workers	6/1/2020		\$54.20	\$36.95	\$91.15
Asbestos & Insulation Workers	5/1/2021		\$54.35	\$39.95	\$94.30
Boilermaker (Commercial, Institutional, and Minor Repair Work)	3/1/2017		\$28.52	\$18.22	\$46.74
Boilermaker (Commercial, Institutional, and Minor Repair Work)	3/1/2018		\$29.52	\$18.22	\$47.74
Boilermaker (Commercial, Institutional, and Minor Repair Work)	1/1/2019		\$29.26	\$18.48	\$47.74
Boilermakers	1/1/2018		\$46.26	\$33.36	\$79.62
Boilermakers	3/1/2018		\$45.89	\$33.73	\$79.62
Boilermakers	1/1/2019		\$45.51	\$34.11	\$79.62
Boilermakers	8/1/2019		\$47.21	\$34.11	\$81.32
Boilermakers	1/1/2021		\$49.32	\$34.90	\$84.22
Boilermakers	1/1/2022		\$50.17	\$35.30	\$85.47
Bricklayer	5/1/2017		\$40.98	\$26.78	\$67.76
Bricklayer	5/1/2018		\$43.73	\$26.78	\$70.51
Bricklayer	5/1/2019		\$46.48	\$26.78	\$73.26
Bricklayer	5/1/2020		\$44.45	\$30.31	\$74.76
Bricklayer	5/1/2021		\$45.45	\$30.61	\$76.06
Carpenter - Chief of Party (Surveying & Layout)	5/1/2017		\$45.25	\$27.59	\$72.84
Carpenter - Chief of Party (Surveying & Layout)	5/1/2018	4/30/2019	\$45.83	\$27.59	\$73.42
Carpenter - Chief of Party (Surveying & Layout)	5/1/2019		\$46.54	\$27.59	\$74.13
Carpenter - Chief of Party (Surveying & Layout)	5/1/2020		\$47.73	\$27.59	\$75.32
Carpenter - Chief of Party (Surveying & Layout)	5/1/2021		\$47.47	\$28.71	\$76.18
Carpenter - Instrument Person (Surveying & Layout)	5/1/2017		\$39.35	\$27.59	\$66.94
Carpenter - Instrument Person (Surveying & Layout)	5/1/2018	4/30/2019	\$39.85	\$27.59	\$67.44
Carpenter - Instrument Person (Surveying & Layout)	5/1/2019		\$40.47	\$27.59	\$68.06
Carpenter - Instrument Person (Surveying & Layout)	5/1/2020		\$41.50	\$27.59	\$69.09
Carpenter - Instrument Person (Surveying & Layout)	5/1/2021		\$41.28	\$28.71	\$69.99
Carpenter - Rodman (Surveying & Layout)	5/1/2017		\$19.68	\$19.64	\$39.32
Carpenter - Rodman (Surveying & Layout)	5/1/2018	4/30/2019	\$19.93	\$19.49	\$39.42
Carpenter - Rodman (Surveying & Layout)	5/1/2019		\$20.24	\$19.69	\$39.93
Carpenter - Rodman (Surveying & Layout)	5/1/2020		\$20.75	\$19.49	\$40.24
Carpenter - Rodman (Surveying & Layout)	5/1/2021		\$20.64	\$20.31	\$40.95
Carpenters	5/1/2017		\$39.35	\$27.59	\$66.94
Carpenters	5/1/2018	4/30/2019	\$39.85	\$27.59	\$67.44
Carpenters	5/1/2019	4/30/2020	\$40.87	\$27.59	\$68.46
Carpenters	5/1/2020		\$41.90	\$27.59	\$69.49
Carpenters	5/1/2021		\$41.28	\$28.71	\$69.99
Carpenters	5/1/2022		\$42.53	\$28.71	\$71.24
Cement Masons	5/1/2017		\$36.45	\$31.76	\$68.21
Cement Masons	5/1/2018		\$37.50	\$32.26	\$69.76

**BUREAU OF LABOR LAW COMPLIANCE  
PREVAILING WAGES PROJECT RATES**

<b>Project: 22-01686 - Building</b>	<b>Effective Date</b>	<b>Expiration Date</b>	<b>Hourly Rate</b>	<b>Fringe Benefits</b>	<b>Total</b>
Cement Masons	5/1/2019		\$38.50	\$32.81	\$71.31
Cement Masons	5/1/2020		\$39.45	\$33.46	\$72.91
Cement Masons	5/1/2021		\$40.70	\$33.46	\$74.16
DockBuilder/ Divers (Building Heavy & Highway)	5/1/2020		\$52.44	\$37.27	\$89.71
DockBuilder/Pile Drivers (Building, Heavy & Highway)	5/1/2018		\$43.45	\$34.47	\$77.92
DockBuilder/Pile Drivers (Building, Heavy & Highway)	5/1/2020		\$43.70	\$37.27	\$80.97
DockBuilder/Pile Drivers/ Diver Tender(Building Heavy & Highway)	5/1/2020		\$43.70	\$37.27	\$80.97
Dockbuilder/Piledriver (Building, Heavy, Highway)	11/1/2017		\$43.45	\$33.22	\$76.67
Dockbuilder/Piledriver (Building, Heavy, Highway)	5/1/2018		\$44.70	\$33.22	\$77.92
Drywall Finisher	5/1/2017		\$37.11	\$26.75	\$63.86
Drywall Finisher	5/1/2018		\$39.27	\$27.49	\$66.76
Drywall Finisher	5/1/2019		\$37.75	\$28.11	\$65.86
Drywall Finisher	5/1/2020		\$38.27	\$28.59	\$66.86
Electricians	5/29/2017		\$43.16	\$28.46	\$71.62
Electricians	6/4/2018		\$42.87	\$30.41	\$73.28
Electricians	6/3/2019		\$42.87	\$32.41	\$75.28
Electricians	6/1/2020		\$44.47	\$33.31	\$77.78
Electricians	5/31/2021		\$46.06	\$34.22	\$80.28
Electricians	5/30/2022		\$47.64	\$35.14	\$82.78
Electricians	5/29/2023		\$49.24	\$36.04	\$85.28
Elevator Constructor	1/1/2018		\$55.76	\$33.05	\$88.81
Elevator Constructor	1/1/2020		\$59.44	\$35.25	\$94.69
Elevator Constructor	1/1/2021		\$61.43	\$36.36	\$97.79
Floor Coverer	5/1/2019		\$44.37	\$28.44	\$72.81
Floor Coverer	5/1/2020		\$46.01	\$28.44	\$74.45
Floor Coverer	5/1/2021		\$45.74	\$29.21	\$74.95
Floor Layer	5/1/2017		\$42.51	\$27.91	\$70.42
Floor Layer	5/1/2018		\$43.11	\$28.09	\$71.20
Glazier	5/1/2017		\$41.30	\$31.80	\$73.10
Glazier	5/1/2018		\$43.32	\$32.33	\$75.65
Glazier	5/1/2019		\$43.87	\$33.38	\$77.25
Glazier	5/1/2020		\$44.92	\$33.63	\$78.55
Glazier	5/1/2021		\$45.67	\$34.38	\$80.05
Interior Finish	5/1/2019		\$30.20	\$25.80	\$56.00
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2017		\$47.30	\$32.91	\$80.21
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2018		\$51.46	\$30.60	\$82.06
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2019		\$49.30	\$34.41	\$83.71
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	1/1/2020		\$49.80	\$34.41	\$84.21
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2020		\$50.80	\$34.91	\$85.71
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2021		\$47.70	\$39.51	\$87.21

**BUREAU OF LABOR LAW COMPLIANCE  
PREVAILING WAGES PROJECT RATES**

<b>Project: 22-01686 - Building</b>	<b>Effective Date</b>	<b>Expiration Date</b>	<b>Hourly Rate</b>	<b>Fringe Benefits</b>	<b>Total</b>
Iron Workers (Riggers)	7/1/2017		\$39.83	\$27.92	\$67.75
Ironworker (Rodman)	7/1/2017		\$42.56	\$29.30	\$71.86
Ironworker (Rodman)	7/1/2018		\$42.88	\$30.60	\$73.48
Ironworker (Rodman)	7/1/2019		\$43.88	\$30.85	\$74.73
Ironworker (Rodman)	7/1/2020		\$44.82	\$31.60	\$76.42
Laborers (Class 01 - See notes)	5/1/2017		\$28.65	\$24.95	\$53.60
Laborers (Class 01 - See notes)	5/1/2019		\$30.20	\$25.80	\$56.00
Laborers (Class 01 - See notes)	5/1/2020		\$32.05	\$25.25	\$57.30
Laborers (Class 02 - See notes)	5/1/2017		\$30.85	\$25.65	\$56.50
Laborers (Class 02 - See notes)	5/1/2019		\$33.15	\$26.50	\$59.65
Laborers (Class 02 - see notes)	5/1/2020		\$35.15	\$26.15	\$61.30
Laborers (Class 03 - See notes)	5/1/2017		\$28.92	\$25.18	\$54.10
Laborers (Class 03 - See notes)	5/1/2019		\$30.52	\$25.98	\$56.50
Laborers (Class 03 - See notes)	5/1/2020		\$32.47	\$25.43	\$57.90
Laborers (Class 04 - See notes)	5/1/2017		\$28.95	\$24.95	\$53.90
Laborers (Class 04 - See notes)	5/1/2019		\$30.52	\$25.98	\$56.50
Laborers (Class 04 - See notes)	5/1/2020		\$32.47	\$25.43	\$57.90
Laborers (Class 05 - See notes)	5/1/2017		\$28.65	\$24.95	\$53.60
Laborers (Class 05 - See notes)	5/1/2019		\$30.20	\$25.80	\$56.00
Laborers (Class 05 - See notes)	5/1/2020		\$32.05	\$25.25	\$57.30
Landscape Laborer	5/1/2017		\$22.71	\$23.08	\$45.79
Landscape Laborer	5/1/2019		\$24.64	\$23.68	\$48.32
Landscape Laborer	5/1/2020		\$26.55	\$23.13	\$49.68
Marble Finisher	5/1/2017		\$35.55	\$24.17	\$59.72
Marble Finisher	5/1/2018		\$37.55	\$24.17	\$61.72
Marble Finisher	5/1/2019		\$39.75	\$24.17	\$63.92
Marble Finisher	5/1/2020		\$37.57	\$27.65	\$65.22
Marble Mason	5/1/2017		\$40.36	\$26.99	\$67.35
Marble Mason	5/1/2018		\$43.11	\$26.99	\$70.10
Marble Mason	5/1/2019		\$45.86	\$26.99	\$72.85
Marble Mason	5/1/2020		\$44.25	\$30.10	\$74.35
Mason Tender, Cement	5/1/2019		\$30.52	\$25.98	\$56.50
Millwright	7/1/2017		\$41.35	\$32.24	\$73.59
Millwright	5/1/2018		\$43.33	\$32.96	\$76.29
Millwright	5/1/2019		\$45.50	\$33.29	\$78.79
Millwright	6/8/2020		\$46.80	\$33.19	\$79.99
Millwright	5/1/2021		\$48.60	\$33.19	\$81.79
Millwright	5/1/2022		\$50.60	\$33.19	\$83.79
Operators (Building, Class 01 - See Notes)	5/1/2017		\$44.87	\$28.14	\$73.01
Operators (Building, Class 01 - See Notes)	5/1/2018		\$46.41	\$28.60	\$75.01
Operators (Building, Class 01 - See Notes)	5/1/2019		\$46.41	\$30.60	\$77.01
Operators (Building, Class 01 - See Notes)	5/1/2020		\$47.96	\$31.05	\$79.01
Operators (Building, Class 01 - See Notes)	5/1/2021		\$49.50	\$31.51	\$81.01
Operators (Building, Class 01A - See Notes)	5/1/2017		\$47.86	\$29.03	\$76.89



**BUREAU OF LABOR LAW COMPLIANCE  
PREVAILING WAGES PROJECT RATES**

<b>Project: 22-01686 - Building</b>	<b>Effective Date</b>	<b>Expiration Date</b>	<b>Hourly Rate</b>	<b>Fringe Benefits</b>	<b>Total</b>
Operators (Building, Class 01A - See Notes)	5/1/2018		\$49.41	\$29.49	\$78.90
Operators (Building, Class 01A - See Notes)	5/1/2019		\$49.41	\$31.49	\$80.90
Operators (Building, Class 01A - See Notes)	5/1/2020		\$50.96	\$31.94	\$82.90
Operators (Building, Class 01A - See Notes)	5/1/2021		\$52.51	\$32.39	\$84.90
Operators (Building, Class 02 - See Notes)	5/1/2017		\$44.62	\$28.07	\$72.69
Operators (Building, Class 02 - See Notes)	5/1/2018		\$46.16	\$28.53	\$74.69
Operators (Building, Class 02 - See Notes)	5/1/2019		\$46.16	\$30.53	\$76.69
Operators (Building, Class 02 - See Notes)	5/1/2020		\$47.71	\$30.98	\$78.69
Operators (Building, Class 02 - See Notes)	5/1/2021		\$49.25	\$31.44	\$80.69
Operators (Building, Class 02A - See Notes)	5/1/2017		\$47.61	\$28.97	\$76.58
Operators (Building, Class 02A - See Notes)	5/1/2018		\$49.16	\$29.42	\$78.58
Operators (Building, Class 02A - See Notes)	5/1/2019		\$49.17	\$31.41	\$80.58
Operators (Building, Class 02A - See Notes)	5/1/2020		\$50.71	\$31.87	\$82.58
Operators (Building, Class 02A - See Notes)	5/1/2021		\$52.26	\$32.32	\$84.58
Operators (Building, Class 03 - See Notes)	5/1/2017		\$40.53	\$26.87	\$67.40
Operators (Building, Class 03 - See Notes)	5/1/2018		\$42.07	\$27.33	\$69.40
Operators (Building, Class 03 - See Notes)	5/1/2019		\$42.08	\$29.32	\$71.40
Operators (Building, Class 03 - See Notes)	5/1/2020		\$43.62	\$29.78	\$73.40
Operators (Building, Class 03 - See Notes)	5/1/2021		\$45.16	\$30.24	\$75.40
Operators (Building, Class 04 - See Notes)	5/1/2017		\$40.24	\$26.78	\$67.02
Operators (Building, Class 04 - See Notes)	5/1/2018		\$41.78	\$27.22	\$69.00
Operators (Building, Class 04 - See Notes)	5/1/2019		\$41.78	\$29.23	\$71.01
Operators (Building, Class 04 - See Notes)	5/1/2020		\$43.32	\$29.69	\$73.01
Operators (Building, Class 04 - See Notes)	5/1/2021		\$44.87	\$30.14	\$75.01
Operators (Building, Class 05 - See Notes)	5/1/2017		\$38.51	\$26.27	\$64.78
Operators (Building, Class 05 - See Notes)	5/1/2018		\$40.05	\$26.73	\$66.78
Operators (Building, Class 05 - See Notes)	5/1/2019		\$40.06	\$28.72	\$68.78
Operators (Building, Class 05 - See Notes)	5/1/2020		\$41.60	\$29.18	\$70.78
Operators (Building, Class 05 - See Notes)	5/1/2021		\$43.14	\$29.64	\$72.78
Operators (Building, Class 06 - See Notes)	5/1/2017		\$37.52	\$25.98	\$63.50
Operators (Building, Class 06 - See Notes)	5/1/2018		\$39.07	\$26.43	\$65.50
Operators (Building, Class 06 - See Notes)	5/1/2019		\$39.07	\$28.43	\$67.50
Operators (Building, Class 06 - See Notes)	5/1/2020		\$40.61	\$28.89	\$69.50
Operators (Building, Class 06 - See Notes)	5/1/2021		\$42.16	\$29.34	\$71.50
Operators (Building, Class 07A- See Notes)	5/1/2017		\$54.14	\$32.47	\$86.61
Operators (Building, Class 07A- See Notes)	5/1/2018		\$55.99	\$33.02	\$89.01
Operators (Building, Class 07A- See Notes)	5/1/2019		\$56.30	\$35.11	\$91.41
Operators (Building, Class 07A- See Notes)	5/1/2020		\$58.16	\$35.65	\$93.81
Operators (Building, Class 07A- See Notes)	5/1/2021		\$60.00	\$36.21	\$96.21
Operators (Building, Class 07B- See Notes)	5/1/2017		\$53.84	\$32.40	\$86.24
Operators (Building, Class 07B- See Notes)	5/1/2018		\$55.70	\$32.92	\$88.62
Operators (Building, Class 07B- See Notes)	5/1/2019		\$56.00	\$35.03	\$91.03
Operators (Building, Class 07B- See Notes)	5/1/2020		\$57.86	\$35.57	\$93.43
Operators (Building, Class 07B- See Notes)	5/1/2021		\$59.72	\$36.11	\$95.83

**BUREAU OF LABOR LAW COMPLIANCE  
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<b>Project: 22-01686 - Building</b>	<b>Effective Date</b>	<b>Expiration Date</b>	<b>Hourly Rate</b>	<b>Fringe Benefits</b>	<b>Total</b>
Painters Class 1 (see notes)	5/1/2021		\$41.24	\$30.29	\$71.53
Painters Class 1 (see notes)	2/1/2022		\$48.62	\$30.29	\$78.91
Painters Class 2 (see notes)	2/1/2021		\$47.56	\$29.35	\$76.91
Painters Class 2 (see notes)	2/1/2022		\$59.58	\$30.33	\$89.91
Painters Class 4 (see notes)	5/1/2021		\$41.62	\$30.29	\$71.91
Piledrivers	5/1/2021		\$43.73	\$37.99	\$81.72
Plasterers	5/2/2017		\$37.42	\$28.83	\$66.25
Plasterers	5/1/2018		\$37.42	\$30.04	\$67.46
Plasterers	5/1/2019		\$37.72	\$30.74	\$68.46
Plasterers	5/1/2020		\$38.12	\$31.34	\$69.46
Plasterers	5/1/2021		\$38.37	\$31.84	\$70.21
plumber	5/1/2018		\$53.45	\$33.54	\$86.99
plumber	5/1/2019		\$55.45	\$34.54	\$89.99
plumber	8/1/2020		\$57.33	\$35.66	\$92.99
plumber	5/1/2021		\$59.83	\$36.16	\$95.99
Plumbers	5/1/2017		\$51.42	\$32.57	\$83.99
Pointers, Caulkers, Cleaners	5/1/2017		\$42.26	\$25.69	\$67.95
Pointers, Caulkers, Cleaners	5/1/2018		\$45.01	\$25.69	\$70.70
Pointers, Caulkers, Cleaners	5/1/2019		\$47.76	\$25.69	\$73.45
Pointers, Caulkers, Cleaners	5/1/2020		\$45.75	\$29.20	\$74.95
Pointers, Caulkers, Cleaners	5/1/2021		\$46.75	\$29.50	\$76.25
Roofers (Composition)	5/1/2017		\$36.15	\$30.22	\$66.37
Roofers (Composition)	5/1/2018		\$37.15	\$31.27	\$68.42
Roofers (Composition)	5/1/2019		\$38.35	\$31.80	\$70.15
Roofers (Composition)	5/1/2021		\$40.33	\$33.12	\$73.45
Roofers (Shingle)	5/1/2016		\$25.70	\$19.17	\$44.87
Roofers (Shingle)	5/1/2019		\$28.50	\$20.87	\$49.37
Roofers (Shingle)	5/1/2020		\$29.50	\$21.25	\$50.75
Roofers (Shingle)	5/1/2021		\$30.50	\$21.55	\$52.05
Roofers (Slate & Tile)	5/1/2018		\$30.50	\$20.37	\$50.87
Roofers (Slate & Tile)	5/1/2019		\$31.50	\$20.87	\$52.37
Roofers (Slate & Tile)	5/1/2020		\$32.50	\$21.25	\$53.75
Roofers (Slate & Tile)	5/1/2021		\$33.50	\$21.55	\$55.05
Sheet Metal Workers	5/1/2017		\$46.42	\$39.51	\$85.93
Sheet Metal Workers	5/1/2018		\$47.58	\$41.60	\$89.18
Sheet Metal Workers	5/1/2019		\$49.79	\$42.89	\$92.68
Sheet Metal Workers	5/1/2020		\$52.04	\$44.19	\$96.23
Sheet Metal Workers	5/1/2021		\$53.84	\$45.94	\$99.78
Sign Makers and Hangars	7/17/2021		\$29.49	\$23.90	\$53.39
Sprinklerfitters	1/1/2018		\$53.65	\$26.22	\$79.87
Sprinklerfitters	5/1/2019		\$57.20	\$28.32	\$85.52
Sprinklerfitters	5/1/2020		\$59.10	\$29.22	\$88.32
Sprinklerfitters	5/1/2021		\$60.83	\$30.34	\$91.17
Steamfitters	5/1/2017		\$54.64	\$32.53	\$87.17

**BUREAU OF LABOR LAW COMPLIANCE  
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<b>Project: 22-01686 - Building</b>	<b>Effective Date</b>	<b>Expiration Date</b>	<b>Hourly Rate</b>	<b>Fringe Benefits</b>	<b>Total</b>
Steamfitters	5/1/2018		\$56.37	\$34.39	\$90.76
Steamfitters	5/1/2019		\$58.17	\$35.99	\$94.16
Steamfitters	5/1/2020		\$60.47	\$37.24	\$97.71
Steamfitters	5/1/2021		\$60.47	\$40.89	\$101.36
Steamfitters	5/1/2022		\$60.47	\$44.63	\$105.10
Stone Masons	5/1/2017		\$40.36	\$26.99	\$67.35
Stone Masons	5/1/2018		\$43.11	\$26.99	\$70.10
Stone Masons	5/1/2019		\$45.86	\$26.99	\$72.85
Stone Masons	5/1/2020		\$44.25	\$30.10	\$74.35
Stone Masons	5/1/2021		\$44.90	\$30.75	\$75.65
Terrazzo Finisher	5/1/2017		\$39.06	\$22.73	\$61.79
Terrazzo Finisher	5/1/2018		\$41.31	\$22.73	\$64.04
Terrazzo Finisher	5/1/2019		\$43.61	\$22.73	\$66.34
Terrazzo Finisher	5/1/2020		\$41.46	\$26.37	\$67.83
Terrazzo Grinder	5/1/2017		\$39.33	\$22.73	\$62.06
Terrazzo Grinder	5/1/2018		\$41.58	\$22.73	\$64.31
Terrazzo Grinder	5/1/2019		\$43.88	\$22.73	\$66.61
Terrazzo Grinder	5/1/2020		\$41.73	\$26.37	\$68.10
Terrazzo Mechanics	5/1/2017		\$43.71	\$24.81	\$68.52
Terrazzo Mechanics	5/1/2018		\$46.46	\$24.81	\$71.27
Terrazzo Mechanics	5/1/2019		\$49.21	\$24.81	\$74.02
Terrazzo Mechanics	5/1/2020		\$47.51	\$28.01	\$75.52
Terrazzo Mechanics	5/1/2021		\$48.01	\$28.81	\$76.82
Tile Finisher	5/1/2017		\$35.55	\$24.17	\$59.72
Tile Finisher	5/1/2018		\$37.55	\$24.17	\$61.72
Tile Finisher	5/1/2019		\$39.75	\$24.17	\$63.92
Tile Finisher	5/1/2020		\$37.57	\$27.65	\$65.22
Tile Setter	5/1/2017		\$43.71	\$24.81	\$68.52
Tile Setter	5/1/2018		\$46.46	\$24.81	\$71.27
Tile Setter	5/1/2019		\$49.21	\$24.81	\$74.02
Tile Setter	5/1/2020		\$47.51	\$28.01	\$75.52
Truckdriver class 1(see notes)	5/1/2017		\$30.46	\$17.96	\$48.42
Truckdriver class 1(see notes)	5/1/2018		\$31.93	\$17.96	\$49.89
Truckdriver class 1(see notes)	5/1/2019		\$32.21	\$19.19	\$51.40
Truckdriver class 1(see notes)	5/1/2020		\$34.93	\$17.96	\$52.89
Truckdriver class 1(see notes)	5/1/2021		\$36.48	\$17.96	\$54.44
Truckdriver class 2 (see notes)	5/1/2017		\$30.56	\$17.96	\$48.52
Truckdriver class 2 (see notes)	5/1/2018		\$32.03	\$17.96	\$49.99
Truckdriver class 2 (see notes)	5/1/2019		\$32.31	\$19.19	\$51.50
Truckdriver class 2 (see notes)	5/1/2020		\$35.03	\$17.96	\$52.99
Truckdriver class 2 (see notes)	5/1/2021		\$36.58	\$17.96	\$54.54
Truckdriver class 3 (see notes)	5/1/2017		\$30.81	\$17.96	\$48.77
Truckdriver class 3 (see notes)	5/1/2018		\$32.28	\$17.96	\$50.24
Truckdriver class 3 (see notes)	5/1/2019		\$32.56	\$19.19	\$51.75

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<b>Project: 22-01686 - Building</b>	<b>Effective Date</b>	<b>Expiration Date</b>	<b>Hourly Rate</b>	<b>Fringe Benefits</b>	<b>Total</b>
Truckdriver class 3 (see notes)	5/1/2020		\$35.28	\$17.96	\$53.24
Truckdriver class 3 (see notes)	5/1/2021		\$36.83	\$17.96	\$54.79
Window Film / Tint Installer	6/1/2019		\$24.52	\$12.08	\$36.60

**BUREAU OF LABOR LAW COMPLIANCE  
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<b>Project: 22-01686 - Heavy/Highway</b>	<b>Effective Date</b>	<b>Expiration Date</b>	<b>Hourly Rate</b>	<b>Fringe Benefits</b>	<b>Total</b>
Carpenter - Chief of Party (Surveying & Layout)	5/1/2017		\$51.42	\$27.39	\$78.81
Carpenter - Chief of Party (Surveying & Layout)	5/1/2018	4/30/2019	\$53.20	\$27.69	\$80.89
Carpenter - Chief of Party (Surveying & Layout)	5/1/2019	4/30/2020	\$55.38	\$27.69	\$83.07
Carpenter - Chief of Party (Surveying & Layout)	5/1/2020	4/30/2021	\$57.63	\$27.69	\$85.32
Carpenter - Chief of Party (Surveying & Layout)	5/1/2021		\$59.93	\$27.69	\$87.62
Carpenter - Instrument Person (Surveying & Layout)	5/1/2017		\$44.71	\$27.39	\$72.10
Carpenter - Instrument Person (Surveying & Layout)	5/1/2018	4/30/2019	\$46.26	\$27.69	\$73.95
Carpenter - Instrument Person (Surveying & Layout)	5/1/2019	4/30/2020	\$48.16	\$27.69	\$75.85
Carpenter - Instrument Person (Surveying & Layout)	5/1/2020	4/30/2021	\$50.11	\$27.69	\$77.80
Carpenter - Instrument Person (Surveying & Layout)	5/1/2021		\$52.11	\$27.69	\$79.80
Carpenter - Rodman (Surveying & Layout)	5/1/2017		\$35.77	\$21.19	\$56.96
Carpenter - Rodman (Surveying & Layout)	5/1/2018	4/30/2019	\$37.01	\$21.34	\$58.35
Carpenter - Rodman (Surveying & Layout)	5/1/2019	4/30/2020	\$38.53	\$21.34	\$59.87
Carpenter - Rodman (Surveying & Layout)	5/1/2020	4/30/2021	\$40.09	\$21.34	\$61.43
Carpenter - Rodman (Surveying & Layout)	5/1/2021		\$41.69	\$21.34	\$63.03
Carpenter	5/1/2018	4/30/2019	\$46.26	\$27.69	\$73.95
Carpenter	5/1/2019	4/30/2020	\$47.81	\$28.04	\$75.85
Carpenter	5/1/2020		\$49.46	\$28.34	\$77.80
Carpenter	5/1/2021		\$51.76	\$28.04	\$79.80
Cement Masons	5/1/2017		\$34.45	\$31.51	\$65.96
Cement Masons	5/1/2018		\$35.65	\$32.01	\$67.66
Cement Masons	5/1/2019		\$37.90	\$31.51	\$69.41
Cement Masons	5/1/2020		\$37.95	\$33.26	\$71.21
Cement Masons	5/1/2021		\$39.65	\$33.41	\$73.06
DockBuilder/ Divers (Building Heavy & Highway)	5/1/2020		\$52.44	\$37.27	\$89.71
DockBuilder/Pile Drivers/ Diver Tender(Building Heavy & Highway)	5/1/2020		\$43.70	\$37.27	\$80.97
Electric Lineman	5/29/2017		\$52.60	\$26.37	\$78.97
Electric Lineman	5/28/2018		\$53.64	\$27.45	\$81.09
Electric Lineman	5/27/2019		\$54.66	\$28.56	\$83.22
Electric Lineman	6/1/2020		\$55.96	\$29.76	\$85.72
Electric Lineman	5/31/2021		\$57.93	\$30.22	\$88.15
Electric Lineman	5/30/2022		\$59.17	\$31.48	\$90.65
Electric Lineman	5/29/2023		\$60.48	\$32.77	\$93.25
Electric Lineman	6/3/2024		\$62.07	\$33.96	\$96.03
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	1/1/2017		\$46.20	\$31.26	\$77.46
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2020		\$50.80	\$34.91	\$85.71
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2021		\$47.70	\$39.51	\$87.21
Iron Workers	7/1/2017		\$47.30	\$32.91	\$80.21
Iron Workers	7/1/2019		\$49.30	\$34.41	\$83.71
Iron Workers	1/1/2020		\$49.80	\$34.41	\$84.21
Ironworker (Rodman)	7/1/2020		\$44.82	\$31.60	\$76.42
Laborers (Class 01 - See notes)	5/1/2017		\$29.75	\$25.65	\$55.40

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<b>Project: 22-01686 - Heavy/Highway</b>	<b>Effective Date</b>	<b>Expiration Date</b>	<b>Hourly Rate</b>	<b>Fringe Benefits</b>	<b>Total</b>
Laborers (Class 01 - See notes)	5/1/2018		\$31.25	\$25.65	\$56.90
Laborers (Class 01 - See notes)	5/1/2019		\$31.95	\$26.50	\$58.45
Laborers (Class 01 - See notes)	5/1/2020		\$33.95	\$26.15	\$60.10
Laborers (Class 01 - See notes)	5/1/2021		\$36.20	\$25.65	\$61.85
Laborers (Class 02 - See notes)	5/1/2017		\$29.95	\$25.65	\$55.60
Laborers (Class 02 - See notes)	5/1/2018		\$31.45	\$25.65	\$57.10
Laborers (Class 02 - See notes)	5/1/2019		\$32.15	\$26.50	\$58.65
Laborers (Class 02 - See notes)	5/1/2020		\$34.15	\$26.15	\$60.30
Laborers (Class 02 - See notes)	5/1/2021		\$36.40	\$25.65	\$62.05
Laborers (Class 03 - See notes)	5/1/2017		\$29.95	\$25.65	\$55.60
Laborers (Class 03 - See notes)	5/1/2018		\$31.45	\$25.65	\$57.10
Laborers (Class 03 - See notes)	5/1/2019		\$32.15	\$26.50	\$58.65
Laborers (Class 03 - See notes)	5/1/2020		\$34.15	\$26.15	\$60.30
Laborers (Class 03 - See notes)	5/1/2021		\$36.40	\$25.65	\$62.05
Laborers (Class 04 - See notes)	5/1/2017		\$24.55	\$25.65	\$50.20
Laborers (Class 04 - See notes)	5/1/2018		\$26.05	\$25.65	\$51.70
Laborers (Class 04 - See notes)	5/1/2019		\$26.75	\$26.50	\$53.25
Laborers (Class 04 - See notes)	5/1/2020		\$28.75	\$26.15	\$54.90
Laborers (Class 04 - See notes)	5/1/2021		\$31.00	\$25.65	\$56.65
Laborers (Class 05 - See notes)	5/1/2017		\$30.60	\$25.65	\$56.25
Laborers (Class 05 - See notes)	5/1/2018		\$32.10	\$25.65	\$57.75
Laborers (Class 05 - See notes)	5/1/2019		\$32.80	\$26.50	\$59.30
Laborers (Class 05 - See notes)	5/1/2020		\$34.80	\$26.15	\$60.95
Laborers (Class 05 - See notes)	5/1/2021		\$37.05	\$25.65	\$62.70
Laborers (Class 06 - See notes)	5/1/2017		\$30.65	\$25.65	\$56.30
Laborers (Class 06 - See notes)	5/1/2018		\$32.15	\$25.65	\$57.80
Laborers (Class 06 - See notes)	5/1/2019		\$32.85	\$26.50	\$59.35
Laborers (Class 06 - See notes)	5/1/2020		\$34.85	\$26.15	\$61.00
Laborers (Class 06 - See notes)	5/1/2021		\$37.10	\$25.65	\$62.75
Laborers (Class 07 - See notes)	5/1/2017		\$30.50	\$25.65	\$56.15
Laborers (Class 07 - See notes)	5/1/2018		\$32.00	\$25.65	\$57.65
Laborers (Class 07 - See notes)	5/1/2019		\$32.70	\$26.50	\$59.20
Laborers (Class 07 - See notes)	5/1/2020		\$34.70	\$26.15	\$60.85
Laborers (Class 07 - See notes)	5/1/2021		\$36.95	\$25.65	\$62.60
Laborers (Class 08 - See notes)	5/1/2017		\$30.25	\$25.65	\$55.90
Laborers (Class 08 - See notes)	5/1/2018		\$31.75	\$25.65	\$57.40
Laborers (Class 08 - See notes)	5/1/2019		\$32.45	\$26.50	\$58.95
Laborers (Class 08 - See notes)	5/1/2020		\$34.45	\$26.15	\$60.60
Laborers (Class 08 - See notes)	5/1/2021		\$36.70	\$25.65	\$62.35
Laborers (Class 09 - See notes)	5/1/2017		\$30.10	\$25.65	\$55.75
Laborers (Class 09 - See notes)	5/1/2018		\$31.60	\$25.65	\$57.25
Laborers (Class 09 - See notes)	5/1/2019		\$32.30	\$26.50	\$58.80
Laborers (Class 09 - See notes)	5/1/2020		\$34.30	\$26.15	\$60.45
Laborers (Class 09 - See notes)	5/1/2021		\$36.55	\$25.65	\$62.20

**BUREAU OF LABOR LAW COMPLIANCE  
PREVAILING WAGES PROJECT RATES**

<b>Project: 22-01686 - Heavy/Highway</b>	<b>Effective Date</b>	<b>Expiration Date</b>	<b>Hourly Rate</b>	<b>Fringe Benefits</b>	<b>Total</b>
Laborers (Class 10- See notes)	5/1/2017		\$30.25	\$25.65	\$55.90
Laborers (Class 10- See notes)	5/1/2018		\$33.30	\$25.65	\$58.95
Laborers (Class 10- See notes)	5/1/2019		\$32.45	\$26.50	\$58.95
Laborers (Class 10- See notes)	5/1/2020		\$34.45	\$26.15	\$60.60
Laborers (Class 10- See notes)	5/1/2021		\$36.70	\$25.65	\$62.35
Laborers (Class 11 -See Notes)	5/1/2017		\$30.15	\$25.65	\$55.80
Laborers (Class 11 -See Notes)	5/1/2018		\$31.55	\$25.65	\$57.20
Laborers (Class 11 -See Notes)	5/1/2019		\$32.35	\$26.50	\$58.85
Laborers (Class 11 -See Notes)	5/1/2020		\$34.35	\$26.15	\$60.50
Laborers (Class 11 -See Notes)	5/1/2021		\$36.50	\$25.65	\$62.15
Laborers (Class 12 -See Notes)	5/1/2017		\$31.85	\$25.65	\$57.50
Laborers (Class 12 -See Notes)	5/1/2018		\$32.45	\$25.65	\$58.10
Laborers (Class 12 -See Notes)	5/1/2019		\$34.05	\$26.50	\$60.55
Laborers (Class 12 -See Notes)	5/1/2020		\$36.05	\$26.15	\$62.20
Laborers (Class 12 -See Notes)	5/1/2021		\$37.40	\$25.65	\$63.05
Laborers (Class 13 -See Notes)	5/1/2017		\$33.88	\$25.65	\$59.53
Laborers (Class 13 -See Notes)	5/1/2018		\$35.38	\$25.65	\$61.03
Laborers (Class 13 -See Notes)	5/1/2019		\$36.08	\$26.50	\$62.58
Laborers (Class 13 -See Notes)	5/1/2020		\$38.08	\$26.15	\$64.23
Laborers (Class 13 -See Notes)	5/1/2021		\$40.33	\$25.65	\$65.98
Laborers (Class 14 -See Notes)	5/1/2017		\$30.00	\$25.65	\$55.65
Laborers (Class 14 -See Notes)	5/1/2018		\$31.50	\$25.65	\$57.15
Laborers (Class 14 -See Notes)	5/1/2019		\$32.20	\$26.50	\$58.70
Laborers (Class 14 -See Notes)	5/1/2020		\$34.20	\$26.15	\$60.35
Laborers (Class 14 -See Notes)	5/1/2021		\$36.45	\$25.65	\$62.10
Laborers Utility (PGW ONLY) (Flagperson)	5/1/2017		\$23.52	\$17.58	\$41.10
Laborers Utility (PGW ONLY)	5/1/2017		\$30.55	\$17.58	\$48.13
Landscape Laborer	5/1/2016		\$21.19	\$22.65	\$43.84
Landscape Laborer	5/1/2019		\$24.22	\$23.50	\$47.72
Landscape Laborer	5/1/2020		\$26.13	\$22.95	\$49.08
Operators (Heavy, Class 05 - See Notes)	5/1/2019		\$40.06	\$28.72	\$68.78
Operators (Heavy, Class 06 - See Notes)	5/1/2019		\$39.07	\$28.43	\$67.50
Operators Class 01 - See Notes (Building, Heavy, Highway)	5/1/2017		\$44.87	\$28.14	\$73.01
Operators Class 01 - See Notes (Building, Heavy, Highway)	5/1/2018		\$46.41	\$28.60	\$75.01
Operators Class 01 - See Notes (Building, Heavy, Highway)	5/1/2019		\$46.41	\$30.60	\$77.01
Operators Class 01 - See Notes (Building, Heavy, Highway)	5/1/2020		\$47.96	\$31.20	\$79.16
Operators Class 01 - See Notes (Building, Heavy, Highway)	5/1/2021		\$49.50	\$31.51	\$81.01
Operators Class 01a - See Notes (Building, Heavy, Highway)	5/1/2017		\$47.86	\$29.03	\$76.89
Operators Class 01a - See Notes (Building, Heavy, Highway)	5/1/2018		\$49.41	\$29.49	\$78.90
Operators Class 01a - See Notes (Building, Heavy, Highway)	5/1/2019		\$49.41	\$31.49	\$80.90

**BUREAU OF LABOR LAW COMPLIANCE  
PREVAILING WAGES PROJECT RATES**

<b>Project: 22-01686 - Heavy/Highway</b>	<b>Effective Date</b>	<b>Expiration Date</b>	<b>Hourly Rate</b>	<b>Fringe Benefits</b>	<b>Total</b>
Highway)					
Operators Class 01a - See Notes (Building, Heavy, Highway)	5/1/2020		\$50.96	\$32.09	\$83.05
Operators Class 01a - See Notes (Building, Heavy, Highway)	5/1/2021		\$52.51	\$32.39	\$84.90
Operators Class 02 - See Notes (Building, Heavy, Highway)	5/1/2017		\$44.62	\$28.07	\$72.69
Operators Class 02 - See Notes (Building, Heavy, Highway)	5/1/2018		\$46.16	\$28.53	\$74.69
Operators Class 02 - See Notes (Building, Heavy, Highway)	5/1/2019		\$46.16	\$30.53	\$76.69
Operators Class 02 - See Notes (Building, Heavy, Highway)	5/1/2020		\$47.71	\$31.13	\$78.84
Operators Class 02 - See Notes (Building, Heavy, Highway)	5/1/2021		\$49.25	\$31.44	\$80.69
Operators Class 02a - See Notes (Building, Heavy, Highway)	5/1/2017		\$47.61	\$28.97	\$76.58
Operators Class 02a - See Notes (Building, Heavy, Highway)	5/1/2018		\$49.16	\$29.42	\$78.58
Operators Class 02a - See Notes (Building, Heavy, Highway)	5/1/2019		\$49.17	\$31.41	\$80.58
Operators Class 02a - See Notes (Building, Heavy, Highway)	5/1/2020		\$50.71	\$32.02	\$82.73
Operators Class 02a - See Notes (Building, Heavy, Highway)	5/1/2021		\$52.27	\$32.31	\$84.58
Operators Class 03 - See Notes (Building, Heavy, Highway)	5/1/2017		\$40.53	\$26.87	\$67.40
Operators Class 03 - See Notes (Building, Heavy, Highway)	5/1/2018		\$42.07	\$27.33	\$69.40
Operators Class 03 - See Notes (Building, Heavy, Highway)	5/1/2019		\$42.08	\$29.32	\$71.40
Operators Class 03 - See Notes (Building, Heavy, Highway)	5/1/2020		\$43.62	\$29.93	\$73.55
Operators Class 03 - See Notes (Building, Heavy, Highway)	5/1/2021		\$45.16	\$30.24	\$75.40
Operators Class 04 - See Notes (Building, Heavy, Highway)	5/1/2017		\$40.24	\$26.78	\$67.02
Operators Class 04 - See Notes (Building, Heavy, Highway)	5/1/2018		\$41.78	\$27.22	\$69.00
Operators Class 04 - See Notes (Building, Heavy, Highway)	5/1/2019		\$41.78	\$29.23	\$71.01
Operators Class 04 - See Notes (Building, Heavy, Highway)	5/1/2020		\$43.32	\$29.84	\$73.16
Operators Class 04 - See Notes (Building, Heavy, Highway)	5/1/2021		\$44.86	\$30.15	\$75.01
Operators Class 05 - See Notes (Building, Heavy, Highway)	5/1/2017		\$38.51	\$26.27	\$64.78
Operators Class 05 - See Notes (Building, Heavy, Highway)	5/1/2018		\$40.05	\$26.73	\$66.78
Operators Class 05 - See Notes (Building, Heavy, Highway)	5/1/2019		\$40.06	\$28.72	\$68.78
Operators Class 05 - See Notes (Building, Heavy, Highway)	5/1/2020		\$41.60	\$29.33	\$70.93



**BUREAU OF LABOR LAW COMPLIANCE  
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<b>Project: 22-01686 - Heavy/Highway</b>	<b>Effective Date</b>	<b>Expiration Date</b>	<b>Hourly Rate</b>	<b>Fringe Benefits</b>	<b>Total</b>
Operators Class 05 - See Notes (Building, Heavy, Highway)	5/1/2021		\$43.14	\$29.64	\$72.78
Operators Class 06 - See Notes (Building, Heavy, Highway)	5/1/2017		\$37.52	\$25.98	\$63.50
Operators Class 06 - See Notes (Building, Heavy, Highway)	5/1/2018		\$39.07	\$26.43	\$65.50
Operators Class 06 - See Notes (Building, Heavy, Highway)	5/1/2019		\$39.07	\$28.43	\$67.50
Operators Class 06 - See Notes (Building, Heavy, Highway)	5/1/2020		\$40.61	\$29.04	\$69.65
Operators Class 06 - See Notes (Building, Heavy, Highway)	5/1/2021		\$42.16	\$29.34	\$71.50
Operators Class 07 (A) - See Notes (Building, Heavy, Highway)	5/1/2017		\$54.14	\$32.47	\$86.61
Operators Class 07 (A) - See Notes (Building, Heavy, Highway)	5/1/2018		\$55.99	\$33.02	\$89.01
Operators Class 07 (A) - See Notes (Building, Heavy, Highway)	5/1/2019		\$56.30	\$35.11	\$91.41
Operators Class 07 (A) - See Notes (Building, Heavy, Highway)	5/1/2020		\$58.16	\$35.80	\$93.96
Operators Class 07 (A) - See Notes (Building, Heavy, Highway)	5/1/2021		\$60.00	\$36.21	\$96.21
Operators Class 07 (B) - See Notes (Building, Heavy, Highway)	5/1/2017		\$53.84	\$32.40	\$86.24
Operators Class 07 (B) - See Notes (Building, Heavy, Highway)	5/1/2018		\$55.70	\$32.92	\$88.62
Operators Class 07 (B) - See Notes (Building, Heavy, Highway)	5/1/2019		\$56.00	\$35.03	\$91.03
Operators Class 07 (B) - See Notes (Building, Heavy, Highway)	5/1/2020		\$57.86	\$35.72	\$93.58
Operators Class 07 (B) - See Notes (Building, Heavy, Highway)	5/1/2021		\$59.72	\$36.11	\$95.83
Painters Class 2 (see notes)	2/1/2021		\$47.56	\$29.35	\$76.91
Painters Class 2 (see notes)	2/1/2022		\$48.62	\$30.29	\$78.91
Painters Class 3 (see notes)	2/1/2021		\$58.52	\$29.39	\$87.91
Painters Class 3 (see notes)	2/1/2022		\$59.58	\$30.33	\$89.91
Piledrivers	5/1/2021		\$43.73	\$37.99	\$81.72
Steamfitters (Heavy and Highway - Gas Distribution)	5/1/2017		\$51.91	\$32.53	\$84.44
Steamfitters (Heavy and Highway - Gas Distribution)	5/1/2020		\$60.47	\$36.93	\$97.40
Steamfitters	5/1/2018		\$56.37	\$34.39	\$90.76
Truckdriver class 1(see notes)	5/1/2017		\$30.31	\$17.96	\$48.27
Truckdriver class 1(see notes)	5/1/2018		\$31.78	\$17.96	\$49.74
Truckdriver class 1(see notes)	5/1/2019		\$32.06	\$19.19	\$51.25
Truckdriver class 1(see notes)	5/1/2020		\$34.78	\$17.96	\$52.74
Truckdriver class 1(see notes)	5/1/2021		\$36.33	\$17.96	\$54.29
Truckdriver class 2 (see notes)	5/1/2017		\$30.41	\$17.96	\$48.37
Truckdriver class 2 (see notes)	5/1/2018		\$31.88	\$17.96	\$49.84
Truckdriver class 2 (see notes)	5/1/2019		\$32.16	\$19.19	\$51.35
Truckdriver class 2 (see notes)	5/1/2020		\$34.88	\$17.96	\$52.84
Truckdriver class 2 (see notes)	5/1/2021		\$36.43	\$17.96	\$54.39

**BUREAU OF LABOR LAW COMPLIANCE  
PREVAILING WAGES PROJECT RATES**

<b>Project: 22-01686 - Heavy/Highway</b>	<b>Effective Date</b>	<b>Expiration Date</b>	<b>Hourly Rate</b>	<b>Fringe Benefits</b>	<b>Total</b>
Truckdriver class 3 (see notes)	5/1/2017		\$30.66	\$17.96	\$48.62
Truckdriver class 3 (see notes)	5/1/2018		\$32.13	\$17.96	\$50.09
Truckdriver class 3 (see notes)	5/1/2019		\$32.41	\$19.19	\$51.60
Truckdriver class 3 (see notes)	5/1/2020		\$35.13	\$17.96	\$53.09
Truckdriver class 3 (see notes)	5/1/2021		\$36.68	\$17.96	\$54.64

SECTION 011010

SUMMARY OF WORK

PART 1- GENERAL

SUMMARY

1.1 Section Includes:

- A. Project description.
- B. Definitions.
- C. Contract requirements.
- D. Permits and licenses.
- E. Contractor's use of the premises
- F. Coordination requirements.
- G. Coordination drawings.
- H. Preconstruction meeting.

1.2 PROJECT DESCRIPTION

- A. The project consists of the work detailed in paragraph 1.5.
- B. Work covered under this contract as indicated or implied.
- C. Work provided by the Owner.

1.3 DEFINITIONS AND CONVENTIONS

- A. The Owner: Whenever the proper noun Owner is used in the contract documents the word shall mean County of Delaware, Pennsylvania.
- B. The Contractor: Whenever the proper noun Contractor is used the word shall mean the entity who entered into an agreement with the Owner to provide the Work. Also called “Prime Contractor.”
- C. The Work: Whenever the proper noun Work is used the word shall mean the constructed facilities, including the labor and material, covered by the contract between the Owner and the Contractor.
  - 1. The contract is for the construction of new facilities and modifications of certain existing facilities (including related work, certain demolition and related administration) at the Emergency Services Building located in Lima, Pennsylvania.
  - 2. As shown on documents prepared by Gillan and Hartmann, Inc., Consulting Engineer.
- D. Product: Material and items that are used in the Work; includes raw material, prefabricated material, fabricated item, equipment part, preassembled piece of equipment, etcetera.
- E. The forward-slash /: Wherever the forward-slash symbol (/) is used to separate multiple words in a statement, the statement in which the back slash appears applies equally to each of the words separated by the forward-slash symbol. This convention purveys the same meaning as if there were separate statements written into the document, each with one of the words separated by the forward-slash substituted into the statement for the series of words separated by the forward-slash.
- F. And: Wherever the last two elements in a series are separated by the word “and”, all applicable conditions in the series apply collectively.
  - 1. Example: Galvanize and paint steel exposed to weather.
    - a. Galvanizing all steel exposed to weather then painting all the steel exposed to weather meets the requirements of the contract.
    - b. Galvanizing some steel and painting other does not meet the contract requirements.
- G. Or: Wherever the last two elements in a series are separated by the word “or”, the contract requirements will be satisfied when only one of the conditions in the series is satisfied.

1. Example: Galvanize or paint steel exposed to weather.
  - a. Painting the steel meets the contract requirements.
  - b. Galvanizing the steel meets the contract requirements.
- H. Unless specifically stated otherwise, verbs such as provide, furnish, install, include, use, etcetera shall mean combination of both the following:
  1. The Contractor shall acquire and pay for the designated product.
  2. The Contractor shall provide and pay for the labor to handle, modify, shape and otherwise incorporate the product into the Work.

#### 1.4 CONTRACT REQUIREMENTS

- A. The contract documents intend the Contractor completely construct the Work for the Owner.

#### 1.5 THE WORK

- A. One contract will be awarded for:
  1. Electrical Work.
- B. The work consists of the following construction:
  1. General:
    - a. Field verify accessibility for equipment installation.
    - b. Any access to site via County buildings will require covering of corridor floor with skim boarding to prevent any damage occurring to existing construction. If damage occurs Contractor will be responsible for repair and/or replacement of such to maintain existing conditions.
    - c. Replace and/or repair all site conditions damaged during access to and/or construction work during project completion.
    - d. Contractors must submit at the completion of the project, in CD format, the following electronic documentation:
      - 1) In accordance with Section 011600 - "Product Requirements," submit operations and maintenance data.

2) In accordance with Section 011800 - "Project Record Documents," submit final approved shop drawings, specification record data, and as-built drawings.

- e. Coordinate all system shut-down times with Owner prior to work commencing.
- f. Verify and coordinate removal of all site materials including debris, demolition components, etc. with access to site location as described above.

## 2 Electrical Work:

### **a. Document Reviews and Kick Off Meeting**

Prior to conducting a walk through survey the Electrical Contractor shall review all available facility documentation including information concerning past capital improvement modifications, status of past facility study recommendations, and function of existing electrical equipment and systems. The facility documentation may include but not be limited to original design documents/drawings, equipment inventory developed by Delaware County 911 and Courthouse facility maintenance, studies and analysis, and remodeling project drawings.

Prior to conducting a walk through survey the Electrical Contractor shall conduct a project kick off meeting with management staff to plan the walk-through survey, to obtain a better understanding of the building's present and future function, and to identify known code compliance and physical defects. The Electrical Contractor shall discuss with DELCO 911 personnel and facility management staff all standard building operating requirements, schedule for completion of the work, and recommended actions to access all areas within the building to complete the work.

### **b. Walk-Through Survey**

The Electrical Contractor shall conduct a facility inspection prior to installing recording meters and circuit tracing specified herein, to produce an accurate assessment that identifies code compliance and all visible and discernable defects (through non-destructive means) inclusive of all electrical panels and circuits requiring metering and circuit tracing. Requirements (Defects) shall include all electrical components/elements, and system/equipment that would prevent connection of meters and circuit tracing equipment.

### **c. Recommended Actions prior to Metering and Tracing**

For any electrical equipment preventing metering and circuit tracing identified in the walk through survey, a detailed means of correcting the condition shall be developed by the Electrical Contractor and discuss with DELCO 911 personnel and facility management staff. Each recommended action will include a detailed construction cost estimate including a description of the construction

methods, and required labor and material quantities necessary to complete the repair. Each repair requirement shall be digitally photographed to establish observed condition.

**d. Specialized Testing and Inspection**

The following Specialized Tests and Inspections shall be conducted as specified.

**Electrical System Inspection and Testing**

Panel Boards

The Contractor shall conduct the following Inspections and Tests on Electrical Panels, and Low Voltage Circuit breakers according to the inventory attached.

- Infrared Testing
- Grounding-NEC Code Compliance on Over Current and Wiring Methods.
- Bonding-NEC Code Compliance on Over Current and Wiring Methods.
- Physical Condition-Check Hole Closures, Proper Cover, Missing Breakers/Blanks, Clearance, and Foreign Matter (Dust, Oil, and Combustibles.
- Circuit Breakers-Check for Smooth Operation, and Condition of Molded Case.

**e. Metering and Tracing**

Install recording meters on the following panels and trace and identify all circuits connected to each of the following panels:

1. MDP	10. MEH
2. RP	11. MEHA
3. LP3	12. EAC
4. LP4	13. PPI
5. EDP	14. HPI
6. EOC	15. CAD PANEL
7. API	16. HP2
8. SDC	17. DELCO RADIO PANEL
9. LPE1	18. UPA

Install recording meter on the building service transformer.

Continuously Record amps, voltage, load, usage and determine peak demand and usage for a two week period.

Using a circuit tracer find and mark all receptacles, power, and lighting circuits connected to each

panel identified above.

Suggested recording meters equal to the Fluke 1735 recording meter with adjustable log time, the data can be down loaded to a PC for printing individual screens or full report.

Suggested circuit tracer equal to Amprobe circuit tracer BT-250.

**f. Electrical Drawings**

Provide “existing conditions” Electrical Power and Distribution drawings of each Electrical panel. Also provide One-Line Diagram from marked-up hand-drawn drawings.

**g. Project Deliverables**

1. Provide Excel format files along with PDF electronic copies of all recorded panel readings on CD-ROM or thumb drive.
2. Provide Auto CAD drawings to be submitted in 2013 or newer release of all identified circuits.
3. Provide new panel schedules in WORD format based on the circuit tracing results with hard copies of each panel schedule attached to each panel cover.
4. Provide and attach permanent Panel ID tags to face of panels.

**h. Existing Drawings**

1. Attached is a updated single line diagram drawing.

**i. Additional Work Required**

1. In Panel LPI provide KO seal, and change (1) 3P-30A breaker to 3 single pole breakers (2) 1P20A and (1) 1P-30A.
2. Provide #6 ground wire from Panel EDP to Panel LPE1.
3. In Panel LPE2, provide blank filler and ground bars, connect wiring to ground bars.
4. Disconnect and remove 18 wall mounted emergency lighting units, provide new units and connect to existing circuits.
5. In Panel EBH remove 2P-15A breaker (CKT 30, 32) and provide 2P-20A breaker and reconnect circuit.
6. Disconnect and remove feeder from Panel EDP to Verizon UPS and feeder from UPS to UPS bypass switch. Provide 3P-60A breaker in Panel UPA and 4 - #6, 1#8G-1”C to UPS bypass switch.



7. Disconnect and remove 29 emergency lighting units at various locations in the building and provide 29 new emergency lighting units (Lithonia # ELM2-LED-HO, Equal) at same location and reconnect to existing circuits. Dispose of the removed emergency lighting units per EPA Requirements.

**j. Drawings**

1. Attached is Drawing E101 Floor Plan with panel locations.

**C. Special Coordination:**

2. The entire facility will be fully occupied and operational during construction.
  - a. Coordinated construction activities with the Owner.
  - b. Provide Owner's access required for normal operations.
  - c. Provide required access for safety.
  - d. Provide facilities required by governing authorities to permit Owner's normal operation of occupied facilities.
  - e. Demolishing certain existing construction.
  - f. Electrical service, electric panels, other utilities, and services which are required for occupancy.
  - g. Incidental cleaning work.
  - h. Other work called for in the specifications and drawings, and other work shown on the drawings.
3. Refer to Section 011040 "Coordination" for general project coordination procedures and responsibilities, and designation of Project Administrator.
4. Prime Contractors must submit written schedule to Owner detailing demolition, timeline and new work sequences for the following:
  - a. Removals.
  - b. Installation of equipment and modifications to existing items.
  - c. All utility shutdowns.
  - d. Contractors shall not proceed with work until Contractors receives written approval from the County.
5. Contractor's work must be phased and coordinated with Emergency Services personnel to minimize impact on facility operations and occupant environment. New systems must be in place and fully operational ready prior to system changeovers, fully operational prior to equipment demolition or relocation.
6. Contractor's work must be phased and coordinated with other Prime Contractors to provide a fully operational system.

- D. Construct work to allow Owner to occupy and operate all facilities during construction. The Buildings will remain in operation at all times.
  - 1. All disruption to existing utilities for tie-ins or demolition shall be coordinated with Delaware County Maintenance Department and a written request shall be submitted ten (10) days prior to disruption. Contractor shall not proceed with work until Contractor receives approval from that Department.
  - 2. All disruption to existing utilities for tie-ins or demolition shall occur during the unoccupied hours so that the disruption will have the least amount of impact on the residents as possible. Refer to Special Conditions sections section of these specifications.

## 1.6 REGULATORY REQUIREMENTS

- A. Submit copies of all permits, licenses, and similar permissions obtained, and receipts for fees paid, to the Architect/Engineer.
- B. Comply with:
  - 1. Pennsylvania Department of Labor and Industry, UCC - 2015 International Building Codes.
  - 2. Universal Accessibility Standards.
  - 3. NFPA 101 - Life Safety Code.
  - 4. NFPA 70-2014 - National Electrical Code.
  - 5. Applicable regulations to **Middletown Township**, Pennsylvania.

## 1.7 ACCESS TO THE SITE AND USE OF THE PREMISES

- A. The following existing facilities may not be used by construction personnel:
  - 1. Toilet rooms: Except Owner will designate specific toilet facilities for use by Contractors.
  - 2. Certain entrances those designated by the Owner for use by Contractors.
- B. The Owner will continue to occupy the existing building during the construction period.
  - 1. Conduct the work so as to cause the least interference with the Owner's operations.
  - 2. The Owner will endeavor to cooperate with the Contractor's operations when the Contractor has notified the Owner in advance of need for changes in Owner's operations in order to accommodate construction operations.
- C. Storage areas will be available on site as designated by Owner.
- D. Signs: Provide temporary construction signs.

1. Do not allow posting of unauthorized signs.
  2. Do not install signs other than sign(s):
    - a. Specified.
    - b. Required by governing agencies.
    - c. Requested by the Owner.
- E. Access to the premises and into the working spaces is controlled and subject to the restrictions and instructions by the Owner.
- F. Entrance into, or other use of the existing buildings will not be permitted, except as required for the execution of the work.
- G. Routes for ingress and egress to areas where work is being performed shall be subject to the restrictions and instructions by the Owner.
- H. All workmen while engaged at the site on this Project shall wear identifying badges provided by the Owner. Return all badges to the Owner upon completion of the Work.

## PART 2 - PRODUCTS (NOT USED)

## PART 3 - EXECUTION

### 3.1 PERMITS AND LICENSES

- A. Obtain permits and licenses from Authority Having Jurisdiction(AHJ) and other governing authorities require the Contractor obtain to:
1. Proceed with the Work.
  2. Perform the Work.
- B. Pay for permits and licenses needed to:
1. Proceed with the Work.
  2. Perform the Work.

### 3.2 PRECONSTRUCTION MEETING

- A. A preconstruction meeting will be held at a time and place designated by the Owner for the purpose of identifying responsibilities of the Owner's personnel and explanation of administrative procedures.

B. Also use this meeting for the following minimum agenda:

1. Construction schedule
2. Use of areas of the site.
3. Delivery and storage.
4. Safety.
5. Security.
6. Cleaning up.
7. Subcontractor procedures relating to:
  - a. Submittals.
  - b. Change orders.
  - c. Applications for payment.
  - d. Record documents.
8. Attendees shall include:
  - a. The Owner.
  - b. The Contractors and their superintendents.
  - c. Major subcontractors, suppliers, and fabricators.
  - d. Others interested in the work.

### 3.3 COORDINATION WITH OCCUPANTS

- A. Occupied areas include all areas in which the Owner's regular operations will be going on or to which the Owner requires access during the construction period.
- B. Limit access through occupied areas to those days and times which the Owner approves.
- C. Provide separate access from the exterior to the construction area, without disrupting operations in occupied areas.
- D. When the following must be interrupted, provide alternate facilities acceptable to the Owner:
  1. Emergency means of egress.
  2. Entrances which must remain open.
  3. Utilities which must remain in operation.

### 3.4 SECURITY PROCEDURES

- A. Limit access to the site to persons involved in the work.

- B. Provide secure storage for materials for which the Owner has made payment and which are stored on site.
- C. Secure completed work as required to prevent loss.
- D. The Owner's normal security procedures will remain in effect. Contractor personnel will be required to be checked in through security checkpoints.

### 3.5 COORDINATION

- A. Where necessary, in writing inform each party involved of special procedures required for coordination; describe required notices, reports, and attendance at meetings.
- B. Inform the Owner when coordination of his work is required.
- C. See other requirements in other portions of the contract documents.

END OF SECTION 011010

## SECTION 011025 - PAYMENT, MODIFICATION AND COMPLETION PROCEDURES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
1. Schedule of values.
  2. Payment procedures.
  3. Modification procedures.
  4. Completion procedures.

#### 1.2 CONTRACT CONDITIONS

- A. See the conditions of the contract for additional requirements.
- B. The Owner will retain from each progress payment an amount equal to 10 percent of the value of the work covered by the progress payment and follow the provision identified in the General Conditions paragraph - Monthly Estimates and Payments.
1. At 50% completion the sum or sums withheld by the Owner for release of retainage from the Contractor shall not exceed 5% of the amount due the contractor, less:
    - a. Those amounts that are withheld to cover incomplete work.
    - b. Those amounts that are withheld to cover incorrect work.
    - c. Unsettled claims.
- C. No payment will be made for materials or equipment stored off site.
- D. Payments may be withheld if the Contractor fails to make dated submittals within the time periods specified.

#### 1.3 DEFINITIONS

- A. Change Proposal Request: Any written request from the Consulting Engineer to the Contractor for a quotation, price, or breakdown on a change proposed but not ordered.
- B. Final Completion: The stage at which all incomplete and incorrect work has been completed/corrected in accordance with the contract documents.
- C. List of Incomplete Work: A comprehensive list of items to be completed/corrected, prepared by the Contractor for the purpose of obtaining certification of substantial completion. This list is also referred to as a "punchlist."
- D. Modifications: Written amendments to the contract signed by both the Consulting Engineer and the Contractor, these include:

1. Change orders.
2. Construction change directives.

- E. Schedule of Values: A breakdown of the contract sum into component parts of sufficient detail to assist the Consulting Engineer in evaluating applications for progress payments during construction.
- F. Substantial Completion: The stage in the progress of the work when the work, or a designated portion thereof which the Owner agrees to accept separately, is sufficiently complete in accordance with the contract documents so that the Owner can occupy or utilize the work for its intended use.
- G. Time and Material Work: Work which will be paid for on the basis of the actual cost of the work, including materials, labor, equipment, and other costs documented by detailed records. This basis is also referred to using the terms "cost-plus," "cost of the work," "force amount," and similar terms.

#### 1.4 SUBMITTALS

- A. Schedule of Values: First application for payment will not be reviewed without schedule of values. Submit on 8-1/2 inches by 11 inches form.
1. Submit 3 copies.
  2. Identify with:
    - a. Project name and location.
    - b. Project number.
    - c. Owner's name.
    - d. Contractor's name and address.
    - e. Date of submittal.

#### PART 2 - PRODUCTS (NOT USED)

#### PART 3 - EXECUTION

##### 3.1 SCHEDULE OF VALUES

- A. Prepare a schedule of values prior to the first application for payment.
- B. Schedule of Values: Provide a breakdown of the contract sum in sufficient detail to assist the Consulting Engineer's evaluation of applications for payment and progress.
1. Break costs down into line items which will be comparable with line items in applications for payment.
    - a. Correlate line items in the schedule of values with portions of the contract documents which identify units or subdivisions of work.
    - b. Provide cross-referencing needed for clarification.
    - c. Correlate with the project manual table of contents.

2. Break down major subcontracts into logical line items.
  3. For work where applications for payment are likely to include products which have been purchased or fabricated but not yet installed, provide separate line items for:
    - a. Product's cost.
    - b. Installation cost.
    - c. Cost of each other stage of completion.
  4. Include in each line items its proportional share of overhead and profit.
  5. Include the following information for each line item:
    - a. Generic name.
    - b. Related specification section.
    - c. Name of subcontractor.
    - d. Name of manufacturer or fabricator.
    - e. Name of supplier.
    - f. Dollar value, rounded off to the nearest whole dollar. Adjust the total to equal the contract sum.
    - g. Percentage of the contract sum represented by this item, to the nearest one- hundredth percent. Adjust the total to 100 percent.
  6. Arrange schedule of values in tabular format.
  7. Use AIA Document G703.
- C. Submit the schedule of values within 15 business days after execution of the contract.
- D. The Consulting Engineer will notify the Contractor if the schedule is not satisfactory.
1. If the schedule is not satisfactory, revise and resubmit acceptable schedule.
- E. Update and resubmit the schedule of values when modifications result in a change to:
1. The contract sum.
  2. Individual line item(s).
  3. Make each modification a new line item.
  4. Show all information required for original submittal for each line item.
  5. Identify modifications which have affected its value.

### 3.2 APPLICATIONS FOR PAYMENT

- A. Application for Payment Forms: Use AIA G702, Application and Certificate for Payment, and AIA G703, Continuation Sheet.
- B. Preparation of Applications for Payment: Complete every entry on the form.
  1. Prepare current application so it is consistent with:
    - a. Previous applications.
    - b. Previous certificates for payment.
    - c. Previous payments made.
  2. Base application on current:



- a. Schedule of values.
  - b. Contractor's construction schedule.
3. Include amounts of modifications issued prior to the last day of the construction period covered by the application.
  4. Signed by person authorized to sign legal documents for the Contractor.
  5. Notarize each copy.
  6. Submit in 3 copies.
  7. Attach waivers of lien.
  8. If changes have occurred, attach revised schedule of values.
- C. Provide the following information with every application for payment which involves work completed on a time and material basis:
1. Reference approved change order authorizing work.
  2. Detailed records of work done, including:
    - a. Dates and times work was performed.
    - b. Name of person who performed the work.
    - c. Time records and wage rates paid.
    - d. Invoices and receipts for products.
  3. Provide similar detailed records for subcontracts.
- D. Transmit application for payment with a transmittal form listing attachments.

### 3.3 WAIVERS OF LIEN

- A. With each application for payment, submit waiver of lien from the Contractor covering the work performed during the period covered by the previous application for payment.
- B. With final application for payment, submit complete waivers of lien from every entity who lawfully may be entitled to file a mechanic's or other lien arising out of the contract.
- C. Waiver of Lien Forms: Use forms acceptable to the Owner.

### 3.4 INITIAL PAYMENT PROCEDURES

- A. The first application for payment will not be reviewed until the following submittals have been received:
  1. Certificates of insurance.
  2. Performance and payment bonds.
  3. Schedule of values.
  4. List of subcontractors, principal suppliers, and fabricators.
  5. Contractor's construction schedule.
  6. Progress schedule.
  7. Submittal schedule.
  8. Quality control activities schedule.
  9. Schedule of products.
  10. Copies of building permits and other authorizations from authorities having jurisdiction.

11. First progress report.
12. Report of preconstruction meeting.
13. All submittals specified to occur prior to first application for payment or prior to first payment.

### 3.5 MODIFICATION PROCEDURES

- A. Designate a single individual authorized to receive change documents.
  1. This person will be responsible for informing others of changes to the work.
- B. Upon request, provide within 10 business days sufficient information for evaluation of proposed changes.
- C. Proposed change request: Provide the following information:
  1. The amount of change in the contract sum, if any.
  2. The amount of change in the contract time, if any, with explanation.
  3. Cost breakdown:
    - a. Separate to show:
      - 1) Quantities of materials.
      - 2) Labor.
      - 3) Quantities of equipment.
      - 4) Taxes.
      - 5) Insurance.
      - 6) Bonds.
      - 7) Warranties and guarantees.
      - 8) Related overhead and profit computed in the same manner specified for the schedule of values.
    - b. Use schedule of values line items.
    - c. Show additions and deletions.
  4. The period of time within which the proposed changes in contract sum or time will be valid.
  5. A statement describing the effect the change may have on the work of other prime Contractors.
- D. When changes are performed on a time and material basis, identify on the application for payment.
- E. Claims for additional cost:
  1. Claims for additional cost will not be considered unless submitted in writing within 10 working days of date that the earliest additional cost occurred.
  2. Provide the following information with every claim for additional costs:
    - a. Origin and date of claim.
    - b. Detailed records for time and material work.
  3. Provide the information required for proposed change request.

- F. The Contractor may propose changes.
  - 1. Do not use change order form.
  - 2. Provide the information required for proposed change request.
  - 3. Describe reasons for change.
  - 4. Document proposed substitutions.

### 3.6 SUBSTANTIAL COMPLETION PROCEDURES

- A. Request for inspection and application for payment may coincide.
- B. The Consulting Engineer will perform one inspection for substantial completion, upon request of the Contractor.
  - 1. If the Consulting Engineer is unable to issue the certificate of substantial completion because the Consulting Engineer does not consider the work to be substantially complete, the Contractor shall pay all subsequent inspection costs, including compensation for the Consulting Engineer's and consultants' services and expenses.
  - 2. When issuance of several certificates of substantial completion for portions of the work is authorized by the Consulting Engineer, the above provisions apply separately to each separate portion.
- C. Do not submit request for inspection for substantial completion until the following activities have been completed:
  - 1. Delivery of maintenance materials and tools.
  - 2. Demonstration of all equipment and systems.
  - 3. Removal of temporary facilities and services.
  - 4. Changeover to permanent locking systems.
  - 5. All activities specified to occur prior to substantial completion.
- D. Do not submit request for inspection for substantial completion until the following submittals have been completed:
  - 1. List of incomplete work.
  - 2. Final testing, adjusting, and balancing reports.
  - 3. Demonstration reports.
  - 4. Instruction reports.
  - 5. Warranties.
  - 6. Operation and maintenance data.
  - 7. Project record documents.
  - 8. Final testing and balancing reports.
  - 9. Final cleaning.
  - 10. All submittals specified to occur prior to substantial completion.
- E. Submit the following with application for payment at substantial completion:
  - 1. Contractor's affidavit of release of liens.
  - 2. Application for reduction of retainage.
  - 3. Consent of surety to reduction in or partial release of retainage.
  - 4. Final list of incomplete work.
  - 5. Other date required by the contract documents.

3.7 FINAL COMPLETION PROCEDURES

- A. Request for final inspection and final application for payment may coincide.
- B. The Consulting Engineer will perform one inspection for final completion, upon request of the Contractor.
  - 1. Submit the following with request for inspection:
    - a. Previous inspection lists indicating completion of all items.
    - b. If any items cannot be completed, obtain prior approval of such delay.
  - 2. If the Consulting Engineer is unable to issue the certificate for final payment because the work is not complete, the Contractor shall pay all subsequent inspection costs, including compensation for the Consulting Engineer and consultants' services and expenses.
- C. Do not submit request for final inspection until the following activities have been completed:
  - 1. Completion of all work, except those items agreed upon by the Owner.
  - 2. Instruction of the Owner's personnel.
  - 3. Final cleaning.
  - 4. All activities specified to occur between substantial completion and final completion.
- D. Do not submit request for final inspection until the following submittals have been completed:
  - 1. Start-up reports.
  - 2. Maintenance agreements.
  - 3. All other outstanding specified submittals.
- E. Submit the following with the final application for payment:
  - 1. Certified copy of list of items to be completed or corrected, stating that each has been completed or otherwise resolved for acceptance.
  - 2. Updated final statement, accounting for final changes to the contract sum.
  - 3. Consent of surety to final payment.
  - 4. Release of liens.
  - 5. Refer to General Conditions - Acceptance and Final Payment.
  - 6. Final PA L&I Certified Payroll Forms.
  - 7. Other data required by the contract documents.

END OF SECTION 011025

## SECTION 011040 - COORDINATION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section. Contractor shall refer to Division 1, Section 011200, for specific reporting requirements.

#### 1.2 SUMMARY

- A. This Section includes administrative and supervisory requirements necessary for coordinating construction operations including, but not necessarily limited to, the following:
  - 1. Project Administrator.
  - 2. Project coordination procedures.
  - 3. Work coordination procedures.
  - 4. Conservation.
  - 5. Coordination Drawings.
  - 6. Administrative and supervisory personnel.
  - 7. Cleaning and protection.

#### 1.3 PROJECT ADMINISTRATOR

- A. The Project Administrator shall provide the overall project coordination as indicated in paragraph 1.4 "Project Coordination". The Project Administrator work shall be performed by the **Prime Electrical Contractor**.
- B. The Project Administrator shall be responsible for the Total Coordination of the Construction. The Project Administrator shall take all the work schedules submitted by the other Prime Contractors and submit a unified and coordinated schedule. The project schedule shall be updated to show completed work and reflect time line changes to the schedule.
- C. The Project Administrator shall attend all Owner-Engineer-Prime Contractor meetings. The Owner shall report project issues, phasing, and coordination items to the Project Administrator who shall coordinate and distribute information to Prime Contractors. The Prime Contractors shall submit requests and coordination items to the Project Administrator for processing and Owner-Engineer review.

#### 1.4 PROJECT COORDINATION

- A. The Project Administrator shall have the responsibility for being the supervisor, manager, overseer, project coordinator, and expeditor of the total construction process and of its parts, in accordance with the contract documents. The Project Administrator shall incorporate "Work

Coordination” procedures herein in preparation of project administration responsibilities. A Project Administrator (manager/superintendent) shall be assigned to the project. The Administrator shall be available during construction hours for other Prime Contractors and Owner’s coordination of project.

- B. The Project Administrator shall be responsible to convene weekly meetings of all Prime Contractors’ Superintendents (Superintendents’ Meetings). The purpose of this meeting will be to review job progress, discuss construction issues, present scheduling issues and identify site conditions. Each Prime Contractor Site Superintendent shall attend these meetings to discuss and present their work schedule for the upcoming week and review job progress. Any and all Subcontractor’s work for any Prime Contractor shall be presented and reviewed. At the time of the Subcontractor beginning work, a representative of the Subcontractor shall attend the weekly meeting for the duration of his work. Meeting minutes shall be written and distributed to all parties, Owner, and Engineer. The results of these meetings shall be reviewed during the bi-weekly job meeting with the Owner and Engineer. The project administrator shall feedback and coordinate all issues with each Prime Contractor. Each Prime Contractor shall be responsible to discuss issues which his workman and Subcontractor to resolve each issue raised.
- C. The Project Administrator shall be responsible to convene weekly meetings with the Owner and Owner’s personnel affected by the project construction (Owner’s staff meeting). These meetings shall discuss phasing issues, project coordination, site access, space access, Prime Contractor activities, Subcontractor activities, site conditions and each parties’ responsibilities. All construction safety issues shall be discussed along with installation of temporary measures and facilities. Owner’s personnel shall discuss Owner’s requirements and conditions required for completing the construction. Utility shutdowns shall be discussed based on prior approval of the Owner. Site clean-up, workmen’s behavior, phasing, scheduling, and day-to-day issues shall be presented and discussed. Meeting minutes shall be written and distributed to all parties, Owner, and Engineer. Results of these meetings shall be presented at the bi-weekly job meeting.
- D. Shop Drawing submittals shall be processed in accordance to Division 01, Section “Submittals.” Approved Shop Drawings will be returned to the Prime Contractor sender. Copies of the Approved Shop Drawings shall be forwarded to the Project Administrator. The Project Administrator shall be responsible to distribute copies of Approved Shop Drawing(s) to Prime Contractor’s assigned Superintendent, whose work is dependent on the information presented in the shop drawing. Distribution of each shop drawing must be coordinated with Prime Contractor sender to determine appropriate routing. The Project
- E. Administrator shall log each shop drawing per Prime Contractor and its associated distribution list to other Prime Contractors. Log list shall be facilitated utilizing an electronic spreadsheet in table format and ascending in chronological order per each Prime Contractor. Log shall include equipment description, receiving and distribution dates, Prime Contractor’s name, and distribution Prime Contractor’s names. Update log list with each new submission. Computer generated printouts shall be submitted at each Owner meeting and electronic copy of final distribution log to be submitted at project completion.

## 1.5 WORK COORDINATION

- A. Coordinate construction operations included in various Sections of these Specifications to assure efficient and orderly installation of each part of the Work shall be the responsibility of the Prime Contractors. Coordinate construction operations included under different Sections that depend

on each other for proper installation, connection, and operation. The Prime Contractors shall submit work schedules to the assigned Project Administrator in preparation of a unified and coordinated schedule.

1. Schedule construction operations in the sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
  2. Coordinate installation of different components to assure maximum accessibility for required maintenance, service, and repair.
  3. Make provisions to accommodate items scheduled for later installation.
- B. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.
1. Prepare similar memoranda for the Owner and separate contractors where coordination of their work is required.
- C. Prime Contractors shall be familiar with the requirements and procedures of the Project Administrator. It is each Prime Contractor's responsibility to coordinate work effort, process administrative data and furnish project requirements to the Project Administrator.
- D. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of schedules.
  2. Installation and removal of temporary facilities.
  3. Delivery and processing of submittals.
  4. Shop Drawing distribution coordination.
  5. Progress meetings.
  6. Superintendent meetings.
  7. Owner's staff meetings.
  8. Project closeout activities.
- E. Conservation: Coordinate construction operations to assure that operations are carried out with consideration given to conservation of energy, water, and materials.
1. Salvage materials and equipment involved in performance of, but not actually incorporated in, the Work.
- 1.6 SUBMITTALS
- A. Coordination Drawings: Prepare coordination drawings where careful coordination is needed for installation of products and materials fabricated by separate entities. Prepare coordination drawings where limited space availability necessitates maximum utilization of space for efficient installation of different components.
1. Show the relationship of components shown on separate Shop Drawings.
  2. Indicate required installation sequences.

3. Comply with requirements contained in Section "Submittals."
- B. Staff Names: Within 15 days of commencement of construction operations, submit a list of the Contractor's principal staff assignments, including the superintendent and other personnel in attendance at the Project Site. Identify individuals and their duties and responsibilities. List their addresses and telephone numbers.
  1. Post copies of the list in the Project meeting room, the temporary field office, and each temporary telephone.
- C. Approved Shop Drawing distribution log to be presented at each Owner meeting and at project completion, incorporated into O&M Manuals.

## PART 2 - PRODUCTS (Not Applicable)

## PART 3 - EXECUTION

### 3.1 GENERAL COORDINATION PROVISIONS

- A. Inspection of Conditions: Require the Installer of each major component to inspect both the substrate and conditions under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner.
- B. Coordinate temporary enclosures with required inspections and tests to minimize the necessity of uncovering completed construction for that purpose.

### 3.2 CLEANING AND PROTECTION

- A. Clean and protect construction in progress and adjoining materials in place, during handling and installation. Apply protective covering where required to assure protection from damage or deterioration at Substantial Completion.
- B. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to assure operability without damaging effects.
- C. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following:
  1. Excessive static or dynamic loading.
  2. Excessive internal or external pressures.
  3. Excessively high or low temperatures.
  4. Thermal shock.
  5. Excessively high or low humidity.
  6. Air contamination or pollution.
  7. Water or ice.



8. Solvents.
9. Chemicals.
10. Light.
11. Radiation.
12. Puncture.
13. Abrasion.
14. Heavy traffic.
15. Soiling, staining, and corrosion.
16. Bacteria.
17. Rodent and insect infestation.
18. Combustion.
19. Electrical current.
20. High-speed operation.
21. Improper lubrication.
22. Unusual wear or other misuse.
23. Contact between incompatible materials.
24. Destructive testing.
25. Misalignment.
26. Excessive weathering.
27. Unprotected storage.
28. Improper shipping or handling.
29. Theft.
30. Vandalism.

END OF SECTION 011040

## SECTION 011200 - PROGRESS DOCUMENTATION AND PROCEDURES

### PART 1 - GENERAL

#### 1.1 SUMMARY

##### A. Section Includes:

1. Progress documentation requirements:
  - a. Preliminary construction schedule.
  - b. Contractor's construction schedule.
  - c. Progress reports.
2. Progress meetings.

#### 1.2 SUBMITTALS

##### A. Preliminary Construction Schedule:

1. Submit within 10 working days after execution of contract.

##### B. Contractor's Construction Schedule:

1. Submit within 20 working days after execution of contract.
2. Submit revised schedule with application for payment.

##### C. Daily Construction Reports:

1. Submit every week.

##### D. Progress Reports:

1. Submit with each application for payment.

##### E. Minutes of Progress Meetings:

1. Submit within 5 working days after meeting.

#### 1.3 FORM OF SUBMITTALS

##### A. Schedules:

1. Provide legend of symbols and abbreviations, for each schedule.
2. Use the same terminology as that used in the contract documents.
3. When transparencies are submitted, use only reverse-reading Mylar (or similar film) wash-offs, which will not fade or lose contrast over time.

4. When opaque copies are submitted, submit 6 copies.

B. Charts:

1. Provide bar charts generated by network analysis data.
2. Provide a separate time bar for each significant construction activity.
3. Coordinate each element on the schedule with other construction activities.
4. Schedule each construction activity in proper sequence.
5. Show percentage of completion of each activity.
6. Include cost correlation bar at top of chart, showing:
  - a. Estimated and actual costs of work performed at the date of each application for payment.
7. Provide a continuous vertical line to identify the first working day of each week.
8. Prepare on reproducible transparency.
9. Use sheets of sufficient number and width to show data clearly for the entire construction period.
10. Display the sequence and relationship of activities graphically.
11. Indicate:
  - a. Early and late start dates.
  - b. Early and late finish dates.
  - c. Float, and duration.
12. Illustrate how:
  - a. Start of a given activity depends on completion of preceding activities.
  - b. Completion of a given activity may restrain start of subsequent activities.
13. Display full network on a single sheet of sufficient width to show data clearly for the entire construction period.
14. Separate sheets are permissible for activities which are clearly off the critical path.
15. Use "one working day" as the unit of time.
16. For each activity, collect, record, and update the following information:
  - a. Description of activity; separate into activities of not more than 15 working days' duration.
  - b. Immediately preceding and following activities.
  - c. Estimated duration in working days.
  - d. Earliest and latest start dates.
  - e. Earliest and latest finish dates.
  - f. Actual start and finish dates.
  - g. Float time.
  - h. Monetary value of activity, keyed to schedule of values.
  - i. Percentage of activity completed.
  - j. Size of work force required.
  - k. Entity responsible.

- C. Reports:
  - 1. Submit a minimum of 6 copies.
- D. Prepare the following supporting reports:
  - 1. Data summary:
    - a. Sort data by activity.
    - b. Sort data in event number order.
  - 2. Critical path summary:
    - a. Activity, preceding and succeeding activity.
    - b. Early and late start dates.
    - c. Early and late finish dates.
    - d. Float (if greater than zero); sorted by activity occurrence.
  - 3. Submit cost summary, include the following:
    - a. Activity.
    - b. Monetary value.
    - c. Percentage complete.
    - d. Cumulative value completed, sorted by schedule of values key:
      - 1) Provide page and report totals.

#### 1.4 COORDINATION

- A. In preparation of schedules, take into account the time allowed or required for the Consulting Engineer's administrative procedures.

#### PART 2 - PRODUCTS (NOT USED)

#### PART 3 - EXECUTION

##### 3.1 PRELIMINARY CONSTRUCTION SCHEDULE

- A. Provide preliminary construction schedule in the form of bar charts:
  - 1. Show activities for the first 20 working days of construction in detail; show remainder in skeletal form.
  - 2. Show date established for substantial completion.
  - 3. Include dates and description of all submittals required during the first 3 months of construction.
    - a. Include those required by the construction schedule.
    - b. Submittal dates may be provided in a separate list rather than on the schedule.

- B. The Consulting Engineer will notify the Contractor if schedule is not satisfactory.
  - 1. If schedule is not satisfactory, revise to be satisfactory.
  - 2. Resubmit within 5 working days.

### 3.2 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Prepare and submit a complete construction schedule.
  - 1. Base construction schedule on preliminary construction schedule.
  - 2. Adjust for changes since start of work.
- B. Provide construction schedule in the form of bar chart with support reports.
  - 1. Use the same breakdown of work used in the schedule of values.
  - 2. Where related activities must be performed in sequence, show relationship graphically.
  - 3. Incorporate the submittal schedule. (See Section 011300)
  - 4. Incorporate the quality control activities schedule. (See Section 011400)
  - 5. Show dates of:
    - a. Each activity having a bearing on the construction time.
    - b. Preconstruction meeting.
    - c. Specified preinstallation meetings.
    - d. Ordering dates for products requiring long lead time.
    - e. All submittals required.
    - f. Completion of general construction work.
    - g. Completion of mechanical work.
    - h. Completion of electrical work.
    - i. Instruction of the Owner's personnel in operation and maintenance of equipment and systems.
    - j. Substantial completion.
    - k. Final completion.
  - 6. Include time for the Consulting Engineer's administrative procedures.
  - 7. Indicate how schedule is affected by:
    - a. Work by the Owner.
    - b. Continued occupancy.
    - c. Interruption of services to occupied facilities.
  - 8. Include cost summary.
- C. The Consulting Engineer will notify the Contractor if schedule is not satisfactory.
  - 1. If schedule is not satisfactory, revise to be satisfactory.
  - 2. Resubmit within 5 working days.
- D. Make and distribute copies of schedule to:
  - 1. The Consulting Engineer.

2. Subcontractors.
  3. Other entities required to comply with schedule dates.
- E. Post a copy of the schedule in field office and meeting room.
- F. Updating schedule:
1. Update the schedule whenever:
    - a. Revisions are recognized or made.
    - b. When new information is received.
    - c. But not less often than at the same intervals at which applications for payment are made.
  2. Indicate changes made since last issue.
  3. Show actual dates for activities completed.
  4. Submit updated schedule with application for payment.
  5. Issue updated schedule with report of meeting at which revisions are made.
  6. Issue updated schedule in same manner as original schedule.
  7. Include the same supporting reports as for original schedule.
  8. Narrative summary of all changes in the revised schedule.

### 3.3 PROGRESS REPORTS

- A. Daily Construction Logs: Every day, record the following information concerning events at the site:
1. General weather conditions; high and low temperatures.
  2. Approximate number of persons at the site.
  3. Visitors to the site.
  4. All information required of each prime Contractor.
  5. Change orders received; change orders implemented.
  6. Delays and stoppages.
  7. Emergencies and accidents.
  8. Equipment and system tests and start-ups.
  9. Meetings held and significant decisions made there.
  10. Names of subcontractors at site.
  11. Special reports made.
  12. Orders and requests of authorities having jurisdiction.
  13. Unusual events.
  14. Utility service disconnections and connections.
- B. Preparing Progress Reports:
1. Prepare as a narrative report.
  2. Describe the general state of completion of the work.
  3. Describe the following in detail:
    - a. Actual and anticipated delays.

- 1) Their impact on the schedule.
  - 2) Corrective actions taken or proposed.
- 
- b. Actual and potential problems.
  - c. Status of change order work.
  - d. Effect of delays.
  - e. Problems.
  - f. Changes on the schedules of other prime Contractors.
  - g. Outstanding change proposal requests.
  - h. Status of corrective work ordered by the Consulting Engineer.
  - i. Status of quality control activities specified in Section 011400.

### 3.4 PROGRESS MEETINGS

- A. Schedule and conduct periodic progress meetings during construction period.
  1. Have meetings every other week.
    - a. More often if required by the progress of the Work.
  2. Notify the Consulting Engineer at least one week in advance of date of meeting so the Consulting Engineer may attend.
- B. The following are required to attend:
  1. Project superintendent.
  2. Major subcontractors and suppliers.
- C. Prepare and distribute agenda prior to meetings; cover the following topics when applicable:
  1. Review minutes of previous meeting.
  2. Status of submittals and impending submittals.
  3. Off-site fabrication and delivery schedules.
  4. Actual progress of activities in relation to the schedule.
  5. Actual and anticipated delays, their impact on the schedule, and corrective actions taken or proposed.
  6. Actual and potential problems.
  7. Status of change order work.
  8. Effect of proposed changes on schedule and coordination.
  9. Status of corrective work ordered by the Consulting Engineer.
  10. Progress expected to be made during the next period.
- D. Record minutes and distribute copies within 5 working days to the Consulting Engineer, to all participants, and to all entities affected by decisions made.

END OF SECTION 011200

## SECTION 011300 - SUBMITTALS

### PART 1 - GENERAL

#### 1.1 SUMMARY

##### A. Section Includes:

1. Preparing and processing submittals for review and action.
2. Preparing and processing informational submittals.

#### 1.2 RELATED SECTIONS: The following are specified elsewhere in Division 01:

##### A. Payment, modification, and completion submittals.

1. Applications for payment.
2. Schedule of values.
3. Change proposals.

##### B. Progress of work submittals:

1. Contractor's construction schedules.
2. Progress reports.

##### C. Quality control submittals:

1. Inspection reports.
2. Test reports.

##### D. Product submittals:

1. Operating and maintenance data.
2. Warranties.
3. Maintenance materials and tools.

##### E. Contract closeout submittals:

1. Equipment and systems demonstration reports.
2. Request for determination of substantial completion.
3. Project record documents.
4. Bonds.

#### 1.3 DEFINITIONS

##### A. Shop Drawings:

1. See General Conditions.
2. Shop drawings also include product data specifically prepared for this project.



- B. Product Data:
  - 1. See General Conditions.
  - 2. Product data submittals also include:
    - a. Performance curves, when issued by the manufacturer for products of that type.
    - b. Standard color charts.
    - c. Standard wiring diagrams.
- C. Informational Submittals: Submittals which the contract documents indicate are to be submitted for information only.

#### 1.4 SUBMITTING SUBMITTALS

- A. Submit submittals for work by Each Prime Contractor and Subcontractors to Consulting Engineer.
- B. Submit the following for the Consulting Engineer's review and action:
  - 1. Shop drawings.
  - 2. Product data.
- C. Submit the following as informational submittals:
  - 1. Structural design information required by the contract documents.
  - 2. Certificates.
  - 3. Coordination drawings.
  - 4. Reports.
  - 5. Qualification statements for manufacturers/installers.
  - 6. Schedule of values.
  - 7. Submittals for which procedures are not defined elsewhere.
- D. Specific submittals are described in individual sections.
- E. Do not commence work which requires review of submittal until receipt of returned submittal with appropriate final action.
- F. Do not allow submittal, without an appropriate final action marking, to be used for the project.
- G. Do not submit substitute submittals, requiring other's review, until such submittals have been approved by such others.
  - 1. Show approvals on submittal.
- H. Do not include requests for substitution (either direct or indirect) on submittals. (For such requests, comply with procedures for substitutions specified in Section 011025)

#### 1.5 FORM OF SUBMITTALS

- A. Sheets Larger Than 8-1/2 by 11 Inches:

1. Sheet size: 24 inches by 36 inches or 30 inches by 42 inches only. Exceptions:
  - a. Full size pattern or template drawings.
  - b. Computer generated charts and graphs.
2. Submittals for review, submit:
  - a. Electronic pdf via email.
3. Information submittals: Electronic pdf via email.

#### 1.6 COORDINATION OF SUBMITTALS

- A. Coordinate preparation and processing of submittals with performance of the work.
- B. Coordinate each separate submittal with:
  1. Other submittals.
  2. Related activities that require sequential performance.
- C. Submit different units of interrelated work at the same time.
  1. Submit together so that the Consulting Engineer may refer to related submittals during review.
  2. The Consulting Engineer will withhold action on any such submittals until the related submittals are received.

#### PART 2 - PRODUCTS (NOT USED)

#### PART 3 - EXECUTION

##### 3.1 TIMING OF SUBMITTALS

- A. Transmit each submittal at or before the time indicated on the approved schedule of submittals.
- B. Prepare a schedule showing all submittals and the latest submittal dates required for coordination of the work.
  1. Organize the schedule by the applicable specification section number.
  2. Submit the schedule within 20 working days after commencement of the work.
  3. Submit for approval.
  4. The Consulting Engineer will notify the Contractor if schedule is not satisfactory.
    - a. If schedule is not satisfactory, revise to be satisfactory.
    - b. Resubmit within 5 working days.
- C. Prepare and transmit each submittal requiring approval.

1. Submit sufficiently in advance of scheduled the work to allow for adequate review and processing.
  2. Allow time for resubmittal.
- D. Where possible, prepare and transmit each informational submittal prior to start of the work involved.
1. Where the submittal cannot be prepared until after completion of the work, submit promptly.
- E. If processing time for a particular submittal will be critical to progress of the work, so advise the Consulting Engineer on the submittal.
- F. Allow a minimum of 10 business days (from the reviewer's receipt of submittal) for the Consulting Engineer's initial processing of each submittal.
1. Allow more time when submittals must be coordinated with other submittals.
- G. Resubmit corrected submittals for items where previous submittal was not approved.
1. Resubmit as specified in this Section.
- H. No extension of time will be authorized because of the Contractor's failure to transmit submittals sufficiently in advance of the work.

### 3.2 SUBMITTAL PROCEDURES - GENERAL

- A. Contractor Review:
1. Prior to submittal to Consulting Engineer, review each submittal to verify compliance with contract documents.
  2. Sign each copy of each submittal certifying compliance with the contract documents.
- B. Notify the Consulting Engineer, in writing and at time of submittal, of deviations from requirements of the contract documents.
- C. Preparation of Submittals:
1. Mark submittal with a permanent label for identification. Provide the following information on each label:
    - a. Project name.
    - b. Date of submittal.
    - c. Name and address of the Contractor.
    - d. Name and address of subcontractor.
    - e. Name and address of supplier.
    - f. Name of manufacturer.
    - g. Number and title of applicable specification section requiring the submittal.
    - h. Drawing number and detail references, when applicable.
    - i. Other necessary identifying information.

2. Package each submittal appropriately.

D. Transmitting Submittals:

1. Submittals will be accepted from the Prime Contractors only.
  - a. Submittals received from other entities will not be reviewed.
2. Transmit each submittal with a transmittal form.
  - a. Submittals received without a transmittal form will be returned without action.
  - b. Use AIA Document G810, Transmittal Form.
3. Fill out a separate transmittal form for each submittal.
4. Include other relevant information.
5. Include requests for additional information.

### 3.3 SHOP DRAWINGS

A. Content: Include the following information:

1. Dimensions at accurate scale.
2. Specific notation of field measurements at accurate scale.
3. Identification of specific products and materials.
4. Details, identified by contract document sheet and detail numbers.
5. Compliance with specified standards.
6. Title block with name of firm that prepared the drawing.
7. Date the drawing was prepared.

B. Coordination requirements:

1. Show relationship to:
  - a. Adjacent work.
  - b. Critical work.

C. Preparation:

1. Do not reproduce contract documents as shop drawings.
2. Do not copy standard printed documents as shop drawings.

### 3.4 PRODUCT DATA

A. Submit all product data submittals for each system or unit of work as one submittal.

B. Where product data submittals must be prepared specifically for this project because standard printed information is not suitable for use:

1. Submit as shop drawings.
2. Do not submit as product data submittals.

C. Content:

1. Submit manufacturer's standard printed data sheets.
2. Identify the particular product being submitted.
3. Submit only pertinent pages.
4. Show compliance with properties specified.
5. Mark to show which options/accessories are applicable to the project.
  - a. Use black, felt tip pen or similar marking device to cross-out options/accessories which are not applicable.
  - b. Do not highlight applicable options/accessories.
6. Include recommendations for application and use.
7. Show compliance with specified standards.
8. Show compliance with specified testing agency listings.
  - a. Show the limitations of their labels or seals, if any.
  - b. Identify dimensions which have been verified by field measurement.
9. Include special coordination requirements for their product.

3.5 REVIEW OF SUBMITTALS

- A. Submittals for approval will be reviewed, marked with appropriate action, and returned.
- B. Informational submittals: Submittals will be retained for use by Consulting Engineer.

3.6 RETURN, RESUBMITTAL, AND DISTRIBUTION

- A. Submittals will be returned to the Contractor via email.
- B. Perform resubmittals in the same manner as original submittals.
  1. Exception: Transmittal number for resubmittal shall be the same number as the original plus a letter suffix; example: 051500-1 would become 051500-1A.
  2. Indicate all changes.
    - a. Highlight changes other than those requested by the Consulting Engineer.
- C. Distribution:
  1. Distribute returned submittals to subcontractors and suppliers involved in work covered by the submittal.
  2. Make extra copies for operation and maintenance data submittals.
  3. Make one copy for project record documents.
  4. Show distribution on transmittal form with copy to the Consulting Engineer.

END OF SECTION 011300

## SECTION 011600 - PRODUCT REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 SUMMARY

##### A. Section Includes:

1. General product requirements, including:
  - a. General specification requirements for all products.
  - b. Product options.
  - c. Procedures for substitution requests.
  - d. General requirements and procedures for maintenance materials and tools.
2. General requirements for product documentation, including:
  - a. Requirements and procedures for schedule of products.
  - b. Requirements for operation and maintenance data.
  - c. General requirements for warranties.
3. General procedures for products including:
  - a. Procedures for transportation and handling.
  - b. Procedures for delivery and receiving.
  - c. Procedures for storage.
  - d. General procedures for installation.
4. Electronic documentation of operations and maintenance data.

#### 1.2 DEFINITIONS

##### A. Damage:

1. Includes:
  - a. Breakage.
  - b. Marring of finish.
  - c. Deterioration due to moisture.
  - d. Deterioration due to humidity.
  - e. Bending.
  - f. Over-stressing.
  - g. Discoloration.
  - h. Permanent soiling.
  - i. Deterioration beyond limits expected in the finished building.

### 1.3 SUBMITTALS

- A. Schedule of Products: Submit for approval.
- B. Final Schedule of Products: Submit for project record.
- C. Operations and Maintenance Data: Submit for information only.
- D. Electronic Documentation of Operations and Maintenance Data: Submit for information only.
- E. Warranties: Submit for project record.
- F. Receipts for maintenance materials and tools.

## PART 2 - PRODUCTS

### 2.1 GENERAL

- A. Components required to be supplied in quantity within a specification section shall be identical, interchangeable, and made by the same manufacturer.
- B. Do not use products removed from existing construction, unless specifically permitted by the contract documents or approved by the Consulting Engineer.

### 2.2 MAINTENANCE MATERIALS AND TOOLS

- A. Maintenance Materials:
  - 1. Parts and materials for repair and maintenance.
  - 2. Specific items required are specific in product sections.
  - 3. Provide products and tools which are identical to those used in the work.
    - a. If necessary, order at the same time as products to be installed or tools to be used in the work.
- B. Package appropriately and label to show type and quantity of contents.
- C. Deliver, handle, and store in the same manner as products to be installed.
- D. Do not turn over to the Owner until date of substantial completion, unless otherwise requested by the Consulting Engineer.
- E. Deliver to the Owner and unload.
- F. Obtain receipt prior to final payment.

## PART 3 - EXECUTION

### 3.1 PRODUCT OPTIONS

- A. It is the Contractor's responsibility to select products which comply with the contract documents.
- B. It is the Contractor's responsibility to select products which are compatible with one another.
- C. Verify that electrical characteristics of products are compatible with electrical systems.
  - 1. Notify Consulting Engineer of discrepancies.
- D. Where visual matching to an established physical sample is required, the Consulting Engineer's decision will be final.
- E. No substitute products will be considered, except in the event of unavailability of the specified product through no fault of the Contractor.
- F. Definition of Substitute Product: Any product which does not meet the requirements of the contract documents, whether in the following is considered a substitute:
  - 1. Product characteristics.
  - 2. Performance.
  - 3. Quality.
  - 4. Manufacturer.
  - 5. Brand name.
- G. Product Options: Where products are specified using more than one method, such as description with a list of manufacturers, use a product meeting the requirements of both specification methods.
- H. Products Specified by Reference Standard:
  - 1. Use any product meeting the specification.
  - 2. Provisions of reference standards shall not modify the rights of the Owner defined in the contract documents.
- I. Products Specified by Description: Use any product meeting the specification.
- J. Products Specified by Performance Requirements: Use any product meeting the specification.
- K. Products Specified by Listing Brand Name(s): Provide one of the products listed.
  - 1. No substitutions will be allowed.
- L. Products Specified by Listing Manufacturer(s): Provide a product meeting the specification and made by one of the manufacturers listed.



### 3.2 SUBSTITUTION PROCEDURE

- A. Refer to Special Conditions Section - Substitution of Material.
- B. Submission of request for substitution shall constitute a representation by the Contractor that he:
  - 1. Has investigated the proposed product and determined that it is equal to or better than the specified product in all respects.
  - 2. Will provide the same warranty for the proposed product as for the specified product.
  - 3. Will coordinate the installation and make other changes which may be required for the work to complete in all respects, including:
    - a. Redesign.
    - b. Additional components and capacity required by other work affected by the change.
  - 4. Waives all claims for additional costs and time extensions which subsequently may become apparent and which are caused by the change.
  - 5. Will reimburse the Owner for additional costs for evaluation of the substitution request, redesign if required, and reapproval by authorities having jurisdiction if required.
- C. Substitutions will not be considered when acceptance would require substantial revision of the contract documents.
- D. Substitutions will not be considered when they are indicated or implied on shop drawing submittals without separate, explicit written request.
- E. Substitutions will not be considered when they are indicated or implied on product data submittals without separate, explicit written request.
- F. Substitution requests will not be considered when submitted directly by subcontractor or supplier.
- G. Substitution Request Procedure:
  - 1. Submit written request with complete data substantiating compliance of the proposed product with requirements of the contract documents.
  - 2. Submit request to the Consulting Engineer.
  - 3. Submit 6 copies of each request and accompanying data.
  - 4. Submit request as specified for change order proposals. See Section 011025.
  - 5. Only one request for substitution will be considered for each product.
- H. Data Required with Substitution Request: Provide at least the following data:
  - 1. Identify product by specification section and paragraph number.
  - 2. Provide manufacturer's name and address, trade name and model number of product (if applicable), and name of fabricator or supplier (if applicable).
  - 3. Include complete product data.
  - 4. Include an itemized comparison of the proposed product to the specified product.
  - 5. Give amount of net change to the contract sum.
  - 6. List availability of maintenance services and replacement materials.

7. State the effect of the substitution on the construction schedule.
8. Describe changes that will be required in other work or products if the substitute product is approved.

- I. The Consulting Engineer will determine acceptability of the proposed situation.
- J. when the proposed substitution is not accepted, an addendum will be issued to all prospective bidders. Strict adherence to time limit shall be required.

### 3.3 SCHEDULE OF PRODUCTS

- A. Prepare a complete schedule of products used, including the following for each product:
  1. Name of manufacturer.
  2. Brand or trade name.
  3. Model number, if applicable.
  4. Reference standard, if more than one is applicable.
  5. Arrange products in the schedule by specification sections; indicate paragraph where specified.
- B. Prepare and submit an initial schedule within 10 working days after award of the contract.
  1. Resubmit when revised.
  2. Submit final schedule prior to final payment.
- C. Schedule of products shall not be used to obtain approval of substitute products.
  1. Make separate, explicit request for substitution.
  2. Submit request as specified for change order proposals. See Section 011025.

### 3.4 OPERATION AND MAINTENANCE DATA

- A. Provide operation and maintenance data for the types of products listed below and for other products if indicated in individual product sections.
  1. Provide data sufficient for operation and maintenance by Owner without further assistance from the manufacturer.
  2. Provide completed data in time for use during Owner instruction.
- B. Data Required For Products:
  1. Name of manufacturer and product.
  2. Name, address, and telephone number of subcontractor or supplier.
  3. Local source of replacements.
  4. Local source of replaceable parts and supplies.
  5. List of installed locations.
- C. Product Data:
  1. Where product data is specified for inclusion in operation and maintenance data:

- a. Provide manufacturer's data sheets marked to indicate specific product and product options actually installed.
  - b. Delete inapplicable data.
  - c. See Section 011300.
- D. Custom Manufactured Products:
1. Provide sufficient information for reordering.
  2. Provide shop drawings.
- E. Finish Materials:
1. Provide manufacturer's product data.
  2. Provide color/texture designations.
- F. Provide manufacturer's instructions for care, cleaning, and maintenance.
- G. Equipment:
1. Provide at least the following information:
    - a. Product data giving equipment and function description.
      - 1) Normal operating characteristics.
      - 2) Limiting conditions.
    - b. Starting.
    - c. Operating.
    - d. Troubleshooting procedures.
    - e. Cleaning and maintenance requirements and procedures.
    - f. External finish maintenance requirements.
    - g. List of maintenance materials required.
    - h. List of special tools required.
    - i. Parts list:
      - 1) List all replaceable parts.
      - 2) Include ordering data.
    - j. Recommended quantity of spare parts to be maintained in storage.
    - k. Recommended maintenance schedule.
- H. Systems: Provide overall function description, with diagrams, prepared especially for this project.
- I. Prepare data in the form of an instructional manual.
1. Arrange content logically, using section numbers and sequent of sections indicated on the table of contents of this project manual.
  2. When multiple volumes are used, arrange by related subjects; identify contents in cover title.
  3. Assemble into 3-ring binders with maximum 2-inch ring size.

- a. Hardback, cleanable plastic covers.
  - b. Identify each book with title "Operation and Maintenance Instructions: and project name.
  - c. Page size 8-1/2 inches by 11 inches.
  - d. Prepare special typewritten data on minimum 20-pound paper.
  - e. Provide tabbed divider for each product and system.
  - f. Bind drawings in with other data.
    - 1) Provide reinforced binding edge.
    - 2) Fold larger drawings to size of pages.
    - 3) Do not use pockets or loose drawings.
4. Provide table of contents for each volume listing:
- a. Name of the project.
  - b. Name, address, telephone number, and contact name of:
    - 1) Contractor.
    - 2) Supplier.
    - 3) Manufacturer's representative.
  - c. Index of products and systems included in volume.
5. Provide one (1) hard copy of printed instructions to the Engineer upon completion of installation.
- a. Provide in accordance with Division 1, Section 011025.
  - b. Provide copies of the as-built drawing in the manual.
- J. Electronic Documentation of Operations and Maintenance Data:
1. Contractors are required to duplicate the entire operation and maintenance data issued in the hard copy submission and prepare an electronic version of the documentation.
  2. The electronic documentation will be submitted on a CD of quantities required for the project. The CD's are to be filled to maximum capacity to minimize the quantities issued. Where a tab/directory and included data files are separated between two disks, the entire director shall be moved to the next disks. If the directory exceeds the capacity of one disk, then separation is acceptable.
  3. The CD's shall be labeled as Volume 1 of \_\_\_\_\_ and must include the title "Operation & Maintenance Instructions", project name, project numbers and project date.
  4. The operation and maintenance data files must be of Portable Document Format (pdf) file type. No other file format will be acceptable. Preparation of files can be accomplished through conversion, scanning, and downloading of files in the pdf format. Portable document format files are to be of current software version.
  5. Document files must be uniquely named to indicate product and grouped into associated directory, similar to hard copy tab separation. Directories must be uniquely named to indicate system reference. The directories are to be organized similar to hard copy. Provide a typed table of contents in pdf format to be located as the first file on the CD of Volume 1.
  6. Contractors are to submit the CD's to Consulting Engineer for review and approval.

### 3.5 WARRANTIES

- A. Provide warranties as specified in individual product sections.
- B. Manufacturer Warranties:
  - 1. Provide manufacturer's standard product warranty:
    - a. Running for the manufacturer's standard term, unless otherwise indicated in section associated with each item.
    - b. Starting on the date of Substantial Completion.
  - 2. Submit copies of all manufacturer warranties which extend beyond the end of the contract correction period.
- C. Provide 2 notarized copies of each executed warranty.
- D. Each warranty shall list actual date of commencement.
  - 1. No earlier than the date of Substantial Completion.

### 3.6 TRANSPORTATION AND HANDLING

- A. Require supplier to package finished products in a manner which will protect from damage during shipping, handling, and storage.
- B. Transport products by methods which avoid damage.
- C. Deliver in dry, undamaged condition in manufacturer's unopened packaging.
- D. Provide equipment and personnel adequate to handle products by methods which prevent damage.
- E. Provide additional protection during handling where necessary to prevent damage to products and packaging.
- F. Lift large and heavy components at designated lift points only.

### 3.7 DELIVERY AND RECEIVING

- A. Arrange deliveries of products to allow time for inspection prior to installation.
- B. Coordinate delivery to avoid conflict with the work and to take into account both the conditions at the site and the availability of personnel, handling equipment, and storage space.
- C. Clearly mark partial deliveries to identify contents, to permit easy accumulation of entire delivery, and to facilitate assembly.

- D. Promptly inspect shipments and remedy damage, incorrect quantity, incompleteness, improper or illegible labeling, and noncompliance with requirements of contract documents and approved submittals.

### 3.8 STORAGE

#### A. General Storage Procedures:

1. Store products immediately on delivery.
2. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible.
3. Store in a manner to prevent damage to the stored products and to the work.
4. Store moisture-sensitive products in weather-tight enclosures.
5. Maintain temperature and humidity within ranges required by manufacturer's instructions.
6. Store unpacked and loose products on shelves, in bins, or in neat groups of like items. Arrange storage to provide access for inspection and inventory.
7. Periodically inspect and remedy damage and noncompliance with required conditions.

#### B. Loose Granular Materials:

1. Store on solid surfaces in well-drained area.
2. Prevent mixing with foreign materials.

#### C. Exterior Storage:

1. Cover products subject to weather damage with impervious sheet covering.
  - a. Provide ventilation to avoid condensation.
2. Provide surface drainage to prevent water from damaging stored products.
3. Prevent damage and contamination from:
  - a. Refuse.
  - b. Chemically injurious materials.
  - c. Chemically injurious liquids.
4. Store fabricated products on substantial platforms or skids above the ground, sloped to drain.

### 3.9 INSTALLATION

- A. Obtain manufacturer's standard, printed instructions.
- B. Obtain additional recommendations from the manufacturer.
  1. Recommendations shall be written.
- C. Install products in accordance with manufacturer's instructions and recommendations.

- D. Adjust all products to proper operation.

END OF SECTION 011600

## SECTION 011700 - CONSTRUCTION PROCEDURES

### PART 1 - GENERAL

#### 1.1 DEFINITIONS

A. Cutting: removal of material by:

1. Cutting.
2. Sawing.
3. Drilling.
4. Breaking.
5. Chipping.
6. Grinding.
7. Similar operations including excavation.

B. Damage:

1. Deterioration whether due to:
  - a. Weather.
  - b. Normal wear and tear.
  - c. Accident.
  - d. Abuse.
2. Deterioration resulting in:
  - a. Soiling.
  - b. Marring.
  - c. Breakage.
  - d. Corrosion.
  - e. Impairment of function.

C. Debris:

1. Includes:
  - a. Rubbish.
  - b. Waste materials.
  - c. Litter.
  - d. Volatile wastes.
  - e. Similar materials.
2. Does not include surplus materials which are to become the property of the Owner.

D. Fire Barriers: Includes the following, when indicated as having a fire resistance rating:

1. Wall.



2. Floor.
3. Ceiling.
4. Roof.

E. Operational Elements:

1. Elements which convey the following elements which retard the passage of:
  - a. Liquids.
  - b. Gases.
  - c. Heat.
  - d. Light.
  - e. Persons.
  - f. Animals.
  - g. Insects.
  - h. Elements which perform a similar function.
2. Includes the following:
  - a. Equipment.
  - b. Moving parts.
  - c. Electrical conductors.
  - d. Sound and vibration control materials.
  - e. Waterproofing.
  - f. Vapor retarders.
  - g. Piping.
  - h. Ducts.
  - i. Other similar products.

F. Patching: Restoration to completed condition by:

1. Patching.
2. Repairing.
3. Refinishing.
4. Finishing.
5. Filling.
6. Closing up.
7. Similar operations.

G. Replacement: Replace the entire Element/Surface/Product.

H. Safety-Related Elements:

1. Materials and assemblies whose principal function is the promotion of the safety of:
  - a. The building.
  - b. Its occupants.
2. Includes:
  - a. Fire barriers.

- b. Smoke barriers.
- c. Fireproofing.
- d. Emergency egress doors.
- e. Emergency egress windows.
- f. Guardrails.
- g. Equipment guards.
- h. Other similar construction.

## 1.2 SUBMITTALS

### A. Proposals for Cutting and Patching:

1. Submit request well in advance of the time the work is to be performed.
2. Include the following information:
  - a. Description of the nature of the work.
  - b. How it is to be performed.
  - c. Reasons why cutting cannot be avoided.
  - d. Description of anticipated results.
  - e. Impact on safety and on:
    - 1) Structural qualities.
    - 2) Operational qualities.
    - 3) Visual qualities.
  - f. Products to be used.
  - g. Expected dates of performance of the work.

### B. Start-up Reports:

1. Submit within 5 business days after start-up of item covered by report.
2. Include a statement certifying the item has been installed properly and is functioning correctly.
3. Include the following information:
  - a. Item started up.
  - b. Date of start-up operation.
  - c. Entity performing start-up.
  - d. Applicable specification section.
  - e. Results of start-up.
  - f. Title, name, and signature of person performing start-up.
  - g. Title, name, and signature of person authorized to make certification.

### C. Demonstration Reports:

1. Submit within 5 business days after each demonstration.
2. Include the following information:
  - a. Description of equipment demonstrated, cross-referenced to the contract documents.

- b. Description of system demonstrated, cross-referenced to the contract documents.
- c. Date of demonstration.
- d. Name and title of person performing demonstration.
- e. Name, title, and signature of person observing demonstration.

D. Instruction Reports:

1. Submit with 5 business days after each instruction period.
2. Include the following information:
  - a. Description of instruction provided, cross-referenced to the contract documents.
  - b. Date(s) and duration of instruction.
  - c. Location where instruction was provided.
  - d. Names and titles of persons performing instruction.
  - e. Names, title, and signatures of persons receiving instruction.

E. Field Correction Requests:

1. Submit immediately upon discovery of deviation required.
2. Include a detailed statement of:
  - a. The problem.
  - b. Recommended changes.
  - c. Reasons for noncompliance with the contract documents.

### 1.3 QUALITY ASSURANCE

A. Cleaning Agents:

1. Use only cleaning agents which are recommended by the manufacturer/fabricator of the surface to be cleaned.
2. Do not use materials which are potentially hazardous to:
  - a. Health.
  - b. Property.
3. Do not use materials which might damage finishes.
4. Perform cleaning in accordance with the recommendations of the manufacturer/fabricator of the product or system.
  - a. Follow standard printed instructions.
  - b. Adjust procedures as recommended in writing by the manufacturer/fabricator.

### 1.4 PROJECT CONDITIONS

- A. Some areas of existing building will be occupied during the period in which the work will be conducted.
1. Avoid interference with use of those areas.

2. Avoid interruption of access to those areas.
3. Do not obstruct required exitways unless alternative exitways satisfactory to the authorities having jurisdiction are available.

## 1.5 PROJECT REQUIREMENTS

### A. Take precautions to prevent fires.

1. Store combustible materials in containers in fire-safe locations.
2. Remove flammable waste.
3. Prohibit smoking.
  - a. Be extra diligent to prevent smoking in hazardous fire exposure areas.
4. Provide supervision of potential fire sources.
5. Conduct welding operations in manner to prevent fire.
  - a. Comply with local regulations.

### B. Take steps to facilitate fire-fighting operations.

1. Maintain unobstructed access to:
  - a. Fire extinguishers.
  - b. Temporary fire protection facilities.
  - c. Stairways.
  - d. And other access routes for fighting fires.
2. Assure that workers are familiar with operation of fire extinguishers.

### C. Take precautions to prevent accidents due to physical hazards:

1. Provide:
  - a. Barricades.
  - b. Warning lights.
  - c. Signs to inform of the hazard being protected against.
2. Provide safety barricades in compliance with regulations.
3. Provide temporary walkways where walking surfaces are hazardous.
4. Notify the Consulting Engineer before beginning work that involves hazardous operations.

### D. Take steps to assure the environment is not contaminated.

1. Conduct construction in manner to comply with environmental protection regulations.
2. Protect waterways, limit effluent and rainwater runoff by regulations.
3. Do not dump contaminants in areas that will result in contamination of waterways.

### E. Restore sewers to normal condition following use.

1. Where disposal of effluent by means of sewers is not possible, provide alternative methods of disposal.
  - F. Protect existing property indicated to remain.
  - G. Do not use tools or equipment which produce harmful levels of noise.
    1. Restrict use of noise-making tools and equipment to times approved by the Owner.
  - H. Do not allow the following to develop at the site:
    1. Nuisances.
    2. Hazardous conditions.
    3. Dangerous conditions.
    4. Unsanitary conditions.
  - I. Keep grounds free of debris due to this work.
  - J. Provide adequate traffic control by means of signs, signals, and flagmen, as necessary.
  - K. Conduct construction operations so that the existing facilities are not subjected to deleterious influences.
  - L. Conduct construction operations so that the project is not subjected to deleterious influences.
  - M. Conduct construction operations to minimize use of:
    1. Power.
    2. Water.
    3. Fuel.
  - N. Provide temporary supports as required to prevent building movement.
  - O. Install products only during environmental conditions which will ensure the best possible results.
- 1.6 SEQUENCING AND SCHEDULING
- A. Install products only at the time and in the sequence which will ensure the best possible results.
  - B. Coordinate timing of required administrative procedures with construction activities to avoid conflicts and to ensure orderly progress of the work.

## PART 2 - PRODUCTS

### 2.1 MATERIALS FOR PATCHING

- A. Use materials that are identical to the materials of the work cut, unless specific materials are specified in other sections.
- B. Use exposed materials identical to those of the adjacent construction for closing up openings.
  - 1. If identical materials are not available or cannot be used, use materials that match visually to the fullest extent possible; obtain approval of the Consulting Engineer.
- C. Use materials that perform equally as well as, or better than, the material cut.
- D. Determined by testing, if necessary, quality of existing materials to be patched.

## PART 3 - EXECUTION

### 3.1 GENERAL EXAMINATION REQUIREMENTS

- A. Prior to performing work, examine:
  - 1. The applicable substrates.
  - 2. The conditions under which the work is to be performed.
- B. If unsafe or otherwise unsatisfactory conditions are encountered, take corrective action before proceeding.
- C. Conditions which could have been discovered by examination will not be allowed as cause for claims for extra work.
- D. Notify the Consulting Engineer promptly of modifications required due to existing conditions or previous work.
- E. Before starting work which might affect existing construction, verify the existence and location of such construction.
  - 1. The existence and location of construction indicated as existing on the drawings is not guaranteed.
- F. Verify that utility requirements of operating equipment are compatible with building utilities.
- G. Verify that space requirements of items, which are shown diagrammatically on the drawings, are compatible with the design.

### 3.2 GENERAL PREPARATION REQUIREMENTS

- A. Take field measurements to assure work fits properly.
- B. Recheck measurements and dimensions prior to starting each installation.

### 3.3 GENERAL INSTALLATION PROCEDURES

- A. Install work true to line and level.
- B. See sections describing specific parts of the work for additional requirements.
- C. Where available space is limited, install components to maximize space available for maintenance.
- D. Where available space is limited, to maximize space available for ease of removal for replacement.
- E. Install work in such manner and sequence to minimize cutting and patching.
- F. Do not cut fire extinguishing systems.
- G. Existing Construction:
  - 1. Perform work in existing construction in same manner as for new construction unless otherwise specified.
- H. Keep the site and the work free of waste materials and debris.
  - 1. Remove waste from site periodically.
  - 2. Handle the following materials separately from other materials and containerize properly:
    - a. Hazardous waste materials
    - b. Dangerous waste materials.
    - c. Unsanitary waste materials.
- I. Clean areas to level of cleanliness necessary for proper execution of that work.
  - 1. Where dust would impair execution of work, keep clean by broom cleaning and vacuum cleaning the entire interior area.
- J. Keep installed work clean, and clean again when soiled by other operations.
  - 1. Provide periodic cleaning to prevent damage due to soiling.
  - 2. Remove liquid spills promptly.
- K. Protect installed work from soiling and damage.
  - 1. Provide protective coverings.
  - 2. Provide protective coverings for work which may be damaged by subsequent operations.

3. Where heavy abuse is expected, use minimum of 3/8 inch thick plywood for protection.
4. Maintain coverings until substantial completion.

L. Adjust operating components for proper operation.

### 3.4 CUTTING AND PATCHING PROCEDURES

A. Use specified cutting and patching procedures when either cutting, patching, or cutting and patching is required for any of the following activities:

1. Fitting the parts of the work together.
2. Modifying existing construction.
3. Repairing existing work to remain.
4. Installing ill-timed work.
5. Removing and replacing defective and nonconforming work.
6. Making openings in elements of work for penetrations, such as for:
  - a. Ductwork
  - b. Piping.
  - c. Conduit.

7. Repairing damage.

B. Perform cutting and patching at earliest, feasible time, unless otherwise directed by the Consulting Engineer.

C. Use procedures specified in applicable product sections as well as those specified in this section.

1. Use procedures recommended by original installer, when such information is available.
2. Obtain, from the Consulting Engineer, approval of procedures.
3. Cut using methods which:
  - a. Are least likely to damage adjacent work and work to remain.
  - b. Will provide proper surfaces for patching.
4. Make cuts neatly with minimum disturbance of adjacent work.
  - a. Use tools designed for sawing/grinding, not for chopping/hammering.
  - b. Without prior approval, do not use pneumatic tools.
5. Where installation of similar new work is included, perform patching in manner specified for installation of new work.

D. Employ experienced workers to perform cutting and patching work.

1. Use the original installer of the work to perform cutting and patching of the following:
  - a. Any products so indicated in the applicable section.
  - b. Roofing.



E. Structural Elements:

1. Do not cut structural elements without providing certification of approval from a structural engineer licensed in the Commonwealth of Pennsylvania.
2. Do not cut structural elements without Consulting Engineer's approval.
3. Do not cut or patch in a manner that would result in a reduction of load-carrying capacity.
4. Do not cut or patch in a manner that would result in a reduction of load- deflection ratio.
5. Provide reinforcing where required.
6. See structural sections for additional requirements.

F. Existing Construction:

1. Patch existing work to match adjacent, existing work to remain.
2. Where specified procedures for similar, new work are applicable, use those procedures for cutting and patching existing construction.
3. Take precautions to avoid damage to unanticipated utilities and structural elements.
4. If such elements are encountered report nature and extent to the Consulting Engineer.
  - a. Request instructions as to how to proceed.
5. Do not cut existing mechanical and electrical services without provisions for prompt reactivation of service.
  - a. Obtain approval of the Owner for the time and duration of disconnection.

G. Concrete and masonry:

1. Use saws or drills which produce a neat cut.
2. Remove in small sections.

H. Slabs on Grade: Use methods that will not crack or disturb adjacent slabs or partitions.

I. Operational Elements:

1. Do not cut or patch in a manner that would result in:
  - a. Reduction of their capacities to perform in the manner intended.
  - b. Reduction of their energy performance.
  - c. Increased maintenance.
  - d. Decreased life.
  - e. Decreased safety.
2. Before cutting the following, obtain the Consulting Engineer's approval of proposed method:
  - a. Any product for which approval is required in the applicable product section.
  - b. Piping, wiring, ducts, mechanical and electrical equipment.

J. Safety-Related Elements:

1. Do not cut or patch in a manner that would result in decreased safety.

- K. Fire/Smoke Barriers.
  - 1. Do not cut more than absolutely necessary.
  - 2. Cut penetration holes to sizes required for penetration seal assemblies.
  - 3. Patch all oversize holes and cuts made in error.
  - 4. Perform patching in a manner which complies in all respects with the original construction.
    - a. If such compliance is not possible, report nature of difficulty to the Consulting Engineer and request instructions.
- L. Provide protection from adverse weather conditions for that part of the project which is exposed to the weather during cutting and patching operations.
- M. Cover openings made whenever they are not in use.

### 3.5 INSTALLATION OF COMPONENTS

- A. Separate incompatible materials with suitable materials or spacing to prevent cathodic corrosion.
- B. Provide attachment and connection devices and use methods necessary to securely fasten work.

### 3.6 PROCEDURES FOR CORRECTION OF WORK

- A. The following must be replaced (repair is not acceptable):
  - 1. Damaged surfaces exposed to view which cannot be repaired without visible evidence of repair.
  - 2. Components which cannot be repaired to proper operating condition.
- B. Repair or Replace:
  - 1. Components which do not operate properly.
  - 2. Surfaces exposed to view which cannot be cleaned to original condition.
  - 3. Permanent facilities used during construction.
  - 4. Other defective work.
- C. Acceptable Repair Methods:
  - 1. Replacing parts.
  - 2. Refinishing.
  - 3. Touching up with matching materials.
  - 4. Proper adjustment of equipment.
- D. When corrective action required necessitates a departure from the contract documents, submit a field correction request.
  - 1. Do not proceed with requested action without Consulting Engineer's approval.

- E. Restore existing facilities used during construction to specified condition.
- F. Restore existing facilities used during construction, and existing facilities affected by construction operations, to original condition.

### 3.7 FACILITY START-UP

- A. Put each item of equipment and each system into full, satisfactory operation.
- B. Prior to Start-up:
  - 1. Verify that equipment and systems are:
    - a. Complete.
    - b. Correctly connected to utilities.
    - c. Tested.
    - d. Comply with requirements of manufacturer.
  - 2. Inspect and test to ensure that work is installed as specified and to determine suitability for energizing.
  - 3. Provide power for start-up and testing.
  - 4. Change over from temporary to permanent utility sources.
  - 5. Adjust and lubricate operating components to ensure smooth and unhindered operation, check:
    - a. Drive rotations.
    - b. Belt tension.
    - c. Control sequences.
    - d. Other features which might cause damage if not properly adjusted.
  - 6. When required by manufacturer, have manufacturer's representative prepare for start-up.
- C. Notify the Consulting Engineer at least 10 business days prior to start-up of each item and system.
- D. Execute start-up under supervision of responsible personnel in accordance with the manufacturer's instructions.
  - 1. When specified, have manufacturer's representative perform start-up.
  - 2. When required by manufacturer, have manufacturer's representative perform start-up.
  - 3. Submit a written report of start-up operations.
- E. After start-up, adjust equipment and systems for proper operation.
  - 1. Where specified, perform tests or inspections to determine status of operation.
- F. During the inspection for substantial completion, demonstrate the operation of equipment and systems to the Owner.
  - 1. Have final operating and maintenance data available during demonstration.

- G. For equipment and systems which operate differently in different seasons, demonstrate operation during subsequent seasons until fully demonstrated.

### 3.8 INSTRUCTION OF THE OWNER'S PERSONNEL

- A. Prior to final payment, instruct Owner's designated personnel in the operation and maintenance of equipment and systems.

- 1. Explain all aspects of operation and maintenance.
- 2. Demonstrate all functions, including:
  - a. Start-up.
  - b. Operation.
  - c. Control.
  - d. Adjustment.
  - e. Troubleshooting.
  - f. Servicing.
  - g. Maintenance.
  - h. Shutdown.
- 3. Review terms of warranties and procedures for obtaining warranty service.
- 4. Review maintenance agreements and other similar commitments which extend past final completion.
- 5. Have operating and maintenance data available for use during instruction.
  - a. Review contents in detail.
  - b. Prepare and insert additional data when need for such becomes apparent during instruction.

- B. Arrange times and places of instruction with the owner.

- 1. Provide a minimum of 1 hour of instruction for each item of equipment and each system, unless otherwise specified.
- 2. Instruct in a classroom environment located at the project.

- C. Provide instruction by a qualified manufacturer representative.

- D. For equipment and systems which operate differently in different seasons, provide instruction during subsequent seasons until all modes of operation have been covered.

### 3.9 FINAL CLEANING

- A. Remove materials and equipment which are not part of the work.

- B. Remove debris from the site prior to substantial completion.

- 1. Remove all surplus materials which are to remain property of the Contractor.
- 2. Obtain the Owner's instructions as to disposition of surplus material remaining on site, then as directed:

- a. Deliver.
  - b. Store.
  - c. Dispose of.
- 3. Remove protective coverings.
  - 4. Remove temporary facilities.
- C. Dispose of debris in a lawful manner.
    - 1. Do not burn or bury debris on the site.
    - 2. Do not dispose of volatile wastes in storm or sanitary drains.
  - D. Perform final cleaning after substantial completion has been certified, but before final payment.
  - E. Remove debris from roofs, gutters, downspouts, and roof drains.
  - F. In spaces not normally occupied, remove debris and surface dust and wipe equipment clean, removing excess lubrication, paint, and other foreign substances.
  - G. Remove paint and other coatings from labels such as "UL" labels, and from mechanical and electrical equipment nameplates.
  - H. Leave the project clean and ready for occupancy.

### 3.10 PROJECT COMPLETION PROCEDURES

- A. Prior to substantial completion, complete the work to obtain consent to occupancy from the authorities having jurisdiction.
- B. Arrange for final inspections by authorities having jurisdiction to be accomplished prior to substantial completion.
- C. If temporary locking systems differ from permanent locking systems, change over to permanent systems prior to substantial completion.

END OF SECTION 011700

## SECTION 011800 - PROJECT RECORD DOCUMENTS

### PART 1 - GENERAL

#### 1.1 SUMMARY

##### A. Section Includes:

1. Project record documents consisting of:
  - a. Record drawings.
  - b. Record project manual (specifications).
  - c. Record submittals:
    - 1) Shop drawings.
    - 2) Product data.
    - 3) Samples.
    - 4) Informational submittals.
    - 5) All other submittals.
2. Electronic Project Record Submission

#### 1.2 SUBMITTALS

##### A. Project Record Documents: Submit after substantial completion, but prior to final completion.

1. Record drawings:
  - a. Submit original marked-up print set.
  - b. Sets shall include all drawings, whether changed or not.
2. Other record documents: Submit originals or good quality photocopies.
3. Electronic CD Project Record Submission of record drawings and record documents.

#### 1.3 QUALITY ASSURANCE

- A. Record drawings shall be prepared by an experienced drafter.
- B. Prepare using standard tools and methods used in an engineering office.
- C. Prepare using same drafting symbols and conventions employed on the original, contract drawings.

## PART 2 - PRODUCTS (NOT USED)

## PART 3 - EXECUTION

### 3.1 MAINTENANCE OF PROJECT RECORD DOCUMENTS

- A. Do not use record documents of any type for construction purposes.
- B. Maintain record documents in a secure, fire-resistive location at the site.
  - 1. Provide for access by the Contractor and the Consulting Engineer during normal working hours.
- C. Record information as soon as possible after it is obtained.
- D. Assign a person responsible for maintaining record documents.
- E. Record the following types of information on all applicable record documents:
  - 1. Dimensional changes.
  - 2. New and revised details.
  - 3. Actual routings of piping and conduits.
  - 4. Revisions to electrical circuitry.
  - 5. Actual equipment locations.
  - 6. Particulars on concealed products which will not be easy to identify later.
  - 7. Changes made by modifications to the contract; note identification numbers if applicable.
  - 8. New information which is important to the Owner but which was not shown in either the contract documents or submittals.

### 3.2 RECORD DRAWINGS

- A. Maintain a complete set of opaque prints of the contract drawings, marked to show changes.
- B. Where the actual work varies appreciably from that shown on the drawings, mark this set to show the actual installation.
  - 1. Pay particular attention to concealed elements that would be difficult to measure and record at a later date.
  - 2. Mark the drawing and verify prior to covering concealed elements.
  - 3. Mark whichever drawings are most capable of showing the changed conditions fully and accurately.
  - 4. Where changes are marked on record shop drawings, mark cross-reference on the applicable contract drawing.
- C. When the Contractor is required by a provision of a modification to prepare a new drawing, rather than to revise existing drawings, consult with the Consulting Engineer as to:
  - 1. The proper scale.
  - 2. Scope of detailing.

3. Notations required to record the actual work.
  4. Notations required to record actual work's relationships to other construction.
- D. Keep drawings in manageable, bound sets.
1. Provide identification on the cover of each set.
  2. Mark with red, erasable pencil.
  3. Mark variations in work of separate contracts with different colors of erasable pencils.
  4. Use an accurate, appropriate drawing technique.
  5. Incorporate new drawings into existing sets, as they are issued.
- E. Prepare a full set of transparencies of contract drawings with all record changes marked.
- F. Where record drawings are also required as part of operation and maintenance data submittals, make copies from the original record drawing set.

### 3.3 RECORD PROJECT MANUAL

- A. Maintain a complete copy of the project manual, marked to show changes.
- B. Where the actual work varies from that shown in the project manual, mark the record copy to show the actual work.
1. Include a copy of each addendum and modification to the contract.
  2. In addition to the types of information required on all record documents, record the following types of information:
    - a. Product options taken when the specification allows more than one.
    - b. Product substitutions.
    - c. Proprietary name and model number of actual products furnished, for each product, material, and item of equipment specified.
    - d. Name of the supplier and installer, for each product for which neither a product data submittal nor a maintenance data submittal was specified.

### 3.4 RECORD SUBMITTALS

- A. Maintain a complete set of all submittals made during construction.
1. Marked to show changes.
  2. Maintain submittals in cardboard file boxes.
    - a. Label to show contents.
  3. Sort submittals by applicable specification section.
  4. File in order of submittal identification number.
- B. Record Shop Drawings:
1. Record the types of information specified for all record documents.



2. Mark changes on record shop drawings only when contract drawing would not be capable of showing the change clearly or completely.
3. Mark changes in manner specified for record drawings.

C. Record Product Data Submittals:

1. Record the types of information specified for all record documents.
2. In addition, record the following types of information:
  - a. Changes in the products after delivery to the site.
  - b. Changes in the manufacturer's instructions or recommendations for installation.

D. Record Coordination Drawings:

1. Record the types of information required for all record documents.
2. Mark up in the manner specified for record drawings.

3.5 ELECTRONIC DOCUMENTATION OF PROJECT RECORDS DATA:

A. Contractors are required to duplicate the Project Record Documents issued in the hard copy submission and prepare an electronic version of the documentation. The Project Record Documents are to include the following:

1. Record Drawings: Complete as-built drawing matching record set as prepared in accordance to paragraph 3.2 of this section.
2. Record Project Manual: Include pages from the project specifications that have been marked to show changes in accordance to paragraph 3.3 of this section.
3. Record Submittals: Provide all final approval shop drawings including, but not limited to, reviewer comments, product data, performance data, electrical data, manufacturers written comments, product specifications, test data, equipment drawings, materials list, system controls, and CAD drawings in accordance to paragraph 3.4 of this section.
4. Record Correspondence: Provide documentation such as RFI's with written response, meeting minutes, approved change orders with written work scope and additional documentation that defines the performed work of the project.

B. The electronic documentation will be submitted on a CD of quantities required for the project. The CD's are to be filled to maximum capacity to minimize the quantities issued. Where a tab/directory and included data files are separated between two disks, the entire directory shall be moved to the next disks. If the directory exceeds the capacity of one disk, then separation is acceptable.

C. The CD's shall be labeled as Volume 1 of \_\_\_ and must include the title "Project Records", project name, project number and project date.

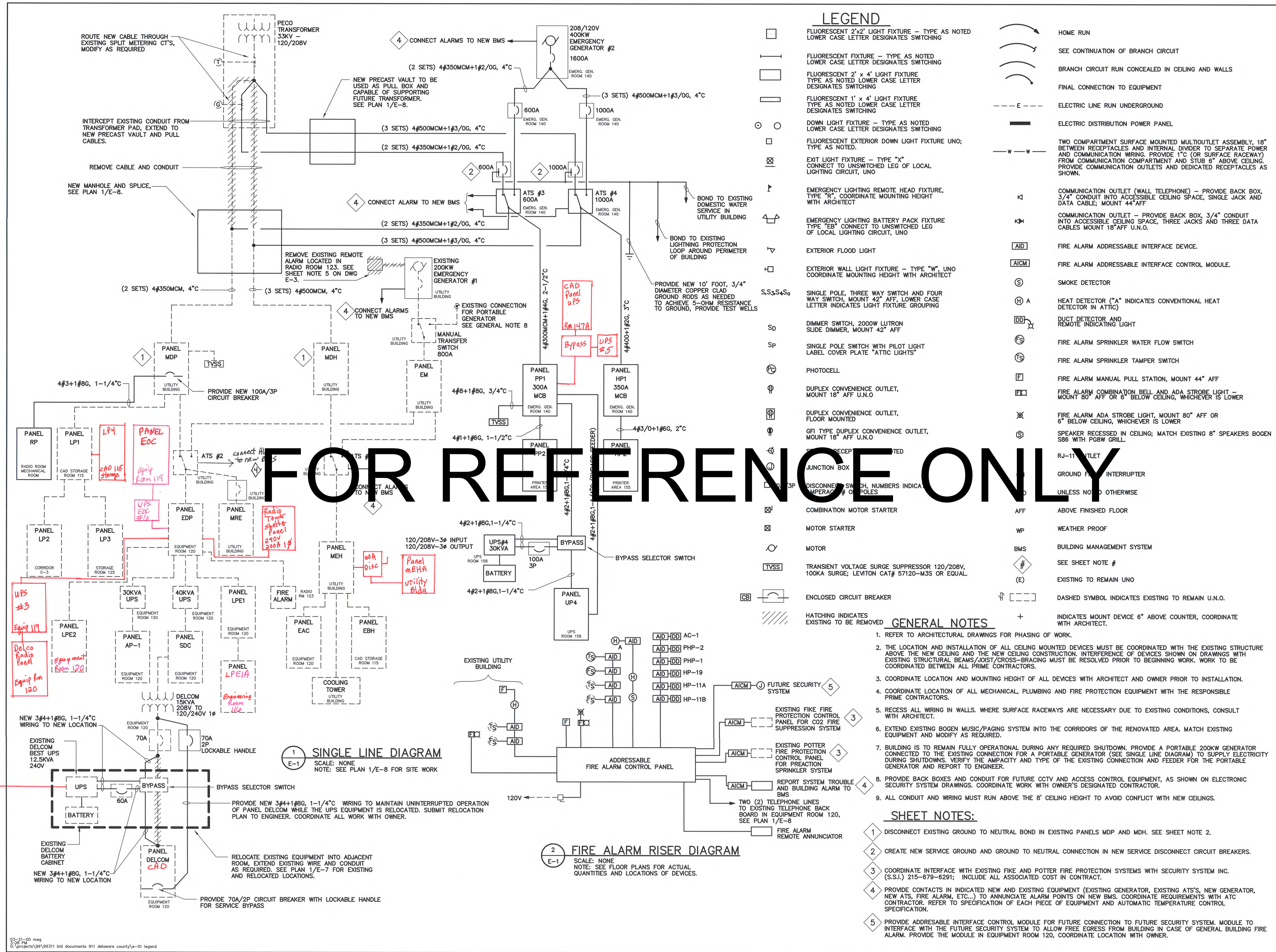
D. The project records data files must be of Portable Document Format (pdf) file type. No other file format will be acceptable. Preparation of files can be accomplished through conversion, scanning, and downloading of files in the pdf format. Portable document, format files are to be of current software version.

- E. Document files must be uniquely named to indicate product and grouped into associated directory similar to hard copy tab separation. Directories must be uniquely named to indicate system reference. The directories are to be organized similar to hard copy. Provide a typed table of contents in pdf format to be located as the first file on the CD of Volume 1.
- F. Contractors are to submit the CD's to Consulting Engineer for review and approval.

### 3.6 TRANSMITTAL TO OWNER

- A. Collect, organize, label, and package ready for reference.
  - 1. Provide cardboard file boxes for submittals.
  - 2. Provide cardboard drawing tubes with end caps for transparencies.
  - 3. Bind print sets with durable paper covers.
  - 4. Label each document (and each sheet of drawings) with "PROJECT RECORD DOCUMENTS - This document has been prepared using information furnished by \_\_\_\_\_", and the date of preparation.
- B. Submit to the Consulting Engineer.

END OF SECTION 011800



FOR REFERENCE ONLY

**LEGEND**

- FLUORESCENT 2'x2' LIGHT FIXTURE - TYPE AS NOTED LOWER CASE LETTER DESIGNATES SWITCHING
- FLUORESCENT 2' x 4' LIGHT FIXTURE TYPE AS NOTED LOWER CASE LETTER DESIGNATES SWITCHING
- FLUORESCENT 1' x 4' LIGHT FIXTURE TYPE AS NOTED LOWER CASE LETTER DESIGNATES SWITCHING
- DOWN LIGHT FIXTURE - TYPE AS NOTED LOWER CASE LETTER DESIGNATES SWITCHING
- FLUORESCENT EXTERIOR DOWN LIGHT FIXTURE UNO; TYPE AS NOTED.
- EXIT LIGHT FIXTURE - TYPE "X" CONNECT TO UNSWITCHED LEG OF LOCAL LIGHTING CIRCUIT, UNO
- ⚡ EMERGENCY LIGHTING REMOTE HEAD FIXTURE, TYPE "R", COORDINATE MOUNTING HEIGHT WITH ARCHITECT
- ⚡ EMERGENCY LIGHTING BATTERY PACK FIXTURE TYPE "EB" CONNECT TO UNSWITCHED LEG OF LOCAL LIGHTING CIRCUIT, UNO
- ⚡ EXTERIOR WALL LIGHT FIXTURE - TYPE "W", UNO COORDINATE MOUNTING HEIGHT WITH ARCHITECT
- ⚡ SINGLE POLE, THREE WAY SWITCH AND FOUR WAY SWITCH, MOUNT 42" AFF, LOWER CASE LETTER INDICATES LIGHT FIXTURE GROUPING
- Sd DIMMER SWITCH, 2000W LUTRON SLIDE DIMMER, MOUNT 42" AFF
- Sp SINGLE POLE SWITCH WITH PILOT LIGHT LABEL COVER PLATE "ATTIC LIGHTS"
- ☉ PHOTOCCELL
- ⊕ DUPLEX CONVENIENCE OUTLET, FLOOR MOUNTED
- ⊕ DUPLEX CONVENIENCE OUTLET, MOUNT 18" AFF U.N.O.
- ⊕ GFI TYPE DUPLEX CONVENIENCE OUTLET, MOUNT 18" AFF U.N.O.
- ⊕ JUNCTION BOX
- ⊕ DISCONNECT SWITCH, NUMBERS INDICATE NUMBER OF POLES
- ⊕ COMBINATION MOTOR STARTER
- ⊕ MOTOR STARTER
- ⊕ MOTOR
- TVSS TRANSIENT VOLTAGE SURGE SUPPRESSOR 120/208V, 100KA SURGE; LEVITON CAT# 57120-M3S OR EQUAL
- ⊕ ENCLOSED CIRCUIT BREAKER
- ⊕ HATCHING INDICATES EXISTING TO BE REMOVED
- ⊕ HOME RUN
- ⊕ SEE CONTINUATION OF BRANCH CIRCUIT
- ⊕ BRANCH CIRCUIT RUN CONCEALED IN CEILING AND WALLS
- ⊕ FINAL CONNECTION TO EQUIPMENT
- ⊕ ELECTRIC LINE RUN UNDERGROUND
- ⊕ ELECTRIC DISTRIBUTION POWER PANEL
- ⊕ TWO COMPARTMENT SURFACE MOUNTED MULTIOUTLET ASSEMBLY, 18" BETWEEN RECEPTACLES AND INTERNAL DIVIDER TO SEPARATE POWER AND COMMUNICATION WIRING. PROVIDE 1" (OR SURFACE RACEWAY) FROM COMMUNICATION COMPARTMENT AND STUB 6" ABOVE CEILING. PROVIDE COMMUNICATION OUTLETS AND DEDICATED RECEPTACLES AS SHOWN.
- ⊕ COMMUNICATION OUTLET (WALL TELEPHONE) - PROVIDE BACK BOX, 3/4" CONDUIT INTO ACCESSIBLE CEILING SPACE, SINGLE JACK AND DATA CABLE; MOUNT 44" AFF
- ⊕ COMMUNICATION OUTLET - PROVIDE BACK BOX, 3/4" CONDUIT INTO ACCESSIBLE CEILING SPACE, THREE JACKS AND THREE DATA CABLES MOUNT 18" AFF U.N.O.
- AID FIRE ALARM ADDRESSABLE INTERFACE DEVICE.
- AICM FIRE ALARM ADDRESSABLE INTERFACE CONTROL MODULE.
- ⊕ SMOKE DETECTOR
- ⊕ HEAT DETECTOR ("A" INDICATES CONVENTIONAL HEAT DETECTOR IN ATTIC)
- ⊕ DETECT DETECTOR AND REMOTE INDICATING LIGHT
- ⊕ FIRE ALARM SPRINKLER WATER FLOW SWITCH
- ⊕ FIRE ALARM SPRINKLER TAMPER SWITCH
- ⊕ FIRE ALARM MANUAL PULL STATION, MOUNT 44" AFF
- ⊕ FIRE ALARM COMBINATION BELL AND ADA STROBE LIGHT - MOUNT 80" AFF OR 6" BELOW CEILING, WHICHEVER IS LOWER
- ⊕ FIRE ALARM ADA STROBE LIGHT, MOUNT 80" AFF OR 6" BELOW CEILING, WHICHEVER IS LOWER
- ⊕ SPEAKER RECESSED IN CEILING; MATCH EXISTING 8" SPEAKERS BOGEN S88 WITH PG8W GRILL.
- RJ-11 OUTLET
- ⊕ GROUND FAULT INTERRUPTER
- ⊕ UNLESS NOTED OTHERWISE
- AFF ABOVE FINISHED FLOOR
- WP WEATHER PROOF
- BMS BUILDING MANAGEMENT SYSTEM
- # SEE SHEET NOTE #
- (E) EXISTING TO REMAIN UNO
- ⊕ DASHED SYMBOL INDICATES EXISTING TO REMAIN U.N.O.
- + INDICATES MOUNT DEVICE 6" ABOVE COUNTER, COORDINATE WITH ARCHITECT.

**1 SINGLE LINE DIAGRAM**  
SCALE: NONE  
NOTE: SEE PLAN 1/E-8 FOR SITE WORK

**2 FIRE ALARM RISER DIAGRAM**  
SCALE: NONE  
NOTE: SEE FLOOR PLANS FOR ACTUAL QUANTITIES AND LOCATIONS OF DEVICES.

**GENERAL NOTES**

1. REFER TO ARCHITECTURAL DRAWINGS FOR PHASING OF WORK.
2. THE LOCATION AND INSTALLATION OF ALL CEILING MOUNTED DEVICES MUST BE COORDINATED WITH THE EXISTING STRUCTURE ABOVE THE NEW CEILING AND THE NEW CEILING CONSTRUCTION. INTERFERENCE OF DEVICES SHOWN ON DRAWINGS WITH EXISTING STRUCTURAL BEAMS/JOIST/CROSS-BRACING MUST BE RESOLVED PRIOR TO BEGINNING WORK. WORK TO BE COORDINATED BETWEEN ALL PRIME CONTRACTORS.
3. COORDINATE LOCATION AND MOUNTING HEIGHT OF ALL DEVICES WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION.
4. COORDINATE LOCATION OF ALL MECHANICAL, PLUMBING AND FIRE PROTECTION EQUIPMENT WITH THE RESPONSIBLE PRIME CONTRACTORS.
5. RECESS ALL WIRING IN WALLS. WHERE SURFACE RACEWAYS ARE NECESSARY DUE TO EXISTING CONDITIONS, CONSULT WITH ARCHITECT.
6. EXTEND EXISTING BOGEN MUSIC/PAGING SYSTEM INTO THE CORRIDORS OF THE RENOVATED AREA. MATCH EXISTING EQUIPMENT AND MODIFY AS REQUIRED.
7. BUILDING IS TO REMAIN FULLY OPERATIONAL DURING ANY REQUIRED SHUTDOWN. PROVIDE A PORTABLE 200KW GENERATOR CONNECTED TO THE EXISTING CONNECTION FOR A PORTABLE GENERATOR (SEE SINGLE LINE DIAGRAM) TO SUPPLY ELECTRICITY DURING SHUTDOWNS. VERIFY THE AMPACITY AND TYPE OF THE EXISTING CONNECTION AND FEEDER FOR THE PORTABLE GENERATOR AND REPORT TO ENGINEER.
8. PROVIDE BACK BOXES AND CONDUIT FOR FUTURE CCTV AND ACCESS CONTROL EQUIPMENT, AS SHOWN ON ELECTRONIC SECURITY SYSTEM DRAWINGS. COORDINATE WORK WITH OWNER'S DESIGNATED CONTRACTOR.
9. ALL CONDUIT AND WIRING MUST RUN ABOVE THE 6" CEILING HEIGHT TO AVOID CONFLICT WITH NEW CEILINGS.

**SHEET NOTES:**

- 1 DISCONNECT EXISTING GROUND TO NEUTRAL BOND IN EXISTING PANELS MDP AND MDH. SEE SHEET NOTE 2.
- 2 CREATE NEW SERVICE GROUND AND GROUND TO NEUTRAL CONNECTION IN NEW SERVICE DISCONNECT CIRCUIT BREAKERS.
- 3 COORDINATE INTERFACE WITH EXISTING FIRE AND POTTER FIRE PROTECTION SYSTEMS WITH SECURITY SYSTEM INC. (S.S.I.) 215-679-6281; INCLUDE ALL ASSOCIATED COST IN CONTRACT.
- 4 PROVIDE CONTACTS IN INDICATED NEW AND EXISTING EQUIPMENT (EXISTING GENERATOR, EXISTING AT'S, NEW GENERATOR, NEW AT'S, FIRE ALARM, ETC.) TO ANNUNCIATE ALARM POINTS ON NEW BMS. COORDINATE REQUIREMENTS WITH ATC CONTRACTOR. REFER TO SPECIFICATION OF EACH PIECE OF EQUIPMENT AND AUTOMATIC TEMPERATURE CONTROL SPECIFICATION.
- 5 PROVIDE ADDRESSABLE INTERFACE CONTROL MODULE FOR FUTURE CONNECTION TO FUTURE SECURITY SYSTEM. MODULE TO INTERFACE WITH THE FUTURE SECURITY SYSTEM TO ALLOW FREE EGRESS FROM BUILDING IN CASE OF GENERAL BUILDING FIRE ALARM. PROVIDE THE MODULE IN EQUIPMENT ROOM 120, COORDINATE LOCATION WITH OWNER.

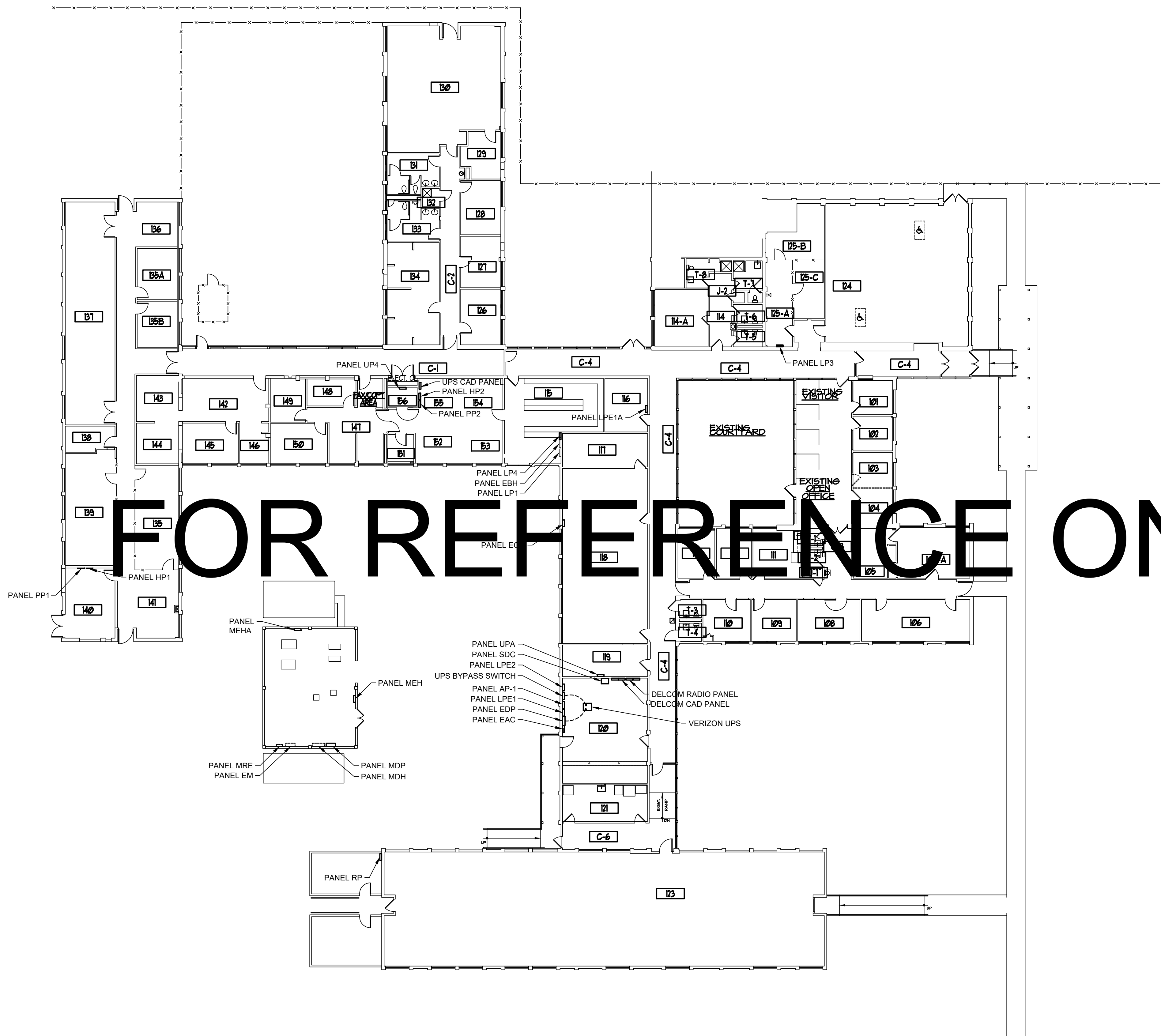
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RENOVATIONS TO  
 COUNTY OF DELAWARE  
**EMERGENCY COMMUNICATIONS CENTER**  
 360 N. MIDDLETOWN ROAD  
 LIMA, DELAWARE COUNTY, PA

No	Date	Description
1	3/15/00	Issued for Bidding
Revisions		
All dimensions & measurements shall be checked and verified by the contractor at the site.		
Sheet Title		
ELECTRICAL LEGEND AND SINGLE LINE DIAGRAMS AND RISERS		
Project No.	49004/64H 993H	
Scale	AS NOTED	
Date	03/15/00	
Drawn by	JHF	
Checked	HEB	
Drawing No. <b>E-1</b>		

03-21-00 meg  
C:\projects\09\99311 bid documents\911 delaware county\e-01 legend



FOR REFERENCE ONLY


REFERENCE DIMENSION



INDICATED DIMENSION IS MEASURED AT ONE (1) INCH IN LENGTH AND PROVIDED FOR REFERENCE/VERIFICATION ONLY.

1 POWER PANEL LOCATION PLAN  
SCALE: 1/16" = 1'-0"

REV	DATE	DESCRIPTION	APP

SHEET TITLE: **ELECTRICAL PANEL LOCATIONS FLOOR PLAN**  
 PROJECT: **EMERGENCY SERVICES BUILDING ELECTRICAL SURVEY - PHASE 2**  
 **Gillan & Hartmann, Inc.**  
 MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS  
 810-335-0101 FAX 810-335-7020  
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 DRAWN BY: JTM DATE: 05-18-21 JOB NO: 2020-122 SHEET: E101  
 CHECKED BY: ROB SCALE: AS NOTED COMM NO:

FILE PATH: C:\ProgramData\Gillan & Hartmann\2020\122\ELC\0311\_C2\_Electrical\_Survey\_Phase2\Drawings\E101.dwg  
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