State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Solicitation

NUMBER	PAGE
COR61603	1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
TARA LYLE
304-558-2544

VENDOR
RFQ COPY
TYPE NAME/ADDRESS HERE

SHIP TO
DENMAR CORRECTIONAL CENTER
HC-64, BOX 125
DENMAR ROAD
HILLSBORO, WV
24946

DATE PRINTED
03/27/2014

BID OPENING DATE: 05/07/2014 BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
				**********		
				PLEASE NOTE A MANDATORY PRE-BID MEETING IS SCHEDULED FOR 04/24/2014 AT 10:00 AM AT THE DENMAR CORRECTIONAL CENTER LOCATED AT 4319 DENMAR ROAD HILLSBORO, WV 24946. VENDORS SHOULD PRE-REGISTER PRIOR TO THE MEETING WITH PHILIP FARLEY AT 304-549-1050 OR BY EMAIL AT PHILIP.K.FARLEY@WV.GOV.		
				**********		
				PLEASE NOTE: THE DRUG FREE WORKPLACE AFFIDAVIT AND BID BOND ARE REQUIRED WITH BID SUBMISSION.		
				**********		
0001	1	JB		968-42		
				REMOVE AND INSTALL NEW EMERGENCY POWER SYSTEM		
				THE WEST VIRGINIA PURCHASING DIVISION FOR THE AGENCY, WV DIVISION OF CORRECTIONS - DENMAR CORRECTIONAL CENTER, IS SOLICITING BIDS TO REMOVE THE EXISTING EMERGENCY POWER SYSTEM AND INSTALL A NEW EMERGENCY POWER SYSTEM AT THE DENMAR CORRECTIONAL CENTER LOCATED AT 4319 DENMAR ROAD HILLSBORO, WV 24946, PER THE ATTACHED SPECIFICATIONS.		
				ATTACHMENTS INCLUDE:		

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Solicitation

NUMBER	PAGE
COR61603	2

ADDRESS CORRESPONDENCE TO ATTENTION OF:
TARA LYLE
304-558-2544

VENDOR
RFQ COPY
TYPE NAME/ADDRESS HERE

SHIP TO
DENMAR CORRECTIONAL CENTER

HC-64, BOX 125
DENMAR ROAD
HILLSBORO, WV
24946

DATE PRINTED
03/27/2014

BID OPENING DATE: 05/07/2014 BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT

1. INSTRUCTIONS TO VENDORS SUBMITTING BIDS
2. GENERAL TERMS AND CONDITIONS
3. ADDITIONAL TERMS AND CONDITIONS (CONSTRUCTION CONTRACTS ONLY)
4. COR61603 SPECIFICATIONS
5. CERTIFICATION AND SIGNATURE PAGE
6. PURCHASING AFFIDAVIT
7. DRUG-FREE WORKPLACE AFFIDAVIT
8. BID BOND INSTRUCTIONS AND FORM
9. WV-75-CONSTRUCTION BID SUBMISSION REVIEW FORM

THE MODEL/BRAND/SPECIFICATIONS NAMED HEREIN ESTABLISH THE ACCEPTABLE LEVEL OF QUALITY ONLY AND ARE NOT INTENDED TO REFLECT A PREFERENCE OR FAVOR ANY PARTICULAR BRAND OR VENDOR. VENDORS WHO ARE BIDDING ALTERNATES SHOULD SO STATE AND INCLUDE PERTINENT LITERATURE AND SPECIFICATIONS. FAILURE TO PROVIDE INFORMATION FOR ANY ALTERNATES MAY BE GROUNDS FOR REJECTION OF THE BID. THE STATE RESERVES THE RIGHT TO WAIVE MINOR IRREGULARITIES IN BIDS OR SPECIFICATIONS IN ACCORDANCE WITH SECTION 148-1-4(F) OF THE WEST VIRGINIA LEGISLATIVE RULES AND REGULATIONS.

****** THIS IS THE END OF RFQ COR61603 ****** TOTAL: _____

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

INSTRUCTIONS TO VENDORS SUBMITTING BIDS

1. **REVIEW DOCUMENTS THOROUGHLY:** The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.

2. **MANDATORY TERMS:** The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.

3. **PREBID MEETING:** The item identified below shall apply to this Solicitation.

☐ A pre-bid meeting will not be held prior to bid opening.

☐ A **NON-MANDATORY PRE-BID** meeting will be held at the following place and time:

☑ A **MANDATORY PRE-BID** meeting will be held at the following place and time:

April 24, 2014 at 10:00 a.m.

Denmar Correctional Center
4319 Denmar Road
Hillsboro, WV 24946

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one person attending the pre-bid meeting may represent more than one Vendor.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. The State will not accept any other form of proof or documentation to verify attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing. Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in, but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

4. **VENDOR QUESTION DEADLINE:** Vendors may submit questions relating to this Solicitation to the Purchasing Division. Questions must be submitted in writing. All questions must be submitted on or before the date listed below and to the address listed below in order to be considered. A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are non-binding.

Question Submission Deadline: 04/29/2014 at 5:00 pm

Submit Questions to: Tara Lyle, File 32
2019 Washington Street, East
Charleston, WV 25305
Fax: 304-558-4115
Email: Tara.L.Lyle@wv.gov

5. **VERBAL COMMUNICATION:** Any verbal communication between the Vendor and any State personnel is not binding, including that made at the mandatory pre-bid conference. Only information issued in writing and added to the Solicitation by an official written addendum by the Purchasing Division is binding.

6. **BID SUBMISSION:** All bids must be signed and delivered by the Vendor to the Purchasing Division at the address listed below on or before the date and time of the bid opening. Any bid received by the Purchasing Division staff is considered to be in the possession of the Purchasing Division and will not be returned for any reason. The Purchasing Division will not accept bids, modification of bids, or addendum acknowledgment forms via e-mail. Acceptable delivery methods include hand delivery, delivery by courier, or facsimile. The bid delivery address is:

Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

The bid should contain the information listed below on the face of the envelope or the bid maynot be considered:

SEALED BID
BUYER: _____
SOLICITATION NO.: _____
BID OPENING DATE: _____
BID OPENING TIME: _____
FAX NUMBER: _____

In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal plus n/a convenience copies of each to the Purchasing Division at the address shown above. Additionally, the Vendor should identify the bid type as either a technical or cost proposal on the face of each bid envelope submitted in response to a request for proposal as follows:

BID TYPE: ☐ Technical
☐ Cost

7. **BID OPENING:** Bids submitted in response to this Solicitation will be opened at the location identified below on the date and time listed below. Delivery of a bid after the bid opening date and time will result in bid disqualification. For purposes of this Solicitation, a bid is considered delivered when time stamped bythe official Purchasing Division time clock.

Bid Opening Date and Time: May 7, 2014 at 1:30 pm

Bid Opening Location: Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

8. **ADDENDUM ACKNOWLEDGEMENT:** Changes or revisions to this Solicitation will be made by an official written addendum issued by the Purchasing Division. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

9. **BID FORMATTING:** Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

GENERAL TERMS AND CONDITIONS:

1. **CONTRACTUAL AGREEMENT:** Issuance of a Purchase Order signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.

2. **DEFINITIONS:** As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.

   2.1 "Agency" or **"Agencies"** means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.

   2.2 "Contract" means the binding agreement that is entered into between the State and the Vendor to provide the goods and services requested in the Solicitation.

   2.3 "Director" means the Director of the West Virginia Department of Administration, Purchasing Division.

   2.4 "Purchasing Division" means the West Virginia Department of Administration, Purchasing Division.

   2.5 "Purchase Order" means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the successful bidder and Contract holder.

   2.6 "Solicitation" means the official solicitation published by the Purchasing Division and identified by number on the first page thereof.

   2.7 "State" means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.

   2.8 "Vendor" or **"Vendors"** means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

3. **CONTRACT TERM; RENEWAL; EXTENSION:** The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:

☐ **Term Contract**

Initial Contract Term: This Contract becomes effective on

and extends for a period of year(s).

Renewal Term: This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any request for renewal must be submitted to the Purchasing Division Director thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Renewal of this Contract is limited to successive one (1) year periods. Automatic renewal of this Contract is prohibited. Notwithstanding the foregoing, Purchasing Division approval is not required on agency delegated or exempt purchases. Attorney General approval may be required for vendor terms and conditions.

Reasonable Time Extension: At the sole discretion of the Purchasing Division Director, and with approval from the Attorney General's office (Attorney General approval is as to form only), this Contract may be extended for a reasonable time after the initial Contract term or after any renewal term as may be necessary to obtain a new contract or renew this Contract. Any reasonable time extension shall not exceed twelve (12) months. Vendor may avoid a reasonable time extension by providing the Purchasing Division Director with written notice of Vendor's desire to terminate this Contract 30 days prior to the expiration of the then current term. During any reasonable time extension period, the Vendor may terminate this Contract for any reason upon giving the Purchasing Division Director 30 days written notice. Automatic extension of this Contract is prohibited. Notwithstanding the foregoing, Purchasing Division approval is not required on agency delegated or exempt purchases, but Attorney General approval may be required.

Release Order Limitations: In the event that this contract permits release orders, a release order may only be issued during the time this Contract is in effect. Any release order issued within one year of the expiration of this Contract shall be effective for one year from the date the release order is issued. No release order may be extended beyond one year after this Contract has expired.

☑ **Fixed Period Contract:** This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within 365 days.

☐ **One Time Purchase:** The term of this Contract shall run from the issuance of the Purchase Order until all of the goods contracted for have been delivered, but in no event shall this Contract extend for more than one fiscal year.

☐ **Other:** See attached.

4. **NOTICE TO PROCEED:** Vendor shall begin performance of this Contract immediately upon receiving notice to proceed unless otherwise instructed by the Agency. Unless otherwise specified, the fully executed Purchase Order will be considered notice to proceed

5. **QUANTITIES:** The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.

☐ **Open End Contract:** Quantities listed in this Solicitation are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

☐ **Service:** The scope of the service to be provided will be more clearly defined in the specifications included herewith.

☑ **Combined Service and Goods:** The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.

☐ **One Time Purchase:** This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.

6. **PRICING:** The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification.

7. **EMERGENCY PURCHASES:** The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute of breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One Time Purchase contract.

8. **REQUIRED DOCUMENTS:** All of the items checked below must be provided to the Purchasing Division by the Vendor as specified below.

☑ **BID BOND:** All Vendors shall furnish a bid bond in the amount of five percent (5%) of the total amount of the bid protecting the State of West Virginia. The bid bond must be submitted with the bid.

☑ **PERFORMANCE BOND:** The apparent successful Vendor shall provide a performance bond in the amount of 100% of contract value . The performance bond must be issued and received by the Purchasing Division prior to Contract award. On construction contracts, the performance bond must be 100% of the Contract value.

☑ **LABOR/MATERIAL PAYMENT BOND:** The apparent successful Vendor shall provide a labor/material payment bond in the amount of 100% of the Contract value. The labor/material payment bond must be issued and delivered to the Purchasing Division prior to Contract award.

In lieu of the Bid Bond, Performance Bond, and Labor/Material Payment Bond, the Vendor may provide certified checks, cashier's checks, or irrevocable letters of credit. Any certified check, cashier's check, or irrevocable letter of credit provided in lieu of a bond must be of the same amount and delivered on the same schedule as the bond it replaces. A letter of credit submitted in lieu of a performance and labor/material payment bond will only be allowed for projects under $100,000. Personal or business checks are not acceptable.

☐ **MAINTENANCE BOND:** The apparent successful Vendor shall provide a two (2) year maintenance bond covering the roofing system. The maintenance bond must be issued and delivered to the Purchasing Division prior to Contract award.

☑ **WORKERS' COMPENSATION INSURANCE:** The apparent successful Vendor shall have appropriate workers' compensation insurance and shall provide proof thereof upon request.

☑ **INSURANCE:** The apparent successful Vendor shall furnish proof of the following insurance prior to Contract award and shall list the state as a certificate holder:

☑ **Commercial General Liability Insurance:**
$1,000,000.00 or more.

☐ **Builders Risk Insurance:** builders risk – all risk insurance in an amount equal to 100% of the amount of the Contract.

☐

☐

☐

☐

☐

The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether or not that insurance requirement is listed above.

☑ **LICENSE(S) / CERTIFICATIONS / PERMITS:** In addition to anything required under the Section entitled Licensing, of the General Terms and Conditions, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits prior to Contract award, in a form acceptable to the Purchasing Division.

☑ WV Contractor's License

☐

☐

☐

The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications prior to Contract award regardless of whether or not that requirement is listed above.

9. **LITIGATION BOND:** The Director reserves the right to require any Vendor that files a protest of an award to submit a litigation bond in the amount equal to one percent of the lowest bid submitted or $5,000, whichever is greater. The entire amount of the bond shall be forfeited if the hearing officer determines that the protest was filed for frivolous or improper purpose, including but not limited to, the purpose of harassing, causing unnecessary delay, or needless expense for the Agency. All litigation bonds shall be made payable to the Purchasing Division. In lieu of a bond, the protester may submit a cashier's check or certified check payable to the Purchasing Division. Cashier's or certified checks will be deposited with and held by the State Treasurer's office. If it is determined that the protest has not been filed for frivolous or improper purpose, the bond or deposit shall be returned in its entirety.

10. **ALTERNATES:** Any model, brand, or specification listed herein establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.

11. **EXCEPTIONS AND CLARIFICATIONS:** The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or

other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.

12. LIQUIDATED DAMAGES: Vendor shall pay liquidated damages in the amount for

This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy.

13. ACCEPTANCE/REJECTION: The State may accept or reject any bid in whole, or in part. Vendor's signature on its bid signifies acceptance of the terms and conditions contained in the Solicitation and Vendor agrees to be bound by the terms of the Contract, as reflected in the Purchase Order, upon receipt.

14. REGISTRATION: Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the $125 fee if applicable.

15. COMMUNICATION LIMITATIONS: In accordance with West Virginia Code of State Rules §148-1-6.6, communication with the State of West Virginia or any of its employees regarding this Solicitation during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited without prior Purchasing Division approval. Purchasing Division approval for such communication is implied for all agency delegated and exempt purchases.

16. FUNDING: This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available.

17. PAYMENT: Payment in advance is prohibited under this Contract. Payment may only be made after the delivery and acceptance of goods or services. The Vendor shall submit invoices, in arrears, to the Agency at the address on the face of the purchase order labeled "Invoice To."

18. UNIT PRICE: Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.

19. DELIVERY: All quotations are considered freight on board destination ("F.O.B. destination") unless alternate shipping terms are clearly identified in the bid. Vendor's listing of shipping terms that contradict the shipping terms expressly required by this Solicitation may result in bid disqualification.

20. INTEREST: Interest attributable to late payment will only be permitted if authorized by the West Virginia Code. Presently, there is no provision in the law for interest on late payments.

21. PREFERENCE: Vendor Preference may only be granted upon written request and only in accordance with the West Virginia Code § 5A-3-37 and the West Virginia Code of State Rules. A Resident Vendor Certification form has been attached hereto to allow Vendor to apply for the preference. Vendor's

failure to submit the Resident Vendor Certification form with its bid will result in denial of Vendor Preference. Vendor Preference does not apply to construction projects.

22. **SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES:** For any solicitations publicly advertised for bid on or after July 1, 2012, in accordance with West Virginia Code §5A-3-37(a)(7) and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women-owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to submission of its bid to receive the preferences made available to resident vendors. Preference for a non-resident small, women-owned, or minorityowned business shall be applied in accordance with W. Va. CSR § 148-22-9.

23. **TAXES:** The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.

24. **CANCELLATION:** The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Purchasing Division Director may cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-7.16.2.

25. **WAIVER OF MINOR IRREGULARITIES:** The Director reserves the right to waive minor irregularities in bids or specifications in accordance with West Virginia Code of State Rules § 148-1-4.6.

26. **TIME:** Time is of the essence with regard to all matters of time and performance in this Contract.

27. **APPLICABLE LAW**: This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code or West Virginia Code of State Rules is void and of no effect.

28. **COMPLIANCE**: Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendors acknowledge that they have reviewed, understand, and will comply with all applicable law.

29. **PREVAILING WAGE:** On any contract for the construction of a public improvement, Vendor and any subcontractors utilized by Vendor shall pay a rate or rates of wages which shall not be less than the fair minimum rate or rates of wages (prevailing wage), as established by the West Virginia Division of Labor under West Virginia Code §§ 21-5A-1 et seq. and available at http://www.sos.wv.gov/administrative-law/wagerates/Pages/default.aspx. Vendor shall be responsible for ensuring compliance with prevailing wage requirements and determining when prevailing wage

requirements are applicable. The required contract provisions contained in West Virginia Code of State Rules § 42-7-3 are specifically incorporated herein by reference.

30. **ARBITRATION:** Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.

31. **MODIFICATIONS**: This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary, no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). **No Change shall be implemented by the Vendor until such time as the Vendor receives an approved written change order from the Purchasing Division.**

32. **WAIVER:** The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.

33. **SUBSEQUENT FORMS:** The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.

34. **ASSIGNMENT**: Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments. Notwithstanding the foregoing, Purchasing Division approval may or may not be required on certain agency delegated or exempt purchases.

35. **WARRANTY**: The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.

36. **STATE EMPLOYEES:** State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.

37. **BANKRUPTCY**: In the event the Vendor files for bankruptcy protection, the State of West Virginia may deem this Contract null and void, and terminate this Contract without notice.

38. [RESERVED]

39. CONFIDENTIALITY: The Vendor agrees that it will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the Agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the Agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in http://www.state.wv.us/admin/purchase/privacy/default.html.

40. DISCLOSURE: Vendor's response to the Solicitation and the resulting Contract are considered public documents and will be disclosed to the public in accordance with the laws, rules, and policies governing the West Virginia Purchasing Division. Those laws include, but are not limited to, the Freedom of Information Act found in West Virginia Code § 29B-1-1 et seq.

If a Vendor considers any part of its bid to be exempt from public disclosure, Vendor must so indicate by specifically identifying the exempt information, identifying the exemption that applies, providing a detailed justification for the exemption, segregating the exempt information from the general bid information, and submitting the exempt information as part of its bid but in a segregated and clearly identifiable format. Failure to comply with the foregoing requirements will result in public disclosure of the Vendor's bid without further notice. A Vendor's act of marking all or nearly all of its bid as exempt is not sufficient to avoid disclosure and WILL NOT BE HONORED. Vendor's act of marking a bid or any part thereof as "confidential" or "proprietary" is not sufficient to avoid disclosure and WILL NOT BE HONORED. In addition, a legend or other statement indicating that all or substantially all of the bid is exempt from disclosure is not sufficient to avoid disclosure and WILL NOT BE HONORED. Vendor will be required to defend any claimed exemption for nondisclosure in the event of an administrative or judicial challenge to the State's nondisclosure. Vendor must indemnify the State for any costs incurred related to any exemptions claimed by Vendor. Any questions regarding the applicability of the various public records laws should be addressed to your own legal counsel prior to bid submission.

41. LICENSING: In accordance with West Virginia Code of State Rules §148-1-6.1.7, Vendor must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agency or political subdivision. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.

42. ANTITRUST: In submitting a bid to, signing a contract with, or accepting a Purchase Order from any agency of the State of West Virginia, the Vendor agrees to convey, sell, assign, or transfer to the State of West Virginia all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired

by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to Vendor.

43. VENDOR CERTIFICATIONS: By signing its bid or entering into this Contract, Vendor certifies (1) that its bid was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid for the same material, supplies, equipment or services; (2) that its bid is in all respects fair and without collusion or fraud; (3) that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; and (4) that it has reviewed this RFQ in its entirety; understands the requirements, terms and conditions, and other information contained herein. Vendor's signature on its bid also affirms that neither it nor its representatives have any interest, nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency.

The individual signing this bid on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid or any documents related thereto on Vendor's behalf; that he or she is authorized to bind the Vendor in a contractual relationship; and that, to the best of his or her knowledge, the Vendor has properly registered with any State agency that may require registration.

44. PURCHASING CARD ACCEPTANCE: The State of West Virginia currently utilizes a Purchasing Card program, administered under contract by a banking institution, to process payment for goods and services. The Vendor must accept the State of West Virginia's Purchasing Card for payment of all orders under this Contract unless the box below is checked.

☐ Vendor is not required to accept the State of West Virginia's Purchasing Card as payment for all goods and services.

45. VENDOR RELATIONSHIP: The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, *etc.* and the filing of all necessary documents, forms and returns pertinent to all of the foregoing. Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

46. INDEMNIFICATION: The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered

by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.

47. **PURCHASING AFFIDAVIT:** In accordance with West Virginia Code § 5A-3-10a, all Vendors are required to sign, notarize, and submit the Purchasing Affidavit stating that neither the Vendor nor a related party owe a debt to the State in excess of $1,000. The affidavit must be submitted prior to award, but should be submitted with the Vendor's bid. A copy of the Purchasing Affidavit is included herewith.

48. **ADDITIONAL AGENCY AND LOCAL GOVERNMENT USE:** This Contract may be utilized by and extends to other agencies, spending units, and political subdivisions of the State of West Virginia; county, municipal, and other local government bodies; and school districts ("Other Government Entities"). This Contract shall be extended to the aforementioned Other Government Entities on the same prices, terms, and conditions as those offered and agreed to in this Contract. If the Vendor does not wish to extend the prices, terms, and conditions of its bid and subsequent contract to the Other Government Entities, the Vendor must clearly indicate such refusal in its bid. A refusal to extend this Contract to the Other Government Entities shall not impact or influence the award of this Contract in any manner.

49. **CONFLICT OF INTEREST:** Vendor, its officers or members or employees, shall not presently have or acquire any interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.

50. **REPORTS:** Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:

☑ Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.

☐ Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at purchasing.requisitions@wv.gov.

51. **BACKGROUND CHECK:** In accordance with W. Va. Code § 15-2D-3, the Director of the Division of Protective Services shall require any service provider whose employees are regularly employed on the grounds or in the buildings of the Capitol complex or who have access to sensitive or critical information

to submit to a fingerprint-based state and federal background inquiry through the state repository. The service provider is responsible for any costs associated with the fingerprint-based state and federal background inquiry.

After the contract for such services has been approved, but before any such employees are permitted to be on the grounds or in the buildings of the Capitol complex or have access to sensitive or critical information, the service provider shall submit a list of all persons who will be physically present and working at the Capitol complex to the Director of the Division of Protective Services for purposes of verifying compliance with this provision.

The State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check.

Service providers should contact the West Virginia Division of Protective Services by phone at (304)558-9911 for more information.

52. **PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS:** Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

    a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.

    b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open heath, basic oxygen, electric furnace, Bessemer or other steel making process.

    The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:

    a. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars ($2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or

    b. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

53. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL: In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars ($50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a "substantial labor surplus area", as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products.

This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

ADDITIONAL TERMS AND CONDITIONS (Construction Contracts Only)

1. **CONTRACTOR'S LICENSE:** West Virginia Code § 21-11-2 requires that all persons desiring to perform contracting work in this state be licensed. The West Virginia Contractors Licensing Board is empowered to issue the contractor's license. Applications for a contractor's license may be made by contacting the West Virginia Division of Labor.

   West Virginia Code § 21-11-11 requires any prospective Vendor to include the contractor's license number on its bid. Failure to include a contractor's license number on the bid shall result in Vendor's bid being disqualified. Vendors should include a contractor's license number in the space provided below.

   Contractor's Name:_____

   Contractor's License No._____

   The apparent successful Vendor must furnish a copy of its contractor's license prior to the issuance of a purchase order/contract.

2. **DRUG-FREE WORKPLACE AFFIDAVIT:** W. Va. Code § 21-1D-5 provides that any solicitation for a public improvement contract requires each Vendor that submits a bid for the work to submit at the same time an affidavit that the Vendor has a written plan for a drug-free workplace policy. To comply with this law, Vendor must either complete the enclosed drug-free workplace affidavit and submit the same with its bid or complete a similar affidavit that fulfills all of the requirements of the applicable code. Failure to submit the signed and notarized drug-free workplace affidavit or a similar affidavit that fully complies with the requirements of the applicable code, with the bid shall result in disqualification of Vendor's bid.

   2.1 DRUG-FREE WORKPLACE POLICY: Pursuant to W. Va. Code § 21-1D-4, Vendor and its subcontractors must implement and maintain a written drug-free workplace policy that complies with said article.

   The awarding public authority may cancel this contract if: (1) Vendor fails to implement and maintain a written drug-free workplace policy described in the preceding paragraph, (2) Vendor fails to provide information regarding implementation of its drug-free workplace policy at the request of the public authority; or (3) Vendor provides to the public authority false information regarding the contractor's drug-free workplace policy.

3. **DRUG FREE WORKPLACE REPORT:** Pursuant to W. Va. Code § 21-1D-7b, no less than once per year, or upon completion of the project, every contractor shall provide a certified report to the public authority which let the contract. For contracts over $25,000, the public authority shall be the West Virginia Purchasing Division. For contracts of $25,000 or less, the public authority shall be the agency issuing the contract. The report shall include:

(1) Information to show that the education and training service to the requirements of West Virginia Code § 21-1D-5 was provided;

(2) The name of the laboratory certified by the United States Department of Health and Human Services or its successor that performs the drug tests;

(3) The average number of employees in connection with the construction on the public improvement;

(4) Drug test results for the following categories including the number of positive tests and the number of negative tests: (A) Pre-employment and new hires; (B) Reasonable suspicion; (C) Post-accident; and (D) Random.

Vendor should utilize the attached Certified Drug Free Workplace Report Coversheet when submitting the report required hereunder.

4. **AIA DOCUMENTS:** All construction contracts that will be completed in conjunction with architectural services procured under Chapter 5G of the West Virginia Code will be governed by the AIA A101-2007 and A201-2007 or the A107-2007 documents, as amended by the Supplementary Conditions for the State of West Virginia, in addition to the terms and conditions contained herein.

5. **SUBCONTRACTOR LIST SUBMISSION:** In accordance with W. Va. Code § 5-22-1, The apparent low bidder on a contract for the construction, alteration, decoration, painting or improvement of a new or existing building or structure valued at more than $250,000.00 shall submit a list of all subcontractors who will perform more than $25,000.00 of work on the project including labor and materials. This provision shall not apply to any other construction projects, such as highway, mine reclamation, water or sewer projects. Additionally, if no subcontractors who will perform more than $25,000.00 of work are to be used to complete the project, it will be noted on the subcontractor list.

a. **Required Information.** The subcontractor list shall contain the following information:

i. Bidder's name
ii. Name of each subcontractor
iii. License numbers as required by W. Va. Code § 21-11-1 et. seq.
iv. Notation that no subcontractor will be used to perform more than $25,000.00 of work, when applicable

b. **Submission.** The completed subcontractor list shall be provided to the Purchasing Division within one business day of the opening of bids for review. Failure to submit the subcontractor list within one business day after the deadline for submitting bids shall result in disqualification of the bid.

c. **Substitution of Subcontractor.** Written approval must be obtained from the State Spending Unit before any subcontractor substitution is permitted. Substitutions are not permitted unless:

i. The subcontractor listed in the original bid has filed for bankruptcy;
ii. The subcontractor in the original bid has been debarred or suspended; or
iii. The contractor certifies in writing that the subcontractor listed in the original bill fails, is unable, or refuses to perform his subcontract.

6. **GREEN BUILDINGS MINIMUM ENERGY STANDARDS:** In accordance with § 22-29-4, all new building construction projects of public agencies that have not entered the schematic design phase prior to July 1, 2012, or any building construction project receiving state grant funds and appropriations, including public schools, that have not entered the schematic design phase prior to July 1, 2012, shall be designed and constructed complying with the ICC International Energy Conservation Code, adopted by the State Fire Commission, and the ANSI/ASHRAE/IESNA Standard 90.1-2007: *Provided*, That if any construction project has a commitment of federal funds to pay for a portion of such project, this provision shall only apply to the extent such standards are consistent with the federal standards.

COR61603 - REQUEST FOR QUOTATION

INSTALL NEW EMERGENCY POWER SYSTEM AND REMOVE EXISTING SYSTEM AT DENMAR CORRECTIONAL CENTER, POCAHONTAS COUNTY, WV

The Denmar Correctional Center (DCC), a West Virginia Division of Corrections Facility (WV DOC), is soliciting a lump sum quotation to install new emergency power system and remove existing.

A mandatory pre-bid conference is scheduled for **April 24** at **10:00 am** at Denmar Correctional Center. The facility is located at 4319 Denmar Road, Hillsboro, WV 24946. Vendors interested in attending the pre-bid conference should call or email, but is not required, to pre-register with the following individual:

Name: Philip Farley
Phone: 304-549-1050
Email: Philip.K.Farley@wv.gov

Vendors quoting this project **SHALL** comply with the below Specifications unless otherwise noted:

PART I: SUMMARY OF PROJECT, STANDARD SPECIFICATIONS, AND REQUIREMENTS

1.01 SUMMARY OF EXISTING CONDITIONS

A. The existing generator at Denmar Correctional Center was first used at the West Virginia Penitentiary (WVP). Then, after the WVP closed down, the generator was transferred to Denmar Correctional Center in 1998. The existing automatic transfer switch was replaced and installed in 2003. The Facility has had numerous issues with the generator and automatic transfer switch.

B. The existing emergency power system is located in a fenced in area outside the facility perimeter security fence and is close to where the commercial power lines from the power company goes to the Facility.

C. Mon Power provides three phases (3ø) of 12.47 kilovolt (kV) commercial power to the facility during normal operation. The service goes to the facility from Mon Power with three (3) size 1/0 AWG, fifteen kilovolt (15kV) wires.

D. The last power pole that is owned by Mon Power is the power pole that is prior to the power pole with the meter. The DOC owns all power poles from the power pole with the meter.

E. The power pole after the power pole with the meter, there are three (3) phase power lines that goes underground to a pad mounted step down transformer that is rated at 12.47 kV, 3ø primary, 208/120 V, 3ø secondary.

F. From the step down transformer, the 208/120 V, 3ø power lines goes underground to an automatic transfer switch (ATS). The ATS is rated at 240/120 V, 3ø, 1,200 amps (A).

G. From the ATS, the 208/120 V, 3ø power lines goes underground to the 300 kW generator.

H. From the ATS, the 208/120 V, 3ø power lines goes underground to a step up transformer rated at 208/120 V, 3ø primary, 12.47 kV, 3ø secondary.

I. From the step up transformer, the 12.47 kV, 3ø, power lines goes underground to the power pole and power is distributed out to the facility.

J. The generator has a five hundred (500) gallon day diesel tank with a controller and a two thousand (2,000) gallon diesel storage tank. Both tanks are located above the ground. The day tank and controller is no longer used for the generator.

1.02 SUMMARY OF THE NEW EMERGENCY POWER SYSTEM

A. The WV DOC is replacing the existing emergency power system with new. To do this, a new emergency power system must be installed and entergized before removing the existing.

B. The new emergency power system will contain the following equipment:

1) 300 kW, 208/120 V, 3ø generator with 1,800 gallon fuel tank on bottom of equipment. Must all be combined.

2) 1,600 A, 208/120 V, 3ø automatic transfer switch (ATS).

3) 750 kVA Pad mounted step down transformer rated at 12.47 kV, 3ø, Y, primary, 208/120 V, 3ø, Δ secondary.

4) 750 kVA Pad mounted step up transformer rated at 208/120 V, 3ø, Δ primary, 12.47 kV, 3ø, Y, secondary.

C. The location of the new emergency power system will be right behind the existing. The contractor must level out the area of the new emergency power system. The estimated elevation for the ground for the new emergency power system is two thousand one hundred twenty-five feet (2125') above sea level.

D. Concrete pads must be constructed for all new equipment. The size of the concrete pads will depend on what size the following equipment is. See general details on drawing E3.3, E3.4, and E3.5. The concrete must be rated at three thousand pounds per square inch (3,000 psi). The concrete pads must be a least six inches (6") out from the equipment. The following equipment must have concrete pads:

1) Package generator set with fuel tank. See specifications section 16231 for a detailed information that must be met.

2) Automatic closed-transition transfer and bypass-isolation switch. See specification section 16415 for detailed information that must be met.

3) Step down pad mounted transformer, 750 kVA. See specification section 16462 for detailed information that must be met.

4) Step up pad mounted transformer, 750 kVA. See specification section 16462 for detailed information that must be met.

E. Crush and run number fifty-seven (57) gravel must be placed and compacted at a minimum of six inches (6") under the concrete pads.

F. A twelve feet (12') security fence with three stands of razor wire on top must be installed around the new emergency power system. A four feet (4') wide man gate must be installed.

G. Crush and run number fifty-seven (57) gravel must be spread in all areas inside the security fence and around the concrete pads that is at least six inches (6") thick at minimum.

H. All electrical wires must be installed underground in the correct sized PVC conduit and encased in concrete.

I. During the replacement of the existing equipment, the facility cannot be without power. The facility must have a system for emergency power in the event the commercial power is lost while construction is going on. If there is a generator that must be rented, the contractor is responsible for the rental of the generator.

J. Everything must be in place when disconnecting the existing fifteen kilovolt (15 kV) wires and installing the new wires for the new emergency power system.

K. There is a by-pass line that can be energized while the disconnection of the old system and connection of the new system is installed.

L. It is understood that during the transition from disconnecting the existing wires and connecting the new wires that an emergency backup system cannot be used. The transition time should be done minimized as much as possible.

M. The wire that goes between the power poles and the transformers must be rated at fifteen kilovolts (15 kV). The wires must be rated for outdoor use.

N. The wire that goes between the transformers, automatic transfer switch, and generator must be rated at six hundred volts (600 V) and before outdoors.

O. All wires must be replaced with new. None of the existing wiring can be used.

P. All new wires must be properly field tested after installed and a report submitted.

Q. An annunciator panel for the new emergency power system must be installed in the central control room in the main building. This includes all wiring, terminations, etc.

R. A ten feet (10') wide gravel road must be installed. The black felt plastic must be installed under the gravel road. Anywhere there is curved area where rain water flows, a culvert pipe must be installed under the gravel road. The contractor is to size the culvert pipe accordingly.

S. The new emergency system must be load bank tested.

T. After the new emergency system is installed and tested, the contractor must fill the diesel tank up.

U. Concrete bollards must be installed.

V. Contractor must verify that the wires on the contract drawings are sized correctly for this project.

1.03 SUMMARY OF WORK AT THE CORRECTIONAL INDUSTRIES BUILDING

A. In the Correctional Industries Building, there is an existing shunt trip breaker that was originally installed that does not work and is located in panel PPS. The existing shunt trip breaker must be removed. In the mechanical and electrical room, there is a panel, Spectra Series Power Panel Boards, which has three (3), two hundred twenty-five amp (225 A) shunt trip breakers. After the new emergency power system is installed and has been started up, the contractor must replace the three (3) previously stated breakers with normal breakers.

1.04 DEMOLITION OF EXISTING EMERGENCY POWER SYSTEM

A. The only demolition that can be done prior to the new emergency power system being installed and started up is disconnecting the existing wires at the power poles to connect the new wires for the new emergency power system. This can only be done when converting over from the existing to new emergency power system.

B. All wires must be disconnected between each piece of equipment and pulled out.

C. All fuel lines must be disconnected and removed from the ground.

D. All security fencing must be disassembled. All fence post must be removed from the ground. All areas where the fence post are removed must be backfilled and compacted. Contractor is required to turn all fencing items to the facility.

E. All fuel tanks must be drained and the CMU walls must be demolished. Contractor must dispose of CMU materials.

F. Transformers, automatic transfer switch, generator, wires, day tank controller, and fuel tanks are to be unsecured to the concrete slabs.

G. The contract must load all the above stated items in 1.04(F) and deliver it to Surplus Property. The contractor must contact Surplus Property before delivering the items to set up a delivery date and time. The address of Surplus Property is: 2700 Charles Avenue, Dunbar, WV 25064. The phone number is 304-766-2626.

H. The contractor must remove the concrete pads that the items in 1.04(F) were placed on. The contractor must dispose of the concrete and any metal that were encased in the concrete.

1.05 EXTENT OF WORK

A. Provide all labor, material, tools, and equipment, to replace the existing emergency power system, startup, and training as specified in sections 1.01, 1.02, 1.03, 1.04, and the contract drawings.

1.06 PERMITS

A. Contractor shall secure and pay for any required permits and for all other permits, governmental fees, and license which are necessary for the proper execution and completion of the work as specified.

1.07 TERMS OF WORK

A. All work shall be completed within three hundred sixty-five (365) calendar days upon receipt of Notice to Proceed. The Notice to Proceed will be issued after the contract has been approved and encumbered.

1.08 SECURITY

A. Contractor must comply with all Division of Corrections and Facility security requirements. This includes but is not limited to security background check of any employee of contractor that will be working on-site on the project.

1.09 TOOLS

A. Contractor must comply with all Division of Corrections and Facility tool security requirements. This includes but is not limited to checking all tools brought into the Facility at the beginning of the work day, checking all tools being removed from the Facility at the end of the work day, keeping all tools locked up while not in use, and reporting any missing tools.

1.10 CODE REQUIREMENTS

A. All work must comply with all federal, state, county, and city code requirements.

1.11 SUBMITTALS

A. Product data.

B. Field test reports.

1. Provide complete equipment testing, start-up and system commissioning reports.

2. Test reports must comply with all federal, state, and local testing and code requirements.

C. Shop drawings.

D. Record documents, three (3) hard copies and three (3) electronic copies in PDF format on CDs.

1. Provide Operation and Maintenance (O & M) Manuals, as-built drawings, start-up and system commissioning documentation.

1.12 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Material can be shipped directly to the Facility as long as it does not require to be unloaded by the Facility. The Facility does not have the capability to unload heavy equipment or materials.

B. If the contractor stores the material at a location other than at this Facility, additional insurance is required to receive payment on stored materials.

C. Any materials which are found to be damaged shall be removed and replaced at the applicator's expense.

1.13 WORK TIMES

A. The standard hours of work are Monday thru Friday from 8:00 am until 4:00 pm unless otherwise noted.

B. If for any reason, the contractor wishes to work other than the previous stated days and hours, the request must be turned into the Facility at least forty-eight (48) hours in advance for approval. The request must be submitted to the Associate Warden of Operations.

1.14 WORK SEQUENCE

A. Schedule and execute work to coordinate with the facilities schedule.

1.15 USE OF THE PREMISES

A. Before beginning work, the contractor must secure approval from the building owner's representative for the following:

1. Areas permitted for personnel parking.
2. Access to the site.
3. Areas permitted for storage of materials and debris.
4. Areas permitted for the location of equipment and any other items needed to do the project.

1.16 EXISTING CONDITIONS

A. If discrepancies are discovered between the existing conditions and those noted in the specifications, immediately notify the owner's representative by phone and solicit the manufacturer's approval prior to commencing with the work.

1.17 TEMPORARY FACILITIES AND CONTROLS

A. Temporary Utilities:

1. In certain areas of the facility, water and power for construction purposes, and lighting are available at the site and will be made available to the contractor if requested.
2. Provide all hoses, valves and connections for water from source designated by the owner when made available.
3. When available, electrical power should be extended as required from the source. Provide all trailers, connections and fused disconnects.

B. Temporary Sanitary Facilities:

1. Sanitary facilities are not available at the job site. If the sanitary facilities are not available, the contractor shall be responsible for the provision and maintenance of portable toilets or their equal.

C. Building Site:

1. The contractor shall use reasonable care and responsibility to protect the building and site against damages. The contractor shall be responsible for the correction of any damage incurred as a result of the performance of the contract.
2. The contractor shall remove all debris from the job site in a timely and legally acceptable manner so as to not detract from the aesthetics or the functions of the building.

D. Security:

1. Obey the owner's requirements for personnel identification, inspection and other security measures.

1.18 JOB SITE PROTECTION

A. The contractor shall adequately protect building, paved areas, service drives, lawn, shrubs, trees, etc. from damage while performing the required work. The contractor shall repair or be responsible for costs to repair all property damaged during the project.

B. During the contractor's performance of the work, the Facility owner will continue to occupy the existing building and daily operations. The contractor shall take precautions to prevent the spread of dust and debris, particularly where such material may sift into the building. The contractor shall provide labor and materials to construct, maintain and remove necessary temporary enclosures to prevent dust or debris in the construction area(s) from entering the remainder of the building.

C. Remove all traces of piled bulk materials and return the job site to its original condition upon completion of the work.

1.19 DAMAGES

A. Any damages occurring to the building or property resulting from the contractor's performance of this work shall be the responsibility of the contractor to repair at the contractor's expense; either by using his/her own forces or that of an approved sub-contractor. The repair method and finished product will be subject to the approval of the owner.

1.20 CLEANUP

A. The Contractor shall keep the work area as clean as possible during the entire progress of work, and shall be responsible to remove from the site, the packaging materials from the products and other debris as it accumulates. All items that are removed to allow the installation of the new items will become the property of the contractor to dispose of unless otherwise noted.

1.21 SAFETY

A. The contractor shall be responsible for all means and methods as they relate to safety and shall comply with all applicable local, state and federal requirements that are safety related. Safety shall be the responsibility of the contractor. All related personnel shall be instructed daily to be mindful of the full time requirement to maintain a safe environment for the facility's occupants including staff, visitors, customers and the occurrence of the general public on or near the site.

B. The Contractor shall provide safety barriers around work areas where heavy equipment may be in operation or as required by OSHA.

1.22 WORKMANSHIP

A. All work shall be of highest quality and in strict accordance with the manufacturer's published specifications and to the building owner's satisfaction.

1.23 QUALITY ASSURANCE

A. Unless otherwise noted in this specification, the contractor must strictly comply with the manufacturer's current specifications and details.

1.24 JOB CONDITIONS, CAUTIONS, AND WARNINGS

A. Proceed with the installation of the project work only when weather conditions are appropriate.

1.25 WARRANTY

A. Two (2) year on the complete system including parts and labor.

B. Minimum requirements of the Manufacturer's warranty on equipment and material.

1.26 PAY APPLICATIONS

A. Ten (10%) percent retainage must be held back on each pay application until project has been completed.

1. Retainage is not required on projects where there is only one pay application.

B. Pay applications will be required to be submitted once a month. Contractor must submit three (3) original copies. Each copy must be signed with a signature in blue ink and must be notarized.

C. Certified payroll must be submitted with each pay application. Contractor must submit two (2) original copies. Each copy must be signed with signature in blue ink.

1.27 BIDDING

A. There is a bid form at the end of the Specifications. It is recommended that the contractor use the attached bid form. The Contract shall be awarded to the Vendor with the lowest contract base bid as shown on the bid form meeting the specifications.

B. The Bidder understands that to the extent allowed by the West Virginia Code, the OWNER reserves the right to waive any informality or irregularity in any Bid, or Bids, and to reject any or all Bids in whole or in part; to reject a bid not accompanied by the required bid security or by other data required by the Bidding Documents; to reject any conditions of the bid by the Bidder that is in any way inconsistent with the requirements, terms, and conditions of the Bidding Documents; or to reject a bid that is in any way incomplete or irregular.

Specifications Section 16231: Package Generator Set

1.1 General

1.1.1 References and Standards

The generator set covered by these specifications shall be designed, tested, rated, assembled, and installed in strict accordance with all applicable standards below:

- CSA C22.2 No14
- CSA 282
- CSA 100
- EN61000-6
- EN55011
- FCC Part 15 Subpart B
- ISO8528
- IEC61000
- UL508
- UL2200
- UL142
- Designed to allow for installed compliance to NFPA 70, NFPA99 and NFPA 110

1.2 Related Sections

1.2.1 Division 3 - Concrete

1.2.2 Division 15 - Mechanical

1.3 Work Included

1.3.1 Installation

The work includes supplying and installing a complete integrated generator system. The system consists of a diesel generator set with related component accessories and automatic transfer switches specified under a separate section.

1.3.2 Fuel System

The CONTRACTOR shall provide a full tank of diesel fuel for the completion of all testing.

1.3.3 System Test

A complete system load test shall be performed after all equipment is installed. Guidelines in the Start-up Section.

1.3.4 Requirements, Codes and Regulations

The equipment supplied and installed shall meet the requirements of the NEC and all applicable local codes and regulations. All equipment shall be of new and current production by a MANUFACTURER who has 25 years of experience building this type of equipment. Manufacturer shall be ISO9001 certified.

1.4 Substitution

Proposed deviations from the specifications shall be treated as follows:

1.4.1 Substitution Time Requirement

Requests for substitutions shall be made a minimum of ten (10) days prior to bid date. Manufacturers catalog data shall accompany each request and authorized acceptance shall be addenda only.

1.4.2 Substitution Responsibility

The power system has been designed to the specified manufacturer's electrical and physical characteristics. The equipment sizing, spacing, amounts, electrical wiring, ventilation equipment, fuel, and exhaust components have all been sized and designed around CATERPILLAR supplied equipment. Should any substitutions be made of submitting something equal, the CONTRACTOR shall bear responsibility for the installation, coordination and operation of the system as well as any engineering and redesign costs, which may result from such substitutions.

1.5 Submittals

Engine-generator submittals shall include the following information:

1. Factory published specification sheet.
2. Manufacturer's catalog cut sheets of all auxiliary components such as battery charger, control panel, enclosure, etc.
3. Dimensional elevation and layout drawings of the generator set, enclosure and transfer switchgear and related accessories.
4. Weights of all equipment.
5. Concrete pad recommendation, layout and stub-up locations of electrical and fuel systems.
6. Interconnect wiring diagram of complete emergency system, including generator, switchgear, day tank, remote pumps, battery charger, control panel, and remote alarm indications.
7. Engine mechanical data, including heat rejection, exhaust gas flows, combustion air and ventilation air flows, fuel consumption, etc.
8. Generator electrical data including temperature and insulation data, cooling requirements, excitation ratings, voltage regulation, voltage regulator, efficiencies, waveform distortion and telephone influence factor.
9. Generator resistances, reactance, and time constants.
10. Generator locked rotor motor starting curves.
11. Manufacturer's documentation showing maximum expected transient voltage and frequency dips, and recovery time during operation of the generator set at the specified site conditions with the specified loads.
12. Manufacturer's and dealer's written warranty.

1.7 System Responsibility

1.7.1 Generator Set Distributor
The completed engine generator set shall be supplied by the **Manufacturer's** authorized distributor only.

1.7.2 Requirements, Codes and Regulations
The equipment supplied and installed shall meet the requirements of NEC and all-applicable local codes and regulations. All equipment shall be new, of current production. There shall be one source responsibility for warranty; parts and service through a local representative with factory trained service personnel.

1.7.3 Automatic Transfer Switch
The automatic transfer switch specified in another section shall be supplied by the generator set manufacturer in order to establish and maintain a single source of system responsibility and coordination.

1.8 Warranty

1.8.1 **Two Year** Standby (ISO 8528-1: ESP) **Generator Set Warranty**
The manufacturer's standard warranty shall in no event be for a period of less than two (2) years from date of initial start-up of the system and shall include repair parts, labor, reasonable travel expense necessary for repairs at the job site, and expendables (lubricating oil, filters, antifreeze, and other service items made unusable by the defect) used during the course of repair. Running hours shall be limited to 500 hours annually for the system warranty by both the manufacturer and servicing distributor. Submittals received without written warranties as specified will be rejected in their entirety.

1.9 Parts and Service Qualifications

1.9.1 Service Facility
The engine-generator supplier shall maintain 24-hour parts and service capability within 150 miles of the project site. The distributor shall stock parts as needed to support the generator set package for this specific project. The supplier must carry sufficient inventory to cover no less than 80% parts service within 24hrs and 95% within 48 hours.

1.9.2 Service Personnel
The dealer shall maintain qualified factory trained service personnel.

2 Product Specifications

2.1 General Requirements

2.1.1 Genset Requirements
The generator set shall be Standby Duty rated at 300.0 kW, 300.0 kVA, 1800 RPM, 1.0 power factor, 208/120 V, 3-Phase, 60 hertz, including radiator fan and all parasitic loads. Generator

set shall be sized to operate at the specified load at a maximum ambient of 104F (40.0C) and altitude of 1,250.0 feet (381.0 m).

Standby Power Rating:
Power is available for the duration of an emergency outage
Average Power Output = 70% of standby power
Load = Varying
Typical Hours/Year = 200 Hours
Maximum Expected Usage = 500 hours/year
Typical Application = Standby

2.1.2 Material and Parts

All materials and parts comprising the unit shall be new and unused.

2.1.3 Engine

The engine shall be diesel fueled, four (4) cycle, water-cooled, while operating with nominal speed not exceeding 1800 RPM. The engine will utilize in-cylinder combustion technology, as required, to meet applicable EPA non-road mobile regulations and/or the EPA NSPS rule for stationary reciprocating compression ignition engines. Additionally, the engine shall comply with the State Emission regulations at the time of installation/commissioning. Actual engine emissions values must be in compliance with applicable EPA emissions standards per ISO 8178 – D2 Emissions Cycle at specified ekW / bHP rating. Utilization of the "Transition Program for Equipment Manufacturers" (also known as "Flex Credits") to achieve EPA certification is not acceptable. The in-cylinder engine technology must not permit unfiltered exhaust gas to be introduced into the combustion cylinder. Emissions requirements / certifications of this package: EPA T3

2.1.3.1 Engine Governing

The engine governor shall be an electronic Engine Control Module (ECM) with 24-volt DC Electric Actuator. The ECM shall be enclosed in an environmentally sealed, die-cast aluminum housing which isolates and protects electronic components from moisture and dirt contamination. Speed droop shall be adjustable from 0 (isochronous) to 10%, from no load to full rated load. Steady state frequency regulation shall be +/- 6 RPM. Speed shall be sensed by a magnetic pickup off the engine flywheel ring gear. A provision for remote speed adjustment shall be included. The ECM shall adjust fuel delivery according to exhaust smoke, altitude and cold mode limits. In the event of a DC power loss, the forward acting actuator will move to the minimum fuel position.

2.2 Generator

2.2.1 Generator Specifications

The synchronous three phase generator shall be a single bearing, self-ventilated, drip-proof design in accordance with NEMA MG 1 and directly connected to the engine flywheel housing with a flex coupling. The generator shall meet performance class G2 of ISO 8528. The excitation system shall enable the alternator to sustain 300% (250% for 50Hz) of rated current based on the 125C (Class H) or 105C (Class F) rise rating for ten seconds during a fault

condition and shall improve the immunity of the voltage regulator to non-linear distorting loads. The excitation system shall be of brushless construction and be independent of main stator windings permanent magnet.

2.2.2 Voltage Regulator

2.2.2.1 Digital Voltage Regulator

The digital voltage regulator shall be microprocessor based with fully programmable operating and protection characteristics. The regulator shall maintain generator output voltage within +/- 0.25% for any constant load between no load and full load. The regulator shall be capable of sensing true RMS in three phases of alternator output voltage, or operating in single phase sensing mode. The voltage regulator shall include a VAR/Pf control feature as standard. The regulator shall provide an adjustable dual slope regulation characteristic in order to optimize voltage and frequency response for site conditions. The voltage regulator shall include standard the capability to provide generator paralleling with reactive droop compensation and reactive differential compensation.

The voltage regulator shall communicate with the Generator Control Panel via a J1939 communication network with generator voltage adjustments made via the controller keypad. Additionally, the controller shall allow system parameter setup and monitoring, and provide fault alarm and shutdown information through the controller. A PC-based user interface shall be available to allow viewing and modifying operating parameters in a windows compatible environment.

2.3 Circuit Breaker

2.3.1 Circuit Breaker Specifications

Provide a generator mounted 100% circuit breaker, molded case, Qty.(1) 1,600 amp trip, 3 pole, NEMA 1/IP22. Breaker shall utilize a solid state trip unit. The breaker shall be UL/CSA Listed and connected to engine/generator safety shutdowns. Breaker shall be housed in an extension terminal box which is isolated from vibrations induced by the generator set. Mechanical type lugs, sized for the circuit breaker feeders shown on drawing, shall be supplied on the load side of breaker.

2.4 Controls – Generator Set Mounted (EMCP 4.2)

Provide a fully-solid-state, microprocessor based, generator set control. The control panel shall be designed and built by the engine manufacturer. The control shall provide all operating, monitoring, and control functions for the generator set. The control panel shall provide real time digital communications to all engine and regulator controls via SAE J1939.

2.4.1 Environmental

The generator set control shall be tested and certified to the following environmental conditions:

1. –40°C to +70°C Operating Range
2. 100% condensing humidity, 30°C to 60°C
3. IP22 protection for rear of controller; IP55 when installed in control panel
4. 5% salt spray, 48 hours, +38°C, 36.8V system voltage

5. Sinusoidal vibration 4.3G's RMS, 24-1000Hz
6. Electromagnetic Capability (89/336/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, BS EN 50081-2, 50082-2)
7. Shock: withstand 15G

2.4.2 Functional Requirements

The following functionality shall be integral to the control panel.

1. The control shall include a minimum 33 x 132 pixel, 24mm x 95mm, positive image, transflective LCD display with text based alarm/event descriptions.
2. The control shall include a minimum of 3-line data display
3. Audible horn for alarm and shutdown with horn silence switch
4. Standard ISO labeling
5. Multiple language capability
6. Remote start/stop control
7. Local run/off/auto control integral to system microprocessor
8. Cool down timer
9. Speed adjust
10. Lamp test
11. Emergency stop push button
12. Voltage adjust
13. Voltage regulator V/Hz slope - adjustable
14. Password protected system programming

2.4.3 Digital Monitoring Capability

The controls shall provide the following digital readouts for the engine and generator. All readings shall be indicated in either metric or English units

Engine

1. Engine oil pressure
2. Engine oil temperature
3. Engine coolant temperature
4. Engine RPM
5. Battery volts
6. Engine hours
7. Engine crank attempt counter
8. Engine successful start counter
9. Service maintenance interval
10. Real time clock
11. Engine exhausts stack temperature
12. Engine main bearing temperature

Generator

1. Generator AC volts (Line to Line, Line to Neutral and Average)
2. Generator AC current (Avg and Per Phase)
3. Generator AC Frequency
4. Generator kW (Total and Per Phase)

5. Generator kVA (Total and Per Phase)
6. Generator kVAR (Total and Per Phase)
7. Power Factor (Avg and Per Phase)
8. Total kW-hr
9. Total kVAR-hr
10. % kW
11. % kVA
12. % kVAR
13. Generator bearing temperature
14. Generator stator winding temperature

Voltage Regulation

1. Excitation voltage
2. Excitation current

2.4.4 Alarms and Shutdowns

The control shall monitor and provide alarm indication and subsequent shutdown for the following conditions. All alarms and shutdowns are accompanied by a time, date, and engine hour stamp that are stored by the control panel for first and last occurrence:

Engine Alarm/Shutdown

1. Low oil pressure alarm/shutdown
2. High coolant temperature alarm/shutdown
3. Loss of coolant shutdown
4. Overspeed shutdown
5. Overcrank shutdown
6. Emergency stop shutdown
7. Low coolant temperature alarm
8. Low battery voltage alarm
9. High battery voltage alarm
10. Control switch not in auto position alarm
11. Battery charger failure alarm

Generator Alarm/Shutdown

1. Generator phase sequence
2. Generator over voltage
3. Generator under voltage
4. Generator over frequency
5. Generator under frequency
6. Generator reverse power (real and reactive)
7. Generator overcurrent

Voltage Regulator Alarm/Shutdown

1. Loss of excitation alarm/shutdown
2. Instantaneous over excitation alarm/shutdown
3. Time over excitation alarm/shutdown
4. Rotating diode failure
5. Loss of sensing

6. Loss of PMG

2.4.5 Inputs and Outputs

Programmable Digital Inputs
The Controller shall include the ability to accept programmable digital input signals. The signals may be programmed for either high or low activation using programmable Normally Open or Normally Closed contacts.

Programmable Relay Outputs
The control shall include the ability to operate programmable relay output signals, integral to the controller. The output relays shall be rated for 2A @ 30VDC and consist of six (6) Form A (Normally Open) contacts and two (2) Form C (Normally Open & Normally Closed) contacts.

Programmable Discrete Outputs
The control shall include the ability to operate two (2) discrete outputs, integral to the controller, which are capable of sinking up to 300mA.

2.4.6 Maintenance

All engine, voltage regulator, control panel, and accessory units shall be accessible through a single electronic service tool. The following maintenance functionality shall be integral to the generator set control

1. Engine running hours display
2. Service maintenance interval (running hours or calendar days)
3. Engine crank attempt counter
4. Engine successful starts counter
5. 40 events are stored in control panel memory
6. Programmable cycle timer that starts and runs the generator for a predetermined time. The timer shall use 7 user-programmable sequences that are repeated in a 7-day cycle. Each sequence shall have the following programmable set points:
    a. Day of week
    b. Time of day to start
    c. Duration of cycle

2.4.7 Remote Communications

Remote Communications
The control shall include Modbus RTU communications as standard via RS-485 half duplex with configurable baud rates from 2.4k to 57.6k.

Remote Monitoring Software
The control shall provide Monitoring Software with the following functionality

1. Monitor up to eight (8) generator sets, plus ATS and UPS.
2. Provide access to all date and events on generator set communications network
3. Provide remote control capability for the generator set(s)
4. Ability to communicate via Modbus RTU or remote modem

2.4.8 Local and Remote Annunciation

Local Annunciator (NFPA 99/110, CSA 282)
Provide a local, control panel mounted, annunciator to meet the requirements of NFPA 110, Level 1.

1. Annunciators shall be networked directly to the generator set control
2. Local Annunciator shall include a lamp test pushbutton, alarm horn and alarm acknowledge pushbutton
3. Provide the following individual light indications for protection and diagnostics
    a. Over crank
    b. Low coolant temperature
    c. High coolant temperature warning
    d. High coolant temperature shutdown
    e. Low oil pressure warning
    f. Low oil pressure shutdown
    g. Over speed
    h. Low coolant level
    i. EPS supplying load
    j. Control switch not in auto
    k. High battery voltage
    l. Low battery voltage
    m. Battery charger AC failure
    n. Emergency stop
    o. Spare
    p. Spare

Remote Annunciator (NFPA 99/110, CSA 282)
Provide a remote annunciator to meet the requirements of NFPA 110, Level 1.

1. The annunciator shall provide remote annunciation of all points stated above and shall incorporate ring-back capability so that after silencing the initial alarm, any subsequent alarms will sound the horn.
2. Ability to be located up to 4000 ft from the generator set

2.5 Cooling System

The generator set shall be equipped with a rail-mounted, engine-driven radiator with blower fan and all accessories. The cooling system shall be sized to operate at full load conditions and 110 F* ambient air entering the room or enclosure (If an enclosure is specified). The generator set supplier is responsible for providing a properly sized cooling system based on the enclosure static pressure restriction.

2.6 Fuel System

2.6.1 Fuel System

The fuel system shall be integral with the engine. In addition to the standard fuel filters provided by the engine manufacturer, there shall also be installed a primary fuel filter/water separator in

the fuel inlet line to the engine. All fuel piping shall be black iron or flexible fuel hose rated for this service. No galvanized piping will be permitted. Flexible fuel lines shall be minimally rated for 300 degrees F and 100 psi.

2.6.2 Fuel Sub Base Tank

Provide a double wall sub-base tank constructed to meet all local codes and requirements. A fuel tank base of 72 hour capacity shall be provided as an integral part of the enclosure. It shall be contained in a rupture basin with 110% capacity. The tank shall meet UL142 standards. A locking fill cap, a mechanical reading fuel level gauge, low fuel level alarm contact, and fuel tank rupture alarm contact shall be provided.

2.8 Starting System

2.8.1 Starting Motor

A DC electric starting system with positive engagement shall be furnished. The motor voltage shall be as recommended by the engine manufacturer.

2.8.2 Jacket Water Heater

Jacket water heater shall be provided and shall be sized to insure that genset will start within the specified time period and ambient conditions.

2.8.3 Batteries

Batteries - A lead-acid storage battery set of the heavy-duty diesel starting type shall be provided. Battery voltage shall be compatible with the starting system.

2.8.4 Battery Charger

A UL listed/CSA certified 10 amp voltage regulated battery charger shall be provided for each engine-generator set. Input AC voltage and DC output voltage shall be as required. Chargers shall be equipped with float and equalize charge settings, with provisions to automatically switch between the two modes. It shall maintain its rated output voltage within ±0.2% with AC input variation of ±10%. Operational monitors shall provide with individual form C contacts rated at 4 amps, 120 VAC, 30 VDC for remote indication of battery charger malfunction, low battery voltage, and high battery voltage. Charger shall include an Analog DC voltmeter and ammeter and fused AC input and DC output, and shall be wall mount type in a NEMA 1 enclosure.

2.9 Enclosure

2.9.1 Standard Weatherproof Enclosure / Platform

The complete diesel engine generator set, including generator control panel, engine starting batteries and fuel oil tank, shall be enclosed in a factory assembled, weather protective enclosure mounted on the fuel tank base.

1. A weather resistant enclosure of steel with electrostatically applied powder coated baked polyester paint. It shall consist of a roof, side walls, and end walls. Fasteners shall be either zinc plated or stainless steel. Handles shall be key lockable, all doors keyed alike, and hinges shall be zinc die cast or stainless steel.

Access doors shall be hinged and can be lifted off after opening 90 degrees. Intake openings shall be screened to prevent the entrance of rodents or pests.

2. Lube oil and coolant drains shall be extended to the exterior of the enclosure and terminated with drain valves. Cooling fan and charging alternator shall be fully guarded to prevent injury.
3. The platform shall be cantilever supported off of the engine generator sub-base with formed aluminum frame, structural members, toe plates, railing posts, rails and floor assemblies, Platform shall be of the U construction with 2 "walk" assemblies (outside of all generator set service doors), connected together with a "rear" platform at the control panel end. Design of platform shall permit inspection of all serviceable components including visual inspection of any radiator discharge plenum to confirm that radiator is "free" of any foreign obstructions. Platform height shall be no greater than 1.5" above the bottom of the generator base frame. The platform frame shall be of .125 gauge formed aluminum. Frame design shall be pre-drilled to accept handrail mounting vertical supports. Structural frame members shall serve as the walkway toe-board supports. Vertical railing supports shall be secured to the toe-plates and horizontal structural members using 5/16" bolts on 6" centers. All pieces shall be cut and formed using computer assisted design software for accuracy. All bolts shall be 5/16" minimum. Compression members shall be predrilled to connect the ladder assembly and frame to the tank and utilize ¼ inch formed aluminum construction of the "ladder toe plate". No connection to the sub-base tank is permitted but rather all connections shall be through the engine base. The walkway tread shall utilize .125" 1 inch thick minimum aluminum tread plate to provide sufficient cross section to resist vertically applied loads. Platform shall provide for 180 degree "full swing opening" of all side service doors and at least 135 degree opening of the rear control panel door. Handrails shall be a nominal 42" from the walkway surface. All hand rails are to be .125 formed aluminum, at a 2 inch angle. The walkway (ladder and platform) shall meet standards of OSHA 3124 - Stairways and Ladders.

3 Execution

3.1 Installation

Install equipment in accordance with manufacturer's recommendations, the project drawings and specifications, and all applicable codes.

3.2 Start-Up and Testing

Coordinate all start-up and testing activities with the Engineer and Owner. After installation is complete and normal power is available, the manufacturer's local dealer shall perform the following:
Perform a 4 hour load bank test at a 1.0 PF at full nameplate rating. Load bank, cables, and other equipment required for this test to be supplied by the genset supplier.

3.3 Operation and Maintenance Manuals

Provide three (3) hard copy sets and three (3) copies on CD of operation and maintenance manuals covering the generator, switchgear, and auxiliary components. Include final as-built wiring interconnect diagrams and recommended preventative maintenance schedules.

3.4 Training

3.4.1 On-Site Training

Provide on-site training to instruct the owner's personnel in the proper operation and maintenance of the equipment. Review operation and maintenance manuals, parts manuals, and emergency service procedures.

End of Specification Section

Specifications Section 16415: Automatic Closed-Transition Transfer & Bypass-Isolation Switches

PART 1 GENERAL

1.01 Scope

A. Furnish and install automatic closed transition transfer & bypass-isolation switch (CTTS/BPS) with number of poles, amperage, voltage, and withstand current ratings as shown on the plans. Each CTTS/BPS system(s) shall consist of a closed transition transfer switch and a two-way bypass/isolation switch. All CTTS/BPSs and control modules shall be the product of the same manufacturer.

B. The CTTS/BPS shall transfer the load without interruption (closed transition) by momentarily connecting both sources of power only when both sources are present and acceptable. The maximum interconnection time is 100 milliseconds. The CTTS shall operate as a conventional break-before-make (open transition) switch when the power source serving the load fails.

1.02 Codes and Standards

The automatic closed transition transfer & bypass-isolation switches and accessories shall conform to the requirements of:

A. UL 1008 - Standard for Transfer Switch Equipment

B. IEC 60947-6-1 Low-voltage Switchgear and Controlgear; Multifunction equipment; Automatic Transfer Switching Equipment

C. NFPA 70 - National Electrical Code

D. NFPA 99 - Essential Electrical Systems for Health Care Facilities

E. NFPA 110 - Emergency and Standby Power Systems

F. IEEE Standard 446 - IEEE Recommended Practice for Emergency and Standby Power Systems for Commercial and Industrial Applications

G. NEMA Standard ICS10-1993 (formerly ICS2-447) - AC Automatic Transfer Switches

H. UL 508 Industrial Control Equipment

1.03 Acceptable Manufacturers

Automatic closed transition transfer & bypass-isolation switches shall be. Any alternate shall be submitted for approval to the consulting engineer at least 10 days prior to bid. Alternate bids must list any deviations from this specification.

PART 2 PRODUCTS

2.01 Mechanically Held Transfer Switch

A. The transfer switch shall be electrically operated and mechanically held. The electrical operator shall be a momentarily energized, solenoid mechanism. Main operators which include overcurrent disconnect devices, linear motors or gears shall not be acceptable.

B. All transfer switch sizes shall use only one type of main operator for ease of maintenance and commonality of parts.

C. The switch shall be positively locked and unaffected by momentary outages, so that contact pressure is maintained at a constant value and contact temperature rise is minimized for maximum reliability and operating life.

D. All main contacts shall be silver composition. Switches rated 600 amperes and above shall have segmented, blow-on construction for high withstand and close-on capability and be protected by separate arcing contacts.

E. Inspection of all contacts shall be possible from the front of the switch without disassembly of operating linkages and without disconnection of power conductors. Switches rated 800 amps and higher shall have front removable and replaceable contacts. All stationary and moveable contacts shall be replaceable without removing power conductors and/or bus bars.

F. Designs utilizing components of molded-case circuit breakers, contactors, or parts thereof, which are not intended for continuous duty, repetitive switching or transfer between two active power sources are not acceptable.

G. Where neutral conductors are to be solidly connected as shown on the plans, a neutral conductor plate with fully rated AL-CU pressure connectors shall be provided.

2.02 Bypass-Isolation Switch

A. A two-way bypass-isolation switch shall provide manual bypass of the load to either source and permit isolation of the automatic transfer switch from all source and load power conductors. All main contacts shall be manually driven.

B. Power interconnections shall be silver-plated copper bus bar. The only field installed power connections shall be at the service and load terminals of the bypass-isolation switch. All control interwiring shall be provided with disconnect plugs.

C. Separate bypass and isolation handles shall be utilized to provide clear distinction between the functions. Handles shall be permanently affixed and operable without opening the enclosure door. Designs requiring insertion of loose operating handles or opening of the enclosure door to operate are not acceptable.

D. Bypass to the load-carrying source shall be accomplished with no interruption of power to the load (make before break contacts). Designs which disconnect the load when bypassing are not acceptable. The bypass handle shall have three operating modes: "Bypass to Normal," "Automatic," and "Bypass to Emergency." The operating speed of the bypass contacts shall be the same as the associated transfer switch and shall be independent of the speed at which the manual handle is operated.

In the "Automatic" mode, the bypass contacts shall be out of the power circuit so that they will not be subjected to fault currents to which the system may be subjected.

E. The isolation handle shall provide three operating modes: "Closed," "Test," and "Open." The "Test" mode shall permit testing of the entire emergency power system, including the automatic transfer switches with no interruption of power to the load. The "Open" mode shall completely isolate the automatic transfer switch from all source and load power conductors. When in the "Open" mode, it shall be possible to completely withdraw the automatic transfer switch for inspection or maintenance to conform to code requirements without removal of power conductors or the use of any tools.

F. When the isolation switch is in the "Test" or "Open" mode, the bypass switch shall function as a manual transfer switch.

G. Designs requiring operation of key interlocks for bypass isolation or ATSs which cannot be completely withdrawn when isolated are not acceptable.

2.03 Microprocessor Controller

A. The controller's sensing and logic shall be provided by a single built-in microprocessor for maximum reliability, minimum maintenance, and the ability to communicate serially through an optional serial communication module.

B. A single controller shall provide twelve selectable nominal voltages for maximum application flexibility and minimal spare part requirements. Voltage sensing shall be true RMS type and shall be accurate to ± 1% of nominal voltage. Frequency sensing shall be accurate to ± 0.2%. The panel shall be capable of operating over a temperature range of -20 to +60 degrees C and storage from -55 to +85 degrees C.

C. The controller shall be connected to the transfer switch by an interconnecting wiring harness. The harness shall include a keyed disconnect plug to enable the controller to be disconnected from the transfer switch for routine maintenance. Sensing and control logic shall be provided on multi-layer printed circuit boards. Interfacing relays shall be industrial grade plug-in type with dust covers. The panel shall be enclosed with a protective cover and be mounted separately from the transfer switch unit for safety and ease of maintenance. The protective cover shall include a built-in pocket for storage of the operator's manuals.

D. All customer connections shall be wired to a common terminal block to simplify field-wiring connections.

E. The controller shall meet or exceed the requirements for Electromagnetic Compatibility (EMC) as follows:

1. EN 55011:1991 Emission standard - Group 1, Class A
2. EN 50082-2:1995 Generic immunity standard, from which:

   EN 61000-4-2:1995 Electrostatic discharge (ESD) immunity

   ENV 50140:1993 Radiated Electro-Magnetic field immunity

   EN 61000-4-4:1995 Electrical fast transient (EFT) immunity

EN 61000-4-5:1995 Surge transient immunity

EN 61000-4-6:1996 Conducted Radio-Frequency field immunity

2.04 Enclosure

A. The CTTS/BPS shall be furnished in a weather tight Type NEMA 3R enclosure.

B. All standard and optional door-mounted switches and pilot lights shall be 16-mm industrial grade type or equivalent for easy viewing & replacement. Door controls shall be provided on a separate removable plate, which can be supplied loose for open type units.

PART 3 OPERATION

3.01 Controller Display and Keypad

A. A four line, 20 character LCD display and keypad shall be an integral part of the controller for viewing all available data and setting desired operational parameters. Operational parameters shall also be available for viewing and limited control through the serial communications input port. The following parameters shall only be adjustable via DIP switches on the controller:

1. Nominal line voltage and frequency
2. Single or three phase sensing
3. Operating parameter protection
4. Transfer operating mode configuration
   (Open transition, Closed transition or Delayed transition)

All instructions and controller settings shall be easily accessible, readable and accomplished without the use of codes, calculations, or instruction manuals.

3.02 Voltage, Frequency and Phase Rotation Sensing

A. Voltage and frequency on both the normal and emergency sources (as noted below) shall be continuously monitored, with the following pickup, drop out and trip setting capabilities (values shown as % of nominal unless otherwise specified):

Parameter	Sources	Dropout / Trip	Pickup / Reset
Undervoltage	N&E,3ϕ	70 to 98%	85 to 100%
Overvoltage	N&E,3ϕ	102 to 115%	2% below trip
Underfrequency	N&E	85 to 98%	90 to 100%
Overfrequency	N&E	102 to 110%	2% below trip
Voltage unbalance	N&E	5 to 20%	1% below dropout

B. Repetitive accuracy of all settings shall be within ± 0.5% over an operating temperature range of -20°C to 60°C.

C. Voltage and frequency settings shall be field adjustable in 1% increments either locally with the display and keypad or remotely via serial communications port access.

D. The controller shall be capable (when activated by the keypad or through the serial

port) of sensing the phase rotation of both the normal and emergency sources. The source shall be considered unacceptable if the phase rotation is not the preferred rotation selected (ABC or CBA).

E. Source status screens shall be provided for both normal and emergency to provide digital readout of voltage on all three phases, frequency, and phase rotation.

F. The controller shall include a user selectable algorithm to prevent repeated transfer cycling to a source on an installation which experiences primary side, single phase failures on a Grounded Wye – Grounded Wye transformer which regenerates voltage when unloaded. The algorithm shall also inhibit retransfer to the normal (utility) source upon detection of a single phasing condition until a dedicated timer expires, the alternate source fails, or the normal source fails completely and is restored during this time delay period. The time delays associated with this feature shall be adjustable by the user through the controller keypad and LCD.

3.03 Time Delays

A. An adjustable time delay of 0 to 6 seconds shall be provided to override momentary normal source outages and delay all transfer and engine starting signals. Capability shall be provided to extend this time delay to 60 minutes by providing an external 24 VDC power supply.

B. A time delay shall be provided on transfer to emergency, adjustable from 0 to 60 minutes, for controlled timing of transfer of loads to emergency.

C. An adjustable time delay of 0 to 6 seconds to override momentary emergency source outage to delay all retransfer signals during initial loading of engine generator set.

D. Two time delay modes (which are independently adjustable) shall be provided on re-transfer to normal. One time delay shall be for actual normal power failures and the other for the test mode function. The time delays shall be adjustable from 0 to 60 minutes. Time delay shall be automatically bypassed if the emergency source fails and the normal source is acceptable.

E. A time delay shall be provided on shut down of engine generator for cool down, adjustable from 0 to 60 minutes.

F. A time delay activated output signal shall also be provided to drive an optional external relay(s) for selective load disconnect control. The controller shall have the ability to activate an adjustable 0 to 5 minute time delay in any of the following modes:

1. Prior to transfer only.
2. Prior to and after transfer.
3. Normal to emergency only.
4. Emergency to normal only.
5. Normal to emergency and emergency to normal.
6. All transfer conditions or only when both sources are available.

G. The controller shall also include the following built-in time delays for Closed Transition Transfer with Bypass-Isolation operation:

1. 1 to 5 minute time delay on failure to synchronize normal and emergency sources prior to closed transition transfer.
2. 0.1 to 9.99 second time delay on an extended parallel condition of both power sources during closed transition operation.

H. All time delays shall be adjustable in 1 second increments, except the extended parallel time, which shall be adjustable in .01 second increments.

I. All time delays shall be adjustable by using the LCD display and keypad or with a remote device connected to the serial communications port. The time delay value displayed on the LCD or remote device shall be the remaining time until the next event occurs.

3.04 Additional Required Features

A. A three position momentary-type test switch shall be provided for the ***test / automatic / reset*** modes. The test position will simulate a normal source failure. The reset position shall bypass the time delays on either transfer to emergency or retransfer to normal. Switches, which require utilizing the keypad and display function or have no manual time delay bypass means are not acceptable.

B. A SPDT contact, rated 5 amps at 30 VDC, shall be provided for a low-voltage engine start signal. The start signal shall prevent dry cranking of the engine by requiring the generator set to reach proper output, and run for the duration of the cool down setting, regardless of whether the normal source restores before the load is transferred.

C. Auxiliary contacts, rated 10 amps, 250 VAC shall be provided consisting of one contact, closed when the CTTS is connected to the normal source and one contact closed, when the CTTS is connected to the emergency source.

D. LED indicating lights (16 mm industrial grade, type 12) shall be provided; one to indicate when the CTTS is connected to the normal source (green) and one to indicate when the CTTS is connected to the emergency source (red).

E. LED indicating lights (16 mm industrial grade, type 12) shall be provided and energized by controller outputs. The lights shall provide true source availability of the normal and emergency sources, as determined by the voltage sensing trip and reset settings for each source.

The following features shall be built-in to the controller, but capable of being activated through keypad programming or the serial port only when required by the user:

F. Provide the ability to select "commit/no commit to transfer" to determine whether the load should be transferred to the emergency generator if the normal source restores before the generator is ready to accept the load.

G. An Inphase monitor shall be provided in the controller. The monitor shall control transfer so that motor load inrush currents do not exceed normal starting currents, and shall not require external control of power sources. The inphase monitor shall be

specifically designed for and be the product of the CTTS manufacturer. The inphase monitor shall be equal to ASCO Feature 27.

H. The controller shall be capable of accepting a normally open contact that will allow the transfer switch to function in a non-automatic mode using an external control device.

I. Engine Exerciser - The controller shall provide an internal engine exerciser. The engine exerciser shall allow the user to program up to seven different exercise routines. For each routine, the user shall be able to:

1. Enable or disable the routine.
2. Enable or disable transfer of the load during routine.
3. Set the start time, .
   - time of day
   - day of week
   - week of month (1st, 2nd, 3rd, 4th, alternate or every)
4. Set the duration of the run.

At the end of the specified duration the switch shall transfer the load back to normal and run the generator for the specified cool down period. A 10-year life battery that supplies power to the real time clock in the event of a power loss will maintain all time and date information.

The following feature shall be built - into the controller, but capable of being activated through keypad programming or the communications interface port.

Note: The transfer switch will operate in a non-automatic mode with this feature activated.

J. Terminals shall be provided for a remote contact which opens to signal the CTTS to transfer to emergency and for remote contacts which open to inhibit transfer to emergency and/or retransfer to normal. Both of these inhibit signals can be activated through the keypad or serial port.

K. System Status - The controller LCD display shall include a "System Status" screen which shall be readily accessible from any point in the menu by depressing the "ESC" key a maximum of two times. This screen shall display a clear description of the active operating sequence and switch position. For example,

Normal Failed
Load on Normal
TD Normal to Emerg
2min15s

Controllers that require multiple screens to determine system status or display "coded" system status messages, which must be explained by references in the operator's manual, are not permissible.

L. Self Diagnostics - The controller shall contain a diagnostic screen for the purpose of detecting system errors. This screen shall provide information on the status input signals to the controller, which may be preventing load transfer commands from being completed.

M. Communications Interface – The controller shall be capable of interfacing, through an optional serial communication module, with a network of transfer switches, locally (up to 4000 ft.) or remotely through modem serial communications. Standard software specific for transfer switch applications shall be available by the transfer switch manufacturer. This software shall allow for the monitoring, control and setup of parameters.

N. Data Logging – The controller shall have the ability to log data and to maintain the last 99 events, even in the event of total power loss. The following events shall be time and date stamped and maintained in a non-volatile memory:

1. Event Logging
    1. Date and time and reason for transfer normal to emergency.
    2. Date and time and reason for transfer emergency to normal.
    3. Date and time and reason for engine start.
    4. Date and time engine stopped.
    5. Date and time emergency source available.
    6. Date and time emergency source not available.

2. Statistical Data
    1. Total number of transfers.
    2. Total number of transfers due to source failure.
    3. Total number of days controller is energized.
    4. Total number of hours both normal and emergency sources are available.

O. Communications Module - A full duplex RS485 interface shall be installed in the CTTS controller to enable serial communications. The serial communications shall be capable of a direct connect or multi-drop configured network. This module shall allow for the seamless integration of existing or new communication transfer devices. The serial communication interface shall be equal to ASCO Accessory 72A.

PART 4 ADDITIONAL REQUIREMENTS

4.01 Withstand and Closing Ratings

A. The CTTS/BPS shall be rated to close on and withstand the available RMS symmetrical short circuit current at the CTTS/BPS terminals with the type of overcurrent protection shown on the plans.

B. The CTTS/BPS shall be UL listed in accordance with UL 1008 and be labeled in accordance with that standard's 1½ and 3 cycle ratings. CTTS/BPSs which are not tested and labeled with 1½ and 3 cycle (any breaker) ratings and have series, or specific breaker ratings only, are not acceptable.

4.02 Tests and Certification

A. The complete CTTS/BPS shall be factory tested to ensure proper operation of the individual components and correct overall sequence of operation and to ensure that the operating transfer time, voltage, frequency, and time delay settings are in compliance with the specification requirements.

B. Upon request, the manufacturer shall provide a notarized letter certifying compliance with all of the requirements of this specification including compliance with the above

codes and standards, and withstand and closing ratings. The certification shall identify, by serial number(s), the equipment involved. No exceptions to the specifications, other than those stipulated at the time of the submittal, shall be included in the certification.

C. The CTTS/BPS manufacturer shall be certified to ISO 9001 International Quality Standard and the manufacturer shall have third party certification verifying quality assurance in design/development, production, installation and servicing in accordance with ISO 9001.

4.03 Service Representation

A. The CTTS/BPS manufacturer shall maintain a national service organization of company-employed personnel located throughout the contiguous United States. The service center's personnel must be factory trained and must be on call 24 hours a day, 365 days a year.

B. The manufacturer shall maintain records of each switch, by serial number, for a minimum of 20 years.

End of Specification Section

SECTION 16462 - PAD-MOUNTED TRANSFORMERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

B. Division -16 Basic Electrical Requirements and Basic Electrical Materials and Methods sections apply to work specified in this section.

1.2 DESCRIPTION OF WORK

A. Extent of transformer work is indicated on drawings and schedules.

B. Types of transformers specified in this section include the following:

1. Pad-mounted transformers.

C. Refer to other Division-16 sections for electrical wiring connections required in conjunction with transformers; not work of this section.

1.3 QUALITY ASSURANCE

A. Manufacturers: Firms regularly engaged in manufacture of pad-mounted transformers of types and ratings required, whose products have been in satisfactory use in similar service for not less than 5 years.

B. Installers Qualifications: Firms with at least 3 years of successful installation experience on projects utilizing pad-mounted transformers similar to those required on this project.

C. Codes and Standards:

1. Transformers to comply with applicable provisions of ANSI C57.12.00 General Requirements, and ANSI C57.12.26 dead front 3-phase, pad-mounted transformers.
2. Applicable provisions of NEC as to installation and construction of pad-mounted transformers.
3. Applicable requirements of ANSI/IEEE Standards including C2, "National Electrical Safety Code" and C57.12.80.
4. UL listed and labeled.

1.4 SUBMITTALS

A. Product Data: Submit the following typical test data with submittal drawings. Data to be based on transformers identical in design to those specified.

1. Efficiency at 25%, 50%, 75% and 100% load.
2. Percent regulation at 100% and 80% power factor.
3. No load and full load losses in watts.
4. Impedance based on reference temperature.
5. Sound level in DB of transformer in enclosure.
6. Hotspot temperature rise with 40 deg C ambient.
7. Average temperature rise with 40 deg ambient.

8. Shop Drawings: Submit manufacturer's drawings indicating dimensions, weights, KVA, temperature rise above 40 deg ambient, etc.

PART 2 -PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products of one of the following:

ABB
Cooper Power Systems
Cutler Hammer
General Electric Co.
Siemens-ITE
Square D Co.
Sunbelt
Virginia Transformer
Uptegraff

2.2 PAD-MOUNTED TRANSFORMERS

A. Transformers must be filled with only soybean oil.

B. Except as otherwise indicated, provide manufacturer's standard materials and components as indicated by published product information, designed and constructed as recommended by manufacturer, and as required for complete installation.

C. In general, electrical characteristics, capacities, required taps and other features to be as shown on drawings or described elsewhere in these specifications.

D. Transformers to include, but not limited to the following features:

1. Compartment type, self-cooled, tamperproof and weatherproof for mounting on a concrete pad.
2. Average temperature rise of windings, measured by resistance method, to be 65 deg C when transformer is operated at rated KVA output in a 40 deg C ambient. Transformer to be capable of being operated at rated load in a 30 deg C average, 40 deg C maximum ambient, as defined by ANSI C57.12.00, without loss of service life expectancy.
3. Coolant and insulating fluid to be type FR3 fluid manufactured by Cooper or equivalent by ABB.
4. High and low voltage compartments to be located side-by-side, separated by a steel barrier, with low voltage section being on the right when facing the compartment. Terminal compartments to be full height, air filled, with individual doors complete with hasp and padlock.

    a. High voltage door fastenings shall not be accessible until low voltage door has been opened.
    b. Doors to be equipped with lift-off, stainless steel hinges, and door stops.

5. Coils to be wound with aluminum.

6. Tank to be sealed type of sufficient strength to withstand a pressure of 7 psi without permanent distortion, with welded cover and tamperproof fastenings. Tank to remain effectively sealed for a top oil temperature range of -30 deg to +105 deg C.
7. Lifting eyes and packing pads.
8. Core/coil assembly to be of five-legged wound core type, using high grade, grain oriented silicon steel laminations careful annealed after fabrication. Magnetic flux to be kept well below saturation point.
9. High voltage terminations and equipment to be dead front universal type bushing wells conforming to ANSI C57.12.26 requirements.

    a. Where 200A load break elbows are shown furnish 200A bushing well inserts.

10. Lightning arrestors shall be the 10 Kv MOV distribution class dead front elbow type (one for each primary phase.
11. Impedance to be standard for respective manufacturer, but within the following limits:

KVA	%IZ
112.5	3.5
150	3.75
225	4.0
300	5.0
500	5.0
750	5.75
1000	5.75
1500	5.75
2000	5.75

12. Arranged for loop feed.
13. Low voltage bushings to be molded epoxy, with blade-type space terminals with NEMA standard hole spacing arranged for vertical take-off. Low voltage neutral to be an insulating bushing, grounded to tank by removable strap.
14. Tap changer, for de-energized operation only, externally operable and padlockable.
15. Both front compartments to be removable.
16. ANSI tank grounding provisions in both compartments.
17. Load break, gang operated, liquid immersed switch which is externally operable from the high voltage compartment with a distribution hot stick. Electrical contractor to provide hot stick. Switch to be rated at 200A. Switch to be 2-position load break for use on a loop feed system.
18. Fuse protection as follows:

    a. Provide dry-well canister mounted current limiting fuses which are externally replaceable with a distribution hot stick without opening the transformer tank.

19. 1" drain valve with sampling device.
20. Parking stands.
21. The following additional optional accessories:

    a. Dial type thermometer.
    b. Magnetic liquid-level gauge.
    c. Pressure vacuum gauge.

d. Pressure relief valve.
e. Automatic pressure relief device (self resealing with indicator).
f. Sudden pressure relay.

PART 3 -EXECUTION

3.1 EXAMINATION

A. Installer to examine areas and conditions under which pad-mounted transformers and ancillary equipment are to be installed and notify Engineer in writing of conditions detrimental to proper completion of work. Do not proceed with work until unsatisfactory conditions have been corrected to satisfaction of Engineer.

3.2 INSTALLATION OF PAD-MOUNTED TRANSFORMERS

A. Installation to comply with manufacturer's written instructions, applicable requirements of NEC, NESC, NEMA, ANSI and IEEE standards and in accordance with recognized industry practices.

B. Coordinate transformer installation work with electrical raceway and cable work. Most of the new transformers for this project are replacements for existing transformers and require that the transformer furnished must fit over existing conduit stub-up locations. The Electrical Contractor and the manufacturer shall field verify and coordinate transformer arrangements to work with existing conduit stub ups and pads sizes.

C. Connect transformers to electrical wiring system and comply with requirements of other Division 16 sections.

D. Tighten electrical connectors and terminals, including screws and bolts, in accordance with equipment manufacturer's published torque tightening values for equipment connectors. Where manufacturer's torquing requirements are not indicated, tighten connectors and terminals to comply with tightening torques specified in UL Standard 486A and B.

E. Provide concrete bases per details shown on drawings, including all necessary excavation and backfilling.

F. Provide engraved lamacoid identification nameplate on outside of low voltage compartment (transformer T-1, etc.).

3.3 GROUNDING

A. Provide equipment grounding connections.

3.4 TESTING

A. Factory testing of each transformer to be conducted in accordance with the provisions of ANSI C57.12.90 and to include, but be limited to the following tests:

1. Ratio
2. Polarity
3. Phase rotation
4. No-load loss
5. Exitation current
6. Impedance voltage

7. Load loss
8. Applied potential
9. Induced potential

B. Prior to energizing transformers, check all accessible connections for compliance with manufacturer's torque tightening specifications.

C. Prior to energizing transformers check circuitry for electrical continuity and for short circuits.

D. Upon completion of installation, energize primary circuitry at rated voltage and frequency from normal power source, and test for, but limited to, audible sound levels to demonstrate capability and compliance with requirements. Where possible, correct malfunctioning units at site then retest to demonstrate compliance. Otherwise, remove and replace with new units or components, and proceed with retesting.

E. After transformers have been energized and building is under normal load during a normal working day, electrical contractor to record all phase-to-phase and phase-to-neutral voltages, and submit same in writing to Engineer. Readings to be taken at 2:00 p.m. If deemed necessary by Engineer, electrical contractor to change to the taps on designated transformers at no charge to Owner, with work being done at the convenience of the Owner and as directed by the Engineer.

END OF SECTION 16462

RFQ # COR61603

ALL LABOR, MATERIALS, EQUIPMENT, AND **SUPPLIES NECESSARY TO INSTALL NEW EMERGENCY POWER SYSTEM AND REMOVE EXISTING SYSTEM**

DENMAR CORRECTIONAL CENTER

POCAHONTAS COUNTY

BID FORM

Bidder's Company Name:

_____

Bidder's Address:

_____

_____

Remittance Address (If different):

_____

_____

Phone Number: _____

Fax Number: _____

Email Address: _____

WV Contractor's License Number: _____

We, the undersigned, hereby propose to furnish all materials, equipment, and labor to complete all work in a workmanlike manner, as described in the Bidding Documents.

CONTRACT BASE BID: _____

($_____) (Contract base bid to be written in words and numbers.)

RESPECTFULLY SUBMITTED:

DATE: _____

WV VENDOR NO.: _____

CONTRACTOR LICENSE NO.: _____

BY: _____
(SIGNATURE, IN INK)

TITLE: _____

FIRM NAME: _____ (CORPORATE SEAL IF APPLICABLE)

ADDRESS: _____

END OF BID FORM

DENMAR CORRECTIONAL CENTER

DENMAR, WEST VIRGINIA

EMERGENCY POWER SYSTEMS PROJECT

CONSTRUCTION DOCUMENTS: MARCH 17, 2014

EARL RAY TOMBLIN:	GOVERNOR
JOSEPH THORNTON:	SECRETARY - W.V. DEPARTMENT OF MILITARY AFFAIRS AND PUBLIC SAFETY
JAMES RUBENSTEIN:	COMMISSIONER - W.V. DIVISION OF CORRECTIONS
JAMES IELAPI:	DEPUTY COMMISSIONER - W.V. DIVISION OF CORRECTIONS
PHILIP FARLEY II:	DIRECTOR OF ENGINEERING & CONSTRUCTION - DIVISION OF CORRECTIONS

DRAWING INDEX

CS1-1	COVER SHEET
A1-1	DRAWING INDEX
E1-1	KEY NOTES EXISTING SITE CONDITIONS
E1-2	KEY NOTES NEW SITE CONDITIONS
E2-1	EXISTING SITE CONDITIONS
E2-2	EXISTING EMERGENCY POWER SYSTEM
E3-1	NEW SITE CONDITIONS
E3-2	NEW EMERGENCY POWER SYSTEM
E3-3	GENERATOR PAD DETAILS
E3-4	AUTOMATIC TRANSFER SWITCH PAD DETAIL
E3-5	PAD MOUNTED TRANSFORMER PAD DETAIL
E3-6	UTILITY POWER POLE DETAIL
E4-1	EXISITNG ONE LINE
E4-2	NEW ONE LINE

General Notes

No.	Revision/Issue	Date

Firm Name and Address

West Virginia Division of Corrections
1409 Greenbrier Street
Charleston, WV 25311

Project Name and Address

Emergency Power System Project
Denmar Correctional Complex
4319 Denmar Road
Hillsboro, WV 24946-8509

Project	Sheet
COR61603	A1-1
Date: March 17, 2014	
Scale:	

1. EXISTING GENERATOR, 300 KILOWATTS, 208/120 VOLT, 3-PHASE.
2. EXISTING AUTOMATIC TRANSFER SWTICH, 1,200 AMP, 240/120 VOLT, 3-PHASE.
3. EXISTING PAD MOUNTED TRANSFORMER, 12.47 VOLT, 3-PHASE ON PRIMARY SIDE AND 208/120 VOLT, 3-PHASE ON SECONDARY SIDE.
4. EXISTING PAD MOUNTED TRANSFORMER, 208/120 VOLT, 3-PHASE ON PRIMARY SIDE AND 12.47 VOLT, 3-PHASE ON SECONDARY SIDE.
5. EXISTING FUEL TANK, SINGLE WALLED, 500 GALLON.
6. EXISTING FUEL TANK, SINGLE WALLED, 2,000 GALLON.
7. EXISTING CMU FUEL TANK BASIN.
8. EXISTING CHAIN LINK FENCING WITH GATES.
9. POWER POLE OWNED BY MON POWER
10. DOC POWER POLE, METER IS LOCATED ON POWER POLE.
11. DOC POWER POLE, ELECTRICAL LINES GOES FROM POWER POLE UNDERGROUND TO 12.47 KILOVOLT, 3-PHASE STEP DOWN TRANSFORMER.
12. DOC POLE, ELECTRICAL LINES GOES FROM 208/120 VOLT, 3-PHASE STEP UP TRANSFORME TO POWER POLE.
13. ELECTRICAL CABLES FROM MON POWER.
14. ELECTRICAL CABLES GOING TO METER BASE.
15. ELECTRICAL CABLES BETWEEN METER BASE POWER POLE AND POWER POLE GOING TO 12.47 KILOVOLT, 3-PHASE STEP DOWN TRANSFORMER.
16. ELECTRICAL CABLES GOING BETWEEN POLE AND 12.47 KILVOLT, 3-PHASE STEP DOWN TRANSFORMER.
17. ELECTRICAL CABLES GOING BETWEEN 12.47 KILOVOLT, 3-PHASE TRANSFORMER AND THE AUTOMATIC TRANSFER SWTICH.
18. ELECTRICAL CABLES GOING BETWEEN AUTOMATIC TRANSFER SWITCH AND GENERATOR.
19. ELECTRICAL CABLES GOING BETWEEN AUTOMATIC TRANSFER SWITCH AND 208/120 VOLT, 3-PHASE STEPUP TRANSFORMER.
20. ELECTRICAL CABLES GOING BETWEEN 208/120 VOLT, 3-PHASE STEP UP TRANSFORMER AND THEPOWER POLE.
21. ELECTRICAL CABLES THAT DISTRIBUTES POWER TO THE FACILITY.
22. ELECTRICAL CABLES THAT BYPASSES THE EXISTING EMERGENCY POWER SYSTEM.

KEY NOTES

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Hillsboro, WV 24946-8509

Project	Sheet
COR61603	E1-1
Date: March 17, 2014	
Scale:	

1. NEW ONE PIECE GENERATOR WITH 1,800 GALLON DIESEL TANK ON BOTTOM, 300 KILOWATTS, 208/120 VOLT, 3-PHASE.
2. NEW AUTOMATIC TRANSFER SWTICH, 1,600 AMP, 208/120 VOLT, 3-PHASE.
3. NEW 750 KVA PAD MOUNTED STEP DOWN TRANSFORMER, 12.47 VOLT, 3-PHASE ON PRIMARY SIDE AND 208/120 VOLT, 3-PHASE ON SECONDARY SIDE.
4. NEW 750 KVA PAD MOUNTED STEP UP TRANSFORMER, 208/120 VOLT, 3-PHASE ON PRIMARY SIDE AND 12.47 VOLT, 3-PHASE ON SECONDARY SIDE.
5. NEW LOCATION FOR EMERGENCY POWER SYSTEM.
6. INSTALL NEW CONCRETE PADS FOR NEW EQUIPMENT.
7. INSTALL NEW 15 KILOVOLT CABLES BETWEEN EXISTING POWER POLE AND NEW STEP DOWN TRANSFORMER.
8. INSTALL NEW 600 VOLT CABLES BETWEEN NEW STEP DOWN TREANSFORMER AND NEW AUTOMATIC TRANSFER SWITCH.
9. INSTALL NEW 600 VOLT CABLES BETWEEN AUTOMATIC TRANSFER SWITCH AND GENERATOR.
10. INSTALL NEW 600 VOLT CABLES BETWEEN AUTOMATIC TRANSFER SWITCH AND NEW STEP UP TRANSFORMER.
11. INSTALL NEW 15 KILOVOLT CABLES BETWEEN STEP UP TRANSFORMER AND THE EXISTING POWER POLE.
12. ALL NEW CABLES MUST BE INSTALLED AT LEAST THREE (3') FEET BELOW GROUND IN FOUR (4") INCH ELECTRICAL PVC CONDUIT ENCASED IN CONCRETE
13. NEW CHAIN LINK FENCING WITH 3' GATE.
14. POWER POLE OWNED BY MON POWER
15. DOC POWER POLE, METER IS LOCATED ON POWER POLE.
16. DOC POWER POLE, ELECTRICAL LINES GOES FROM POLE UNDERGROUND TO 12.47 KILOVOLT, 3-PHASE STEP DOWN TRANSFORMER.
17. DOC POWER POLE, ELECTRICAL LINES GOES FROM 208/120 VOLT, 3-PHASE STEP UP TRANSFORMER TO POWER POLE.
18. ELECTRICAL CABLES FROM MON POWER.
19. ELECTRICAL CABLES GOING TO METER BASE.
20. ELECTRICAL CABLES GOING BETWEEN METER BASE POWER POLE AND POWER POLE THAT GOES TO 12.47 KILOVOLT, 3-PHASE STEP DOWN TRANSFORMEI
21. ELECTRICAL CABLES THAT DISTRIBUTES POWER TO THE FACILITY.
22. ELECTRICAL CABLES THAT BYPASSES THE EMERGENCY POWER SYSTEM.
23. ONE RUN OF 4" SCHEDULE 40 PVC CONDUIT WITH PHASE SIZE 1/0 AWG WITH THREE (3) CABLES.
24. FOUR PARRALEL RUNS OF 4" SCHEDULE 40 PVC CONDUIT WITH PHASE/NEUTRAL SIZE 600 KCMIL AND GROUND 3 AWG.
25. NEW GRAVEL ROAD.
26. CONCRETE BOLLARDS.

KEY NOTES

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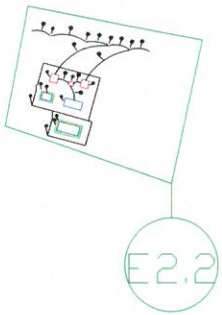
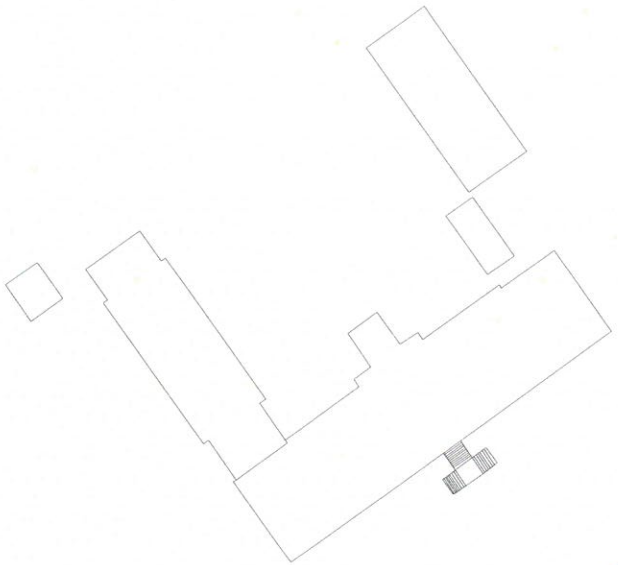
Emergency Power System Project
Denmar Correctional Complex
4319 Denmar Road
Hillsboro, WV 24946-8509

Project	Sheet
COR61603	E1-2
Date: March 17, 2014	
Scale	





SITE DRAWING
SCALE: 1/32" = 1'

SEE DRAWING E1-1
FOR KEY NOTES.

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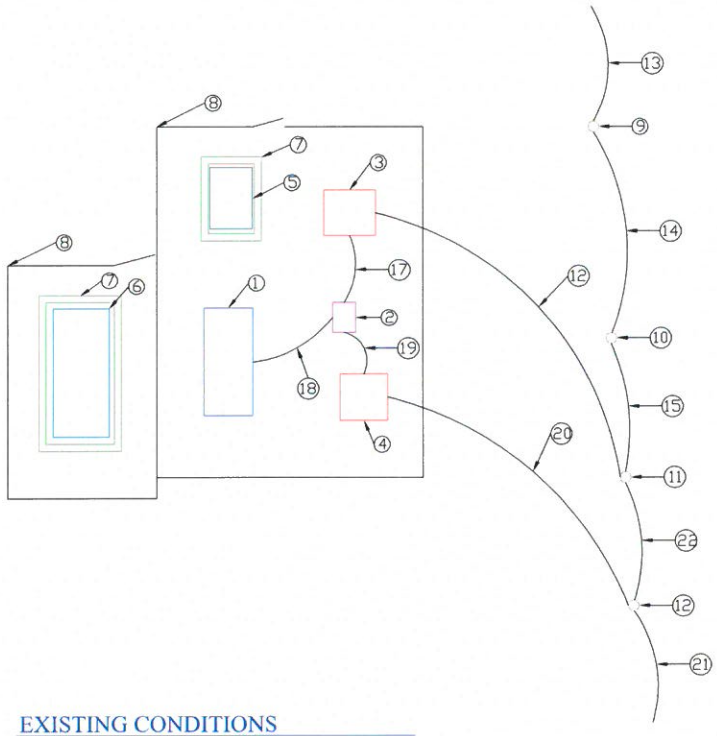
Emergency Power System Project
Denmar Correctional Complex
4319 Denmar Road
Hillsboro, WV 24946-8509

Project	Sheet
COR61603	E2-1
Date: March 17, 2014	
Scale: 1/32" = 1'	



EXISTING CONDITIONS
SCALE: 3/16" = 1'

SEE DRAWING E1-1
FOR KEY NOTES.

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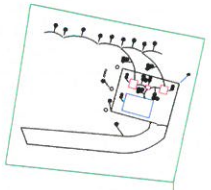
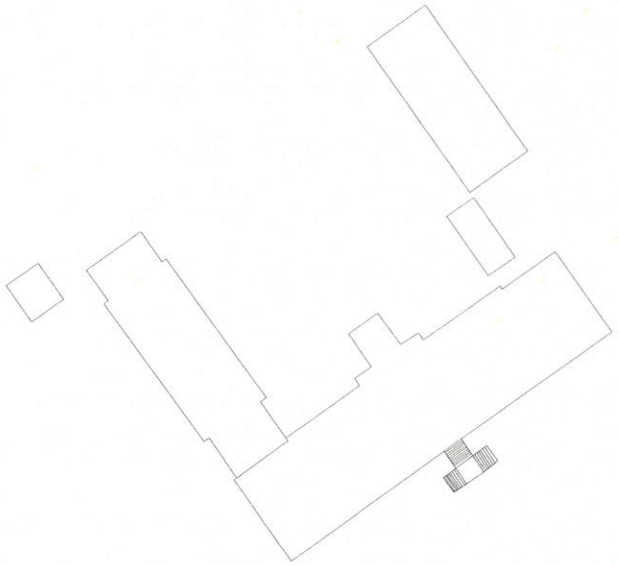
Denmar Correctional Complex
4319 Denmar Road
Hillsboro, WV 24946-8509

Project	Sheet
COR61603	E2-2
Date: March 17, 2014	
Scale: 3/16" = 1'	



E3.2



SITE DRAWING
SCALE: 1/32" = 1'

SEE DRAWING E1-2
FOR KEY NOTES.

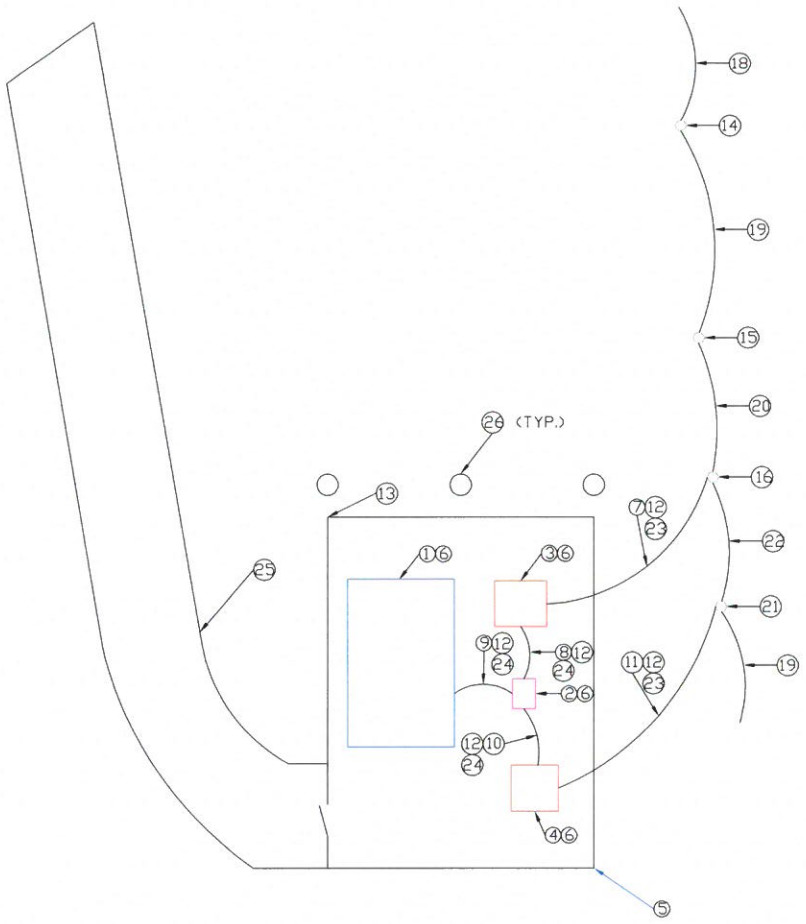
General Notes

No.	Revision/Issue	Date

Firm Name and Address
West Virginia Division of Corrections
1409 Greenbrier Street
Charleston, WV 25311

Project Name and Address
Emergency Power System Project
Denmar Correctional Complex
4719 Denmar Road
Hillsboro, WV 24946-8509

Project	Sheet
COR61603	E3-1
Date: March 17, 2014	
Scale: 1/32" = 1'	



NEW EMERGENCY POWER SYSTEM
SCALE: 3/16" = 1'

SEE DRAWING E1-2
FOR KEY NOTES.

General Notes

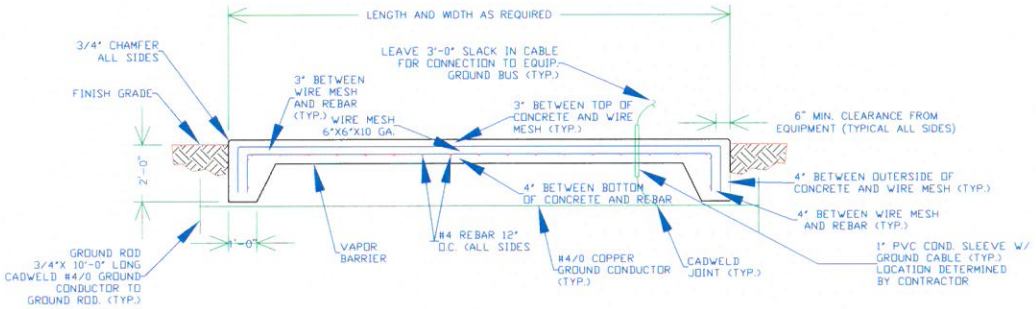
No.	Revision/Issue	Date

Firm Name and Address
West Virginia Division of Corrections
1409 Greenbrier Street
Charleston, WV 25311

Project Name and Address
Emergency Power System Project
Denmar Correctional Complex
4319 Denmar Road
Hillsboro, WV 24946-8509

Project	Sheet
COR61603	E3-2
Date: March 17, 2014	
Scale: 3/16" = 1'	

GENERAL NOTES
1. FINISH TOP SMOOTH AND LEVEL.
2. VERIFY ALL PAD DIMENSIONS WITH GENERATOR SUPPLIER.
3. CONCRETE FINE AFFREGATE WITH MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI IN 28 DAYS.



GENERATOR PAD DETAIL
N. T. S.

General Notes

No.	Revision/Issue	Date

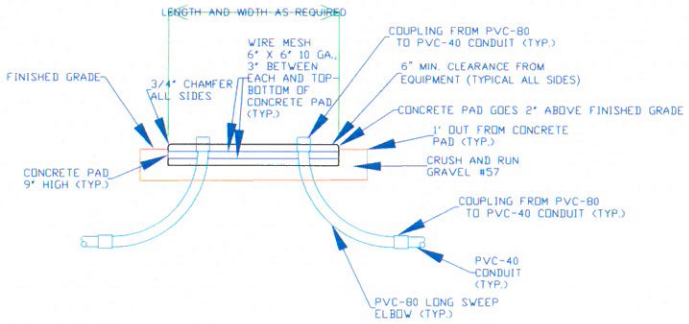
Firm Name and Address
West Virginia Division of Corrections
1409 Greenbrier Street
Charleston, WV 25311

Project Name and Address
Emergency Power System Project
Denmar Correctional Complex
4319 Denmar Road
Hillsboro, WV 24946-8509

Project	COR61603	Sheet	E3-3
Date	March 17, 2014		
Scale	N. T. S.		

9300000

GENERAL NOTES
1. FINISH TOP SMOOTH AND LEVEL.
2. VERIFY ALL PAD DIMENSIONS WITH AUTOMATIC TRANFER SWITCH SUPPLIER.
3. CONCRETE FINE AFFREGATE WITH MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI IN 28 DAYS.



AUTOMATIC TRANSFER SWITCH PAD DETAIL
N. T. S.

General Notes

No.	Revision/Issue	Date

Firm Name and Address
West Virginia Division of Corrections
1409 Greenbrier Street
Charleston, WV 25311

Project Name and Address
Emergency Power System Project
Denmar Correctional Complex
4319 Denmar Road
Hillsboro, WV 24946-8509

Project	Sheet
COR61603	E3-4
Date: March 17, 2014	
Scale: N. T. S.	

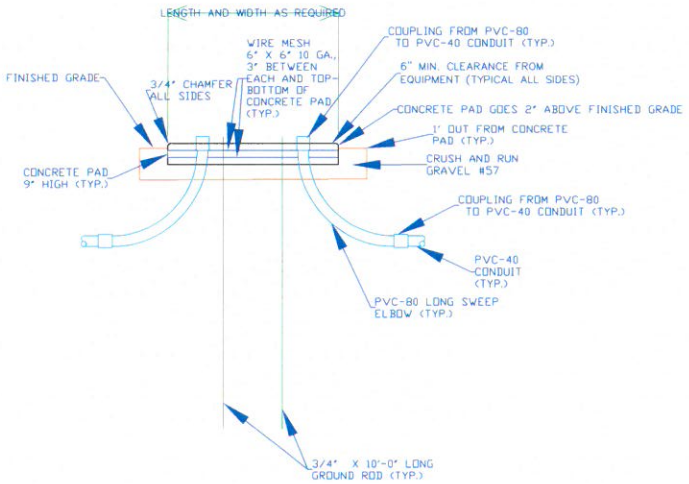
GENERAL NOTES

1. FINISH TOP SMOOTH AND LEVEL.
2. VERIFY ALL PAD DIMENSIONS WITH TRANSFORMER SUPPLIER.
3. CONCRETE FINE AFFREGATE WITH MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI IN 28 DAYS.

CODED NOTES

A. SECONDARY DUCTS SHOULD NOT EXTEND MORE THAN 2" ABOVE THE TOP OF FOUNDATION. PRIMARY DUCT SHOULD BE CUR OFF 2" BELOW THE TOP OF THE FOUNDATION TO ALLOW FOR TERMINATING THE CABLES.

B. EXTEND GROUND RODS 2" ABOVE THE TOP OF THE FOUNDAITON SO THAT A GROUNDING JUMPER MAY BE ATTACHED.



PAD MOUNTED TRANSFORMER PAD DETAIL
N. T. S.

General Notes

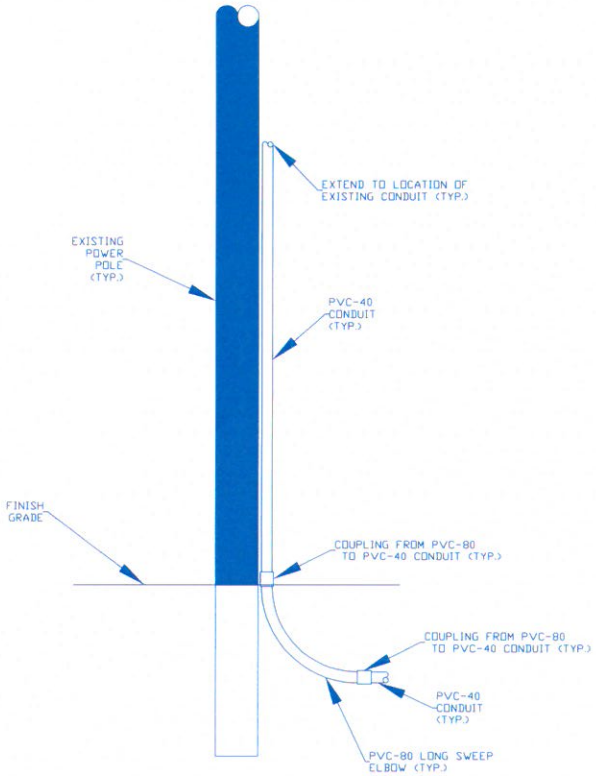
No.	Revision/Issue	Date

Firm Name and Address
West Virginia Division of Corrections
1409 Greenbrier Street
Charleston, WV 25311

Project Name and Address
Emergency Power System Project
Denmar Correctional Complex
4319 Denmar Road
Hillsboro, WV 24946-8509

Project	Sheet
COR61603	E3-5
Date: March 17, 2014	
Scale: N. T. S.	

8990000



UTILITY POWER POLE DETAIL
N. T. S.

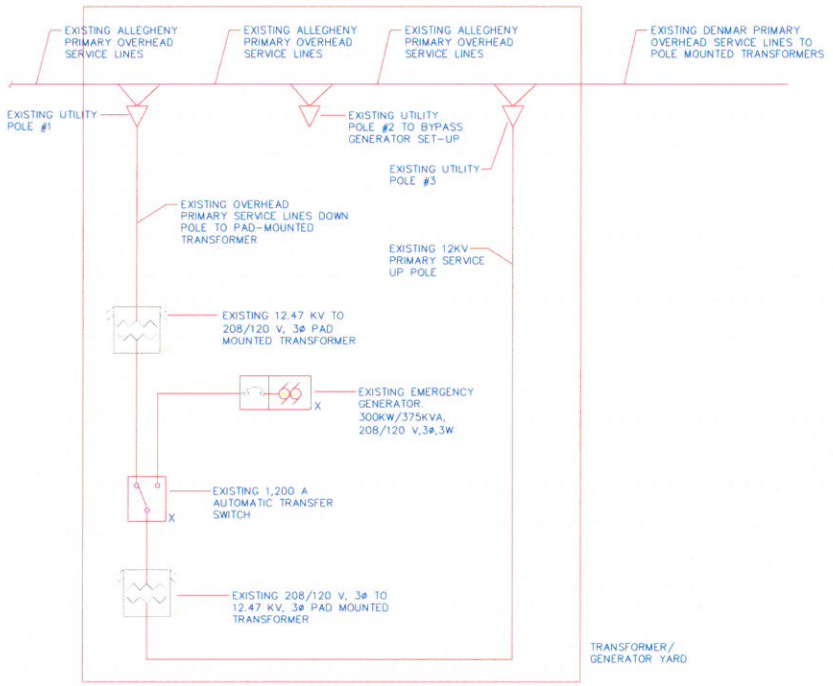
General Notes

No.	Revision/Issue	Date

Firm Name and Address
West Virginia Division of Corrections
1409 Greenbrier Street
Charleston, WV 25311

Project Name and Address
Emergency Power System Project
Denmar Correctional Complex
4319 Denmar Road
Hillsboro, WV 24946-8509

Project	Sheet
COR61403	E3-6
Date: March 17, 2014	
Scale: N. T. S.	



EXISTING ONE-LINE DIAGRAM
N. T. S.

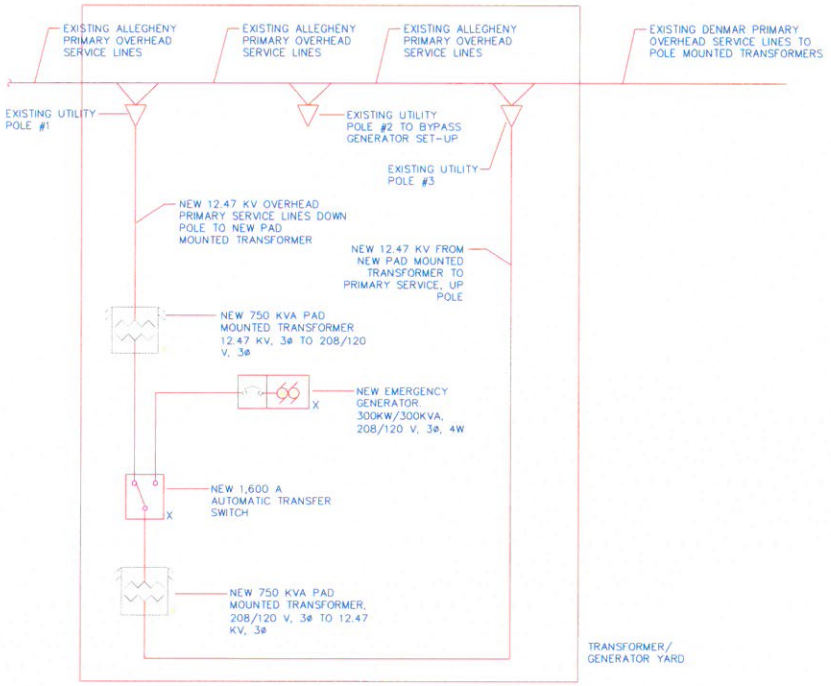
General Notes

No.	Revision/Issue	Date

Firm Name and Address
West Virginia Division of Corrections
1409 Greenbrier Street
Charleston, WV 25311

Project Name and Address
Emergency Power System Project
Denmar Correctional Complex
4319 Denmar Road
Hillsboro, WV 24946-8509

Project	Sheet
C0R61603	E4-1
Date: March 17, 2014	
Scale: N. T. S.	



NEW ONE-LINE DIAGRAM
N. T. S.

General Notes

No.	Revision/Issue	Date

Firm Name and Address
West Virginia Division of Corrections
1409 Greenbrier Street
Charleston, WV 25311

Project Name and Address
Emergency Power System Project
Denmar Correctional Complex
4319 Denmar Road
Hillsboro, WV 24946-8509

Project	Sheet
COR61603	E4-2
Date: March 17, 2014	
Scale: N. T. S.	

000034

CERTIFICATION AND SIGNATURE PAGE

By signing below, I certify that I have reviewed this Solicitation in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid or proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

_____
(Company)

_____
(Authorized Signature)

_____
(Representative Name, Title)

_____
(Phone Number) (Fax Number)

_____
(Date)

RFQ No. _____

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (*W. Va. Code* §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: _____

Authorized Signature: _____ Date: _____

State of _____

County of _____, to-wit:

Taken, subscribed, and sworn to before me this ___ day of _____, 20___.

My Commission expires _____, 20___.

AFFIX SEAL HERE **NOTARY PUBLIC** _____

000074

State of West Virginia
DRUG FREE WORKPLACE CONFORMANCE AFFIDAVIT
West Virginia Code §21-1D-5

STATE OF WEST VIRGINIA,

COUNTY OF _____, TO-WIT:

I, _____, after being first duly sworn, depose and state as follows:

1. I am an employee of _____; and,
(Company Name)

2. I do hereby attest that _____
(Company Name)

maintains a valid written drug free workplace policy and that such policy is in compliance with ***West Virginia Code*** §21-1D.

The above statements are sworn to under the penalty of perjury.

By: _____

Title: _____

Company Name: _____

Date: _____

Taken, subscribed and sworn to before me this _____ day of _____, _____.

By Commission expires _____

(Seal)

_____
(Notary Public)

THIS AFFIDAVIT MUST BE SUBMITTED WITH THE BID IN ORDER TO COMPLY WITH WV CODE PROVISIONS. FAILURE TO INCLUDE THE AFFIDAVIT WITH THE BID SHALL RESULT IN DISQUALIFICATION OF THE BID.

000075

BID BOND PREPARATION INSTRUCTIONS

AGENCY (A)_____
RFQ/RFP#_____(B)_____

(A)	WV State Agency (Stated on Page 1 "Spending Unit")
(B)	Request for Quotation Number (upper right corner of page #1)
(C)	Your Business Entity Name (or Individual Name if Sole Proprietor)
(D)	City, Location of your Company
(E)	State, Location of your Company
(F)	Surety Corporate Name
(G)	City, Location of Surety
(H)	State, Location of Surety
(I)	State of Surety Incorporation
(J)	City of Surety's Principal Office
(K)	Minimum amount of acceptable bid bond is 5% of total bid. You may state "5% of bid" or a specific amount on this line in words.
(L)	Amount of bond in numbers
(M)	Brief Description of scope of work
(N)	Day of the month
(O)	Month
(P)	Year
(Q)	Name of Business Entity (or Individual Name if Sole Proprietor)
(R)	Seal of Principal
(S)	Signature of President, Vice President, or Authorized Agent
(T)	Title of Person Signing for Principal
(U)	Seal of Surety
(V)	Name of Surety
(W)	Signature of Attorney in Fact of the Surety

NOTE 1: **Dated Power of Attorney with Surety Seal must accompany this bid bond.**

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, That we, the undersigned, _____(C)_____ of _____(D)_____, _____(E)_____, as Principal, and _____(F)_____ of _____(G)_____, _____(H)_____, a corporation organized and existing under the laws of the State of _____(I)_____ with its principal office in the City of _____(J)_____, as Surety, are held and firmly bound unto The State of West Virginia, as Obligee, in the penal sum of _____(K)_____ ($_____(L)_____) for the payment of which, well and truly to be made, we jointly and severally bind ourselves, our heirs, administrators, executors, successors and assigns.

The Condition of the above obligation is such that whereas the Principal has submitted to the Purchasing Section of the Department of Administration a certain bid or proposal, attached hereto and made a part hereof to enter into a contract in writing for _____

_____(M)_____

NOW THEREFORE

(a) If said bid shall be rejected, or

(b) If said bid shall be accepted and the Principal shall enter into a contract in accordance with the bid or proposal attached hereto and shall furnish any other bonds and insurance required by the bid or proposal, and shall in all other respects perform the agreement created by the acceptance of said bid then this obligation shall be null and void, otherwise this obligation shall remain in full force and effect. It is expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated

The Surety for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of time within which the Obligee may accept such bid: and said Surety does hereby waive notice of any such extension.

WITNESS, the following signatures and seals of Principal and Surety, executed and sealed by a proper officer of Principal and Surety, or by Principal individually if Principal is an individual, the _(N)___day of __(O)_____, 20_(P)_.

Principal Seal

(R)

_____(Q)_____
(Name of Principal)

By_____(S)_____
(Must be President, Vice President, or Duly Authorized Agent)

_____(T)_____
Title

Surety Seal

(U)

_____(V)_____
(Name of Surety)

_____(W)_____
Attorney-in-Fact

IMPORTANT – Surety executing bonds must be licensed in West Virginia to transact surety insurance, must affix its seal, and must attach a power of attorney with its seal affixed.

000676

Agency_____
REQ.P.O#_____

BID BOND

KNOW ALL MEN BY THESE PRESENTS, That we, the undersigned, _____ _____ of _____, _____, as Principal, and _____ _____of _____, _____, a corporation organized and existing under the laws of the State of ___ _____ with its principal office in the City of _____, as Surety, are held and firmly bound unto the State of West Virginia, as Obligee, in the penal sum of _____ ($_____) for the payment of which, well and truly to be made, we jointly and severally bind ourselves, our heirs, administrators, executors, successors and assigns.

The Condition of the above obligation is such that whereas the Principal has submitted to the Purchasing Section of the Department of Administration a certain bid or proposal, attached hereto and made a part hereof, to enter into a contract in writing for

_____

_____

_____

NOW THEREFORE,

(a) If said bid shall be rejected, or

(b) If said bid shall be accepted and the Principal shall enter into a contract in accordance with the bid or proposal attached hereto and shall furnish any other bonds and insurance required by the bid or proposal, and shall in all other respects perform the agreement created by the acceptance of said bid, then this obligation shall be null and void, otherwise this obligation shall remain in full force and effect. It is expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for the value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Obligee may accept such bid, and said Surety does hereby waive notice of any such extension.

WITNESS, the following signatures and seals of Principal and Surety, executed and sealed by a proper officer of Principal and Surety, or by Principal individually if Principal is an individual, this_____day of _____, 20____.

Principal Seal

_____
(Name of Principal)

By_____
(Must be President, Vice President, or
Duly Authorized Agent)

_____
(Title)

Surety Seal

_____
(Name of Surety)

_____
Attorney-in-Fact

IMPORTANT – Surety executing bonds must be licensed in West Virginia to transact surety insurance, must affix its seal, and must attach a power of attorney with its seal affixed.

WV-75
Created 07/18/12

State of West Virginia

PURCHASING DIVISION

Construction Bid Submission Review Form

This list has been provided for informational purposes only and is not to be construed as a complete list of request for quotation or bidding requirements for any individual construction project. This list does not and cannot include every item, mistake or oversight that could cause a contractor's bid to be disqualified. Rather, this list is intended to draw attention to some of the most common problems that the Purchasing Division encounters in the bidding process for construction projects. All potential bidders must read the request for quotation, all additional documents, and all instructions relating thereto ("Bid Documents") in their entirety to identify the actual request for quotation and bidding requirements. Failure to read the Bid Documents in their entirety and comply with the stated requirements contained therein may result in bid disqualification.

Errors That Shall Be Reason for Immediate Bid Disqualification

1. Failure to attend a mandatory pre-bid meeting
2. Failure to sign the bid
3. Failure to supply West Virginia contractor's license # on bid
4. Failure to supply a signed drug free workplace affidavit with the bid
5. Failure to supply a valid bid bond or other surety approved by the State of West Virginia
6. Failure to meet any mandatory requirement of the RFQ
7. Failure to acknowledge receipt of Addenda (only if stipulated as mandatory)
8. Failure to submit bid prior to the bid opening date and time
9. Federal debarment
10. State of West Virginia debarment or suspension

Errors that May Be Reason for Bid Disqualification Before Contract Award

1. Uncontested debt to the State exceeding $1,000.00 (must be cured prior to award)
2. Workers' Compensation or Unemployment Compensation delinquency (must be cured prior to award)
3. Not registered as a vendor with the State (must be cured prior to award)
4. Failure to obtain required bonds and/or insurance
5. Failure to provide the sub-contractor listing within 1 business day of bid opening.
6. Failure to use the provided RFQ form (only if stipulated as mandatory).