

ADDENDUM

ADDENDUM No.	1	GMCa JOB #:	202114 TDH
ISSUE DATE:	03.20.24	SBC #:	364/011-05-2021
PROJECT:	Tennessee Tech University Derryberry Hall – Building Upgrades – Phase I	1 William L. Jones Drive Cookeville, TN 38505	
OWNER:	Tennessee Tech University	1 William L. Jones Drive Cookeville, TN 38505	
ARCHITECT:	Gilbert McLaughlin Casella architects	2305 Kline Ave, Suite 200 Nashville, TN 37211	

The original Contract Documents dated 05.26.23, and related addenda for the above-mentioned project are hereby amended. The work reflected in this addendum is to be incorporated into the proposed Contract Sum and Time as if originally issued.

This addendum consists of this **1** page summary outline and the following attachments (**14 total pages**):

- Project Manual - Section 000000 – Table of Contents (entire section, 4 pages)
- Project Manual - Section 004113 – Bid Form (entire section, 3 pages)
- Project Manual - Section 262416 - Panelboards (entire section, 6 pages)

The Addendum is organized into the following three parts:

- PART I: CLARIFICATIONS**
- PART II: PROJECT MANUAL REVISION SUMMARY**
- PART III: DRAWING REVISION SUMMARY**

PART I – CLARIFICATIONS:

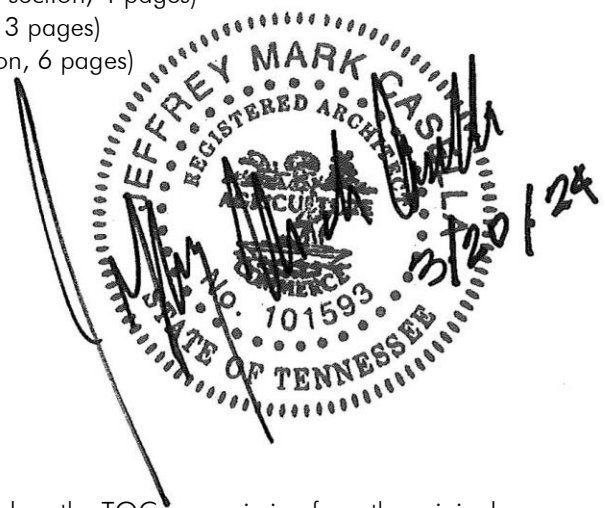
1. None Issued in the Addendum

PART II – PROJECT MANUAL – REVISION SUMMARY:

1. 000000 – Table of Contents
 - a. Note added that Section 004113-Bid Form was listed on the TOC, was missing from the original documents, and has been added.
 - b. Note added that Section 262416-Panelboards was listed on the TOC, was missing from the original documents, and has been added.
2. 004113 – Bid Form
 - a. This section was missing from the original documents and has been added.
3. 262416 – Panelboards
 - a. This section was missing from the original documents and has been added.

PART III – DRAWING – REVISION SUMMARY:

1. None Issued in this Addendum



-End of Addendum Summary Outline-

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005213	___ Agreement
006113	___ Contract Bond
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Section **004113-Bid Form** was listed on the TOC but was missing from the original documents. Section added per **Addendum-001** issued 03.20.24

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Section **262416-Panelboards** was listed on the TOC but was missing from the original documents. Section added per **Addendum-001** issued 03.20.24

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00 41 13 – BID FORM

ADD-001

Section **004113-Bid Form** was missing from the original documents. Section added per **Addendum-001** issued 03.20.24

TO: State of Tennessee **FROM BIDDER:** _____

FOR:

Project Title: TTU: Derry Berry Hall Upgrades - Phase I

Project SBC No.: 364/011-05-2021

A. The Bidder hereby acknowledges, attests, certifies, warrants, and assures that:

1. Bidder has received, read and understands the Bidding Documents and this bid is made in accordance therewith.
2. Bidder has visited the site and become familiar with the local conditions under which the Work is to be performed and has correlated all observations with the requirements of the Bidding Documents.
3. Documents identified as "Information Available to Bidders" are prepared solely for the Designer's use in design of this Work and have not been relied upon in the preparation of this bid. The use and interpretation of such information for any purpose is entirely the responsibility of the using party.
4. Bidder shall not utilize the services of a contractor or subcontractor disqualified from participating in State Building Commission projects.
5. Bidder shall not knowingly utilize the services of an illegal immigrant in the performance of this Contract and shall not knowingly utilize the services of any subcontractor or consultant who will utilize the services of an illegal immigrant in the performance of this Contract.
6. In compliance with the Iran Divestment Act the Bidder is not on the list created pursuant to Tennessee Code Annotated (TCA) § 12-12-106 and shall not utilize any subcontractor on that list.
7. Bid Security, in the amount of five percent (5%) of the total amount of bid, including Alternates, is attached hereto.
8. A Drug-Free Workplace Affidavit, in the form of Section 00 45 21, is attached hereto.
9. Failure to complete this Bid Form, provide required attachments, or comply otherwise with instructions to Bidders, may be cause for rejection of bid.
10. The person who signs this bid on behalf of the Bidder is legally empowered to bind the Bidder to a Contract.
11. The following statement is (mark the one that is applicable) [] True [] False:
The Bidder and/or any of the Bidder's employees, agents, independent contractors and/or proposed Subcontractors have been convicted of, pled guilty to, or pled nolo contendere to any contract crime involving a public contract.
12. Bidder has received the following addenda:
Addendum No. _____ dated _____. Addendum No. _____ dated _____.
Addendum No. _____ dated _____. Addendum No. _____ dated _____.

00 41 13 – BID FORM

PAGE 2 FROM BIDDER: _____

B. The Bidder agrees to:

1. Honor this bid for 45 days following the date of the scheduled opening of bids.
2. Enter into and execute a contract, if presented on the basis of this bid, and to furnish certificates(s) of insurance, bond(s), and other documents related to the contract as required, including, if the initial Contract Sum as awarded exceeds \$100,000, the Contract Bond.
3. Accomplish the Work in accordance with the Contract Documents.
4. Furnish Three Year Roof Bond in the form of Section 00 61 43 in the amount of: Roof Bond Not Required.
5. Achieve Substantial Completion of the Work in accordance with the number of calendar days Contract Time set forth, allotted from and including the date stipulated in the Notice to Proceed; and, accept the conditions for Liquidated Damages in the amount set forth per calendar day.

Phase	Commencement	Contract Time	Liquidated Damages
ALL	Notice to Proceed for All Work	240 Days	\$500 Per Day
	Not Applicable	Days	\$ Per Day
	Not Applicable	Days	\$ Per Day
	Not Applicable"	Days	\$ Per Day

C. BASE BID: The Bidder agrees to complete the Work of the Base Bid for this project for the lump sum of the following amount (In both words and figures. Figures prevail. Words clarify at Owner's discretion.):

_____ and _____/100ths Dollars
 \$ _____

D. ALTERNATES: The Bidder agrees to include Work of the following Alternate(s), as specified in Section 01 23 00 Alternates, for the additional lump sum(s) of the following amount(s) (In both words and figures. Figures prevail. Words clarify at Owner's discretion.):

ALTERNATE No.1: Replacement of Mechanical Piping
 _____ and _____/100ths Dollars
 \$ _____

ALTERNATE No. 2: Upgrade Lighting fixture D6 (House Lighting)
 _____ and _____/100ths Dollars
 \$ _____

ALTERNATE No. 3: Not Applicable"
 _____ and _____/100ths Dollars
 \$ _____

ALTERNATE No. 4: Not Applicable
 _____ and _____/100ths Dollars
 \$ _____

00 41 13 – BID FORM

E. UNIT PRICES: The Bidder agrees to include work in the Base Bid and Alternates as specified for the Quantity Allowance of Unit Price Items and propose, subject to Owner acceptance, the following Unit Prices for inclusion in the Agreement as specified in Section 01 22 13 Unit Prices:

Not Applicable

Item No.	Unit Price per Unit	Unit	Name, Work Included

F. BID SUBMITTAL:

This bid is submitted by:

Authorized Signature: _____ Date: _____

Printed Name, Title: _____

On behalf of:

Bidder Name: _____

Bidder's Address: _____

Bidder's Phone: _____

Bidder's Fax: _____

Bidder's Email: _____

END OF SECTION

PANELBOARDS

ADD-001

Section **262416-Panelboards** was but was missing from the original documents. Section added per **Addendum-001** issued 03.20.24

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes lighting and power panelboards and associated auxiliary equipment rated 600 V and less.
- B. Related Sections include the following:
 - 1. Division 26 Section “Common Work Results for Electrical” for general materials and installation methods.

1.3 SUBMITTALS

- A. Product Data: For each type of panelboard, accessory item, and component specified.
- B. Shop Drawings: For panelboards. Include dimensioned plans, sections, and elevations. Show tabulations of installed devices, major features, and voltage rating. Include the following:
 - 1. Enclosure type with details for types other than NEMA 250, Type 1.
 - 2. Bus configuration and current ratings.
 - 3. Short-circuit current rating of panelboard.
 - 4. Features, characteristics, ratings, and factory settings of individual protective devices and auxiliary components.
 - 5. Wiring Diagrams: Details of schematic diagram including control wiring and differentiating between manufacturer-installed and field-installed wiring.
- C. Qualification Data: For firms and persons specified in “Quality Assurance” Article.
- D. Field Test Reports: Indicate and interpret test results for compliance with performance requirements.
- E. Panelboard Schedules: For installation in panelboards. Submit final versions after load balancing.

- F. Maintenance Data: For panelboard components to include in the maintenance manuals specified in Division 1. Include manufacturer's written instructions for testing circuit breakers.

1.4 QUALITY ASSURANCE

- A. Listing and Labeling: Provide products specified in this Section that are listed and labeled.
 - 1. The Terms "Listed" and "Labeled": As defined in the National Electrical Code, Article 100.
 - 2. Listing and Labeling Agency Qualifications: A "Nationally Recognized Testing Laboratory" as defined in OSHA Regulation 1910.7.
- B. Comply with NFPA 70.
- C. Comply with NEMA PB 1.

1.5 EXTRA MATERIALS

- A. Keys: 6 spares of each type for panelboard cabinet lock.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturer: Subject to compliance with requirements, provide products by one of the following (for each type of product):
 - 1. Cutler-Hammer/Westinghouse
 - 2. General Electric
 - 3. Siemens
 - 4. Square D

2.2 PANELBOARD FABRICATION

- A. Enclosures: Flush- or surface-mounted cabinets as indicated. NEMA PB 1, Type 1, unless otherwise indicated to meet environmental conditions at installed location.
 - 1. Outdoor Locations: NEMA 250, Type 3R.
 - 2. Other Wet or Damp Indoor Locations: NEMA 250, Type 4.

PANELBOARDS 262416-3

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Enfinity Engineering
Added 03-20-2024

- B. Front: Secured to box with concealed trim clamps, unless otherwise indicated. Front for surface mounted panelboards shall be same dimensions as box. Fronts for flush panelboards shall overlap box, unless otherwise indicated.
- C. Phase, Neutral and Ground Buses:
 - 1. Material: Hard drawn copper, 98 percent conductivity.
 - 2. Equipment Ground Bus: Adequate for feeder and branch-circuit equipment ground conductors. Bonded to box.
 - 3. Isolated Ground Bus (where indicated on plans): Adequate for feeder and branch-circuit equipment ground conductors. Insulated from box.
- D. Conductor Connectors: Suitable for use with conductor material and sizes.
 - 1. Main and Neutral Lugs: Mechanical type.
 - 2. Ground Lugs and Bus-Configured Terminators: Mechanical type.
 - 3. Feed Through Lugs: Mechanical type. Locate at opposite end of bus from incoming lugs or main device.
 - 4. Subfeed (Double) Lugs: Mechanical type. Locate at same end of bus as incoming lugs or main device.
- E. Directory Frame: Metal, mounted inside each panelboard door or approved plastic holder.
- F. Service Equipment Approval: Where indicated, listed for use as service equipment for panelboards with main service disconnect.
- G. Future Devices: Equip with mounting brackets, bus connections, and necessary appurtenances, for the overcurrent protective device ampere ratings indicated for future installation of devices.
- H. Panelboard Short-Circuit Rating: Fully rated to interrupt symmetrical short circuit current available at terminals.
- I. Shunt Trip: Where indicated.
- J. Provide shunt trips for all breakers serving cooking equipment under exhaust hood in kitchens.
- K. Circuit breakers shall be bolt-on or I-line style and have interrupting ratings as shown on the drawings and/or panelboard/switchboard schedules. Where ratings are not specifically indicated provide interrupting ratings as shown below:
 - 1. 208Y/120-volts:

Frame Size	Minimum Symmetrical AIC at 240-volts
100 amp	18000 amp
200 amp	25000 amp
400 amp	42000 amp
800 amp	42000 amp

2. 480Y/277-volts:

Frame Size	Minimum Symmetrical AIC at 480-volts
100 amp	14000 amps
200 amp	25000 amps
400 amp	30000 amps
800 amp	30000 amps

PART 3 – EXECUTION

3.1 INSTALLATION

- A. Install panelboards and accessory items according to NEMA PB 1.1.
- B. Mounting Heights: Top of trim 74 inches (1880 mm) above finished floor, unless otherwise indicated.
- C. Mounting: Plumb and rigid without distortion of box. Mount flush panelboards uniformly flush with wall finish.
- D. Circuit Directory: Type directory to indicate installed circuit loads after balancing panelboard loads. Obtain approval before installing.
- E. Install filler plates in unused spaces.
- F. Provision for Future Circuits at Flush Panelboards: Stub four 1-inch (27-GRC) empty conduits from panelboard into accessible ceiling space or space designated to be ceiling space in the future. Stub four 1-inch (27-GRC) empty conduits into raised floor space or below slab not on grade.
- G. Wiring in Panelboard Gutters: Arrange conductors into groups, and bundle and wrap with wire ties after completing load balancing.
- H. Provide four locking devices per panel to be installed on spare circuit breakers unless otherwise noted or designated by the Owner.

3.2 IDENTIFICATION

PANELBOARDS 262416-5

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Enfinity Engineering
Added 03-20-2024

- A. Identify field-installed wiring and components and provide warning signs as specified in Division 26 Section "Common Work Results for Electrical."
- B. Panelboard Nameplates: Label each panelboard with engraved laminated-plastic or metal nameplates mounted with corrosion-resistant screws.

3.3 GROUNDING

- A. Make equipment grounding connections for panelboards as indicated.
- B. Provide ground continuity to main electrical ground bus as indicated.

3.4 CONNECTIONS

- A. Tighten electrical connectors and terminals, including grounding connections, according to manufacturer's published torque-tightening values. Where manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.

3.5 FIELD QUALITY CONTROL

- A. Balancing Loads: After Substantial Completion, but not more than 2 months after Final Acceptance, conduct load-balancing measurements and make circuit changes as follows:
 - 1. Perform Loads: After Substantial completion, but not more than 2 months after Final Acceptance, conduct load-balancing measurements and make circuit changes as follows:
 - 2. Perform measurements during period of normal working load as advised by Owner.
 - 3. Perform load-balancing circuit changes outside normal occupancy/working schedule of the facility. Make special arrangements with Owner to avoid disrupting critical 24-hour services such as fax machines and online data processing, computing, transmitting, and receiving equipment.
 - 4. Recheck loads after circuit changes during normal load period. Record all load readings before and after changes and submit test records.
 - 5. Tolerance: Difference exceeding 20 percent between phase loads, within a panelboard, is not acceptable. Rebalance and recheck as required to meet this minimum requirement.
 - 6. Report, in writing, any loads that exceed 80% of the circuit rating.
- B. Testing: After installing panelboards and after electrical circuitry has been energized, demonstrate product capability and compliance with requirements.

PANELBOARDS 262416-6

TTU Derryberry Hall Upgrades - Phase I
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Enfinity Engineering
Added 03-20-2024

1. Procedures: Perform each visual and mechanical inspection and electrical test stated in NETA ATS, Section 7.5 for switches and Section 7.6 for molded-case circuit breakers. Certify compliance with test parameters.
2. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, remove and replace with new units, and retest.

3.6 ADJUSTING

- A. Set field-adjustable switches and circuit-breaker trip ranges as indicated.

3.7 CLEANING

- A. On completion of installation, inspect interior and exterior of panelboards. Remove paint splatters and other spots, dirt, and debris. Touch up scratches and mars of finish to match original finish.

END OF SECTION