



State of Utah

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Division of Facilities Construction and Management

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Director

## ADDENDUM #1

Date: April 13, 2009

To: Contractors

From: Tim Parkinson, Project Manager, DFCM

Reference: Ogden Bay Ecosystem Modular Offices  
Division of Wildlife Resources – Ogden, Utah  
DFCM Project No. 09014520

Subject: **Addendum No. 1**

Pages	Addendum	1 page
	<u>Architects Addendum</u>	<u>7 pages</u>
	Total	8 pages

**Note:** *This Addendum shall be included as part of the Contract Documents. Items in this Addendum apply to all drawings and specification sections whether referenced or not involving the portion of the work added, deleted, modified, or otherwise addressed in the Addendum. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to Disqualification.*

While we contend that SB220 should only be potentially applicable to a contract issued after the effective date of said bill, this is to clarify that for purposes of this contract, regardless of the execution or effective dates of this contract, the status of Utah Law and remedies available to the State of Utah and DFCM, as it relates to any matter referred to or affected by said SB220, shall be the Utah law in effect at the time of the issuance of this Addendum.

- 1.1 **SCHEDULE CHANGES** – There are no changes to the project schedule.
- 1.2 **GENERAL** – JRCA Architects – Specifications.

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JRCA Architects, Inc.  
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ARCHITECTS

## ADDENDUM NUMBER ONE

<b>DATE OF ISSUANCE:</b>	March 9, 2009	<b>ARCHITECT PROJECT NUMBER:</b>	08023
		<b>DFCM PROJECT NUMBER:</b>	09014520
<b>PROJECT:</b>	Ogden Bay Great Salt Lake Ecosystem Storage Building Phase I Hooper, Utah	<b>ARCHITECT:</b>	JRCA Architects, Inc. 577 South 200 East Salt Lake City, Utah 84111
<b>OWNER:</b>	DFCM State of Utah		

Incorporate the following revisions to the Specifications, Drawings and other Contract Documents of the above named project. General Items are not referenced. Revisions to the Specifications are referenced by section, page number, and paragraph number. Revisions to the Drawings are referenced by drawing sheet number. This addendum forms part of the Construction Documents.

The end of this Addendum is indicated by the note "END OF ADDENDUM". Attachments are located at the end of the Addendum and are referenced in the Addendum.

**General Items:**

<u>Item No.</u>	<u>Section or Sheet No.</u>	<u>Description</u>
AD1-1	Section 092950	The Contractor shall assume that pre-finished gypsum board panels only need to be replaced when construction listed in this project requires such i.e. New or moved walls, installation of electrical in walls, damage to walls that expose the core of the gypsum. Patching of cosmetic defects in walls such as bubbling of the wall covering is not to be addressed. Wall covering materials are not required to match exactly. The Owner realizes this and so the effort should be made to provide similar color wall coverings.
AD1-2		With regard to the modular unit mechanical units to be replaced, Contractor shall remove and take possession of or dispose of these units.
AD1-3		Included in this addendum are all items included in the attached Memorandum authored by BNA Consulting, dated April 9, 2009.

**Specification Items:**

<u>Item No.</u>	<u>Section or Sheet No.</u>	<u>Description</u>
AD1-4	Section 312000	Change final paragraph of Section under Disposal of surplus and waste materials to read: "Disposal: Remove surplus satisfactory and unsatisfactory soil materials and grade into Owner defined locations on site. Remove waste materials, trash, debris and similar items and legally dispose of off Owner's property.

**Drawing Items:**

<u>Item No.</u>	<u>Section or Sheet No.</u>	<u>Description</u>
AD1-5	Sheet AS 101	Change note 18 to read 4" concrete walk. Refer to civil sheets for installation and soils report.

**END OF ADDENDUM ONE**

# Memorandum

To: Gordon Clark  
JRCA Architects

From: Elaine Fawson

Date: April 9 2009

Re: Ogden Bay Great Salt Lake Ecosystem Trailers

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Please include the following items in an addendum:

## **PRIOR APPROVAL OF MANUFACTURERS OF ELECTRICAL EQUIPMENT**

The following items, trade names, products and manufacturers are approved for bidding. Approval does not relieve the bidder from satisfying the intent of the requirements of drawings, specifications and addenda in every respect. Failure to conform to the design quality and standards specified, established and required may result in later disapproval. If equipment must be disapproved after bidding, supplier shall supply specified equipment at no extra cost to the Owner.

Items are listed generally and specific model number, etc. shall be as submitted. Items submitted but not approved, either did not satisfy the requirements, or showed insufficient data, or arrived after the 8 day deadline established for submittals.

### LIGHT FIXTURES:

Type A, AE: Hubbell  
Type B, BE: Hubbell  
Type C: Prescolite  
Type D: Deco  
Type E: Dualite

### FIRE ALARM SYSTEMS:

Silent Knight

## **SPECIFICATIONS:**

1. Section 260532: Metal Clad Cable. Type MC Cable is allowed only when concealed in ceilings or walls. MC Cable must be protected from physical damage and supported directly from the building or structure by use of a listed support. MC Cable home runs are not allowed. Home runs must be in conduit from the electrical panel or cabinet to the first junction or pull box. MC Cable Used for Fire Alarm System Signaling or Initiation Circuits must have an overall outer coating of red.
2. Section 283111: Smoke detectors shall be photoelectric type.
3. Section 264313: See attached specification section.

## **DRAWINGS:**

1. Sheet EX101:
  - a. Conduit and conductor symbol 360-2 shall be 2 sets of: 3#600 MCM XHHW CU, 1 #1/0 ground, 4" conduit.
  - b. Provide level B surge protection devices (TVSS) at panel MS and panel MP. Provide 50 amp 2 pole circuit breaker in each panel to feed device. Feed with conduit and conductor symbol 36.
2. Sheet EE201:
  - a. Change heat detector to smoke detector in Office 102.
  - b. Sheet Note 7 – Change Wiremold part number from 245 to 24S series. (V2400 6' two piece steel plugmold 3 wire with 20 amp outlets 24" on center.)

## SECTION 264313

### SURGE PROTECTIVE DEVICES (SPD's)

#### 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 26 Basic Materials and Methods sections apply to work specified in this section.

##### 1.2 DESCRIPTION OF WORK:

- A. Extent of SPD's work is indicated by drawings, schedules and specified herein. Work includes complete installation, electrical connections, testing, and commissioning.

##### 1.3 QUALITY ASSURANCE:

- A. Comply with NEC, NEMA and IEEE Standards as applicable to wiring methods, construction and installation of SPD's. Comply with applicable requirements of ANSI/IEEE C62.11, C62.41.2 and C62.45; NFPA 70 285 (Type 2), 75, and 78; and UL 1449. Provide complete packaged units that have been listed and labeled by Underwriters Laboratory. UL surge ratings (UL 1449) must be permanently affixed to the SPD's.

##### 1.4 SUBMITTALS:

###### A. PRODUCT DATA:

- 1. Submit manufacturer's data on SPD's listing all performance ratings specified or required herein.

###### B. SHOP DRAWINGS:

- 1. Submit dimensioned drawings of SPD's including, but not necessarily limited to, the following.
  - a. Complete data sheet.
  - b. Set of outline drawings giving complete mounting information, conduit entry and exit locations and dimensions, overall unit dimensions, weights, physical characteristics, etc.
  - c. Set of complete electrical drawings for power and control wiring.
  - d. Manufacturer's literature giving detailed information of equipment including parts numbers, model numbers and ratings.
  - e. UL 1449 suppressed voltage rating documentation.

#### PART 2 - PRODUCTS:

##### 2.1 ACCEPTABLE MANUFACTURERS:

- A. Subject to compliance with requirements, provide products manufactured by one of the following as indicated by "Location Category" herein.
  - 1. Advanced Protection Technologies Inc.
  - 2. Current Technology Inc.
  - 3. Cutler Hammer, Inc.
  - 4. L.E.A. International
  - 5. Liebert Corporation

- 6. United Power Corporation
- 7. GE

**2.2 GENERAL:**

- A. Except as otherwise indicated, provide high energy surge protective devices, with high frequency line noise filtering, suitable for application in Category B, and C3 environments as indicated. Provide types, sizes, ratings and electrical characteristics indicated that comply with manufacturer's standard materials, design, and construction in accordance with published information and as required for a complete installation.

**2.3 SPD's SYSTEM DESCRIPTION:**

- A. Provide SPD's that comply with the following:
  - 1. Have an operating temperature range of 0 to +50 degrees C (30 to +120 degrees F); and operate reliably in an environment with 0 to 85% humidity (non-condensing).
  - 2. Emit no audible noise (less than 45 dba at 5 feet); are capable of operation up to 12,000 feet above sea level, and emit no appreciable magnetic field (less than 75 milligauss at 24" when connected in parallel with a 200 amp line load.)
  - 3. Have a maximum continuous operating voltage not less than 125% of the nominal system operating voltage, and a frequency operating range of 47 to 63 hertz.
  - 4. Provide protection modes of line-to-neutral (when neutral is present in the system), line-to-ground, and neutral-to-ground (when neutral is present).
- B. Provide units consisting of engineered solid-state high-performance suppression and filtering modules consisting of arrays of nonlinear voltage dependent metal oxide varistors, selenium cells, and/or silicon avalanche diodes that optimally share surge currents in a seamless, low-stress manner assuring maximum performance. The suppression system shall not utilize gas tubes, spark gaps, or other components which might "short" the line, thus leading to interruption of normal power flow to or system upset of connected loads.
- C. Provide each unit with status indicators consisting of solid-state, long-life, externally mounted LED's that indicate the on-line status of each protection mode of the unit.
- D. Provide a UL 1283 high-frequency extended range tracking filter to reduce fast rise-time, high frequency transients and electrical line noise. Minimum noise attenuation shall be in accordance with NEMA Std. LS-1 as follows:
 

1.	<u>Freq</u>	<u>Insertion Loss</u>	<u>Freq</u>	<u>Insertion Loss</u>
	100 kHz	- 34 dB	1 MHZ	- 51 dB
	10 MHZ	- 54 dB	100 MHZ	- 48 dB
- E. Provide surface or flush mounted enclosures as indicated, NEMA 1, or NEMA 12 as required by application, painted and finished inside and out. All internal wiring associated with the suppression/filter system and subject to surge currents shall utilize low-impedance copper bus bar and/or #8 AWG copper conductor or larger. Make all internal connections associated with the suppression/filter system and subject to surge currents with compression solderless-type lugs, bolted to the bus bars in order to reduce overall system impedance. Provide mechanical lugs for each phase, neutral and ground connection (if applicable). Provide lugs capable of accepting #8 or larger conductor.

**2.4 UNITS INSTALLED AT CATEGORY B LOCATIONS:**

- A. Where units are shown on the drawings (or required by other sections of the specification) at locations identified as "Category B" locations, provide a SPD's, sine

wave tracking, high frequency filtering device at each of these locations, which meets the following minimum requirements:

1. Minimum single impulse surge current rating:
  - a. Line to neutral (each individual phase): 80,000
  - b. Line to ground (each individual phase): 80,000
  - c. Neutral to ground: 80,000
  
2. UL 1449 suppressed voltage rating (with fusible unit inserted) not exceeding:
  - a. 

<u>Voltage</u>	<u>L-N</u>	<u>L-G</u>
120/240	400	400

### **PART 3 – EXECUTION**

#### **3.1 INSTALLATION**

- A. Install SPD's as indicated in accordance with manufacturers recommendations and as necessary to meet requirements. Install with conductors of minimum length practicable, but in no case exceeding 30" in length; minimum conductor size - #8 AWG copper.
  
- B. Install conductors in straight runs with a minimum of turns or bends (minimum bend radius to be 90 degrees). Do not splice phase or ground conductors in SPD's circuit. Torque all conductor terminations in accordance with manufacturer's recommendations.

#### **3.2 FIELD QUALITY CONTROL:**

- A. Upon completion of installation of equipment, energize and demonstrate capability and compliance with requirements. Remove malfunctioning units, replace with new units and proceed with retesting.

**END OF SECTION 264313**

AD1-3.5