



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

Division of Facilities Construction and Management

DFCM

**ARRA-FUNDED  
STANDARD LOW BID PROJECT  
INVITATIONAL**

September 27, 2011

**LIGHTING UPGRADES  
AGRICULTURE BUILDING**

**UTAH STATE UNIVERSITY  
LOGAN, UTAH**

DFCM Project Number: 11310770

Spectrum Engineers  
324 South State, Suite 400  
Salt Lake City, Utah 84111

**NOTICE: This project is funded through the American Reinvestment and Recovery Act of 2009 (ARRA) and has special federal requirements which are outlined in Attachments "1-5" to this Invitation to Bid.**

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This project is funded by the American Recovery and Reinvestment Act of 2009 (ARRA) and has special federal requirements. The following ARRA-related documents are hereby attached and made part of this Request for Proposals for Design/Build Services: Attachment 1 - ARRA Special Requirements/Statement of Commitments; Attachment 2 - Federal Flow Down Requirements; Attachment 3 - Federal Assurances; Attachment 4 - Davis Bacon Act; Attachment 5 - Wage Determination Table for Cache County

The following ARRA-related documents are hereby made part of this Request for Proposals for Design/Build Services and are incorporated by reference. These documents are available on the DFCM web site at <http://dfcm.utah.gov/StdDocs/index.html> "Standard Documents" – "Reference Documents I" – "Item 25. ARRA Documents 2-4" : 2. Federal Flow Down, 3. Federal Assurances, and 4. Davis Bacon Clause.

Current copies of the DFCM General Conditions dated May 25, 2005 and all Supplemental General Conditions are available upon request at the DFCM office and on the DFCM web site at <http://dfcm.utah.gov/StdDocs/index.html> "Standard Documents" – "Reference Documents" – "Supplemental General Conditions", and are hereby made part of these contract documents by reference

The Agreement and General Conditions dated May 25, 2005 have been updated from versions that were formally adopted and in use prior to this date. The changes made to the General Conditions are identified in a document entitled Revisions to General Conditions that is available on DFCM's web site at <http://dfcm.utah.gov>

## **INVITATION TO BID**

Only firms that have been invited to submit bids on this project are allowed to bid on this project.

Sealed bids will be received by the Division of Facilities Construction and Management (DFCM) for:

**LIGHTING UPGRADES – AGRICULTURE BUILDING**  
**UTAH STATE UNIVERSITY – LOGAN, UTAH**  
**DFCM PROJECT NO. 11310770**

**Invited Contractors**

TEC Electric  
Cache Valley Electric  
Taylor Electric  
Copper Mountain Electric

Bids will be in accordance with the Contract Documents that will be available at 3:00 PM on Tuesday, September 27, 2011, on the DFCM web page at <http://dfcm.utah.gov>. For questions regarding this project, please contact Bianca Shama, DFCM, at 801-707-0037 or [bshama@utah.gov](mailto:bshama@utah.gov). No others are to be contacted regarding this bidding process. The construction budget for this project is not to exceed \$56,000.

A **mandatory** pre-bid meeting and site walk-through for this project will be held at 10:00 AM on Wednesday, September 28, 2011 in Room 105, Facilities Building, Utah State University, 1295 East 700 North, Logan, Utah. All bidders wishing to bid on this project are required to attend this meeting.

Bids will be received until the hour of 2:00 PM on Wednesday, October 19, 2011 at DFCM, 4110 State Office Building, Salt Lake City, Utah 84114. Bids will be opened and read aloud in the DFCM Conference Room, 4110 State Office Building, Salt Lake City, Utah. NOTE: Bids must be received at 4110 State Office Building by the specified time.

A bid bond in the amount of five percent (5%) of the bid amount, made payable to the Division of Facilities Construction and Management on DFCM's bid bond form, shall accompany the bid.

The Division of Facilities Construction and Management reserves the right to reject any or all bids or to waive any formality or technicality in any bid in the interest of DFCM.

**DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT**

Marla Workman, Contract Coordinator  
4110 State Office Building, Salt Lake City, Utah 84114

## **PROJECT DESCRIPTION**

**PROJECT SCOPE:** Lighting retrofit project of the Agriculture Building at Utah State University in Logan, Utah including retrofitting lamps and ballasts. See attached specifications for detailed scope of work.

**PROJECT RISK FACTORS:** Time is of the essence. This project has time limitations due to the ARRA funding time limitations. All work should be completed by January 16, 2012.

**PROJECT SCHEDULE**

<b>PROJECT NAME:</b>		<b>LIGHTING UPGRADES – AGRICULTURE BUILDING UTAH STATE UNIVERSITY – LOGAN, UTAH</b>		
<b>DFCM PROJECT NO.</b>		<b>11310770</b>		
<b>Event</b>	<b>Day</b>	<b>Date</b>	<b>Time</b>	<b>Place</b>
Bidding Documents Available	Tuesday	September 27, 2011	3:00 PM	DFCM web site *
<b>Mandatory</b> Pre-bid Site Meeting	Wednesday	September 28, 2011	10:00 AM	Room 105 Facilities Bldg Utah State University 1295 East 700 North Logan, UT
Last Day to Submit Questions	Monday	October 3, 2011	3:00 PM	Bianca Shama – DFCM E-mail <a href="mailto:bshama@utah.gov">bshama@utah.gov</a>
Addendum Deadline (exception for bid delays)	Wednesday	October 5, 2011	3:00 PM	DFCM web site *
Prime Contractors Turn In Bid and Bid Bond	Wednesday	October 19, 2011	2:00 PM	DFCM 4110 State Office Bldg SLC, UT
Substantial Completion Date	Monday	January 16, 2012		

\* **NOTE:** DFCM's web site address is <http://dfcm.utah.gov>



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

DFCM

Division of Facilities Construction and Management

BID FORM

NAME OF BIDDER \_\_\_\_\_ DATE \_\_\_\_\_

To the Division of Facilities Construction and Management
4110 State Office Building
Salt Lake City, Utah 84114

The undersigned, responsive to the "Notice to Contractors" and in accordance with the "Instructions to Bidders", in compliance with your invitation for bids for the LIGHTING UPGRADES - AGRICULTURE BUILDING - UTAH STATE UNIVERSITY - LOGAN, UTAH - DFCM PROJECT NO. 11310770 and having examined the Contract Documents and the site of the proposed Work and being familiar with all of the conditions surrounding the construction of the proposed Project, including the availability of labor, hereby proposes to furnish all labor, materials and supplies as required for the Work in accordance with the Contract Documents including all ARRA Federal Requirements including additional ARRA reporting as specified and within the time set forth and at the price stated below. This price is to cover all expenses incurred in performing the Work required under the Contract Documents of which this bid is a part:

I/We acknowledge receipt of the following Addenda: \_\_\_\_\_

For all work shown on the Drawings and described in the Specifications and Contract Documents, I/we agree to perform for the sum of:

\_\_\_\_\_ DOLLARS (\$) \_\_\_\_\_
(In case of discrepancy, written amount shall govern)

I/We guarantee that the Work will be Substantially Complete by January 16, 2012, should I/we be the successful bidder, and agree to pay liquidated damages in the amount of \$50.00 per day for each day after expiration of the Contract Time as stated in Article 3 of the Contractor's Agreement.

This bid shall be good for 45 days after bid opening.

Enclosed is a 5% bid bond, as required, in the sum of \_\_\_\_\_

The undersigned Contractor's License Number for Utah is \_\_\_\_\_

Upon receipt of notice of award of this bid, the undersigned agrees to execute the contract within ten (10) days, unless a shorter time is specified in the Contract Documents, and deliver acceptable Performance and Payment bonds in the prescribed form in the amount of 100% of the Contract Sum for faithful performance of the contract.

BID FORM  
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The Bid Bond attached, in the amount not less than five percent (5%) of the above bid sum, shall become the property of the Division of Facilities Construction and Management as liquidated damages for delay and additional expense caused thereby in the event that the contract is not executed and/or acceptable 100% Performance and Payment bonds are not delivered within the time set forth.

Type of Organization:

\_\_\_\_\_

Any request and information related to Utah Preference Laws:

\_\_\_\_\_

Respectfully submitted,

\_\_\_\_\_

ADDRESS:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# INSTRUCTIONS TO BIDDERS

## 1. Drawings and Specifications, Other Contract Documents

Drawings and Specifications, as well as other available Contract Documents, may be obtained as stated in the Invitation to Bid.

## 2. Bids

Before submitting a bid, each contractor shall carefully examine the Contract Documents, shall visit the site of the Work; shall fully inform themselves as to all existing conditions and limitations; and shall include in the bid the cost of all items required by the Contract Documents. If the bidder observes that portions of the Contract Documents are at variance with applicable laws, building codes, rules, regulations or contain obvious erroneous or uncoordinated information, the bidder shall promptly notify the DFCM Representative and the necessary changes shall be accomplished by Addendum.

The bid, bearing original signatures, must be typed or handwritten in ink on the Bid Form provided in the procurement documents and submitted in a sealed envelope at the location specified by the Invitation to Bid prior to the deadline for submission of bids.

A bid bond properly signed by a qualified surety, as indicated on the DFCM Bid Bond form provided along with this Instruction to Bidders, in the amount of 5% of the bid, shall accompany the bid submission to DFCM. **THIS BID BOND MUST BE ON THE DFCM BID BOND FORM PROVIDED WITH THIS INSTRUCTION TO BIDDERS IN ORDER TO BE CONSIDERED AN ACCEPTABLE BID** unless only one bid is received by DFCM, or the failure to comply with the bid bond requirements is determined by the Director of DFCM to be nonsubstantial based on the following:

- (a) the bid bond is submitted on a form other than DFCM's required Bid Bond form and the bid bond meets all other requirements including being issued by a surety firm authorized to do business in the State of Utah and be listed in the U.S. Department of the Treasury Circular 570, Companies Holding Certificates of Authority as Acceptable Securities on Federal Bonds and as Acceptable Reinsuring Companies for an amount not less than the amount of the bond to be issued. A co-surety may be utilized to satisfy this requirement; and
- (b) the contractor provides a bid bond properly signed by a qualified surety and on the required DFCM Bid Bond form by the close of business of the next succeeding business day after the DFCM notifies the bidder of the defective bid bond.

## 3. Contract and Bond

The Contractor's Agreement will be in the form found in the specifications. The Contract Time will be as indicated in the bid. The successful bidder, simultaneously with the execution of the Contract Agreement, will be required to furnish a performance bond and a payment bond, both bearing original signatures, upon the forms provided in the procurement documents. The performance and payment bonds shall be for an amount equal to one hundred percent (100%) of the contract sum and secured from a company that meets the requirements specified in the requisite forms. Any bonding requirements for subcontractors will be specified in the Supplementary General Conditions.

**4. Listing of Subcontractors**

Listing of Subcontractors shall be as summarized in the “Instructions and Subcontractor’s List Form”, which are included as part of these Contract Documents. The Subcontractors List shall be delivered to DFCM or faxed to DFCM at 801-538-3677 within 24 hours of the bid opening. Requirements for listing additional subcontractors will be listed in the Contract Documents.

DFCM retains the right to audit or take other steps necessary to confirm compliance with requirements for the listing and changing of subcontractors. Any contractor who is found to not be in compliance with these requirements is subject to a debarment hearing and may be debarred from consideration for award of contracts for a period of up to three years.

**5. Interpretation of Drawings and Specifications**

If any person or entity contemplating submitting a bid is in doubt as to the meaning of any part of the drawings, specifications or other Contract Documents, such person shall submit to the DFCM Project Manager a request for an interpretation thereof. The person or entity submitting the request will be responsible for its prompt delivery. Any interpretation of the proposed documents will be made only by addenda posted on DFCM’s web site at <http://dfcm.utah.gov>. Neither the DFCM nor A/E will be responsible for any other explanations or interpretations of the proposed documents. A/E shall be deemed to refer to the architect or engineer hired by DFCM as the A/E or Consultant for the Project.

**6. Addenda**

Addenda will be posted on DFCM’s web site at <http://dfcm.utah.gov>. Contractors are responsible for obtaining information contained in each addendum from the web site. Addenda issued prior to the submittal deadline shall become part of the bidding process and must be acknowledged on the bid form. Failure to acknowledge addenda may result in disqualification from bidding.

**7. Award of Contract**

The Contract will be awarded as soon as possible to the lowest, responsive and responsible bidder, based on the lowest combination of base bid and acceptable prioritized alternates, provided the bid is reasonable, is in the interests of the State of Utah to accept and after applying the Utah Preference Laws in U.C.A. Title 63, Chapter 56. DFCM reserves the right to waive any technicalities or formalities in any bid or in the bidding. Alternates will be accepted on a prioritized basis with Alternate 1 being highest priority, Alternate 2 having second priority, etc.

**8. DFCM Contractor Performance Rating**

As a contractor completes each DFCM project, DFCM, the architect/engineer and the using agency will evaluate project performance based on the enclosed “DFCM Contractor Performance Rating” form. The ratings issued on this project will not affect this project but may affect the award on future projects.

**9. Licensure**

The Contractor shall comply with and require all of its subcontractors to comply with the license laws as required by the State of Utah.

**10. Permits**

In concurrence with the requirements for permitting in the General Conditions, it is the responsibility of the Contractor to obtain the fugitive dust plan requirements from the Utah Division of Air Quality and the SWPPP requirements from the Utah Department of Environmental Quality and submit the completed forms and pay any permit fee that may be required for this specific project. Failure to obtain the required permit may result in work stoppage and/or fines from the regulating authority that will be the sole responsibility of the Contractor. Any delay to the project as a result of any such failure to obtain the permit or noncompliance with the permit shall not be eligible for any extension in the Contract Time.

**11. Right to Reject Bids**

DFCM reserves the right to reject any or all Bids.

**12. Time is of the Essence**

Time is of the essence in regard to all the requirements of the Contract Documents.

**13. Withdrawal of Bids**

Bids may be withdrawn on written request received from bidder prior to the time fixed for opening. Negligence on the part of the bidder in preparing the bid confers no right for the withdrawal of the bid after it has been opened.

**14. Product Approvals**

Where reference is made to one or more proprietary products in the Contract Documents, but restrictive descriptive materials of one or more manufacturer(s) is referred to in the Contract Documents, the products of other manufacturers will be accepted, provided they equal or exceed the standards set forth in the drawings and specifications and are compatible with the intent and purpose of the design, subject to the written approval of the A/E. Such written approval must occur prior to the deadline established for the last scheduled addenda to be issued. The A/E's written approval will be in an issued addendum. If the descriptive material is not restrictive, the products of other manufacturers specified will be accepted without prior approval provided they are compatible with the intent and purpose of the design as determined by the A/E.

**15. Financial Responsibility of Contractors, Subcontractors and Sub-subcontractors**

Contractors shall respond promptly to any inquiry in writing by DFCM to any concern of financial responsibility of the contractor, subcontractor or sub-subcontractor.

**16. Debarment**

By submitting a bid, the Contractor certifies that neither it nor its principals, including project and site managers, have been, or are under consideration for, debarment or suspension, or any action that would exclude such from participation in a construction contract by any governmental department or agency. If the Contractor cannot certify this statement, attach to the bid a detailed written explanation which must be reviewed and approved by DFCM as part of the requirements for award of the Project.





## Division of Facilities Construction and

**INSTRUCTIONS AND SUBCONTRACTORS LIST FORM**

The three low bidders, as well as all other bidders that desire to be considered, are required by law to submit to DFCM within 24 hours of bid opening a list of **ALL** first-tier subcontractors, including the subcontractor's name, bid amount and other information required by Building Board Rule and as stated in these Contract Documents, based on the following:

**DOLLAR AMOUNTS FOR LISTING**

**PROJECTS UNDER \$500,000: ALL FIRST-TIER SUBS \$20,000 OR OVER MUST BE LISTED**  
**PROJECTS \$500,000 OR MORE: ALL FIRST-TIER SUBS \$35,000 OR OVER MUST BE LISTED**

- Any additional subcontractors identified in the bid documents shall also be listed.
- The DFCM Director may not consider any bid submitted by a bidder if the bidder fails to submit a subcontractor list meeting the requirements of State law.
- List subcontractors for base bid as well as the impact on the list that the selection of any alternate may have.
- Bidder may not list more than one subcontractor to perform the same work.
- If there are no subcontractors for the job that are required to be reported by State law (either because there are no subcontractors that will be used on the project or because there are no first-tier subcontractors over the dollar amounts referred to above), then you do not need to submit a sublist. If you do not submit a sublist, it will be deemed to be a representation by you that there are no subcontractors on the job that are required to be reported under State law. At any time, DFCM reserves the right to inquire, for security purposes, as to the identification of the subcontractors at any tier that will be on the worksite.

**LICENSURE:**

The subcontractor's name, the type of work, the subcontractor's bid amount, and the subcontractor's license number as issued by DOPL, if such license is required under Utah Law, shall be listed. Bidder shall certify that all subcontractors, required to be licensed, are licensed as required by State law. A subcontractor includes a trade contractor or specialty contractor and does not include suppliers who provide only materials, equipment, or supplies to a contractor or subcontractor.

**'SPECIAL EXCEPTION':**

A bidder may list 'Special Exception' in place of a subcontractor when the bidder intends to obtain a subcontractor to perform the work at a later date because the bidder was unable to obtain a qualified or reasonable bid under the provisions of U.C.A. Section 63A-5-208(4). The bidder shall insert the term 'Special Exception' for that category of work, and shall provide documentation with the subcontractor list describing the bidder's efforts to obtain a bid of a qualified subcontractor at a reasonable cost and why the bidder was unable to obtain a qualified subcontractor bid. The Director must find that the bidder complied in good faith with State law requirements for any 'Special Exception' designation, in order for the bid to be considered. If awarded the contract, the Director shall supervise the bidder's efforts to obtain a qualified subcontractor bid. The amount of the awarded contract may not be adjusted to reflect the actual amount of the subcontractor's bid. Any listing of 'Special Exception' on the sublist form shall also include amount allocated for that work.

**GROUNDS FOR DISQUALIFICATION:**

The Director may not consider any bid submitted by a bidder if the bidder fails to submit a subcontractor list meeting the requirements of State law. Director may withhold awarding the contract to a particular bidder if one or more of the proposed subcontractors are considered by the Director to be unqualified to do the Work or for

**INSTRUCTIONS AND SUBCONTRACTORS LIST FORM**  
**Page No. 2**

such other reason in the best interest of the State of Utah. Notwithstanding any other provision in these instructions, if there is a good faith error on the sublist form, at the sole discretion of the Director, the Director may provide notice to the contractor and the contractor shall have 24 hours to submit the correction to the Director. If such correction is submitted timely, then the sublist requirements shall be considered met.

**CHANGES OF SUBCONTRACTORS SPECIFICALLY IDENTIFIED ON SUBLIST FORM:**

Subsequent to twenty-four hours after the bid opening, the contractor may change its listed subcontractors only after receiving written permission from the Director based on complying with all of the following criteria.

- (1) The contractor has established in writing that the change is in the best interest of the State and that the contractor establishes an appropriate reason for the change, which may include, but not is not limited to, the following reasons: the original subcontractor has failed to perform, or is not qualified or capable of performing, and/or the subcontractor has requested in writing to be released.
- (2) The circumstances related to the request for the change do not indicate any bad faith in the original listing of the subcontractors.
- (3) Any requirement set forth by the Director to ensure that the process used to select a new subcontractor does not give rise to bid shopping.
- (4) Any increase in the cost of the subject subcontractor work is borne by the contractor.
- (5) Any decrease in the cost of the subject subcontractor work shall result in a deductive change order being issued for the contract for such decreased amount.
- (6) The Director will give substantial weight to whether the subcontractor has consented in writing to being removed unless the Contractor establishes that the subcontractor is not qualified for the work.

**EXAMPLE:**

Example of a list where there are only four subcontractors:

TYPE OF WORK	SUBCONTRACTOR, "SELF" OR "SPECIAL EXCEPTION"	SUBCONTRACTOR BID AMOUNT	CONTRACTOR LICENSE #
ELECTRICAL	ABCD Electric Inc.	\$350,000.00	123456789000
LANDSCAPING	"Self" *	\$300,000.00	123456789000
CONCRETE (ALTERNATE #1)	XYZ Concrete Inc	\$298,000.00	987654321000
MECHANICAL	"Special Exception" (attach documentation)	Fixed at: \$350,000.00	(TO BE PROVIDED AFTER OBTAINING SUBCONTRACTOR)

\* Bidders may list "self", but it is not required.

**PURSUANT TO STATE LAW - SUBCONTRACTOR BID AMOUNTS CONTAINED IN THIS SUBCONTRACTOR LIST SHALL NOT BE DISCLOSED UNTIL THE CONTRACT HAS BEEN AWARDED.**



Division of Facilities Construction and

SUBCONTRACTORS LIST
FAX TO 801-538-3677

PROJECT TITLE: \_\_\_\_\_

Caution: You must read and comply fully with instructions.

Table with 4 columns: TYPE OF WORK, SUBCONTRACTOR, 'SELF' OR 'SPECIAL EXCEPTION', SUBCONTRACTOR BID AMOUNT, CONT. LICENSE #

We certify that:

- 1. This list includes all subcontractors as required by the instructions, including those related to the base bid as well as any alternates.
2. We have listed 'Self' or 'Special Exception' in accordance with the instructions.
3. All subcontractors are appropriately licensed as required by State law.

FIRM: \_\_\_\_\_

DATE: \_\_\_\_\_

SIGNED BY: \_\_\_\_\_

NOTICE: FAILURE TO SUBMIT THIS FORM, PROPERLY COMPLETED AND SIGNED, AS REQUIRED IN THESE CONTRACT DOCUMENTS, SHALL BE GROUNDS FOR OWNER'S REFUSAL TO ENTER INTO A WRITTEN CONTRACT WITH BIDDER. ACTION MAY BE TAKEN AGAINST BIDDERS BID BOND AS DEEMED APPROPRIATE BY OWNER. ATTACH A SECOND PAGE IF NECESSARY.

## ARRA-FUNDED CONTRACTOR'S AGREEMENT

**NOTICE: This project is funded through the American Reinvestment and Recovery Act of 2009 (ARRA) and has special federal requirements which are attached by reference per Article 4 of this Agreement.**

FOR:

THIS CONTRACTOR'S AGREEMENT, made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, by and between the DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT, hereinafter referred to as "DFCM", and \_\_\_\_\_, incorporated in the State of \_\_\_\_\_ and authorized to do business in the State of Utah, hereinafter referred to as "Contractor", whose address is \_\_\_\_\_.

WITNESSETH: WHEREAS, DFCM intends to have Work performed at \_\_\_\_\_.

WHEREAS, Contractor agrees to perform the Work for the sum stated herein.

NOW, THEREFORE, DFCM and Contractor for the consideration provided in this Contractor's Agreement, agree as follows:

**ARTICLE 1. SCOPE OF WORK.** The Work to be performed shall be in accordance with the Contract Documents prepared by \_\_\_\_\_ and entitled "\_\_\_\_\_."

The DFCM General Conditions ("General Conditions") dated May 25, 2005 and all Supplemental General Conditions ("also referred to as General Conditions") on file at the office of DFCM and available on the DFCM website (<http://dfcm.utah.gov/StdDocs/index.html>), are hereby incorporated by reference as part of this Agreement and are included in the specifications for this Project. All terms used in this Contractor's Agreement shall be as defined in the Contract Documents, and in particular, the General Conditions.

The Contractor Agrees to furnish labor, materials and equipment to complete the Work as required in the Contract Documents which are hereby incorporated by reference. It is understood and agreed by the parties hereto that all Work shall be performed as required in the Contract Documents and shall be subject to inspection and approval of DFCM or its authorized representative. The relationship of the Contractor to the DFCM hereunder is that of an independent Contractor.

**ARTICLE 2. CONTRACT SUM.** The DFCM agrees to pay and the Contractor agrees to accept in full performance of this Contractor's Agreement, the sum of \_\_\_\_\_ DOLLARS AND NO CENTS (\$\_\_\_\_\_.00), which is the base bid, and which sum also includes the cost of a 100% Performance Bond and a 100% Bond and a 100% Payment Bond as well as all insurance requirements of the Contractor. Said bonds have already been posted by the Contractor pursuant to State law. The required proof of insurance certificates have been delivered to DFCM in accordance with the General Conditions before the execution of this Contractor's Agreement.

**ARTICLE 3. TIME OF COMPLETION AND DELAY REMEDY.** The Work shall be Substantially Complete by \_\_\_\_\_2011. Contractor agrees to pay liquidated damages in the amount of \$\_\_\_\_.00 per day for each day after expiration of the Contract Time until the Contractor achieves Substantial Completion in accordance with the Contract Documents, if Contractor's delay makes the damages applicable. The provision for liquidated damages is: (a) to compensate the DFCM for delay only; (b) is provided for herein because actual damages can not be readily ascertained at the time of execution of this Contractor's Agreement; (c) is not a penalty; and (d) shall not prevent the DFCM from maintaining Claims for other non-delay damages, such as costs to complete or remedy defective Work.

No action shall be maintained by the Contractor, including its or Subcontractor or suppliers at any tier, against the DFCM or State of Utah for damages or other claims due to losses attributable to hindrances or delays from any cause whatsoever, including acts and omissions of the DFCM or its officers, employees or agents, except as expressly provided in the General Conditions. The Contractor may receive a written extension of time, signed by the DFCM, in which to complete the Work under this Contractor's Agreement in accordance with the General Conditions.

**ARTICLE 4. CONTRACT DOCUMENTS.** The Contract Documents consist of this Contractor's Agreement, the Conditions of the Contract (DFCM General Conditions, Supplementary and other Conditions), the Drawings, Specifications, Addenda and Modifications. The Contract Documents shall also include the bidding documents, including the Invitation to Bid, Instructions to Bidders/ Proposers and the Bid/Proposal, and ARRA Special Federal Requirements Attachments 1-6 to the extent not in conflict therewith and other documents and oral presentations that are documented as an attachment to the contract.

All such documents are hereby incorporated by reference herein. Any reference in this Contractor's Agreement to certain provisions of the Contract Documents shall in no way be construed as to lessen the importance or applicability of any other provisions of the Contract Documents.

**ARTICLE 5. PAYMENT.** The DFCM agrees to pay the Contractor from time to time as the Work progresses, but not more than once each month after the date of Notice to Proceed, and only upon Certificate of the A/E for Work performed during the preceding calendar month, ninety-five percent (95%) of the value of the labor performed and ninety-five percent (95%) of the value of materials furnished in place or on the site. The Contractor agrees to furnish to the DFCM invoices for materials purchased and on the site but not installed, for which the Contractor requests payment and agrees to safeguard and protect such equipment or materials and is responsible for safekeeping thereof and if such be stolen, lost or destroyed, to replace same.

The Contractor agrees to submit for invoices all required ARRA documentation at the requested times of DFCM.

Such evidence of labor performed and materials furnished as the DFCM may reasonably require shall be supplied by the Contractor at the time of request for Certificate of Payment on account. Materials for which payment has been made cannot be removed from the job site without DFCM's written approval. Five percent (5%) of the earned amount shall be retained from each monthly payment. The retainage, including any additional retainage imposed and the release of any retainage, shall be in accordance with UCA 13-8-5 as amended. Contractor shall also comply with the requirements of UCA 13-8-5, including restrictions of retainage regarding subcontractors and the distribution of interest earned on the retention proceeds. The DFCM shall not be responsible for enforcing the Contractor's obligations under State law in fulfilling the retention law requirements with subcontractors at any tier.

**ARTICLE 6. INDEBTEDNESS.** Before final payment is made, the Contractor must submit evidence satisfactory to the DFCM that all payrolls, materials bills, subcontracts at any tier and outstanding indebtedness in connection with the Work have been properly paid and all required ARRA documentation needed before final payment can be made. Final Payment will be made after receipt of said evidence, final acceptance of the Work by the DFCM as well as compliance with the applicable provisions of the General Conditions.

Contractor shall respond immediately to any inquiry in writing by DFCM as to any concern of financial responsibility and DFCM reserves the right to request any waivers, releases or bonds from Contractor in regard to any rights of Subcontractors (including suppliers) at any tier or any third parties prior to any payment by DFCM to Contractor.

**ARTICLE 7. ADDITIONAL WORK.** It is understood and agreed by the parties hereto that no money will be paid to the Contractor for additional labor or materials furnished unless a new contract in writing or a Modification hereof in accordance with the General Conditions and the Contract Documents for such additional labor or materials has been executed. The DFCM specifically reserves the right to modify or amend this Contractor's Agreement and the total sum due hereunder either by enlarging or restricting the scope of the Work.

**ARTICLE 8. INSPECTIONS.** The Work shall be inspected for acceptance in accordance with the General Conditions.

**ARTICLE 9. DISPUTES.** Any dispute, PRE or Claim between the parties shall be subject to the provisions of Article 7 of the General Conditions. DFCM reserves all rights to pursue its rights and remedies as provided in the General Conditions.

**ARTICLE 10. TERMINATION, SUSPENSION OR ABANDONMENT.** This Contractor's Agreement may be terminated, suspended or abandoned in accordance with the General Conditions.

**ARTICLE 11. DFCM'S RIGHT TO WITHHOLD CERTAIN AMOUNT AND MAKE USE THEREOF.** The DFCM may withhold from payment to the Contractor such amount as, in DFCM's judgment, may be necessary to pay just claims against the Contractor or Subcontractor at any tier for labor and services rendered and materials furnished in and about the Work. The DFCM may apply such withheld amounts for the payment of such claims in DFCM's discretion. In so doing, the DFCM shall be deemed the agent of Contractor and payment so made by the DFCM shall be considered as payment made under this Contractor's Agreement by the DFCM to the Contractor. DFCM shall not be liable to the Contractor for any such payment made in good faith. Such withholdings and payments may be made without prior approval of the Contractor and may be also be prior to any determination as a result of any dispute, PRE, Claim or litigation.

**ARTICLE 12. INDEMNIFICATION.** The Contractor shall comply with the indemnification provisions of the General Conditions.

**ARTICLE 13. SUCCESSORS AND ASSIGNMENT OF CONTRACT.** The DFCM and Contractor, respectively bind themselves, their partners, successors, assigns and legal representatives to the other party to this Agreement, and to partners, successors, assigns and legal representatives of such other party with respect to all covenants, provisions, rights, responsibilities and ARRA Federal Requirements bound to this Contractor's Agreement. The Contractor shall not assign this Contractor's Agreement without the prior written consent of the DFCM, nor shall the Contractor assign any moneys due or to become due as well as any rights under this Contractor's Agreement, without prior written consent of the DFCM.

**ARTICLE 14. RELATIONSHIP OF THE PARTIES.** The Contractor accepts the relationship of trust and confidence established by this Contractor's Agreement and covenants with the DFCM to cooperate with the DFCM and A/E and use the Contractor's best skill, efforts and judgment in furthering the interest of the DFCM; to furnish efficient business administration and supervision; to make best efforts to furnish at all times an adequate supply of workers and materials; and to perform the Work in the best and most expeditious and economic manner consistent with the interests of the DFCM.

**ARTICLE 15. AUTHORITY TO EXECUTE AND PERFORM AGREEMENT.** Contractor and DFCM each represent that the execution of this Contractor's Agreement and the performance thereunder is within their respective duly authorized powers.

**ARTICLE 16. ATTORNEY FEES AND COSTS.** Except as otherwise provided in the dispute resolution provisions of the General Conditions, the prevailing party shall be entitled to reasonable attorney fees and costs incurred in any action in the District Court and/or appellate body to enforce this Contractor's Agreement or recover damages or any other action as a result of a breach thereof.



**PERFORMANCE BOND**

(Title 63, Chapter 56, U. C. A. 1953, as Amended)

That \_\_\_\_\_ hereinafter referred to as the "Principal" and \_\_\_\_\_, a corporation organized and existing under the laws of the State of \_\_\_\_\_, with its principal office in the City of \_\_\_\_\_ and authorized to transact business in this State and U. S. Department of the Treasury Listed (Circular 570, Companies Holding Certificates of Authority as Acceptable Securities on Federal Bonds and as Acceptable Reinsuring Companies); hereinafter referred to as the "Surety," are held and firmly bound unto the State of Utah, hereinafter referred to as the "Obligee," in the amount of \_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_) for the payment whereof, the said Principal and Surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

**WHEREAS**, the Principal has entered into a certain written Contract with the Obligee, dated the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, to construct \_\_\_\_\_ in the County of \_\_\_\_\_, State of Utah, Project No. \_\_\_\_\_, for the approximate sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), which Contract is hereby incorporated by reference herein.

**NOW, THEREFORE**, the condition of this obligation is such that if the said Principal shall faithfully perform the Contract in accordance with the Contract Documents including, but not limited to, the Plans, Specifications and conditions thereof, the one year performance warranty, and the terms of the Contract as said Contract may be subject to Modifications or changes, then this obligation shall be void; otherwise it shall remain in full force and effect.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the state named herein or the heirs, executors, administrators or successors of the Owner.

The parties agree that the dispute provisions provided in the Contract Documents apply and shall constitute the sole dispute procedures of the parties.

**PROVIDED, HOWEVER**, that this Bond is executed pursuant to the Provisions of Title 63, Chapter 56, Utah Code Annotated, 1953, as amended, and all liabilities on this Bond shall be determined in accordance with said provisions to the same extent as if it were copied at length herein.

**IN WITNESS WHEREOF**, the said Principal and Surety have signed and sealed this instrument this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

**WITNESS OR ATTESTATION:**

\_\_\_\_\_

**PRINCIPAL:**

\_\_\_\_\_

By: \_\_\_\_\_  
(Seal)

Title: \_\_\_\_\_

**WITNESS OR ATTESTATION:**

\_\_\_\_\_

**SURETY:**

\_\_\_\_\_

By: \_\_\_\_\_  
Attorney-in-Fact (Seal)

STATE OF \_\_\_\_\_ )  
 ) ss.  
COUNTY OF \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally appeared before me \_\_\_\_\_, whose identity is personally known to me or proved to me on the basis of satisfactory evidence, and who, being by me duly sworn, did say that he/she is the Attorney-in-fact of the above-named Surety Company, and that he/she is duly authorized to execute the same and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertakings and obligations, and that he/she acknowledged to me that as Attorney-in-fact executed the same.

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

My commission expires: \_\_\_\_\_  
Resides at: \_\_\_\_\_

\_\_\_\_\_  
NOTARY PUBLIC

**Agency:** \_\_\_\_\_  
**Agent:** \_\_\_\_\_  
**Address:** \_\_\_\_\_  
**Phone:** \_\_\_\_\_

Approved As To Form: May 25, 2005  
By Alan S. Bachman, Asst Attorney General

**PAYMENT BOND**

(Title 63, Chapter 56, U. C. A. 1953, as Amended)

**KNOW ALL PERSONS BY THESE PRESENTS:**

That \_\_\_\_\_ hereinafter referred to as the "Principal," and \_\_\_\_\_, a corporation organized and existing under the laws of the State of \_\_\_\_\_ authorized to do business in this State and U. S. Department of the Treasury Listed (Circular 570, Companies Holding Certificates of Authority as Acceptable Securities on Federal Bonds and as Acceptable Reinsuring Companies); with its principal office in the City of \_\_\_\_\_, hereinafter referred to as the "Surety," are held and firmly bound unto the State of Utah hereinafter referred to as the "Obligee," in the amount of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) for the payment whereof, the said Principal and Surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

**WHEREAS**, the Principal has entered into a certain written Contract with the Obligee, dated the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, to construct \_\_\_\_\_ in the County of \_\_\_\_\_, State of Utah, Project No. \_\_\_\_\_ for the approximate sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), which contract is hereby incorporated by reference herein.

**NOW, THEREFORE**, the condition of this obligation is such that if the said Principal shall pay all claimants supplying labor or materials to Principal or Principal's Subcontractors in compliance with the provisions of Title 63, Chapter 56, of Utah Code Annotated, 1953, as amended, and in the prosecution of the Work provided for in said Contract, then, this obligation shall be void; otherwise it shall remain in full force and effect.

That said Surety to this Bond, for value received, hereby stipulates and agrees that no changes, extensions of time, alterations or additions to the terms of the Contract or to the Work to be performed thereunder, or the specifications or drawings accompanying same shall in any way affect its obligation on this Bond, and does hereby waive notice of any such changes, extensions of time, alterations or additions to the terms of the Contract or to the Work or to the specifications or drawings and agrees that they shall become part of the Contract Documents.

**PROVIDED, HOWEVER**, that this Bond is executed pursuant to the provisions of Title 63, Chapter 56, Utah Code Annotated, 1953, as amended, and all liabilities on this Bond shall be determined in accordance with said provisions to the same extent as if it were copied at length herein.

**IN WITNESS WHEREOF**, the said Principal and Surety have signed and sealed this instrument this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

**WITNESS OR ATTESTATION:**

\_\_\_\_\_

**PRINCIPAL:**

\_\_\_\_\_

By: \_\_\_\_\_ (Seal)

Title: \_\_\_\_\_

**WITNESS OR ATTESTATION:**

\_\_\_\_\_

**SURETY:**

\_\_\_\_\_

By: \_\_\_\_\_ Attorney-in-Fact (Seal)

STATE OF \_\_\_\_\_ )  
 ) ss.  
COUNTY OF \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally appeared before me \_\_\_\_\_, whose identity is personally known to me or proved to me on the basis of satisfactory evidence, and who, being by me duly sworn, did say that he/she is the Attorney-in-fact of the above-named Surety Company, and that he/she is duly authorized to execute the same and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertakings and obligations, and that he/she acknowledged to me that as Attorney-in-fact executed the same.

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

My commission expires: \_\_\_\_\_  
Resides at: \_\_\_\_\_

NOTARY PUBLIC

**Agency:** \_\_\_\_\_  
**Agent:** \_\_\_\_\_  
**Address:** \_\_\_\_\_  
**Phone:** \_\_\_\_\_

Approved As To Form: May 25, 2005  
By Alan S. Bachman, Asst Attorney General



CERTIFICATE OF SUBSTANTIAL COMPLETION

PROJECT \_\_\_\_\_ PROJECT NO: \_\_\_\_\_

AGENCY/INSTITUTION \_\_\_\_\_

AREA ACCEPTED \_\_\_\_\_

The Work performed under the subject Contract has been reviewed on this date and found to be Substantially Completed as defined in the General Conditions; including that the construction is sufficiently completed in accordance with the Contract Documents, as modified by any change orders agreed to by the parties, so that the State of Utah can occupy the Project or specified area of the Project for the use for which it is intended.

The DFCM - (Owner) accepts the Project or specified area of the Project as Substantially Complete and will assume full possession of the Project or specified area of the Project at \_\_\_\_\_ (time) on \_\_\_\_\_ (date).

The DFCM accepts the Project for occupancy and agrees to assume full responsibility for maintenance and operation, including utilities and insurance, of the Project subject to the itemized responsibilities and/or exceptions noted below:

\_\_\_\_\_

The Owner acknowledges receipt of the following closeout and transition materials:
As-built Drawings O & M Manuals Warranty Documents Completion of Training Requirements

A list of items to be completed or corrected (Punch List) is attached hereto. The failure to include an item on it does not alter the responsibility of the Contractor to complete all the Work in accordance with the Contract Documents, including authorized changes thereof. The amount of \_\_\_\_\_(Twice the value of the punch list work) shall be retained to assure the completion of the punch list work.

The Contractor shall complete or correct the Work on the list of (Punch List) items appended hereto within \_\_\_\_\_ calendar days from the above date of issuance of this Certificate. The amount withheld pending completion of the list of items noted and agreed to shall be: \$\_\_\_\_\_. If the list of items is not completed within the time allotted the Owner has the right to be compensated for the delays and/or complete the work with the help of independent contractor at the expense of the retained project funds. If the retained project funds are insufficient to cover the delay/completion damages, the Owner shall be promptly reimbursed for the balance of the funds needed to compensate the Owner.

\_\_\_\_\_ by: \_\_\_\_\_
CONTRACTOR (include name of firm) (Signature) DATE

\_\_\_\_\_ by: \_\_\_\_\_
A/E (include name of firm) (Signature) DATE

\_\_\_\_\_ by: \_\_\_\_\_
USING INSTITUTION OR AGENCY (Signature) DATE

\_\_\_\_\_ by: \_\_\_\_\_
DFCM (Owner) (Signature) DATE



Division of Facilities Construction and Management

PAST PERFORMANCE RATING EVALUATION

Date \_\_\_\_\_

Evaluator \_\_\_\_\_

FVN# \_\_\_\_\_

Reference checked for \_\_\_\_\_  
Name of Contractor or A/E

- Corporation
- Partnership
- LLC
- Individual or Sole Proprietorship
- Other \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_ Firm Contact Name \_\_\_\_\_

Project referenced (Name of Project, Agency, Location) \_\_\_\_\_

Project Completion Date (MM/YYYY) \_\_\_\_\_ Contract Amount \$ \_\_\_\_\_

Reference Contact (Name/Title) \_\_\_\_\_ Reference Contact Phone (000-000-0000) \_\_\_\_\_

What did the firm do for you? (e.g. design work, construction service, cost auditing, studies, commissioning, other.) \_\_\_\_\_

Rating Guideline

	QUALITY OF PRODUCT OR SERVICES	COST CONTROL	TIMELINESS OF PERFORMANCE	BUSINESS RELATIONS
<b>5-Exceptional</b>	Contractor/AE has demonstrated an exceptional performance level in any of the above four categories that justifies adding a point to the score. Contractor performance clearly exceeds the performance levels described as "Very Good"			
<b>4-Very Good</b>	Contractor/AE is in compliance with contract requirements and/or delivers quality product/service	Contractor/AE is effective in managing costs and submits current, accurate, and complete billings	Contractor/AE is effective in meeting milestones and delivery schedule	Response to inquiries, technical/service/administrative issues is effective
<b>3-Satisfactory</b>	Minor inefficiencies/errors have been identified	Contractor/AE is usually effective in managing cost	Contractor/AE is usually effective in meeting milestones and delivery schedules	Response to inquires technical/service/administrative issues is somewhat effective
<b>2-Marginal</b>	Major problems have been encountered	Contractor/AE is having major difficulty managing cost effectively	Contractor/AE is having major difficulty meeting milestones and delivery schedule	Response to inquiries, technical/service/administrative issues is marginally effective
<b>1-Unsatisfactory</b>	Contractor/AE is not in compliance and is jeopardizing achievement of contract objectives	Contractor/AE is unable to manage costs effectively	Contractor/AE delays are jeopardizing performance of contract objectives	Response to inquiries, technical/service/administrative issues is not effective

Rate The Following	Rating 1-5 (5 = Highest)	Comments
Quality of Product or Service		
Cost Control		
Timeliness of Performance		
Business Relations		

**OVERALL RATING**

Signature of Rater: \_\_\_\_\_

#116 Agriculture

Utah State University

Lighting Renovation and Retrofit

Project Manual  
And Schedules  
August 30, 2011

Documents prepared by  
Spectrum Engineers, Inc  
Jody Good  
Project Manager  
324 South State  
Suite 400  
Salt Lake City, UT  
801 328-5151

## **TECHNICAL SPECIFICATIONS**

### **DIVISION 26 - ELECTRICAL**

260000	SUMMARY
260500	COMMON WORK RESULTS FOR ELECTRICAL
260519	ELECTRICAL POWER CONDUCTORS AND CABLES
260526	GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS
260529	HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS
260533	RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS
260553	IDENTIFICATION FOR ELECTRICAL SYSTEMS
265100	INTERIOR LIGHTING

### **SCHEDULES**

ROOM BY ROOM LIGHTING INFORMATION
LIGHTING FIXTURE SCHEDULE
UNIT PRICE SCHEDULE

Utah State University - #116 Agriculture  
 DIVISION 26 UNIT PRICE BID FORM

DIVISION 26 - ELECTRICAL BID FORM

1. **BASE BID Lump Sum:**

*Instructions: Provide lump sum price for base bid as listed. Provide unit prices as required herein.*

**BASE BID PRICE:** complete, for base project, as described in contract documents. Price includes all material, labor, equipment, insurance, bonds, etc, for a complete project as drawn and specified, and time, in elapsed calendar days, required for completion from release and notice to proceed.

#116 AGRICULTURE RELIGHTING BASE BID:

\_\_\_\_\_ Dollars (in Words)

\$ \_\_\_\_\_ (in Numbers). Completion in \_\_\_\_\_, calendar days from notice to proceed.

2. **Basis of Bid:**

- a. **Lighting fixtures and Components: For information only, please provide information requested in the following section. (This will be used in determining interpretation of Finanswer schedule. This does not add up to the complete project scope.)**

<u>Type</u>	<u>Manufacturer</u>	<u>Quantity in Base Bid</u>
(ECM-1-4) Prem..71 BF - 4 lamp PS fluorescent ballast	_____	_____
(ECM-1-3) Prem..71 BF - 3 lamp PS fluorescent ballast	_____	_____
(ECM-1-2) Prem..17 BF - 2 lamp PS fluorescent ballast	_____	_____
(ECM-1-2A) 2' Prem..71 BF – 2 lamp PS fluorescent ballast	_____	_____
(ECM-1-1) Prem..71 BF – 1 lamp PS fluorescent ballast	_____	_____
F32T8 RE841 3100 Lumen Lamp	_____	_____
(ECM-2-1) 26 Watt compact fluorescent screw-in adaptor	_____	_____
New Lighting Fixture Type GS-3	_____	_____
New Lighting Fixture Type GS-4	_____	_____
New Lighting Fixture Type HA-4	_____	_____
New Lighting Fixture Type HA-6	_____	_____
2x4 .125" A12 Lens	_____	_____

**Utah State University - #116 Agriculture  
DIVISION 26 UNIT PRICE BID FORM**

<u>Type</u>	<u>Manufacturer</u>	<u>Quantity in Base Bid</u>
8 ft Linear fluorescent 2 Lamp kit, complete		
Rapid Start Fluorescent Sockets (pair)		

**UNIT PRICES**

**3. Lighting fixtures**

- a. **Lighting fixtures and Components:** Guarantee unit prices for each item listed. Change order (add or deduct) amounts for lighting fixtures (excluding lamps (except where lamp listed), sales tax, and installation) shall be the prices listed below multiplied by the quantities added or deducted.

<u>Type</u>	<u>Manufacturer if not as listed above</u>	<u>Unit Price</u>
(ECM-1-4) Prem..71 BF - 4 lamp PS fluorescent ballast		
(ECM-1-3) Prem..71 BF - 3 lamp PS fluorescent ballast		
(ECM-1-2) Prem..17 BF - 2 lamp PS fluorescent ballast		
(ECM-1-2A) 2' Prem..71 BF – 2 lamp PS fluorescent ballast		
(ECM-1-1) Prem..71 BF – 1 lamp PS fluorescent ballast		
F32T8 RE841 3100 Lumen Lamp		
(ECM-2-1) 26 Watt compact fluorescent screw-in adaptor		
New Lighting Fixture Type GS-3		
New Lighting Fixture Type GS-4		
New Lighting Fixture Type HA-4		
New Lighting Fixture Type HA-6		
2x4 .125" A12 Lens		
8 ft Linear fluorescent 2 Lamp kit, complete		
Rapid Start Fluorescent Sockets (pair)		

- b. **Lighting fixture installation:** Guarantee unit prices for each item listed. Change order (add or deduct) amounts for installation of lighting fixtures (excluding fixtures, lamps, and sales tax) and including 10' of typical branch wiring shall be the prices listed below multiplied by the quantities added or deducted.

<u>Type</u>	<u>Labor Bid per Unit each</u>
(ECM-1-4) Prem..71 BF - 4 lamp PS fluorescent ballast	
(ECM-1-3) Prem..71 BF - 3 lamp PS fluorescent ballast	

**Utah State University - #116 Agriculture  
DIVISION 26 UNIT PRICE BID FORM**

<u>Type</u>	<u>Labor Bid per Unit each</u>
(ECM-1-2) Prem..17 BF - 2 lamp PS fluorescent ballast	_____
(ECM-1-2A) 2' Prem..71 BF – 2 lamp PS fluorescent ballast	_____
(ECM-1-1) Prem..71 BF – 1 lamp PS fluorescent ballast	_____
F32T8 RE841 3100 Lumen Lamp	_____
(ECM-2-1) 26 Watt compact fluorescent screw-in adaptor	_____
New Lighting Fixture Type GS-3	_____
New Lighting Fixture Type GS-4	_____
New Lighting Fixture Type HA-4	_____
New Lighting Fixture Type HA-6	_____
2x4 .125" A12 Lens	_____
8 ft Linear fluorescent 2 Lamp kit, complete	_____
Rapid Start Fluorescent Sockets (pair)	_____

4. **Devices:** Guarantee unit prices for each item listed. Change order (add or deduct) amounts for complete installation shall be the prices listed below multiplied by the quantities added or deducted. Unit price shall include material and labor for complete installation of wiring devices.

Include 50' of branch wiring or cabling (as applicable) with the following:

<u>Wiring Device</u>	<u>Unit Price</u>
Convenience Outlet	_____
Switch, Single Pole	_____
Three-way switch	_____
Four-way switch	_____
Occupancy sensor, wall	_____
Occupancy Sensor, Ceiling	_____
Occupancy Sensor, Relay Pack	_____
	_____
	_____

5. Provide unit prices for the following:

3/4" CND, with 4 #14THWN	_____	Lf
3/4" CND, with 4 #12THWN	_____	Lf
3/4" CND, with 4 #10THWN	_____	Lf
1" CND, with 4 #8 THWN	_____	Lf
1.25" CND, with 4 #6 THWN	_____	Lf
3/4" CND	_____	Lf

6. Electrician billing rates per hour:

Superintendent \_\_\_\_\_

**Utah State University - #116 Agriculture  
DIVISION 26 UNIT PRICE BID FORM**

Journeyman	_____
3rd year apprentice	_____
2nd year apprentice	_____
1st year apprentice	_____
Ceiling Contractor (Carpenter)	_____

7. Electrician pay rates per hour:

Note: Project must observe Davis Bacon labor rates for Logan, Utah.

Superintendent	_____
Journeyman	_____
3rd year apprentice	_____
2nd year apprentice	_____
1st year apprentice	_____
Ceiling Contractor (Carpenter)	_____

## SECTION 260000 - SUMMARY

### PART 1 - GENERAL

#### 1.1 SPECIAL CONDITIONS:

- A. Funding: Funding will be from special, one-time American Recovery Reinvestment Act (ARRA) funds and subject to federal, state and local requirements.
- B. Wage Rate Provision: Section 1606 of the ARRA requires that all laborers and mechanics employed by contractors and subcontractors with funds from the ARRA shall be paid wages at rates not less than the prevailing wage rate under the Davis-Bacon Act. The contractor agrees that by the submission of a proposal in response to a solicitation funded in whole or in part with recovery funds, continuous compliance will be maintained with the Davis-Bacon Act.
- C. Buy American Provision: Section 1605 of the ARRA requires that iron, steel and manufactured goods used in public buildings or public works projects be manufactured in the United States. Contractor agrees to abide by this provision and shall maintain records of such purchases for inspections by authorized agents of the State of Utah and federal agencies. The Contractor must obtain written exception from this provision from the agency issuing the contract.
- D. Federal, State and Local Tax Obligations: By submission of a proposal, contractors and subcontractors assert and self-certify that all Federal, State and local tax obligations have been or will be satisfied prior to receiving recovery funds.
- E. Anti-Discrimination and Equal Opportunity: Pursuant to Section 1.7 of the guidance memorandum issued by the United States Office of Management and Budget on April 3, 2009, recovery funds must be distributed in accordance with all anti-discrimination and equal opportunity statutes, regulations, and Executive Orders pertaining to the expenditure of funds.
- F. Access to Records: Conditions of this project require that the contractor and subcontractor agree to allow the State of Utah DFCM or Utah State University internal auditors full access to records and employees pertaining to the performance of this contract to enforce conditions of this contract.

#### 1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including DFCM or USU General and Supplementary Conditions and other Specification Sections, and the Bid, Bonding, and other forms, and the Unit Price Schedule apply to this Section.

#### 1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: Project consists of the renovation of existing lighting and the addition of new lighting as shown on contract
  1. Project Location: Building # 116, Agriculture, Utah State University
  2. Owner: State of Utah, USU,, Logan, Utah
- B. Engineer or Consultant Identification: The Contract Documents were prepared by Spectrum Engineers.

- C. Scope: Work consists of new lighting equipment, luminaires, controls and associated equipment as shown on attached documents. Schedules may initially prepared by Rocky Mountain Power Finanswer Program, even though the project is actually on Logan City Power. If so, they have been edited and revised by Spectrum Engineers. The owner intends to maximize rebate and supplemental funding, principally from ARRA. . Information herein is to be used for the basis of bidding. Adjustments will be made to reflect actual conditions using the unit price schedule.
  - 1. Generally the scope is as follows, with the attached schedules more completely and fully explaining the work.
    - a. Replacement of lighting assemblies in listed luminaires, replacement with new program start ballasts, new fluorescent lamps, new sockets and required components. Some luminaires are completely replaced with new units, others are modified within the existing housings. Care shall be taken to salvage and reuse lenses. Immediately report all broken lenses or other irregular conditions to designated school officials.
    - b. Generally provide mounting for all new devices exactly replacing existing equipment. Where new equipment is sufficiently different from existing conditions obtain approval from University officials or Engineer prior to installation of new equipment. Provide all flange kits needed to mount grid style luminaires in gypsum board ceilings.
    - c. The contractor shall keep a detailed inventory of equipment removed and installed listing room, lighting equipment and quantity installed and control equipment installed for inspection and audit by the owner and engineer.
- D. Project will be constructed under single contract. Bid options and alternatives will be determined prior to contract, but subject to adjustment under terms of this contract including the unit price schedule.

#### 1.4 Demolition and Disposal

- A. Unless indicated otherwise, remove and dispose of all materials removed by this contract. Legally dispose of all lamps and obtain receipts or shipping manifests.

#### 1.5 WORK SEQUENCE

- A. The Work shall be conducted in one phase, with optional bid alternate(s) as listed, to be awarded simultaneously.

#### 1.6 SCHEDULE

- A. The Work shall be conducted as soon as materials are approved and available, within the schedule of the University, which will remain in full operation during construction. All schedules will be as agreed by the Owner and Contractor, but all work will have to be completed as described herein, and as defined by the contract.

#### 1.7 USE OF PREMISE

- A. General: Contractor shall have full use of premises for construction operations, including use of Project site, during initial construction period. Contractor's use of premises is limited only by Owner's right to maintain use of the facility and the agreed project schedule.

## 1.8 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the 26-division format and CSI/CSC's "MasterFormat" numbering system.
1. Section Identification: The Specifications use section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of sections in the Contract Documents.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
  2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
    - a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

- END OF SECTION 260000

## SECTION 260500 - COMMON WORK RESULTS FOR ELECTRICAL

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Sleeves for raceways and cables.
  - 2. Sleeve seals.
  - 3. Grout.
  - 4. Common electrical installation requirements.

#### 1.2 SUBMITTALS

- A. Product Data: For sleeve seals.

### PART 2 - PRODUCTS

#### 2.1 SLEEVES FOR RACEWAYS AND CABLES

- A. Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, galvanized steel, plain ends.
- B. Sleeves for Rectangular Openings: Galvanized sheet steel.
  - 1. Minimum Metal Thickness:
    - a. For sleeve cross-section rectangle perimeter less than 50 inches (1270 mm) and no side more than 16 inches (400 mm), thickness shall be 0.052 inch (1.3 mm).
    - b. For sleeve cross-section rectangle perimeter equal to, or more than, 50 inches (1270 mm) and 1 or more sides equal to, or more than, 16 inches (400 mm), thickness shall be 0.138 inch (3.5 mm).

#### 2.2 GROUT

- A. Nonmetallic, Shrinkage-Resistant Grout: ASTM C 1107, factory-packaged, nonmetallic aggregate grout, noncorrosive, nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.

## PART 3 - EXECUTION

### 3.1 COMMON REQUIREMENTS FOR ELECTRICAL INSTALLATION

- A. Comply with NECA 1.
- B. Measure indicated mounting heights to bottom of unit for suspended items and to center of unit for wall-mounting items.
- C. Headroom Maintenance: If mounting heights or other location criteria are not indicated, arrange and install components and equipment to provide maximum possible headroom consistent with these requirements.
- D. Equipment: Install to facilitate service, maintenance, and repair or replacement of components of both electrical equipment and other nearby installations. Connect in such a way as to facilitate future disconnecting with minimum interference with other items in the vicinity.
- E. Fixture Whips and Flexible Conduit: No multiple fixture whips (between luminaires) or between fixed conduit and junction box and luminaires shall be used. Flexible conduits between junction boxes and individual luminaires shall be permitted if less than 6 feet in length. Otherwise all conduit shall approved metallic wireway, with separately pulled electrical conductors.

### 3.2 SLEEVE INSTALLATION FOR ELECTRICAL PENETRATIONS

- A. Electrical penetrations occur when raceways, cables, wireways, cable trays, or busways penetrate concrete slabs, concrete or masonry walls, or fire-rated floor and wall assemblies.
- B. Concrete Slabs and Walls: Install sleeves for penetrations unless core-drilled holes or formed openings are used. Install sleeves during erection of slabs and walls.
- C. Use pipe sleeves unless penetration arrangement requires rectangular sleeved opening.
- D. Fire-Rated Assemblies: Install sleeves for penetrations of fire-rated floor and wall assemblies unless openings compatible with firestop system used are fabricated during construction of floor or wall.
- E. Cut sleeves to length for mounting flush with both surfaces of walls.
- F. Extend sleeves installed in floors 2 inches(50 mm) above finished floor level.
- G. Size pipe sleeves to provide 1/4-inch(6.4-mm) annular clear space between sleeve and raceway or cable, unless indicated otherwise.
- H. Seal space outside of sleeves with grout for penetrations of concrete and masonry
  - 1. Promptly pack grout solidly between sleeve and wall so no voids remain. Tool exposed surfaces smooth; protect grout while curing.

- I. Interior Penetrations of Non-Fire-Rated Walls and Floors: Seal annular space between sleeve and raceway or cable, using joint sealant appropriate for size, depth, and location of joint. Comply with requirements in Division 07 Section "Joint Sealants."
- J. Fire-Rated-Assembly Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at raceway and cable penetrations. Install sleeves and seal raceway and cable penetration sleeves with firestop materials. Comply with requirements in Division 07 Section "Penetration Firestopping."
- K. Roof-Penetration Sleeves: Seal penetration of individual raceways and cables with flexible boot-type flashing units applied in coordination with roofing work.
- L. Aboveground, Exterior-Wall Penetrations: Seal penetrations using steel pipe sleeves and mechanical sleeve seals. Select sleeve size to allow for 1-inch(25-mm) annular clear space between pipe and sleeve for installing mechanical sleeve seals.
- M. Underground, Exterior-Wall Penetrations: Install cast-iron pipe sleeves. Size sleeves to allow for 1-inch(25-mm) annular clear space between raceway or cable and sleeve for installing mechanical sleeve seals.

### 3.3 SLEEVE-SEAL INSTALLATION

- A. Install to seal exterior wall penetrations.
- B. Use type and number of sealing elements recommended by manufacturer for raceway or cable material and size. Position raceway or cable in center of sleeve. Assemble mechanical sleeve seals and install in annular space between raceway or cable and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.

### 3.4 FIRESTOPPING

- A. Apply firestopping to penetrations of fire-rated floor and wall assemblies for electrical installations to restore original fire-resistance rating of assembly. Firestopping materials and installation requirements are specified in Division 07 Section "Penetration Firestopping."

END OF SECTION 260500

## SECTION 260519 - ELECTRICAL POWER CONDUCTORS AND CABLES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes the following:
  - 1. Building wires and cables rated 600 V and less.
  - 2. Connectors, splices, and terminations rated 600 V and less.
  - 3. Sleeves and sleeve seals for cables.

#### 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Field quality-control test reports.

#### 1.3 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NFPA 70.

### PART 2 - PRODUCTS

#### 2.1 CONDUCTORS AND CABLES

- A. Copper Conductors: Comply with NEMA WC 70.
- B. Conductor Insulation: Comply with NEMA WC 70 for Types THHN-THWN.

#### 2.2 CONNECTORS AND SPLICES

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. AFC Cable Systems, Inc.
  - 2. Hubbell Power Systems, Inc.

3. O-Z/Gedney; EGS Electrical Group LLC.
4. 3M; Electrical Products Division.
5. Tyco Electronics Corp.

C. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.

## 2.3 SLEEVES FOR CABLES

- A. Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, galvanized steel, plain ends.
- B. Cast-Iron Pipe Sleeves: Cast or fabricated "wall pipe," equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop, unless otherwise indicated.
- C. Coordinate sleeve selection and application with selection and application of firestopping specified in Division 07 Section "Penetration Firestopping."

## 2.4 POWER DISTRIBUTION AND CONTROL

- A. Wiring Method for Feeders, Subfeeders, Branch Circuits, and Control Wiring: Underground nonmetallic raceway; No. 10 AWG minimum conductor size for power wiring.
- B. Electrical Enclosures Exposed to Weather: NEMA 250, Type 3R enclosure constructed from corrosion-resistant material, with hinged doors fitted with padlock hasps or lockable latches.

# PART 3 - EXECUTION

## 3.1 CONDUCTOR MATERIAL APPLICATIONS

- A. Feeders: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.
- B. Branch Circuits: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

## 3.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS

- A. Service Entrance: Type THHN-THWN, single conductors in raceway.
- B. Exposed Feeders: Type THHN-THWN, single conductors in raceway.
- C. Feeders Concealed in Ceilings, Walls, Partitions, and Crawlspace: Type THHN-THWN, single conductors in raceway.

- D. Feeders Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN-THWN, single conductors in raceway.
- E. Exposed Branch Circuits, Including in Crawlspace: Type THHN-THWN, single conductors in raceway.
- F. Branch Circuits Concealed in Ceilings, Walls, and Partitions: Type THHN-THWN, single conductors in raceway.
- G. Branch Circuits Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN-THWN, single conductors in raceway.
- H. Cord Drops and Portable Appliance Connections: Type SO, hard service cord with stainless-steel, wire-mesh, strain relief device at terminations to suit application.
- I. Class 1 Control Circuits: Type THHN-THWN, in raceway.
- J. Class 2 Control Circuits: Type THHN-THWN, in raceway.

### 3.3 INSTALLATION OF CONDUCTORS AND CABLES

- A. Conceal cables in finished walls, ceilings, and floors, unless otherwise indicated.
- B. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- C. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.
- D. Install exposed cables parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.
- E. Support cables according to Division 26 Sections "Hangers and Supports for Electrical Systems."
- F. Identify and color-code conductors and cables according to Division 26 Section "Identification for Electrical Systems."
- G. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.
- H. Make splices and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.
  - 1. Use oxide inhibitor in each splice and tap conductor for aluminum conductors.
- I. Wiring at Outlets: Install conductor at each outlet, with at least 6 inches (150 mm) of slack.

### 3.4 SLEEVE INSTALLATION FOR ELECTRICAL PENETRATIONS

- A. Coordinate sleeve selection and application with selection and application of firestopping specified in Division 07 Section "Penetration Firestopping."
- B. Concrete Slabs and Walls: Install sleeves for penetrations unless core-drilled holes or formed openings are used. Install sleeves during erection of slabs and walls.
- C. Fire-Rated Assemblies: Install sleeves for penetrations of fire-rated floor and wall assemblies unless openings compatible with firestop system used are fabricated during construction of floor or wall.
- D. Cut sleeves to length for mounting flush with both wall surfaces.
- E. Extend sleeves installed in floors 2 inches (50 mm) above finished floor level.
- F. Size pipe sleeves to provide 1/4-inch (6.4-mm) annular clear space between sleeve and cable unless sleeve seal is to be installed.
- G. Seal space outside of sleeves with grout for penetrations of concrete and masonry and with approved joint compound for gypsum board assemblies.
- H. Interior Penetrations of Non-Fire-Rated Walls and Floors: Seal annular space between sleeve and cable, using joint sealant appropriate for size, depth, and location of joint according to Division 07 Section "Joint Sealants."
- I. Fire-Rated-Assembly Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at cable penetrations. Install sleeves and seal with firestop materials according to Division 07 Section "Penetration Firestopping."
- J. Roof-Penetration Sleeves: Seal penetration of individual cables with flexible boot-type flashing units applied in coordination with roofing work.
- K. Aboveground Exterior-Wall Penetrations: Seal penetrations using sleeves and mechanical sleeve seals. Size sleeves to allow for 1-inch (25-mm) annular clear space between pipe and sleeve for installing mechanical sleeve seals.
- L. Underground Exterior-Wall Penetrations: Install cast-iron "wall pipes" for sleeves. Size sleeves to allow for 1-inch (25-mm) annular clear space between cable and sleeve for installing mechanical sleeve seals.

### 3.5 SLEEVE-SEAL INSTALLATION

- A. Install to seal underground exterior-wall penetrations.
- B. Use type and number of sealing elements recommended by manufacturer for cable material and size. Position cable in center of sleeve. Assemble mechanical sleeve seals and install in annular space between cable and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.

### 3.6 FIRESTOPPING

- A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly according to Division 07 Section "Penetration Firestopping."

### 3.7 FIELD QUALITY CONTROL

- A. Perform tests and inspections and prepare test reports.
- B. Tests and Inspections:
  - 1. After installing conductors and cables and before electrical circuitry has been energized, test for compliance with requirements.
  - 2. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
  - 3. Megger test all conductors powering the ball field lighting in accordance with NETA.
- C. Test Reports: Prepare a written report to record the following:
  - 1. Test procedures used.
  - 2. Test results that comply with requirements.
  - 3. Test results that do not comply with requirements and corrective action taken to achieve compliance with requirements.
- D. Remove and replace malfunctioning units and retest as specified above.

END OF SECTION 260519

## SECTION 260526 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes methods and materials for grounding systems and equipment.

#### 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Field quality-control test reports.

#### 1.3 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with UL 467 for grounding and bonding materials and equipment.

### PART 2 - PRODUCTS

#### 2.1 CONDUCTORS

- A. Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.
- B. Bare Copper Conductors:
  - 1. Solid Conductors: ASTM B 3.
  - 2. Stranded Conductors: ASTM B 8.
  - 3. Tinned Conductors: ASTM B 33.
  - 4. Bonding Conductor: No. 4 or No. 6 AWG, stranded conductor.

#### 2.2 CONNECTORS

- A. Listed and labeled by a nationally recognized testing laboratory acceptable to authorities having jurisdiction for applications in which used, and for specific types, sizes, and combinations of conductors and other items connected.
- B. Bolted Connectors for Conductors and Pipes: Copper or copper alloy, bolted pressure-type, with at least two bolts.

1. Pipe Connectors: Clamp type, sized for pipe.
- C. Welded Connectors: Exothermic-welding kits of types recommended by kit manufacturer for materials being joined and installation conditions.

## 2.3 GROUNDING ELECTRODES

- A. Ground Rods: Copper-clad steel; 3/4 inch by 10 feet (19 mm by 3 m) in diameter.

## PART 3 - EXECUTION

### 3.1 APPLICATIONS

- A. Conductors: Install solid conductor for No. 8 AWG and smaller, and stranded conductors for No. 6 AWG and larger, unless otherwise indicated.
- B. Isolated Grounding Conductors: Green-colored insulation with continuous yellow stripe. On feeders with isolated ground, identify grounding conductor where visible to normal inspection, with alternating bands of green and yellow tape, with at least three bands of green and two bands of yellow.
- C. Conductor Terminations and Connections:
  1. Pipe and Equipment Grounding Conductor Terminations: Bolted connectors.
  2. Underground Connections: Welded connectors, except at test wells and as otherwise indicated.
  3. Connections to Ground Rods at Test Wells: Bolted connectors.
  4. Connections to Structural Steel: Welded connectors.

### 3.2 EQUIPMENT GROUNDING

- A. Install insulated equipment grounding conductors with the following items, in addition to those required by NFPA 70:
  1. Feeders and branch circuits.
  2. Lighting circuits.
  3. Receptacle circuits.
  4. Single-phase motor and appliance branch circuits.
  5. Three-phase motor and appliance branch circuits.
  6. Flexible raceway runs.
  7. Armored and metal-clad cable runs.
- B. Signal and Communication Equipment: For telephone, alarm, voice and data, and other communication equipment, provide No. 4 AWG minimum insulated grounding conductor in raceway from grounding electrode system to each service location, terminal cabinet, wiring closet, and central equipment location.
  1. Terminal Cabinets: Terminate grounding conductor on cabinet grounding terminal.

- C. Metal Poles Supporting Outdoor Lighting Fixtures: Install grounding electrode (3/4" x 10' ground rod) and a separate insulated equipment grounding conductor in addition to grounding conductor installed with branch-circuit conductors.

### 3.3 INSTALLATION

- A. Grounding Conductors: Route along shortest and straightest paths possible, unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
- B. Ground Rods: Drive rods until tops are 2 inches (50 mm) below finished floor or final grade, unless otherwise indicated.
  - 1. Interconnect ground rods with grounding electrode conductor below grade and as otherwise indicated. Make connections without exposing steel or damaging coating, if any.
- C. Bonding Straps and Jumpers: Install in locations accessible for inspection and maintenance, except where routed through short lengths of conduit.
  - 1. Bonding to Structure: Bond straps directly to basic structure, taking care not to penetrate any adjacent parts.
  - 2. Bonding to Equipment Mounted on Vibration Isolation Hangers and Supports: Install so vibration is not transmitted to rigidly mounted equipment.
  - 3. Use exothermic-welded connectors for outdoor locations, but if a disconnect-type connection is required, use a bolted clamp.
- D. Grounding and Bonding for Piping:
  - 1. Metal Water Service Pipe: Install insulated copper grounding conductors, in conduit, from building's main service equipment, or grounding bus, to main metal water service entrances to building. Connect grounding conductors to main metal water service pipes, using a bolted clamp connector or by bolting a lug-type connector to a pipe flange, using one of the lug bolts of the flange. Where a dielectric main water fitting is installed, connect grounding conductor on street side of fitting. Bond metal grounding conductor conduit or sleeve to conductor at each end.
  - 2. Water Meter Piping: Use braided-type bonding jumpers to electrically bypass water meters. Connect to pipe with a bolted connector.
  - 3. Bond each aboveground portion of gas piping system downstream from equipment shutoff valve.

END OF SECTION 260526

## SECTION 260529 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes:
  - 1. Hangers and supports for electrical equipment and systems.
  - 2. Construction requirements for concrete bases.

#### 1.2 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Design supports for multiple raceways, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- B. Design supports for multiple raceways capable of supporting combined weight of supported systems and its contents.
- C. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.
- D. Rated Strength: Adequate in tension, shear, and pullout force to resist maximum loads calculated or imposed for this Project, with a minimum structural safety factor of five times the applied force.

#### 1.3 SUBMITTALS

- A. Product Data: For steel slotted support systems.
- B. Shop Drawings: Show fabrication and installation details and include calculations for the following:
  - 1. Trapeze hangers. Include Product Data for components.
  - 2. Steel slotted channel systems. Include Product Data for components.
  - 3. Equipment supports.
- C. Welding certificates.

#### 1.4 QUALITY ASSURANCE

- A. Welding: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- B. Comply with NFPA 70.

## PART 2 - PRODUCTS

### 2.1 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

- A. Steel Slotted Support Systems: Comply with MFMA-4, factory-fabricated components for field assembly.
  - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - 2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Allied Tube & Conduit.
    - b. Cooper B-Line, Inc.; a division of Cooper Industries.
    - c. ERICO International Corporation.
    - d. GS Metals Corp.
    - e. Thomas & Betts Corporation.
    - f. Unistrut; Tyco International, Ltd.
    - g. Wesanco, Inc.
  - 3. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.
  - 4. Nonmetallic Coatings: Manufacturer's standard PVC, polyurethane, or polyester coating applied according to MFMA-4.
  - 5. Channel Dimensions: Selected for applicable load criteria.
- B. Raceway and Cable Supports: As described in NECA 1 and NECA 101.
- C. Conduit and Cable Support Devices: Steel hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.
- D. Support for Conductors in Vertical Conduit: Factory-fabricated assembly consisting of threaded body and insulating wedging plug or plugs for non-armored electrical conductors or cables in riser conduits. Plugs shall have number, size, and shape of conductor gripping pieces as required to suit individual conductors or cables supported. Body shall be malleable iron.
- E. Structural Steel for Fabricated Supports and Restraints: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.
- F. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:
  - 1. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete, steel, or wood, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.
    - a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      - 1) Hilti Inc.

- 2) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
  - 3) MKT Fastening, LLC.
  - 4) Simpson Strong-Tie Co., Inc.; Masterset Fastening Systems Unit.
2. Mechanical-Expansion Anchors: Insert-wedge-type, zinc-coated steel, for use in hardened portland cement concrete with tension, shear, and pullout capacities appropriate for supported loads and building materials in which used.
- a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - b. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - 1) Cooper B-Line, Inc.; a division of Cooper Industries.
    - 2) Empire Tool and Manufacturing Co., Inc.
    - 3) Hilti Inc.
    - 4) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
    - 5) MKT Fastening, LLC.
3. Concrete Inserts: Steel or malleable-iron, slotted support system units similar to MSS Type 18; complying with MFMA-4 or MSS SP-58.
  4. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.
  5. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
  6. Toggle Bolts: All-steel springhead type.
  7. Hanger Rods: Threaded steel.

## 2.2 FABRICATED METAL EQUIPMENT SUPPORT ASSEMBLIES

- A. Description: Welded or bolted, structural-steel shapes, shop or field fabricated to fit dimensions of supported equipment.

## PART 3 - EXECUTION

### 3.1 APPLICATION

- A. Comply with NECA 1 and NECA 101 for application of hangers and supports for electrical equipment and systems except if requirements in this Section are stricter.
- B. Maximum Support Spacing and Minimum Hanger Rod Size for Raceway: Space supports for EMT, IMC, and RMC as required by NFPA 70. Minimum rod size shall be 1/4 inch (6 mm) in diameter.
- C. Multiple Raceways or Cables: Install trapeze-type supports fabricated with steel slotted support system, sized so capacity can be increased by at least 25 percent in future without exceeding specified design load limits.

1. Secure raceways and cables to these supports with single-bolt conduit clamps using spring friction action for retention in support channel.
- D. Spring-steel clamps designed for supporting single conduits without bolts may be used for **1-1/2-inch (38-mm)** and smaller raceways serving branch circuits and communication systems above suspended ceilings and for fastening raceways to trapeze supports.

### 3.2 SUPPORT INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this Article.
- B. Raceway Support Methods: In addition to methods described in NECA 1, EMT, IMC, and RMC may be supported by openings through structure members, as permitted in NFPA 70.
- C. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb (90 kg).
- D. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:
  1. To Wood: Fasten with lag screws or through bolts.
  2. To New Concrete: Bolt to concrete inserts.
  3. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
  4. To Existing Concrete: Expansion anchor fasteners.
  5. Instead of expansion anchors, powder-actuated driven threaded studs provided with lock washers and nuts may be used in existing standard-weight concrete **4 inches (100 mm)** thick or greater. Do not use for anchorage to lightweight-aggregate concrete or for slabs less than **4 inches (100 mm)** thick.
  6. To Steel: Beam clamps (MSS Type 19, 21, 23, 25, or 27) complying with MSS SP-69.
  7. To Light Steel: Sheet metal screws.
  8. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate by means that meet seismic-restraint strength and anchorage requirements.
- E. Drill holes for expansion anchors in concrete at locations and to depths that avoid reinforcing bars.

### 3.3 INSTALLATION OF FABRICATED METAL SUPPORTS

- A. Comply with installation requirements in Division 05 Section "Metal Fabrications" for site-fabricated metal supports.

- B. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor electrical materials and equipment.
- C. Field Welding: Comply with AWS D1.1/D1.1M.

### 3.4 CONCRETE BASES FOR DIMMER RACK

- A. Construct concrete bases of dimensions indicated but not less than 4 inches (100 mm) larger in both directions than supported unit, and so anchors will be a minimum of 10 bolt diameters from edge of the base.
- B. Use 3000-psi (20.7-MPa), 28-day compressive-strength concrete.
- C. Anchor equipment to concrete base.
  - 1. Place and secure anchorage devices. Use supported equipment manufacturer's setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
  - 2. Install anchor bolts to elevations required for proper attachment to supported equipment.
  - 3. Install anchor bolts according to anchor-bolt manufacturer's written instructions.

### 3.5 PAINTING

- A. Touchup: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with SSPC-PA 1 requirements for touching up field-painted surfaces.
  - 1. Apply paint by brush or spray to provide minimum dry film thickness of 2.0 mils (0.05 mm).
- B. Galvanized or painted Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A 780. Cleaning and touchup paint all field welds, bolted connections, and abraded areas of shop paint on miscellaneous metal. Use paint and methods specified by equipment manufacturer.

END OF SECTION 260529

## SECTION 260533 - RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes raceways, fittings, boxes, enclosures, and cabinets for electrical wiring.

#### 1.2 SUBMITTALS

- A. Product Data: For surface raceways, wireways and fittings, floor boxes, hinged-cover enclosures, and cabinets.
- B. Shop Drawings: For custom enclosures and cabinets. Include plans, elevations, sections, details, and attachments to other work.

#### 1.3 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NFPA 70.

### PART 2 - PRODUCTS

#### 2.1 METAL CONDUIT AND TUBING

- A. Rigid Steel Conduit: ANSI C80.1.
- B. IMC: ANSI C80.6.
- C. EMT: ANSI C80.3.
- D. FMC: Zinc-coated steel.
- E. LFMC: Flexible steel conduit with PVC jacket.
- F. Fittings for Conduit (Including all Types and Flexible and Liquidtight), EMT, and Cable: NEMA FB 1; listed for type and size raceway with which used, and for application and environment in which installed.
  - 1. Conduit Fittings for Hazardous (Classified) Locations: Comply with UL 886.
  - 2. Fittings for EMT: Steel or die-cast, compression type.

## 2.2 NONMETALLIC CONDUIT AND TUBING

- A. ENT: NEMA TC 13.
- B. RNC: NEMA TC 2, Type EPC-40-PVC, unless otherwise indicated.
- C. LFNC: UL 1660.
- D. Fittings for ENT and RNC: NEMA TC 3; match to conduit or tubing type and material.
- E. Fittings for LFNC: UL 514B.

## 2.3 METAL WIREWAYS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Cooper B-Line, Inc.
  - 2. Hoffman.
  - 3. Square D; Schneider Electric.
- C. Description: Sheet metal sized and shaped as indicated, NEMA 250, Type 1, unless otherwise indicated.
- D. Fittings and Accessories: Include couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.
- E. Wireway Covers: Hinged type.
- F. Finish: Manufacturer's standard enamel finish.

## 2.4 NONMETALLIC WIREWAYS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Hoffman.
  - 2. Lamson & Sessions; Carlon Electrical Products.
- C. Description: PVC plastic, extruded and fabricated to size and shape indicated, with snap-on cover and mechanically coupled connections with plastic fasteners.

- D. Fittings and Accessories: Include couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.

## 2.5 BOXES, ENCLOSURES, AND CABINETS

- A. Sheet Metal Outlet and Device Boxes: NEMA OS 1.
- B. Cast-Metal Outlet and Device Boxes: NEMA FB 1, ferrous alloy, Type FD, with gasketed cover.
- C. Nonmetallic Outlet and Device Boxes: NEMA OS 2.
- D. Nonmetallic Floor Boxes: Nonadjustable, round.
- E. Small Sheet Metal Pull and Junction Boxes: NEMA OS 1.
- F. Cast-Metal Access, Pull, and Junction Boxes: NEMA FB 1, galvanized, cast iron with gasketed cover.
- G. Hinged-Cover Enclosures: NEMA 250, Type 1, with continuous-hinge cover with flush latch, unless otherwise indicated.
  - 1. Metal Enclosures: Steel, finished inside and out with manufacturer's standard enamel.
- H. Cabinets:
  - 1. NEMA 250, Type 1, galvanized-steel box with removable interior panel and removable front, finished inside and out with manufacturer's standard enamel.
  - 2. Hinged door in front cover with flush latch and concealed hinge.
  - 3. Key latch to match panelboards.
  - 4. Metal barriers to separate wiring of different systems and voltage.
  - 5. Accessory feet where required for freestanding equipment.

## PART 3 - EXECUTION

### 3.1 RACEWAY APPLICATION

- A. Outdoors: Apply raceway products as specified below, unless otherwise indicated:
  - 1. Exposed Conduit: Rigid steel conduit.
  - 2. Concealed Conduit, Aboveground: Rigid steel conduit or EMT.
  - 3. Underground Conduit: RNC, Type EPC- 80-PVC, direct buried.
  - 4. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): LFMC.
  - 5. Boxes and Enclosures, Aboveground: NEMA 250, Type 3R.
- B. Comply with the following indoor applications, unless otherwise indicated:
  - a. Exposed: Rigid steel conduit or IMC.

2. Concealed in Ceilings and Interior Walls and Partitions: EMT, or Rigid steel conduit
  3. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): FMC, except use LFMC in damp or wet locations.
  4. Damp or Wet Locations: Rigid steel conduit.
  5. Boxes and Enclosures: NEMA 250, Type 1, except use NEMA 250, Type 4, nonmetallic in damp or wet locations.
- C. Minimum Raceway Size: 3/4-inch (21-mm) trade size.
- D. Raceway Fittings: Compatible with raceways and suitable for use and location.
1. Rigid and Intermediate Steel Conduit: Use threaded rigid steel conduit fittings, unless otherwise indicated.

### 3.2 INSTALLATION

- A. Comply with NECA 1 for installation requirements applicable to products specified in Part 2 except where requirements on Drawings or in this Article are stricter.
- B. Keep raceways at least 6 inches (150 mm) away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.
- C. Complete raceway installation before starting conductor installation.
- D. Support raceways as specified in Division 26 Section "Hangers and Supports for Electrical Systems."
- E. Arrange stub-ups so curved portions of bends are not visible above the finished slab.
- F. Install no more than the equivalent of three 90-degree bends in any conduit run except for communications conduits, for which fewer bends are allowed.
- G. Conceal conduit and EMT within finished walls, ceilings, and floors, unless otherwise indicated.
- H. Raceway Terminations at Locations Subject to Moisture or Vibration: Use insulating bushings to protect conductors, including conductors smaller than No. 4 AWG.
- I. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb (90-kg) tensile strength. Leave at least 12 inches (300 mm) of slack at each end of pull wire.
- J. Install raceway sealing fittings at suitable, approved, and accessible locations and fill them with listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings at the following points:
  1. Where conduits pass from warm to cold locations, such as boundaries of refrigerated spaces.
  2. Where otherwise required by NFPA 70.

- K. Expansion-Joint Fittings for RNC: Install in each run of aboveground conduit that is located where environmental temperature change may exceed 30 deg F (17 deg C), and that has straight-run length that exceeds 25 feet (7.6 m).
1. Install expansion-joint fittings for each of the following locations, and provide type and quantity of fittings that accommodate temperature change listed for location:
    - a. Outdoor Locations Not Exposed to Direct Sunlight: 125 deg F (70 deg C) temperature change.
    - b. Outdoor Locations Exposed to Direct Sunlight: 155 deg F (86 deg C) temperature change.
    - c. Indoor Spaces: Connected with the Outdoors without Physical Separation: 125 deg F (70 deg C) temperature change.
    - d. Attics: 135 deg F (75 deg C) Insert temperature temperature change.
  2. Install fitting(s) that provide expansion and contraction for at least 0.00041 inch per foot of length of straight run per deg F (0.06 mm per meter of length of straight run per deg C) of temperature change.
  3. Install each expansion-joint fitting with position, mounting, and piston setting selected according to manufacturer's written instructions for conditions at specific location at the time of installation.
- L. Recessed Boxes in Masonry Walls: Saw-cut opening for box in center of cell of masonry block, and install box flush with surface of wall.
- M. Set metal floor boxes level and flush with finished floor surface.
- N. Set nonmetallic floor boxes level. Trim after installation to fit flush with finished floor surface.

### 3.3 INSTALLATION OF UNDERGROUND CONDUIT

- A. Direct-Buried Conduit:
1. Excavate trench bottom to provide firm and uniform support for conduit.
  2. Install backfill as specified in Division 31 Section "Trenching."
  3. After installing conduit, backfill and compact. Start at tie-in point, and work toward end of conduit run, leaving conduit at end of run free to move with expansion and contraction as temperature changes during this process. Firmly hand tamp backfill around conduit to provide maximum supporting strength. After placing controlled backfill to within 12 inches (300 mm) of finished grade, make final conduit connection at end of run and complete backfilling with normal compaction as specified on the drawings.
  4. Install manufactured rigid steel conduit elbows for stub-ups at poles and equipment and at building entrances through the floor.
    - a. Couple steel conduits to ducts with adapters designed for this purpose, and encase coupling with 3 inches (75 mm) of concrete.
    - b. For stub-ups at equipment mounted on outdoor concrete bases, extend steel conduit horizontally a minimum of 60 inches (1500 mm) from edge of equipment pad or foundation. Install insulated grounding bushings on terminations at equipment.

### 3.4 FIRESTOPPING

- A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly. Firestopping materials and installation requirements are specified in Division 07 Section "Penetration Firestopping."

END OF SECTION 260533

## SECTION 260553 - IDENTIFICATION FOR ELECTRICAL SYSTEMS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Identification for raceways.
  - 2. Identification of power and control cables.
  - 3. Identification for conductors.
  - 4. Underground-line warning tape.
  - 5. Warning labels and signs.
  - 6. Instruction signs.
  - 7. Equipment identification labels.
  - 8. Miscellaneous identification products.

#### 1.2 SUBMITTALS

- A. Product Data: For each electrical identification product indicated.

#### 1.3 QUALITY ASSURANCE

- A. Comply with ANSI A13.1.
- B. Comply with NFPA 70.
- C. Comply with 29 CFR 1910.144 and 29 CFR 1910.145.
- D. Comply with ANSI Z535.4 for safety signs and labels.
- E. Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, shall comply with UL 969.

### PART 2 - PRODUCTS

#### 2.1 POWER AND CONTROL CABLE IDENTIFICATION MATERIALS

- A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway and cable size.
- B. Self-Adhesive Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.

1. Marker for Tags: Machine-printed, permanent, waterproof, black ink marker recommended by printer manufacturer.
- C. Snap-Around Labels: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.
- D. Snap-Around, Color-Coding Bands: Slit, pretensioned, flexible, solid-colored acrylic sleeve, 2 inches (50 mm) long, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.

## 2.2 CONDUCTOR IDENTIFICATION MATERIALS

- A. Color-Coding Conductor Tape: Colored, self-adhesive vinyl tape not less than 3 mils (0.08 mm) thick by 1 to 2 inches (25 to 50 mm) wide.
- B. Self-Adhesive Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.
- C. Marker Tapes: Vinyl or vinyl-cloth, self-adhesive wraparound type, with circuit identification legend machine printed by thermal transfer or equivalent process.

## 2.3 UNDERGROUND-LINE WARNING TAPE

- A. Tape:
  1. Recommended by manufacturer for the method of installation and suitable to identify and locate underground electrical and communications utility lines.
  2. Printing on tape shall be permanent and shall not be damaged by burial operations.
  3. Tape material and ink shall be chemically inert, and not subject to degrading when exposed to acids, alkalis, and other destructive substances commonly found in soils.
- B. Color and Printing:
  1. Comply with ANSI Z535.1 through ANSI Z535.5.
  2. Inscriptions for Red-Colored Tapes: ELECTRIC LINE, HIGH VOLTAGE,.

## 2.4 WARNING LABELS AND SIGNS

- A. Comply with NFPA 70 and 29 CFR 1910.145.
- B. Self-Adhesive Warning Labels: Factory-printed, multicolor, pressure-sensitive adhesive labels, configured for display on front cover, door, or other access to equipment unless otherwise indicated.
- C. Baked-Enamel Warning Signs:

1. Preprinted aluminum signs, punched or drilled for fasteners, with colors, legend, and size required for application.
2. 1/4-inch(6.4-mm) grommets in corners for mounting.
3. Nominal size, 7 by 10 inches(180 by 250 mm).
4. Workspace Clearance Warning: "WARNING - OSHA REGULATION - AREA IN FRONT OF ELECTRICAL EQUIPMENT MUST BE KEPT CLEAR FOR 36 INCHES(915 MM)."

## 2.5 INSTRUCTION SIGNS

- A. Engraved, laminated acrylic or melamine plastic, minimum 1/16 inch(1.6 mm) thick for signs up to 20 sq. inches(129 sq. cm) and 1/8 inch(3.2 mm) thick for larger sizes.
  1. Engraved legend with black letters on white face.
  2. Punched or drilled for mechanical fasteners.
  3. Framed with mitered acrylic molding and arranged for attachment at applicable equipment.
- B. Minimum letter height shall be 3/8 inch(10 mm).
- C. Adhesive Film Label with Clear Protective Overlay: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch(10 mm). Overlay shall provide a weatherproof and UV-resistant seal for label.

## 2.6 EQUIPMENT IDENTIFICATION LABELS

- A. Self-Adhesive, Engraved, Laminated Acrylic or Melamine Label: Adhesive backed, with white letters on a black background. Minimum letter height shall be 3/8 inch(10 mm).

## 2.7 MISCELLANEOUS IDENTIFICATION PRODUCTS

- A. Paint: Comply with requirements in Division 09 painting Sections for paint materials and application requirements. Select paint system applicable for surface material and location (exterior or interior).
- B. Fasteners for Labels and Signs: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

# PART 3 - EXECUTION

## 3.1 INSTALLATION

- A. Location: Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment.
- B. Apply identification devices to surfaces that require finish after completing finish work.

- C. Self-Adhesive Identification Products: Clean surfaces before application, using materials and methods recommended by manufacturer of identification device.
- D. Attach signs and plastic labels that are not self-adhesive type with mechanical fasteners appropriate to the location and substrate.
- E. System Identification Color-Coding Bands for Raceways and Cables: Each color-coding band shall completely encircle cable or conduit. Place adjacent bands of two-color markings in contact, side by side. Locate bands at changes in direction, at penetrations of walls and floors, at 50-foot(15-m) maximum intervals in straight runs, and at 25-foot(7.6-m) maximum intervals in congested areas.
- F. Underground-Line Warning Tape: During backfilling of trenches install continuous underground-line warning tape directly above line at 8 to 12 inches(150 to 200 mm) below finished grade. Use multiple tapes where width of multiple lines installed in a common trench exceeds 16 inches(400 mm) overall.
- G. Painted Identification: Comply with requirements in Division 09 painting Sections for surface preparation and paint application.

### 3.2 IDENTIFICATION SCHEDULE

- A. Power-Circuit Conductor Identification, 600 V or Less: For conductors in vaults, pull and junction boxes, manholes, and handholes, use color-coding conductor tape to identify the phase.
  - 1. Color-Coding for Phase Identification, 600 V or Less: Use colors listed below for ungrounded service feeder and branch-circuit conductors.
    - a. Color shall be factory applied or field applied for sizes larger than No. 8 AWG, if authorities having jurisdiction permit.
    - b. Colors for 208/120-V Circuits:
      - 1) Phase A: red
      - 2) Phase B: blue
      - 3) Phase C: Black
    - c. Colors for 480/277-V Circuits:
      - 1) Phase A: Brown.
      - 2) Phase B: Orange.
      - 3) Phase C: Yellow.
    - d. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of **6 inches(150 mm)** from terminal points and in boxes where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding. Locate bands to avoid obscuring factory cable markings.
- B. Install instructional sign including the color-code for grounded and ungrounded conductors using adhesive-film-type labels.

- C. Conductors to Be Extended in the Future: Attach write-on tags to conductors and list source.
- D. Auxiliary Electrical Systems Conductor Identification: Identify field-installed alarm, control, and signal connections.
  - 1. Identify conductors, cables, and terminals in enclosures and at junctions, terminals, and pull points. Identify by system and circuit designation.
  - 2. Use system of marker tape designations that is uniform and consistent with system used by manufacturer for factory-installed connections.
  - 3. Coordinate identification with Project Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual.
- E. Locations of Underground Lines: Identify with underground-line warning tape for power, lighting, communication, and control wiring and optical fiber cable.
  - 1. Limit use of underground-line warning tape to direct-buried cables.
  - 2. Install underground-line warning tape for both direct-buried cables and cables in raceway.
- F. Workspace Indication: Install floor marking tape to show working clearances in the direction of access to live parts. Workspace shall be as required by NFPA 70 and 29 CFR 1926.403 unless otherwise indicated. Do not install at flush-mounted panelboards and similar equipment in finished spaces.
- G. Warning Labels for Indoor Cabinets, Boxes, and Enclosures for Power and Lighting: Self-adhesive warning labels.
  - 1. Comply with 29 CFR 1910.145.
  - 2. Identify system voltage with black letters on an orange background.
  - 3. Apply to exterior of door, cover, or other access.
  - 4. For equipment with multiple power or control sources, apply to door or cover of equipment including, but not limited to, the following:
    - a. Power transfer switches.
    - b. Controls with external control power connections.
- H. Operating Instruction Signs: Install instruction signs to facilitate proper operation and maintenance of electrical systems and items to which they connect. Install instruction signs with approved legend where instructions are needed for system or equipment operation.
- I. Equipment Identification Labels: On each unit of equipment, install unique designation label that is consistent with wiring diagrams, schedules, and the Operation and Maintenance Manual. Apply labels to disconnect switches and protection equipment, central or master units, control panels, control stations, terminal cabinets, and racks of each system. Systems include power, lighting, control, communication, signal, monitoring, and alarm systems unless equipment is provided with its own identification.
  - 1. Labeling Instructions:
    - a. Indoor Equipment: Engraved, laminated acrylic or melamine label. Unless otherwise indicated, provide a single line of text with 1/2-inch-(13-mm-) high

letters on 1-1/2-inch-(38-mm-) high label; where two lines of text are required, use labels 2 inches(50 mm) high.

- b. Outdoor Equipment: Engraved, laminated acrylic or melamine label.
- c. Elevated Components: Increase sizes of labels and letters to those appropriate for viewing from the floor.
- d. Unless provided with self-adhesive means of attachment, fasten labels with appropriate mechanical fasteners that do not change the NEMA or NRTL rating of the enclosure.

END OF SECTION 260553

## SECTION 265100 - INTERIOR LIGHTING

### 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 the following:
  - 1. Interior lighting fixtures with lamps and ballasts.
  - 2. Emergency lighting units.
- B. Related Sections include the following:
  - 1. Division 26 Section "Lighting Controls" for manual or programmable control systems employing low-voltage control wiring or data communication circuits.

#### 1.3 DEFINITIONS

- A. BF: Ballast factor. Ratio of light output of a given lamp(s) operated by the subject ballast to the light output of the same lamp(s) when operated on an ANSI reference circuit.
- B. CRI: Color rendering index.
- C. CU: Coefficient of utilization.
- D. LER: Luminaire efficiency rating, which is calculated according to NEMA LE 5. This value can be estimated from photometric data using the following formula:
  - 1. LER is equal to the product of total rated lamp lumens times BF times luminaire efficiency, divided by input watts.
- E. RCR: Room cavity ratio.

#### 1.4 SUBMITTALS

- A. Product Data: For each type of lighting fixture scheduled, arranged in order of fixture designation. Include data on features, accessories, finishes, and the following:
  - 1. Physical description of fixture, including dimensions and verification of indicated parameters.
  - 2. Emergency lighting unit battery and charger.
  - 3. Fluorescent and high-intensity-discharge ballasts.
  - 4. Lamps.
- B. Shop Drawings: Show details of nonstandard or custom fixtures. Indicate dimensions, weights, methods of field assembly, components, features, and accessories.
- C. Wiring Diagrams: Power, signal, and control wiring.
- D. Operation and Maintenance Data: For lighting equipment and fixtures to include in emergency, operation, and maintenance manuals. In addition to items specified in Division 1 Section "Closeout Procedures," include the following:
  - 1. Catalog data for each fixture. Include the diffuser, ballast, and lamps installed in that fixture.

- E. Warranties: Special warranties specified in this Section.
- F. Spare Parts: include spare parts materials and quantity.

#### 1.5 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
  - 1. Test products to UL standards by nationally recognized testing laboratory, where an appropriate standard exists.
- B. Comply with NFPA 70.
- C. NFPA 101 Compliance: Comply with visibility and luminance requirements for exit signs.

#### 1.6 COORDINATION

- A. Coordinate layout and installation of lighting fixtures and suspension system with other construction that penetrates ceilings or is supported by them, including HVAC equipment, fire-suppression system, and partition assemblies.

#### 1.7 WARRANTY

- A. Special Warranty for Emergency Lighting Unit Batteries: Manufacturer's standard form in which manufacturer of battery-powered emergency lighting unit agrees to repair or replace components of rechargeable batteries that fail in materials or workmanship within specified warranty period.
  - 1. Warranty Period: 10 years from date of Substantial Completion. Full warranty shall apply for first year, and prorated warranty for the remaining nine years.
- B. Special Warranty for Fluorescent Ballasts: Manufacturer's standard form in which ballast manufacturer agrees to repair or replace ballasts that fail in materials or workmanship within specified warranty period.
  - 1. Warranty Period for Electronic Ballasts: Five years from date of Substantial Completion.
  - 2. Warranty Period for Electromagnetic Ballasts: Three years from date of Substantial Completion.

#### 1.8 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Lamps: 10 for every 100 of each type and rating installed. Furnish at least one of each type.
  - 2. Plastic Diffusers and Lenses: 1 for every 100 of each type and rating installed. Furnish at least one of each type.
  - 3. Ballasts: 1 for every 100 of each type and rating installed. Furnish at least one of each type.
  - 4. Globes and Guards: 1 for every 20 of each type and rating installed. Furnish at least one of each type.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
  - 1. Products: Subject to compliance with requirements, provide one of the products specified.

## 2.2 FIXTURES AND COMPONENTS, GENERAL

- A. Recessed Fixtures: Comply with NEMA LE 4 for ceiling compatibility for recessed fixtures.
  - 1. Equip recessed fixtures with six foot flexible conduit whips for connection to external j-boxes, except that junction boxes may integral for prewired framing kits for incandescent and PL fluorescent downlights.
- B. Incandescent Fixtures: Comply with UL 1598. Where LER is specified, test according to NEMA LE 5A.
- C. Fluorescent Fixtures: Comply with UL 1598. Where LER is specified, test according to NEMA LE 5 and NEMA LE 5A as applicable.
- D. HID Fixtures: Comply with UL 1598. Where LER is specified, test according to NEMA LE 5B.
- E. Metal Parts: Free of burrs and sharp corners and edges.
- F. Sheet Metal Components: Steel, unless otherwise indicated. Form and support to prevent warping and sagging.
- G. Doors, Frames, and Other Internal Access: Smooth operating, free of light leakage under operating conditions, and designed to permit relamping without use of tools. Designed to prevent doors, frames, lenses, diffusers, and other components from falling accidentally during relamping and when secured in operating position.
- H. Reflecting surfaces shall have minimum reflectance as follows, unless otherwise indicated:
  - 1. White Surfaces: 92 percent.
  - 2. Specular Surfaces: 83 percent.
  - 3. Diffusing Specular Surfaces: 75 percent.
  - 4. Laminated Silver Metallized Film: 90 percent.
- I. Plastic Diffusers, Covers, and Globes:
  - 1. DR Acrylic Lighting Diffusers: 100 percent virgin acrylic plastic. High resistance to yellowing and other changes due to aging, exposure to heat, and UV radiation and impact.
    - a. Lens Thickness: At least 0.125 inch (3.175 mm) minimum unless different thickness is scheduled.
    - b. UV stabilized.
  - 2. Glass: Annealed crystal glass, unless otherwise indicated.

## 2.3 LIGHTING FIXTURES

- A. Fixtures: Refer to Lighting Fixture Schedule on the drawings.

## 2.4 FLUORESCENT LAMP BALLASTS

- A. Description: Include the following features, unless otherwise indicated:
  - 1. Designed for type and quantity of lamps indicated using ballast factors as scheduled except for emergency lamps powered by in-fixture battery-packs.

- a. Linear Electronic Ballasts: full light output is defined as 1 BF.
  - 2. Interference: Comply with 47 CFR, Chapter 1, Part 18, Subpart C, for limitations on electromagnetic and radio-frequency interference for nonconsumer equipment.
- B. Electronic ballasts (nondimming) for linear lamps shall include the following features, unless otherwise indicated:
- 1. Comply with NEMA C82.11.
  - 2. Ballast Type: Programmed start with two-step lamp starting to extend life of frequently started lamps; if not available from any manufacturer, provide rapid start.
  - 3. Sound Rating: A.
  - 4. Total harmonic distortion rating of less than 20 percent according to NEMA C82.11.
  - 5. Transient Voltage Protection: IEEE C62.41, Category A.
  - 6. Operating Frequency: 20 kHz or higher.
  - 7. Lamp Current Crest Factor: Less than 1.7.
  - 8. Parallel Lamp Circuits: Multiple lamp ballasts connected to maintain full light output on surviving lamps if one or more lamps fail.

## 2.5 EMERGENCY LIGHTING UNITS

- A. General: Self-contained units complying with UL 924.
- 1. Transfer Device: Individual unit per luminaire, upon loss of normal power, shall reconnect ballast to emergency generator feed. Field installed by contractor. Run normal and emergency circuit to all such fixtures.

## 2.6 FLUORESCENT LAMPS

- A. Low-Mercury Lamps: Comply with Federal toxic characteristic leaching procedure (TCLP) test, and yield less than 0.2 mg of mercury per liter, when tested according to NEMA LL 1.
- B. Premium T8 low wattage or high lumen and T5HO rapid-start low-mercury lamps, CRI of 82 (minimum), color temperature of as indicated, average rated life of 30,000 hours, unless otherwise indicated.

## 2.7 FIXTURE SUPPORT COMPONENTS

- A. Comply with Division 26 Section "Basic Electrical Materials and Methods" for channel- and angle-iron supports and nonmetallic channel and angle supports.
- B. Twin-Stem Hangers: Two, 1/2-inch (13-mm) steel tubes with single canopy designed to mount a single fixture. Finish same as fixture.
- C. Wires: ASTM A 641/A 641M, Class 3, soft temper, zinc-coated, 12 gage (2.68 mm).
- D. Aircraft Cable Support: Use cable, anchorages, and intermediate supports recommended by fixture manufacturer.

## 2.8 FINISHES

- A. Fixtures: Manufacturers' standard, unless otherwise indicated.
- 1. Paint Finish: Applied over corrosion-resistant treatment or primer, free of defects.
  - 2. Metallic Finish: Corrosion resistant.

## 2.9 SOURCE QUALITY CONTROL

- A. Provide services of a qualified, independent testing and inspecting agency to factory test fixtures with ballasts and lamps; certify results for electrical ratings and photometric data.
- B. Factory test fixtures with ballasts and lamps; certify results for electrical ratings and photometric data.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Fixtures: Set level, plumb, and square with ceilings and walls. Adjust trims for recessed fixtures to eliminate light leaks. Install lamps in each fixture.
  - 1. Install fixtures with the separation from combustible material as required by lighting fixture rating, per manufacturer's written instructions; in no case, install recessed fixture within  $\frac{1}{2}$ " of combustible material.
- B. Support for Fixtures in or on Grid-Type Suspended Ceilings: Use grid for support.
  - 1. Install a minimum of four ceiling support system rods or wires for each fixture. Locate not more than 6 inches (150 mm) from fixture corners.
  - 2. Support Clips: Fasten to fixtures and to ceiling grid members at or near each fixture corner with clips that are UL listed for the application.
  - 3. Fixtures of Sizes Less Than Ceiling Grid: Install as indicated on reflected ceiling plans or center in acoustical panel or at the intersection of four tiles, and support fixtures independently with at least two  $\frac{3}{4}$ -inch (20-mm) metal channels spanning and secured to ceiling tees.
  - 4. Install at least one independent support rod or wire from structure to a tab on lighting fixture. Wire or rod shall have breaking strength of the weight of fixture at a safety factor of 3.
- C. Suspended Fixture Support: As follows:
  - 1. Pendants and Rods: Where longer than 48 inches (1200 mm), brace to limit swinging, provide safety cables where indicated, use  $\frac{3}{16}$ " aircraft cable
  - 2. Stem-Mounted, Single-Unit Fixtures: Suspend with twin-stem hangers.
  - 3. Industrial Fixtures, Continuous Rows: Use chain.
  - 4. Extruded fixtures, Continuous Rows: Suspend from cable.
- D. Adjust aimable fixtures to provide required light intensities.

### 3.2 CONNECTIONS

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

### 3.3 FIELD QUALITY CONTROL

- A. Inspect each installed fixture for damage. Replace damaged fixtures and components.
  - 1. Clean transparent materials. Replace chipped or broken lenses and other damaged transparent materials.
  - 2. Restore reflective surfaces to their reflective conditions.
  - 3. Clean light fixtures and lamps.
- B. Verify normal operation of each fixture after installation.

- C. Test for Emergency Lighting: Interrupt power supply to demonstrate proper operation. Verify normal transfer to battery power source and retransfer to normal.
- D. Prepare a written report of tests, inspections, observations, and verifications indicating and interpreting results. If adjustments are made to lighting system, retest to demonstrate compliance with standards.
- E. Corroded Fixtures: During warranty period, replace fixtures that show any signs of corrosion.

END OF SECTION 265100

## #116 Agriculture

<b>EXISTING</b>	<b>ECM</b>	<b>REPLACE</b>	<b>COUNT</b>
CT 8' U/D	ECM 1-4	4 Lamp Linear Fluorescent	4
CT 4"X4"	ECM 1-2	2 lamp Linear Fluorescent	148
18 CELL P3	ECM 1-3	3 Lamp Linear Fluorescent	32
GS 2X4 2L	GS-3	GS-3 2 lamp Linear Fluorescent	17
GS 2X4 3L	GS-4	GS-4 3 lamp Linear Fluorescent	35
LB 250w	HA-4	HF-4 4 T5HO Fluorescent Highbay	19
4' SS	ECM 1-2	2 lamp Linear Fluorescent	57
2' SS	ECM 1-2A	2 Lamp Linear Fluorescent	6
HB-400	HA-6	HF-6 6 T5HO High Bay	70
WB	ECM 1-1	1 Lamp Linear Fluorescent	9
INC. CYL.	ECM-2-1	29 W CFL SCREW IN ADAPTER	1
24 CELL P3	ECM 1-4	4 Lamp Linear Fluorescent	28
21 CELL P3	ECM 1-3	3 Lamp Linear Fluorescent	4

# LIGHTING FIXTURE SCHEDULE

116

NOTE TO BIDDERS: COMPLY WITH ALL SECTIONS OF THE SPECIFICATIONS.

REFER TO SPECIFICATIONS FOR IMPORTANT TECHNICAL REQUIREMENTS FOR LIGHTING FIXTURES, BALLASTS, AND LAMPS. THE CATALOG NUMBER BELOW HAVE BEEN CAREFULLY PREPARED TO ASSIST BIDDERS IN SELECTING PRODUCTS TO ACHIEVE THE DESIGN CONCEPT, HOWEVER, PRIOR TO EACH MANUFACTURER SHALL COMPARE THE CATALOG NUMBERS SHOWN WITH THE DESCRIPTION AND REQUIREMENTS ON THE DRAWINGS, AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES. SPECIFICALLY INCLUDED IN THIS EVALUATION SHALL BE THE VERIFYING OF PROPER MATERIALS OR ACCESSORIES TO FACILITATE INSTALLATION AS SHOWN AT EACH LOCATION ON THE DRAWINGS. NO ALLOWANCE OR REDRESS WILL BE ALLOWED FOR DISCREPANCIES THAT WERE NOT REPORTED TO THE ARCHITECT/ENGINEER IN TIME FOR CORRECTION OR CLARIFICATION BEFORE THE BID. THE REPORTING OF ANY AMBIGUITY IS THE RESPONSIBILITY OF THE BIDDER. PROVIDE UNIT PRICES AND FIXTURE BRAND SELECTED FOR ADD/DELETE FOR EACH FIXTURE TYPES SHOWN WITHIN 48 BUSINESS HOURS OF THE BID DATE. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY DISQUALIFY PRODUCTS AND EMPOWER THE ENGINEER TO DETERMINE FAIR VALUE FOR FIXTURE AND INSTALLATION CHANGES, WITHOUT FURTHER INPUT FROM CONTRACTOR OR INSTALLER. SUBMITTAL PACKAGE SHALL INCLUDE LAMP MANUFACTURER AND CATALOG NUMBER ON EACH FIXTURE SHEET. ON PENDANT MOUNTED FIXTURES, PROVIDE A SECOND SET OF PENDANTS, OF A DIFFERENT LENGTH, AS DIRECTED BY THE ARCHITECT/ENGINEER, PROVIDED AND INSTALLED AT NO ADDITIONAL CHARGE. ALL FIXTURES SHALL BE APPROVED BY UL OR ANOTHER ACCEPTABLE TESTING LAB FOR THE PURPOSES INTENDED AND WITH THE LAMP AND BALLAST PROPOSED. CONTRACTOR ALLOWANCE PRICES ARE ACCURATE WHEN THIS JOB WAS SPECIFIED, CONTRACTOR AND ELECTRICAL DISTRIBUTOR SHALL VERIFY THIS ALLOWANCE AND REPORT ANY PROBLEMS TO THE ENGINEER BEFORE THE BID. ALLOWANCE PRICE MAY OR MAY NOT INCLUDE LAMP(S) OR FREIGHT AS NOTED, AND DO NOT INCLUDE ANY TAXES. UNIVERSAL VOLTAGE (120/277) BALLASTS REQUIRED UNLESS NOTED OTHERWISE. DIMENSION SEQUENCE = (LENGTH X WIDTH X DEPTH) IN INCHES.

FIXTURE CHARACTERISTICS								
SYMBOL	MARK	LENS/LOUVER/REFLECTOR/OTHER	LAMP	WATTS	VOLTS	MANUFACTURER	CATALOG NUMBER	NOTES
ECM		ENERGY CONSERVATION MEASURE, WHERE NEW LIGHTING FIXTURE SCHEDULE IS SHOWN AS "RENOVATE" REMOVE EXISTING LIGHT, REPLACE WITH NEW UNIT. WHERE NEW BALLAST AND LAMP IS SHOWN TO BE FITTED INTO EXISTING LIGHT, REMOVE EXISTING BALLAST, LAMP AND SOCKETS, REPLACE WITH NEW, DISPOSE OF REMOVED MATERIALS						
		T8 APPROVED BALLASTS: .71BF OR LOWER UNIVERSAL VOLTAGE, PARALLEL LAMPS, PRPGRAM START				GE ADVANCE UBT Sylvania	Ultra Start Optanium Triad Quicktronic	
ECM 1-1		RENOVATE SINGLE LAMP 4 FOOT SINGLE BALLAST LUMINAIRE						
ECM 1-2		RENOVATE DUAL LAMP 4 FOOT SINGLE BALLAST LUMINAIRE						
ECM 1-2A		RENOVATE DUAL LAMP 2 FOOT SINGLE BALLAST LUMINAIRE						
ECM 1-3		RENOVATE THREE LAMP 4 FOOT SINGLE BALLAST LUMINAIRE						
ECM 1-4		RENOVATE FOUR LAMP 4 FOOT SINGLE BALLAST LUMINAIRE						
ECM 2-1		CLEAN AND RELAMP LUMINAIRE WITH 29 WATT CF ADAPTER, GE ONLY						
EXIT SIGNS		UNIVERSALS MOUNT, RECESSED CEILING AND WALL MOUNTED						
SIGNS		INSTALLER TO DETERMINE MOUNTING AND CHEVRONS FOR EACH LOCATION						
		LED EXIT SIGN				LITHONIA	LRP-W-X-GW-120/277 SERIES	
GS		TROFFERS: RECESSED FOR LAY-IN GRID; STATIC; HINGED AND LATCHED STEEL DOOR; .125 ACRYLIC PRISMATIC LENS, MINIMUM 1/8"; EARTHQUAKE CLIPS; MAX 5" DEEP; SPECIFICATION GRADE; PROGRAM START ELECTRONIC BALLASTS, T8 LAMPS; ONE BALLAST PER FIXTURE WHERE POSSIBLE, UNLESS TWO LEVEL SWITCHING IS SHOWN ON THE PLANS.						
GS-3	2X4, 2 LAMP.	2-F32T8 RE835	65W	277/120V	LITHONIA METALUX DAYBRITE LSI LIGHTOLIER COLUMBIA	2 SP8G 232 A12125 MVOLT TUBRHP (4-1/2" DEPTI 2GP-232A125-UNV-EB81-PROGRAM START (3-3/4" DEPTH) 2DPG232-FS21-UNV-1/2EB-SPEC (4-3/8" DEPTH) LA125 232 SD SSO10PS UE (4" DEPTH) XT2GVI232-UNV-SOP (3-5/8" DEPTH) ST824-232G-FSA12.125-EB8LHPRUNV (3-3/4" DEPTH)		
GS-4	2X4, 3 LAMP.	3-F32T8 RE835	95W	277/120V	LITHONIA METALUX DAYBRITE COLUMBIA LIGHTOLIER LSI	2 SP8G 332 A12125 1/3 MVOLT TUBRHP (4-1/2" DEPTH) 2GP-332A125-UNV-EB81-PROGRAM START (3-3/4" DEPTH) 2DPG332-FS21-UNV-1/3EB-SPEC (4-3/8" DEPTH) ST824-332G-FSA12.125-3EB8LHPRUNV (3-3/4" DEPTH) XT2GVI332-UNV-03P (3-5/8" DEPTH) LA125 332 SD SSO10PS UE (4" DEPTH)		
HA		HIGH BAY INDUSTRIAL FLUORESCENT FIXTURES: SURFACE OR PENDANT MOUNT ELECTRONIC BALLAST; DR ACRYLIC LENS , SECURE LATCH, CONTINOUS HINGE, WIREGUARD, MUST MAOUNT FLAT TO BOTTOM OF TRUSS						
HA-4	HEAVY DUTY SURFACE LUMINAIR4-F54T5H( 48" X 17", 4-LAMP 2 2 LAMP BALLASTS	RE841	240W	120/ 277V	LA LIGHTING DAYBRITE	HB1609-4-4M-SR-DRP8-2E5H-UNV/WG11 FGL 4 54HO UNV MC 2/2 EBH		
HA-6	HEAVY DUTY SURFACE LUMINAIR6-F54T5H( 48" X 23", 6-LAMP 2 3 LAMP BALLASTS	RE841	364W	120/ 277V	LA LIGHTING DAYBRITE	HB1609-6-4M-SR-DRP8-2E5H-UNV/WG11 FGL 4 54HO UNV MC 2/3 EBH		

UTAH STATE UNIVERSITY						
BUILDING- 116- AGRICULTURE						
			EXISTING			
LEVEL	ROOM	ROOM TYPE	FIXTURE TYPE	NUMBER OF LAMPS	QUANTITY	NOTES
FIRST	100	VESTIBULE	CT 8' U/D	8	2	
	100A	CORRIDOR	CT 8' U/D	8	2	
			18 CELL P3	3	2	
	100B	CORRIDOR	18 CELL P3	3	2	
	100C	CORRIDOR	18 CELL P3	4	15	
	100E	CORRIDOR	GS	2	5	
	100F	VESTIBULE	GS	2	1	
	101	OFFICE	24 CELL P3	3	14	
	101A	CONFERENCE	18 CELL P3	4	3	GD/WW ALSO
	101B	OFFICE	GS	2	3	
	101C	OFFICE	GS	3	3	
	101D	OFFICE	GS	3	2	
	101E	WORK RM	24 CELL P3	3	4	
	101F	LIBRARY	18 CELL P3	3	6	
	101G	CONFERENCE	18 CELL P3	3	4	NO OCCUPANCY SENSOR
	102	OFFICE	GS	3	6	A/B SWITCHED
	102A	NO KEY				
	103	OFFICE	GS	3	2	A/B SWITCHED
	104	CLASS RM	CT 4"X4"	2	23	A/B SWITCHED
	105	OFFICE	GS	3	2	A/B SWITCHED
	106	CLASS RM	CT 4"X4"	2	18	A/B SWITCHED
	107	OFFICE	GS	3	2	A/B SWITCHED
	108A	CLASS RM	CT 4"X4"	2	18	A/B SWITCHED
	108B	CLASS RM	CT 4"X4"	2	18	A/B SWITCHED
	109	OFFICE	GS	3	2	A/B SWITCHED
	110	MENS	WB	1	7	
	111	OFFICE	GS	3	2	A/B SWITCHED
	112	NO KEY				
	113	OFFICE	GS	3	3	A/B SWITCHED
	114	WOMENS	WB	2	7	
	115	CLASS RM	24 CELL P3	3	10	A/B SWITCHED
	116	STORAGE	GS	2	1	
	117	OFFICE	21 CELL P3	3	4	
	118	CLOSET?	GS	2	1	

	119	OFFICE	GS		3	3	A/B SWITCHED	
	120	OFFICE	GS		3	4	A/B SWITCHED	
	121	NO KEY						
	121A	NO KEY						
	122	GARAGE	HB		1	70	400 MH LAMPS	
			4' SS		2	14		
	122A	RESTROOM	WB		2	1		
	122B	RESTROOM	WB		2	1		
	123	BOILER	4' SS		2	6		
	125	STORAGE	4' SS		2	3		
	127		GS		2	6		
	127A	CLOSET?	INC. CYL.		1	1		
	129	CLASS RM	CT 4"X4"		2	22	1.2 BF	
	129A	CLASS RM	CT 4"X4"		2	48	1.2 BF	
	131	LAB	LB		1	10	250W LAMP	
	133	STORAGE	2' SS		2	6		
	135	CLASS RM	CT 4"X4"		2	24		
	135A	STORAGE	4' SS		2	4		
	135B	NO KEY						
	137	OFFICE	GS		3	2		
	139	OFFICE	GS		3	2	A/B SWITCHED	
	141	SHOP	4' SS		2	30		
	145	LAB	LB		1	9	250W LAMP	

## **ATTACHMENT 1: Special ARRA Requirements and Commitments**

### **TIMELINE FOR COMPLETION OF WORK**

All work must be completed and all ARRA funds must be expended by the project end date as defined by the DOE. Any funds that are not expended by this date will be revoked by the DOE and will no longer be accessible to the DFCM or the contracted entity. Currently, the project end date is scheduled as April 30, 2012. If the DOE adjusts this date, or any other rule surrounding this issue, the DFCM will notify **Contractor** immediately and the most up to date DOE rules will be complied with.

Through required reporting, the contracted entity must demonstrate that activities are being carried out and that funds are being expended in an efficient and timely manner, according to the project timetable and in anticipation of the project end date as defined by the DOE. In the event that funds are not expended in a timely manner, the DFCM reserves the right to alter or terminate the contract between the contracted entity and the DFCM, and to revoke funds from the program if deemed necessary.

### **REPORTING**

Reporting will be required with a minimum frequency of monthly, quarterly and annual reports and may be requested more frequently. Reporting requirements, metrics, and/or timetables may be altered at the request of any state or federal agency.

The following information will be required at a minimum frequency of monthly reports, and may be requested as frequently as weekly reports:

- DUNS number
- Narrative of Progress
- Total Hours worked on Project (all personnel employed on project both on and off site)
- Total federal ARRA expenditure
- Buy American Certifications
  1. Submit to DFCM project manager a Buy American assurance letter from manufacturer that meets the following criteria:
    - Identifies the product by name and model or model number, and
    - Includes a certificate of compliance stating the material or assemblies meet the “Buy American provisions of ARRA” and are signed by a manufacturer’s representative in a position to legally bind the manufacturer.
  2. Submit to DFCM project manager copies of cuts sheets and submittals identifying the product to be used on the project by name and model or model number.
  3. Photocopies, faxes, and electronically submitted PDF files are acceptable
- Davis Bacon Weekly Certifications with Statement of Compliance WH-347
- Fringe Benefit Explanation attached to first payroll submission

The following information will be required at a minimum frequency of quarterly reports, and may be requested more frequently:

- The number of total hours worked on Project
- Energy saved (kwh/therms/gallons/BTUs/etc.)
- Renewable energy installed capacity and renewable energy generated
- Greenhouse gas emissions reduced (CO2 equivalents)
- Energy cost savings

- Funds leveraged

Annual reports will likely be a summary of all information for the year as well as narrative evaluation of the program.

Additional information or metrics may be required and the required reporting metrics may be updated per the requests of the U.S. Department of Energy. Information which may be required to report upon could include (but is not limited to):

- Who is receiving Recovery Act dollars and in what amounts?
- What projects or activities are being funded with Recovery Act dollars?
- What is the completion status of such projects or activities and what impact have they had on job creation and retention?

Any updates, changes, or guidance pertaining to reporting will be communicated to the contracted entity by the DFCM and the contracted entity will be required to comply with all reporting requests.

## COMMITMENTS

At the time of the signing of this contract, the Contractor is making the following commitments to DFCM:

1. The Contractor will use ARRA SEP Formula Grant funding to create a new program or to expand an existing program, and *not to supplant or replace any other funding*.
2. Workers, laborers and mechanics on any public projects funded directly by or assisted in whole or in part by and through funding appropriated by the American Recovery and Reinvestment Act must be paid wages at rates not less than those prevailing on projects of similar character in the locality as determined by subchapter IV of Chapter 31 of title 40, United States Code (Davis-Bacon Act). Guidance on how to comply with this provision is available at <http://www.dol.gov/esa/whd/contracts/dbra.htm>.
3. The Contractor will uphold the Statements made in the Utah Governor's Assurance Letter. This letter can be viewed at <http://www.recovery.utah.gov/docs/Governor-ARRA-Certification-Sec-410.pdf>.
4. The Contractor acknowledges that, as a contractor of DFCM, a sub-recipient of the ARRA SEP Formula Grant, The Contractor will be held to all of the same terms and conditions as DFCM under the ARRA, including compliance with Buy American, Davis Bacon and SHPO compliance, and all reporting requirements that will be collected by DFCM, and will comply with all such terms and conditions as they are issued throughout the lifespan of the project or program.
5. The Contractor will comply with all of the requirements and limitations contained in the U.S. Department of Energy Funding Opportunity Number DE-FOA-0000052. (This document is on file with DFCM and is available on the DFCM web site at <http://dfcm.utah.gov/StdDocs/index.html>.)

## Attachment 2: Federal Flow Down Requirements

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## **Part 1: Subgrant Flow Down Provisions For State Governments**

### **RESOLUTION OF CONFLICTING CONDITIONS – MANDATORY FLOW DOWN REQUIRED**

Any apparent inconsistency between Federal statutes and regulations and the terms and conditions contained in this award must be referred to the DOE Award Administrator for guidance.

### **AWARD AGREEMENT TERMS AND CONDITIONS**

This award/agreement consists of the Grant and Cooperative Agreement cover page, plus the following:

a. Special terms and conditions.

b. Attachments:

Attachment No.	Title
1	Intellectual Property Provisions
2	Federal Assistance Reporting Checklist
3	Budget Pages
4	State Annual File
5	State Master File
6	Wage Determination

c. Applicable program regulations [*Specify*][*Date*]

d. DOE Assistance Regulations, 10 CFR Part 600 at <http://ecfr.gpoaccess.gov> and if the award is for research and to a university or non-profit, the Research Terms & Conditions and the DOE Agency Specific Requirements at <http://www.nsf.gov/bfa/dias/policy/rtc/index.jsp>.

e. Application/proposal as approved by DOE.

f. National Policy Assurances to Be Incorporated as Award Terms in effect on date of award at [http://management.energy.gov/business\\_doc/1374.htm](http://management.energy.gov/business_doc/1374.htm).

### **PAYMENT PROCEDURES - ADVANCES THROUGH THE AUTOMATED STANDARD APPLICATION FOR PAYMENTS (ASAP) SYSTEM**

a. Method of Payment. Payment will be made by advances through the Department of Treasury's ASAP system.

b. Requesting Advances. Requests for advances must be made through the ASAP system. You may submit requests as frequently as required to meet your needs to disburse funds for the Federal share of project costs. If feasible, you should time each request so that you receive payment on the same day that you disburse funds for direct project costs and the proportionate share of any allowable indirect costs. If same-day transfers are not feasible, advance payments must be as close as is administratively feasible to actual disbursements.

c. Adjusting payment requests for available cash. You must disburse any funds that are available from repayments to and interest earned on a revolving fund, program income, rebates, refunds, contract settlements, audit recoveries, credits, discounts, and interest earned on any of those funds before requesting additional cash payments from DOE.

d. Payments. All payments are made by electronic funds transfer to the bank account identified on the ASAP Bank Information Form that you filed with the U.S. Department of Treasury.

### **REBUDGETING AND RECOVERY OF INDIRECT COSTS - REIMBURSABLE INDIRECT COSTS AND FRINGE BENEFITS**

a. If actual allowable indirect costs are less than those budgeted and funded under the award, you may use the difference to pay additional allowable direct costs during the project period. If at the completion of the award the Government's share of total allowable costs (i.e., direct and indirect), is less than the total costs reimbursed, you must refund the difference.

b. Recipients are expected to manage their indirect costs. DOE will not amend an award solely to provide additional

funds for changes in indirect cost rates. DOE recognizes that the inability to obtain full reimbursement for indirect costs means the recipient must absorb the underrecovery. Such underrecovery may be allocated as part of the organization's required cost sharing.

#### **USE OF PROGRAM INCOME - ADDITION**

If you earn program income during the project period as a result of this award, you may add the program income to the funds committed to the award and use it to further eligible project objectives.

#### **STATEMENT OF FEDERAL STEWARDSHIP – MANDATORY FLOW DOWN REQUIRED**

DOE will exercise normal Federal stewardship in overseeing the project activities performed under this award. Stewardship activities include, but are not limited to, conducting site visits; reviewing performance and financial reports; providing technical assistance and/or temporary intervention in unusual circumstances to correct deficiencies which develop during the project; assuring compliance with terms and conditions; and reviewing technical performance after project completion to ensure that the award objectives have been accomplished.

#### **SITE VISITS – MANDATORY FLOW DOWN REQUIRED**

DOE's authorized representatives have the right to make site visits at reasonable times to review project accomplishments and management control systems and to provide technical assistance, if required. You must provide, and must require your subawardees to provide, reasonable access to facilities, office space, resources, and assistance for the safety and convenience of the government representatives in the performance of their duties. All site visits and evaluations must be performed in a manner that does not unduly interfere with or delay the work.

#### **REPORTING REQUIREMENTS -- MANDATORY FLOW DOWN REQUIRED**

a. Requirements. The reporting requirements for this award are identified on the Federal Assistance Reporting Checklist, DOE F 4600.2, attached to this award. Failure to comply with these reporting requirements is considered a material noncompliance with the terms of the award. Noncompliance may result in withholding of future payments, suspension, or termination of the current award, and withholding of future awards. A willful failure to perform, a history of failure to perform, or unsatisfactory performance of this and/or other financial assistance awards, may also result in a debarment action to preclude future awards by Federal agencies.

b. Dissemination of scientific/technical reports. Scientific/technical reports submitted under this award will be disseminated on the Internet via the DOE Information Bridge ([www.osti.gov/bridge](http://www.osti.gov/bridge)), unless the report contains patentable material, protected data, or SBIR/STTR data. Citations for journal articles produced under the award will appear on the DOE Energy Citations Database ([www.osti.gov/energycitations](http://www.osti.gov/energycitations)).

c. Restrictions. Reports submitted to the DOE Information Bridge must not contain any Protected Personal Identifiable Information (PII), limited rights data (proprietary data), classified information, information subject to export control classification, or other information not subject to release.

#### **PUBLICATIONS – MANDATORY FLOW DOWN REQUIRED**

a. You are encouraged to publish or otherwise make publicly available the results of the work conducted under the award.

b. An acknowledgment of Federal support and a disclaimer must appear in the publication of any material, whether copyrighted or not, based on or developed under this project, as follows:

Acknowledgment: "This material is based upon work supported by the Department of Energy under Award Number DE-EE0000095

Disclaimer: "This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any

warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof."

#### **FEDERAL, STATE, AND MUNICIPAL REQUIREMENTS – MANDATORY FLOW DOWN REQUIRED**

You must obtain any required permits and comply with applicable federal, state, and municipal laws, codes, and regulations for work performed under this award.

#### **INTELLECTUAL PROPERTY PROVISIONS AND CONTACT INFORMATION – MANDATORY FLOW DOWN REQUIRED**

a. The intellectual property provisions applicable to this award are provided as an attachment to this award or are referenced on the Agreement Face Page. A list of all intellectual property provisions may be found at [http://www.gc.doe.gov/financial\\_assistance\\_awards.htm](http://www.gc.doe.gov/financial_assistance_awards.htm).

b. Questions regarding intellectual property matters should be referred to the DOE Award Administrator and the Patent Counsel designated as the service provider for the DOE office that issued the award. The IP Service Providers List is found at [http://www.gc.doe.gov/documents/Intellectual\\_Property\\_\(IP\)\\_Service\\_Providers\\_for\\_Acquisition.pdf](http://www.gc.doe.gov/documents/Intellectual_Property_(IP)_Service_Providers_for_Acquisition.pdf)

#### **LOBBYING RESTRICTIONS – MANDATORY FLOW DOWN REQUIRED**

By accepting funds under this award, you agree that none of the funds obligated on the award shall be expended, directly or indirectly, to influence congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. 1913. This restriction is in addition to those prescribed elsewhere in statute and regulation.

#### **NOTICE REGARDING THE PURCHASE OF AMERICAN-MADE EQUIPMENT AND PRODUCTS -- SENSE OF CONGRESS – MANDATORY FLOW DOWN REQUIRED**

It is the sense of the Congress that, to the greatest extent practicable, all equipment and products purchased with funds made available under this award should be American-made.

#### **DECONTAMINATION AND/OR DECOMMISSIONING (D&D) COSTS – MANDATORY FLOW DOWN REQUIRED**

Notwithstanding any other provisions of this Agreement, the Government shall not be responsible for or have any obligation to the recipient for (i) Decontamination and/or Decommissioning (D&D) of any of the recipient's facilities, or (ii) any costs which may be incurred by the recipient in connection with the D&D of any of its facilities due to the performance of the work under this Agreement, whether said work was performed prior to or subsequent to the effective date of this Agreement.

#### **HISTORIC PRESERVATION -- MANDATORY FLOW DOWN REQUIRED**

Prior to the expenditure of Federal funds to alter any structure or site, the Recipient is required to comply with the requirements of Section 106 of the National Historic Preservation Act (NHPA), consistent with DOE's 2009 letter of delegation of authority regarding the NHPA. Section 106 applies to historic properties that are listed in or eligible for listing in the National Register of Historic Places. In order to fulfill the requirements of Section 106, the recipient must contact the State Historic Preservation Officer (SHPO), and, if applicable, the Tribal Historic Preservation Officer (THPO), to coordinate the Section 106 review outlined in 36 CFR Part 800. SHPO contact information is available at the following link: <http://www.ncshpo.org/find/index.htm>. THPO contact information is available at the following link: <http://www.nathpo.org/map.html> .

Section 110(k) of the NHPA applies to DOE funded activities. Recipients shall avoid taking any action that results in an adverse effect to historic properties pending compliance with Section 106.

Recipients should be aware that the DOE Contracting Officer will consider the recipient in compliance with Section 106 of the NHPA only after the Recipient has submitted adequate background documentation to the SHPO/THPO for its review, and the SHPO/THPO has provided written concurrence to the Recipient that it does not object to its Section 106 finding or determination. Recipient shall provide a copy of this concurrence to the Contracting Officer.

## **Part 2: Flow Down Terms For ARRA Awards – See Prescriptions for Applicability**

**Prescription: This clause must be included in all grants, cooperative agreements and TIAs (new or amended) when funds appropriated under the Recovery Act are obligated to the agreement.**

## **SPECIAL PROVISIONS RELATING TO WORK FUNDED UNDER AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009**

### **Preamble**

The American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, (Recovery Act) was enacted to preserve and create jobs and promote economic recovery, assist those most impacted by the recession, provide investments needed to increase economic efficiency by spurring technological advances in science and health, invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits, stabilize State and local government budgets, in order to minimize and avoid reductions in essential services and counterproductive State and local tax increases. Recipients shall use grant funds in a manner that maximizes job creation and economic benefit.

The Recipient shall comply with all terms and conditions in the Recovery Act relating generally to governance, accountability, transparency, data collection and resources as specified in Act itself and as discussed below.

Recipients should begin planning activities for their first tier subrecipients, including obtaining a DUNS number (or updating the existing DUNS record), and registering with the Central Contractor Registration (CCR).

Be advised that Recovery Act funds can be used in conjunction with other funding as necessary to complete projects, but tracking and reporting must be separate to meet the reporting requirements of the Recovery Act and related guidance. For projects funded by sources other than the Recovery Act, Contractors must keep separate records for Recovery Act funds and to ensure those records comply with the requirements of the Act.

The Government has not fully developed the implementing instructions of the Recovery Act, particularly concerning specific procedural requirements for the new reporting requirements. The Recipient will be provided these details as they become available. The Recipient must comply with all requirements of the Act. If the recipient believes there is any inconsistency between ARRA requirements and current award terms and conditions, the issues will be referred to the Contracting Officer for reconciliation.

### **Definitions**

For purposes of this clause, Covered Funds means funds expended or obligated from appropriations under the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5. Covered Funds will have special accounting codes and will be identified as Recovery Act funds in the grant, cooperative agreement or TIA and/or modification using Recovery Act funds. Covered Funds must be reimbursed by September 30, 2015.

Non-Federal employer means any employer with respect to covered funds – the contractor, subcontractor, grantee, or recipient, as the case may be, if the contractor, subcontractor, grantee, or recipient is an employer; and any professional membership organization, certification of other professional body, any agent or licensee of the Federal government, or any person acting directly or indirectly in the interest of an employer receiving covered funds; or

with respect to covered funds received by a State or local government, the State or local government receiving the funds and any contractor or subcontractor receiving the funds and any contractor or subcontractor of the State or local government; and does not mean any department, agency, or other entity of the federal government.

Recipient means any entity that receives Recovery Act funds directly from the Federal government (including Recovery Act funds received through grant, loan, or contract) other than an individual and includes a State that receives Recovery Act Funds.

### Special Provisions

#### A. Flow Down Requirement

Recipients must include these special terms and conditions in any subaward.

#### B. Segregation of Costs

Recipients must segregate the obligations and expenditures related to funding under the Recovery Act. Financial and accounting systems should be revised as necessary to segregate, track and maintain these funds apart and separate from other revenue streams. No part of the funds from the Recovery Act shall be commingled with any other funds or used for a purpose other than that of making payments for costs allowable for Recovery Act projects.

#### C. Prohibition on Use of Funds

None of the funds provided under this agreement derived from the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, may be used by any State or local government, or any private entity, for any casino or other gambling establishment, aquarium, zoo, golf course, or swimming pool.

#### D. Access to Records

With respect to each financial assistance agreement awarded utilizing at least some of the funds appropriated or otherwise made available by the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, any representative of an appropriate inspector general appointed under section 3 or 8G of the Inspector General Act of 1988 (5 U.S.C. App.) or of the Comptroller General is authorized –

- (1) to examine any records of the contractor or grantee, any of its subcontractors or subgrantees, or any State or local agency administering such contract that pertain to, and involve transactions relation to, the subcontract, subgrant, grant, or subgrant; and
- (2) to interview any officer or employee of the contractor, grantee, subgrantee, or agency regarding such transactions.

#### E. Publication

An application may contain technical data and other data, including trade secrets and/or privileged or confidential information, which the applicant does not want disclosed to the public or used by the Government for any purpose other than the application. To protect such data, the applicant should specifically identify each page including each line or paragraph thereof containing the data to be protected and mark the cover sheet of the application with the following Notice as well as referring to the Notice on each page to which the Notice applies:

##### Notice of Restriction on Disclosure and Use of Data

The data contained in pages ---- of this application have been submitted in confidence and contain trade secrets or proprietary information, and such data shall be used or disclosed only for evaluation purposes, provided that if this applicant receives an award as a result of or in connection with the submission of this application, DOE shall have the right to use or disclose the data here to the extent provided in the award. This restriction does not limit the Government's right to use or disclose data obtained without restriction from any source, including the applicant.

Information about this agreement will be published on the Internet and linked to the website [www.recovery.gov](http://www.recovery.gov), maintained by the Accountability and Transparency Board. The Board may exclude posting contractual or other information on the website on a case-by-case basis when necessary to protect national security or to protect information that is not subject to disclosure under sections 552 and 552a of title 5, United States Code.

#### F. Protecting State and Local Government and Contractor Whistleblowers.

The requirements of Section 1553 of the Act are summarized below. They include, but are not limited to:

**Prohibition on Reprisals:** An employee of any non-Federal employer receiving covered funds under the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, may not be discharged, demoted, or otherwise discriminated against as a reprisal for disclosing, including a disclosure made in the ordinary course of an employee's duties, to the Accountability and Transparency Board, an inspector general, the Comptroller General, a member of Congress, a State or Federal regulatory or law enforcement agency, a person with supervisory authority over the employee (or other person working for the employer who has the authority to investigate, discover or terminate misconduct, a court or grant jury, the head of a Federal agency, or their representatives information that the employee believes is evidence of:

- gross management of an agency contract or grant relating to covered funds;
- a gross waste of covered funds
- a substantial and specific danger to public health or safety related to the implementation or use of covered funds;
- an abuse of authority related to the implementation or use of covered funds; or
- as violation of law, rule, or regulation related to an agency contract (including the competition for or negotiation of a contract) or grant, awarded or issued relating to covered funds.

**Agency Action:** Not later than 30 days after receiving an inspector general report of an alleged reprisal, the head of the agency shall determine whether there is sufficient basis to conclude that the non-Federal employer has subjected the employee to a prohibited reprisal. The agency shall either issue an order denying relief in whole or in part or shall take one or more of the following actions:

- Order the employer to take affirmative action to abate the reprisal.
- Order the employer to reinstate the person to the position that the person held before the reprisal, together with compensation including back pay, compensatory damages, employment benefits, and other terms and conditions of employment that would apply to the person in that position if the reprisal had not been taken.
- Order the employer to pay the employee an amount equal to the aggregate amount of all costs and expenses (including attorneys' fees and expert witnesses' fees) that were reasonably incurred by the employee for or in connection with, bringing the complaint regarding the reprisal, as determined by the head of a court of competent jurisdiction.

**Nonenforceability of Certain Provisions Waiving Rights and Remedies or Requiring Arbitration:** Except as provided in a collective bargaining agreement, the rights and remedies provided to aggrieved employees by this section may not be waived by any agreement, policy, form, or condition of employment, including any predispute arbitration agreement. No predispute arbitration agreement shall be valid or enforceable if it requires arbitration of a dispute arising out of this section.

**Requirement to Post Notice of Rights and Remedies:** Any employer receiving covered funds under the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, shall post notice of the rights and remedies as required therein. (Refer to section 1553 of the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, [www.Recovery.gov](http://www.Recovery.gov), for specific requirements of this section and prescribed language for the notices.)

#### G. Request for Reimbursement (this version is included in WAP/SEP awards with states)

RESERVED

#### H. False Claims Act

Recipient and sub-recipients shall promptly refer to the DOE or other appropriate Inspector General any credible evidence that a principal, employee, agent, contractor, sub-grantee, subcontractor or other person has submitted a false claim under the False Claims Act or has committed a criminal or civil violation of laws pertaining to fraud, conflict of interest, bribery, gratuity or similar misconduct involving those funds.

I. Information in supporting of Recovery Act Reporting

Recipient may be required to submit backup documentation for expenditures of funds under the Recovery Act including such items as timecards and invoices. Recipient shall provide copies of backup documentation at the request of the Contracting Officer or designee.

J. Availability of Funds

Funds appropriated under the Recovery Act and obligated to this award are available for reimbursement of costs until September 30, 2015.

**Prescription: The following award term shall be used to implement the recipient reporting and registration requirements in the Recovery Act section 1512.**

**REPORTING AND REGISTRATION REQUIREMENTS UNDER SECTION 1512 OF THE RECOVERY ACT**

(a) This award requires the recipient to complete projects or activities which are funded under the American Recovery and Reinvestment Act of 2009 (Recovery Act) and to report on use of Recovery Act funds provided through this award. Information from these reports will be made available to the public.

(b) The reports are due no later than ten calendar days after each calendar quarter in which the recipient receives the assistance award funded in whole or in part by the Recovery Act.

(c) Recipients and their first-tier recipients must maintain current registrations in the Central Contractor Registration (<http://www.ccr.gov>) at all times during which they have active federal awards funded with Recovery Act funds. A Dun and Bradstreet Data Universal Numbering System (DUNS) Number (<http://www.dnb.com>) is one of the requirements for registration in the Central Contractor Registration.

(d) The recipient shall report the information described in section 1512(c) of the Recovery Act using the reporting instructions and data elements that will be provided online at <http://www.FederalReporting.gov> and ensure that any information that is pre-filled is corrected or updated as needed.

**Prescription: When awarding Recovery Act funds for construction, alteration, maintenance, or repair of a public building or public work and the total project value is estimated less than \$7,443,000, the agency shall use this award term.**

**REQUIRED USE OF AMERICAN IRON, STEEL, AND MANUFACTURED GOODS -- SECTION 1605 OF THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009**

(a) Definitions. As used in this award term and condition--

(1) Manufactured good means a good brought to the construction site for incorporation into the building or work that has been--

(i) Processed into a specific form and shape; or

(ii) Combined with other raw material to create a material that has different properties than the properties of the individual raw materials.

(2) Public building and public work means a public building of, and a public work of, a governmental entity (the United States; the District of Columbia; commonwealths, territories, and minor outlying islands of the United States; State and local governments; and multi-State, regional, or interstate entities which have governmental functions). These buildings and works may include, without limitation, bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, power lines, pumping stations, heavy generators, railways, airports, terminals, docks, piers, wharves, ways, lighthouses, buoys, jetties, breakwaters, levees, and canals, and the construction, alteration, maintenance, or repair of such buildings and works.

(3) Steel means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements.

(b) Domestic preference. (1) This award term and condition implements Section 1605 of the American Recovery and Reinvestment Act of 2009 (Recovery Act) (Pub. L. 111--5), by requiring that all iron, steel, and manufactured goods used in the project are produced in the United States except as provided in paragraph (b)(3) and (b)(4) of this section and condition.

(2) This requirement does not apply to the material listed by the Federal Government as follows:

---

[ Award official to list applicable excepted materials or indicate "none" ]

(3) The award official may add other iron, steel, and/or manufactured goods to the list in paragraph (b)(2) of this section and condition if the Federal Government determines that--

(i) The cost of the domestic iron, steel, and/or manufactured goods would be unreasonable. The cost of domestic iron, steel, or manufactured goods used in the project is unreasonable when the cumulative cost of such material will increase the cost of the overall project by more than 25 percent;

(ii) The iron, steel, and/or manufactured good is not produced, or manufactured in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or

(iii) The application of the restriction of section 1605 of the Recovery Act would be inconsistent with the public interest.

(c) Request for determination of inapplicability of Section 1605 of the Recovery Act . (1)(i) Any recipient request to use foreign iron, steel, and/or manufactured goods in accordance with paragraph (b)(3) of this section shall include adequate information for Federal Government evaluation of the request, including--

(A) A description of the foreign and domestic iron, steel, and/or manufactured goods;

(B) Unit of measure;

(C) Quantity;

(D) Cost;

(E) Time of delivery or availability;

(F) Location of the project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign iron, steel, and/or manufactured goods cited in accordance with paragraph (b)(3) of this section.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed cost comparison table in the format in paragraph (d) of this section.

(iii) The cost of iron, steel, and/or manufactured goods material shall include all delivery costs to the construction site and any applicable duty.

(iv) Any recipient request for a determination submitted after Recovery Act funds have been obligated for a project for construction, alteration, maintenance, or repair shall explain why the recipient could not reasonably foresee the need for such determination and could not have requested the determination before the funds were obligated. If the recipient does not submit a satisfactory explanation, the award official need not make a determination.

(2) If the Federal Government determines after funds have been obligated for a project for construction, alteration, maintenance, or repair that an exception to section 1605 of the Recovery Act applies, the award official will amend the award to allow use of the foreign iron, steel, and/or relevant manufactured goods. When the basis for the exception is nonavailability or public interest, the amended award shall reflect adjustment of the award amount, redistribution of budgeted funds, and/or other actions taken to cover costs associated with acquiring or using the foreign iron, steel, and/or relevant manufactured goods. When the basis for the exception is the unreasonable cost of the domestic iron, steel, or manufactured goods, the award official shall adjust the award amount or redistribute budgeted funds by at least the differential established in 2 CFR 176.110(a).

(3) Unless the Federal Government determines that an exception to section 1605 of the Recovery Act applies, use of foreign iron, steel, and/or manufactured goods is noncompliant with section 1605 of the American Recovery and Reinvestment Act.

(d) Data. To permit evaluation of requests under paragraph (b) of this section based on unreasonable cost, the Recipient shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Items Cost Comparison

Description      Unit of measure      Quantity      Cost  
(dollars)\*

Item 1:

Foreign steel, iron, or manufactured good      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_  
Domestic steel, iron, or manufactured good      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

Item 2:

Foreign steel, iron, or manufactured good      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_  
Domestic steel, iron, or manufactured good      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

[List name, address, telephone number, email address, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]

[Include other applicable supporting information.]

[\*Include all delivery costs to the construction site.]

**Prescription: When awarding Recovery Act funds for construction, alteration, maintenance, or repair of a public building or public work with a total project value over \$7,443,000 that involves iron, steel, and/or manufactured goods materials covered under international agreements, the agency shall use this award term.**

**REQUIRED USE OF AMERICAN IRON, STEEL, AND MANUFACTURED GOODS (COVERED UNDER INTERNATIONAL AGREEMENTS)—SECTION 1605 OF THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009**

(a) *Definitions.* As used in this award term and condition—

*Designated country* —(1) A World Trade Organization Government Procurement Agreement country (Aruba, Austria, Belgium, Bulgaria, Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, and United Kingdom);

(2) A Free Trade Agreement (FTA) country (Australia, Bahrain, Canada, Chile, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Mexico, Morocco, Nicaragua, Oman, Peru, or Singapore); or

(3) A United States-European Communities Exchange of Letters (May 15, 1995) country: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, and United Kingdom.

*Designated country iron, steel, and/or manufactured goods* —(1) Is wholly the growth, product, or manufacture of a designated country; or

(2) In the case of a manufactured good that consist in whole or in part of materials from another country, has been substantially transformed in a designated country into a new and different manufactured good distinct from the materials from which it was transformed.

*Domestic iron, steel, and/or manufactured good* —(1) Is wholly the growth, product, or manufacture of the United States; or

(2) In the case of a manufactured good that consists in whole or in part of materials from another country, has been substantially transformed in the United States into a new and different manufactured good distinct from the materials from which it was transformed. There is no requirement with regard to the origin of components or subcomponents in manufactured goods or products, as long as the manufacture of the goods occurs in the United States.

*Foreign iron, steel, and/or manufactured good* means iron, steel and/or manufactured good that is not domestic or designated country iron, steel, and/or manufactured good.

*Manufactured good* means a good brought to the construction site for incorporation into the building or work that has been—

(1) Processed into a specific form and shape; or

(2) Combined with other raw material to create a material that has different properties than the properties of the individual raw materials.

*Public building and public work* means a public building of, and a public work of, a governmental entity (the United States; the District of Columbia; commonwealths, territories, and minor outlying islands of the United States; State and local governments; and multi-State, regional, or interstate entities which have governmental functions). These buildings and works may include, without limitation, bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, power lines, pumping stations, heavy generators, railways, airports, terminals, docks, piers, wharves, ways, lighthouses, buoys, jetties, breakwaters, levees, and canals, and the construction, alteration, maintenance, or repair of such buildings and works.

*Steel* means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements.

(b) *Iron, steel, and manufactured goods.* (1) The award term and condition described in this section implements—

(i) Section 1605(a) of the American Recovery and Reinvestment Act of 2009 (Pub. L. 111–5) (Recovery Act), by requiring that all iron, steel, and manufactured goods used in the project are produced in the United States; and

(ii) Section 1605(d), which requires application of the Buy American requirement in a manner consistent with U.S. obligations under international agreements. The restrictions of section 1605 of the Recovery Act do not apply to designated country iron, steel, and/or manufactured goods. The Buy American requirement in section 1605 shall not be applied where the iron, steel or manufactured goods used in the project are from a Party to an international agreement that obligates the recipient to treat the goods and services of that Party the same as domestic goods and services. This obligation shall only apply to projects with an estimated value of \$7,443,000 or more.

(2) The recipient shall use only domestic or designated country iron, steel, and manufactured goods in performing the work funded in whole or part with this award, except as provided in paragraphs (b)(3) and (b)(4) of this section.

(3) The requirement in paragraph (b)(2) of this section does not apply to the iron, steel, and manufactured goods listed by the Federal Government as follows:

(4) The award official may add other iron, steel, and manufactured goods to the list in paragraph (b)(3) of this section if the Federal Government determines that—

(i) The cost of domestic iron, steel, and/or manufactured goods would be unreasonable. The cost of domestic iron, steel, and/or manufactured goods used in the project is unreasonable when the cumulative cost of such material will increase the overall cost of the project by more than 25 percent;

(ii) The iron, steel, and/or manufactured good is not produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality; or

(iii) The application of the restriction of section 1605 of the Recovery Act would be inconsistent with the public interest.

(c) *Request for determination of inapplicability of section 1605 of the Recovery Act or the Buy American Act.* (1)(i) Any recipient request to use foreign iron, steel, and/or manufactured goods in accordance with paragraph (b)(4) of this section shall include adequate information for Federal Government evaluation of the request, including—

(A) A description of the foreign and domestic iron, steel, and/or manufactured goods;

(B) Unit of measure;

(C) Quantity;

(D) Cost;

(E) Time of delivery or availability;

(F) Location of the project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign iron, steel, and/or manufactured goods cited in accordance with paragraph (b)(4) of this section.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed cost comparison table in the format in paragraph (d) of this section.

(iii) The cost of iron, steel, or manufactured goods shall include all delivery costs to the construction site and any applicable duty.

(iv) Any recipient request for a determination submitted after Recovery Act funds have been obligated for a project for construction, alteration, maintenance, or repair shall explain why the recipient could not reasonably foresee the need for such determination and could not have requested the determination before the funds were obligated. If the recipient does not submit a satisfactory explanation, the award official need not make a determination.

(2) If the Federal Government determines after funds have been obligated for a project for construction, alteration, maintenance, or repair that an exception to section 1605 of the Recovery Act applies, the award official will amend the award to allow use of the foreign iron, steel, and/or relevant manufactured goods. When the basis for the exception is nonavailability or public interest, the amended award shall reflect adjustment of the award amount, redistribution of budgeted funds, and/or other appropriate actions taken to cover costs associated with acquiring or using the foreign iron, steel, and/or relevant manufactured goods.. When the basis for the exception is the unreasonable cost of the domestic iron, steel, or manufactured goods, the award official shall adjust the award amount or redistribute budgeted funds, as appropriate, by at least the differential established in 2 CFR 176.110(a).

(3) Unless the Federal Government determines that an exception to section 1605 of the Recovery Act applies, use of foreign iron, steel, and/or manufactured goods other than designated country iron, steel, and/or manufactured goods is noncompliant with the applicable Act.

(d) *Data.* To permit evaluation of requests under paragraph (b) of this section based on unreasonable cost, the applicant shall include the following information and any applicable supporting data based on the survey of suppliers:

**Foreign and Domestic Items Cost Comparison**

Description	Unit of measure	Quantity	Cost (dollars)*
<i>Item 1:</i>			
Foreign steel, iron, or manufactured good	_____	_____	_____
Domestic steel, iron, or manufactured good	_____	_____	_____
<i>Item 2:</i>			
Foreign steel, iron, or manufactured good	_____	_____	_____
Domestic steel, iron, or manufactured good	_____	_____	_____

**Prescription:** When issuing announcements or requesting applications for Recovery Act programs or activities that may involve construction, alteration, maintenance, or repair the agency shall use this award term.

**WAGE RATE REQUIREMENTS UNDER SECTION 1606 OF THE RECOVERY ACT**

(a) Section 1606 of the Recovery Act requires that all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the Federal Government pursuant to the Recovery Act shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code.

Pursuant to Reorganization Plan No. 14 and the Copeland Act, 40 U.S.C. 3145, the Department of Labor has issued regulations at 29 CFR parts 1, 3, and 5 to implement the Davis-Bacon and related Acts. Regulations in 29 CFR 5.5 instruct agencies concerning application of the standard Davis-Bacon contract clauses set forth in that section. Federal agencies providing grants, cooperative agreements, and loans under the Recovery Act shall ensure that the standard Davis-Bacon contract clauses found in 29 CFR 5.5(a) are incorporated in any resultant covered contracts that are in excess of \$2,000 for construction, alteration or repair (including painting and decorating).

(b) For additional guidance on the wage rate requirements of section 1606, contact your awarding agency. Recipients of grants, cooperative agreements and loans should direct their initial inquiries concerning the application of Davis-Bacon requirements to a particular federally assisted project to the Federal agency funding the project. The Secretary of Labor retains final coverage authority under Reorganization Plan Number 14.

**Prescription:** The award term described in this section shall be used by agencies to clarify recipient responsibilities regarding tracking and documenting Recovery Act expenditures.

## **RECOVERY ACT TRANSACTIONS LISTED IN SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS AND RECIPIENT RESPONSIBILITIES FOR INFORMING**

(a) To maximize the transparency and accountability of funds authorized under the American Recovery and Reinvestment Act of 2009 (Pub. L. 111--5) (Recovery Act) as required by Congress and in accordance with 2 CFR 215.21 "Uniform Administrative Requirements for Grants and Agreements" and OMB Circular A--102 Common Rules provisions, recipients agree to maintain records that identify adequately the source and application of Recovery Act funds. OMB Circular A--102 is available at <http://www.whitehouse.gov/omb/circulars/a102/a102.html>.

(b) For recipients covered by the Single Audit Act Amendments of 1996 and OMB Circular A--133, "Audits of States, Local Governments, and Non-Profit Organizations," recipients agree to separately identify the expenditures for Federal awards under the Recovery Act on the Schedule of Expenditures of Federal Awards (SEFA) and the Data Collection Form (SF--SAC) required by OMB Circular A--133. OMB Circular A--133 is available at <http://www.whitehouse.gov/omb/circulars/a133/a133.html>. This shall be accomplished by identifying expenditures for Federal awards made under the Recovery Act separately on the SEFA, and as separate rows under Item 9 of Part III on the SF--SAC by CFDA number, and inclusion of the prefix "ARRA-" in identifying the name of the Federal program on the SEFA and as the first characters in Item 9d of Part III on the SF--SAC.

(c) Recipients agree to separately identify to each subrecipient, and document at the time of subaward and at the time of disbursement of funds, the Federal award number, CFDA number, and amount of Recovery Act funds. When a recipient awards Recovery Act funds for an existing program, the information furnished to subrecipients shall distinguish the subawards of incremental Recovery Act funds from regular subawards under the existing program.

(d) Recipients agree to require their subrecipients to include on their SEFA information to specifically identify Recovery Act funding similar to the requirements for the recipient SEFA described above. This information is needed to allow the recipient to properly monitor subrecipient expenditure of ARRA funds as well as oversight by the Federal awarding agencies, Offices of Inspector General and the Government Accountability Office.

**Prescription:** Include for ARRA awards when WAGE RATE REQUIREMENTS UNDER SECTION 1606 OF THE RECOVERY ACT article is used.

## **DAVIS BACON ACT REQUIREMENTS**

**A. Definitions.** For purposes of this term, the Contract Work Hours and Safety Standards Act term, and the Recipient Functions term, the following definitions are applicable:

(1) *Award* means the Award by the Department of Energy (DOE) to a Recipient that includes a requirement to comply with the labor standards clauses and wage rate requirements of the Davis-Bacon Act (DBA) for work performed by all laborers and mechanics employed by Subrecipients, Contractors and subcontractors on projects funded by or assisted in whole or in part by and through the Federal Government pursuant to the Recovery Act.

(2) "*Construction, alteration or repair*" means all types of work done by laborers and mechanics employed by the Subrecipient, construction contractor or construction subcontractor on a particular building or work at the site thereof, including without limitation—

(a) Altering, remodeling, installation (if appropriate) on the site of the work of items fabricated off-site;

(b) Painting and decorating; or

(c) Manufacturing or furnishing of materials, articles, supplies, or equipment on the site of the building or work.

(3) *Contract* means a written procurement contract executed by a Subrecipient for the acquisition of property and services for construction, alteration, and repair under a Subaward. For purposes of these terms, a Contract shall include subcontracts and lower-tier subcontracts under the Contract.

(4) *Contracting Officer* means the DOE official authorized to execute awards on behalf of DOE and who is responsible for the business management and non-program aspects of the financial assistance process.

(5) *Contractor* means an entity that enters into a Contract. For purposes of these terms, Contractor shall include subcontractors and lower-tier subcontractors.

(6) *Recipient* means any entity other than an individual that receives Recovery Act funds in the form of a grant directly from the Federal Government. The term includes the State that receives an Award from DOE and is financially accountable for the use of any DOE funds or property, and is legally responsible for carrying out the terms and conditions of the program and Award.

(7) “*Site of the work*”—

(a) Means—

(i) The physical place or places where the construction called for in the Award, Subaward, or Contract will remain when work on it is completed; and

(ii) Any other site where a significant portion of the building or work is constructed, provided that such site is established specifically for the performance of the project;

(b) Except as provided in paragraph (c) of this definition, the site of the work includes any fabrication plants, mobile factories, batch plants, borrow pits, job headquarters, tool yards, etc., provided—

(1) They are dedicated exclusively, or nearly so, to performance of the project; and

(2) They are adjacent or virtually adjacent to the site of the work as defined in paragraphs (7)(a)(i) or (7)(a)(ii) of this definition; and

(c) Does not include permanent home offices, branch plant establishments, fabrication plants, or tool yards of a Contractor or subcontractor whose locations and continuance in operation are determined wholly without regard to a particular contract or Federal Award or project. In addition, fabrication plants, batch plants, borrow pits, job headquarters, yards, etc., of a commercial or material supplier which are established by a supplier of materials for the project before opening of bids and not on the project site as defined in paragraphs (7)(a)(i) or (7)(a)(ii) of this definition, are not included in the “site of the work.” Such permanent, previously established facilities are not a part of the “site of the work” even if the operations for a period of time may be dedicated exclusively or nearly so, to the performance of an Award, Subaward, or Contract.

(8) *Subaward* means an award of financial assistance in the form of money, or property in lieu of money, made under an award by a Recipient to an eligible Subrecipient or by a Subrecipient to a lower-tier subrecipient. The term includes financial assistance when provided by any legal agreement, even if the agreement is called a contract, but does not include the Recipient’s procurement of goods and services to carry out the program nor does it include any form of assistance which is excluded from the definition of “Award” above.

(9) *Subrecipient* means a non-Federal entity that expends Federal awards received from a pass-through entity [Recipient] to carry out a Federal program, but does not include an individual that is a beneficiary of such a program. The term includes a Community Action Agency (CAA), local agency, or other entity to which a Subaward under the Award is made by a Recipient that includes a requirement to comply with the labor

standards clauses and wage rate requirements of the DBA work performed by all laborers and mechanics employed by contractors and subcontractors on projects funded by or assisted in whole or in part by and through the Federal Government pursuant of the Recovery Act.

**B. Davis-Bacon Act**

(1)(a) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached to the Subaward or Contract and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Recipient, a Subrecipient, or Contractor and such laborers and mechanics.

(i) Applicable to Recipient Only: Prior to the issuance of the Subaward or Contract, the Recipient shall notify the Contracting Officer of the site of the work in order for the appropriate wage determination to be obtained by the Contracting Officer from the Secretary of Labor.

(ii) If the Subaward or Contract is or has been issued without a wage determination, the Recipient shall notify the Contracting Officer immediately of the site of the work under the Subaward or Contract in order for the appropriate wage determination to be obtained by the Contracting Officer from the Secretary of Labor.

(b) Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the DBA on behalf of laborers or mechanics are considered wages paid to such laborers and mechanics, subject to the provisions of paragraph B(4) below; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such period.

(c) Such laborers and mechanics shall be paid not less than the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in the paragraph entitled Apprentices and Trainees. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

(d) The wage determination (including any additional classifications and wage rates conformed under paragraph B(2) of this term) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Subrecipient and Contractor at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(2)(a) The Contracting Officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the Subaward or Contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefore only when all the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination.

(ii) The classification is utilized in the area by the construction industry.

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(b) If the Subrecipient (and Contractor, when applicable) and the laborers and mechanics to be employed in the classification (if known), or their representatives agree on the classification and wage rate (including

the amount designated for fringe benefits, where appropriate), the Subrecipient shall notify the Recipient. The Recipient shall notify the Contracting Officer of this agreement. If the Contracting Officer agrees with the classification and wage rate (including the amount designated for fringe benefits, where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the:

Wage and Hour Division  
Employment Standards Administration  
U.S. Department of Labor  
Washington, DC 20210

The Administrator or an authorized representative will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(c) In the event the Subrecipient (and Contractor, when applicable), and the laborers or mechanics to be employed in the classification, or their representatives, do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Subrecipient shall notify the Recipient. The Recipient shall notify the Contracting Officer of the disagreement. The Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator of the Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(d) The wage rate (including fringe benefits, where appropriate) determined pursuant to subparagraphs B(2)(b) or B(2)(c) of this Term shall be paid to all workers performing work in the classification under the Award, Subaward, or Contract from the first day on which work is performed in the classification.

(3) Whenever the minimum wage rate prescribed in the Award, Subaward, or Contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Subrecipient and Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(4) If the Subrecipient or Contractor does not make payments to a trustee or other third person, the Subrecipient or Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided, that the Secretary of Labor has found, upon the written request of the Subrecipient or Contractor that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Subrecipient or Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

### ***C. Rates of Wages***

(1) The minimum wages to be paid laborers and mechanics under the Subaward or Contract involved in performance of work at the project site, as determined by the Secretary of Labor to be prevailing for the corresponding classes of laborers and mechanics employed on projects of a character similar to the contract work in the pertinent locality, are included as an attachment to the Award, Subaward, or Contract.

(2) If the Subaward or Contract has been issued without a wage determination, the Recipient shall notify the Contracting Officer immediately of the site of the work under the Subaward or Contract in order for the appropriate wage determination to be obtained by the Contracting Officer from the Secretary of Labor.

### ***D. Payrolls and Basic Records***

(1) Payrolls and basic records relating thereto shall be maintained by the Recipient, Subrecipient and Contractor during the course of the work and preserved for a period of 3 years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions

or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found, under paragraph (4) of the provision entitled Davis-Bacon Act, that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Subrecipient or Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. The Subrecipient or Contractor employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(2)(a) The Contractor shall submit weekly for each week in which any Contract work is performed a copy of all payrolls to the Subrecipient. The Subrecipient shall submit weekly for each week in which any Subaward or Contract work is performed a copy of all payrolls to the Recipient. The Recipient shall submit weekly for each week in which any Subaward or Contract work is performed a copy of all payrolls to the Contracting Officer. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under paragraph D(1) of this Term, except that the full social security numbers and home addresses shall not be included on weekly transmittals. Instead, the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site.

(b) The Recipient is responsible for ensuring that all Subrecipients and Contractors submit copies of payrolls and basic records as required by paragraph D, Payrolls and Basic Records, of this Term. The Subrecipient is responsible for ensuring all Contractors, including lower tier subcontractors submit copies of payrolls and basic records as required by paragraph D, Payrolls and Basic Records, of this term. Subrecipients and Contractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request for transmission to the Contracting Officer, the Recipient, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. The Recipient shall also obtain and provide the full social security number and current address of each covered worker upon request by the Contracting Officer or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a Recipient to require a Subrecipient or Contractor to provide addresses and social security numbers to the Recipient for its own records, without weekly submission to the Contracting Officer.

(c) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Recipient, Subrecipient or Contractor or his or her agent who pays or supervises the payment of the persons employed under the Subaward or Contract and shall certify—

(i) That the payroll for the payroll period contains the information required to be maintained under paragraph D(2)(a) of this Term, the appropriate information is being maintained under paragraph D(1) of this Term, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the Subaward or Contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR Part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the Subaward or Contract.

(d) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph D(2)(c) of this Term.

(e) The falsification of any of the certifications in Paragraph D, Payrolls and Basic Records, of this Term may subject the Recipient, Subrecipient or Contractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.

(3) The Recipient, Subrecipient, or Contractor shall make the records required under paragraph D(1) of this Term available for inspection, copying, or transcription by the Contracting Officer, authorized representatives of the Contracting Officer, or the Department of Labor. The Subrecipient or Contractor shall permit the Contracting Officer, authorized representatives of the Contracting Officer or the Department of Labor to interview employees during working hours on the job. If the Recipient, Subrecipient, or Contractor fails to submit the required records or to make them available, the Contracting Officer may, after written notice to the Recipient, Subrecipient, or Contractor take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### ***E. Withholding of Funds***

(1) The DOE Contracting Officer shall, upon his or her or its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Recipient or any other contract or Federal Award with the same Recipient, on this or any other federally assisted Award subject to Davis-Bacon prevailing wage requirements, which is held by the same Recipient so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Subrecipient or a Contractor the full amount of wages required by the Award or Subaward or a Contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the Award or Subaward or a Contract, the Contracting Officer may, after written notice to the Recipient take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(2) The Recipient shall, upon its own action or upon written request of the DOE Contracting Officer or an authorized representative of the Department of Labor, withhold or cause to be withheld from any Subrecipient or Contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Subrecipient or Contractor the full amount of wages required by the Subaward or Contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the Subaward or Contract, the Recipient may, after written notice to the Subrecipient or Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased or the Government may cause the suspension of any further payment under any other contract or Federal award with the same Subrecipient or Contractor, on any other federally assisted Award subject to Davis-Bacon prevailing wage requirements, which is held by the same Subrecipient or Contractor.

#### ***F. Apprentices and Trainees***

(1) Apprentices.

(a) An apprentice will be permitted to work at less than the predetermined rate for the work they performed when they are employed—

(i) Pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship and Training, Employer, and Labor Services (OATELS) or with a State Apprenticeship Agency recognized by the OATELS; or

(ii) In the first 90 days of probationary employment as an apprentice in such an apprenticeship program, even though not individually registered in the program, if certified by the OATELS or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

(b) The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Subrecipient or Contractor as to the entire work force under the registered program.

(c) Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph F(1) of this Term, shall be paid not less than the applicable wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(d) Where a Subrecipient or Contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Subrecipient's or Contractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination.

(e) Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(f) In the event OATELS, or a State Apprenticeship Agency recognized by OATELS, withdraws approval of an apprenticeship program, the Subrecipient or Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

## (2) Trainees.

(a) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by (OATELS). The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by OATELS.

(b) Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship/training program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the OATELS shall be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed.

(c) In the event OATELS withdraws approval of a training program, the Subrecipient or Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(3) Equal employment opportunity. The utilization of apprentices, trainees, and journeymen under this Term shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

#### ***G. Compliance with Copeland Act Requirements***

The Recipient, Subrecipient or Contractor shall comply with the requirements of 29 CFR Part 3 which are hereby incorporated by reference in the Award, Subaward or Contract.

#### ***H. Subawards and Contracts***

(1) The Recipient, the Subrecipient and Contractor shall insert in the Subaward or any Contracts this Term entitled "Davis Bacon Act Requirements" and such other terms as the Contracting Officer may require. The Recipient shall be responsible for ensuring compliance by any Subrecipient or Contractor with all of the requirements contained in this Term. The Subrecipient shall be responsible for the compliance by Contractor with all of the requirements contained in this Term.

(2) Within 14 days after issuance of a Subaward, the Recipient shall deliver to the Contracting Officer a completed Standard Form (SF) 1413, Statement and Acknowledgment, for each Subaward and Contract for construction within the United States, including the Subrecipient's and Contractor's signed and dated acknowledgment that this Term has been included in the Subaward and any Contracts. The SF 1413 is available from the Contracting Officer or at [http://contacts.gsa.gov/webforms.nsf/0/70B4872D16EE95A785256A26004F7EA8/\\$file/sf1413\\_e.pdf](http://contacts.gsa.gov/webforms.nsf/0/70B4872D16EE95A785256A26004F7EA8/$file/sf1413_e.pdf). Within 14 days after issuance of a Contract or lower-tier subcontract, the Subrecipient shall deliver to the Recipient a completed Standard Form (SF) 1413, Statement and Acknowledgment, for each Contract and lower-tier subcontract for construction within the United States, including the Contractor and lower-tier subcontractor's signed and dated acknowledgment that this Term has been included in any Contract and lower-tier subcontracts. SF 1413 is available from the Contracting Officer or at [http://contacts.gsa.gov/webforms.nsf/0/70B4872D16EE95A785256A26004F7EA8/\\$file/sf1413\\_e.pdf](http://contacts.gsa.gov/webforms.nsf/0/70B4872D16EE95A785256A26004F7EA8/$file/sf1413_e.pdf). The Recipient shall immediately provide to the DOE Contracting Officer the completed Standard Forms (SF) 1413.

#### ***I. Contract Termination—Debarment***

A breach of these provisions may be grounds for termination of the Award, Subaward, or Contract and for debarment as a Contractor or subcontractor as provided in 29 CFR 5.12.

#### ***J. Compliance with Davis-Bacon and Related Act Regulations***

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are hereby incorporated by reference in the Award, Subaward or Contract.

#### ***K. Disputes Concerning Labor Standards***

The United States Department of Labor has set forth in 29 CFR Parts 5, 6, and 7 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and shall not be subject to any other dispute provision that may be contained in the Award, Subaward, and Contract. Disputes within the meaning of this Term include disputes between the Recipient, Subrecipient (including any Contractor) and the Department of Energy, the U.S. Department of Labor, or the employees or their representatives.

#### ***L. Certification of Eligibility.***

(1) By entering into this Award, Subaward, or Contract (as applicable), the Recipient, Subrecipient, or Contractor, respectively certifies that neither it (nor he or she) nor any person or firm who has an interest in the Recipient, Subrecipient, or Contractor's firm, is a person, entity, or firm ineligible to be awarded Government contracts or Government awards by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(2) No part of this Award, Subaward or Contract shall be subcontracted to any person or firm ineligible for award of

a Government contract or Government award by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(3) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

***M. Approval of Wage Rates***

All straight time wage rates, and overtime rates based thereon, for laborers and mechanics engaged in work under an Award, Subaward or Contract must be submitted for approval in writing by the head of the federal contracting activity or a representative expressly designated for this purpose, if the straight time wages exceed the rates for corresponding classifications contained in the applicable Davis-Bacon Act minimum wage determination included in the Award, Subaward or Contract. Any amount paid by the Subrecipient or Contractor to any laborer or mechanic in excess of the agency approved wage rate shall be at the expense of the Subrecipient or Contractor and shall not be reimbursed by the Recipient or Subrecipient. If the Government refuses to authorize the use of the overtime, the Subrecipient or Contractor is not released from the obligation to pay employees at the required overtime rates for any overtime actually worked.

**Contract Work Hours and Safety Standards Act**

This Term entitled "Contract Work Hours and Safety Standards Act (CWHSSA)" shall apply to any Subaward or Contract in an amount in excess of \$100,000. As used in this CWHSSA Term, the terms laborers and mechanics include watchmen and guards.

A. Overtime requirements. No Subrecipient or Contractor contracting for any part of the Subaward work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

B. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the term set forth in paragraph B herein, the Subrecipient or Contractor responsible therefor shall be liable for the unpaid wages. In addition, such Subrecipient or Contractor shall be liable to the United States (in the case of work done under a Subaward or Contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the provision set forth in CWHSSA paragraph A, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the term set forth in paragraph (A) of this section.

C. Withholding for unpaid wages and liquidated damages.

(1) The DOE Contracting Officer shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Recipient on this or any other Federal Award or Federal contract with the same Recipient on any other federally-assisted Award or contract subject to the CWHSSA, which is held by the same Recipient such sums as may be determined to be necessary to satisfy any liabilities of such Recipient for unpaid wages and liquidated damages as provided in the term set forth in CWHSSA, paragraph B of this Term.

(2) The Recipient shall, upon its own action or upon written request of the DOE Contracting Officer or an authorized representative of the Department of Labor, withhold or cause from any moneys payable on account of work performed by the Subrecipient or Contractor on this or any other federally assisted subaward or contract subject to the CWHSSA, which is held by the same Subrecipient or Contractor such sums as may be determined to be necessary to satisfy any liabilities of such Subrecipient or Contractor for unpaid wages and liquidated damages as provided in term set forth in CWHSSA, paragraph B of this Term.

D. Subcontracts. The Subrecipient shall insert in a Contract and a Contractor shall insert in any lower tier subcontracts, the terms set forth in these CWHSSA paragraphs (A) through (D) and also a provision requiring the Contractors to include this CWHSSA Term in any lower tier subcontracts. The Recipient shall be responsible for compliance by any Subrecipient or Contractor, with the CWHSSA paragraphs A through D. The Subrecipient shall be responsible for compliance by any Contractor (including lower- tier subcontractors).

E. The Subrecipient or Contractor shall maintain payrolls and basic payrolls in accordance with Davis-Bacon Act Requirements term, for all laborers and mechanics, including guards and watchmen working on the Subaward or Contracts. These records are subject to the requirements set forth in the Davis Bacon Requirements term.

### Attachment 3: Federal Assurances

- I. The Contractor hereby assures and certifies that it will comply with the regulations, policies, guidelines and requirements as indicated below for said type of institution.
  1. Hospitals: 10 CFR 600, OMB Circular A-110, and Appendix E of 45 CFR 74.
  2. State Agencies, Public Schools, Local Governments, and Indian Tribal Governments: 10 CFR 600, the "Common Rule," and OMB Circulars A-128 and A-87.
  3. Publicly funded Colleges and Universities: 10 CFR 600, and OMB Circulars A-110, A-133, and A-21.
  4. Private Non-Profit Organizations - Private Schools: 10 CFR 600, and OMB Circulars A-110, A-133, and A-122.
  5. Individuals/Private For-Profit Organizations: Not covered by OMB Circulars.
  
- II. Also, the Contractor assures and certifies with respect to the project that:
  - (1) LEGAL AUTHORITY. It possesses legal authority to apply for the grant; that a resolution, motion, or similar action has been duly adopted or passed as an official act of the applicant's governing body, if necessary, authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information as may be required.
  - (2) CIVIL RIGHTS. It will comply with Title VI of the Civil Rights Act of 1964 (P.L. 88-352) and in accordance with Title VI of that Act, no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the applicant received federal financial assistance and will immediately take any measures necessary to effectuate this agreement.
  - (3) CIVIL RIGHTS. It will comply with Title VI of the Civil Rights Act of 1964 (42 USC 2000d) and 10 CFR Part 1040 prohibiting employment discrimination where (1) the primary purpose of a grant is to provide employment, or, (2) discriminatory employment practices will result in unequal treatment of persons who are or should be benefiting from the grant-aided activity.
  - (4) DISPLACED PERSONS. It will comply with requirements of the provisions of the Uniform Relocation Assistance and Real Property

Acquisitions Act of 1970 (P.L. 91-646) which provides for fair and equitable treatment of persons displaced as a result of federal and federally assisted programs.

- (5) HATCH ACT. It will comply with the provision of the Hatch Act which limits the political activity of employees.
- (6) FAIR LABOR STANDARDS. It will comply with minimum wage and maximum hours provisions of the Federal Fair Labor Standards Act, as they apply to hospital and educational institution employees of state and local governments.
- (7) CONFLICT OF INTEREST. It will establish safeguards to prohibit employees from using their positions for a purchase that is, or gives the appearance of, being motivated by a desire for private gain for themselves or others, particularly those with whom they have family, business or other ties.
- (8) RECORDS ACCESS. It will give the grantor agency or the Comptroller General, through any authorized representative, the access to and the right to examine all records, books, papers or documents related to the grant.
- (9) ENVIRONMENTAL PROTECTION AGENCY'S LIST OF VIOLATING FACILITIES. It will insure that the facilities under its ownership, lease, or supervision, which shall be utilized in the accomplishment of the project are not listed on the Environmental Protection Agency's (EPA) list of Violating Facilities and that it will notify the federal grantor agency of the receipt of any communication from the Director of the EPA Office of Federal Activities indicating that a facility to be used in the project is under consideration for listing by the EPA.
- (10) FLOOD INSURANCE. It will comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973, P.L. 93-234, 87 Stat. 975, approved December 31, 1976. Section 102(a) requires, on and after March 2, 1975, the purchase of flood insurance in communities where such insurance is available as a condition for the receipt of and federal financial assistance for construction or acquisition purposes for use in any area having special flood hazards. The phrase "federal financial assistance" includes any form of loan, grant, guarantee, insurance payment, rebate, subsidy, disaster assistance loan or grant, or any other form of direct or indirect federal assistance.
- (11) NATIONAL HISTORIC PRESERVATION. It will assist the federal grantor agency in its compliance with Section 106 of the National Historic Preservation Act of 1966 as amended (16 USC 470), Executive Order 11593, and the Archaeological and Historic Preservation Act of 1966 (16 USC 469a-1 et seq.) by (a) consulting with the State Historic Preservation Officer on the conduct of investigations, as necessary, to identify properties listed in or eligible for inclusion in the National Register of

Historic Places that are subject to adverse effects (see 36 CFR Part 800.8) by the activity, and notifying the federal grantor agency of the existence of any such properties, and by (b) complying with all requirements established by the federal grantor agency to avoid or mitigate adverse effects upon such properties.

- (12) DEBARMENT AND SUSPENSION. It, nor its principals, is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency. Where the contractor is unable to certify to any of the statements in this certification, such contractor shall attach an explanation to this contract.
- (13) ENVIRONMENTAL STANDARDS. If the amount of this contract exceeds \$100,000, it agrees to comply with applicable standards, regulations, or orders issued pursuant to the Clean Air Act of 1970 (42 USC 1857 et seq.) and the Federal Water Pollution Control Act (33 USC 1251 et seq.) as amended. Violations shall be reported to DOE and the Regional Office of the Environmental Protection Agency.
- (14) LOBBYING CERTIFICATION. If the amount of this contract exceeds \$100,000, it will comply with the following:
1. No federal appropriated funds have been paid, or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
  2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing, or attempting to influence, an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
  3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the

required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

- (15) PRIVACY ACT. The Contractor and its subcontractors will maintain no information about any individual in a manner which would violate the provisions of the Privacy Act of 1974, Public Law 93-579 as amended.
- (16) LIABILITIES AND LOSSES. The U.S. Department of Energy assumes no liability with respect to any damage or loss arising out of any activities undertaken with the financial support of this grant.

# ATTACHMENT 4

**FINAL DAVIS BACON ACT (DBA) CLAUSES AS APPROVED BY  
THE DEPARTMENT OF LABOR (DOL) FOR USE IN FINANCIAL  
ASSISTANCE PROGRAMS OTHER THAN WEATHERIZATION  
ASSISTANCE PROGRAMS AND LOAN PROGRAMS  
November 6, 2009**

**Clause XXX. Davis Bacon Act and Contract Work Hours and Safety Standards Act.**

**Definitions:** For purposes of this clause, Clause XXX, Davis Bacon Act and Contract Work Hours and Safety Standards Act, the following definitions are applicable:

(1) "Award" means any grant, cooperative agreement or technology investment agreement made with Recovery Act funds by the Department of Energy (DOE) to a Recipient. Such Award must require compliance with the labor standards clauses and wage rate requirements of the Davis-Bacon Act (DBA) for work performed by all laborers and mechanics employed by Recipients (other than a unit of State or local government whose own employees perform the construction) Subrecipients, Contractors, and subcontractors.

(2) "Contractor" means an entity that enters into a Contract. For purposes of these clauses, Contractor shall include (as applicable) prime contractors, Recipients, Subrecipients, and Recipients' or Subrecipients' contractors, subcontractors, and lower-tier subcontractors. "Contractor" does not mean a unit of State or local government where construction is performed by its own employees."

(3) "Contract" means a contract executed by a Recipient, Subrecipient, prime contractor, or any tier subcontractor for construction, alteration, or repair. It may also mean (as applicable) (i) financial assistance instruments such as grants, cooperative agreements, technology investment agreements, and loans; and, (ii) Sub awards, contracts and subcontracts issued under financial assistance agreements. "Contract" does not mean a financial assistance instrument with a unit of State or local government where construction is performed by its own employees.

(4) "Contracting Officer" means the DOE official authorized to execute an Award on behalf of DOE and who is responsible for the business management and non-program aspects of the financial assistance process.

(5) "Recipient" means any entity other than an individual that receives an Award of Federal funds in the form of a grant, cooperative agreement, or technology investment agreement directly from the Federal Government and is financially accountable for the use of any DOE funds or property, and is legally responsible for carrying out the terms and conditions of the program and Award.

(6) "Subaward" means an award of financial assistance in the form of money, or property in lieu of money, made under an award by a Recipient to an eligible Subrecipient or by a Subrecipient to a lower-tier subrecipient. The term includes financial assistance when provided by any legal agreement, even if the agreement is called a contract, but does not include the Recipient's procurement

of goods and services to carry out the program nor does it include any form of assistance which is excluded from the definition of "Award" above.

(7) "Subrecipient" means a non-Federal entity that expends Federal funds received from a Recipient to carry out a Federal program, but does not include an individual that is a beneficiary of such a program.

**(a) Davis Bacon Act**

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and, without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, *provided* that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The Contracting Officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the Contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination;

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(C) In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this Contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the Contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *provided* that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The Department of Energy or the Recipient or Subrecipient shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the Contractor under

this Contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the Contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the Contract, the Department of Energy, Recipient, or Subrecipient, may, after written notice to the Contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii) (A) The Contractor shall submit weekly for each week in which any Contract work is performed a copy of all payrolls to the Department of Energy if the agency is a party to the Contract, but if the agency is not such a party, the Contractor will submit the payrolls to the Recipient or Subrecipient (as applicable), applicant, sponsor, or owner, as the case may be, for transmission to the Department of Energy. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead, the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and

Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime Contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the Department of Energy if the agency is a party to the Contract, but if the agency is not such a party, the Contractor will submit them to the Recipient or Subrecipient (as applicable), applicant, sponsor, or owner, as the case may be, for transmission to the Department of Energy, the Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the Recipient or Subrecipient (as applicable), applicant, sponsor, or owner).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the Contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the Contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the Contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 3729 of title 31 of the United States Code.

(iii) The Contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Department of Energy or

the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the Contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees—

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a Contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work

performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees, and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The Contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this Contract.

(6) Contracts and Subcontracts. The Recipient, Subrecipient, the Recipient's, and Subrecipient's contractors and subcontractor shall insert in any Contracts the clauses contained herein in(a)(1) through (10) and such other clauses as the Department of Energy may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The Recipient shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of the paragraphs in this clause.

(7) Contract termination: debarment. A breach of the Contract clauses in 29 CFR 5.5 may be grounds for termination of the Contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this Contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this Contract shall not be subject to the general disputes clause of this Contract. Such disputes shall be resolved in accordance with the

procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Recipient, Subrecipient, the Contractor (or any of its subcontractors), and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this Contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this Contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

**(b) Contract Work Hours and Safety Standards Act.** As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No Contractor or subcontractor contracting for any part of the Contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The Department of Energy or the Recipient or Subrecipient shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or any other Federal contract with the same prime Contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Contracts and Subcontracts. The Recipient, Subrecipient, and Recipient's and Subrecipient's contractor or subcontractor shall insert in any Contracts, the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The Recipient shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

(5) The Contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the Contract for all laborers and mechanics, including guards and watchmen, working on the Contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. The records to be maintained under this paragraph shall be made available by the Contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the Department of Energy and the Department of Labor, and the Contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

Attachment 5- Wage Determination Table  
Cache County

General Decision Number: UT100044 06/17/2011 UT44

Superseded General Decision Number: UT20080044

State: Utah

Construction Type: Building

County: Cache County in Utah.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Modification Number	Publication Date
0	03/12/2010
1	04/09/2010
2	07/16/2010
3	08/20/2010
4	09/03/2010
5	10/29/2010
6	11/19/2010
7	12/31/2010
8	01/21/2011
9	02/04/2011
10	05/13/2011
11	06/17/2011

BRUT0001-002 06/01/2009

	Rates	Fringes
BRICKLAYER.....	\$ 20.75	6.55

ELEC0354-007 06/01/2010

	Rates	Fringes
ELECTRICIAN.....	\$ 28.09	4.3%+\$8.00

ENGI9993-011 07/01/2008

	Rates	Fringes
OPERATOR: Power Equipment (CRANES & ATTACHMENTS)		
(1) Up to 35 tons.....	\$ 24.86	12.71
(2) Over 35 tons to 100 tons.....	\$ 26.15	12.71
(3) Over 100 tons.....	\$ 27.49	12.71
OPERATOR: Power Equipment		
(1) Mechanic.....	\$ 26.71	12.71
(2a) Grader/Blade.....	\$ 25.05	12.71
(3) Front End loader		

(over 5 cu. yds).....	\$ 24.53	12.71
(4) Bulldozer, Front End Loader (2 to 5 cu. yds.)....	\$ 23.53	12.71
(5) Asphalt Roller, Front End Loader (Under 2 cu. yds.), Oil Distributor.....	\$ 22.53	12.71
(6) Screed.....	\$ 21.57	12.71
(7) Roller (Dirt and Grade Compaction).....	\$ 20.66	12.71

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\* IRON0027-014 01/01/2011

	Rates	Fringes
IRONWORKER, STRUCTURAL AND ORNAMENTAL.....	\$ 25.11	11.85

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IRON0847-001 01/01/2010

	Rates	Fringes
IRONWORKER, REINFORCING.....	\$ 26.61	11.60

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LABO0295-007 07/01/2010

	Rates	Fringes
Laborer: Mason Tender (Brick, Cement/Concrete).....	\$ 15.65	5.75

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PAIN0077-001 08/02/2010

	Rates	Fringes
PAINTER: Brush, Roller and Spray.....	\$ 18.85	5.45

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PLUM0140-012 01/01/2011

	Rates	Fringes
PIPEFITTER, Including HVAC Pipe Installation.....	\$ 30.77	11.04

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PLUM0140-013 01/01/2011

	Rates	Fringes
PLUMBER (Excluding HVAC Pipe Installation).....	\$ 30.77	11.04

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SUUT2008-001 07/14/2008

	Rates	Fringes
CARPENTER, Includes Acoustical Ceiling		

Installation, and Form Work.....	\$ 16.55	3.37
CEMENT MASON/CONCRETE FINISHER...	\$ 15.73	3.40
LABORER: Common or General.....	\$ 10.78	0.00
LABORER: Landscape.....	\$ 10.52	0.00
LABORER: Power Tool Operator (Hand Drill, Jackhammer and Power Saw Only).....	\$ 11.70	0.00
OPERATOR: Backhoe/Excavator.....	\$ 16.28	6.55
ROOFER.....	\$ 13.70	1.17
SHEETMETAL WORKER, Including HVAC Duct Installation.....	\$ 24.21	6.95

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TEAM0222-011 07/01/2008

	Rates	Fringes
TRUCK DRIVER (Articulated).....	\$ 20.73	8.43
TRUCK DRIVER (Flat Rack, Bulk Cement, Semi-trailers, Mud/Banding and Paint)		
Less than 10 tons.....	\$ 18.06	8.43
10 tons to less than 15 tons.....	\$ 18.21	8.43
15 tons and less than 20 tons.....	\$ 18.31	8.43
20 tons and over.....	\$ 18.46	8.43
Pickup Truck.....	\$ 17.99	8.43
TRUCK DRIVER (Oil Spreader).....	\$ 18.86	8.43
TRUCK DRIVER (Transit Mix)		
0 cu. yds. to 8 cu. yds.....	\$ 18.39	8.43
Over 8 cu. yds. to 14 cu. yds.....	\$ 18.49	8.43
TRUCK DRIVER (Water, Fuel & Oil Tank)		
0 to less than 1,200 gal....	\$ 18.04	8.43
1,200 gal. to less than 2,500 gal.....	\$ 18.16	8.43
2,500 gal. to less than 4,000 gal.....	\$ 18.31	8.43
4,000 gal. to less than 6,000 gal.....	\$ 18.61	8.43
6,000 gal. to less than 10,000 gal.....	\$ 18.86	8.43
10,000 gal. to less than 15,000 gal.....	\$ 19.11	8.43
15,000 gal. to less than 20,000 gal.....	\$ 18.36	8.43
20,000 gal. to less than 25,000 gal.....	\$ 19.71	8.43
Over 25,000 gal.....	\$ 19.86	8.43

TRUCK DRIVER: Dump Truck		
(Includes Bottom-end or side)		
Less than 8 cu. yds.....	\$ 18.16	8.43
8 cu. yds. and less than		
14 cu. yds.....	\$ 18.31	8.43
14 cu. yds. and less than		
35 cu. yds.....	\$ 18.46	8.43
35 cu. yds. and less than		
55 cu. yds.....	\$ 18.66	8.43
55 cu. yds. and less than		
75 cu. yds.....	\$ 18.86	8.43
75 cu. yds. and less than		
95 cu. yds.....	\$ 19.06	8.43
95 cu. yds. and less than		
105 cu. yds.....	\$ 19.26	8.43
105 cu. yds. and less than		
130 cu. yds.....	\$ 19.38	8.43
TRUCK DRIVER: Lowboy Truck.....	\$ 21.238	8.43

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(ii)).

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In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

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#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION