

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. Contract Number <b>DCKA-2009-B-0100</b>	Page of Pages 1   14
2. Amendment/Modification Number Three (3)		3. Effective Date 4-Sep-09	4. Requisition/Purchase Request No.	5. Solicitation Caption <b>Traffic Signal Uninterrupted</b>
6. Issued By: Office of Contracting and Procurement District Department of Transportation 2000 14th Street, NW; 6th Floor Washington, DC 20009		Code	7. Administered By (If other than line 6) D.C. Department of Transportation Transportation Operations Administration 2000 - 14th Street, N.W., 7th Floor Washington, D.C. 20009	
8. Name and Address of Contractor (No. Street, city, country, state and ZIP Code)			(X) 9A. Amendment of Solicitation No. <b>DCKA-2009-B-0100</b>	9B. Dated (See Item 11) 8/4/2009
Code			10A. Modification of Contract/Order No.	
Facility			10B. Dated (See Item 13)	
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>				
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input checked="" type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or fax which includes a reference to the solicitation and amendment number. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or fax, provided each letter or telegram makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.				
12. Accounting and Appropriation Data (If Required)				
<b>13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14</b>				
(X)	A. This change order is issued pursuant to: (Specify Authority) The changes set forth in Item 14 are made in the contract/order no. in item 10A.			
	B. The above numbered contract/order is modified to reflect the administrative changes (such as changes in paying office, appropriation date, etc.) set forth in item 14, pursuant to the authority of 27 DCMR, Chapter 36, Section 3601.2.			
	C. This supplemental agreement is entered into pursuant to authority of:			
	D. Other (Specify type of modification and authority)			
<b>E. IMPORTANT:</b> Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.				
14. Description of amendment/modification (Organized by UCF Section headings, including solicitation/contract subject matter where feasible.)  <b>AMENDMENT #3 IS BEING ISSUED TO ANSWER QUESTIONS RAISED AT THE PRE-BID CONFERENCE HELD ON AUGUST 24, 2009.</b>  QUESTIONS RECEIVED FROM PROSPECTIVE BIDDERS (7 PAGES) (ATTACHED WITH THE AMENDMENT).  INSERT: H.3.2 PROVISIONS APPLICABLE TO PROCUREMENTS UNDER THE AMERICAN RECOVERY AND REINVESTMENT ACT (6 PAGES) (ATTACHED WITH THE AMENDMENT).				
Except as provided herein, all terms and conditions of the document referenced in Item (9A or 10A) remain unchanged and in full force and effect				
15A. Name and Title of Signer (Type or print)			16A. Name of Contracting Officer Jerry M. Carter	
15B. Name of Contractor  (Signature of person authorized to sign)		15C. Date Signed	16B. District of Columbia	16C. Date Signed 9/4/2009 (Signature of Contracting Officer)

## PROVISIONS APPLICABLE TO PROCUREMENTS UNDER THE AMERICAN RECOVERY AND REINVESTMENT ACT

### H.3.2 APPLICABILITY OF THE AMERICAN RECOVERY AND REINVESTMENT ACT

This procurement is being funded by the District of Columbia with funds made available by the American Recovery and Reinvestment Act of 2009, P.L. 111-5 (Recovery Act), and is subject to the reporting and operational requirements of the Recovery Act. All contractors and subcontractors are subject to audit by appropriate federal and District entities. The District has the right to cancel, terminate or suspend the contract if the Contractor or any subcontractor fails to comply with the reporting or operational requirements of the Recovery Act, as it may be amended.

### H.3.3 REPORTING

1. In addition to the other reporting requirements in this contract, the Contractor shall comply with all reporting requirements of the Recovery Act, as follows:

(a) *Definitions.* As used in this clause—

“Contract” means a mutually binding legal relationship obligating the seller to furnish the supplies or services (including construction) and the buyer to pay for them. It includes all types of commitments that obligate the Government to an expenditure of appropriated funds and that, except as otherwise authorized, are in writing. In addition to bilateral instruments, contracts include (but are not limited to) awards and notices of awards; job orders or task letters issued under basic ordering agreements; letter contracts; orders, such as purchase orders, under which the contract becomes effective by written acceptance or performance; and bilateral contract modifications.

“First-tier subcontract” means a subcontract awarded directly by a prime contractor whose contract is funded by the Recovery Act.

“Jobs created” means an estimate of those new positions created and filled, or previously existing unfilled positions that are filled, as a result of funding by the Recovery Act. This definition covers only prime contractor positions established in the United States and outlying areas. The number shall be expressed as “full-time equivalent” (FTE), calculated cumulatively as all hours worked divided by the total number of hours in a full-time schedule.

“Jobs retained” means an estimate of those previously existing filled positions that are retained as a result of funding by the Recovery Act. This definition covers only prime contractor positions. The number shall be expressed as FTE, calculated cumulatively as all hours worked divided by the total number of hours in a full-time schedule.

“Total compensation” means the cash and noncash dollar value earned by the executive during the Contractor’s past fiscal year of the following (for more information see 17 CFR 229.402(c)(2)):

(1) *Salary and bonus.*

(2) *Awards of stock, stock options, and stock appreciation rights.* Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with the Statement of Financial Accounting Standards No. 123 (Revised 2004) (FAS 123R), Shared Based Payments.

(3) *Earnings for services under non-equity incentive plans.* Does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.

(4) *Change in pension value.* This is the change in present value of defined benefit and actuarial pension plans.

(5) *Above-market earnings on deferred compensation which is not tax-qualified.*

(6) *Other compensation.* For example, severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property if the value for the executive exceeds \$10,000.

(b) This contract requires the Contractor to provide products and/or services that are funded under the Recovery Act. Section 1512(c) of the Recovery Act requires each contractor to report on its use of Recovery Act funds under this contract. These reports will be made available to the public.

(c) Reports from contractors for all work funded, in whole or in part, by the Recovery Act, and for which an invoice has been submitted are due no later than 5th calendar day after the end of each month.

(d) Unless otherwise directed by the Contracting Officer, the Contractor shall report the following information, using the online reporting tools available at <https://reporting.dc.gov>:

- (1) The contract and order number, as applicable.
- (2) The amount of Recovery Act funds invoiced by the Contractor for the reporting period.
- (3) A list of all significant services performed or supplies delivered, including construction, for which the Contractor invoiced in the previous month.
- (4) Program or project title, if any.
- (5) A description of the overall purpose and expected outcomes or results of the Contract, including significant deliverables and, if appropriate, associated units of measure.
- (6) An assessment of the Contractor's progress towards the completion of the overall purpose and expected outcomes or results of the contract (*i.e.*, not started, less than 50 percent completed, completed 50 percent or more, or fully completed). This covers the contract (or portion thereof) funded by the Recovery Act.
- (7) Names and total compensation of each of the five most highly compensated officers of the Contractor for the calendar year in which the contract is awarded if—
  - (i) In the Contractor's preceding fiscal year, the Contractor received—
    - (A) 80 percent or more of its annual gross revenues from federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and
    - (B) \$25,000,000 or more in annual gross revenues from federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and
  - (ii) The public does not have access to information about the compensation of the senior executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. §§78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986.

- (8) For subcontracts valued at less than \$25,000 or any subcontracts awarded to an individual, or subcontracts awarded to a subcontractor that in the previous tax year had gross income under \$300,000, the Contractor shall only report the aggregate number of such first tier subcontracts awarded in the quarter and their aggregate total dollar amount.
- (9) For any first-tier subcontract funded in whole or in part under the Recovery Act, that is over \$25,000 and not subject to reporting under paragraph 8, the Contractor shall require the subcontractor to provide the information described in (i), (ix), (x), and (xi) below to the Contractor for the purposes of the quarterly report. The Contractor shall advise the subcontractor that the information will be made available to the public as required by section 1512 of the Recovery Act. The Contractor shall provide detailed information on these first-tier subcontracts as follows:
- (i) Unique identifier (DUNS Number) for the subcontractor receiving the award and for the subcontractor's parent company, if the subcontractor has a parent company.
  - (ii) Name of the subcontractor.
  - (iii) Amount of the subcontract award.
  - (iv) Date of the subcontract award.
  - (v) The applicable North American Industry Classification System (NAICS) code.
  - (vi) Funding agency.
  - (vii) A description of the products or services (including construction) being provided under the subcontract, including the overall purpose and expected outcomes or results of the subcontract.
  - (viii) Subcontract number (the contract number assigned by the prime contractor).
  - (ix) Subcontractor's physical address including street address, city, state, and country. Also include the nine-digit zip code and congressional district if applicable.
  - (x) Subcontract primary performance location including street address, city, state, and country. Also include the nine-digit zip code and congressional district if applicable.
  - (xi) Names and total compensation of each of the subcontractor's five most highly compensated officers, for the calendar year in which the subcontract is awarded if—
    - (A) In the subcontractor's preceding fiscal year, the subcontractor received—
      - (1) 80 percent or more of its annual gross revenues in federal contracts (and subcontracts), loans, grants (and subgrants), and cooperative agreements; and
      - (2) \$25,000,000 or more in annual gross revenues from federal contracts (and subcontracts), loans, grants (and subgrants), and cooperative agreements; and
    - (B) The public does not have access to information about the compensation of the senior executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. §§78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986.
- (10) A narrative description of the employment impact of work funded by the Recovery Act. This narrative should be cumulative and only address the impact on the Contractor's workforce. At a minimum, the Contractor shall provide—
- (i) A brief description of the types of jobs created and jobs retained. This description may rely on job titles, broader labor categories, or the Contractor's existing practice for describing jobs as long as the terms used are widely understood and describe the general nature of the work; and

- (ii) An estimate of the number of jobs created and jobs retained by the prime contractor. A job cannot be reported as both created and retained.
- (11) A unique identifier for each of the Contractor's employees working on a project funded by the Recovery Act. The unique identifier will be the employee's last name combined with the last three numbers of their social security number.
- (12) Total hours worked on work funded by the Recovery Act by each employee utilizing the unique identifier.

2. The Contractor shall designate a responsible contact person who will ensure that the data described in Section II.1 is reported by the required time. The Contractor designates the following person as the contact person:

*Name:* \_\_\_\_\_  
*Title:* \_\_\_\_\_  
*Address:* \_\_\_\_\_  
 \_\_\_\_\_  
*Telephone:* \_\_\_\_\_  
*Email address:* \_\_\_\_\_

3. A cumulative amount from all the reports submitted for this contract will be maintained by the District's on-line reporting tools.

4. The Contractor shall not use Recovery Act funds to meet the cost of its tracking and reporting requirements under its Recovery Act contracts.

**H.3.4 POSTING AVAILABLE JOB OPENINGS**

The Contractor shall promptly post all new job openings on the District Department of Employment Services' website at [www.dcnetworks.org](http://www.dcnetworks.org).

**H.3.5 ACCESSIBILITY TO RECORDS REQUIREMENTS**

1. Pursuant to section 1514 of the Recovery Act, the Contractor agrees to allow any appropriate federal entity, including an inspector general:
  - a) access to examine any records of the Contractor and any subcontractor pursuant to this contract that pertain to, and involve transactions relating to, this Contract or any subcontract under this Contract; and
  - b) to interview any officer or employee of the Contractor, or any subcontractor, regarding such transactions.
2. Pursuant to section 902 of the Recovery Act, the Contractor agrees to allow the Comptroller General and his representatives:
  - a) access to examine any records of the Contractor or any of its subcontractors that directly pertain to, and involve transactions relating to the Contract or subcontract under this Contract; and

b) to interview any officer or employee of the contractor or any of its subcontractors regarding such transactions.

### **H.3.6 EQUAL EMPLOYMENT OPPORTUNITIES**

In addition to the District's equal opportunity requirements, the Contractor shall comply with, and require its subcontractors to comply with, all of the following federal laws for equal employment opportunities, if applicable:

Titles VI and VII of the Civil Rights Act of 1964  
Equal Pay Act of 1962  
Age Discrimination in Employment Act of 1967  
Title IX of the Educational Amendments of 1972  
Section 504 of the Rehabilitation Act of 1973  
Age Discrimination Act of 1975  
Titles I and V of the Americans with Disabilities Act of 1990  
Fair Housing Act  
Fair Credit Reporting Act  
Equal Educational Opportunities Act  
Uniform Relocation Act

### **H.3.7 WHISTLEBLOWER PROTECTIONS**

1. Pursuant to Section 1553 of the Recovery Act, the Contractor and all subcontractors are prohibited from discharging, demoting or otherwise discriminating against any employee of the Contractor or any subcontractor as a reprisal for disclosing any of the following information that the employee reasonably believes is evidence of:

- a) gross mismanagement of the Contract related to Recovery Act funds;
- b) gross waste of Recovery Act funds;
- c) a substantial and specific danger to public health or safety related to the implementation or use of Recovery Act funds;
- d) an abuse of authority related to the Contract, including the competition for or negotiation of the contract, related to Recovery Act funds; or
- e) a violation of law, rule or regulation related to Recovery Act funds.

2. The inspector general shall receive and investigate all complaints alleging a violation of Paragraph 1 of this section.

3. All contractors and subcontractors receiving Recovery Act funds shall post a notice of employee rights as described in Paragraph 1 of this section in conspicuous locations with other required employee rights information.

### **H.3.8 ADDITIONAL PROVISIONS APPLICABLE TO CONSTRUCTION CONTRACTS**

#### **1. Department of Labor Wage Determinations**

- a) The Contractor and its subcontractors shall pay all laborers and mechanics 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 (Davis-Bacon Act). With respect to the labor standards, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and section 3145 of title 40, United States Code. The Contractor shall be bound by the wage rates for the term of the Contract.

b) All rulings and interpretations of the Davis-Bacon and related Acts contained in 20 CFR Parts 1, 3 and 5 are herein incorporated by reference in this Contract.

## **2. Buy American**

a) Pursuant to Section 1605 of the Recovery Act, the Contractor and all subcontractors must use steel, iron and manufactured goods that have been produced in the United States, unless the Government determines one of the following:

- (i) The use of those materials would be inconsistent with the public interest;
- (ii) That there is an insufficient quantity or quality of steel, iron or relevant manufactured goods that were produced in the United States; or
- (iii) The use of those materials would increase the cost of the project by more than twenty-five percent (25%).

b) The Contractor may seek a waiver from the Buy American requirements by appealing to the appropriate agency under the rules at 2 CFR Part 176.

### **H.3.9 PROVISIONS APPLICABLE TO SUBCONTRACTORS**

The Contractor shall provide a copy of this Attachment \_\_\_ to all of its subcontractors under this Contract.

**RESPONSE TO PROSPECTIVE BIDDERS QUESTIONS:**

1. **QUESTION** – Paragraph C.5.3.1 – How many discrete external UPS alarm inputs are currently supported by the existing traffic signal controller firmware?

**RESPONSE:**

DDOT intends to task the current central system provider to upgrade the central system to provide interface with UPS systems in the field.

DDOT may convert one of the current alarms to report “SYSTEM ON BATTERY BACKUP” as an interim solution.

- a. Bidder shall provide a contract closure for this alarm.
  - b. Vendor UPS system must also be capable of IP communications
  - c. Vendor IP based system shall include central monitoring software.
  - d. Vendor shall provide all documentation and API for possible integration into DDOT central traffic control system.
  - e. DDOT may opt to establish an IP communication network out to intersections with UPS installation.
2. **QUESTION** – Paragraph C.5.1.3.9 requires that “As an interim solution; UPS system must also be capable of serial communications via DDOT existing 170 controllers through available hardware port.” What are the communications protocol and message formats used to communicate UPS data information to the 170 controller?

**RESPONSE:**

- a. DDOT current central and local traffic control systems are provided by McCain Inc.
  - b. The bidder is expected to obtain protocol information directly.
  - c. Bidder’s proposal shall include optional communications thru an available serial port in traffic controller.
  - d. DDOT may opt to task current traffic signal system software and firmware provider (McCain Inc.) to revise system to incorporate UPS status into current Traffic System.
3. **QUESTION** – Paragraph C.5.1.3.10 requires that “UPS supplier must comply with communications protocols currently used by DDOT QUICNET © system.” Please provide documentation that details the applicable protocols.

**RESPONSE:**

- a. Bidder shall contact McCain Inc. for all require protocol information.

4. **QUESTION** - Will the contractor be responsible for payment to PEPCO for disconnecting and reconnecting service to the controllers?

RESPONSE:

The contractor is responsible for coordination and payment to PEPCO.

- QUESTION** - Will the contractor be responsible for payment to the MPD for uniformed flaggers?

RESPONSE:

The contractor is responsible for coordination and payment to MPD.

5. **QUESTION** - C.5.1.5.3.1 (page 16) states that the contractor will be responsible for payment to DDOT if the COTR directs the use of DDOT traffic control officers in lieu of MPD officers. How is the contractor to quantify these costs?

RESPONSE:

The Rate for DDOT Traffic control officer is less than the MPD rate.

6. **QUESTION** - Is a bid bond required for this IFB?

RESPONSE:

No bond is required.

7. **QUESTION** - C.5.1.1.3.1 states: In the event DDOT traffic control officers are to be used, the contractor shall reimburse DDOT for the use of TCO personnel at their fully loaded rate.

RESPONSE:

For Budgeting purposes, Bidder should assume that MPD will be used.

8. **QUESTION** - What is the fully loaded rate of the TCO personnel?

RESPONSE:

The TCO rate is less than MPD (Approximately 30.00 per hour, per officer).

9. **QUESTION** - Is the contractor responsible for paying PEPCO fees?

RESPONSE:

The contractor is responsible for coordination and payment to PEPCO.

10. **QUESTION** - C.5.1.1.6 - The UPS inverter/charger must be UL/CSA listed.

Our product is not currently listed by these agencies. It is however Caltrans tested and approved for use. Most of our products are UL Listed and have been designed with safety in mind. We are in the early stages of working with UL on getting this product tested by them. We will not have this complete by bid award or delivery. Will our Caltrans approval be sufficient?

RESPONSE:

DDOT reserves the right to enforce this requirement, However, Bidder may be considered based on number of units in operation, Existence on the CALTRAN QPL, and Results of third party testing at bidder's expense. Vendor would be required to submit other municipal references compatible with Washington DC.

11. **QUESTION** - C.5.1.2.9 - Operating temperature range for the entire UPS system, including liquid crystal displays, must be -40 degrees C to +70 degrees C, 5 to 95 percent relative humidity, non-condensing. Our display is an extended temperature display which has a low end rating of -20 degrees C. This is a typical value for an extended temperature display. Will our display be acceptable?

RESPONSE:

Yes

12. **QUESTION** - C.5.1.2.12 - An integral system to prevent battery from destructive discharge and/ for overcharge must be provided. Charging must be a three step method and shall result in complete recharge of the basic 4-battery configuration in less than six (6) hours from a minimal state. Battery charging rates must be user adjustable at the unit to provide maximum flexibility in matching the unit and the type and size of batteries installed. Our charger is a four step charger. See C.5.1.5.4 and C.5.1.5.5, they require "Battery recharge time from protective low cutoff to 80 percent or more of full charge capacity shall not exceed 6 hours." The spec is inconsistent on the charging requirements based on these three points. Our charger can provide a maximum of 20 amps DC. Our charger will charge 4-105Ah batteries from full discharge to 80% in 8.5 hrs, full charge in 11.5 hours. Our battery charging rates are not user adjustable, but the user can select the type of battery, size and quantity. The BBS uses this data for charging and battery percent calculations.

RESPONSE:

Acceptable

13. **QUESTION** - C.5.1.3.7- Two independent programmable timers with two (2) times-of-day restrictions must be provided to allow the agency to set when the intersection will operate in flash mode and when it will operate in full color mode to the extent that the battery power is available. Our BBS has one time of day timer. Is one time of day timer acceptable?

RESPONSE:

To the extent, that DDOT May opt not to operate in flash; One time of day timer is acceptable.

14. **QUESTION** - C.5.1.3.8 - A minimum of three user inputs must be provided for Emergency Power Off, Intrusion Alarms, and External Self Test. We have one user input for External Self Test. We do not have an input for Emergency Power Off or Intrusion Alarms. Is this one input acceptable?

RESPONSE:

Acceptable

15. **QUESTION** - C.5.1.3.9 - The UPS must be the capability to provide Ethernet and IP addressing communications for inclusion in systems with the capability for remote monitoring and programming. This capability must be provided internal to the unit. As an interim solution; UPS system must also be capable of serial communications via DDOT existing 170 controllers through available spare hardware port. We have Ethernet, IP addressing, and serial communications. We will adapt our serial to meet your protocol for serial communications.

RESPONSE:

Vendor must contact DDOT current traffic signal software and firmware provider for communications protocols.

16. **QUESTION** - C.5.1.3.11- **Operational:** UPS must be sized with a minimum load of 1000 watts and sized to provide a minimum of 8 hours of full run-time operation for an intersection comprised of a traffic signal controller cabinet, LED traffic signal indications and LED pedestrian signal indications. Our BBS is rated for 1100 watts and will run as long as load and battery capacity allow. However, a requirement for 8 hours of full run time operation for a 1000 watt load will require more battery amp hour capacity than your cabinet design allows. Is the 8 hour figure based on a 1000 watt load? Or are you merely stating that the inverter of the BBS has to be able to handle 1000 watts load? What we need to know without question is what load is your 8 hour full run time based on?

RESPONSE:

DDOT Minimum run time will be **6 Hours**.  
The Maximum Cabinet depth will remain as specified.  
A cabinet height of 40 inches is allowed  
A cabinet width of 19 inches is allowed.

17. **QUESTION** - C.5.1.3.12 - The maximum transfer time between the disruption of normal utility line voltage and providing a stabilized inverter line voltage from batteries must be less than 15 milliseconds. A 15 millisecond maximum allowable transfer time must apply when switching from inverter line voltage to utility line voltage. Our typical transfer time is 25 milliseconds. Most BBS specifications require a transfer time of 65 milliseconds. Is our average transfer time of 25 milliseconds acceptable?

RESPONSE:

65 milliseconds is acceptable

18. **QUESTION** - C.5.1.3.16 - In situations where the line voltage is within the range of 80 VAC - 185 VAC, commonly called "Brown-out Conditions", the UPS shall regulate the output voltage to the critical load to 120 VAC plus or minus 10% variance. Our voltage input range for regulation is 80-160 Vac and we regulate the output voltage to be between 102-128 Vac. Is our range acceptable?

RESPONSE:

Acceptable

19. **QUESTION** - C.5.1.4.2 - The UPS must be equipped with an input contact that can be defined as Emergency Power Off. This input shall cause the UPS to immediately turn off regardless of power source in use. Our unit does not have this feature, will this be acceptable?

RESPONSE:

DDOT will consider this feature to value added.

20. **QUESTION** - C.5.1.5.1 - Battery charging by the UPS must be a temperature compensated multi-stage process providing for the most efficient re-charge based on battery temperature and discharge state, providing a high charge when the battery is near-fully discharged and tapering off as the battery charge state reaches 80 percent or more fully charged. Battery charging rate must be user programmable at the unit to accommodate different size and types of batteries. As a minimum three (3) rates must be provided. *As mentioned earlier (see C.5.1.2.12 and C.5.1.5.5):* The spec is inconsistent on the charging requirements based on these two points. Our charger can provide a maximum of 20 amps DC. Our charger will charge 4-105Ah batteries from full discharge to 80% in 8.5 hrs, full charge in 11.5 hours. Our battery charging rates are not user adjustable, but the user can select the type of battery, size and quantity. The BBS uses this data for charging and battery percent calculations.

RESPONSE:

Acceptable

21. **QUESTION** - C.5.1.5.2 The UPS must have the capability to provide active battery charging balancing to insure that the charge is going to the appropriate batteries within the battery string and at the most desirable rates to maintain and extend the life of the batteries. This item as mentioned appears to be the Alpha Guard product that is designed for 48 volt systems. Our battery system voltage is 24 volts and the Alpha Guard is not designed for 24 volt systems. Our four step charger does an excellent job of charging and maintaining charge on batteries. Will our charging system be acceptable?

RESPONSE:

DDOT will determine based on particular vendor's system voltage and soundness of technical specifications. All bidders must meet 6 hour run time requirement.

22. **QUESTION** - C.5.1.5.3 - The battery supply voltage must be consistent with the load to minimize the current demands on the battery system to improve the efficiency of the system and maintain and extend the life of the batteries while providing the safest electrical environment possible for maintenance and service. Too high of a DC voltage can create a more dangerous environment and too low of a DC voltage level means lower system efficiency. For a typical 1000 watt design load, a supply voltage of 48 VDC is required. Our battery supply voltage is 24Vdc and our BBS is highly efficient. A 24 volt battery system also allows for a series parallel configuration of batteries. This configuration gives the advantage of two batteries still being able to run the system if one battery were to fail open. If a battery fails open a 48 volt system, the system would be dead. Will our 24 volt battery system be acceptable?

RESPONSE:

DDOT will determine based on particular vendor's system voltage and soundness of technical specifications. All bidders must meet 6 hour run time requirement.

23. **QUESTION** - C.5.1.5.5 - Battery recharge time from protective low cutoff to 80 percent or more of full charge capacity shall not exceed 6 hours. As mentioned earlier (see C.5.1.2.12 and C.5.1.5.1): The spec is inconsistent on the charging requirements based on these two points. Our charger can provide a maximum of 20 amps DC. Our charger will charge 4-105Ah batteries from full discharge to 80% in 8.5 hrs, full charge in 11.5 hours. Our battery charging rates are not user adjustable, but the user can select the type of battery, size and quantity. The BBS uses this data for charging and battery percent calculations.

RESPONSE:

Acceptable

24. **QUESTION** - C.5.1.6.13 - Cabinet for UPS must be weatherproof and constructed of welded sheet anodized aluminum, 0.125-inch minimum. Cabinet finish must include graffiti resistant coating. Cabinet mounting attachments must be durable, corrosion resistant, compatible with the aluminum of the cabinet or isolated from it **and** of heavy-duty construction. Cabinets shall be no larger than 40 inches in height, 15 inches in width, and 10 inches in depth. These dimensions may have to change depending on what your answers to run time and load requirements are.

RESPONSE:

DDOT Minimum run time will be **6 Hours**.  
The Maximum Cabinet depth will remain as specified.  
A cabinet height of 40 inches is allowed  
A cabinet width of 19 inches is allowed.

25. **QUESTION** - The project description on the DC website for this project states” “RECEPTACLES, POWER, VEHICLE (TO CONNECT POWER SUPPLY ON TRUCKS TO ELECTRIC WINCH)”. Is an external plug required on the BBS cabinet to make the connection to an electric winch on a truck? We didn’t see anything specifically about this in the specs.

RESPONSE:

This is not a requirement in DCKA-2009-B-0010 - UPS for Traffic Signal Control Cabinets the following is a requirement.

C.5.2.1.11 - UPS system must be connected to allow any existing generator ports to provide charging voltage to the battery banks during long term outages. Additionally: The UPS cabinet must provide a means to interface to, and secure the District's existing Traffic signal emergency generators in the same manner as they are currently secured.

26. **QUESTION** – The specifications call for an anodized cabinet with the anti-graffiti film. The anti-graffiti film can be applied over powder coating but not on an anodized cabinet. Should the cabinets be powder coated DC gray with anti-graffiti film?

RESPONSE:

UPS cabinet shall be powder coated and anti-graffiti coated to match the color of the District's existing 336 Super stretch cabinets.