

**RETURN BIDS TO:**  
**RETOURNER LES SOUMISSIONS À:**

**Public Works and Government Services Canada**  
**ATB Place North Tower**  
**10025 Jasper Ave./10025 ave. Jaspe**  
**5th floor/5e étage**  
**Edmonton**  
**Alberta**  
**T5J 1S6**  
**Bid Fax: (780) 497-3510**

## Request For a Standing Offer Demande d'offre à commandes

Regional Individual Standing Offer (RISO)  
Offre à commandes individuelle régionale (OCIR)

Canada, as represented by the Minister of Public Works and Government Services Canada, hereby requests a Standing Offer on behalf of the Identified Users herein.

Le Canada, représenté par le ministre des Travaux Publics et Services Gouvernementaux Canada, autorise par la présente, une offre à commandes au nom des utilisateurs identifiés énumérés ci-après.

## Comments - Commentaires

**Vendor/Firm Name and Address**  
**Raison sociale et adresse du**  
**fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**  
Public Works and Government Services Canada  
ATB Place North Tower  
10025 Jasper Ave./10025 ave Jasper  
5th floor/5e étage  
Edmonton  
Alberta  
T5J 1S6

<b>Title - Sujet</b> Electrical Services	
<b>Solicitation No. - N° de l'invitation</b> W6837-174233/A	<b>Date</b> 2017-12-07
<b>Client Reference No. - N° de référence du client</b> W6837-174233	<b>GETS Ref. No. - N° de réf. de SEAG</b> PW-\$PWU-023-11272
<b>File No. - N° de dossier</b> PWU-7-40143 (023)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2018-01-09</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Mountain Standard Time MST
<b>Delivery Required - Livraison exigée</b> See Herein	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Taylor (RPC), Ian	<b>Buyer Id - Id de l'acheteur</b> pwu023
<b>Telephone No. - N° de téléphone</b> (780)566-9487 ( )	<b>FAX No. - N° de FAX</b> (780)497-3510
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> DEPARTMENT OF NATIONAL DEFENCE RPOU (W) Det Wx Gm Wainwright, B188 Denwood AB T0B 1B0 Canada	
<b>Security - Sécurité</b> This request for a Standing Offer does not include provisions for security. Cette Demande d'offre à commandes ne comprend pas des dispositions en matière de sécurité.	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>



**Real Property Operations Unit  
RPOU (W) Det Wx  
ELECTRICAL SERVICES  
STATEMENT OF WORK**

**LOCATION: 3DSG Det Wainwright, AB  
DATE: 30 Jan 17**

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Electrical Services  
SOW  
Index to Specifications

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Section No.	Title	Pages
	<b>Division 01- General Requirements</b>	
01	General Instructions	3
02	Summary of Work	3
03	Submittals	4
04	DND Fire Safety Requirements	5
05	Environmental Protection	2
06	Temporary Facilities	2
07	Temporary Barriers and Enclosures	1
08	Material and Equipment	2
09	Safety Requirements	4
10	Cleaning	2
11	Closeout Submittals	2

## **1. WORK REQUIREMENTS**

### **.1 Required Documents**

- .1 The Contractor should submit a cost breakdown of the required work for each call-up under this Standing Offer Agreement (SOA).
- .2 Maintain at the job site, one copy each of the following:
  - .1 Signed Commitment of Services for each call-up
  - .2 Copy of approved schedule for each call-up
  - .3 Any drawings issued with the call-up
  - .4 Specifications
  - .5 Addenda

### **.2 Work Execution**

- .1 Work Preparation
  - .1 The Contractor should assess the work required in the call-up and proceed to carry out the work in a logical and efficient manner.
  - .2 The Contractor should coordinate work plan with DND Contract Officer / Inspector.
- .2 Existing Services
  - .1 Protect and maintain all existing services unless otherwise noted.
  - .2 Report any damage to services immediately to the DND Contract Officer / Inspector.
- .3 Documents Records
  - .1 The Contractor should record accurately, deviations from contract documents if used for the call-up. Record changes in red and mark one set of prints during work. At completion of project and prior to final inspection, neatly transfer markings to second print set and submit both sets to DND Contract Officer / Inspector.

### **.3 Acceptance Criteria**

- .1 Upon completion of all work, the Contractor should provide a task completion report or check list. DND Contract Officer / Inspector should inspect all work carried out by the contractor against all deliverables listed in the call-up and other contract documents. Satisfactory acceptance of the completion task list will acknowledge acceptance of all project deliverables. The DND Contract Officer / Inspector will then proceed to close-out the call up.

## **2. OPERATIONAL REQUIREMENTS**

- .1 Co-ordinate all tests with the DND Contract Officer / Inspector. Schedule tests so as not to unduly disrupt the operations of the workplace.
- .2 Ensure all safety requirements of the area are strictly adhered to.

## **3. WORK SCHEDULE(S)**

- .1 Submit to the DND Contract Officer / Inspector a schedule for each call-up, identifying all required tasks.
- .2 Normal hours of work at CFB/ASU Wainwright are from 0800-1600, weekdays. Any work outside of these times must be requested or approved by the DND Contract Officer / Inspector.

## **4. CONTRACTOR'S USE OF SITE**

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- .1 Contractor should comply with Garrison regulations. Movement around the site is subject to the following restrictions:
  - .1 All posted signs to be strictly adhered to.
  - .2 Parking of Contractor's vehicles on the Base to be as authorized by the DND Contract Officer / Inspector.
  - .3 Contractor's vehicles and equipment may be subject to search due to heightened security.
- .2 Contractor to schedule and perform work to minimize interference with DND operations. The Contractor shall consult with the DND Contract Officer / Inspector to coordinate the work with any DND operations scheduled.
- .3 Use of site is limited to following areas for work and storage:
  - .1 Storage areas will only be authorized by the DND Contract Officer / Inspector.
- .4 Do not unreasonably encumber site with materials or equipment.

## **5. ADDITIONAL DRAWINGS / DOCUMENTS**

- .1 DND Contract Officer / Inspector may provide additional drawings and/or documents to assist proper execution of work. These drawings and/or documents will be issued for clarification only.

## **6. CODES AND STANDARDS**

- .1 Must meet the requirements of contract documents and applicable to the latest standards, codes and referenced documents, as revised to date of this specifications document.
- .2 Perform work in accordance with National Building Code of Canada (NBC), Canadian Electrical Code Part I, other relevant Canadian and Provincial Standards and statutory regulations. Observe and enforces Worker's Compensations Board Rules and Regulations as well as all regulations of the National Fire Prevention Code.
- .3 In the case of conflict or discrepancy, the more stringent requirements shall apply.
- .4 Materials and workmanship must conform to or exceed applicable standards of National Building Code, Canadian Standards Association (CSA), American Society for Testing and Materials (ASTM) and other referenced organizations.

## **7. CONSTRUCTION SAFETY MEASURES**

- .1 Observe all construction safety measures of the National Building Code and Alberta Occupational Health and Safety. In any case of conflict or discrepancy, the more stringent requirements shall apply.

## **8. COORDINATION**

- .1 Contractor to be responsible for the satisfactory completion of the entire Call-up and shall be responsible for the coordination of work by all sub-contractors if required. Contractor shall track time on site of all project personnel.

## **9. CLEANING**

- .1 Maintain Work areas in tidy condition, free from accumulation of waste and debris. Comply with local ordinances and anti-pollution laws.
  - .2 Remove all construction debris and unsuitable material from site and properly dispose of such
-

material.

- .3 Provide on-site containers for collection of waste materials and debris, when and where required.
- .4 When Work is complete, broom-clean the immediate area and leave area in clean and tidy condition.

#### **10. BASE ACCESS / CONTRACTOR ESCORTS**

- .1 All Contractors, Sub-Contractors, Suppliers and project personnel need to have a SRCL approved before any work can start and may be required to be escorted while performing job activities in restricted areas. The Contractor will not have unescorted access to any restricted areas, controlled goods or protected documents. Escorts will be provided by the Crown, at no cost to the Contractor.
- .2 When escorts are required, the contractor will coordinate scheduling with the DND Contract Officer / Inspector to ensure escort availability. Failure to provide an updated construction schedule in accordance with the contract documents, or within a reasonable timeframe as requested by the DND Contract Officer / Inspector or Commissionaires, may affect the Crown's ability to provide escorts and impact the Contractor's ability to perform the work. Any delays and/or impacts to the overall construction schedule as a result of this will not be borne by Canada.

**END OF SECTION**



## 1. GENERAL DESCRIPTION

- .1 Work under this Standing Offer Agreement (SOA) covers the supply of all labor, equipment, transportation, materials, and supervision required to complete minor electrical projects and maintenance in various buildings as well as corrective and preventative maintenance to the Building Management Systems (BMS) on an "as required" requested basis for the Department of National Defence, Garrison Wainwright, Alberta.

## 2. SCOPE

- .1 The services under this contract will be conducted under specific call-ups, including but not limited to the following systems:
  - .1 Minor Electrical
    - .1 Includes but is not limited to:
      - 1. Installation and removal of circuits;
      - 2. Repairs and modifications to new and old electrical wiring; and
      - 3. Troubleshooting.
    - .2 High Voltage/Overhead Work:
      - 1. Resetting or replacing line fuses;
      - 2. Line repair above and below ground;
      - 3. Pole replacement; and
      - 4. Transformer replacement.
  - .2 Building Management System (BMS). A control and monitoring system incorporating a controller device, programmable, to give the ability of diagnosis, commands, fault diagnosis, calibration, interface of transmitters, transducers and control and interface of software. With the ability of signal identification, fully commented source listing of applicable driver/handler devices, co-ordination of hardware and software functionality, data link with printable message format and on-screen graphic display of systems. Provides control and monitoring of devices such as, but not limited to; boiler/heating systems, exhaust and fresh air fans, valves, dampers, flow measuring stations, air compressors, pilot sensors, refrigeration systems, alarm and detector devices, water systems, energy optimization programs etc.
    - .1 These call-ups incorporate general services which include but are not limited to the following:
      - 1. Inspections and preventative maintenance on BMS;
      - 2. Repairs and modifications to BMS controller devices;
      - 3. Repairs, replacement of electrical actuators, solenoids and other control devices;
      - 4. Repair, replacement and upgrade of software with required programming;
      - 5. Verification and testing of I/O functions;
      - 6. Troubleshoot and repair of miscellaneous electric equipment.
    - .2 Automatic Controls
      - 1. There are 18 Buildings using Automatic Controls Systems;
      - 2. Programming must be conducted by approved Automatic Controls personnel;
      - 3. Equipment must comply to Automatic Controls approved systems;
    - .3 Johnson Controls
      - 1. There are 3 Buildings using Johnson Controls Systems;
      - 2. Programming must be conducted by approved Johnson Controls personnel;
      - 3. Equipment must comply to Johnson Controls approved systems;
    - .4 Seimens Controls
      - 1. There are 5 Buildings using Seimens Controls Systems;
      - 2. Programming must be conducted by approved Seimens Controls personnel;

3. Equipment must comply to Seimens Controls approved systems;

### **3. TECHNICIAN'S QUALIFICATIONS**

- .1 All electrical work is to be carried out by qualified, licensed electricians who hold valid journeyman electrical license or apprentices, certified in the province of Alberta or with an interprovincial red seal, as per the conditions of the Provincial Act. Apprentices must work only in the continual presence of a licensed journeyman.
- .2 For Automatic Controls, Johnson Controls and Seimens Controls, the technician performing this work must hold a valid journeyman controls certificate and be an experienced and certified "building controls technologist" using Automatic Controls, Johnson Controls and Seimens Controls approved components and equipment, respectively.

### **4. CONTRACTOR'S RESPONSIBILITIES**

#### **.1 Call-ups**

- .1 The Contractor should respond to an authorized request by the DND Contract Officer / Inspector within eight (8) hours of a call up, in addition, the actual work will be performed within forty-eight (48) Hours or within a time frame mutually agreed to by both parties and as stated on the authorization form.
- .2 In the case of an emergency situation, the Contractor shall reply to an authorized request from the DND Contract Officer / Inspector within four (4) hours and work will commence immediately thereafter.
- .3 The Contractor shall submit a site specific safety plan to DND Contract Officer / Inspector for each call-up and prior to starting work.

#### **.2 Estimates, Provision of:**

Where an estimate of the cost of performing specific work is required, the DND Contract Officer / Inspector will provide the Contractor with a statement of the work (SOW) required and the contractor shall provide the DND Contract Officer / Inspector with an estimate of the cost of performing the specified work in accordance with the pricing provision of the contract. This estimate will be provided in a timely manner, with a maximum time of seven (7) working days. The Contractor must not undertake any of the specified work unless and until the estimate has been approved and an authorized request has been issued by the DND Contract Officer / Inspector, to proceed with the work. The estimated cost shall not be exceeded without the specific written authorization of the DND Contract Officer / Inspector.

If the Sub-Contractor is used for the same services outlined in the SO, they need to comply with the same rates in the SO.

**.3 Manufacturer's Instructions**

It shall be the Contractor's responsibility to follow the manufacturer's instructions for application or installation of all materials or products.

**.4 Reporting Deterioration or Damage**

Any damage or deterioration discovered during the contract, but not included in the scope of work, shall be reported to the DND Contract Officer / Inspector.

**.5 Permits and Licenses**

It shall be the Contractor's responsibility where applicable and required to obtain and abide by the Provincial permits and licenses, and to ensure all instructions on the permits are understood and carried out accordingly. Ensure all other applicable licenses and permits are obtained.

**5. QUALITY CONTROL**

**.1 Inspection Of Work**

The Contractor shall allow sufficient time to notify the DND Contract Officer / Inspector and have the work inspected.

**.2 Testing**

- .1 Testing requirements will be stated in the scope of work of each call-up;
- .2 Conduct all tests in the presence of DND Contract Officer / Inspector;
- .3 Provide instruments, meters, equipment, and personnel required to conduct tests during and at conclusion of work;
- .4 Where applicable, obtain report from manufacturer verifying compliance of work, in handling, installing, applying, protecting and cleaning of product.

**6. TEMPORARY SERVICES**

- 1 Temporary electric power may be supplied free of charge at existing points of delivery subject to the discretion and approval of DND Contract Officer / Inspector.

**7. SALVAGED MATERIALS**

- .1 All salvaged or scrap materials shall become the property of the Contractor unless otherwise specified by the DND Contract Officer / Inspector.

**END OF SECTION**

**1. GENERAL**

- .1 Submit to DND Contract Officer / Inspector submittals for review. Submit with reasonable promptness and in orderly sequence so as to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for an extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .2 Work affected by submittal shall not proceed until review is complete.
- .3 Present shop drawings, product data, etc. in SI Metric units. Exception is given to anchor bolt diameters.
- .4 Where items or information is not produced in SI Metric units, converted values are acceptable.
- .5 Contractor to review submittals prior to submission to DND Contract Officer / Inspector. This review must verify that all necessary requirements have been determined and that each submittal has been checked and coordinated with requirements of the Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and shall be considered rejected.
- .6 Notify DND Contract Officer / Inspector, in writing at time of submission, of any deviations from requirements of Contract Documents and stating reasons for such deviations.
- .7 Verify field measurements and impact on affected adjacent Work.
- .8 Contractor's responsibility for errors and omissions in submission is not relieved by DND Contract Officer / Inspector review of submittals.
- .9 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by DND Contract Officer / Inspector review.
- .10 Keep one reviewed copy of each submission on site.

**2. SHOP DRAWINGS**

- .1 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.
- .2 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been coordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.
- .3 Allow 10 working days for DND Contract Officer / Inspector review of each submission.
- .4 Adjustments made on shop drawings by DND Contract Officer / Inspector is not intended to change Contract Price. If adjustments affect value of Work, notify in writing to DND Contract Officer / Inspector prior to proceeding with Work.

- .5 Make amendments to shop drawings as DND Contract Officer / Inspector may require, consistent with Contract Documents. When resubmitting, notify DND Contract Officer / Inspector in writing of any revisions other than those requested.
- .6 Accompany submissions with transmittal letter, containing:
  - .1 Date;
  - .2 Project title and number;
  - .3 Contractor's name and address;
  - .4 Identification and quantity of each shop drawing, product data and sample;
  - .5 Other pertinent data.
- .7 Submissions shall include:
  - .1 Date and revision dates;
  - .2 Project title and number;
  - .3 Contractor's stamp, signed by Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents;
  - .5 Details of appropriate portions of Work as applicable:
    - .1 Fabrication;
    - .2 Layout, showing dimensions, including identified field dimensions, and clearances;
    - .3 Setting or erection details;
    - .4 Standards;
    - .5 Relationship to adjacent work.
- .8 Submit 3 prints of shop drawings or 1 electronic copy for each requirement requested in specification and as DND Contract Officer / Inspector may reasonably request.
- .9 Supplement standard information to provide details applicable to project.
- .10 If upon review by DND Contract Officer / Inspector, no errors or omissions are discovered or if only minor corrections are made, copies will be returned and fabrication and installation of Work may proceed. If shop drawings are rejected, drawings will be returned noted as such and resubmission of corrected shop drawings, through same procedure indicated above, must be performed before fabrication and installation of Work may proceed.

- .11 The review of shop drawings by the DND Contract Officer / Inspector is for sole purpose of ascertaining conformance with general design intent. This review shall not mean that the DND Contract Officer / Inspector approves detail design inherent in shop drawings, responsibility for which shall remain with Contractor submitting same, and such review shall not relieve Contractor of responsibility for errors or omissions in shop drawings or of responsibility for meeting all requirements of construction and Contract Documents. Without restricting generality of foregoing, Contractor is responsible for dimensions to be confirmed and correlated at job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of Work of all sub-trades.

**END OF SECTION**

General  
DND Fire Safety

**Part 1            General**

**1.1            CONSTRUCTION FIRE SAFETY**

- .1        The Contractor shall provide construction fire safety in accordance with the National Fire Code of Canada, Canadian Forces Fire Marshall (CFFM) and Fire Marshall Directive (FMD 4006)

**1.2            FIRE DEPARTMENT BRIEFING**

- .1        DND Contracts Officer/Inspector will co-ordinate arrangements for Pre-Commencement Meeting before any work commences. Contractors will be briefed on Fire Safety by the Fire Hall or his designated representative before work starts.

**1.3            REPORTING FIRES**

- .1        The Contractor shall inform the DND Contracts Officer/Inspector and Fire Hall of all fire incidents at the construction site, regardless of size.
- .2        Know location of nearest fire alarm pull station and telephone, including emergency phone number.
- .3        Report immediately fire incidents to Fire Department as follows:
  - .1        Activate nearest fire alarm pull station.
  - .2        Telephone 911 or Base Fire hall Ext# 3333
- .4        Person activating fire alarm pull station will remain at the front entrance to direct Fire Department to scene of fire.
- .5        When reporting fire by telephone, give location of fire, name or number of building and be prepared to verify location.

**1.4            FIRE SAFETY PLAN**

- .1        Submit a fire safety plan prior to commencement of work. The fire safety plan shall conform to the Canadian Forces Fire Marshall (CFFM) and Fire Marshall Directive (FMD 4006)
- .2        The fire safety plan shall be submitted to the DND Contracts Officer/Inspector for review by local fire department. Any comments by local fire department shall be implemented by the Contractor.
- .3        The fire safety plan shall be limited to the area of construction only. Contractor is not responsible for amending fire safety plans in existing buildings.

**1.5            INTERIOR AND EXTERIOR FIRE PROTECTION AND ALARM SYSTEMS**

- .1 Fire protection and alarm system will not be:
  - .1 Obstructed.
  - .2 Shut-off.
  - .3 Left inactive at end of working day or shift without prior written authorization from the Fire Hall.
- .2 Do not use Fire hydrants, standpipes or hose systems for other than fire-fighting purposes unless authorized by the Fire Hall.

#### **1.6 FIRE PROTECTION SYSTEM IMPAIRMENT**

- .1 Notify the DND Contracts Officer/Inspector and the Fire Hall 48 hours prior to Working on any active fire protection system, including water supply, fire suppression, fire detection and life safety systems.
- .2 Where a fire protection system that provides fire alarm monitoring is impaired in an existing building, a fire watch may be required at the discretion of the Fire Hall.
- .3 Implement all fire protection system impairments in accordance with the Canadian Forces Fire Marshall (CFFM) and Fire Marshall Directive (FMD 4006). Fire Orders will be provided at the Pre-Commencement Meeting.

#### **1.7 FIRE EXTINGUISHERS**

- .1 In addition to other requirements of this specification, supply fire extinguishers, as scaled by the Fire Hall, necessary to protect work in progress and contractor's physical plant on site.

#### **1.8 ACCESS FOR FIRE FIGHTING**

- .1 Access for firefighting shall be provided in accordance with the Canadian Forces Fire Marshall (CFFM) and Fire Marshall Directive (FMD 4006)
- .2 Advise the Fire Hall of work that would impede fire apparatus response. This includes violation of minimum horizontal and overhead clearance, as prescribed by the Fire Hall, erecting of barricades and digging of trenches.
- .3 Minimum horizontal clearance: clear width of not less than 5m, or as defined by the Fire Hall.
- .4 Minimum vertical clearance: overhead height of not less than 6m, or as defined by the Fire Hall.

#### **1.9 SMOKING PRECAUTIONS**

- .1 Smoking is prohibited in all buildings. Observe posted smoking restrictions near existing buildings.

#### **1.10 RUBBISH AND WASTE MATERIALS**

- .1 Keep rubbish and waste materials at minimum quantities.
- .2 Burning of rubbish is prohibited.
- .3 Remove rubbish from work site at end of work day or shift or as directed.
- .4 Storage:
  - .1 Store oily waste in approved receptacles to ensure maximum cleanliness and safety.
  - .2 Deposit greasy or oily rags and materials subject to spontaneous combustion in approved receptacles and remove as specified.

#### **1.11 FLAMMABLE AND COMBUSTIBLE LIQUIDS**

- .1 Handle, store and use of flammable and combustible liquids in accordance with the National Fire Code of Canada.
- .2 Keep flammable and combustible liquids such as gasoline, kerosene and naphtha for ready use in quantities not exceeding 45 litres provided they are stored in approved safety cans bearing Underwriters' Laboratory of Canada or Factory Mutual seal of approval. Obtain written authorization from Fire Hall for storage of quantities of flammable and combustible liquids exceeding 45 litres.
- .3 Do not transfer flammable or combustible liquids inside buildings or on jetties.
- .4 Do not transfer flammable or combustible liquids in vicinity of open flames or any type of heat-producing devices.
- .5 Do not use flammable liquids having flash point below 38 degrees C such as naphtha or gasoline as solvents or cleaning agents.
- .6 Store flammable and combustible waste liquids, for disposal, in approved containers located in safe ventilated area. Keep quantities to a minimum and notify Fire Hall when disposal is required.

#### **1.12 HOT WORKS**

- .1 The Contractor shall implement a hot works program in accordance with the National Fire Code of Canada and NFPA 51 Standard for Fire Prevention during Welding, Cutting and Other Hot Work. Canadian Forces Fire Marshall (CFFM) and Fire Marshall Directive (FMD 4006)
- .2 The Contractor shall obtain from the Fire Hall a "Hot Work" permit for all hot works in the construction area. Frequency of renewal for hot works permits is at the discretion of the Fire Hall.

- .3 When Work is carried out in dangerous or hazardous areas involving use of heat, provide fire watchers equipped with sufficient fire extinguishers. Determination of dangerous or hazardous areas along with level of protection necessary for Fire Watch is at discretion of the Fire Hall.
- .4 Provide fire watch service for work on scale established and in conjunction with the Fire Hall as defined in the Fire Department Briefing. Fire watchers shall be trained in the use of fire extinguishing equipment.
- .5 Area of hot works
  - .1 Hot works shall be carried out in an area free of combustible and flammable content.
  - .2 Where 1.12.5.1 is not possible,
    - .1 All flammable and combustible materials within 15m of the hot works shall be protected in accordance with the National Fire Code of Canada, Canadian Forces Fire Marshall (CFFM) and Fire Marshall Directive (FMD 4006)
  - .3 Where there is a possibility of sparks leaking onto combustible materials in areas adjacent to the areas where the hot work is carried out
    - .1 Openings in walls, floors or ceilings shall be covered or closed to prevent the passage of sparks to such adjacent areas, or
- .6 Protection of flammable and combustible materials
  - .1 Any combustible or flammable material, dust or residue shall be
    - .1 Removed from the area where hot works is carried out; or
    - .2 Protected from ignition by non-combustible materials
- .7 Fire extinguisher
  - .1 A fire extinguisher shall be provided within 3 m of all hot works. Minimum size shall be 20lbs ABC unless otherwise directed by Fire Hall.

### **1.13 HAZARDOUS SUBSTANCES**

- .1 Work entailing use of toxic or hazardous materials, chemicals and/or explosives, or otherwise creating hazard to life, safety or health, shall be in accordance with National Fire Code of Canada.
- .2 Provide ventilation where flammable liquids, such as lacquers or urethanes are used. Eliminate all sources of ignition. Inform the Fire Hall prior to and at completion of such work

### **1.14 PARTIAL OCCUPANCY**

- .1 Implement partial occupancy procedures as defined in the drawings and specifications. Partial occupancy is where construction occurs

adjacent to work areas occupied by Departmental or Canadian Forces personnel. This includes Canadian Forces Fire Marshall (CFFM) and Fire Marshall Directive (FMD 4006):

- .1 Phased new construction
  - .2 Early or partial occupancy of new construction
  - .3 New construction being added onto an existing building
  - .4 Renovation or recapitalization of an existing building
  - .5 Phased renovation or recapitalization of an existing building
- .2 Where partial occupancy occurs, Contractor shall implement requirements as found in the drawings and specifications. This may include construction of a rated fire separation between occupied and construction areas as required by the National Fire Code, Canadian Forces Fire Marshall (CFFM) and Fire Marshall Directive (FMD 4006).

#### **1.15 QUESTIONS AND/OR CLARIFICATION**

- .1 Direct questions or clarification on Fire Safety in addition to above requirements to the DND Contracts Officer/Inspector.
- .2 DND Contracts Officer/ Inspector, is responsible to obtain clarifications from the Fire Hall. The Contractor is not to liaise directly with the Fire Hall for notification, authorization or any requests unless the situation constitutes an immediate emergency.

#### **1.16 FIRE INSPECTION**

- .1 Co-ordinate site inspections by the Fire Hall through DND Contracts Officer/Inspector.
- .2 Allow the Fire Hall unrestricted access to work site.
- .3 Co-operate with the Fire Hall during routine fire safety inspection of work site.
- .4 Immediately remedy unsafe fire situations observed by the Fire Hall.

#### **Part 2 Products**

##### **2.1 NOT USED**

- .1 Not Used.

#### **Part 3 Execution**

##### **3.1 NOT USED**

- .1 Not Used.

**END OF SECTION**



## **1. PART 1 - GENERAL**

### **1.1 FIRES**

- .1 Fires and burning of rubbish on site not permitted.

### **1.2 DISPOSAL OF WASTES**

- .1 Do not bury rubbish and waste materials on site.
- .2 Do not dispose of waste or volatile materials, such as mineral spirits, oil or paint thinner into waterways, storm or sanitary sewers.

### **1.3 SITE CLEARING AND PLANT PROTECTION**

- .1 Store equipment and machinery as designated by the DND Contract Officer or Inspector and minimize disturbance of vegetation and soil and store on existing hard packed areas where possible.

### **1.4 ENVIRONMENTAL EMERGENCY RESPONSE PROCEDURE**

- .1 If a spill occurs follow the requirements for spill response and reporting from Environmental Directive ED 4003 - 1/2003 Spill Reporting.
- .2 Disposal of spill materials to be off DND property and at approved locations for this type of materials to be disposed of.
- .3 When parking of equipment on site, the equipment is to be secured from entry, inspected for leaks and the ground under the equipment protected by catch basins to prevent soil contaminations.
- .4 Contractor to protect all wells, catch basins, dry wells, drains and water courses from contamination in the event of a spill.
- .5 All equipment to be used for the Work of the Contract is to be inspected by the DND Contract Officer / Inspector for leaks. Equipment not in good repair to be removed/repaired when directed by the DND Contract Officer / Inspector.
- .6 The following spills must be reported to the Base Fire Hall and the DND Contract Officer / Inspector:
  - .1 Any Petroleum (POL) products.
  - .2 Any glycol spill.
  - .3 Any battery acid spill.
  - .4 Any other hazardous/deleterious substance.
  - .5 Any release of halocarbons, including releases from refrigerators, chillers, air conditioner (vehicles or equipment).
  - .6 Any spill that enters a drain, ditch or water body.

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Electrical Services  
Environmental

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- .7 For spills occurring, the Contractor is to immediately remove as much or all of the contaminated soils.
  - .8 Contaminated soils/materials to be placed in containers compatible to the contaminants.
  - .9 Any remaining clean-up to be performed at no extra cost to DND. Clean-ups to be completed to the satisfaction of the DND Contract Officer / Inspector.
- .7 In the event of an environmental incident or emergency such as:
- .1 Chemical spill or petroleum spill,
  - .2 Poisonous or caustic gas emission,
  - .3 Biological or chemical explosion,
  - .4 Hazardous material spill,
  - .5 Sewage spill, and
  - .6 Contaminated water into waterways.
- .8 The Contractor or their employees shall:
- .1 Notify the Contractor's job superintendent.
  - .2 Call local Base Fire Hall, Base Engineering, and give type of emergency.
  - .3 Report the incident using CFB/ASU Wainwright Environmental Incident Spill Reporting Form.

**END OF SECTION**

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Electrical Services  
Environmental

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**1. TEMPORARY UTILITIES**

- .1 Provide temporary utilities controls in order to execute work expeditiously.
- .2 Remove from site all such work after use.

**2. INSTALLATION AND REMOVAL**

- .1 Provide construction facilities in order to execute work expeditiously.
- .2 Remove from site all such work after use.

**3. SCAFFOLDING**

- .1 Provide and maintain scaffolding, ladders, platforms and temporary stairs.

**4. HOISTING**

- .1 Provide, operate and maintain cranes required for moving of materials and equipment.
- .2 Cranes shall be operated by qualified operator.

**5. HEATING & HOARDING**

- .1 It is the Contractor's responsibility to protect the work with heating and hoarding as required.
- .2 Construction heaters used inside building must be vented to outside or be flameless type. Solid fuel salamanders are not permitted.
- .3 Methods to be inspected by Base Fire Inspector. Corrective measures to be implemented as required.

**6. SITE STORAGE/LOADING**

- .1 Confine work and operations of employees to project area defined by Contract Documents. Do not unreasonably encumber premises with products.
- .2 Do not load or permit to load any part of Work with a weight or force that will endanger the Work.

**7. FIRST AID**

- .1 Provide a clearly marked and fully stocked first-aid case in a readily available location.

**8. EQUIPMENT, TOOL AND MATERIALS STORAGE**

- .1 Provide and maintain, in a clean and orderly condition, lockable weatherproof storage for tools, equipment and materials.
- .2 Locate materials not required to be stored in weatherproof storage on site in a manner to cause least interference with work activities.

**9. SANITARY FACILITIES**

- .1 Provide sanitary facilities for work force in accordance with governing regulations and ordinances.

- .2 Post notices and take such precautions as required by local health authorities. Keep area and premises in sanitary condition.

**10. CONSTRUCTION SIGNAGE**

- .1 No site signs are permitted.
- .2 Safety and Instruction Signs and Notices:
  - .1 Signs and notices for safety and instruction shall be in both official languages and Graphic symbols shall conform to CAN3-Z321-77

**END OF SECTION**

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Electrical Services  
Temporary Barriers and Enclosures

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- |   |    |   |
|---|----|---|
| <u>1 Installation<br/>And Removal</u>                           | .1 | Provide temporary controls as needed in order to execute Work expeditiously.  |
|   | .2 | Remove from site all such work after use.   |
|   |    |   |
| <u>2 Hoarding</u>   | .1 | Provide barriers around trees and plants. This will help prevent any damage by equipment and construction procedures.   |
|   |    |   |
| <u>3 Guard Rails and<br/>Barricades</u>                         | .1 | Provide secure, rigid guard rails and barricades around open work areas as required by Alberta Occupational Health & Safety and WCB Regulations.                  |
|   |    |   |
| <u>4 Dust Tight<br/>Screens and<br/>Security<br/>Partitions</u> | .1 | Provide dust tight screens or partitions to localize dust generating activities, for protection of workers and occupied building areas.                           |
|   | .2 | Maintain and relocate protection until such work is complete.   |
|   |    |   |
| <u>5 Traffic Flow</u>   | .1 | Provide and maintain competent signal flag operators, traffic signals, barricades and flares, lights, or lanterns as required to perform Work and protect public. |
|   |    |   |
| <u>6 Fire Routes</u>  | .1 | Maintain access to property including overhead clearances for use by emergency response vehicles.   |
|   |    |   |
| <u>7 Protection of<br/>Property</u>                             | .1 | Protect surrounding private and public property from damage during performance of Work.   |
|   | .2 | Be responsible for damage incurred at no cost to DND Contract Officer / Inspector.  |
|   |    |   |
| <u>8 Protection of<br/>Building Finishes</u>                    | .1 | Provide protection for existing finished building surfaces and equipment during performance of Work.  |
|   | .2 | Provide necessary screens, covers, pads and hoardings.  |
|   | .3 | Be responsible for damage incurred due to lack of or improper protection, at no cost to DND.  |

**END OF SECTION**



**1. GENERAL**

- .1 Use new material and equipment unless otherwise specified.

**2. AVAILABILITY**

- .1 Immediately upon receipt of a call-up, review product delivery requirements and anticipate foreseeable supply delays for any items. If delays in supply of products are foreseeable, notify DND Contract Officer / Inspector of such, in order that substitutions or other remedial action may be authorized in ample time to prevent delay in performance of Work.
- .2 In event of failure to notify DND Contract Officer / Inspector at commencement of Work and should it subsequently appear that Work may be delayed for such reason, DND Contract Officer / Inspector reserves right to substitute more readily available products of similar character, at no increase in Contract Price or Contract Time.

**3. STORAGE, HANDLING AND PROTECTION**

- .1 Handle and store products in manner that will prevent damage, adulteration, deterioration and soiling, and in accordance with manufacturer's instructions when applicable.
- .2 Store packaged or bundled products in original and undamaged condition with manufacturer's seal and labels intact. Do not remove from packaging or bundling until required in Work.
- .3 Store products subject to weather damage in weatherproof enclosures.
- .4 Remove and replace damaged products at own expense and to satisfaction of DND Contract Officer / Inspector.

**4. TRANSPORTATION**

- .1 Pay costs of transportation of products and materials required for the performance of Work.

**5. MANUFACTURER'S INSTRUCTIONS**

- .1 Unless otherwise indicated in specifications install or erect products in accordance with manufacturer's instructions. Do not rely on labels provided with products. Obtain written instructions directly from manufacturer.
- .2 Notify DND Contract Officer / Inspector in writing of conflicts between specifications and manufacturer's instructions, so that DND Contract Officer / Inspector may establish a course of action.
- .3 Improper installation or erection of products, due to failure in complying with these requirements, authorizes DND Contract Officer / Inspector to require removal and re-installation at no increase in Call-up Price or Call-up Time.

**6. QUALITY OF WORK**

- .1 Ensure Quality of Work is of highest standard, executed by workers experienced and skilled in respective duties for which they are employed. Immediately notify DND Contract Officer / Inspector if required Work is such as to make it impractical to produce required results.
- .2 Decisions as to standard or fitness of Quality of Work in cases of dispute rest solely with DND Contract Officer / Inspector, whose decision is final.

**8. REMEDIAL WORK**

- .1 Perform remedial work as required to repair or replace parts or portions of Work identified as defective or unacceptable. Coordinate adjacent affected Work as required.

**9. FASTENINGS**

- .1 Prevent electrolytic action between dissimilar metals and materials.
- .2 Fastenings which cause spalling or cracking of material to which anchorage is made are not acceptable.

**END OF SECTION**

**PART 1      GENERAL**

**1.1          SUBMITTALS**

- .1 Submit to the DND Contract Officer / Inspector copies of the following documents, including updates issued:
  - .1 One copy of the Health and Safety Program prior to commencement of work on the work site
  - .2 Reports or directions issued by authorities having jurisdiction, immediately upon issuance from that authority.
  - .3 Accident or Incident Reports, within 24 hrs. of occurrence
- .2 Submit other data, information and documentation upon request by the DND Contract Officer / Inspector as stipulated elsewhere in this section.
- .3 The Contractor is required to fully comply with all Provincial / Territory Safety Acts, Codes and Regulations. The Contractor will be acting as the 'Prime (Principal if applicable) Contractor' for this contract and will certify this agreement in writing with the DND Contract Officer / Inspector.

**1.2          COMPLIANCE REQUIREMENTS**

- .1 Comply with the latest edition of the Alberta Occupational Health and Safety Act, and the Regulations made pursuant to the Act.
- .2 Observe and enforce construction safety measures required by:
  - .1 National Building Code of Canada (latest edition);
  - .2 Provincial Worker's Compensation Board;
  - .3 Municipal statutes and ordinances; and
  - .4 Occupational Health and Safety.
- .3 In event of conflict between any provisions of above authorities the most stringent provision shall apply.
- .4 Provide and maintain Worker's Compensation Board coverage for all employees for the duration of the contract. Prior to commencement of the work, at the time of Interim Completion and prior to final payment, provide to the DND Contract Officer / Inspector a letter of Clearance from the Workers' Compensation Board indicating that the Contractor's account is in good standing.
  - .1 Should the Contractor be a sole proprietor shall provide documented proof in a form acceptable to DND Contract Officer/ Inspector, of an alternative means of personal coverage that's meets or exceeds the requirements set out above Workers Compensation Board coverage.

### **1.3 RESPONSIBILITY**

- .1 The Contractor is responsible for safety of persons and property on the work site and for protection of federal employees and the general public circulating adjacent to work site operations to extent that they may be affected by conduct of work.
- .2 The Contractor is to enforce compliance by workers and other persons granted access to work site with safety requirements of Contract Documents, applicable federal, provincial, and local statutes, regulations, and ordinances, and with the Contractor's Health and Safety Program.
- .3 Should an unforeseen or peculiar safety related hazard or condition become evident during performance of work, immediately take measures to rectify the situation and prevent damage or harm. Advise the DND Contract Officer / Inspector verbally and in writing of the hazard or condition.

### **1.4 SITE CONTROL AND ACCESS**

- .1 Control all work site access points and work site activities. Delineate and isolate the work site from adjacent and surrounding areas by use of appropriate means to maintain control of all work site access points. The Contractor shall provide continual protection from his work to personnel, vehicles, equipment or other surrounding facilities by using, drop sheets, barricades, warning signs, lights or other protective devices considered necessary by the DND Contract Officer / Inspector.
- .2 Make provisions for granting permission to access onto work site to all persons who require access. Procedures for granting permission to access are to be in accordance with the Alberta Occupational Health and Safety Act, and the Regulations made pursuant to the Act and the Contractor's Health and Safety Program.
- .3 Ensure persons granted access to the work site are in possession of and wear the minimum personal protective equipment (PPE) designated by the Contractor's Health and Safety Program. Ensure persons granted access to the work site are provided with, trained in the use of, and wear, appropriate PPE that are required above and beyond the designated minimums previously noted and as specifically related to the work site activity that they are involved in. Be responsible for the efficacy of the PPE that is provided above and beyond the designated minimums.
- .4 Erect signage at access points and at other strategic locations around the work site clearly identifying the work site area(s) as being "off-limits" to non-authorized persons. Signage must be professionally made with well understood graphic symbols and is not to be used as advertising but for the specific use as related to site safety and key contact information.
  - .1 Information to be provided on a signage is as follows:  
Project Name/Description  
Contractor Company Name

Project Superintendent's Name/Phone No

DND Contract Officer / Inspector Point of  
Contact Name/Phone No.

- .5 Secure the work site at all times to protect against un-authorized access.

## **1.5 FILING OF NOTICE**

- .1 DND Contract Officer / Inspector will file notice with Occupational Health and Safety. It is the Contractor's responsibility to file any other required Notices with the Provincial/Territorial Authorities prior to commencement of the work. Provide the DND Contract Officer / Inspector with a copy of the filed Notice(s) prior to commencement of the work.

## **1.6 PERMITS**

- .1 Obtain permits, licenses and compliance certificates at appropriate times and frequencies as required by the authorities having jurisdiction.
- .2 Post all permits, licenses and compliance certificates on work site and provide copies to the DND Contract Officer / Inspector.
- .3 Obtain a Base Dig Permit for any excavations.

## **1.7 MEETINGS**

- .1 Prior to commencement of work attend a pre-commencement meeting conducted by the DND Contract Officer / Inspector. Ensure minimum attendance by contractor's site superintendent. The DND Contract Officer / Inspector will advise of time, date and location of the meeting and will be responsible for recording and distributing the minutes.
- .2 Conduct site specific occupational health and safety meetings as required by Alberta Occupational Health and Safety Act, and the Regulations made pursuant to the Act.
- .3 Record and post minutes of all meetings in plain view on the work site. Make copies available to the DND Contract Officer / Inspector upon request.

## **1.8 HEALTH AND SAFETY PROGRAM**

- .1 Contractors are required under the Alberta Occupational Health and Safety Act, and the Regulations made pursuant to the Act to have in place a Health and Safety Program. Compliance requirements for the content, detail and implementation of the program resides with the provincial/territorial authority. For the purpose of this contract the Health and Safety Program shall include a site-specific Health and Safety Plan that acknowledges hazardous conditions known, and on-going hazard assessments performed during the progress of work identifying and documenting new or potential health risks and safety hazards not previously known and identified.

- .2 Provide one copy of the Health and Safety Program to the DND Contract Officer / Inspector prior to commencement of work on the work site. The copy provided to the DND Contract Officer / Inspector is for the purpose of review against the contract requirements related to the known hazardous substances and/or hazardous conditions. The review is not to be construed to imply approval by the DND Contract Officer / Inspector that the program is complete, accurate and legislatively compliant with the Alberta Occupational Health and Safety Act, and the Regulations made pursuant to the Act, and shall not relieve the Contractor of their legal obligations under such legislation.

## **1.9 ACCIDENT REPORTING**

- .1 Investigate and report incidents and accidents as required by Alberta Occupational Safety and Health Act, and the Regulations made pursuant to the Act.
- .2 For the purpose of this contract immediately investigate and provide a report to the DND Contract Officer / Inspector on incidents and accidents that involve:
  - .1 A resulting injury that may or may not require medical aid but involves lost time at work by the injured person(s).
  - .2 Exposure to toxic chemicals or substances
  - .3 Property damage
  - .4 Interruption to adjacent and/or integral infrastructure operations with potential loss implications
- .3 In the investigation and reporting of incidents and accidents, the Contractor is required to respond in a timely fashion to correct the action that was deemed to have caused the incident and/or accident and advice in writing on the action taken to prevent a re-occurrence of the incident and/or accident.

## **1.10 RECORDS ON SITE**

- .1 Maintain on site a copy of the safety documentation as specified in this section and any other safety related reports and documents issued to or received from the authorities having jurisdiction.
- .2 Upon request, make copies available to the DND Contract Officer / Inspector.

**END OF SECTION**

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Electrical Services  
Cleaning

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1 Project  
Cleanliness

- .1 Maintain Work in tidy condition, free from accumulation of waste products and debris.
- .2 Remove waste materials from site at end of each work-day or as directed by Engineer.
- .3 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .4 Provide on-site containers for collection of waste materials and debris. Locate where directed by DND Contract Officer / Inspector.
- .5 Provide and use clearly marked separate bins for recycling wherever facilities are available.
- .6 Remove waste material and debris from site and deposit in waste containers at end of each working day.
- .7 Store volatile waste in covered metal containers, and remove from premises at end of each working day.
- .8 Use only cleaning materials recommended by manufacturer of surface to be cleaned and as recommended by cleaning material manufacturer.
- .9 Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces nor contaminate building systems.

2 Final Cleaning

- .1 When Work is Substantially Performed, remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .2 Remove waste products and debris other than that caused by DND or Other Contractors. Leave Work clean and suitable for occupancy.
- .3 Prior to final review, remove surplus products, tools, construction machinery and equipment.
- .4 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .5 Remove stains, spots, marks and dirt from decorative work, electrical/mechanical fixtures, furniture fitments; walls, floors and ceilings.
- .6 Vacuum clean and dust building interiors including structural framing in areas below Work.

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Electrical Services  
Cleaning

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- .7 Clean and polish interior and exterior surfaces of newly installed glass.
- .8 Sweep pavement around building and all pavement parking/storage areas used by Contractor to remove all traces of construction spillage, stains and residue.

**END OF SECTION**

PART 1 - GENERAL

<u>1 . 1 Section Includes</u>	.1	As-built, samples, and specifications.
	.2	Warranties.
<u>1 . 2 Related Sections</u>	.1	Not Used.
<u>1 . 3 As-built and Samples</u>	.1	In addition to requirements in General Conditions, maintain at the site for DND Contract Officer / Inspector one record copy of: <ul style="list-style-type: none"><li>.1 Contract Drawings.</li><li>.2 Specifications.</li><li>.3 Addenda.</li><li>.4 Change Orders and other modifications to the Contract.</li><li>.5 Reviewed shop drawings, product data, and samples.</li><li>.6 Field test records.</li><li>.7 Inspection certificates.</li><li>.8 Manufacturer's certificates.</li></ul>
	.2	Label record documents and file in accordance with Section number listings in List of Contents of this Project Manual. Label each document "PROJECT RECORD" in neat, large, printed letters.
	.3	Maintain record documents in clean, dry and legible condition. Do not use record documents for construction purposes.
	.4	Submit all record documents and samples available for inspection to the DND Contract Officer / Inspector.
<u>1 . 4 Recording Actual Site Conditions</u>	.1	Record information on set of black line opaque drawings, provided by DND Contract Officer / Inspector.
	.2	Record information concurrently with construction progress. Do not conceal Work until required information is recorded.

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Electrical Services  
Closeout Submittals

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- .3 Contract Drawings and shop drawings: legibly mark each item to record actual construction, including:
  - .1 Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
  - .2 Field changes of dimension and detail.
  - .3 Changes made by change orders.
  - .4 Details not on original Contract Drawings.

### 1.5 Warranties

- .1 List of subcontractors, suppliers and manufacturer with name, address and telephone number of responsible principal.
- .2 Obtain warranties, executed in duplicate by subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item of work.
- .3 Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial Performance is determined.
- .4 Verify that documents are in proper form, contain full information, and are notarized.
- .5 Co-execute submittals when required.
- .6 Retain warranties until time specified for submittal.

## PART 2 - PRODUCTS

2.1 Not Used .1 Not Used.

## PART 3 - EXECUTION

3.1 Not Used .1 Not Used.

**END OF SECTION**

