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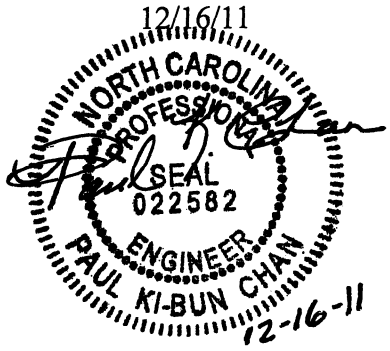

PROJECT SPECIAL PROVISIONS
Roadway Lighting

1.00 GENERAL

1.10 DESCRIPTION

Provide roadway lighting by installing roadway light standards with LED luminaires, light standard foundations and underground conduit system.

Perform all work in accordance with these Special Provisions, the Plans, the National Electrical Code, and North Carolina Department of Transportation "Standard Specifications for Roads and Structures" (Standard Specifications).

Use Division 14 of the Standard Specifications for materials, construction methods and payment for all work, except as modified or added to by these Special Provisions. Specific sections of the Standard Specifications applicable to the work on this project are listed below:

Section 1404	Light Standards
Section 1405	Standard Foundation
Section 1406	Light Standard Luminaires
Section 1409	Electrical Duct
Section 1411	Electrical Junction Boxes

In order to perform work on Camp Lejeune property, the Contractor must be able to meet the Security Requirements portion of this document as detailed in other sections below.

All work occurring on Camp Lejeune property must be coordinated with the Officer in Charge of Construction (OICC). The OICC can be reached at:

Contracting Officer
1005 Michael Road
Camp Lejeune, NC
919-451-2581

1.20 ELECTRICAL POWER

Electrical power will be provided from facilities at the Gatehouse location. This contract installs conduit only. Conductors will be installed under separate contract at a later date.

1.30 JUNCTION BOX

Junction boxes may be required to extend conduit system from single arm light standards to Gatehouse location and may be installed on Base property as directed by OICC. Actual quantity of junction boxes verified and installed will be added to quantity for junction box line item in

contract and paid as such. Junction boxes will only be provided at the end of conduit runs. Maintenance junction boxes are not to be installed.

1.40 CONCURRENT PROJECT P1382

Work on this project, U-5132, will occur concurrently with the Naval Facilities Engineering Command – Midatlantic project P1382. Project P1382 constructs the new entry point into Camp Lejeune on Base property. The Contractor will be required to coordinate installation efforts with the Contractor for P1382 to ensure conduit runs to the Gatehouse do not conflict with conduit or other utilities installed in P1382. A copy of the P1382 site lighting plans have been included in plansheets E4-E7 of the lighting design plans for this project for reference.

Coordination will be of particular importance at the ductbanks described later in this document and shown on plansheet E6.

2.00 BASE ENTRY LED ROADWAY STANDARD AND LUMINAIRE

2.10 DESCRIPTION

The work covered by this section consists of furnishing and installing foundations, conduit and 20' light standards with LED luminaires on Camp Lejeune base property.

The LED luminaire pay item includes the mast arm fitter installation, wiring inside the standard from the foundation to the luminaire, inline fuse holders and ground wiring at the pole.

2.20 MATERIALS

Standard

Provide KW Roadway Lighting Standards pole and truss arm (RTST20-6.5-11-G-115S-NC) to match poles previously installed by the Naval Facilities Engineering Command – Midatlantic on Camp Lejeune property. Standards shall have the following properties: provide a nominal 20' mounting height; base diameter of 6.5"; the pole shaft shall be standard 11 gauge (0.1196") steel; galvanized steel finish complying with ASTM A-123. Nut covers shall also be provided.

Luminaire

Provide Visionaire Lighting, 'Element' Series LED Luminaire, (ELE-3-T4-3-4K-UNV-MAF-SL-PC277).

The luminaire shall have 240 white light emitting diodes (LEDs) each with clear hemispherical integral lens, vertical base-up position, shall operate at 277 volts AC and shall have a mast arm fitter for attachment to the post.

The finish of the luminaire shall be thermoset polyester powder coat paint in "Silver Metallic".

2.30 CONSTRUCTION METHODS

Install conduit as detailed in Standard Specification 1409-3.

Identify light standards as shown on the plans. Adjust final location as per direction of the OICC. Protect the shaft during storage and installation to ensure against scratches or dents. Use proper blocking and protection to prevent warping or discoloration when laid on the ground, and to prevent damage by other construction work.

Install all standards vertically plumb, and provide the required luminaire mounting height.

Standards #5 and #10 as shown on Plansheet E2 shall be installed 60' from standards #1 and #49, respectively, of Area "A" Site Lighting Plan as shown in NAVFAC Contract P1382 in plansheet E5. Maintain 60' spacing between all standards installed as part of U-5132 contract.

After installation, a short burn-in test shall be conducted on each luminaire for a period of 10 consecutive hours using a portable power generation device of the correct voltage. At the Contractor's discretion, luminaires may temporarily wired together, at no additional cost to the Department, for testing on each respective side of the road, or each luminaire may be individually tested. Troubleshoot and/or replace any luminaires not functioning properly during burn-in testing period. For any luminaire repaired or replaced, the burn-in test for that luminaire shall start over until such time that all luminaires have successfully passed burn-in testing.

2.40 MEASUREMENT AND PAYMENT

The quantity of standards and luminaires measured as provided above will be paid for at the contract unit price each for "Roadway Light Standard" and "LED Luminaire" of the appropriate type. Such price and payment will be full compensation for all work of furnishing and installing the standard and the side mount arm with luminaire.

Payment will be made under:

Roadway Light Standard	Each
LED Luminaire	Each

3.00 ENTRY ROADWAY LIGHT FOUNDATION

3.10 DESCRIPTION

Same as Standard Specifications Section 1405-1.

3.20 MATERIALS

Same as Standard Specifications Section 1405-2. See plansheet E3 for foundation design.

3.30 CONSTRUCTION METHODS

See plansheet E3 for foundation details. The foundation design is based upon placing foundations into undisturbed soil or fill of at least medium density. The Contractor will stake each location and determine the top of foundation elevation. Locations and elevations will be verified by the OICC. Anchor bolts shall be cast into the concrete base and positioned per the manufacturer's template.

Where rock creates a conflict with construction of the foundation, consult with the OICC and Resident Engineer for feasibility of an alternative foundation design.

3.40 MEASUREMENT AND PAYMENT

Same as Standard Specifications Section 1405-4.

4.00 SINGLE ARM FEEDER CIRCUIT CONDUIT SYSTEM

4.10 DESCRIPTION

This work is to provide a conduit system from the proposed Gatehouse location in contract P1382 to the proposed single arm locations shown on the plans. Work covered by this section shall be in conformance with Section 1409 of the Standard Specifications except as modified below.

4.20 MATERIALS

Same as Standard Specifications Section 1409-2. Conduit is required between light standards and from light standards #5 and #10 to the proposed Gatehouse location.

4.30 CONSTRUCTION METHODS

Same as Standard Specifications Section 1409-3. Conduit will terminate in junction box at Gatehouse location. If no junction box is present, consult with the OICC for junction box placement.

Multiple circuits may be placed in the same trench if they are grouped and separated a minimum distance of 3". When more than one circuit is placed in the same trench, there will be no adjustment in the contract unit bid price.

Place non-rotting polyester pull line in all conduits for ease of conductor installation in future contract.

4.40 MEASUREMENT AND PAYMENT

The quantity of electrical conduit, measured as provided above, will be paid for at the contract unit price per linear foot for "Single Arm Feeder Circuit Conduit System" of the appropriate size and type.

Payment will be made under the following pay items:

Single Arm Feeder Circuit Conduit System..... Linear Foot

5.00 CONDUIT DUCTBANK

Concurrent Naval Facilities Engineering Command – Midatlantic project P1382 adds a ductbank under both the inbound and outbound travel lanes as shown in plansheet E6. The Consulting Engineering firm for P1382 has indicated the plans submitted for P1382 will make provisions in the ductbanks to accommodate the additional circuitry required under U-5132. This portion of the Project Special Provisions may be discarded should the P1382 ductbanks be in place during U-5132 construction.

5.10 DESCRIPTION

This work is to provide a conduit ductbank under the proposed entry and exit travel lanes near the Gatehouse location.

5.20 MATERIALS

Concrete used in ductbank construction shall meet the requirements of Standard Specifications Section 1000 and contain at least two #4 reinforcing bars.

Conduit shall be same as Standard Specifications Section 1409-2.

5.30 CONSTRUCTION METHODS

Coordinate ductbank installation with Contractor for project P1382. Entry and exit travel lane ductbanks shall be installed parallel to ductbanks for P1382. See plansheet E6 for ductbank locations.

After finished grade is achieved at each location, excavate an 18" trench, approximately 36" in depth. Pour concrete to a depth of approximately 10-1/2" while placing reinforcing bars and conduit as shown in Lighting Ductbank detail on plansheet E3. After concrete has cured, backfill and tamp in accordance with Standard Specification 410-8. Contractor must demonstrate that conduit placed in ductbank is free of debris and not blocked after concrete has cured.

5.40 MEASUREMENT AND PAYMENT

The quantity of concrete, measured as provided above, will be paid for at the contract unit price per cubic yard for "Concrete Ductbank" of the appropriate type. Such price and payment will be full compensation for all work including furnishing and installing concrete and reinforcing bars, trench excavation and backfilling.

The quantity of electrical conduit, measured as provided above, will be paid for at the contract unit price per linear foot for "Ductbank Conduit" of the appropriate size and type.

Payment will be made under the following pay items:

Concrete Ductbank.....	Cubic Yard
Ductbank Conduit.....	Linear Foot

6.00 SECURITY REQUIREMENTS

6.10 Security requirements detailed in this Section must be followed in order enter and perform lighting work on Base property. No additional compensation will be provided for adhering to these requirements.

6.20 Clause FAR 52.204-2, Security Requirements and Alternate II

(NOTE: the Contracting Officer referred to herein is an employee of the Federal Government and not affiliated with NCDOT)

a. This clause applies to the extent that this contract involves access to information classified 'Confidential', 'Secret', or 'Top Secret'.
b. The Contractor shall comply with (1) the Security Agreement (DD Form 441), including the Department of Defense Industrial Security Manual For Safeguarding Classified Information (DOD 5220.22-M), and (2) any revisions to that manual, notice of which has been furnished to the Contractor.
c. If, subsequent to the date of this contract, the security classification or security requirements under this contract are changed by the Government and if the changes cause an increase or decrease in security costs or otherwise affect any other term or condition of this contract, the contract shall be subject to an equitable adjustment as if the changes were directed under the Changes clause of this contract.
d. The Contractor agrees to insert terms that conform substantially to the language of this clause, including this paragraph (d) but excluding any reference to the Changes clause of this contract, in all subcontracts under this contract that involve access to classified information.
e. The Contractor shall be responsible for furnishing to each employee and for requiring each employee engaged on the work to display such identification as may be approved and directed by the Contracting Officer. All prescribed identification shall immediately be delivered to the Contracting Officer, for cancellation upon the release of any

employee. When required by the Contracting Officer, the Contractor shall obtain and submit fingerprints of all persons employed or to be employed on the project.

6.30 Clause FAC 5252.236-9301 Special Working Conditions and Entry to Work Area

Denial of entry to the work areas under this contract may be required by the Government under certain circumstances where the Contractor's work or presence would constitute a safety or security hazard to ordnance storage or handling operations. Restrictions covering entry to and availability of the work areas are as follows:

a. Entry. Entry to work areas located within the special Security Limited areas, defined as those work areas located within the existing security fence, can be granted subject to special personnel requirements as specified herein and to other normal security and safety requirements. Complete denial of entry to the Limited Area may be required during brief periods of one to two hours (normally) and on rare occasions of two to four hours. For bidding purposes, the Contractor shall assume denial of entry to the work areas in the Limited Area of six 2-hour denials and one 4-hour denial per month.

b. Vehicle Delay. The Contractor shall also assume for bidding purposes that, in addition to site denial, each vehicle and/or unit of construction equipment will be delayed during each movement through the security gate, both entering and leaving the limited area. *(NOTE: Camp Lejeune has stated that vehicle delays are not anticipated due to the requirement that the Contractor obtain security badges as detailed in Section 6.60.)*

c. Operational Considerations. To reduce delay time while preserving required security, the following points should be considered in operational planning:

1) Vehicle Search. Security regulations required that all vehicles, when authorized to enter the Limited Area be thoroughly searched by guard force personnel. Such a search will be required for all vehicle/ construction equipment. Accordingly, once a vehicle or unit of construction equipment has been cleared, it may be left in the Limited Area after initial entry has been made. For the period of time authorized the vehicle/equipment left in the Limited Area will be assigned parking areas by the Contracting Officer. The vehicle/equipment must be secured as specified in paragraph entitled 'SECURITY REQUIREMENTS.' The intent is to reduce the Contractor loss of time at the security gate. No private vehicles will be allowed to enter the Limited Area.

2) Delivery Vehicles. Vehicles delivering construction materials will be inspected by guard force personnel while the driver is being processed for entry into the Limited Area. The driver and vehicle will then be escorted in the Limited Area by a Security Escort. To provide this service, delivery schedules should be promulgated in advance and vendors made aware that a reasonable delay can be expected if delivery is other than the time specified. Deliveries after 1600 hours will not be allowed entry into the Limited Area without prior approval of the Physical Security Officer.

6.40 BUSINESS ACCESS DEFINITION

Contractor/subcontractor employees requiring installation access to MCB, Camp Lejeune or MCAS New River, N.C. must obtain a Business Access Identification Badge for that particular installation. Regularly scheduled delivery personnel, to include FEDEX, UPS, pick-up and deliveries, should also follow the Business Access guidelines described below. Personnel requiring Business Access Identification Badges shall submit all documentation listed below. Badges are not required if the contracted position requires the employee to obtain a Common Access Card (CAC) which will be identified separately within the Government contract.

6.50 INSTALLATION SECURITY ACCESS REQUIREMENTS

Contractor shall accomplish the security requirements below within 10 days after award or prior to performance under the contract.

6.60 BUSINESS ACCESS IDENTIFICATION BADGE REQUIREMENT

In order to obtain a Business Access Identification Badge for access to MCB, Camp Lejeune, and satellite activities, or MCAS New River, NC, all personnel providing services under this contract shall be required to present the documentation below to the following offices, as applicable:

a. MCB, Camp Lejeune, NC and its satellite activities. Report as follows:

    1. Identification Card Center, 59 Molly Pitcher Road for badge (910-451-2727).

b. MCAS New River, NC. Report as follows:

    1. S-4 (Facilities Office), Bldg AS-211 (1st Deck) for registration on contractor's list (910-449-6310).

    2. Pass and Identification Office, Bldg AS-211 (1st Deck) for badge and vehicle decal (910-449-5427/5428).

6.70 DOCUMENTATION

a. Photo ID:
Valid state or federal issued picture identification card. Acceptable documents include state drivers license, DMV issued photo identification, or alien registration card.

b. Proof of Employee Citizenship or Legal Alien Status:
Acceptable documents include birth certificate, Social Security Cards, Immigration and Naturalization Service (INS) forms and passports.

c. Proof of Criminal Records Check:
Proof of a criminal records check from the county or state where the employee has resided for the previous two years (or length of legal residence for foreign nationals in the U.S. for less than two years). Criminal background records checks must be from a credible source. Many credible sources exist, but some examples include the County Courthouse, Infolink Screening Services, Inc. (www.infolinkscreening.com), IntegraScan Criminal Records Checks (www.integrascan.com), Intelius Employee Screening (www.Intelius.com), and Castle Branch (www.castlebranch.com). Subsequent to the initial criminal background records checks, local criminal records checks shall be conducted annually prior to renewal of badges for reevaluation.

d. Letter Provided By Contracting Officer Indicating Contract:
Letter provided by Contracting Officer indicating contract, contract period and prime contractor. Proof of employment on a valid Government contract (e.g., a letter on company letterhead from the prime contractor including contract number and term).

6.80 DENIAL OF ACCESS

Installation access shall be denied if it is determined that an employee:

a. Is on the National Terrorist Watch List

b. Is illegally present in the United States.

c. Is subject to an outstanding warrant.

d. Has knowingly submitted an employment questionnaire with false or fraudulent information.

e. Has been issued a debarment order and is currently banned from military installations.

f. Is a Registered Sexual Offender, or has any Felony Conviction within the past two years.

6.90 APPEAL PROCESS

All appeals should be directed to the Base Inspector's Office for any individual that has been denied access to the Base.

6.10 DISPLAY AND DISPOSITION OF BADGES

Contractors/subcontractors shall prominently display their badges on their person at all times. Upon completion/termination of this contract or an individual's employment, the Contractor shall collect and turn in to the Pass & ID Office all badges. If the Contactor fails to obtain the employee's badge, the Pass & ID Office shall be notified within 24 hours. During the contract

performance period contractors will immediately report instances of lost or stolen badges to the issuing pass and identification office.

6.11 CONTRACTOR AND SUBCONTRACTOR VEHICLE REQIREMENTS

Each vehicle to be used in contract performance shall show the Contractor's or subcontractor's name so that it is clearly visible and shall always display a valid state license plate and safety inspection sticker. To obtain a vehicle decal, which will be valid for one year or contract period, whichever is shorter, Contractor or subcontractor vehicle operators shall provide to the Vehicle Registration Office, 60 Molly Pitcher Road for vehicle decal (910-451-1158):

a. An installation sponsor request forwarded to provost Marshall office.

b. A valid form of Federal or state government I.D.

c. If driving a motor vehicle, a valid driver's license, vehicle registration and proof of insurance.

Upon completion/termination of this contract or an individual's employment, the Contractor shall collect and turn in to Vehicle Registration all Government vehicle decals. If any are not collected, the Contractor shall notify the Vehicle Registration Office within 24 hours.

6.12 SECURITY CHECKS

Contractor personnel and vehicles shall only be present in locations relevant to contract performance. All Contractor personnel entering the base shall conform to all Government regulations and are subject to such checks as may be deemed necessary to ensure that violations do not occur. Employees shall not be permitted on base when such a check reveals that their presence would be detrimental to the security of the base. Subject to security regulations, the Government will allow access to an area for servicing equipment and/or performing required services. Upon request, the Contractor shall submit to the Contracting Officer questionnaires and other forms as may be required for security purposes.

7.00 HIGH MOUNT FOUNDATIONS

7.10 DESCRIPTION

High mount foundations for high mount standards consist of drilled piers or footings with pedestals, conduit and anchor rod assemblies. Construct high mount foundations in accordance with the contract and either *Roadway Standard Drawings* No. 1402.01 or the accepted submittals. Define "high mount standard foundation" as a drilled pier including the conduit and anchor rod assembly that meets Standard Drawing No. 1402.01.

88-B

7.20 MATERIALS

Use high mount foundation materials that meet the *Foundations and Anchor Rod Assemblies for Metal Poles* provision found elsewhere in these contract documents.

7.30 HIGH MOUNT STANDARD FOUNDATIONS

Construct high mount standard foundations for the wind zone and high mount heights shown in the plans unless the following assumed site conditions are not applicable to high mount locations:

A. Soil with unit weight (γ) $\geq$ 120 lb/cf and friction angle (ϕ) $\geq 30^{o}$,
B. Groundwater at least 7 ft below finished grade and
C. Slope of finished grade 6:1 (H:V) or flatter.

A subsurface investigation and high mount foundation design are required if the Engineer determines these assumed site conditions do not apply to a high mount location and the high mount cannot be moved. Subsurface conditions requiring a high mount foundation design include but are not limited to weathered or hard rock, boulders, very soft or loose soil, muck or shallow groundwater. No extension of completion date or time will be allowed for subsurface investigations or high mount foundation designs.

7.40 SUBSUFACE INVESTIGATIONS

Use a prequalified geotechnical consultant to perform one standard penetration test (SPT) boring in accordance with ASTM D1586 at each high mount location requiring a subsurface investigation. Rough grade high mount locations to within 2 ft of finished grade before beginning drilling. Drill borings to 2 drilled pier diameters below anticipated pier tip elevations or refusal, whichever is higher.

Use the computer software gINT version 8.0 or later manufactured by Bentley Systems, Inc. with the current NCDOT gINT library and data template to produce SPT boring logs. Provide boring logs sealed by a geologist or engineer licensed in the state of North Carolina.

7.50 HIGH MOUNT FOUNDATION DESIGNS

Design high mount foundations for the wind zone and high mount heights shown in the plans and the slope of finished grade and subsurface conditions at each high mount location. Design drilled piers, footings and pedestals in accordance with the 4th Edition of the *AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals*.

Design drilled piers for side resistance only in accordance with Section 4.6 of the *AASHTO Standard Specifications for Highway Bridges*. Use the computer software LPILE version 5.0 or later manufactured by Ensoft, Inc. to analyze drilled piers. Provide drilled pier designs with a horizontal deflection of less than 0.5" at top of piers.

Design footings in accordance with Section 4.4 of the *AASHTO Standard Specifications for Highway Bridges.* Do not use an allowable bearing pressure of more than 3,000 lb/sf for footings.

Submit boring logs, working drawings and design calculations for acceptance in accordance with Article 105-2 of the *Standard Specifications*. Submit working drawings showing plan views, required foundation dimensions and elevations and typical sections with reinforcement, conduit and anchor rod assembly details. Include all boring logs, design calculations and LPILE output for high mount foundation design submittals. Have high mount foundations designed, detailed and sealed by an engineer licensed in the state of North Carolina.

7.60 CONSTRUCTION METHODS

Grade a 3 ft diameter level work area around high mount locations with cut and fill slopes as shown on Standard Drawing No. 1402.01. Construct drilled piers, footings and pedestals and install anchor rod assemblies for high mount foundations in accordance with the *Foundations and Anchor Rod Assemblies for Metal Poles* provision.

7.70 MEASUREMENT AND PAYMENT

High Mount Foundations will be measured and paid in cubic yards. High mount standard foundations will be measured as the cubic yards of concrete shown on Standard Drawing No. 1402.01 for the high mount height and wind zone shown in the plans. All other high mount foundations will be measured as the cubic yards of foundation concrete for drilled piers, footings and pedestals shown on the accepted submittals. The contract unit price for *High Mount Foundations* will be full compensation for providing labor, tools, equipment and foundation materials, stabilizing or shoring excavations and supplying concrete, reinforcing steel, conduit, anchor rod assemblies and any incidentals necessary to construct high mount foundations. Subsurface investigations and high mount foundation designs required by the Engineer will be paid as extra work in accordance with Article 104-7 of the *Standard Specifications*.

Payment will be made under:

High Mount Foundations.....Cubic Yard