PART 1 - GENERAL

1.1 SUMMARY

A. (delete if not required) [It is intended this project pursue a LEED [Gold] [Silver] rating. LEED criteria will be followed for the installation of building systems. This Contractor shall be responsible for the following items to ensure the Facility achieves LEED certification:

1. SS credit 8 – Light Pollution Reduction.
2. EA prerequisite 2 – Minimum Energy Performance.
4. MR credit 2 – Construction Waste Management.
5. IEQ credit 4.1 – Low Emitting Materials: Adhesives and Sealants
7. IEQ credit 6.1 – Controllability of Systems: Lighting.]

B. Section Includes:

1. Common electrical installation requirements.

1.2 SUBMITTALS

A. N/A.

PART 2 - PRODUCTS

2.1 N/A.

PART 3 - EXECUTION

3.1 COMMON REQUIREMENTS FOR ELECTRICAL INSTALLATION

A. Comply with Northwestern University Design Guidelines.

B. (Select based on project location) [Comply with City of Chicago Codes and Standards.]
[Comply with City of Evanston Codes and Standards.]

C. Comply with NECA, NFPA, and OSHA requirements.

D. All work shall be installed in a neat, workmanlike manner in accordance with ANSI/NECA 1 – 2015.
E. All materials and equipment provided under this contract shall be new (except where otherwise noted) and shall be listed, labeled or certified by a Nationally Recognized Testing Laboratory (NRTL) to meet Underwriters Laboratories, Inc. (UL), standards where test standards have been established. Materials and equipment which are not covered by UL standards will be accepted, providing that materials and equipment are listed, labeled, certified or otherwise determined to meet the safety requirements of a NRTL.

1. A Nationally Recognized Testing Laboratory is a testing laboratory which is recognized and approved by the Secretary of Labor in accordance with OSHA regulations.

F. All materials, products, and equipment being installed which fall into a category covered by the ENERGY STAR® program shall be provided and labeled as such.

G. All equipment of the same type and capacity shall be by the same manufacturer.

H. Keying: All panel doors in electrical equipment shall be equipped with Corbin Access Systems key cylinders with removable cores. Coordinate with University Electric Shop.

I. Where any device or part of equipment is referred to in these specifications in the singular number (e.g., “the switch”), this reference shall be deemed to apply to as many such devices as are required to complete the installation as shown on the drawings.

J. During construction the contractor shall at all times maintain electrical utilities of the building without interruption. Should it be necessary to interrupt any electrical service or utility, the contractor shall secure permission in writing from the University’s Chief Electrician for such interruption at least ten (10) business days in advance. Any interruption shall be made with minimum amount of inconvenience to the University and any shut-down time shall have to be on a premium time basis and such time to be included in the contractor’s bid. Arrange to provide and pay for temporary power source as required by project conditions.

K. Measure indicated mounting heights to bottom of unit for suspended items and to center of unit for wall-mounted items.

L. Headroom Maintenance: If mounting heights or other location criteria are not indicated, arrange and install components and equipment to provide maximum possible headroom consistent with these requirements and shall be coordinated with NU Electric Shop.

M. Working clearance around equipment shall not be less than that specified in the N.E.C. for all voltages specified.

N. The locations of switches, receptacles, lights, motors, etc. outlets shown are approximate. The contractor shall use good judgment in placing the preceding items to eliminate all interference with ducts, piping, etc. The contractor shall check all door swings so that light switches are not located behind doors. Relocate switches as required, with approval from the Design Professional. The University may direct relocation of outlets before installation, up to five (5) feet from the position indicated on the Drawings, without additional cost.

O. Equipment: Install to facilitate service, maintenance, and repair or replacement of components of both electrical equipment and other nearby installations. Connect in such a way as to facilitate future disconnecting with minimum interference with other items in the vicinity. Normal maintenance shall not require the removal of protective guards from adjacent equipment. Install equipment as close as practical to the locations shown on the Drawings.
1. Where the University's Chief Electrician determines that the Contractor has installed equipment not conveniently accessible for operations and maintenance, the equipment shall be removed and reinstalled as directed at no additional cost to the University.

2. “Conveniently Accessible” is defined as being capable of being reached without climbing or crawling over or under obstacles such as motors, pumps, belt guards, transformers, racks, piping, ductwork, raceways or similar.

P. Right of Way: Give to piping systems installed at a required slope.

Q. Firestopping shall be applied to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of the assembly according to Division 07 and 09 Sections and the University Fire Protection Standards.

R. Owner furnished equipment: Equipment furnished by the University shall be received, stored, uncrated, protected, and installed by the Contractor with all appurtenances required to place the equipment in operation, ready for use. The Contractor shall be responsible for the equipment as if he had purchased the equipment himself and shall hold the warranty.

3.2 EQUIPMENT USE DURING CONSTRUCTION

A. Regardless of whether the equipment is existing to remain, or newly installed, if it is used by the Contractor in support of the Work, maintain the equipment according to its Operation and Maintenance manuals. Submit records of the maintenance per Division 1 requirements.

END OF SECTION 26 0500