PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes special project procedures governing execution of the Work including, but not limited to, the following:

1. General Safety and Protection
2. Northwestern University Risk Management Policies
3. Discrimination, Harassment and Sexual Harassment
4. No Smoking
5. Quiet Work Practices
6. Interruption of Existing Facilities
7. Hazardous Material Procedures
8. Universal Waste Procedures
9. [delete if Asset Tagging is done outside the construction contract] Asset Tagging

B. Related Requirements:

1. Section 011000 "Summary" for limits on use of Project site.
2. Section 017300 “Execution”

1.3 INFORMATIONAL SUBMITTALS

A. Risk Management Contractor Safety Procedures

1. Statement that the Risk Management Contractor Safety Procedures have been reviewed, including
   a. a list of the Documents and Forms which must be submitted, and
   b. a schedule for the submission of the required forms and checklists.

2. Forms and Checklists required by the Contractor Safety Procedures

B. Quiet Work Practices Plan

C. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

D. [delete if Asset Tagging is done outside the construction contract] Asset Tagging:
1. [delete if no demolished or salvaged equipment]: Existing Equipment Inventory List

1.4 ACTION SUBMITTALS

A. [delete if Asset Tagging is done outside the construction contract] New Equipment Template

PART 2 - PRODUCTS

(not used)

PART 3 - EXECUTION

3.1 GENERAL SAFETY AND PROTECTION

A. Safe execution of the Work is the responsibility of the Contractor. Contractor will be responsible for compliance with all OSHA and local requirements relative to this Work that are in effect or enacted during the prosecution of this Work.

B. Contractor is responsible for furnishing and maintaining general building, and any existing fire alarm and protection systems throughout the duration of construction. Said protection shall be in compliance with all applicable local, state and federal regulations.

C. Contractor is responsible for securing or removing from open floor all materials subject to possible wind damage or being blown off the building and/or building site. Contractor will maintain adequate monitoring of its Work and material, and provide personnel to monitor as necessary.

D. Temporary barricades will be provided by Contractor as required to enclose or segregate areas of the Work in which extensive noisy and/or dirt-producing operations are being performed. Partitions shall be so located as to prevent unauthorized traffic into or through areas where construction and/or demolition is in progress, and shall be so arranged and constructed as to provide ample working space around any area where Work is to be performed. Contractor must exercise care when working in said areas so as not to cause any unnecessary disruption to the adjacent building functions and comply with all OSHA requirements pertaining to personnel within as well as around the area.

E. The use of any mechanical equipment, such as cranes, bulldozers, front-end loaders, derricks, etc., is subject to Owner’s approval, providing the use of such equipment meets all codes and regulations including but not limited to OSHA. This includes maintaining the proper decibel level for machinery operation. Contractor shall obtain all necessary permits and approvals for use of equipment on-site and transporting to and from site.

F. The Contractor is responsible for providing and maintaining temporary construction fencing with full height dust barriers around the entire perimeter of the construction site. The Contractor is not permitted to alter or move this fence without written approval from the Owner.

G. Powder actuated tools are permitted only if approved in advance in writing by Owner’s project manager.
H. Contractor shall coordinate with Owner regarding afterhours access to construction site, employing triple locks at the entry gate(s) to facilitate Contractor, Northwestern University and [Evanston] [Chicago] Fire Department access.

3.2 NORTHWESTERN UNIVERSITY RISK MANAGEMENT POLICIES

A. Contractor is responsible for compliance with the Northwestern University Risk Management Contractor Safety Program found at https://www.northwestern.edu/risk/environmental-health-safety/facility-safety/contractor-safety.html

B. Compliance with the Northwestern University Risk Management Facility Safety Program includes, but is not limited to:

1. Review of the Risk Management website to determine which Contractor Safety procedures and requirements apply to the Work of this Contract
2. Developing a schedule for submission of the inspections and checklists to allow timely execution of the Work. For Work procedures which require support from Northwestern University personnel submit the required paper work a minimum of two weeks before the procedure starts. A delay in schedule will not be granted for not submitting the forms and/or checklists in a timely manner.
3. Identification and submission of applicable inspection and checklist forms.
4. Executing the Work in compliance with the Northwestern University Risk Management Contractor Safety Program

3.3 DISCRIMINATION, HARASSMENT AND SEXUAL HARASSMENT

A. Northwestern University prohibits discrimination against any member of its community on the basis of race, color, religion, national origin, sex, sexual orientation, parental status, marital status, age, disability, citizenship, or veteran status in matters of admissions, employment, housing, or services or in the educational programs or activities it operates. Harassment, whether verbal, physical, or visual, that is based on any of these characteristics is a form of discrimination. This includes, but is not limited to:

1. refusing to hire or promote someone because of the person's protected status
2. demoting or terminating someone because of the person's protected status
3. jokes or epithets about another person's protected status
4. teasing or practical jokes directed at a person based on his or her protected status
5. the display or circulation of written materials or pictures that degrade a person or group
6. verbal abuse or insults about, directed at, or made in the presence of an individual or group of individuals in a protected group

B. Northwestern University also prohibits sexual harassment of any member of its community. This includes unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature. This includes, but is not limited to:

1. Pressure for sexual activity
2. Unwelcome touching, patting or hugging
3. Unnecessary and unwelcome references to various parts of the body
4. Belittling remarks about a person's gender or sexual orientation
5. Inappropriate sexual innuendos, jokes or humor
6. Obscene gestures
7. Offensive sexual graffiti, pictures or posters
8. Email and Internet use that violates the University's sexual harassment policy
C. The Contractor will inform all of its employees, subcontractors and agents (and the employees of their subcontractors and agents) that discrimination, harassment and sexual harassment are a violation of University policy, and will not be tolerated on any University job site or anywhere else on University property.

D. The Contractor will remove from any University job site and University property any of its employees or those of its subcontractors or agents who improperly conduct themselves in any manner toward University students, faculty, staff, or guests, and shall be responsible for any acts by its employees, subcontractors, or agents that violate Northwestern University's policy.

3.4 NO SMOKING POLICY

A. Northwestern University prohibits smoking in any of its buildings.

B. The Contractor will inform all of its employees and subcontractors and their employees that smoking in Northwestern University buildings is a violation of University policy, and will not be tolerated on any University job site.

C. The Contractor will remove from any University job site and University property any of its employees or those of subcontractors who are found to be in violation of Northwestern University’s policy.

3.5 QUIET WORK PRACTICES

A. The project is situated among academic teaching and performance spaces / buildings that include instructional and research space. Noise and vibration negatively impacts and or disrupts these important activities. Noise, for the purpose of this document, is defined as any sound that is disruptive to Owner’s operations and academic activities.

B. The Contractor shall develop, and submit a “Quiet Work Practices Plan” that identifies potential sources of noise and vibration and describes how these will be managed to minimize their impact on the surrounding spaces / buildings. The quiet work practices shall employ equipment (such as silenced compressors), techniques (such as noise control blankets), and planning (such as organizing work at a distance from adjacent spaces / buildings), to minimize noise and vibration. The Plan shall be broken down to address the following:

1. Source and source controls: List of equipment to be used, with noise levels at operator position and/or at 1 m. and identify strategies and methods for reducing noise levels and durations (e.g. sound barriers, screens, enclosures, or tents around activities and/or equipment (such as generators, concrete pumps, etc.) using noise reducing materials (such as Sound Seal Barrier and Quilted Fiberglass Absorber Composites)).

2. Contractor shall assess all equipment and employ alternative equipment whenever possible. For example, a 4-inch grinder is less noisy than a 9-inch grinder; smaller horsepower cut-off saws produce less noise, etc.

3. Locate noisy activities further away from the neighboring spaces / buildings.

4. Contractor shall use modern equipment which has better engine insulation and mufflers. Also, Contractor shall properly maintain equipment to keep sound levels at a minimum.

5. All jackhammers and pavement breakers shall be fitted with manufacturer's approved exhaust mufflers. All jackhammers and pavement breakers used at the construction site shall be enclosed with shields, acoustical barrier enclosures, or noise barriers.

6. Electric or hydraulic powered equipment is usually quieter than a diesel-powered machine. Use alternate equipment. For example, electric tower cranes are quieter than diesel powered mobile cranes.
7. The local power grid shall be used wherever feasible to limit generator noise. No generators larger than 25 KVA shall be used and, where a generator is necessary, it shall have a maximum noise muffling capacity.

8. Powder actuated tools are permitted only if approved in advance in writing by Owner. Contractor should plan to employ drilled and/or embedded anchors.

C. Path controls: Move equipment farther away from the receiver; enclose especially noisy activities or stationary equipment; erect noise barriers or curtains; restrict the movement of equipment into and through the construction site; configure site to minimize back-up alarm noise. For example, construction site access should be designed such that delivery trucks move through the site in a circular manner without the need to back up.

D. Noise Coordinator: Contractor shall designate one person as Noise Coordinator, whose responsibilities shall be to manage the Quiet Work Practices Plan and to coordinate with foreman and superintendents and Owner with regard to noise mitigation and scheduling.

E. Planning: Noise that is unexpected and/or unplanned is generally perceived as most disruptive and must be avoided. Also, noise of a prolonged duration can be disruptive. Accordingly, activities that will generate prolonged noise durations should be broken up into reasonable durations. Communication is essential, as planned noise is more tolerable than unplanned/unexpected noise. Contractor is required to give Owner verbal and written notice of all planned activities that will generate prolonged noise durations.

F. Training: The Noise Coordinator shall develop and implement a training program to sensitize employees and Subcontractor’s employees to the need for and methods of quiet work practices. Quiet work practices shall be an agenda item at Contractor’s coordination meetings, foreman meetings, etc. The Contractor’s Noise Coordinator shall coordinate with Owner throughout the Project so that noisy work planning takes into account the activities in neighboring spaces/buildings. At times, there will be time restrictions on noisy work. Contractor should take advantage of times when there are no classes scheduled, such as holidays, spring break, and winter break.

G. Notification signs: Contractor shall post signs to remind employees to follow quiet work practices.

H. Monitoring: The Noise Coordinator shall check that equipment brought onto site complies with the Quiet Work Practices Plan and this requirement. This could be done by obtaining information available from suppliers or by noise assessments.

I. Back-up alarms: It is recognized that back-up alarms are a disruptive but necessary feature on construction trucks, dozers, etc. To minimize the noise, Contractor shall employ ambient-sensitive self-adjusting backup alarms that increase or decrease their volume based on background noise levels, or, manually adjustable alarms, set to the lowest setting, as appropriate for the activity. Contractor’s bid shall include replacement of existing alarms, where necessary, with appropriate alarms to meet the intent of this document. Do not allow vehicles with non-compliant back-up alarms on the site.

3.6 INTERRUPTION OF EXISTING FACILITIES

A. Contractor shall be responsible for the notification of applicable utility companies and/or Owner for required utility shut-offs required to perform their Work.

B. Contractor is to exercise care to avoid damaging active known utilities not scheduled to be relocated or demolished. Contractor is required to repair at no additional cost any damage to active known utilities resulting from the Contractor’s operation.
C. Portions of Contractor’s Work which may involve alterations in existing structures must be coordinated through Owner so that all labor and materials as required for the proper completion of the Work are available on either a straight time or an overtime basis to guarantee continuance of regular building functions in the areas involved.

D. Contractor must notify Owner verbally and in writing not less than ten (10) working days prior to any interruption of existing utilities or services. It is essential that utilities that serve surrounding campus facilities are not interrupted without prior coordination and notice.

E. Utility shutdowns shall be planned and executed to minimize disruption to Owner’s operations. Contractor shall include in its bid such additional costs as after hours and/or weekend work to minimize the disruption of Owner operations.

3.7 UNIVERSAL WASTE PROCEDURES

A. The Contractor is required to follow the Universal Waste Guide published by Northwestern Risk Management and found on their website. All waste identified or generated through construction is to be handled and properly disposed by the Contractor, in accordance with the Universal Waste Guide. Disposal is not allowed on campus property. This includes, but is not limited to, waste collection, storage and handling, training employees and subcontractors, containment of spill releases and off-site disposal.

3.8 [delete if Asset Tagging is done outside the construction contract] ASSET TAGGING

A. [delete if no assets were removed during demolition] Existing Assets

1. Inventory existing equipment that is identified for demolition or salvage. Provide a list of these items, including room number, equipment name, make, model, serial number and asset tag, if it exists.

B. New Assets

1. Provide [Edit this to conform to the way asset tagging is procured] and install asset tags for all equipment listed in the Northwestern University Asset Tag Checklist. [Include the Asset Tag Checklist as an Attachment to this specification section]

   a. Locate asset tags on the equipment in a location that is easily identified and viewed from the floor. Clean the label location prior to adhesion.
   b. Use White tags where the tags may be visible to the public, faculty, staff or students. Use Yellow tags elsewhere.
   c. [Delete if Asset Tags are provided by NU] Provide custom Northwestern University asset tags as manufactured by
2. Document all equipment information on the Northwestern University New Equipment Template. [include the NU New Equipment Template as an Attachment to this specification section]