**DEPARTMENT OF THE ARMY**

**US ARMY DEVCOM SOLDIER CENTER**
**15 GENERAL GREENE AVENUE**
**NATICK MA 01760**

# Statement of Work (SOW)

## Outdoor Shaded Work Area

August 3, 2026

## 1. Purpose

The purpose of this Statement of Work (SOW) is to define the requirements for the design, engineering, fabrication, and installation of outdoor shade sail structures over designated working areas. The intent is to provide durable, aesthetically pleasing, weather-resistant shaded spaces suitable for recreation, gathering, and passive outdoor use located at the US Army Natick Soldier Systems Center (NSSC), 15 General Greene Avenue (formerly Kansas St.), Natick, MA, 01760.

## 2. Scope of Work

The Contractor shall provide all labor, materials, equipment, engineering, supervision, permits, and incidentals necessary to complete the turnkey design and installation of complete outdoor work area.

**Locations of outdoor work areas:**

**Building #1 Entrance (Approximate dimensions 40 feet x 65 feet):**

**Building #65 Corner (Approximate dimensions 50 feet x 50 feet):**

**Building #5 Back Corner (Approximate dimensions 30 feet x 45 feet):**

**Building #3 & 4 Quad (Approximate dimensions 40 feet x 60 feet):**

- Design & install a minimum (4) four overhead sun shading system to cover a minimum of 85% of total square footage above stated above.

- Design and install a minimum of (6) six structural concrete footings (minimum three feet below ground level) and engineered sail shade minimum 8" columns as required to support the designated overhead shaded coverage specified above.

**Provide Add Alternate Pricing for the following:**

- Provide (4) 2" PVC conduits from nearest building for power, data & water.
    - Provide (2) cat 6A cables from nearest data closet in building to outdoor work location. Furnish and install weatherproof conduit & box on sail shade column.
    - Provide #10 awg wiring from nearest panelboard (including furnishing & installation of new 1P, 20A circuit breaker) in building to outdoor work location. Furnish and install (2) weatherproof gfci with USB receptacles, conduit & box on sail shade column, one on each side of outdoor work area.
    - Provide (1) ½ plastic tubing (PEX) from nearest water source in building to outdoor work location. Furnish and install water shutoff and spigot on sail shade column.
- Provide flooring pavers to cover overall square footage of work area above.
    - Pavers to be porcelain 24 in x 24 in x 0.75 in.
    - Pavers to be veined stone available in shades of gray.
    - Pavers to be durable, slip and frost resistant, low maintenance & rated for outdoor use
    - Dig down 10 inches and remove & properly dispose of material from work area.
    - Lay geotextile fabric over the excavated soil to prevent soil from mixing with your gravel.
    - Add Gravel Base: pour ¾-inch minus crushed gravel (gravel mixed with dust) in 2-inch layers.
    - Compact Thoroughly: Run a plate compactor over each layer. The final base must be perfectly flat, following your established slope of 1 inch pitch for every 8 feet of length to properly drain.
    - Concrete Sand: pour sharp, angular concrete sand to provide bedding for the pavers.
    - Install the pavers and secure the perimeter of the flooring heavy duty metal paver edging secured with 10-inch metal spikes spaced every 12 inches to prevent lateral shifting.
    - Sweep polymeric sand across the patio surface, filling all joints between the pavers completely.
    - Run a plate compactor (with a protective pad or piece of cardboard/carpet underneath to avoid scratching) over the pavers to lock them into the sand bed.
    - Sweep away all excess surface sand. Clear remaining dust. Lightly mist the patio with a garden hose to activate the polymers in the sand.

- Provide raised bed planters cover the perimeter of work area above.
    - Planters to be rectangular 30 in H x 38 in W x 10 in D.
    - Planters to be plastic, UV Resistant, Weather Resistant, Drainage Holes, 5 year warranty

The shade structures shall be similar in style and appearance to modern tensioned fabric shade sails with shaped, hyperbolic, or overlapping canopies.

## 3. Design Requirements

### 3.1 General Design

The Contractor shall design a cohesive shade system that:

- Design & install overhead sun shading system to cover a minimum of 85% of total square footage above stated above.
- Incorporates visually appealing architectural elements
- Allows adequate airflow and water runoff
- Minimizes standing water accumulation
- Maintains clear pedestrian circulation beneath the structures
- Allows for shade sails to be removed for seasonal storage

### 3.2 Shade Sail Configuration

The design may include:

- Multiple overlapping shade sails
- Triangular, square, or custom sail geometries
- Varying elevations to create architectural interest
- Integrated tensioning systems

### 3.3 Materials

#### 3.3.1 Fabric

Shade Fabric shall:

- commercial-grade breathable, high-density polyethylene (HDPE) or approved equal
- Provide a minimum UV blockage of 90%
- Be resistant to mold, mildew, fading, and tearing
- Be fire retardant in accordance with applicable codes
- Be available in colors selected by the Government/Owner

#### 3.3.2 Structural Components

Posts and hardware shall:

- Be galvanized steel, powder-coated steel, or stainless steel
- Be designed for local wind and environmental loads
- Include corrosion-resistant hardware and fittings
- Be supported by engineered structural foundations independent of surface material type.

### 3.4 Engineering

The Contractor shall provide stamped structural calculations prepared by a licensed Professional Engineer registered in the applicable state. Design shall comply with:

- International Building Code (IBC)
- ASCE 7 wind load requirements
- Local building and zoning codes
- ADA clearance requirements where applicable

## 4. Site Work

### 4.1 Existing Conditions

The Contractor shall verify all site dimensions and utility locations prior to construction.

### 4.2 Foundations

The Contractor shall:

- Excavate and install reinforced concrete foundations/footings
- Provide anchor systems required for structural stability
- Restore surrounding grass and landscaping disturbed during construction

### 4.3 Ground Cover and Surface Restoration

Ground cover or surface systems are considered non-structural and shall:

- Provide a clean, stable, and visually appealing surface
- Minimize dust, mud, erosion, and standing water
- Be suitable for the local climate and environmental conditions
- Not compromise post stability, embedment integrity, or anchor system performance.
- Be selected and installed to minimize long-term maintenance requirements, including:
    - Weed growth
    - Erosion
    - Surface displacement
    - Excessive watering requirements
    - Material degradation from UV exposure and weather conditions
- Final material selection shall be approved by the Government/Owner

The Contractor shall maintain vegetated grow-through areas until final acceptance.

Upon completion of work, the Contractor shall:

- Restore all disturbed landscaping and ground surfaces
- Reseed grass areas where equipment has disturbed ground surfaces around the work area
- Remove excess construction debris and materials
- Leave the area clean, level, and ready for use

### 4.4 Protection of Existing Features

The Contractor shall protect:

- Existing grass areas
- Utilities
- Sidewalks and adjacent structures

Any damage caused by the Contractor shall be repaired at no additional cost.

## 5. Installation Requirements

The Contractor shall:

- Install all posts plumb and aligned
- Properly tension shade sails to manufacturer specifications
- Ensure all hardware is secure and tamper-resistant
- Maintain a clean and safe work site throughout construction
- Minimize disruption to surrounding operations and public access.

## 6. Deliverables

The Contractor shall provide:

1. Site layout drawings
2. Concept renderings
3. Final engineered drawings
4. Structural calculations
5. Material submittals and color samples
6. Berry Amendment or Buy America Act Compliance Documentation, if applicable
7. Manufacturer warranties
8. Operation and maintenance instructions
9. As-built drawings upon project completion

## 7. Schedule

The Contractor shall provide:

- Proposed project schedule

- Estimated fabrication duration
- Installation timeline
- Anticipated completion date

## 8. Quality Assurance

All materials and workmanship shall be new and of commercial quality.

The Contractor shall warrant:

- Fabric materials for a minimum of 3 years
- Structural components for a minimum of 5 years
- Installation workmanship for a minimum of 1 years

## 9. Safety Requirements

The Contractor shall comply with all applicable:

- OSHA regulations
- Local safety requirements
- Site-specific safety procedures

The Contractor shall maintain barricades, warning signage, and safe access throughout the project.

## 10. Acceptance Criteria

The project shall be considered complete when:

- All shade structures are fully installed and tensioned
- Engineering documentation is submitted and approved
- Site restoration is complete
- Final inspection is successfully completed
- Manufacturer warranties are provided
- Operation and maintenance instructions are provided
- All punch list items are resolved

## 11. Period Of Performance

- Period of performance for all work shall be 180 (one hundred eight) calendar days from the date the Notice to Proceed (NTP) is issued.
- Failure to complete the project by the stated completion date, when delay is not attributable to the Government will lead to a negative performance evaluation.

## 12. ATTACHMENTS:

1. Common Specifications

2. Integrated Solid Waste Management Plan, US Army Natick Soldier Systems Center, Massachusetts, Issue Date January 2022

3. NSCC Contractor Access Form

4. Accident Prevention and Safety Plan Table of Contents

5. Construction Submittal Register

6. Outdoor Shaded Work Are Locations and Concept Sketches

**END OF SOW**