Statement of Work (SOW)

CANAVERAL NATIONAL SEASHORE (CANA)

Roof Replacement – Three Structures (PMIS 343942 – Hurricane Milton)

The Contractor shall provide all labor, supervision, materials, tools, equipment, supplies, transportation, and incidentals necessary to remove hurricane-damaged roofing systems and install new structural standing seam aluminum roofing systems at the following buildings:

• Apollo District Visitor Center (VC) – Approx. 3,000 SF (New Smyrna Beach)

• Facilities Management Building (FM) – Approx. 900 SF (Titusville)

• Storage Shed – Approx. 300 SF (Titusville)

1. General Requirements

All work shall comply with the International Building Code (IBC), Florida Building Code (FBC), ASCE 7-22, OSHA standards, and all applicable Federal, State, and Local regulations. The Contractor shall field verify all existing conditions, dimensions, roof areas, slopes, penetrations, flashing conditions, and substrate conditions prior to ordering materials or commencing work.

2. Scope of Work

1. Remove existing roofing systems to structural deck.
2. Remove underlayment, flashing, gutters, drip edge, and deteriorated wood fascia.
3. Replace deteriorated wood fascia (as required).
4. Install new aluminum drip edge.
5. Replace deteriorated sheathing (unit price basis).
6. Install new self-adhered waterproof underlayment.
7. Install new standing seam aluminum roof system.
8. Install new seamless gutters and downspouts (VC & FM).
9. Remove and reinstall lightning protection system.

3. Aluminum Standing Seam Roofing System

Provide:

1. Standing seam aluminum roof system
2. Minimum 0.040" aluminum
3. Minimum 2" seam height
4. 16" panel width
5. PVDF (Kynar 500®) finish or equivalent
6. Concealed clip fastening system
7. Florida Product Approved system equivalent to PAC-CLAD Tite-Loc Plus

Roof system shall be installed strictly in accordance with manufacturer's written instructions.

4. Wind Design Requirements

Roof system shall:

1. Meet International Building Code and Florida Building Code wind requirements (Miami-Dade/Broward counties High-Velocity Hurricane Zone specifications)
2. Be installed per manufacturer-approved clip spacing

5. Underlayment

1. Self-adhered waterproof membrane, high-temperature rated (minimum 60 mil).
2. Installed in accordance with manufacturer and IBC/FBC secondary water barrier requirements.

6. Fasteners and Clips

1. Aluminum fasteners required (coastal environment).
2. Corrosion-resistant concealed clips (minimum 50 ksi).
3. Sliding clips where required for thermal movement.
4. Fastener spacing per manufacturer engineered design.

7. Gutters and Downspouts (VC & FM)

1. 6" minimum K-style seamless aluminum.
2. Minimum 0.032" aluminum thickness (SMACNA Heavy-Duty classification)
3. Sized for 10-year rainfall event minimum.
4. Aluminum fasteners.
5. Color to match roofing system.

8. Deck Inspection and Repair

1. Inspect decking after removal.
2. Replace deteriorated decking (unit price basis).
3. Re-nail deck per IBC/FBC requirements.

9. Fascia and Drip Edge

Contractor shall:

1. Inspect all wood fascia for deterioration.
2. Replace deteriorated wood fascia with KDAT (Kiln-Dried After Treatment) pressure-treated lumber to improve dimensional stability and finish performance
3. Underlayment shall lap over fascia and terminate below drip edge to ensure proper water shedding and prevent moisture intrusion
4. Contractor shall isolate pressure-treated wood from aluminum components using approved barrier materials to prevent galvanic corrosion
5. Remove and replace deteriorated wood fascia with preservative-treated lumber.

6. Replace all existing drip edge with new aluminum drip edge compatible with standing seam roof system.
7. Ensure drip edge complies with manufacturer requirements and IBC/FBC.

Drip edge shall be continuous at eaves and rakes.

10. Quality Control and Closeout

1. Pre-construction and progress photo documentation.
2. Weekly status reports.
3. As-built drawings.
4. Warranty documentation.

11. Manufacturer Inspection Requirement

Contractor shall coordinate and pay for a manufacturer-authorized field inspection.

The roofing manufacturer shall:

1. Inspect installation during construction.
2. Perform final inspection upon completion.
3. Provide written confirmation that the roof was installed in accordance with manufacturer requirements.
4. Issue manufacturer warranty documentation.

Final payment shall not be approved until manufacturer inspection letter is submitted.

12. Safety and Site Requirements

1. Work hours: 7:30 AM – 5:00 PM, Monday–Friday.
2. No drones permitted within park boundaries.
3. Contractor to provide portable sanitation facilities.
4. Contractor to submit Debris Disposal Plan, Inclement Weather Plan, and Site Specific Accident Prevention Plan.
5. Park Safety Officer retains authority to stop unsafe work.

11. Warranty Requirements

1. Minimum 20-year weathertight warranty.
2. Minimum 30-year PVDF finish warranty.
3. Minimum 10-year workmanship warranty.

12. Submittal Requirements

All submittals shall be transmitted to the Contracting Officer's Representative (COR) for review and written approval prior to material procurement or installation.

Contractor shall submit:

1. Product data sheets (roof panels, clips, underlayment, fasteners, flashing, gutters)
2. Florida Product Approval documentation
3. Manufacturer installation instructions
4. Warranty certificates
5. Installer certification
6. Accident Prevention Plan (see below)
7. Quality Control Plan
8. Project Schedule
9. Schedule of Values
10. Miami-Dade NOA (Notice of Acceptance).
11. UL 580 / ASTM E1592 uplift test data.

Accident Prevention Plan
Contractor shall submit an Accident Prevention Plan (APP) compliant with:

1. EM 385-1-1 (if applicable to NPS Region policy)
2. OSHA 29 CFR 1926
3. NFPA 780 (for lightning work)
4. Fall Protection standards

APP shall include:

1. Site-specific fall protection plan
2. 100% tie-off requirements
3. Rescue plan for fall arrest
4. Hazard communication plan
5. Heat stress management plan (Florida)
6. Hurricane preparedness plan
7. Electrical safety procedures
8. Daily Job Hazard Analysis (JHA)
9. Competent person identification
10. Scaffold plan (if used)
11. Crane/lift plan (if used)
12. Ladder safety procedures

APP must be approved by COR before mobilization.

12.9 Closeout Submittals

Prior to final payment:

1. As-built drawings
2. Manufacturers Warranty registration confirmation
3. Manufacturer inspection letter
4. Installer Warranty
5. Lightning Protection Certification

13 – Lightning Protection System (Removal, Protection, and Reinstallation)

13.1 General

Existing lightning protection systems are present on one or more of the project structures (Visitor Center, Facilities Management Building, and Shed).

The Contractor shall provide all labor, materials, supervision, testing, coordination, and certification required to remove, protect, reinstall, and recertify the lightning protection systems impacted by roof replacement activities.

All work shall comply with:

1. NFPA 780 – Standard for the Installation of Lightning Protection Systems
2. UL 96A
3. International Building Code (IBC) and Florida Building Code (FBC)
4. Section 264113 – Lightning Protection for Structures (where applicable)

13.2 Pre-Construction Documentation

Prior to roof tear-off, Contractor shall:

1. Photograph and document existing lightning protection layout.
2. Verify:
    - Air terminal locations
    - Main conductor routing
    - Down conductor routing
    - Ground rod locations (to extent visible)
3. Confirm continuity of existing system prior to disturbance.
4. Submit coordination plan to COR prior to removal.

13.3 Removal During Roof Tear-Off

During demolition operations:

1. Carefully remove air terminals, conductors, bonding straps, fasteners, clamps, and supports necessary to complete roof replacement.
2. Do not cut, damage, or abandon grounding electrode system.
3. Protect exposed down conductors and grounding connections from mechanical damage.
4. Maintain system integrity where possible.
5. All old lightning protection cables, rods, and hardware to be returned to COR.

No conductor shall be left loose, unsupported, or unprotected at the end of any workday.

13.4 Temporary Protection

If roof work results in partial disassembly of the lightning protection system:

1. Secure conductors to prevent wind movement.
2. Maintain grounding continuity at all times.
3. Do not energize or test during incomplete configuration unless coordinated.

13.5 Reinstallation Requirements

After installation of new aluminum standing seam roof:

1. Install new lightning protection system compatible with Aluminum Roof System in full compliance with NFPA 780.
2. Air terminals shall be mounted using: (product submittal required)
    - Manufacturer-approved standing seam clamps, OR
    - Approved adhesive mounts compatible with roofing manufacturer
3. No direct penetrations through standing seam roof panels are permitted.

13.6 Galvanic Corrosion Protection

Because roofing system is aluminum:

1. Bare copper conductors shall not contact aluminum roof panels
2. Conductors shall be aluminum or fully isolated from aluminum surfaces
3. Fasteners and clamps shall be:
    1. Aluminum, or
    2. 316 stainless steel with non-conductive isolation barriers (e.g., nylon washers, sleeves, or coatings such as Tef-Gel)
4. All materials shall be compatible with the roof system and shall not void manufacturer warranty
5. Dissimilar metals shall be isolated in accordance with NFPA 780 and manufacturer requirements

13.7 Coordination with Roofing System

Lightning protection attachments shall:

1. Not void roof manufacturer warranty.
2. Be coordinated with roof panel seam layout.
3. Avoid interference with panel expansion and contraction.
4. Be detailed in shop drawings showing seam clamp locations.

Lightning protection shop drawings shall be coordinated with roofing shop drawings prior to fabrication.

13.8 Testing and Recertification

Upon completion of reinstallation:

1. Perform continuity testing of entire lightning protection system.
2. Engage UL-listed installer (Category OWAY or equivalent) to perform inspection.
3. Obtain UL Letter of Findings or UL Master Label certification.
4. Submit inspection report and certification to COR prior to final acceptance.

13.9 Installer Qualifications

Lightning protection installation shall be performed by:

1. UL-listed lightning protection installer.
2. Firm with documented experience on standing seam metal roofing systems.
3. Installer experienced in coastal corrosion environments.

13.10 Closeout Requirements

Prior to final payment, Contractor shall provide:

1. As-built lightning protection layout drawings
2. Test results
3. UL inspection report
4. Updated certification
5. Maintenance instructions

14 Environmental and Protected Species Requirements

Contractor shall comply with all National Park Service environmental protection requirements.

- The Government will identify protected species that may be present in the work or staging areas, including but not limited to:
    - Gopher tortoise
    - Eastern indigo snake
    - Beach mouse
- Contractor shall:
    - Immediately stop work in the vicinity of observed protected species
    - Notify the COR or designated park representative
    - Not disturb, handle, or relocate wildlife
- Contractor shall coordinate staging and operations to avoid impacts to protected habitat

Project Site Map

VC: 7611 S. Atlantic Av. New Smyrna Beach, FL 32169

FM: 28.647089956737023, -80.70118703926083

1434 CNS Maintenance Road, Titusville, FL

Shed: 28.643432072235598, -80.62546192858241

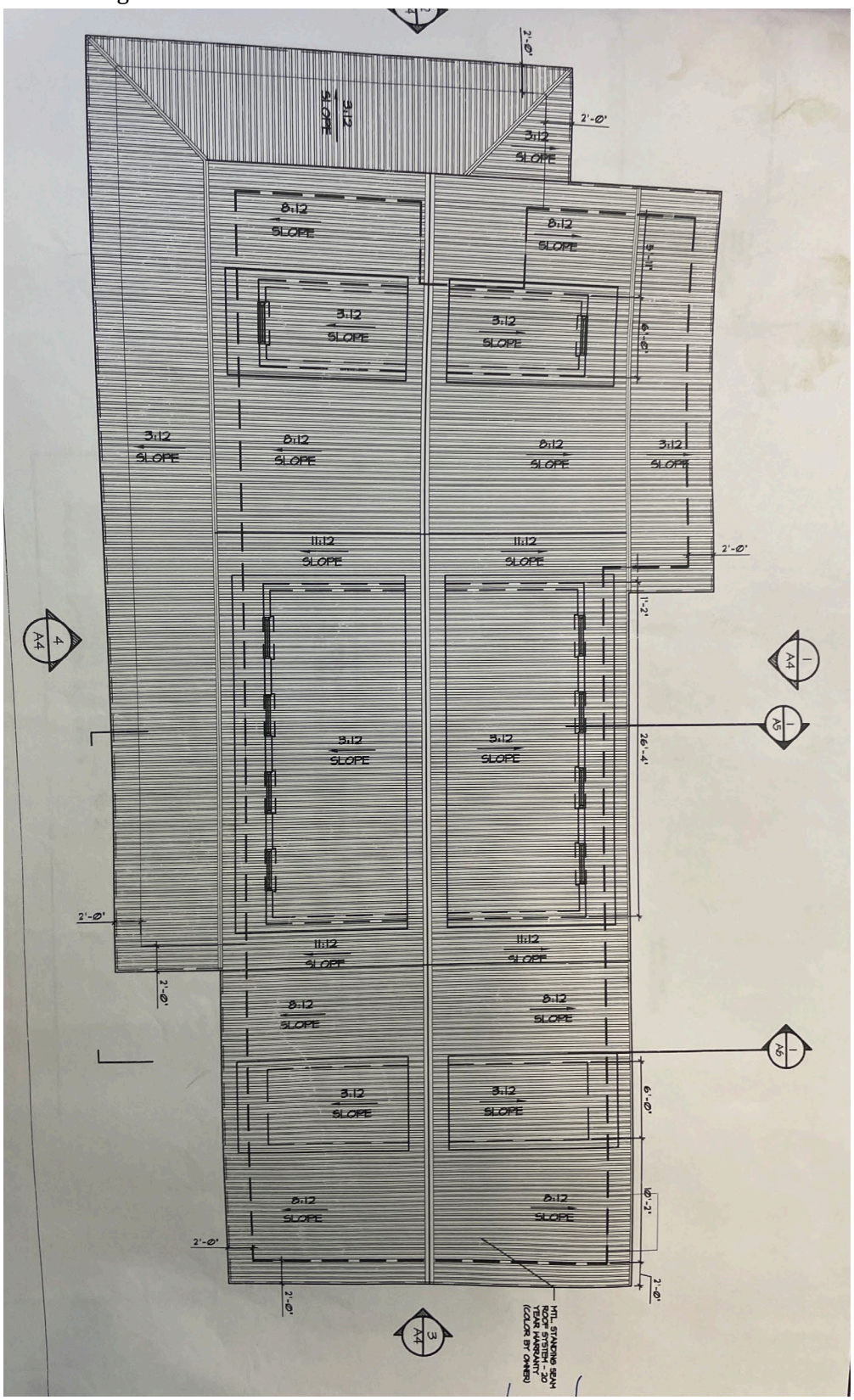
Photos

VC

FM

Shed

VC Drawings


2'-0"
3:12 SLOPE
8:12 SLOPE
11:12 SLOPE
5'-1"
6'-0"
1'-2"
26'-4"
10'-2"
A4 4
A4 1
A5 1
A6 1
A4 3
MTL STANDING SEAM ROOF SYSTEM - 20 YEAR WARRANTY (COLOR BY OWNER)