STATEMENT OF WORK

STAFF PARKING GARAGE FACADE REPAIRS,

UNITED STATES EMBASSY ABUJA.

1.0 General Information

1.1 This Statement of Work (SOW) outlines the requirements for the repair, sealing, waterproofing, and reinstatement of façade cracks identified at the Staff Parking Garage of the U.S. Embassy Abuja, located at Plot 1075 Diplomatic Drive, Central District, Abuja.

The Parking Garage is a four-level parking structure consisting of suspended slabs, with a parking capacity of approximately 500 vehicles and an area of approximately 3,800 square meters per floor.

The south facade of the structure exhibits signs of delamination and cracking in several locations, primarily along structural reveal lines. Evidence of water seepage is also present through some of these cracks.

The objective of this work is to restore the structural integrity of the facade, prevent moisture ingress, halt progressive deterioration, and reinstate finishes to match the existing surfaces.

2.0 General Requirements

2.1. The cost proposal shall include all labor, material, tools and equipment required to complete the work in accordance with the contract documents. This is a fixed cost contract with reimbursement at the end of satisfactory performance of the project.

2.2. All work performed by the contractor shall meet and comply with accepted local, international or United States building codes; whichever are more stringent.

2.3. Contractor shall submit access requests to the Contracting Officer's Representative (COR) for all personnel and vehicles requiring entry into USG property. The contractor shall submit access requests to the COR three (3) business days prior to the date of access required. All contractor personnel must present photo ID prior to entry onto United States Government (USG) property.

2.4. The Contractor shall schedule all work under this project during normal Embassy business hours; 7:30am to 4:30pm Monday to Thursday and 7:30am to 1:30 pm on Friday, excluding local and US holidays The contractor shall submit a written request to the COR 48 hours in advance prior to performing any work outside of standard operational times.

2.5. The contractor is responsible for verifying all dimensions, material quantities and existing conditions prior to submitting a quote and during the project.

2.6 Contractor shall report any potential changes to the contract to COR for evaluation, consideration, and eventual contract modification. Contractor shall not perform any work

other than stated in this work statement unless he receives approval from the contracting officer.

2.7. The contractor shall submit a comprehensive safety plan for the project detailing relevant actions to minimize hazards during the project. The contractor shall be responsible for compliance with all safety requirements. All safety equipment required in performance of project shall be the responsibility of the contractor to provide. USG reserves the right to issue stop work orders in the event of a violation of safety standards that could lead to hazard.

2.8. The contractor shall be required to prepare and submit reports to the COR, itemized bill of materials, product literature, quality control plans, project progress and schedule report, one week look head plan, safety plan and construction costs as applicable to the project. These documents provide the necessary interfaces, coordination, and communication between the USG and contractor for the delivery of a completed project. The Contractor shall also prepare and submit quality control schedules as applicable to the project.

2.9. The contractor shall coordinate the work schedule and access to the work areas with the COR. He shall clean up and dispose of debris from the work site on a daily basis and shall furnish bins or another means of disposal to achieve this task. Contractor shall store tools and materials for the project at a designated and approved location within each facility. Storage in unapproved location will not be acceptable. No equipment or material shall be stored on the work site without specific permission from the COR. Wastes disposal shall be at the contractor's discretion and in accordance with relevant local authorities and regulations in these regards.

2.10. The Contractor Shall ensure that all materials to be used are in conformance to the product/materials samples presented in the approved submittals and bill of quantities reported in writing to the COR. Submittals of samples and Product Data (PD) for all contractor furnished materials input to the project execution must be pre-approved by the COR unless otherwise noted.

2.11. The Contractor shall be responsible for coordinating and obtaining all necessary permits and licenses from relevant local authorities for the project. He shall submit copies of such approvals to the COR prior to starting the affected work. Such permits shall include but are not limited to traffic controls, refuse disposals and other likes.

2.12. Contractor shall be responsible for any damage to USG or personal property caused by his workers and/or sub-contractors. The contractor will be required to remove all materials and equipment used in the performance of the project and to repair or return the site to the same condition as it was prior to the start.

2.13. Workmanship shall be of high quality as characterized by pleasing appearance, proper dimensions, proper shape, proper grade, and even surface. All manufactured items shall be new and installed in accordance with the manufacturer's instructions.

ADDITIONAL SAFETY MEASURES (OCT 2017)

The contractor shall comply with the following additional safety measures if and where applicable:

(a) ***High risk activities.*** If the project contains any of the following high-risk activities, the contractor shall follow the section in the latest edition, as of the date of the solicitation, of the U.S. Army Corps of Engineers Safety and Health manual, EM 385-1-1, that corresponds to the high-risk activity. Before work may proceed, the contractor must obtain approval from the COR of the written safety plan required by FAR 52.236-13, Accident Prevention Alternate I (see paragraph (f) of this clause), containing specific hazard mitigation and control techniques.

(1) Scaffolding.

(2) Work at heights above 1.8 meters.

(3) Trenching or other excavation greater than one (1) meter in depth.

(4) Earth-moving equipment and other large vehicles.

(5) Cranes and rigging.

(6) Welding or cutting and other hot work.

(7) Partial or total demolition of a structure.

(8) Temporary wiring, use of portable electric tools, or other recognized electrical hazards. Temporary wiring and portable electric tools require the use of a ground fault circuit interrupter (GFCI) in the affected circuits; other electrical hazards may also require the use of a GFCI.

(9) Work in confined spaces (limited exits, potential for oxygen less than 19.5 percent or combustible atmosphere, potential for solid or liquid engulfment, or other hazards considered to be immediately dangerous to life or health such as water tanks, transformer vaults, sewers, cisterns, etc.).

(10) Hazardous materials - a material with a physical or health hazard including but not limited to, flammable, explosive, corrosive, toxic, reactive or unstable, or any operations, which creates any kind of contamination inside an occupied building such as dust from demolition activities, paints, solvents, etc.; or

(11) Hazardous noise levels as required in EM 385-1 Section 5B or local standards if more restrictive.

(b) ***Safety and health requirements.*** The contractor and all subcontractors shall comply with the latest edition of the U.S. Army Corps of Engineers Safety and Health manual EM 385-1-1, or OSHA 29 CFR part 1910 or 1926 if no EM 385-1-1 requirements are applicable, and the accepted contractor's written safety program.

(c) ***Mishap reporting.*** The contractor is required to report *immediately* all mishaps to the COR and the contracting officer. A "mishap" is any event causing injury, disease or illness, death, material loss or property damage, or incident causing environmental contamination. The mishap reporting requirement shall include fires, explosions, hazardous materials contamination, and other similar incidents that may threaten people, property, and equipment.

(d) ***Records.*** The contractor shall maintain an accurate record on all mishaps incident to work performed under this contract resulting in death, traumatic injury, occupational disease, or damage to or theft of property, materials, supplies, or equipment. The contractor shall report this data in the manner prescribed by the contracting officer.

(e) ***Subcontracts.*** The contractor shall insert this clause, including this paragraph (e), with appropriate changes in the designation of the parties, in subcontracts.

(f) ***Written program.*** The plan required by paragraph (f)(1) of the clause entitled "Accident Prevention Alternate I" shall be known as the Site Safety and Health Plan (SSHP) and shall address any activities listed in paragraph (a) of this clause, or as otherwise required by the contracting officer/COR.

(1) The SSHP shall be submitted at least 10 working days prior to commencing any activity at the site.

(2) The plan must address developing activity hazard analyses (AHAs) for specific tasks. The AHAs shall define the activities being performed and identify the work sequences, the specific anticipated hazards, site conditions, equipment, materials, and the control measures to be implemented to eliminate or reduce each hazard to an acceptable level of risk. Work shall not begin until the AHA for the work activity has been accepted by the COR and discussed with all engaged in the activity, including the Contractor, subcontractor(s), and Government on-site representatives.

(3) The names of the Competent/Qualified Person(s) required for a particular activity (for example, excavations, scaffolding, fall protection, other activities as specified by EM 385-1-1) shall be identified and included in the AHA. Proof of their competency/qualification shall be submitted to the contracting officer or COR for acceptance prior to the start of that work activity. The AHA shall be reviewed and modified as necessary to address changing site conditions, operations, or change of competent/qualified person(s).

ADDITIONAL SCOPE FOR SCAFFOLDING

Contractor shall set up barricades using cones, pegs and caution tapes around the areas of scaffolds set up. 6m minimum clearance if applicable will be maintained from the proposed base of the scaffolds.

Contractor is to set up scaffolding on four sides of the building in coordination with the windows pressure washing projects schedules. Scaffolds installations are to be per Osha 1926 standards as defined by the following definitions and guidelines

- **Guardrail height**

The height of the top rail for scaffolds manufactured and placed in service must be between 36 inches (0.9 meters) and 48 inches (1.2 meters).

- **Cross bracing**

When the cross point of cross bracing is used as a top rail, it must be between 38 inches (0.97 m) and 48 inches (1.3 meters) above the work platform.

- **Mid rails**

Mid rails must be installed approximately halfway between the top rail and the platform surface. When a cross point of cross bracing is used as a mid-rail, it must be between 20 inches (0.5 meters) and 30 inches (0.8 m) above the work platform.

- **Footings**

Support scaffold footings shall be level and capable of supporting the loaded scaffold. The legs, poles, frames, and uprights shall bear on base plates and mud sills.

- **Platforms**

Supported scaffold platforms shall be fully planked or decked.

- **Guying ties, and braces**

Supported scaffolds with a height-to-base of more than 4:1 shall be restrained from tipping by guying, tying, bracing, or the equivalent.

- **Capacity**

Scaffolds and scaffold components must support at least 4 times the maximum intended load. Suspension scaffold rigging must be at least 6 times the intended load.

- **Training**

Employers must train each employee who works on a scaffold on the hazards and the procedures to control the hazards.

- **Inspections**

Before each work shift and after any occurrence that could affect the structural integrity, a competent person must inspect the scaffold and scaffold components for visible defects.

- **Erecting and Dismantling**

When erecting and dismantling supported scaffolds, a competent person must determine the feasibility of providing a safe means of access and fall protection for these operations. OSHA's scaffolding standard defines a competent person as "one who is capable of identifying existing and predictable hazards in the surroundings or working conditions, which are unsanitary, hazardous to employees, and who has authorization to take prompt corrective measures to eliminate them." The standard requires a competent person to perform the following duties under these circumstances:

a. To select and direct employees who erect, dismantle, move, or alter scaffolds. –
b. To determine if it is safe for employees to work on or from a scaffold during storms or high winds and to ensure that a personal fall arrest system or wind screens protect these employees. (Note: Windscreens should not be used unless the scaffold is secured against the anticipated wind forces imposed.)
c. To train employees involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting scaffolds to recognize associated work hazards.
d. To inspect scaffolds and scaffold components for visible defects before each work shift and after any occurrence which could affect the structural integrity and to authorize prompt corrective actions.
e. To inspect ropes on suspended scaffolds prior to each work shift and after every occurrence which could affect the structural integrity and to authorize prompt corrective actions. - To inspect manila or plastic (or other synthetic) rope being used for top rails or mid rails
f. For Erectors and Dismantlers: - To determine the feasibility and safety of providing fall protection and access and to train erectors and dismantlers to recognize associated work hazards.
g. For Scaffold Components: - To determine if a scaffold will be structurally sound when intermixing components from different manufacturers and also to determine if galvanic action has affected the capacity when using components of dissimilar metals.

- **Capacity**

  Each scaffold and scaffold component must support without failure its own weight and at least four times the maximum intended load applied or transmitted to it. A qualified person must design the scaffolds, which are loaded in accordance with that design. Scaffolds and scaffold components must not be loaded in excess of their maximum intended loads or rated capacities, whichever is less. Load carrying timber members should be a minimum of 1,500 lb.-f/in2 construction grade lumber.

- **Scaffold Platform Construction**

  Each platform must be planked and decked as fully as possible with the space between the platform and uprights not more than 1 inch (2.5 centimeters) wide. The space must not exceed 9 inches when side brackets or odd-shaped structures result in a wider

opening between the platform and the uprights. Scaffold planking must be able to support, without failure, its own weight and at least four times the intended load. Solid sawn wood, fabricated planks and fabricated platforms may be used as scaffold planks following the recommendations by the manufacturer inspection agency (COR) The platform must not deflect more than 1/60 of the span when loaded. Each scaffold platform and walkway must be at least 18 inches (46 centimeters) wide. When the work area is less than 18 inches (46 centimeters) wide, guardrails and/or personal fall arrest systems must be used. The standard requires employers to protect each employee on a scaffold more than 10 feet (3.1 m) above a lower level from falling to that lower level. To ensure adequate protection, install guardrails along all open sides and ends before releasing the scaffold for use by employees, other than the erection and dismantling crews. Guardrails are not required, however, • When the front end of all platforms are less than 14 inches (36 centimeters) from the face of the work; 1926.451(b)(3) • When outrigger scaffolds are 3 inches (8 centimeters) or less from the front edge • When employees are plastering and lathing 18 inches (46 centimeters) or less from the front edge. Steel or plastic banding must not be used as a top rail or a mid-rail.

- **Supported Scaffolds**

  Supported scaffolds are platforms supported by legs, outrigger beams, brackets, poles, uprights, posts, frames, or similar rigid support. The structural members, poles, legs, posts, frames, and uprights must be plumb and braced to prevent swaying and displacement. All employees must be trained by a qualified person to recognize the hazards associated with the type of scaffold being used and how to control or minimize those hazards. The training must include fall hazards, falling object hazards, electrical hazards, proper use of the scaffold, and handling of materials. Supported scaffolds with a height to base width ratio of more than 4:1 must be restrained by guying, tying, bracing, or equivalent means. Either the manufacturers' recommendation or the following placements must be used for guys, ties, and braces:

  a. Install guys, ties, or braces at the closest horizontal member to the 4:1 height and repeat vertically with the top restraint no further than the 4:1 height from the top.
  b. Vertically—every 20 feet (6.1 meters) or less for scaffolds less than three feet (0.91 meters) wide; every 26 feet (7.9 meters) or less for scaffolds more than three feet (0.91 meters) wide.

3.0 Project Requirements

Contractor shall provide all supervision, labor, tools, equipment and material to perform all works under this contract.

All materials to be used for the contract must be presented for inspection and any materials replaced must be handed over to the COR.

All welding works shall be guided by OSHA standards for Welding, Cutting and Brazing and all the plumbing works shall meet relevant International Fire Code regulations or any local substitute.

All forklifts and/or heavy lifting equipment for this project shall be sized as appropriate for its applications

The project site must be kept clean at all times, and a final thorough cleaning must be done at project completion.

All lock out and tag out operations must be witnessed and approved by the COR before subsequent activities shall commence.

The USG will furnish along with this Scope of work,

- images to facilitate a clear understanding of the project scope.

4.0 Scope of Repair Works

4.1 Condition Survey and Assessment

- Map, measure, and document all cracks prior to repair.
- Classify cracks as structural or non-structural, and as active or dormant, in accordance with ACI 224.1R.
- Conduct hammer sounding surveys to identify hollow, debonded, or delaminated areas.
- Mark and record all delaminated zones.
- Identify damp or water-affected areas and determine sources of moisture.
- Maintain photographic records before commencement of repairs.
- Obtain consultant/client approval of condition mapping prior to starting repair works.

4.2 Removal of Defective Materials

- Remove all loose, hollow, delaminated, blistered, or debonded plaster/render until a sound substrate is achieved, in accordance with ICRI 310.2R.
- Saw-cut repair perimeters to form neat, defined edges.
- Remove existing coatings, sealants, and fillers at least 50 mm on either side of cracks.

- Expose and clean corroded reinforcement, where present, and apply approved anti-corrosion protection.
- Ensure the substrate is structurally sound before proceeding with repairs.

4.3 General Surface Preparation (Applicable to All Repairs)

- Prepare cracks by forming V-grooves or openings as required by the repair method.
- Clean all prepared areas thoroughly using compressed air or vacuum in accordance with ASTM D4258.
- Pre-wet substrates for cementitious repairs to achieve Saturated Surface Dry (SSD) condition.
- Apply bonding agents where required in accordance with manufacturer recommendations.

4.4 Structural Crack Repair – Injection Method

- Drill injection holes at approximately 45° to intersect cracks at 200–300 mm spacing.
- Install injection packers and seal crack surfaces between packers using epoxy paste complying with ASTM C881.
- Inject approved epoxy or polyurethane resin from lowest point upward until refusal.
- Allow material to cure as per manufacturer recommendations.
- Remove packers, grind flush, and reinstate surface using polymer-modified non-shrink repair mortar complying with ASTM C928.

4.5 Crack Stitching (Where Required)

- Cut slots along cracks at 300–450 mm spacing with a depth of 25–35 mm.
- Clean slots and apply bonding grout.
- Install stainless steel helical bars or reinforcement in accordance with ASTM A1064/A1064M.
- Fully encapsulate reinforcement with polymer-modified non-shrink repair mortar (ASTM C928) and finish to match adjacent surfaces.

4.6 Non-Structural Crack Repair

- Open cracks 15–20 mm depth to ensure proper filling.

- Fill with approved flexible sealant (ASTM C920) or polymer-modified repair mortar (ASTM C928), depending on crack characteristics.
- Finish flush with surrounding surfaces.

4.7 Reinstatement of Removed or Delaminated Areas

- Install galvanized welded wire mesh reinforcement (1/8 inch / 3 mm grid) per ASTM A1064/A641 for plaster thickness >20 mm or previous delamination.
- Mechanically anchor reinforcement and extend beyond repair boundaries as necessary.
- Reinstate areas using polymer-modified non-shrink repair mortar (ASTM C928), applied in layers to achieve full encapsulation.
- Finish surfaces to match existing facade.

4.8 Treatment of Damp or Water-Affected Areas

- Eliminate sources of moisture prior to repair.
- Allow affected substrates to dry adequately.
- Apply appropriate crack and surface repair methods as specified above.

  Apply elastomeric waterproof coating complying with ASTM D6083 where required.

4.9 Movement Joints and Sealants

- Inspect all existing movement and expansion joints.
- Remove deteriorated sealants, clean and prepare joint surfaces.
- Install new backer rods and sealants compliant with ASTM C920.
- Ensure compatibility between sealants and coating systems.

4.10 Façade Waterproofing

- Apply approved elastomeric or cementitious waterproofing system over all repaired and prepared areas.
- Ensure application meets manufacturer's specified coverage and thickness requirements.
- Verify dry film thickness (DFT) in accordance with ASTM D7091.
- Ensure completed coating is free from defects such as pinholes or blisters.

4.11Roof Drain and Waterproofing Repairs for Leaking Tunnel CAC Guard Booth Roof

- Carefully remove and set aside the existing aluminum roof covering, approximately 4 m^2, to provide full access to the roof drain and affected areas.
- Expose the existing roof drain and trace the drainage connection through the concrete slab to the point of connection with the embedded drainpipe.
- Inspect the drain, drain connection, surrounding concrete, waterproofing, and associated joints to identify and rectify the source(s) of water ingress.
- Repair, reseal, or replace defective drain connections, joints, seals, and waterproofing components as necessary to achieve a fully watertight drainage connection.
- Ensure the drain is securely connected to the existing embedded concrete drainpipe and that the drainage path is clear and fully functional.
- Reinstate all disturbed waterproofing and roof finishes using compatible, durable materials suitable for the existing roof system.

Leak Elimination and Testing: The Contractor shall conduct a controlled water test of the entire repaired roof and drain assembly, including the drain and its connection to the embedded drainpipe, for a sufficient duration to verify watertightness. The Contractor shall not consider this work complete until the existing roof leak has been fully eliminated and the roof has demonstrated no evidence of further water infiltration or leakage. Any leakage identified during testing shall be corrected by the Contractor and the roof shall be retested until a completely leak-free condition is achieved.

4.12 Priming and Painting

- • Clean the entire façade surface by power washing to remove dust, dirt, debris, loose materials, and other contaminants, including areas beyond the repair zones, to ensure a clean surface for subsequent coating application.
- Apply approved exterior primer to repair areas (e.g., Sherwin-Williams or equivalent)
- Apply a minimum of two coats of exterior-grade acrylic coating (e.g., Sherwin-Williams or equivalent) across the entire 4,500 m^2 façade.
- Coating adhesion shall comply with ASTM D4541.
- Ensure final surface is uniform, free of patchiness, and visually seamless across all repaired and non-repaired areas.

4.13 Execution, Protection, and Site Control

- Execute works in a systematic sequence (generally top-to-bottom and zone-by-zone).

- Provide safe access systems such as scaffolding or suspended platforms.
- Protect adjacent surfaces, windows, and architectural elements from damage or contamination.
- Remove debris regularly and maintain site cleanliness.
- Do not carry out repair or coating works under adverse weather conditions such as rain, extreme temperatures, or high humidity beyond manufacturer limits.
- Ensure all materials are applied within specified environmental conditions**.**

5.0 Submittals and Approvals

- Submit material technical datasheets, method statements, and product certifications for approval prior to use.
- Provide a detailed work methodology including sequence of repairs and access arrangements.
- Detailed safety work plan and risk assessment.
- Use only approved materials compliant with referenced ASTM/ICRI standards.
- **All submitted documents, including method statements, material specifications, and proposed systems, shall form part of the contractor's technical evaluation and shall be used as criteria for bid assessment, execution of the works, and final inspection and acceptance.**

6.0 Project Timeline

The work shall be executed in phases to minimize disruption to facility operations.

The Contractor shall submit a detailed work schedule for approval prior to commencement.

7.0 Deliverables

The Contractor shall submit the following deliverables:

- **Pre-Construction/Execution:**
  Approved material submittals, method statement, and work program; crack mapping, condition survey report, and progress reports.
- **Post-Completion/Closeout:**
  Final repair report with documentation, snag list clearance, warranties, and handover documentation for client approval.

- Provide a fully repaired and watertight roof drain connection, with all disturbed waterproofing and roof covering reinstated. Conduct a water test to verify complete elimination of the existing leak, with no further water infiltration.

8.0 Quality Assurance and Standards

- All materials and workmanship shall comply with recognized international standards for concrete and façade repair.
- Trial injection may be required prior to full application.
- Engineer inspection shall be conducted prior to reinstatement of finishes.
- All repaired areas shall be flush, uniform, and free from visible cracks.
- Any defects identified during the warranty period shall be rectified promptly.

9.0 Warranty

The Contractor shall warrant all materials and workmanship for a period of twelve (12) months from the date of completion.

Any defects arising within this period shall be remedied at no additional cost to USG, excluding normal wear and tear.

10.0 Contractor Qualifications and Requirements

Contractors shall demonstrate:

- Proven experience in structural crack repair and façade restoration.
- Qualified personnel trained in injection and crack stitching systems.
- Adequate equipment and safety systems for façade access.
- Clear understanding of methodology, sequencing, and quality control requirements.

11.0 Final Inspection and Handover

- Conduct final inspection jointly with the COR.
- Rectify all defects identified during inspection.
- Submit as-built repair records, material warranties, and QA/QC documentation.
- Obtain final approval prior to project handover.

12.0 Preliminary and Final Acceptance

Upon completion of the works or milestone thereof, the Contractor shall notify the COR in writing that the works are complete and ready for preliminary acceptance.

Representatives of the Contractor and USG shall jointly inspect the works. All observed defects, omissions, or non-compliance with this SOW shall be documented and issued for correction.

The Contractor shall rectify all deficiencies and notify USG representatives for final inspection.

Final acceptance shall be communicated in writing through the COR.

Work discovered to be deficient resulting in recurrence of cracks, detachment, deformation, disconnection, workmanship failure, or settlement within ninety (90) days after completion shall be corrected by the Contractor at no cost to USG upon notification by the COR.