SCOPE OF WORK
CHANCREY PAVEMENTS CONSTRUCTION AT MCAC ENTRANCE
U.S. EMBASSY DJIBOUTI

1. BACKGROUND AND PURPOSE

1.1 The U.S. Embassy Djibouti has a requirement to obtain services to construct new concrete pavement paths on the Embassy Compound, entrance Mcac in Djibouti Haramous.

2. GENERAL REQUIREMENTS

2.1 The Contracting Officer’s Representative (COR) will be the contractor’s contact at the US Embassy, Djibouti. The COR will assist and direct the contractor when scheduling work, obtaining approved local supplies, and liaison with Post personnel during the Project. All questions concerning coordination of installation activities while at post shall be directed to the COR. Designated COR for this project is Faycal Ali, Mechanic Engineer Supervisor.

2.2 The Contractor shall provide personnel, material and supervision to complete the technical requirements in this Statement of Work. The Contractor shall assign a Project Supervisor who will be on site at all times, and serve as a primary contact with the Government. The Project Supervisor must have good English Language speaking and writing skills.

2.3 The Contractor shall have limited access into the Embassy Compound and outside the areas designated for the project except with permission by the Embass. The Contractor shall address the impact of the consequent disruption and provide for a continuing level of operation of the Embassy functions caused by the proposed work.

2.4 The Contractor shall follow security directives as explained by the Embassy. Failure to follow such directives may result in suspension of work and/or termination of the contract.

2.5 The Contractor will follow safety guidelines as explained in the Attachment 1 - Accident Prevention Plan. Failure to follow such guidelines may result in suspension of work and/or termination of the contract.

2.6 The contractor shall remove and lawfully dispose all trash, debris and waste from the site on a daily basis. Proofs of lawful disposal shall be submitted to the COR.

2.7 The contractor is responsible for all damages caused to the Government property during the execution of the project and obligated to repair those at their own cost.

2.8 Every material must be approved by COR prior to the installation. Contractor shall submit the product documentation at least 1 week before the scheduled installation.

3. PROPOSAL REQUEST

3.1 The contractor shall, within fifteen (15) calendar days of the receipt of a Proposal Request, submit a proposal for the project. The cost shall be Firm Fixed Price. Cost proposal shall include the following:

a) Project Schedule.

b) Bill of Quantities for work and material.
4. SCOPE OF WORK

4.1 OBJECTIVE

The objective of this project is to construct the pavement that will enable easier pedestrian access between the buildings on the compound. The pavements will be made of concrete per specifications in this SOW. They will match the existing pedestrian pavements. The total size of the pavements is 15 x 5 m.

4.2 EXCAVATION

4.2.1 The contractor will perform excavations to the soil up to the depth shown on the drawings in the Attachment 3 – Concrete Paving Drawing. The finished surface of the sidewalk shall follow the elevation of the lawn, maintaining the level of the same ground level.

4.3 CAST IN PLACE CONCRETE

4.3.1 Provide the compacted bed and concrete per Attachment 2 – Concrete Specifications (Chapter 19 of OBO Building Code) and Attachment 3 – Concrete Paving Drawing.
4.3.2 Width of the pavement shall be 5 m.
4.3.3 Length of the sidewalk is 15 m.
4.3.4 The exact position of the paving will be determined before the construction. Attachment 5 shows the approximate position.

5 QUALITY CONTROL

6.1 Final inspection and acceptance will be performed by the COR immediately after completion of work. The contractor can issue the final invoice after receiving the Inspection and Acceptance report from the COR.

END OF STATEMENT OF WORK
SCOPE OF WORK
CHANCERY PAVEMENTS CONSTRUCTION AT MCAC ENTRANCE
U.S. EMBASSY DJIBOUTI

ATTACHMENT 1: Accident Prevention Plan

ACCIDENT PREVENTION (APR 2004)

(a) General. The contractor shall provide and maintain work environments and procedures which will safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to contractor operations and activities; avoid interruptions of Government operations and delays in project completion dates; and, control costs in the performance of this contract. For these purposes, the contractor shall:

(1) Provide appropriate safety barricades, signs and signal lights;
(2) Comply with the standards issued by any local government authority having jurisdiction over occupational health and safety issues; and,
(3) Ensure that any additional measures the contracting officer determines to be reasonably necessary for this purpose are taken.
(4) For overseas construction projects, the contracting officer shall specify in writing additional requirements regarding safety if the work involves:
(i) Scaffolding.
(ii) Work at heights above two (2) meters;
(iii) Trenching or other excavation greater than one (1) meter in depth;
(iv) Earth moving equipment;
(v) 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;
(vi) 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.); (vii) 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
(viii) Hazardous noise levels.
(b) Records. The contractor shall maintain an accurate record of exposure data on all accidents incident to work performed under this contract resulting in death, traumatic
ATTACHMENT 1: Accident Prevention Plan

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.

(c) Subcontracts. The contractor shall be responsible for its subcontractor’s compliance with this clause.

(d) Written program. Before commencing work, the contractor shall:

(1) Submit a written plan to the contracting officer for implementing this clause.

The plan shall include specific management or technical procedures for effectively controlling hazards associated with the project; and,

(2) Meet with the contracting officer to discuss and develop a mutual understanding relative to administration of the overall safety program.

(e) Notification. The contracting officer shall notify the contractor of any non-compliance with these requirements and the corrective actions required. This notice, when delivered to the contractor or the contractor’s representative on site, shall be deemed sufficient notice of the non-compliance and corrective action required. After receiving the notice, the contractor shall immediately take corrective action. If the contractor fails or refuses to promptly take corrective action, the contracting officer may issue an order suspending all or part of the work until satisfactory corrective action has been taken. The contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any suspension of work order issued under this clause.

(End of clause)
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SECTION 1901
GENERAL
Add and adjust the following items to the end of 1901.3
1901.3 Construction Documents
12. Structural drawings shall indicate top layer and bottom layer reinforcement placement for beams and two-way slabs.
13. Provide opening details specifically modified to be applicable for security walls, and walls and roof slabs designed for blast. The details shall specifically address the necessity for, or location of, diagonal bars at openings, and the treatment of interrupted bars at openings.

Add the following subsections:
1901.5 Concrete Framing Systems for Structures Resisting Blast. Unless specifically allowed otherwise by OBO/PDCS/DE, the following structural requirements shall apply.
1. Two-Way Solid Floor Slabs: Framed systems shall be two-way solid floor slabs supported on all sides by beams or bearing walls.
2. The minimum column dimension shall be 300 mm.
3. Exterior bearing walls are permissible.
SECTION 1903
SPECIFICATIONS FOR TESTS AND MATERIALS
Add the following subsections:
1903.4 Reinforcing type. Reinforcement shall comply with ASTM A 615/A 615M-14, Grade 420 (60) or ASTM A 706/A 706M-14, Grade 420 (60), unless specifically allowed otherwise by OBO/PDCS/DE. Reinforcement shall (a) be manufactured by a steel mill prequalified to supply reinforcing steel for OBO projects as indicated in OBO master 033000 specification or (b) be manufactured by a steel mill where the supplied reinforcing steel is evaluated and approved by OBO per section 1903.4.1.
1903.4.1 Variance from ASTM A615/A615M-14 or A706/A706M-14 or non-preapproved mill. Approval by OBO is required for use of reinforcing steel other than that meeting the full requirements of ASTM A615/A615M-14 or A706/A706M-14 (including bar sizes) or reinforcing from a non-preapproved OBO mill.
Evaluation of a proposed alternate reinforcing steel standard if applicable shall be made by the design structural engineer of record (EOR). Aspects identified below, if a proposed variance/substitution shall be evaluated by the design engineer of record. During construction testing of actual reinforcing steel shall be done by an independent testing laboratory familiar with testing reinforcing steel to ASTM requirements, accredited by OBO-ICS 2015 OBO-International Code Council Supplements JANUARY 2015 Amendments to the International Building Code United States Department of State IBC 19 – 1
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either AASHTO Material Reference Laboratory (AMRL) or International Accreditation Services (IAS), or as approved by OBO. The design structural engineer of record (EOR) shall approve test results and approve use of proposed reinforcing steel prior to submittal to OBO for evaluation. The complete evaluation shall be submitted to OBC for approval and shall include the following elements/test data:

1. Name and location (city and country) of Manufacturer (if applicable)
2. Manufacturer’s Chief Metallurgist contact information (telephone and email)
3. Bar dimensions
4. Permissible variation in weights
5. Deformations (include data worksheets)
6. Tensile strength
7. Minimum yield strength
8. Maximum yield strength (if applicable per ACI 318M-11, Section 21.15)
9. Minimum ratio of tensile strength to actual yield strength
10. Specified yield strength to actual yield strength comparison
11. Elongation requirements
12. Bend requirements (indicate pin diameters)
13. Bar markings (either graphic depiction and/or photographic) including explanation of meaning of marks
14. Chemical composition limits (carbon, manganese, phosphorous, sulfur, silicon, copper, nickel, and vanadium)
15. An sample copy of the mill’s tag which separates and identifies the manufacturer’s heat and testing identification numbers and an explanation of the elements on the mill tag.
16. A comparison between test results from the independent testing labs and manufacturer’s mill certificates as applicable
17. A comparison between a proposed reinforcing steel standard and ASTM A615/A615M-14 and A706/A706M-14 as applicable
18. Evaluate criteria and method for determining yield strength (offset method, extension under load method)

SECTION 1904

DURABILITY REQUIREMENTS

Add the following subsections:

1904.3 Service Life. The minimum design service life (target performance expectation) of structures shall be 100 years. Service life is defined as the number of years before major restoration with minimal maintenance. Major restoration is defined as repairs requiring jack hammering or other destructive means of concrete repair preparation. It shall be assumed that no repairs or maintenance are ever possible for foundations.

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1904.4 Corrosive Environment. Where site conditions indicate possible deleterious action on concrete because of deicing salts, soil constituents, brackish water, sea water or spray/wind transport from these sources, or other factors, such concrete shall be adequately protected by suitable materials, methods and processes. These materials, methods, and processes shall consider Surface Treatments (waterproofing coatings, waterproofing membranes, and penetrating sealers), Concrete Matrix Modifiers (low water/cement ratio, cement type, minimum cement amount, increased minimum strengths, silica fume, granulated blast-furnace slag cement, fly ash, damproofing admixtures, alternative pozzolans, latex admixtures, fourteen day moist curing), Increased Clear Cover, and Direct Steel Protection (epoxy-coated reinforcing (ASTM A 775), galvanized reinforcing (ASTM A 767), zinc and epoxy dual-coated reinforcing (ASTM A 1055), stainless steel reinforcing (ASTM A 955), corrosion inhibitors (calcium nitrate), and cathodic protection).

1904.5 Effectiveness of Protection. The effectiveness of protective materials, methods, or processes shall have been thoroughly established by satisfactory service life records or other evidence that demonstrates the effectiveness of such protective measures. To achieve effective protection of concrete elements, the durability requirements of ACI 318M shall be supplemented with guidance from PCA’s Design and Control of Concrete Mixtures, ACI 201.2R (Guide to Durable Concrete), ACI 362.1R (Guide for Design of Durable Parking Structures), ACI 365.1R (Service-Life Prediction) and suitable numerical modeling.

1904.6 Numerical Modeling. For concrete in corrosive environments, computerized numerical modeling programs shall be used to predict chloride ion profile as a function of depth, time, and exposure and sulfate exposure. OBO accepts the use of Lift 365 by M.D.A. Thomas and E.C. Benz for chloride ion exposure and STADIUM by SIMCC Technologies for chloride and/or sulfate exposure for quantitative determination of effectiveness, estimating service life, and comparing various protective measures. The following shall be assumed for the numerical modeling:

1. Concrete Cover. The assumed concrete cover shall be taken as the specified concrete cover minus the allowable cover tolerance as defined by ACI 117.
2. Corrosion Threshold. The assumed chloride ion content, at the reinforcing steel depth, necessary to initiate corrosion shall be taken as 0.05 percent by mass of concrete for uncoated (black) reinforcing bars.
3. Propagation Time. The corrosion propagation time shall be taken as 10 years for uncoated (black) steel reinforcement. This requires the concrete system to have a predicted time until breach of corrosion threshold of 90 years for the design 100-year service life requirement.

1904.7 Extent of Protection. Exterior building walls shall be considered exposed concrete unless directed otherwise by OBO.

SECTION 1905
MODIFICATIONS TO ACI 318-11

Add the following subsections:

1905.1.8 ACI 318M-11, Section 7.6.1. Modify ACI 318M, Section 7.6.1 to read as follows:
7.6.1 The minimum clear spacing between parallel bars in a layer shall be 1.5ds, but not less than 35 mm. See also 3.3.2.

1905.1.9 ACI 318M-11, Section 7.9.1. Modify ACI 318M, Section 7.9.1 to read as follows:
7.9.1 At connections of principal framing elements (such as beams and columns), enclosure shall be provided for anchorage of reinforcement terminating in such connections. Continuing reinforcement shall not be sliced within the beam column joint.

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1905.1.10 ACI 318M-11, Section 7.11.2. Modify ACI 318M, Section 7.11.1 by adding the following sentence to the end:
7.11.1 Placement of top beam bars outside of the closed ties or stirrups is not allowed.

1905.1.11 ACI 318M-11, Section 7.13.2. Modify ACI 318M, Section 7.13.2 by adding the following subsection:
7.13.2.6 For all beams at least two corner bars shall be provided continuously both top and bottom.

1905.1.12 ACI 318M-11, Section 10.2.2. Modify ACI 318M, Section 10.2.2 by adding the following subsection:
10.2.2.1 The design of beams and slabs shall take into consideration the difference in depth, d, to reinforcing steel
due to inner and outer layer placement.

1905.1.13 ACI 318M-11, Section 10.3.5. Modify ACI 318M, Section 10.3.5 by adding the following subsection:
10.3.5.2 At any section of a flexural member, for top as well as for bottom reinforcement, the reinforcement ratio
shall not exceed 0.025.

1905.1.14 ACI 318M-11, Section 10.9.1. Replace ACI 318M, Section 10.9.1 to read as follows:
10.9.1 Area of longitudinal reinforcement, A_{sl}, for non-composite compression members shall be not less than
0.01A_{b} or more than 0.04A_{b} if bars are required to be lap spliced (0.08 in the region of the lap), or 0.05A_{b} of section
if bars are required to be mechanically spliced.

1905.1.1.15 ACI 318M-11, Section 12.14.3. Modify ACI 318M, Section 12.14.3 by adding the following subsection:
12.14.3.6 Where used for beam or column bars, mechanical splices shall comply with ACI Type 2 as defined by
ACI 318M, Section 21.1.6 (mechanical splice shall develop in tension or compression, as required, at least 1.25\% of
the bar, and shall develop the specified tensile strength of the spliced bar).

SECTION 1907

MINIMUM SLAB PROVISIONS

Add the following subsection:

1907.2 Slabs-on-grade. Design and detail joints in slabs-on-grade in accordance with the recommendations of the
ACI Manual of Concrete Practice: 302.1R, Guide for Concrete Floor and Slab Construction; and 360R, Design of Slabs
on Grade. Typical joint details for slabs-on-grade shall be shown on the structural drawings, and joint locations shall be
shown on structural and/or architectural plans.

Add the following three sections:

SECTION 1913

CONCRETE QUALITY, MIXING AND PLACING

1913.1 Strength. Concrete strength shall be based on cylinders made per ASTM C 31 from molds conforming to
ASTM C 470 and tested in accordance with ASTM C 39. The design concrete strength shall not exceed 42 MPa unless
specifically allowed otherwise by OBO/PDCS/DE. Minimum concrete strength (f'c) and maximum water-cementitious
materials ratio (w/c) shall be as follows (unless more stringent requirements for concrete subjected to special exposure
conditions or sulfate exposure govern):
1. Building Frame and Miscellaneous Structures: f'c = 30 MPa minimum at 28 days. Maximum w/c = 0.54 for
non-air-entrained concrete and 0.45 for air-entrained concrete.

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2. Foundations, Retaining Walls, Slab-On-Grade, and Civil Site Work: f'c = 25 MPa minimum at 28 days.
Maximum w/c = 0.61 for non-air-entrained concrete and 0.52 for air-entrained concrete.
3. Mass Foundations: f'c = 20 MPa minimum at 28 days. Maximum w/c = 0.65 for non-air-entrained concrete
and 0.56 for air-entrained concrete.

1913.2 Consolidation. Design reinforcing steel to allow for internal vibration of the concrete. Openings in the
reinforcement of 100 mm by 100 mm minimum and spaced at 500 mm each way shall be provided for this purpose.
34, No. 5, page 410 for additional information.

SECTION 1914
DETAILS OF REINFORCEMENT
1914.1 Configuration and Assembly of the Reinforcing Steel System. The designer shall ensure that the
configuration and assembly of the complete reinforcing system will accommodate placement of reinforcing steel in the
most heavily reinforced beam/column joints, wall/window openings, and column splice zones within the toleranc2s
specified in the code and supplement.

SECTION 1915
JOINT REQUIREMENTS
1915.1 Exterior Building Walls. The designer shall show all joint locations on the structural drawings, and shall
address crack control on the structural drawings and in the specifications. Methods of crack control for structural
concrete walls shall be in accordance with the recommendations of ACI 224R, Control of Cracking in Concrete
Structures. Methods of crack control for architectural concrete shall be in accordance with the recommendations of ACI
303R, Guide to Cast-In-Place Architectural Concrete Practice. Concrete that is exposed, painted, skin coated, covered
with stucco, or otherwise covered with a material that is directly adhered to the concrete, shall be considered as
architectural concrete.
1915.2 Site Walls. Provide control joints spaced not greater than 6.00 m on center, and expansion joints not greater
than 30.00 m on center. Provide a joint at all steps in wall elevation. Control joint and expansion joint locations shall be
shown on the site plan drawings.

END OF CHAPTER IBC-19 AMENDMENTS
SITE VISIT:
A site visit will be conduct on **05/25/2022 at 9H30am** at US Embassy Djibouti MCAC and all interested contractors are invited to contact before **05/22/2022** the procurement department by mail at kayadse@state.gov and copy to djiboutiprocurement@state.gov to provide the names of the attendees.

Then all the prospectors will have till **06/01/2022** to submit their technical proposal and financial offer by email to kayadse@state.gov and ccpy to djiboutiprocurement@state.gov