

*Republic of Cote d'Ivoire*

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*Union-Discipline-Work*

**UNITED STATES EMBASSY**

# **POOLS PROJECT FOR THE AMERICAN EMBASSY ANNEX IN ABIDJAN**



**SPECIAL TECHNICAL SPECIFICATIONS (S.T. S)**

MAY 2021



ETUDES ARCHITECTURALES ET TECHNIQUES, AMENAGEMENTS URBAINS et  
COORDINATION DES TRAVAUX

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## **A. PRICING**

The Contractor shall complete all work, including furnishing all labor, material, equipment and services required under this purchase order for the following firm fixed price and within the time specified. This price shall include all labor, materials, all insurances, overhead and profit. See table in attachment 4.

The contractors shall be obliged to acquaint themselves with all the documents defining the works, installations and services in order to carry out the work under this contract.

In no case shall the contractors be able to argue that the plans, descriptions and annexed documents are inaccurate in order to refuse to execute, within the framework and conditions of their contract, all or part of the works necessary for the complete completion and perfect use of the installations provided for in this contract.

The contractors shall carefully check all the dimensions shown on the plans and ensure that they correspond to the various parts of this contract.

For the execution of the work, no dimensions shall be taken to scale on the drawings.

### **A.1 VALUE ADDED TAX**

VALUE ADDED TAX (VAT). The Government will not reimburse the Contractor for VAT under this contract. The Contractor shall not include a line for VAT on Invoices as the U.S. Embassy has a tax exemption certificate with the host government.

## **B. SCOPE OF WORK**

The character and scope of the work are set forth in the contract. The Contractor shall furnish and install all materials required by this contract.

In case of differences between small and large-scale drawings, the latter will govern. Where a portion of the work is drawn in detail and the remainder of the work is indicated in outline, the parts drawn in detail shall apply also to all other portions of the work.

## **OVERVIEW**

United States of America Embassy in Cote D'Ivoire, has a requirement to undertake construction of two swimming pools.

Swimming pool N° 1 :

Length 25 meters

Width : 12.5 meters

Depth : 1.20 meters to 1.80 meters

Swimming pool N° 2 (for children) : 02 circular pools  
First pool : surface 50 m<sup>2</sup>, depth : 0.60 meter  
Second pool: surface 50 m<sup>2</sup>, depth 0.90 meter

**Location:**

Abidjan Cocody, P.O Box 710 ABIDJAN CIDEX 03 .

**Contact:**

United States of America Embassy' Engineer  
American Embassy Abidjan  
P.O Box 710 ABIDJAN CIDEX 03

**OBJECTIVE**

Requirements in this SOW serve as a direction to the Contractor undertaking construction of the swimming pool. The Contractor shall perform all services in accordance with local and international safety and construction standards as generally applicable to accepted professional practices. The work shall be undertaken according to the list specifications. No variations /deviations will be implemented without prior approval from Contracting Officer (CO). Any foreseeable element likely to warrant cost adjustments must be discussed prior to contract signing through Request For Information (RFI) submittal.

**TIME FRAME**

Upon receipt of the order, the contractor shall be expected to submit work plan/Work break down, resource allocation ( tools, labor, materials, equipment...), time schedule (Gantt Chart), through the Contracting Officer Representative (COR) within 14 days, commence work within 28 days and must undertake the work as per the agreed upon schedule.

**SCOPE OF WORK DESCRIPTIONS**

**i. Mobilization/Demobilization/Design interpretation:**

The contractor shall safely secure the work area, provide all hounding, shoring, scaffolding, Protective gear and all associated materials to prepare safe working space. Upon completion of the project, allow for site demobilization, clean up, restoration of the landscape to blend with the existing ecosystem. Allow for architectural and engineering expert service dedicated to accurate interpretation of the client provided drawings and design concept to enhance effecting technical communication across the stakeholders. The vendor shall obtain all required permits from the relevant authorities for local and applicable international compliance. This shall include but not limited to construction authorizations from the administrative authorities of Cote d'Ivoire

The construction area will be temporarily fenced off.

**ii. Excavation and cart away:**

The vendor shall prepare site, provide labor, required equipment and undertake ground excavation on the marked-out space. This shall be done in a systematic manner in with all factors put into considerations including but not limited to: Engineering design,

Underground features, weather, project schedule, site operations convenience. Internal roads serving the residential location must be kept free from dirt during. Engulfment hazard management plan must be drafted, submitted, approved and implemented as required.

iii. **Swimming Pool Construction:**

***DETAILS OF BASIC SERVICES***

***PREPARATORY WORK AND SITE INSTALLATION :***

✓ -Site Installation.

***ELECTRICAL:***

✓ -Verification of existing electrical installation and adjustment with new project related installations (water treatment, pump, etc...).

***PLUMBING:***

✓ -Creation of a supply for the footbath with shower and a tap for filling the pool (for water supplies: provide the most suitable diameters, fittings, trenches and others).

***EARTHWORK AND DRAINAGE***

***Earthwork***

Earthwork adapted to the project of the swimming pool at the location foreseen according to the implantation plan and adapted to the remarks relative to the soil study transmitted in the file.

The excavations in vegetal earth at the charge of the company will have to be spread out on the part indicated on the ground plan transmitted in the documents attached to the file.

***Soil evacuation***

Prior to the excavation, it is advisable to define and validate the fate of the excavated soil. A part can be kept for the peripheral filling of the basin (take into account the expansion), the rest, if it is not necessary for the construction site, must be evacuated towards an appropriate device.

Depending on the nature of the ground, it is generally interesting to keep the topsoil for later use (stripping of about 30 cm).

***Excavation***

Carry out a first phase of the earthwork, vertically lowered according to the second layout to less than 1.32m from ground level.

**Warning:** Never go down more than 1.32m from ground level for the first platform, in order to avoid destabilizing the base of the pool. If this is not the case, it is advisable to reconstitute the ground with compactable materials or concrete (when pouring the pool). Never reconstitute soil with excavated soil.

The locations of the stairs and filter panels are also cleared to allow for their installation.

***Supply trenches***

Provide one or more trenches (figure 1) for :

- The low voltage power supply of the electrical circuit, between the filtration system and the filtration cabinet;
- The drain pipes for the overflow(s);

- The electrical supply and/or hydraulic piping of peripheral equipment such as
  - o By-pass of a heat pump or other equipment (fountain...);
  - o Electrical supply of a salt water chlorinator, a shutter, ... ;
  - o Hydraulic piping of a water treatment regulation system...

**To be noted :** The connection of the pool water evacuation devices (overflow, emptying...) must be carried out in accordance with the regulations in force in the place of installation of the pool (natural environment, rainwater, collective sewerage system...). Ask the local authorities for information in order to respect the provisions to be applied.

To avoid the effects of soil settlement, cables, pipes and conduits must be buried at the bottom of the excavation and at least 0.50m from the surface of the soil (upper part of the cable or conduit after installation). This depth is increased to 0.85m in the case of crossing(s) of road accessible to cars.

Insofar as they cannot be winterized, the hydraulic pipes must be buried frost-free (the frost-free depth depends on the region where the pool is located).

The cohabitation of electrical and hydraulic pipes must comply with the standards in force concerning outdoor electrical installations (Standard NF C15-100 part 5-52 for France).

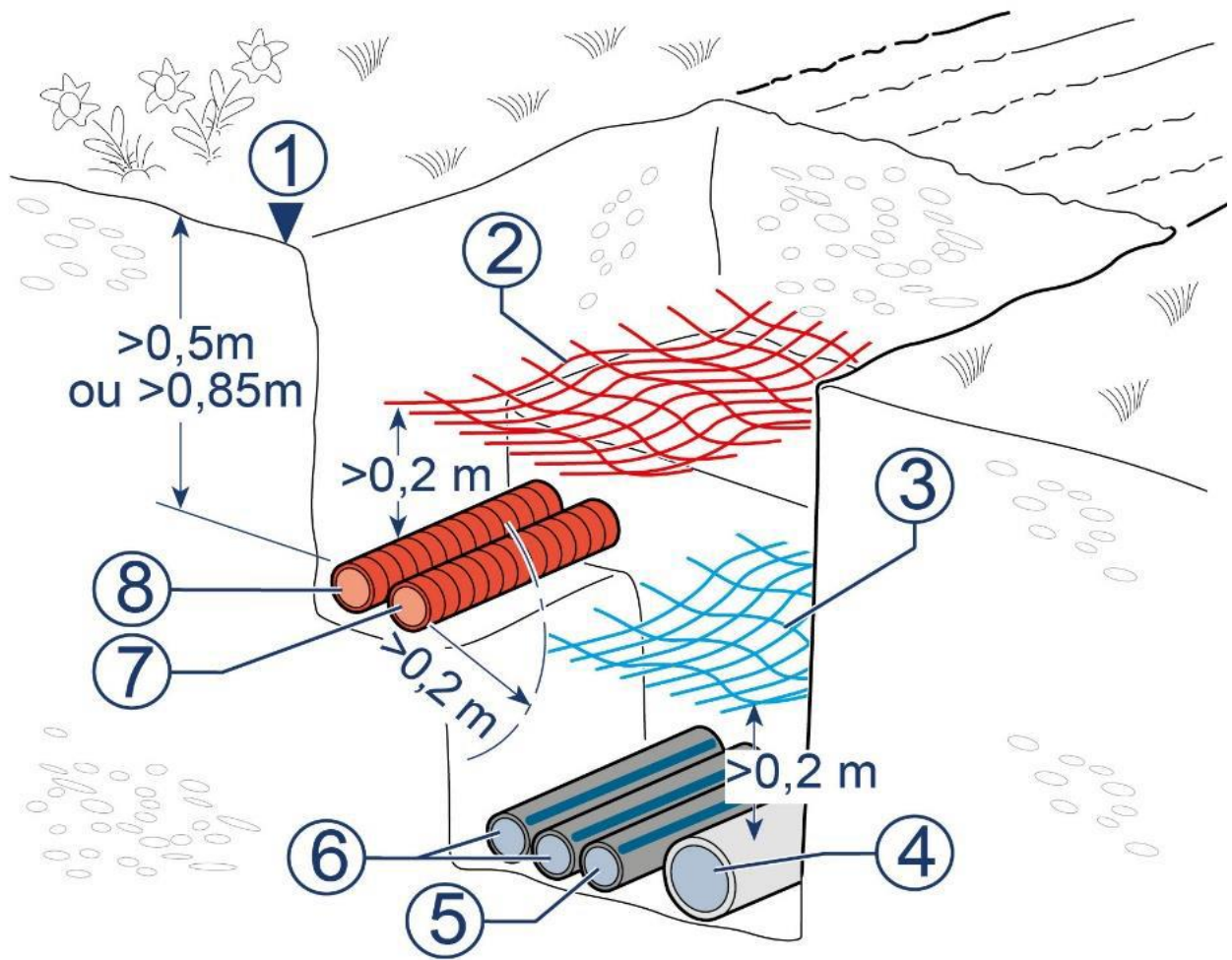


Figure 1: Example of pipe layout in a trench

Caption:

- 1 Land
- 2 Red warning grid
- 3 Blue warning grid
- 4 Evacuation(s)
- 5 Water supply, if applicable
- 6 By-pass pipes
- 7 Power supply(s) Peripheral equipment (flap, electrolyser, ...)
- 8 Electrical power supply to the filtration unit

***Bottom of the excavation***

As soon as the first phase of earthwork is finished, it is necessary to trace the pool at the bottom of the excavation using stakes, a line and a tracing spray

Always check the diagonals, the alignment in relation to an existing element and the depth in relation to the reference level.

Figure 2: Image of the big bath of the project ( See appendix n°1)

***Sanitation***

ATTENTION. For this part, the site will not be directly connected to the sewerage system. It will be necessary to evacuate the waste water in a system adapted to the needs of emptying the swimming pool and meeting the standards of water treatment.

Creation of a sanitation system adapted to the needs of the basin with a chlorine neutralization system before sanitation.

***STRUCTURAL WORK***

Structure of the pool in high density polypropylene formwork, reinforced concrete pouring, execution in accordance with the regulations in force

***Location of the studs***

The wedging blocks or support blocks directly support the panels of the structure without any additional wedge. It is therefore imperative to position them rigorously level with each other, according to the following process.

The wedging blocks are made of solid breeze blocks of 0.40 or 0.50m length, 0.20m width and of a thickness such that once sealed, 0.12m minimum will have to emerge from the sealing mortar. The cinder blocks are cut in two on their length and used flat (figure2)

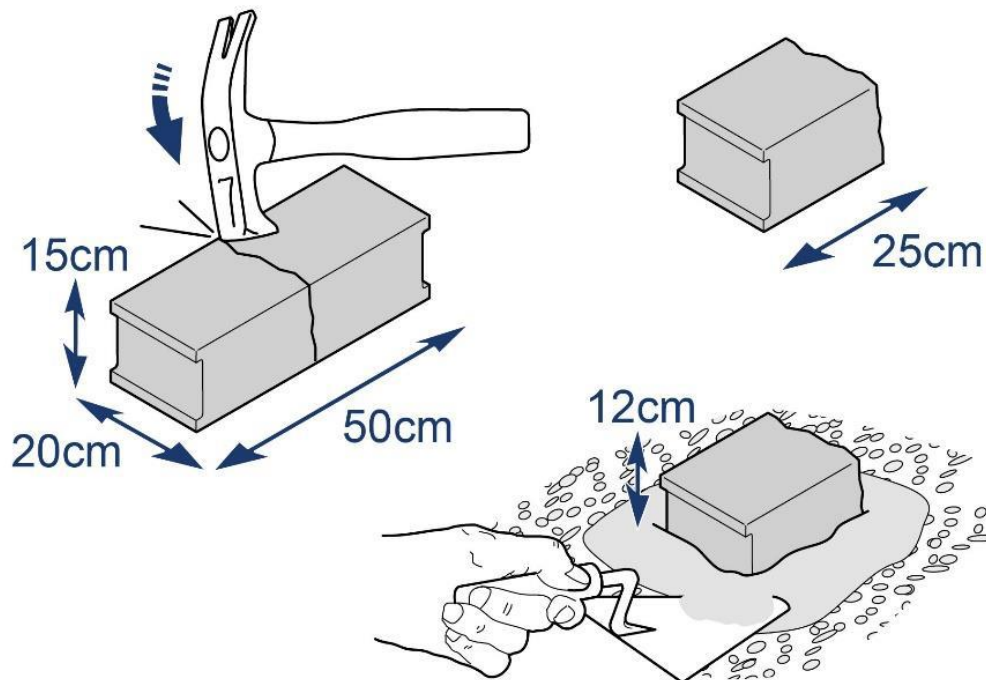


Figure 2: Installation of the retaining blocks

With the help of the distribution plan of the structural panels, place a blocking block (figure 3):

- At each corner of the pool,
- At each junction of Desco panels,
- If necessary, at the right and left ends of the flanged stairs type R176, R276 and RE276 as well as at the back of these stairs for the support of the Ø160 PVC tubes of the chain tops (see installation instructions for the stairs).
- If necessary, under the bases and structures of the filtering panels (see installation instructions for the filtering panels).
- If necessary, under the elements of the interior staircases made of blocks to be bricked (see installation instructions for the interior staircases).

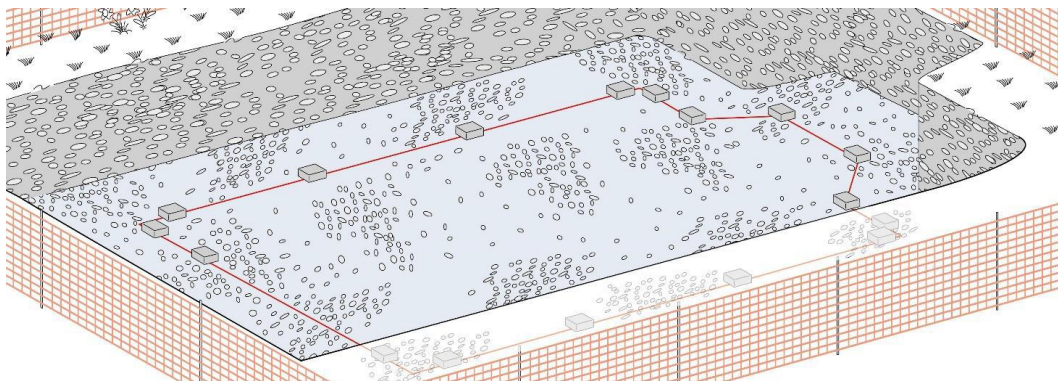


Figure 3: Example of a wedge installation (rectangular pool with stairs at the end)



### ***Laying and leveling the blocks***

At the location of each block, make an excavation of 0.3m x 0.3m x 0.15m deep.

Fill the excavations with a cement mortar dosed at 350kg/m<sup>3</sup> (indicative dosage: 35kg of cement, 10 buckets of sand 0/4).

Note: 1 mason's bucket = 10 liters.

The studs must be sealed so that their upper surface is located at -1.20m depth from ground level (figure 4).

Regularly check the level of each of the blocks (between them and in relation to the zero level).

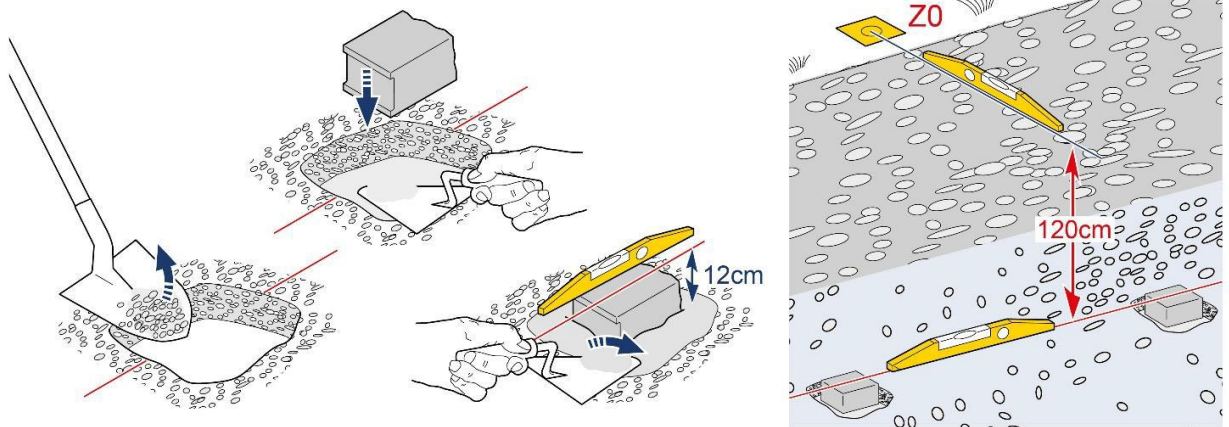


Figure 4: Sealing and leveling of the shims

### ***Tracing the marks on the blocks***

After the sealing of the blocks has dried, and with the help of a chalk line, transfer the layout of the pool to the blocks (positioning marks) in order to facilitate the installation of the Desco panels (right side of the chalk line = inside face of the pool): The alignment of the blocks on the inside of the pool facilitates the installation and the assembly of the structures (figure 5).

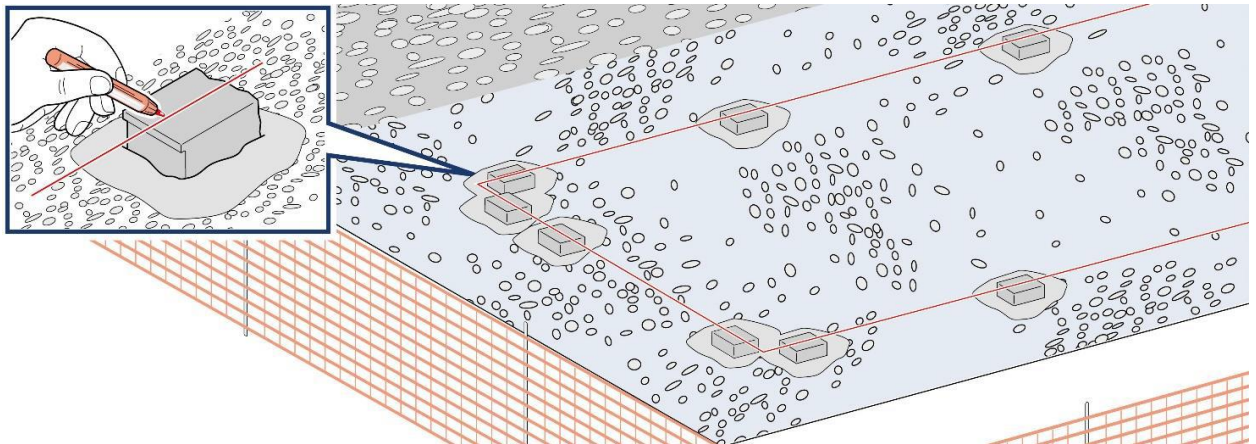


Figure 5: Drawing of the pond on the wedges

### ***Bottom loop of the excavation***

#### **✓ Principle**

When the earth connection of the electrical installation to which the pool equipment is to be connected has an ohmic resistance greater than 100  $\Omega$  (or 50  $\Omega$  in the case of the future installation of a SECOE), the earth connection of the building can be completed by a specific earth connection, known as the "pool earth connection".

In other cases, there is no need to install a dedicated pool ground.

This specific ground connection (called "bottom loop") can be made at the bottom of the excavation, after the earthwork around the pool and before the reinforcement of the floor. In addition, in order to improve the value of the grounding of the pool, the installation at the bottom of the excavation can be completed by ground stakes, grids or metal plates.

#### **✓ Installation**

On the natural ground (not reworked and out of rocks), and before pouring the invert, make a closed loop at the bottom of the excavation with a bare copper electric cable with a minimum section of 25 mm<sup>2</sup>. This loop must be at least 20m long and directly in contact with the natural ground.

Note: The loop can be replaced by a cable of equivalent section.

Unroll a permeable geotextile on the loop at the bottom of the excavation, avoiding the wedges of the structure.

This loop is closed by a claw or screw connection. The end of the loop must be connected to an earth disconnection strip which is itself connected to the main earth terminal block of the pool enclosure. The disconnection strip must be located as close as possible to the pool cabinet (figure 6).

As far as possible, the earth loop should be in one piece. No connection should be made under the foundations.

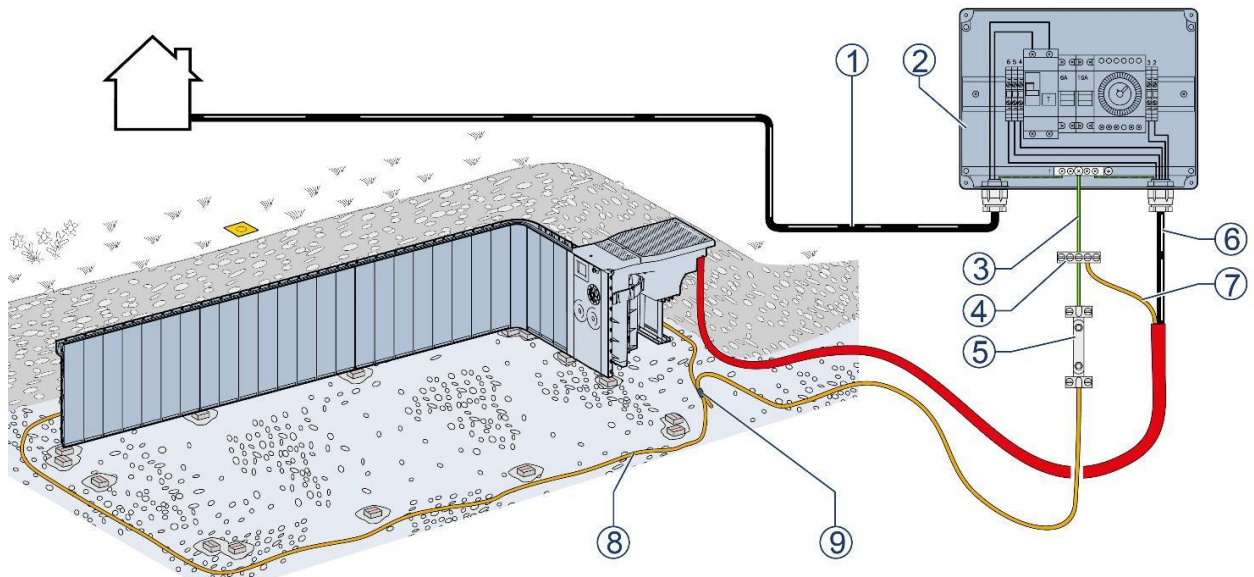


Figure 6: Schematic diagram of earthing and equipotential bonding

Caption:

1 Main house power supply / Minimum section 3G2,5mm<sup>2</sup>.

2 Filtration box

- 3 Main equipotentiality conductor / Minimum section 6mm<sup>2</sup>.
- 4 Main grounding terminal
- 5 Grounding disconnection bar
- 6 Desjoyaux multicore cable / Section 4G2.5mm<sup>2</sup> + 2x1.5mm<sup>2</sup>.
- 7 SECOE connection cable / Minimum section 6mm<sup>2</sup>.
- 8 Bottom loop / Minimum section 25mm<sup>2</sup>.
- 9 Claw connection

### ***Reinforcement of the rafters***

#### **✓ Welded mesh**

The welded mesh constitutes the reinforcement of the invert.

The welded mesh (190mm x 190mm mesh and 3.5mm diameter wire) is supplied in plates of dimensions 2.33m x 1.90m or 2.33m x 1.48m.

#### **✓ Installation**

In the case of waterlogged ground (muddy), it is advisable to spread a separation layer (such as PE film, geotextile or a bed of crushed gravel) between the subgrade and the mesh, in order to guarantee a homogeneous coating of the latter during the concrete pouring of the invert.

Place a first strip of welded mesh plates in the bottom of the pool, along the length of the pool, leaving a minimum peripheral projection of 0.25m around the layout of the pool.

Place a second strip of plates, parallel to the first one, leaving an overlap of 0.20m minimum, while ensuring a peripheral projection of 0.25m minimum around the line of the pool (figure 7).

Continue to lay the strip of plates until it completely covers the bottom of the pool, while ensuring a minimum peripheral projection of 0.25m around the layout of the pool.

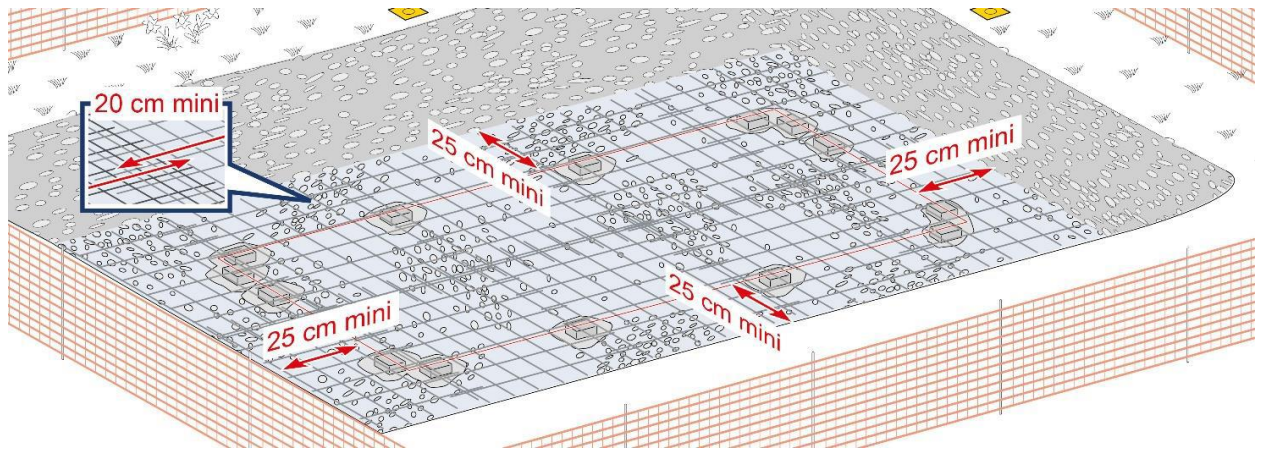


Figure 7: Reinforcement of the invert



✓ **Cutting on blocks**

Cut the welded mesh at the right of each block. Remove the scraps of welded mesh (figure 8).

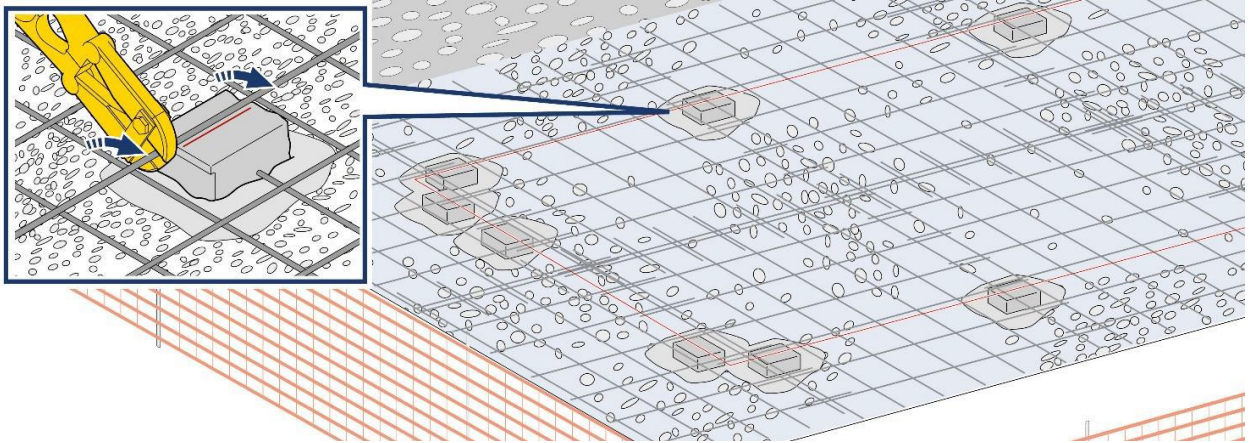


Figure 8: Cutting of the welded mesh at the level of the wedge blocks

✓ **Tying up**

Once the sheet overlaps, proceed with the tying of the welded mesh plates together, using suitable ties.

It is recommended to place wedges under the welded mesh plates in order to ensure a homogeneous coating of the mesh during the concrete pouring of the invert (figure 9).

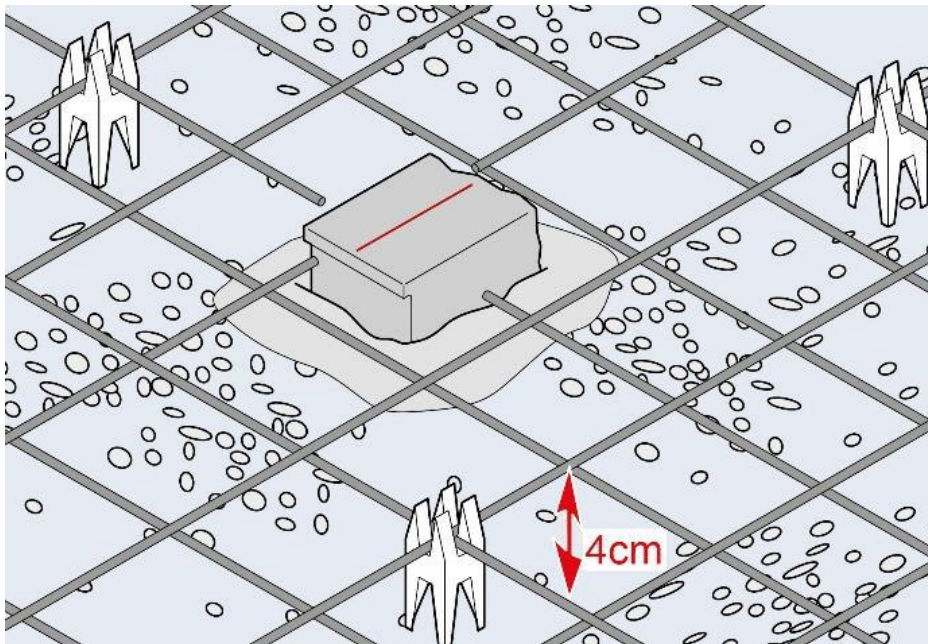


Figure 9: Cushioning under welded wire mesh

### ***Installation of the structure (Desco panels)***

#### **✓ Setting up**

Lower all the Desco panels to the bottom of the excavation and place them around the basin, flat side towards the inside of the basin. If there is a staircase and/or a filtering panel, do not forget to reserve its/their place(s).

Each structural panel is positioned on the wedge blocks, making sure that each panel junction is located in the center of each block. If necessary, hold the panels in place with a temporary wedge (figure 10).

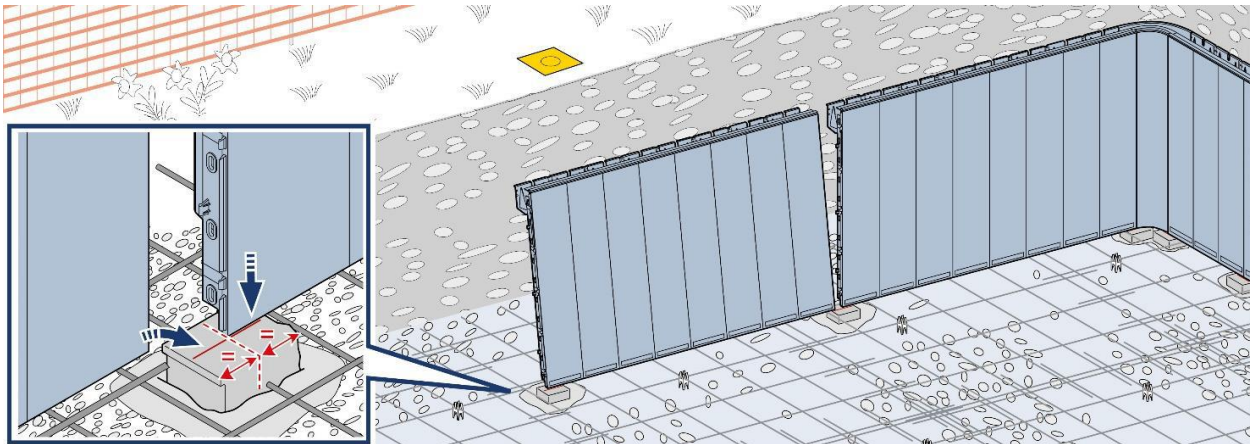


Figure 10: Positioning and alignment of Desco panels

#### **✓ Assembly**

Respecting the marks on the blocks, assemble the panels (without blocking), starting with a corner. Bolt, in a first step, the panels at the top and bottom only, using galvanized bolts M8x30 without forgetting a washer on each side (2nd hole at the top / 2nd hole at the bottom) (figure 11).

The corner Desco's are bolted to the adjacent structural panels with a minimum of 6 galvanized M8x30 bolts, evenly distributed over the height of the Desco panels.

Finish the assembly of the panels by positioning the keys provided for this purpose.

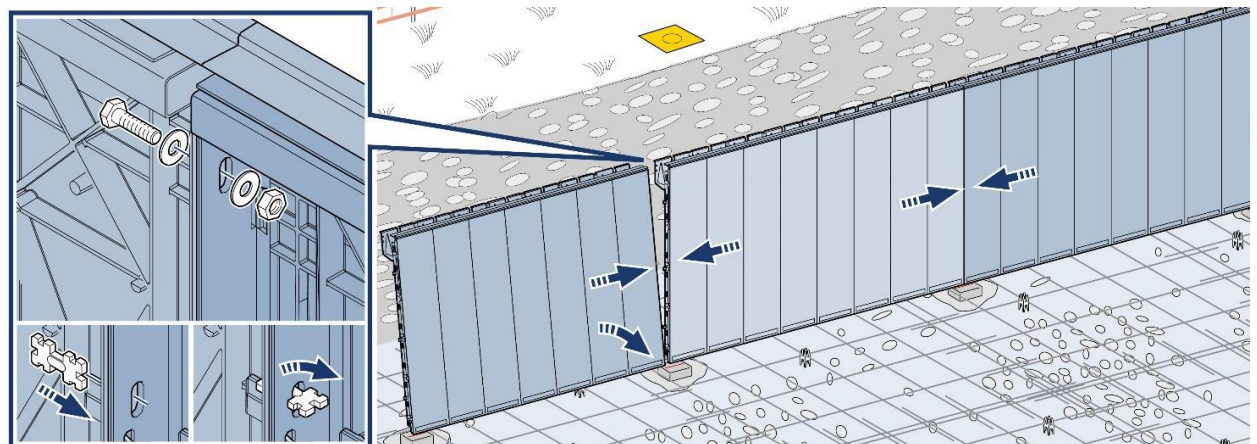


Figure 11: Assembly of the Desco panels (bolts and keys)



During assembly, check the alignment of the liner hanging profile between the panels. If necessary, wedge under the panels with suitable shims.

✓ **Installing the filter panel**

If your pool is equipped with a filter panel, it must be installed in accordance with the technical installation instructions. It is inserted into the pool wall, assembled and bolted with the adjacent Desco panels (figure 12). Its technical room rests on feet (temporarily wedged).

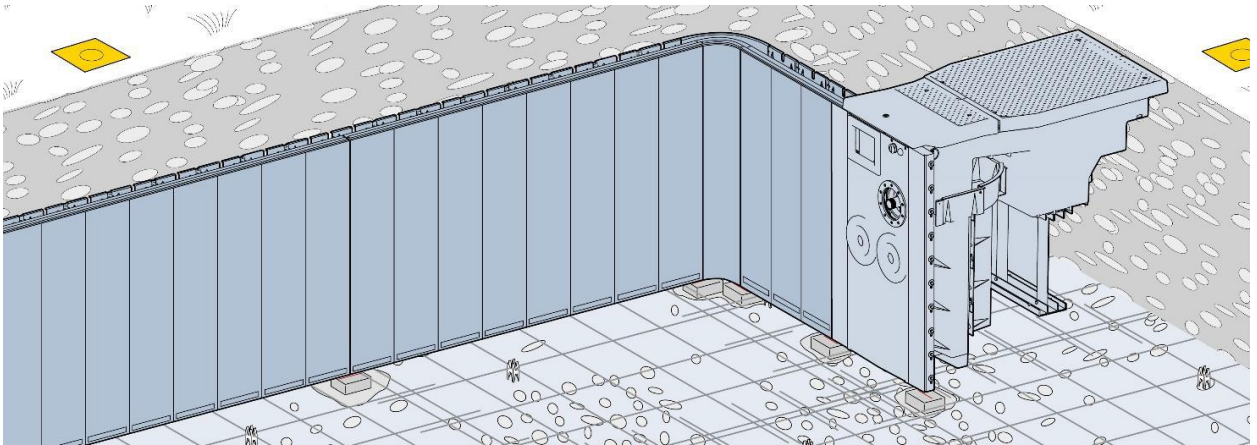


Figure 12: Assembly of the filtering panel

When assembling the filtering panel, check the alignment of the liner hanging profile of the filtering panel with the adjacent Desco panels.

✓ **Finishing**

Fix the formwork of the corner chains in each corner of the pool (figure 13).

For ovoid structures, screw the corner stiffeners to the metal bars located at the top of the panels using self-drilling screws (figure 14).

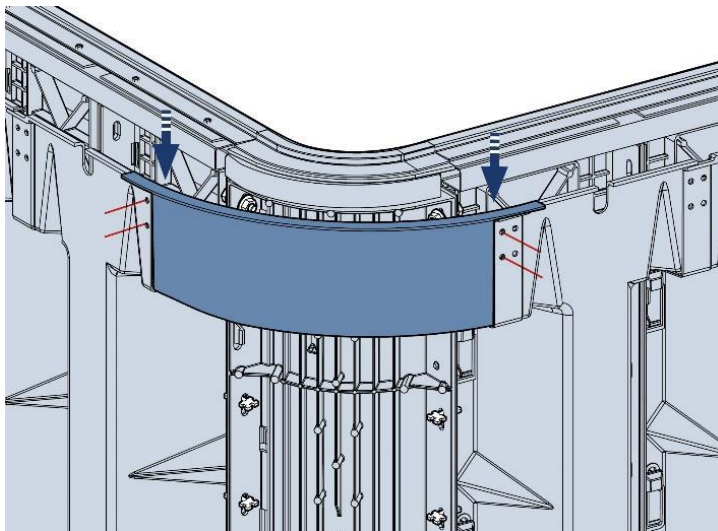


Figure 13: Installation of the corner chaining forms (all pools except ovoids)

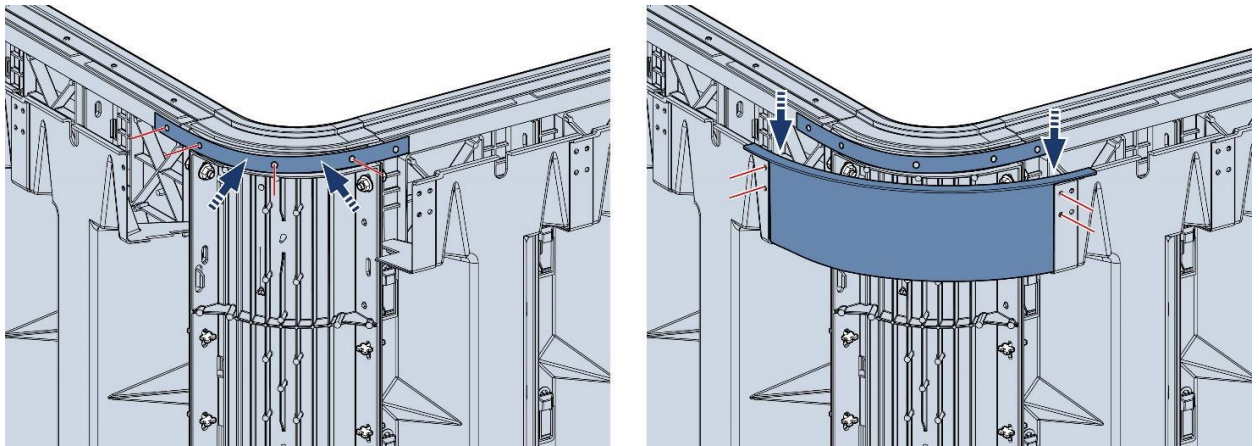


Figure 14: Placement of corner stiffeners and corner chaining forms (ovoid pools only)

### **Adjustment props**

#### **✓ Installation**

The adjustment props facilitate the adjustment of the structures and also ensure a perfect support of the Desco panels during the pouring.

Provide one large and one small prop at each panel junction. Assemble the 2 props together using an M8x30 bolt.

Position and bolt a prop at each panel junction using the 2 bolts already in place, at the top and bottom (2nd top hole / 2nd bottom hole).

#### **✓ Sealing of the props**

Make a light excavation under the pedestal of each prop and insert in each prop foot a Ø6 twist steel of about 0.4m length in the opening provided for this purpose (figure 15).

Before sealing the props, make sure one last time that the pool is correctly located.

Block the excavation with a cement mortar dosed at 350kg/m<sup>3</sup> (indicative dosage: 35kg of cement, 10 buckets of sand 0/4).to seal the foot of each prop. To save time, if necessary, use a melted cement mixture to accelerate the setting. Let the mortar dry.

Note: 1 mason's bucket = 10 liters.

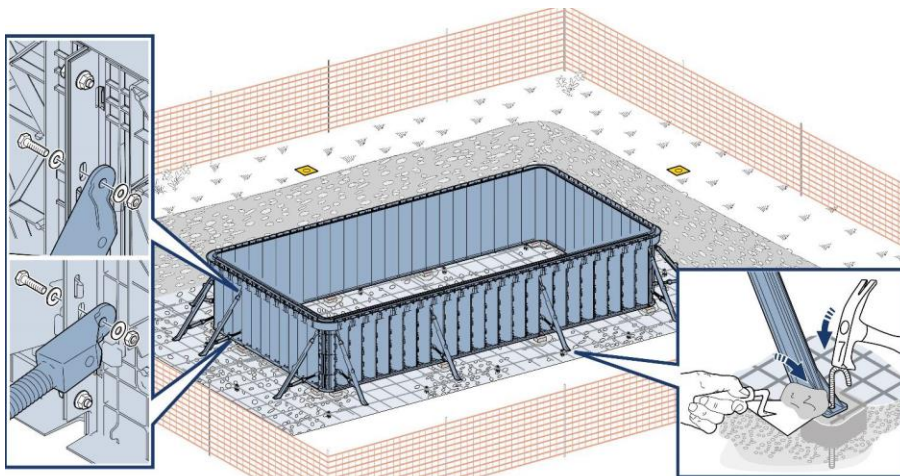


Figure 15: Installation and sealing of the props



### ✓ Adjustment of the structure

Once the mortar is dry, proceed to the adjustment of the structure.

Check all the dimensions of the pool: lengths, widths, diagonals. Adjust the structure according to the dimensions indicated on the plan provided and check the level of the pool on the hanging profile, which must comply with level 0 (figure 16).

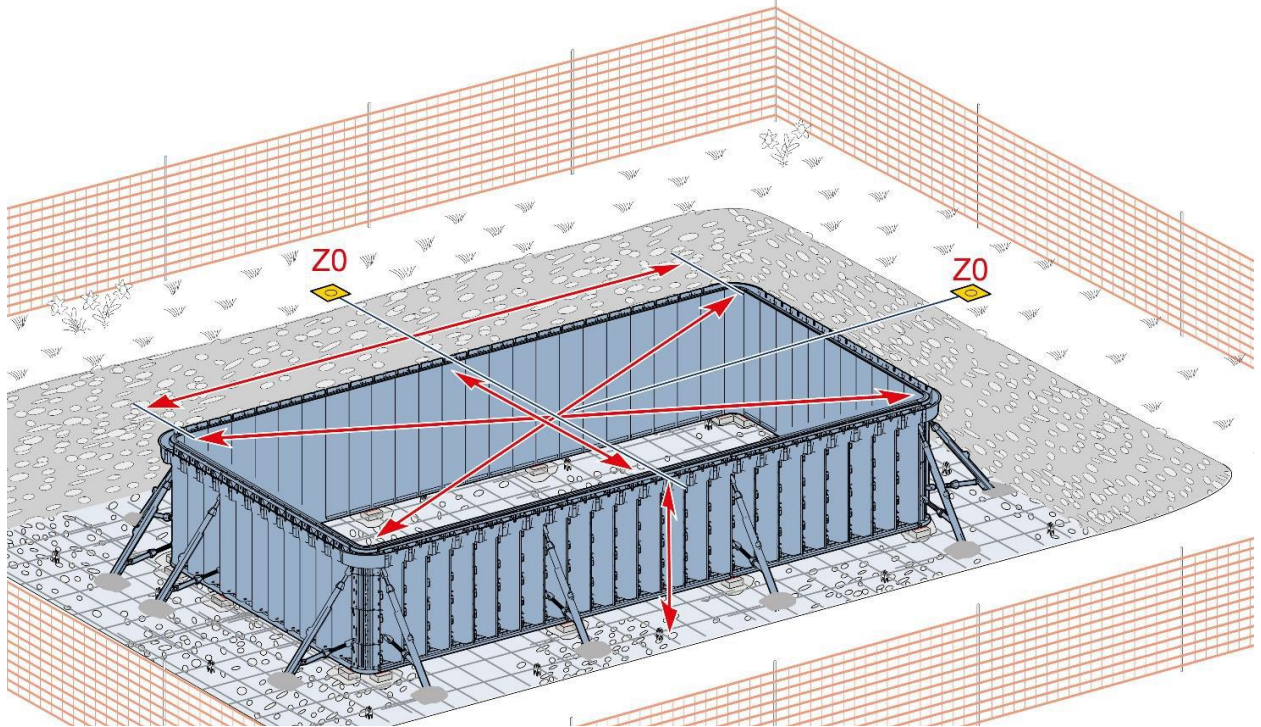


Figure 16: Checking the dimensions of the pool

If necessary, also check the level of the stairs and the filter panel.

Adjust the plumbness of the structure with a level by adjusting the props.

Secure all bolts and adjusting props.

In the case of the installation of an interior staircase made of blocks to be bricked up (angle, straight, immersed deck, ...), proceed, before the reinforcement of the structure, to the installation of all the elements of the staircase, in accordance with its corresponding technical assembly instructions (figure 17).

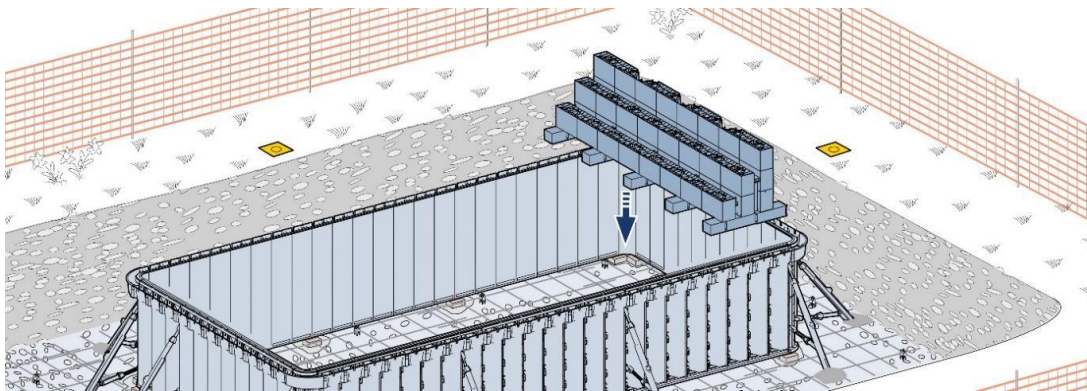


Figure 17: Installation of interior staircase in blockwork



### ***Reinforcement of the structure***

#### **✓ Top chaining**

Place a Ø6mm steel wire in the top chaining of the Desco panels and if necessary around the filter panels and in the top chaining of the flanged stairs type R176, R276 or RE276 (figure 18).

The overlaps of the spiral steel are 0.25m minimum and tied.

#### **✓ Pins**

Place a Ø6mm double-braced pin 1.20m long in each chimney, including, if necessary, in the chimneys of the filtering panels (figure 18).

Tie each of the pins to the thread of the top link.

#### **✓ Bottom chaining**

Place two Ø6mm twisted steel wires in the bottom chaining. The two wires are spaced 10 to 15 cm apart from each other (figure 18).

The overlaps of the twisted steel wires are 0.25m minimum and tied.

The two wires are also tied to each pin at the bottom of the chimneys and to the welded mesh of the invert.

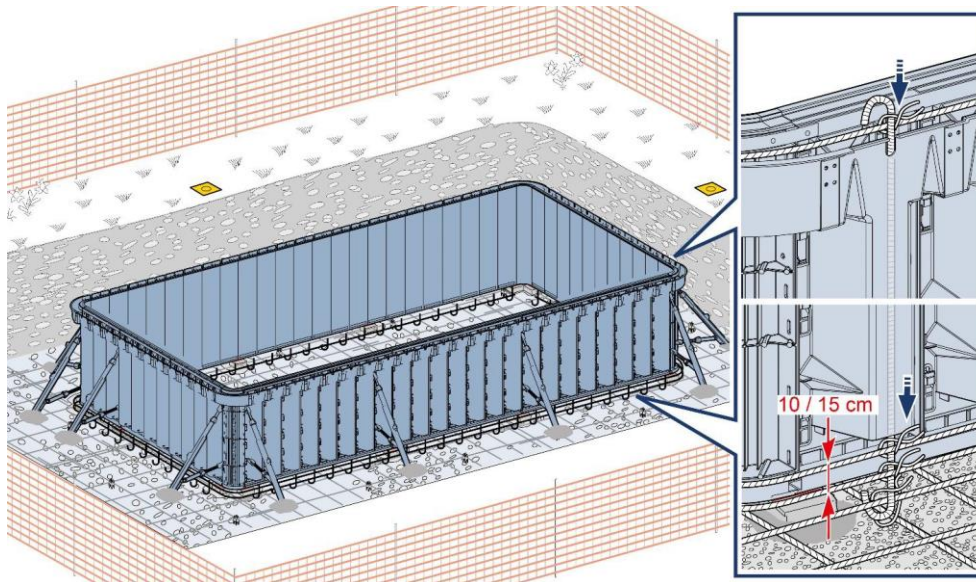


Figure 18: Reinforcement of the structure

#### **✓ Case of the filtering panels**

Proceed with the reinforcement and the installation of the support of the technical room of the filtering panel according to its technical instructions for installation and use.

#### **✓ Precautions**

Make sure that the reinforcement steel does not touch the structure of the pool (chimney, top of the chain-link...) so that it is completely covered with concrete during the pouring operations.

It is imperative to adapt the reinforcement of the tank according to the exposure conditions of the structure (seismic zones...).

### ✓ Operations prior to pouring

Prior to casting, it is advisable to :

- Prepare 2m long Ø6mm twisted steels for the decks (one twisted steel for every 2 stacks). Leave them on standby.
- Protect the liner hanging profile with an adhesive strip or a cord placed inside the profile.
- If necessary, protect the covers of the filtration system and the staircase with plastic film or any other equivalent protection.

### Concrete pouring

#### ✓ Concrete

The concrete used for the casting of the structure of the pool, the invert and the beaches is of type C25/30 XF1 D10 S3 in accordance with standard EN 206 (or NF EN 206/CN for France), or equivalent, with a minimum compressive strength after 28 days of 30MPa. For a regular and controlled quality of the concrete, it is preferable to use a central concrete, delivered in the fresh state directly on the building site by a truck mixer, rather than a manually mixed concrete.

**It may be necessary to adapt the characteristics of the concrete according to the exposure class** (severe climatic conditions, frost, seismic zones, seaside...).

The volume of concrete required for the pouring of a basin can be estimated with the following formula (case for rectangular type basins only and excluding interior staircase):

$$V_{\text{Béton}} = 0,225(2L + 2l) + 0,120(L \times l)$$

With

$V_{\text{Béton}}$  : Estimated volume of concrete needed for the casting of the basin, in m<sup>3</sup> ;

L : Length of the basin, in m ;

l : width of the basin, in m.

**Warning:** In the case of the installation of an interior staircase in blocks to be banchered (angle, right, immersed beach...), it is advisable to increase the volume of concrete to be envisaged for the pouring of the basin. Please refer to their technical instructions for installation. The appendix B reminds the concrete volumes to be added by type of stairs.

#### ✓ Casting the bottom beam

Pour the bottom wall ties on the outside of the sloped basin (figure 19), bringing the concrete up to a minimum of 10cm above the bottom end of the chimney.

Pour the concrete footings which will receive the piles supporting the beaches.

If necessary, pour the bases of the filtering panel and the stairs with flanges (see installation instructions for filtering panels and stairs).

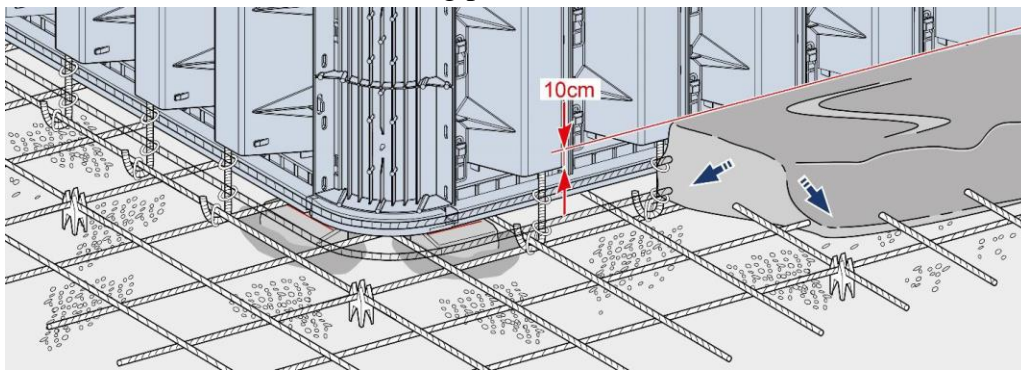


Figure 19 : pouring of the bottom beam

### ✓ **Pouring the chimneys and the top beam**

Fill all the chimneys with concrete in a homogeneous way. Do not hesitate to tap the back of the chimneys with a mallet or the handle of a hammer to make the concrete go down.

Pour the top beam and level the upper part of the beam, making sure it is well filled.

The finish of the top chaining depends on the method of laying the coping stones:

- If they are cemented with mortar or cement powder, the top chaining must be levelled to about minus 2cm from the bonding profile (minus 3cm from ground level).

- If they are glued with tile adhesive, the top beam must be levelled at the level of the bonding profile (zero level).

For the pouring of the filtering panels and stairs, refer to the associated installation instructions.

Particular attention must be paid to the order of the operations to be followed for the concrete pouring of the stairs in blocks to be formworked.

### ✓ **Pouring the invert**

Pour the invert, taking care, if necessary, to lift the welded mesh in the thickness of the invert in order to guarantee a concrete cover of at least 40mm (or at least 50mm on the seaside) (figure 20).

The thickness of the concrete invert must be homogeneous over the entire surface of the pool and must be at least 12cm.

If necessary, make a "resting step" of maximum 20cm wide at the foot of the panel around the pool.

Create the large bath by shaping the concrete and using the marker stakes installed at the bottom of the large bath during the earthwork. The slopes of the large bath must converge from the edges of the pool or the resting step to the marker posts.

Use a ruler to establish the planimetry of the invert, respecting the tolerances of EN 16582-2 (for Europe).

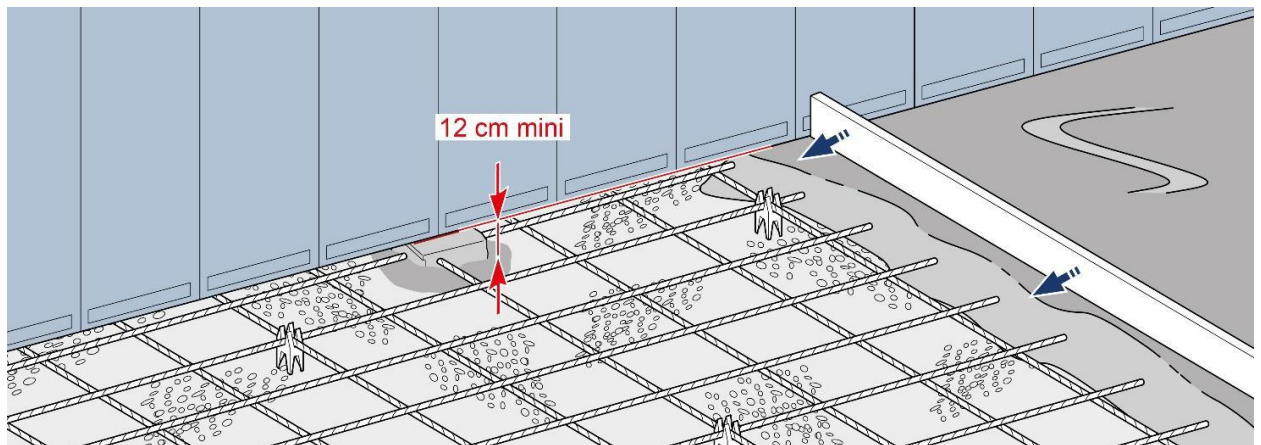


Figure 20 : pouring and leveling the invert

In the case of the installation of a staircase under a pre-assembled liner, it is advisable to make a level invert at -1.20m from level 0 over a minimum width of 1.50m at the location of the future staircase.

During the pouring operations, make sure that the Desco panels inside the pool, the liner hanging profile as well as, if necessary, the stairs and/or the filtering panel are kept clean.

After pouring the invert and cleaning it (roughness, dust, ...), make a perfectly smooth finishing screed (smooth, fine and regular surface) with an average thickness of 15 to 20mm on the whole invert using a cement and fine sand mortar dosed at 400kg/m<sup>3</sup> (indicative dosage: 35kg of cement, 8 buckets of sand 0/1 to 0/2).

Note: 1 mason's bucket = 10 liters.

If this finishing screed is made on dry concrete, provide for an adhesion bridge either by gluing with a liquid adhesive such as PCI (or similar) or by using a latex bonding primer in the screed mortar.

**Warning:** Do not raise the concrete at the base of the Desco panels, the filter panel or the stairs inside the pool. When laying the screed, do not use sharp edges that could damage the liner. The screed can reduce the height of the wall at the foot of the wall up to 118cm.

#### ✓ Reinforcement of the deck

During the pouring of the chimneys, plant in every second chimney the 2m long Ø6mm spiral reinforcement for the beaches (figure 21).

At the top of the chain-link and at the right of each of these twisted steels, make a channel towards the outside of the basin, which allows, after the concrete has dried, to bend them for the reinforcement of the deck.

In the meantime, protect each end of the twisted steel with a plug.

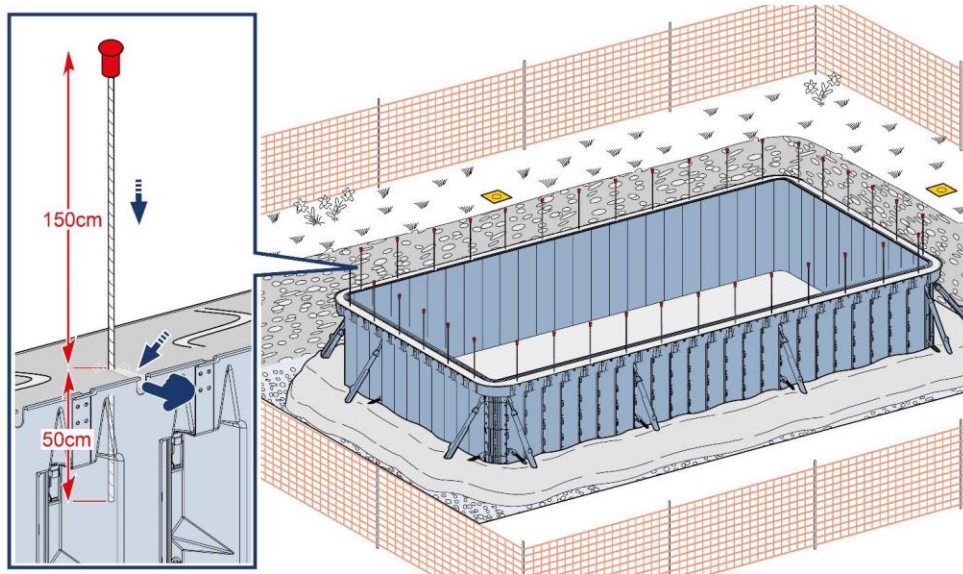


Figure 21: Preparation for deck reinforcement

#### ✓ Drying

The C25/30 concrete reaches its full strength after 28 days of drying in temperate climatic conditions. However, 80% of its strength is obtained 8 days after pouring, and backfilling is thus possible from this time.

#### **Ancillary masonry**

In parallel with the concrete pouring of the structure, carry out several additional masonries according to the layout of your pool.



✓ **Supporting the filtration units**

If your pool is equipped with a GR.I 181, GR.I 110 or GR.I 251 type filtering group, it is advisable to build, at the location of the filtering group, 2 support piles made of cinder blocks, respecting the dimensions specified in their assembly technical notice.

Each support pile is centered on the position of the filtration unit. It rests on a light foundation, made on the right soil.

The last breeze block of each pile is placed upside down, in order to allow a leveling on demand.

The space between the 2 support piles is backfilled, while reserving a drain for runoff water.

On the top of the 2 support piles, make a concrete base, according to the instructions provided, in order to complete the foundation of the filtration unit

✓ **Beach support**

Make the beach support piles in cinder blocks, outside the structure, in the peripheral earthwork of the 0.75m basin (figure 22).

Note: Alternatively, the beach support piles can be made of other types of materials, as long as the support base area is equivalent (e.g. concrete filled tubes).

Even in the absence of beaches, it is strongly recommended to build these support piles.

These piers are built perpendicular to the structure, every 2.50 m, in each corner as well as behind the filtration unit / filtering panel and/or the staircase.

These piers are supported by concrete footings, made during the pouring of the basin.

Level each pile at the top to 15 cm from ground level. If necessary, the last breeze block is placed upside down to allow a levelling on demand.

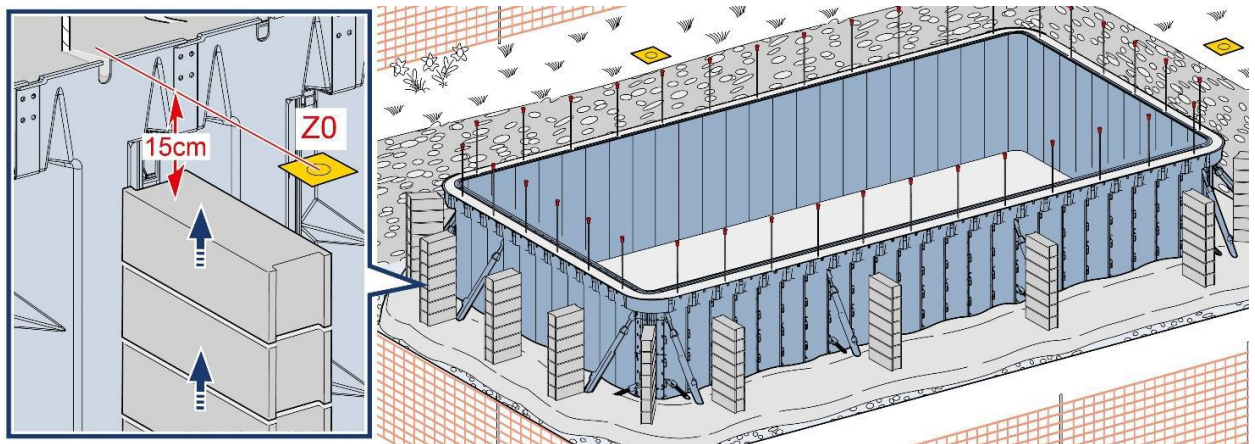


Figure 22: Creation of the deck supports

Particular attention should be paid to the height of the beach support piles, in order to ensure, after backfilling, a correct support of the beaches (figure 23).

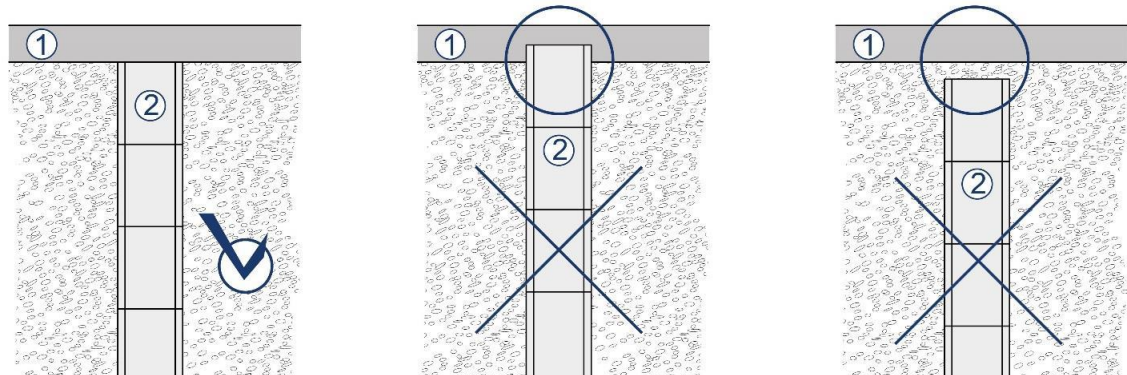


Figure 23: Height of the beach supports

Caption:

- 1 Concrete slab beach
- 2 Beach support

✓ **Installation of a preassembled staircase under the liner**

If your pool is equipped with a pre-assembled interior staircase, proceed with its installation after the invert has dried completely, in accordance with the technical assembly instructions.

This manual includes the following steps: installation of brackets, rails, skin and chemical jointing.

✓ **Peripheral drain installation**

Depending on the configuration of the soil, more or less clayey, its hydric aspect and in order to evacuate any presence of water around the pool (see 8.3 and 10.6), it is advisable to carry out, before backfilling, a peripheral drainage system, placed at the level of the pool invert.

The perimeter drainage system consists of a drainage sock comprising:

- A geotextile ;
- Rolled gravel 10/25 on a minimum thickness of 0.3m
- A drain collector with a minimum Ø60mm wedge with a minimum slope of 0.5 to 1cm/m

Place the drain around the basin, in a bed of rolled gravel, after having previously deposited the geotextile at the bottom of the excavation. Close the geotextile, in order to completely surround the drain as well as the rolled gravel filling (figure 24).

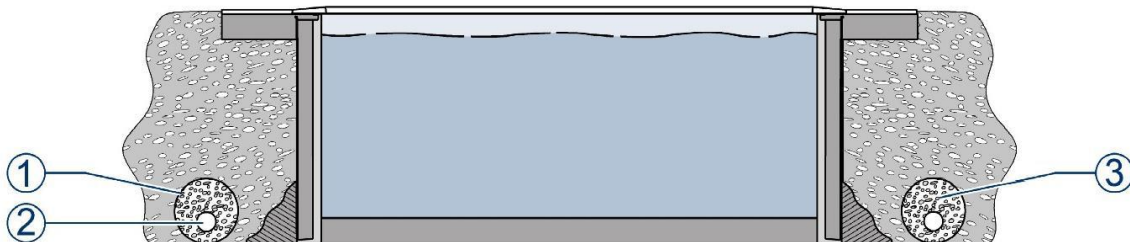


Figure 24: Principle of the installation of drainage socks

Legend:

1 Drainage sock

2 Drain

3 Rolled gravel 10/25

The drainage sock is surrounded by the granular backfill material of the pool.

The perimeter drain shall be discharged either:

- To the stormwater collection system;
- In a decompression well (figure 25), equipped, if necessary, with a pump, if a gravity outlet is not technically feasible;
- In the natural ground, by flowing either towards a sump of suitable dimensions at a low point, or in the open air.

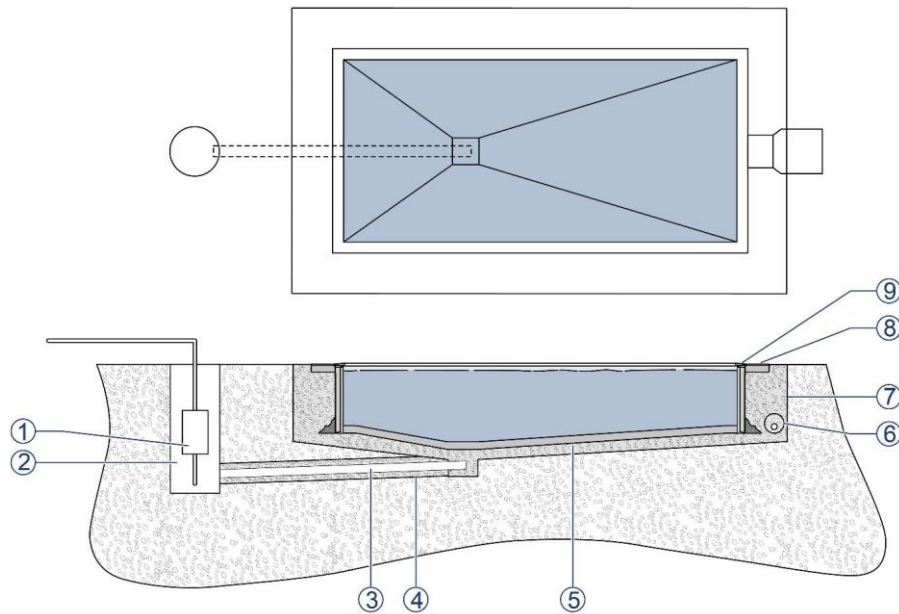


Figure 25: Principle of a decompression well (to be made before the installation of the basin)

Caption:

1 Lift pump

2 Cement or PVC nozzle

3 Drain pipe

4 Geotextile

5 Rolled gravel 10/25

6 Drain

7 Geotextile

8 Paving

9 Coping

### **Backfill**

#### **✓ Passage of the electrical and hydraulic networks**

As indicated in 10.3, proceed, before backfilling, to the passage of the electrical supply sheaths and the hydraulic pipes in the trench(s) for the connection of the filtration system and, if necessary, of the peripheral equipment (pipes waiting for a heater...).

For the electrical connection of the filtration system, lay a Ø50mm minimum sheath at the bottom of the trench, from the control box to the filtration system of the pool.

It is recommended that all buried pipes be marked along their entire length by a warning grid placed at least 0.20m above them, in the following colors:

- Red for electrical pipes;
- Blue for hydraulic pipes.

The hydraulic pipelines (by-pass type) are placed on a stable excavation base and properly protected so as not to be damaged during backfilling (figure 26). It is recommended to protect these pipes with a suitable sheath.

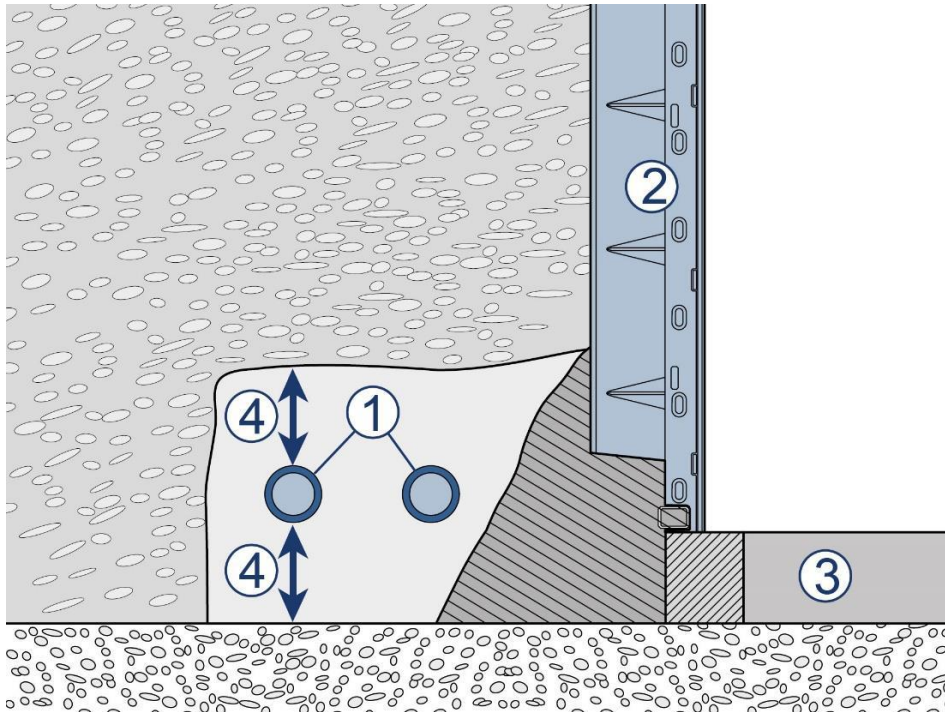


Figure 26: Backfilling of hydraulic and electrical networks

Legend:

- 1 Pipes
- 2 Inside wall of the basin
- 3 Sinkhole
- 4 Sand (10 to 20cm)

Buried hydraulic piping shall be pressure tested before and after backfilling to ensure that it has not been damaged during installation or backfilling operations, in accordance with EN 16713-2. A pressure test procedure is proposed in Appendix C.



**To be noted :** The cohabitation of electrical and hydraulic pipes must comply with the standards in force concerning external electrical installations (NF C15-100 part 5-52 for France).

✓ **Filter panels**

Connect the overflow of the filter room without a high point, as well as the air boxes, if any (case of IFP 440 & IFP 250 filter panels). This (these) independent pipe(s) is (are) connected to the appropriate drains (see *Supply trenches*).

If necessary, connect the flow and return pipes of the by-pass.

For more details, refer to the technical manual of the filtering panel.

Install the electrical supply duct in the technical room.

✓ **Backfilling**

As soon as the networks have been completed, and after careful protection of the networks by sandblasting, backfill the perimeter of the basin with the excavation materials up to the level of the beach support piles directly with the earthmoving machine, avoiding large blocks of rock.

Avoid the use of "swelling clay" based backfill as it may present a high potential for shrinkage/swelling.

In this case, backfill with a draining material, such as crushed rock or crushed stone, while providing for an outlet to channel runoff water (decompression well or gravity drainage, etc.).

If there is no beach, finish the backfill up to the zero level, with topsoil, taking into account that the expansion of the backfill leads to a peripheral settlement of the soil for which information must be given to the client (see appendix A).

In the case of a straddling unit, do not backfill above the support piles of the filtration unit.

If necessary, remove the temporary wedges (case of IFP 440 & IFP 250 filter panels filtering panels).

If there are buried pipes, such as by-pass pipes, carry out a pressure test after backfilling to ensure that they have not been damaged (see **Passage of the electrical and hydraulic networks**).

***Finishing masonry***

If the pool is equipped with a GR.I 181, GR.I 251 or GR.I 110 filter unit, the foundation of the pool must be completed after backfilling.

Cut a piece of welded mesh and place it on the support piles of the filtration unit, previously bricked up (see 18.1). Make a levelling layer respecting the height in relation to the top beam, according to the dimensions specified in the technical assembly manual of the filter unit, in order to complete the foundation of the filter unit.

When the concrete is still fresh, position the filter unit on the wall of the pool, checking :

- That it rests correctly on both the top of the pond wall and the concrete base;
- That it is properly positioned on the wall (generally centered on the width of the pond);
- It is level. If necessary, remove the filter unit covers to ensure that the top of the filter unit is level.

Put the electric sheath in the opening of the filtering group and proceed, if necessary, to glue the 2 PVC by-pass connection pipes in the two wall openings provided for this purpose, according to the instructions specified in the group's assembly manual.

Make a formwork around the technical casing (in rigid cardboard for example) which will allow you to leave a sufficient space to take the unit out of its place. This formwork will remain in place until the pool deck is completed.

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Backfill with lean mortar all around the filtration group, to a sufficient thickness to ensure the maintenance of the formwork.

In the case of the future installation of coping stones of a width greater than 25cm, it is advisable to double the top chainwork in order to ensure a suitable base for this type of coping stone.

In this case, make a 20cm wide and 20cm deep trench all around the top beam. If the trench is not straight, form the outside of the recess with suitable boards.

In order to perfect the cohesion of this second peripheral chaining, cut, with a grinder, the plastic return of the top of the chimney chaining. Position in the excavation and all around the basin, a square steel chain 10x10cm with a 7mm thread. The overlap of the steel of the chaining must be of 0.20m minimum and solidarized with ligatures. Fold down all the twisted steels of the chimneys with a hammer, taking care to insert them in the groove provided for this purpose (see **Reinforcement of the deck**). Bind the folded twists with the steel chain, while providing for a homogeneous coating of this one during the concrete pouring (wedge if necessary).

Pour the slab with a concrete type C25/30 XF1 D10 S3 according to the EN 206 standard (or NF EN 206/CN for France), or equivalent, with a minimum compressive strength after 28 days of 30MPa. After pouring, make a base at the same level as that of the top of the pool chain.

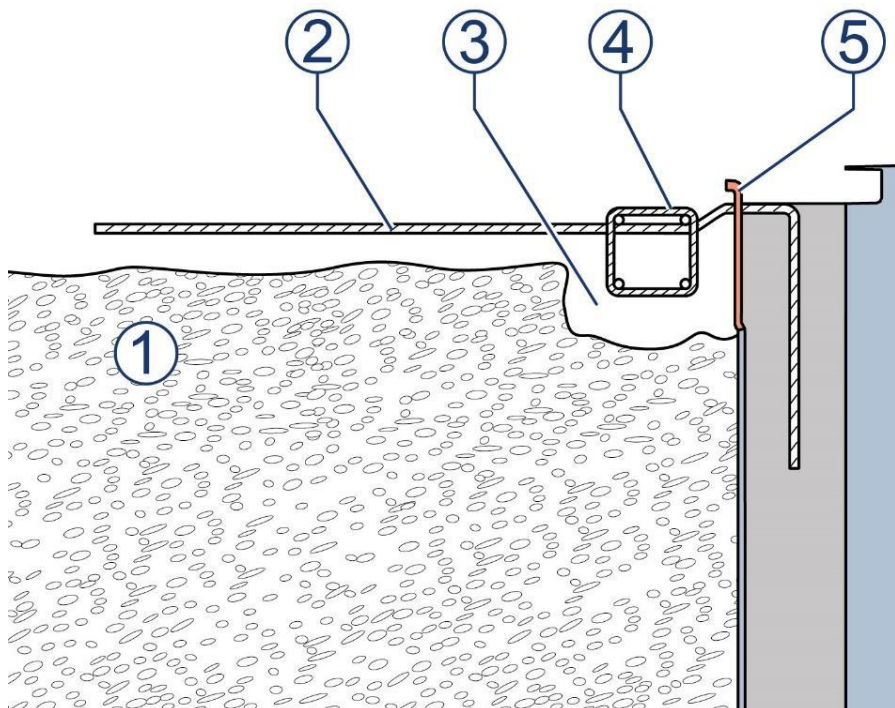


Figure 27: Doubling of the top beam for wide coping

Legend :

- 1 Backfill
- 2 Folded down chimney spiral
- 3 Cutting 20x20cm
- 4 Square steel chain 10x10cm / 7mm thread
- 5 Return to be cut with a grinder

**Warning:** The structure shall have a 10 year warranty.

## **INSTALLATION OF THE FILTER UNIT AND START-UP**

### ***Filtration***

Pool No. 1 :

- 4 IFP 440 (Injected Filter Panel)
- 1 IFP contains two P 25 filtration pumps
- Power of one pump : 1,20 KW
- Flow rate of the filtration pump: 25 m<sup>3</sup>/h

Pool No. 2 (for children) :

- 2 IFP 250 (Injected Filter Panel)
- 1 IFP contains a filter pump P 18
- Pump power: 0,45 KW
- Flow rate of the filtration pump: 18 m<sup>3</sup>/h

### ***Installation and connection of the filter unit***

In the case of a filter panel, open the two valves on the suction and discharge sides.

#### **✓ Electrical connection of the filter unit and peripheral equipment**

**Electrical connections must be made by a qualified electrician and comply with the NF C15-100 (France), HD 60364-7-702 (Europe) or IEC 60364-7-702 (World) standards.**

For the electrical connections of the filtration system, please refer to the technical manual for installation and use of the filtration systems.

For the electrical connections of the peripheral equipment (heating or water treatment devices, etc.), refer to the instructions for the products concerned.

The control and protection boxes (filtration, peripheral equipment...) must be placed at more than 3.5m from the pool and easily accessible. It is recommended to have visibility on the whole pool from these control boxes. The electrical connections in the boxes must be tightened.

#### **✓ Ground connections**

The installation must be connected to an earth connection with an ohmic resistance of less than 100  $\Omega$  and whose resistance must be measured periodically. For countries outside France, comply with the values given by the legislation in force.

The specific ground connection of the pool, if it exists, must be interconnected with :

- The grounds of the electrical equipment dedicated or not to the pool:

- Located in the technical room of the filtration system or in the building housing the pool's electrical equipment (heating device...),
- Located in the environment close to the pool (less than 3.5m from the water surface),
- The conductive materials of the technical room or the building housing the pool's electrical equipment, including the earth connection of this room or building if it exists.
- The SECOE, if present.

#### ✓ **Start-up**

Start up the pool by priming the filtration pump and check the correct operation of the filtration system, as well as the tightness of the pipes and the pump.

Proceed to a test of the differential switch 30mA of the filtration box when it is under voltage. It should immediately break. If not, stop the installation immediately and contact an electrician.

In case of peripheral equipment (heating or water treatment devices, ...), check that they are working properly.

Close the cover of the technical room of the filtration system using the screws provided.

Carry out an analysis of the water in the pool and proceed to balance the water and treat it with the appropriate products. Good water quality depends on its calcium-carbonate balance and disinfection. It is essential to ensure a complete analysis of the physico-chemical parameters of the water and to ensure an adapted correction if necessary (TAC, pH, TH...).

Provide the client with the necessary explanations concerning the functioning of the filtration system, the various maintenance accessories and, if necessary, the peripheral equipment, as well as the precautions for use and the treatment of the water in the pool.

#### ***Finishing the pool deck***

Once the pool is in water, it is advisable to lay the covering on the beaches (generally reconstituted concrete slabs, stone, sandstone Ceram, ...).

The paving can be laid with tile adhesive on dry concrete, if the surface of the concrete slab of the beaches is sufficiently flat and smooth.

The paving can also be laid with moistened mortar. If this screed is to be laid on dry concrete, a bonding bridge must be provided by gluing with a liquid adhesive such as PCI or similar.

In the case of an installation with adhesive, eliminate the asperities present on the surface of the beaches.

For reconstituted stone slabs (cement), take care to scrape and brush the underside of each slab before installation in order to eliminate the film due to laitance and to improve adhesion.

Refer to the "Coping and Paving" advice sheet for additional information on receiving and laying the slabs.

If the paving is laid on fresh mortar, take care to wet each slab for a better adhesion of the mortar.

Lay the paving with a 6 to 8 mm joint between each slab.

Once the paving is sealed, make the joints of the paving. Prepare a suitable mortar, respecting the conditions of use and the dosage, in order to have a homogeneous mixture. Use a damp sponge to finish the joints.

## ***THE CUSHION***

Curbstone of 0.50 x 0.25 type CLASSIC straw at the periphery of the basin in reconstituted stone, forming an anti-clapper.

### ***Coping and beaches***

Once the backfilling and finishing masonry are completed, proceed with the pouring of the beaches and the installation of the coping.

#### **✓ Beaches**

The Desco-Liner installation process allows, thanks to the deck support piles and steel in waiting, the immediate installation of the deck, without waiting for the backfill to be compacted.

##### **➤ Preparation**

Prior to the construction of the decks, validate the layout plan of the decks with the client. Draw the limits of the beaches according to the layout plan.

If necessary, set up formworks at the limits of the beaches.

Provide, on the deck, a minimum slope of 1 to 1.5cm/m to return the runoff and overflow water to the opposite side of the pool.

**Note:** In the presence of a shelter, the positioning of the coping and the slope of the beaches must allow the displacement without constraint of the latter.

The upper level of the deck slab must take into account whether or not the slab is flush with the coping.

##### **➤ Pouring of the beaches**

The concrete used for the pouring of the decks is of type C25/30 XF1 D10 S3 according to the EN 206 standard (or NF EN 206/CN for France), or equivalent, with a minimum compressive strength after 28 days of 30MPa. For a regular and controlled quality of the concrete, it is preferable to use a concrete of central, delivered to the fresh state directly on the building site by a truck router, rather than a manually mixed concrete.

It is imperative to adapt the characteristics of the concrete according to the class of exposure (severe climatic conditions, frost, seismic zones, seaside...).

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Pour the concrete slab of the beaches to a thickness of between 10 and 12cm, while keeping the thickness necessary to bond the chosen covering.

If necessary, lift the steel reinforcement from place to place to ensure a satisfactory concrete coating.

Use a ruler to establish the planimetry of the deck, respecting a minimum slope of 1.5cm/m to direct the runoff water away from the pool.

Note : The beaches can be horizontal (without slopes), if they are made of draining concrete and not covered.

#### **✓ Coping**

##### **➤ Preparation**

The copings can be laid with tile adhesive on dry concrete, if the top of the chain-link is perfectly level and smooth.

The coping can also be laid with moistened mortar. If this screed is to be laid on dry concrete, a bonding bridge must be provided by gluing with a liquid adhesive such as PCI or similar.

Check the lengths, widths and diagonals of the pool.

Make sure that the bonding profile is protected by an adhesive or a mason's line.

Distinguish between the different types of coping:

- The 4 inset angles for the corners of the pool (if applicable);
- The 2 outgoing angles for the flanged stairs (if applicable);
- Rounded coping for Roman steps (if applicable);
- And the straight coping for the lengths and widths (for rectangular pools).

Present blank coping all around the pool, balancing the aesthetic aspect and adjusting the length on two central copings. The coping stones should protrude 3 to 4 cm inside the pool to ensure that they do not clump (figure 28).

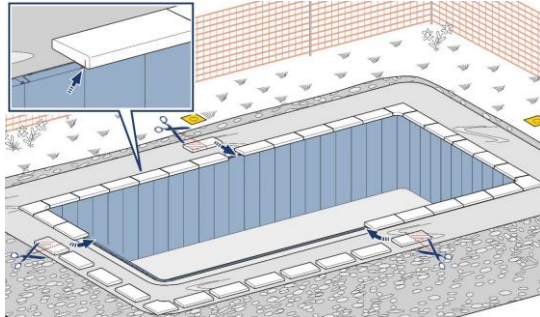


Figure 28: Preparing to install the coping

Cutting the coping stones must respect the slope of the sides of the whole coping stones (figure 29).

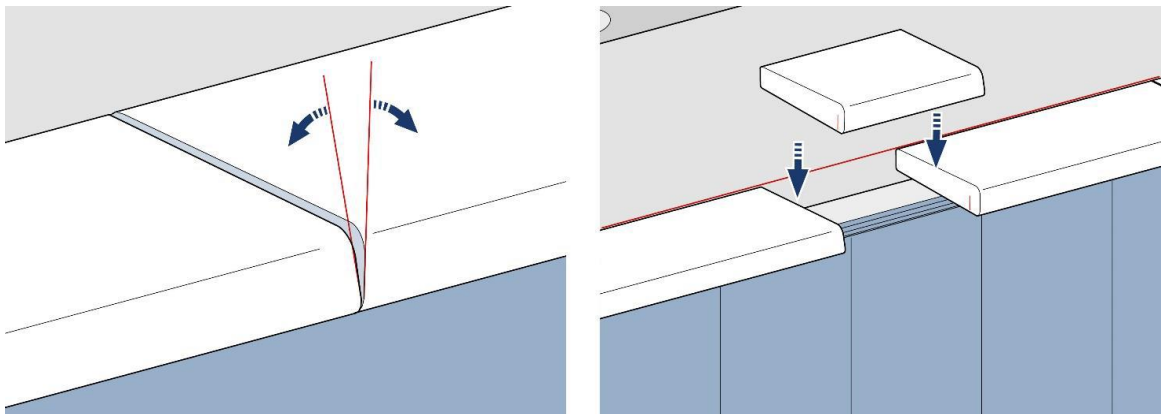


Figure 29: Cutting the coping

Draw a line along each length and width to indicate the alignment to be followed for the rest of the installation.

➤ *Laying the coping*

For reconstituted stone copings (cement), take care to scrape and brush the underside of each coping before installation in order to eliminate the film due to laitance and to improve adhesion.

Refer to the "Coping and Paving" advice sheet for additional information on receiving and installing coping.

If the copings are installed on fresh mortar, take care to wet the copings for a better adhesion of the mortar. In this case, it is preferable to double glue the coping with a cement slurry on the underside of the coping.

Lay the copings starting from each corner, leaving a minimum gap between their lower face and the bonding profile and ensuring, if necessary, that they are joined at their base (Classic copings only).

➤ *Coping joints*

Once the coping is sealed, make the coping joints. Prepare a mortar with the preparation bag supplied. Respect the conditions of use and the dosages in order to have a homogeneous mixture.

Use a damp sponge to finish the joints.

If necessary, fill the gap between the clamping profile and the coping with a white cement joint or with a flexible adhesive (e.g. polyurethane) compatible with the elements in contact, depending on the thickness of the clamping profile and the coping (figure 30)

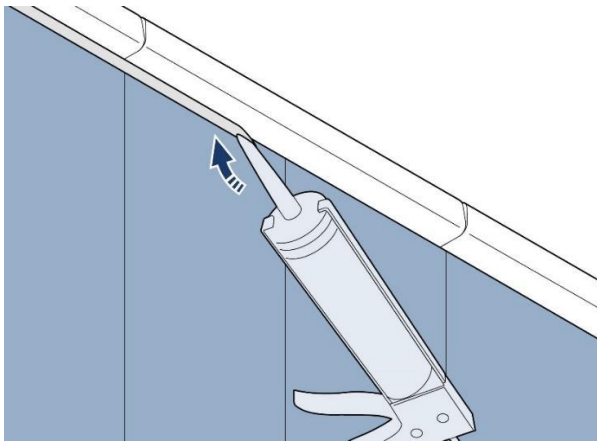


Figure 30: Making the joint under the coping

**WATERPROOFING COATING**  
Coating type reinforced membrane

150/100th.

The company must carry out the waterproofing of all the pools by installing a flexible PVC membrane with the following characteristics

- o Thickness: 1.5 mm
- o Membrane: reinforced by a weldable polyester weft that is rot-proof and UV stabilized
- o Blue color (to be confirmed with the client)
- o Wall : smooth membrane
- o Stairs and inverts: anti-slip membrane

The liner must be stored for at least 24 hours in a temperate room before being installed. The liner should only be installed under favorable weather conditions. It must be done at outside temperatures between 15 and 25°C. In case of lower temperatures, rain or snow, the pool must be covered (for example, with a Pool Up type shelter) and/or heated.

Note: The installation of reinforced liners is not detailed in these specifications.

The installation of the liner must comply with the provisions of standard NF T54-802 (for France).

In the case of a staircase to be covered, the liner must have a non-slip surface on each step of the staircase (slip resistance: classification group A, according to standard NF EN 16582-1).

✓ **Preparation of the pool**

Thoroughly clean the Desco panels, the liner attachment profile and, if necessary, the steps and/or the filter panel.

Scrape and clean the surface of the invert perfectly. Remove all roughness and vacuum up any residue.

The surface where the liner is installed (invert and panels) must be free of any surface defects (bumps, hollows, etc.) that could damage the liner.

It is recommended that the installation surface be perfected in order to avoid the installation of a separating layer (felt) between the substrate and the liner. If this is necessary, use a rot-proof, anti-fungal, non-waterproof separating layer that does not contain any components that could migrate to the liner (polyester separating layers are not recommended). This layer and the glues or adhesives used for its positioning must be compatible with both the support (Descos panels and invert) and the liner. When positioning the separating layer, remove any folds and air pockets with a broom, from the center outwards.

Glue, without any folds, a strip of adhesive tape provided at each joint of panels assembled on site.

In the case of a staircase with a sub-liner, and after cleaning, proceed with the installation of the foam strips on the risers in accordance with the assembly instructions.

A few hours before installing the liner, disinfect the surface with a suitable product (for example JD PRO Protect for France).

Note: After cleaning and disinfecting the liner, all interventions in the pool must be done with clean shoes or slippers.

In the case of a straddle unit, remove the filter unit.

#### ✓ **Liner Installation**

The Descos Panels and invert must be dry and remain dry during the installation of the liner.

Remove the liner from its packaging as close to the pond as possible. Lower it into the pool and place it in the center. Unfold it lengthwise and then widthwise. The corners of the pool are marked on each liner (tape, arrows...).

Note: During handling and unfolding, do not drag the liner to avoid any risk of abrasion on the ground.

Start by hooking the corners and blocking them with wedges. Mark the corners on the bottom to determine the position of the liner.

Slide the liner profile into the hanging profile positioned on the Descos panels starting from a corner. Proceed in this way all around the pool. Make sure that the tension is evenly distributed and that the corners are sufficiently loose.

If there is a staircase under the liner, make sure that the corners and welds are well positioned in line with the edges of the steps and risers in order to help the correct positioning of the material and to avoid the risk of folds.

#### ✓ **Vacuuming and watering**

Tension the liner and remove the air between the pool and the liner with suction turbines. The use of a good suction under the liner is the main condition for a crease-free installation.

Unhook the liner to thread the turbine hose. It is recommended to have two suctions: one in the middle of the pool, the other at the level of the stairs, especially in the case of stairs under the liner.



**Make a temporary seal around the suction pipe. Make sure that no element can fall between the structure and the liner.**

While the liner is being vacuumed, remove the last folds by pushing the bottom towards the walls and place the corners permanently. The liner should be stretched evenly without over tensioning. No folds should remain before the pool is put in the water.

If there is a staircase under the liner, make sure there are no folds and, while waiting for the filling, place weights in the corners of the steps to ensure the liner is held in place (waterproof sand bags or buckets or buckets of water...). It is recommended that these weights are not in direct contact with the liner.

The watering can then begin.

**CAUTION:** Walking on a wet liner can be dangerous (risk of slipping).

The pool must be filled immediately after the liner is installed with water from the network or water whose characteristics comply with the provisions of standard EN 16713-3.

If there is a staircase with flanges, the flanges must be installed when the water level is 5 to 10 cm below the lower flange groove of the staircase. Please refer to the staircase assembly instructions to carry out the flanging.

If a filter panel is present, the flanges are installed when the water level is 10 to 20cm below the spotlights' location. Please refer to the filter panel assembly instructions to flange the skimmer, the discharge nozzle and the floodlights.

Make sure that the suction and discharge valves of the filter panel are closed.

If necessary, and after clamping, install the flange covers (stairs and/or filter panel).

Only switch off the suction at the end of the filling of the pool, at the top 2/3 of the skimmer.

Remove the suction and hang up the liner.

Ensure that the liner is held in place by placing a locking ring in the hanging profile.

### ***WATER TREATMENT***

Automatic chlorine and pH water analysis and regulation system type POOL Excellence:

- ✓ Material compatible with the use of chlorine (Calcium hypochlorite).
- ✓ Amperometric type equipment with proportional management and programming.
  - o The analysis chamber will be supplied with water from the discharge network
    - Water intake at the outlet of the filtration station
    - Transport tube for the water to be analyzed: 6/8 tubing inserted in a 20 mm rigid tube

The set includes:

- ✓ The regulation system for chlorine
- ✓ The regulation system for pH
- ✓ 2 x 10L/h pumps
- ✓ 2 110L reagent and holding tanks

### ***MAINTENANCE PACKAGE***

Maintenance kit including:

Complete manual vacuum broom, dip nets, wall brushes, and thermometers; a PALINTEST pool6 type ARS approved analysis kit (DPD professional kit PALINTEST brand or similar).

A sanitary booklet, a regulation display panel, a depth panel and depth stickers. Start-up and water treatment training included

## ***DETAILS OF ADDITIONAL BENEFITS***

### ***PEDILUVE***

Supply of the Hydraulic system of the foot bath, including drain, water supply and fixed slow chlorine basket.

### ***SHOWER ON FOOT BATH***

Stainless steel shower and push button control type FLUIDRA 40814.

Body in stainless steel

AISI-304. ABS chrome plated anti-limestone head, timed push button. Floor anchors included, 1/2" connection.

### ***AUTOMATIC WATER LEVEL***

Mechanical level regulator type RN305, white.

The valve mechanism is equipped with a water flow adjustment knob, which can be used as a shut-off valve.

### ***NEUTRALIZATION***

Filter wash water will be discharged into the EU system without treatment.

✓ The drain water from the basins will be neutralized before being discharged into the EP network. This arrangement will require the implementation of a fluid passage detector in the general discharge pipe, which will activate a dosing station injecting a chlorine neutralizer, including:

- o Dosing pump with timed operation and its accessories.
- o A 1000 liter tank.
- o This station will be located so that all the water leaving the water treatment room and discharged into the rainwater network is neutralized.
- o A lifting tank located in the technical room will be equipped with
- o A lifting pump: unitary flow 25 m<sup>3</sup>/hour at 10 mCE, three-phase, speed 1450 rpm, and float with magnetic contactor,
- o Hydraulic connection up to the E.U. collector.
- o Electrical connection in a specific electrical box.

### ***PADDLING POOL SEPARATION***

Supply of 5.50ml of a separation barrier between the pool and the paddling area type

#### ***DISCRETION***

- ✓ Mirror polished 316 L stainless steel posts Ø 44,2
- ✓ 5 mm thick plates Ø 130
- ✓ 8 mm safety glass with polished edges Stainless steel clamp

### ***HANDICAPPED LAUNCHING***

Provision of a wheelchair for launching

A hydraulic system supports the chair and allows for bath entry and exit operations

✓ External mounting with anchors and power to the elevator by connection to the water system.

✓ Minimum pressure of 3 bar.

Installation: external fixation with anchors.

#### ***WALL HANDRAIL***

Supply of 4ml of straight handrail with end and intermediate fixing support (according to plan).

✓ AISI-316 polished stainless steel tube Ø43mm

✓ AISI-316 polished stainless steel support with dowels, screws and joints

#### ***BATH OUTLET***

Supply of a polished AISI-316 stainless steel bath or access outlet, Ø43mm polished

#### ***LADDER***

Supply of a stainless steel pool ladder Ø 50mm, 3 stainless steel steps with anti-slip coating, including stainless steel shoes supplied, installed sealed on the deck.

#### ***AUTOMATIC SWEEPER***

Supply of an automatic electric robot type DOLPHIN W20. The ideal cleaning robot for shallow pools

Advanced and active brushing system: two active brushes guarantee a particularly effective cleaning.

Remote control: programming of the cleaning cycle (fast or normal) and manual navigation.

### **iv. Pool features and finishes:**

#### **Pool Deck**

- ADA accessible path from main driveway to swimming pool deck to be matching pavers over geotextile stabilized base inside a metal landscape edge
- Area should be around 120 SQM with a thickened slab edge installed as a Monolithic pour (in lieu of concrete masonry unit (CMU) stem wall.
- Perimeter fence to be 48 inches in height, made of decorative metal with two pedestrian gates, self closing, self locking at 54 inches of height, see attached SHEM guidelines.
- Provide line item allowance for landscaping around entire perimeter of Pool Deck, assuming pool deck is 10cm above adjacent grade at closest point
- Provide line item allowance for exterior lighting of pool deck,
- Hose bibs; provide 2 total; one on the exterior of the Cabana facing pool, And one near the shallow end of the pool; these should accommodate a Normal garden hose for cleaning the deck as well as furniture.

#### **Finishes:**

- There shall be one aluminum handrail incorporated into the ladder at the deep end of the pool and two aluminum handrails incorporated into the steps at the shallow

end;

- Provide a band of tiles .5m wide around the entire top of the pool (along the vertical wall) and a top stone (no mineral content) coping on the deck immediately adjacent to the pool which is .5m wide and encompasses its entire perimeter.

**v. Swimming Pool Fencing and other Children safety features**

Provide materials and labor to install a fence around the pool complete with all safety features as described in appendix 12. The child safety fence separating the pool deck from the cabana shall be 1.20m high as per the provided illustration (See plans), complete with pedestrian gate and hardware (2) designed to SHEM specifications.

**vi. Swimming Pool testing and commissioning:**

The vendor shall allow for testing and commissioning of the entire system including swimming pool, pumping station, lighting. The pool shall be delivered at full capacity at the appropriate chemical condition.

## **APPLICABLE STANDARDS**

1. Local Building codes: the local government (adoptive by-laws)
2. Local Safety regulations in Cote d'Ivoire
3. NEMA by-laws (in safe disposal of waste)
4. DOSAR 652.236-70 (attached)
5. International Swimming Pool and Spa Code (ISPSC)
6. Other applicable regulations: See clauses in section H below.
7. American Disabled Association (ADA) code

## **SPECIAL REQUIREMENTS**

- Access onto the premises will be at the discretion of the Regional Security Office and therefore approval must be obtained at least 24 hours before date entry.
- Work must be done under escort of the appropriate clearance level as applicable in the space concerned.
- Work schedule must be done in such a way to minimize interruptions, having least impact upon the residence. The schedule and construction logistics must be discussed and approved through the COR. Interruptions to construction must be expected due to representational functions.
- Vendor has the responsibility to obtain all relevant approvals and permits from respective regulatory bodies including but not limited to: Ministry of Construction of Cote d'Ivoire
- The contractor warrants all construction shall be free of workmanship defects for one year, starting at final turn-over. All equipment warranties pertaining to manufacturing defects shall be honored by the contractor for the period specified by the manufacturer.

All Documentation regarding warranties, guarantees and instructional literature are to be handed to your COR.

## **C. PACKAGING AND MARKING**

Materials delivered to the site as follows:  
AMERICAN EMBASSY – R16000

## D. INSPECTION AND ACCEPTANCE

The COR, or his/her authorized representatives, will inspect the services being performed and the supplies furnished to determine whether work is being performed in a satisfactory manner, and that all supplies are of international quality and standards, see applicable standards.

The Contractor shall be responsible for any countermeasures or corrective action, within the scope of this contract, which may be required by the Contracting Officer as a result of such inspection.

**(See attached Performance/Completion evaluation form)**

### D.1 SUBSTANTIAL\_COMPLETION

(a) "*Substantial Completion*" means the stage in the progress of the work as determined and certified by the Contracting Officer in writing to the Contractor, on which the work (or a portion designated by the Government) is sufficiently complete and satisfactory. Substantial completion means that the property may be occupied or used for the purpose for which it is intended, and only minor items such as touch-up, adjustments, and minor replacements or installations remain to be completed or corrected which:

- (1) do not interfere with the intended occupancy or utilization of the work, and
- (2) can be completed or corrected within the time period required for final completion.

(b) The "date of substantial completion" means the date determined by the Contracting Officer or authorized Government representative as of which substantial completion of the work has been achieved.

Use and Possession upon Substantial Completion - The Government shall have the right to take possession of and use the work upon substantial completion. Upon notice by the Contractor that the work is substantially complete (a Request for Substantial Completion) and an inspection by the Contracting Officer or an authorized Government representative (including any required tests), the Contracting Officer shall furnish the Contractor a Certificate of Substantial Completion. The certificate will be accompanied by a Schedule of Defects listing items of work remaining to be performed, completed or corrected before final completion and acceptance. Failure of the Contracting Officer to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the contract. The Government's possession or use upon substantial completion shall not be deemed an acceptance of any work under the contract.

### D.2 FINAL COMPLETION AND ACCEPTANCE

D.2.1 "Final completion and acceptance" means the stage in the progress of the work as determined by the Contracting Officer and confirmed in writing to the Contractor, at which all work required under the contract has been completed in a satisfactory manner, subject to the

discovery of defects after final completion, and except for items specifically excluded in the notice of final acceptance.

D.2.2 The "*date of final completion and acceptance*" means the date determined by the Contracting Officer when final completion of the work has been achieved, as indicated by written notice to the Contractor.

D.2.3 FINAL INSPECTION AND TESTS. The Contractor shall give the Contracting Officer at least five (5) days advance written notice of the date when the work will be fully completed and ready for final inspection and tests. Final inspection and tests will be started not later than the date specified in the notice unless the Contracting Officer determines that the work is not ready for final inspection and so informs the Contractor.

D.2.4 FINAL ACCEPTANCE. If the Contracting Officer is satisfied that the work under the contract is complete (with the exception of continuing obligations), the Contracting Officer shall issue to the Contractor a notice of final acceptance and make final payment upon:

- Satisfactory completion of all required tests,
- A final inspection that all items by the Contracting Officer listed in the Schedule of Defects have been completed or corrected and that the work is finally complete (subject to the discovery of defects after final completion), and
- Submittal by the Contractor of all documents and other items required upon completion of the work, including a final request for payment (Request for Final Acceptance).

## **E. DELIVERIES OR PERFORMANCE**

### **52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)**

The Contractor shall be required to:

- (a) commence work under this contract within 5 calendar days after the date the Contractor receives the notice to proceed,
- (b) prosecute the work diligently, and,
- (c) Complete the entire work ready for use not later than 45 calendar days after receipt of notice to proceed

The time stated for completion shall include final cleanup of the premises.

### **52.211-12 LIQUIDATED DAMAGES - CONSTRUCTION (SEPT 2000)**

(a) If the Contractor fails to complete the work within the time specified in the contract, or any extension, the Contractor shall pay liquidated damages to the Government in the amount of USD \$ 500 for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Default clause.

## CONTRACTOR'S SUBMISSION OF CONSTRUCTION SCHEDULES

(a) The time for submission of the schedules referenced in FAR 52.236-15, "Schedules for Construction Contracts". The contractor shall provide a detailed schedule, working within the following period: Commencement by first week upon notice to proceed, and completion by 45th day after commencement. (Actual boundary date to be communicated at preconstruction meeting).

(b) These schedules shall include the time by which shop drawings, product data, samples and other submittals required by the contract will be submitted for approval.

(c) The Contractor shall revise such schedules (1) to account for the actual progress of the work, (2) to reflect approved adjustments in the performance schedule, and (3) as required by the Contracting Officer to achieve coordination with work by the Government and any separate contractors used by the Government. The Contractor shall submit a schedule, which sequences work so as to minimize disruption at the job site.

(d) All deliverables shall be in the English language and any system of dimensions (English or metric) shown shall be consistent with that used in the contract. No extension of time shall be allowed due to delay by the Government in approving such deliverables if the Contractor has failed to act promptly and responsively in submitting its deliverables. The Contractor shall identify each deliverable as required by the contract.

(e) Acceptance of Schedule: When the Government has accepted any time schedule; it shall be binding upon the Contractor. The completion date is fixed and may be extended only by a written contract modification signed by the Contracting Officer. Acceptance or approval of any schedule or revision thereof by the Government shall not:

- (1) Extend the completion date or obligate the Government to do so,
- (2) Constitute acceptance or approval of any delay, or
- (3) Excuse the Contractor from or relieve the Contractor of its obligation to maintain the progress of the work and achieve final completion by the established completion date.

## NOTICE OF DELAY

If the Contractor receives a notice of any change in the work, or if any other conditions arise which are likely to cause or are actually causing delays which the Contractor believes may result in late completion of the project, the Contractor shall notify the Contracting Officer. The Contractor's notice shall state the effect, if any, of such change or other conditions upon the approved schedule, and shall state in what respects, if any, the relevant schedule or the completion date should be revised. The Contractor shall give such notice promptly, not more than ten (10) days after the first event giving rise to the delay or prospective delay. Only the Contracting Officer may make revisions to the approved time schedule.



### NOTICE TO PROCEED

(a) After receiving and accepting any bonds or evidence of insurance, the Contracting Officer will provide the Contractor a Notice to Proceed. The Contractor must then prosecute the work, commencing and completing performance not later than the time period established in the contract.

(b) It is possible that the Contracting Officer may elect to issue the Notice to Proceed before receipt and acceptance of any bonds or evidence of insurance. Issuance of a Notice to Proceed by the Government before receipt of the required bonds or insurance certificates or policies shall not be a waiver of the requirement to furnish these documents.

### WORKING HOURS

Most of the work shall be performed during **the time within the specified period (provided through COR)**. Other hours, if requested by the Contractor, may be approved by the Contracting Officer's Representative (COR). The Contractor shall give 24 hours in advance to COR who will consider any deviation from the hours identified above. Changes in work hours, initiated by the Contractor, will not be a cause for a price increase.

### PRECONSTRUCTION CONFERENCE

A preconstruction conference will be held 2 days after contract award at **US Embassy Abidjan Cote d'Ivoire, Abidjan Cocody, P.O Box 710 ABIDJAN CIDEX 03** to discuss the schedule, submittals, notice to proceed, mobilization and other important issues that effect construction progress.

DELIVERABLES - The following items shall be delivered under this contract:			
<u>Description</u>	<u>Quantity</u>	<u>Deliver Date</u>	<u>Deliver To</u>
Section E. Construction Schedule	1	2 days after award	COR
Section D. Request for Final Acceptance	1	5 days before inspection	COR

### **F. ADMINISTRATIVE DATA**

652.242-70 CONTRACTING OFFICER'S REPRESENTATIVE (COR) (AUG 1999)

(a) The Contracting Officer may designate in writing one or more Government employees, by name or position title, to take action for the Contracting Officer under this contract. Each designee shall be identified as a Contracting Officer's Representative (COR). Such designation(s) shall specify the scope and limitations of the authority so delegated; provided, that the designee shall not change the terms or conditions of the contract, unless the COR is a warranted Contracting Officer and this authority is delegated in the designation.

(b) The COR for this contract is **Engineer in the Facility Management (FAC) office.**

Payment: The Contractor's attention is directed to Section H, 52.232-5, "Payments Under Fixed-Price Construction Contracts". The following elaborates on the information contained in that

clause.

Requests for payment, may be made no more frequently than monthly. Payment requests shall cover the value of labor and materials completed and in place, including a prorated portion of overhead and profit.

After receipt of the Contractor's request for payment, and on the basis of an inspection of the work, the Contracting Officer shall make a determination as to the amount, which is then due. If the Contracting Officer does not approve payment of the full amount applied for, less the retainage allowed by in 52.232-5, the Contracting Officer shall advise the Contractor as to the reasons.

Under the authority of 52.232-27(a), the 14 day period identified in FAR 52.232-27(a)(1)(i)(A) is hereby changed to 30 days.

Financial Management Officer
U. S Embassy Abidjan
P.O Box 710 ABIDJAN CIDEX 03

Or email to: **AbidjanFMOinvoices@state.gov**

## **G. SPECIAL REQUIREMENTS**

G.1.0 PERFORMANCE/PAYMENT PROTECTION - The Contractor shall furnish some form of payment protection as described in 52.228-13 in the amount of 50% of the contract price.

G.1.1 The Contractor shall provide the information required by the paragraph above within ten (10) calendar days after award. Failure to timely submit the required security may result in rescinding or termination of the contract by the Government. If the contract is terminated, the Contractor will be liable for those costs as described in FAR 52.249-10, Default (Fixed-Price Construction), which is included in this purchase order.

G.1.2 The bonds or alternate performance security shall guarantee the Contractor's execution and completion of the work within the contract time. This security shall also guarantee the correction of any defects after completion, the payment of all wages and other amounts payable by the Contractor under its subcontracts or for labor and materials, and the satisfaction or removal of any liens or encumbrances placed on the work.

G.1.3 The required securities shall remain in effect in the full amount required until final acceptance of the project by the Government. Upon final acceptance, the penal sum of the performance security shall be reduced to 10% of the contract price. The security shall remain in effect for one year after the date of final completion and acceptance, and the Contractor shall pay any premium required for the entire period of coverage.

G.2.0 INSURANCE - The Contractor is required by FAR 52.228-5, "Insurance - Work on a Government Installation" to provide whatever insurance is legally necessary. The Contractor shall at its own expense provide and maintain during the entire performance period the following insurance amounts:

G.2.1 GENERAL LIABILITY (includes premises/operations, collapse hazard, products, completed operations, contractual, independent contractors, broad form property damage, personal injury). Upon issuance of the LPO, the vendor shall provide policy cover copy to confirm that the elements in question are covered.

G.2.2 The foregoing types and amounts of insurance are the minimums required. The Contractor shall obtain any other types of insurance required by local law or that are ordinarily or customarily obtained in the location of the work. The limit of such insurance shall be as provided by law or sufficient to meet normal and customary claims.

G.2.3 The Contractor agrees that the Government shall not be responsible for personal injuries or for damages to any property of the Contractor, its officers, agents, servants, and employees, or any other person, arising from and incident to the Contractor's performance of this contract. The Contractor shall hold harmless and indemnify the Government from any and all claims arising therefrom, except in the instance of gross negligence on the part of the

Government.

G.2.4 The Contractor shall obtain adequate insurance for damage to, or theft of, materials and equipment in insurance coverage for loose transit to the site or in storage on or off the site.

G.2.5 The general liability policy required of the Contractor shall name "the United States of America, acting by and through the Department of State", as an additional insured with respect to operations performed under this contract.

### G.3.0 DOCUMENT DESCRIPTIONS

G.3.1 SUPPLEMENTAL DOCUMENTS: The Contracting Officer shall furnish from time to time such detailed drawings and other information as is considered necessary, in the opinion of the Contracting Officer, to interpret, clarify, supplement, or correct inconsistencies, errors or omissions in the Contract documents, or to describe minor changes in the work not involving an increase in the contract price or extension of the contract time. The Contractor shall comply with the requirements of the supplemental documents, and unless prompt objection is made by the Contractor within 20 days, their issuance shall not provide for any claim for an increase in the Contract price or an extension of contract time.

G.3.1.1. RECORD DOCUMENTS. The Contractor shall maintain at the project site:

- (1) a current marked set of Contract drawings and specifications indicating all interpretations and clarification, contract modifications, change orders, or any other departure from the contract requirements approved by the Contracting Officer; and,
- (2) a complete set of record shop drawings, product data, samples and other submittals as approved by the Contracting Officer.

G.3.1.2. "As-Built" Documents: After final completion of the work, but before final acceptance thereof, the Contractor shall provide:

- (1) a complete set of "as-built" drawings, based upon the record set of drawings, marked to show the details of construction as actually accomplished; and,
- (2) record shop drawings and other submittals, in the number and form as required by the specifications.

G.4.0 LAWS AND REGULATIONS - The Contractor shall, without additional expense to the Government, be responsible for complying with all laws, codes, ordinances, and regulations applicable to the performance of the work, including those of the host country, and with the lawful orders of any governmental authority having jurisdiction. Host country authorities may not enter the construction site without the permission of the Contracting Officer. Unless otherwise directed by the Contracting Officer, the Contractor shall comply with the more stringent of the requirements of such laws, regulations and orders and of the contract. In the

event of a conflict between the contract and such laws, regulations and orders, the Contractor shall promptly advise the Contracting Officer of the conflict and of the Contractor's proposed course of action for resolution by the Contracting Officer.

G.4.1 The Contractor shall comply with all local labor laws, regulations, customs and practices pertaining to labor, safety, and similar matters, to the extent that such compliance is not inconsistent with the requirements of this contract.

G.4.2 The Contractor shall give written assurance to the Contracting Officer that all subcontractors and others performing work on or for the project have obtained all requisite licenses and permits.

G.4.3 The Contractor shall submit proper documentation and evidence satisfactory to the Contracting Officer of compliance with this clause.

G.5.0 CONSTRUCTION PERSONNEL - The Contractor shall maintain discipline at the site and at all times take all reasonable precautions to prevent any unlawful, riotous, or disorderly conduct by or among those employed at the site. The Contractor shall ensure the preservation of peace and protection of persons and property in the neighborhood of the project against such action. The Contracting Officer may require, in writing that the Contractor remove from the work any employee that the Contracting Officer deems incompetent, careless, insubordinate or otherwise objectionable, or whose continued employment on the project is deemed by the Contracting Officer to be contrary to the Government's interests.

G.5.1 If the Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this contract, the Contractor shall immediately give notice, including all relevant information, to the Contracting Officer.

G.5.2 After award, the Contractor has ten calendar days to submit to the Contracting Officer a list of workers and supervisors assigned to this project for the Government to conduct all necessary security checks. For each individual the list shall include:

Full Name  
Place and Date of Birth  
Current Address  
Identification number

Failure to provide any of the above information may be considered grounds for rejection and/or resubmittal of the application. Once the Government has completed the security screening and approved the applicants a badge will be provided to the individual for access to the site. This badge may be revoked at any time due to the falsification of data, or misconduct on site.

G.5.3 The Contractor shall provide an English speaking supervisor on site at all times. This position is considered as key personnel under this purchase order.

G.6.0 Materials and Equipment - All materials and equipment incorporated into the work shall be new and for the purpose intended, unless otherwise specified. All workmanship shall be of good quality and performed in a skillful manner that will withstand inspection by the Contracting Officer.

#### G.7.0 SPECIAL WARRANTIES

G.7.1 Any special warranties that may be required under the contract shall be subject to the stipulations set forth in 52.246-21, "Warranty of Construction", as long as they are not in conflict.

G.7.2 The Contractor shall obtain and furnish to the Government all information required to make any subcontractor's, manufacturer's, or supplier's guarantee or warranty legally binding and effective. The Contractor shall submit both the information and the guarantee or warranty to the Government in sufficient time to permit the Government to meet any time limit specified in the guarantee or warranty, but not later than completion and acceptance of all work under this contract.

#### G.8.0 EQUITABLE ADJUSTMENTS

Any circumstance for which the contract provides an equitable adjustment that causes a change within the meaning of paragraph (a) of the "Changes" clause shall be treated as a change under that clause; provided, that the Contractor gives the Contracting Officer prompt written notice (within 20 days) stating:

- (a) the date, circumstances, and applicable contract clause authorizing an equitable adjustment and
- (b) that the Contractor regards the event as a changed condition for which an equitable adjustment is allowed under the contract

The Contractor shall provide written notice of a differing site condition within 10 calendar days of occurrence following FAR 52.236-2, Differing Site Conditions.

#### G.9.0 ZONING APPROVALS AND PERMITS

The Government shall be responsible for:

- obtaining proper zoning or other land use control approval for the project
- obtaining the approval of the Contracting Drawings and Specifications
- paying fees due for the foregoing; and,
- for obtaining and paying for the initial building permits.

## H. CLAUSES

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es): <http://www.acquisition.gov/far/> or <http://farsite.hill.af.mil/vffara.htm>. Please note these addresses are subject to change.

If the Federal Acquisition Regulation (FAR) is not available at the locations indicated above, use the Department of State Acquisition website at <https://www.ecfr.gov/cgi-bin/text-idx?SID=2e978208d0d2aa44fb9502725ecac4e5&mc=true&tpl=/ecfrbrowse/Title48/48chapter6.tpl> to access links to the FAR. You may also use an internet “search engine” (for example, Google, Yahoo, Excite) to obtain the latest location of the most current FAR.

The following Department of State Acquisition Regulation (DOSAR) clause(s) is/are set forth in full text:

### 652.204-70 DEPARTMENT OF STATE PERSONAL IDENTIFICATION CARD ISSUANCE PROCEDURES (MAY 2011)

(a) The Contractor shall comply with the Department of State (DOS) Personal Identification Card Issuance Procedures for all employees performing under this contract who require frequent and continuing access to DOS facilities, or information systems. The Contractor shall insert this clause in all subcontracts when the subcontractor’s employees will require frequent and continuing access to DOS facilities, or information systems.

(b) The DOS Personal Identification Card Issuance Procedures may be accessed at <http://www.state.gov/m/ds/rls/rpt/c21664.htm>.

(End of clause)

### 652.229-71 PERSONAL PROPERTY DISPOSITION AT POSTS ABROAD (AUG 1999)

Regulations at 22 CFR Part 136 require that U.S. Government employees and their families do not profit personally from sales or other transactions with persons who are not themselves entitled to exemption from import restrictions, duties, or taxes. Should the Contractor experience importation or tax privileges in a foreign country because of its contractual relationship to the United States Government, the Contractor shall observe the requirements of 22 CFR Part 136 and all policies, rules, and procedures issued by the chief of mission in that foreign country.

(End of clause)

### CONTRACTOR IDENTIFICATION (JULY 2008)

Contract performance may require contractor personnel to attend meetings with government personnel and the public, work within government offices, and/or utilize government email.

Contractor personnel must take the following actions to identify themselves as non-federal employees:

- 1) Use an e-mail signature block that shows name, the office being supported and company affiliation (e.g. "John Smith, Office of Human Resources, ACME Corporation Support Contractor");
- 2) Clearly identify themselves and their contractor affiliation in meetings;
- 3) Identify their contractor affiliation in Departmental e-mail and phone listings whenever contractor personnel are included in those listings; and
- 4) Contractor personnel may not utilize Department of State logos or indicia on business cards.

(End of clause)

#### 652.236-70 ADDITIONAL SAFETY MEASURES (OCT 2017)

In addition to the safety/accident prevention requirements of FAR 52.236-13, Accident Prevention Alternate I, the contractor shall comply with the following additional safety measures.

(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) below), 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 parts 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).

(End of clause)

652.242-73 AUTHORIZATION AND PERFORMANCE (AUG 1999)

(a) The Contractor warrants the following:

(1) That is has obtained authorization to operate and do business in the country or countries in which this contract will be performed;

(2) That is has obtained all necessary licenses and permits required to perform this contract; and,

(3) That it shall comply fully with all laws, decrees, labor standards, and regulations of said country or countries during the performance of this contract.

(b) If the party actually performing the work will be a subcontractor or joint venture partner, then such subcontractor or joint venture partner agrees to the requirements of paragraph (a) of this clause.

(End of clause)

652.243-70 NOTICES (AUG 1999)

Any notice or request relating to this contract given by either party to the other shall be in writing. Said notice or request shall be mailed or delivered by hand to the other party at the address provided in the schedule of the contract. All modifications to the contract must be made in writing by the Contracting Officer.

(End of clause)

## **I. LIST OF ATTACHMENTS**

ATTACHMENT NUMBER	DESCRIPTION OF ATTACHMENT	NUMBER OF PAGES
Attachment 1	Breakdown of Price by Divisions of Specifications	1
Attachment 2	Specifications	1
Attachment 3	Drawings	1
Attachment4	Evaluation form	1

## **J. QUOTATION INFORMATION**

The Offeror shall include Defense Base Act (DBA) insurance premium costs covering employees. The offeror may obtain DBA insurance directly from any Department of Labor approved providers at the DOL website at <http://www.dol.gov/owcp/dlhwc/lscarrier.htm>

### **1. QUALIFICATIONS OF OFFERORS**

Offerors/quoters must be technically qualified and financially responsible to perform the work described in this solicitation. At a minimum, each Offeror/Quoter must meet the following requirements:

- (1) Be able to understand written and spoken English;
- (2) Have an established business with a permanent address and telephone listing;
- (3) Be able to demonstrate prior construction experience with suitable references;
- (4) Have the necessary personnel, equipment and financial resources available to perform the work;
- (5) Have all licenses and permits required by local law;
- (6) Meet all local insurance requirements;
- (7) Have the ability to obtain or to post adequate performance security, such as bonds, irrevocable letters of credit or guarantees issued by a reputable financial institution;
- (8) Have no adverse criminal record; and
- (9) Have no political or business affiliation which could be considered contrary to the interests of the United States.

## 2. SUBMISSION OF QUOTATIONS

This solicitation is for the performance of the construction services described in SCOPE OF WORK, and the Attachments which are a part of this request for quotation.

Each quotation must consist of the following:		
VOLUME	TITLE	NUMBER OF COPIES*
I	Standard Form 18 including a completed Attachment 4, "BREAKDOWN OF PROPOSAL PRICE BY DIVISIONS OF SPECIFICATIONS	1
II	Performance schedule in the form of a "bar chart" and Business Management/Technical Proposal	1



Submit the complete quotation to the address indicated. If mailed, on Standard Form 18, or if hand-delivered, use the address set forth below:

Contracting Officer
American Embassy Abidjan
P.O Box 710 ABIDJAN CIDEX 03
Abidjan, Cote d'Ivoire

The Offeror/Quoter shall identify and explain/justify any deviations, exceptions, or conditional assumptions taken with respect to any of the instructions or requirements of this request for quotation in the appropriate volume of the offer.

Volume II: Performance schedule and Business Management/Technical Proposal.

(a) Present the performance schedule in the form of a "bar chart" indicating when the various portions of the work will be commenced and completed within the required schedule. This bar chart shall be in sufficient detail to clearly show each segregable portion of work and its planned commencement and completion date.

(b) The Business Management/Technical Proposal shall be in two parts, including the following information:

Proposed Work Information - Provide the following:

- (1) A list of the names, addresses and telephone numbers of the owners, partners, and principal officers of the Offeror;
- (2) The name and address of the Offeror's field superintendent for this project;
- (3) A list of the names, addresses, and telephone numbers of subcontractors and principal materials suppliers to be used on the project, indicating what portions of the work will be performed by them; and,

Experience and Past Performance - List all contracts and subcontracts your company has held over the past three years for the same or similar work. Provide the following information for each contract and subcontract:

- (1) Customer's name, address, and telephone numbers of customer's lead contract and technical personnel;
- (2) Contract number and type;
- (3) Date of the contract award place(s) of performance, and completion dates; Contract dollar value;
- (4) Brief description of the work, including responsibilities; and
- (5) Any litigation currently in process or occurring within last 5 years.

3. 52.236-27 SITE VISIT (CONSTRUCTION) (FEB 1995)

(a) The clauses at 52.236-2, Differing Site Conditions, and 52.236-3, Site Investigations and Conditions Affecting the Work, will be included in any contract awarded as a result of this solicitation. Accordingly, offerors or quoters are urged and expected to inspect the site where the work will be performed.

(b) A site visit has been scheduled as communicated through the procurement office.

(c) Participants will meet at **US Embassy in Abidjan Cocody**.

4. MAGNITUDE OF CONSTRUCTION PROJECT

It is anticipated that the range in price of this contract will be within reasonable cost.

5. LATE QUOTATIONS. Late quotations shall be handled in accordance with FAR.

6. 52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates the following provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer.

Also, the full text of a solicitation provision may be accessed electronically at: <http://acquisition.gov/far/index.html>/ or <http://farsite.hill.af.mil/vffara.htm>. Please note these addresses are subject to change.

If the Federal Acquisition Regulation (FAR) is not available at the locations indicated above, use the Department of State Acquisition website at <http://www.statebuy.state.gov> to access the link to the FAR, or use of an Internet "search engine" (for example, Google, Yahoo or Excite) is suggested to obtain the latest location of the most current FAR.

The following Federal Acquisition Regulation provisions are incorporated by reference (48 CFR CH. 1):

<u>PROVISION</u>	<u>TITLE AND DATE</u>
52.204-7	SYSTEM FOR AWARD MANAGEMENT (OCT 2016)
52.204-16	COMMERCIAL AND GOVERNMENT ENTITY CODE REPORTING (JUL 2016)
52.214-34	SUBMISSION OF OFFERS IN THE ENGLISH LANGUAGE (APR 1991)
52.215-1	INSTRUCTIONS TO OFFERORS--COMPETITIVE ACQUISITION (JAN 2004)

## **K. EVALUATION CRITERIA**

Award will be made to the lowest priced, acceptable, responsible quoter. The Government reserves the right to reject quotations that are unreasonably low or high in price.

Through the accompanying technical report, the contractor shall demonstrate the following:

- Full understanding of the scope of work through the proposal. The vendor must indicate clearly how he/she intends to overcome challenges including but not limited to: weather, local regulations, material handling and movement, environmental friendliness, traffic, minimum interruption to embassy operations.
- Capacity to deliver the required services
- Human resource capacity
- Equipment/Tools
- Technical Capacity
- Must be a Mechanical works specialist with at least 3 satisfactorily complete, recent jobs within the last three years. Contacts of satisfied customers' point of contact are required.
- Methodology is compliant to the site
- Sound sequence of operations fitted within a realistic period
- Clear quality control plan and operationally feasible schedule favorable to embassy operations
- Reliable measurement methods
- Provision of reasonable/fair warranty terms which are expressly communicated.
- National Construction Authority (NCA) registered road work contractor.

**L. REPRESENTATIONS, CERTIFICATIONS AND  
OTHER STATEMENTS OF OFFERORS OR QUOTERS**

**L.1 52.204-3 TAXPAYER IDENTIFICATION (OCT 1998)**

(a) Definitions.

"Common parent", as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

"Taxpayer Identification Number (TIN)", as used in this provision, means the number required by the IRS to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(b) All offerors must submit the information required in paragraphs (d) through (f) of this provision in order to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325 (d), reporting requirements of 26 USC 6041, 6041A, and 6050M and implementing regulations issued by the Internal Revenue Service (IRS). If the resulting contract is subject to the reporting requirements described in FAR 4.904, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments

(c) otherwise due under the contract.

(d) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 USC 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(e) Taxpayer Identification Number (TIN).

TIN: \_\_\_\_\_

☐ TIN has been applied for.

☐ TIN is not required because:

☐ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the U.S. and does not have an office or place of business or a fiscal paying agent in the U.S.;

☐ Offeror is an agency or instrumentality of a foreign government;

☐ Offeror is an agency or instrumentality of the Federal Government.

(e) Type of Organization.

☐ Sole Proprietorship;

☐ Partnership;

☐ Corporate Entity (not tax exempt);

☐ Corporate Entity (tax exempt);

- ☐ Government Entity (Federal, State or local);
- ☐ Foreign Government;
- ☐ International organization per 26 CFR 1.6049-4;
- ☐ Other \_\_\_\_\_.

(f) Common Parent.

- ☐ Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this clause.
- ☐ Name and TIN of common parent:  
Name \_\_\_\_\_  
TIN \_\_\_\_\_

(End of provision)

## L.2 52.204-8 ANNUAL REPRESENTATIONS AND CERTIFICATIONS. (JAN 2018)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 236118, 236220, 237110, 237310, and 237990.

(2) The small business size standard is \$36.5M.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b)(1) If the provision at [52.204-7](#), System for Award Management, is included in this solicitation, paragraph (d) of this provision applies.

(2) If the provision at [52.204-7](#) is not included in this solicitation, and the offeror is currently registered in the System for Award Management (SAM), and has completed the Representations and Certifications section of SAM electronically, the offeror may choose to use paragraph (d) of this provision instead of completing the corresponding individual representations and certifications in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:

- ☐ (i) Paragraph (d) applies.
- ☐ (ii) Paragraph (d) does not apply and the offeror has completed the individual representations and certifications in the solicitation.

(c)(1) The following representations or certifications in SAM are applicable to this solicitation as indicated:

(i) [52.203-2](#), Certificate of Independent Price Determination. This provision applies to solicitations when a firm-fixed-price contract or fixed-price contract with economic price adjustment is contemplated, unless—

(A) The acquisition is to be made under the simplified acquisition procedures in [Part 13](#);

(B) The solicitation is a request for technical proposals under two-step sealed bidding procedures; or

(C) The solicitation is for utility services for which rates are set by law or regulation.

(ii) [52.203-11](#), Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions. This provision applies to solicitations expected to exceed \$250,000.

(iii) [52.203-18](#), Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements or Statements-Representation. This provision applies to all solicitations.

(iv) [52.204-3](#), Taxpayer Identification. This provision applies to solicitations that do not include the provision at [52.204-7](#), System for Award Management.

(v) [52.204-5](#), Women-Owned Business (Other Than Small Business). This provision applies to solicitations that—

(A) Are not set aside for small business concerns;

(B) Exceed the simplified acquisition threshold; and

(C) Are for contracts that will be performed in the United States or its outlying areas.

(vi) [52.209-2](#), Prohibition on Contracting with Inverted Domestic Corporations—Representation.

(vii) [52.209-5](#), Certification Regarding Responsibility Matters. This provision applies to solicitations where the contract value is expected to exceed the simplified acquisition threshold.

(viii) [52.209-11](#), Representation by Corporations Regarding Delinquent Tax Liability or a Felony Conviction under any Federal Law. This provision applies to all solicitations.

(ix) [52.214-14](#), Place of Performance—Sealed Bidding. This provision applies to invitations for bids except those in which the place of performance is specified by the Government.

(x) [52.215-6](#), Place of Performance. This provision applies to solicitations unless the place of performance is specified by the Government.

(xi) [52.219-1](#), Small Business Program Representations (Basic & Alternate I). This provision applies to solicitations when the contract will be performed in the United States or its outlying areas.

(A) The basic provision applies when the solicitations are issued by other than DoD, NASA, and the Coast Guard.

(B) The provision with its Alternate I applies to solicitations issued by DoD, NASA, or the Coast Guard.

(xii) [52.219-2](#), Equal Low Bids. This provision applies to solicitations when contracting by sealed bidding and the contract will be performed in the United States or its outlying areas.

(xiii) [52.222-22](#), Previous Contracts and Compliance Reports. This provision applies to solicitations that include the clause at [52.222-26](#), Equal Opportunity.



(xiv) [52.222-25](#), Affirmative Action Compliance. This provision applies to solicitations, other than those for construction, when the solicitation includes the clause at [52.222-26](#), Equal Opportunity.

(xv) [52.222-38](#), Compliance with Veterans' Employment Reporting Requirements. This provision applies to solicitations when it is anticipated the contract award will exceed the simplified acquisition threshold and the contract is not for acquisition of commercial items.

(xvi) [52.223-1](#), Biobased Product Certification. This provision applies to solicitations that require the delivery or specify the use of USDA–designated items; or include the clause at [52.223-2](#), Affirmative Procurement of Biobased Products Under Service and Construction Contracts.

(xvii) [52.223-4](#), Recovered Material Certification. This provision applies to solicitations that are for, or specify the use of, EPA–designated items.

(xviii) [52.223-22](#), Public Disclosure of Greenhouse Gas Emissions and Reduction Goals–Representation. This provision applies to solicitation that include the clause at [52.204-7](#).

(xix) [52.225-2](#), Buy American Certificate. This provision applies to solicitations containing the clause at [52.225-1](#).

(xx) [52.225-4](#), Buy American—Free Trade Agreements—Israeli Trade Act Certificate. (Basic, Alternates I, II, and III.) This provision applies to solicitations containing the clause at [52.225-3](#).

(A) If the acquisition value is less than \$25,000, the basic provision applies.

(B) If the acquisition value is \$25,000 or more but is less than \$50,000, the provision with its Alternate I applies.

(C) If the acquisition value is \$50,000 or more but is less than \$80,317, the provision with its Alternate II applies.

(D) If the acquisition value is \$80,317 or more but is less than \$100,000, the provision with its Alternate III applies.

(xxi) [52.225-6](#), Trade Agreements Certificate. This provision applies to solicitations containing the clause at [52.225-5](#).

(xxii) [52.225-20](#), Prohibition on Conducting Restricted Business Operations in Sudan—Certification. This provision applies to all solicitations.

(xxiii) [52.225-25](#), Prohibition on Contracting with Entities Engaging in Certain Activities or Transactions Relating to Iran-Representation and Certifications. This provision applies to all solicitations.

(xxiv) [52.226-2](#), Historically Black College or University and Minority Institution Representation. This provision applies to solicitations for research, studies, supplies, or services of the type normally acquired from higher educational institutions.

(2) The following representations or certifications are applicable as indicated by the Contracting Officer:

[

- \_\_\_ (i) [52.204-17](#), Ownership or Control of Offeror.
- \_\_\_ (ii) [52.204-20](#), Predecessor of Offeror.
- \_\_\_ (iii) [52.222-18](#), Certification Regarding Knowledge of Child Labor for Listed End Products.
- \_\_\_ (iv) [52.222-48](#), Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment- Certification.
- \_\_\_ (v) [52.222-52](#), Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services-Certification.
- \_\_\_ (vi) [52.223-9](#), with its Alternate I, Estimate of Percentage of Recovered Material Content for EPA–Designated Products (Alternate I only).
- \_\_\_ (vii) [52.227-6](#), Royalty Information.
- \_\_\_ (A) Basic.
- \_\_\_ (B) Alternate I.
- \_\_\_ (viii) [52.227-15](#), Representation of Limited Rights Data and Restricted Computer Software.

(d) The offeror has completed the annual representations and certifications electronically via the SAM website accessed through <https://www.acquisition.gov>. After reviewing the SAM database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically that apply to this solicitation as indicated in paragraph (c) of this provision have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR [4.1201](#)); except for the changes identified below [offeror to insert changes, identifying change by clause number, title, date]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR CLAUSE # TITLE DATE CHANGE

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Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on SAM.

(End of provision)

### L.3. [52.225-18](#) PLACE OF MANUFACTURE (SEPT 2006)

(a) *Definitions.* As used in this clause—

“Manufactured end product” means any end product in Federal Supply Classes (FSC) 1000-9999, except—

- (1) FSC 5510, Lumber and Related Basic Wood Materials;

- (2) Federal Supply Group (FSG) 87, Agricultural Supplies;
- (3) FSG 88, Live Animals;
- (4) FSG 89, Food and Related Consumables;
- (5) FSC 9410, Crude Grades of Plant Materials;
- (6) FSC 9430, Miscellaneous Crude Animal Products, Inedible;
- (7) FSC 9440, Miscellaneous Crude Agricultural and Forestry Products;
- (8) FSC 9610, Ores;
- (9) FSC 9620, Minerals, Natural and Synthetic; and
- (10) FSC 9630, Additive Metal Materials.

“Place of manufacture” means the place where an end product is assembled out of components, or otherwise made or processed from raw materials into the finished product that is to be provided to the Government. If a product is disassembled and reassembled, the place of reassembly is not the place of manufacture.

(b) For statistical purposes only, the offeror shall indicate whether the place of manufacture of the end products it expects to provide in response to this solicitation is predominantly—

- (1) ☐ In the United States (Check this box if the total anticipated price of offered end products manufactured in the United States exceeds the total anticipated price of offered end products manufactured outside the United States); or
- (2) ☐ Outside the United States.

(End of provision)

#### L.4 AUTHORIZED CONTRACTOR ADMINISTRATOR

If the offeror does not fill-in the blanks below, the official who signed the offer will be deemed to be the offeror's representative for Contract Administration, which includes all matters pertaining to payments.

Name:
Telephone Number:
Address:

#### L.5 52.225-20 PROHIBITION ON CONDUCTING RESTRICTED BUSINESS OPERATIONS IN SUDAN – CERTIFICATION (AUG 2009)

(a) *Definitions.* As used in this provision—

“Business operations” means engaging in commerce in any form, including by acquiring, developing, maintaining, owning, selling, possessing, leasing, or operating equipment, facilities,

personnel, products, services, personal property, real property, or any other apparatus of business or commerce.

“Marginalized populations of Sudan” means—

(1) Adversely affected groups in regions authorized to receive assistance under section 8(c) of the Darfur Peace and Accountability Act (Pub. L. 109-344) ([50 U.S.C. 1701 note](#)); and

(2) Marginalized areas in Northern Sudan described in section 4(9) of such Act.

“Restricted business operations” means business operations in Sudan that include power production activities, mineral extraction activities, oil-related activities, or the production of military equipment, as those terms are defined in the Sudan Accountability and Divestment Act of 2007 (Pub. L. 110-174). Restricted business operations do not include business operations that the person conducting the business can demonstrate—

(1) Are conducted under contract directly and exclusively with the regional government of southern Sudan;

(2) Are conducted pursuant to specific authorization from the Office of Foreign Assets Control in the Department of the Treasury, or are expressly exempted under Federal law from the requirement to be conducted under such authorization;

(3) Consist of providing goods or services to marginalized populations of Sudan;

(4) Consist of providing goods or services to an internationally recognized peacekeeping force or humanitarian organization;

(5) Consist of providing goods or services that are used only to promote health or education; or

(6) Have been voluntarily suspended.

(b) *Certification.* By submission of its offer, the offeror certifies that it does not conduct any restricted business operations in Sudan.

(End of provision)

#### L.6. 52.209-2 PROHIBITION ON CONTRACTING WITH INVERTED DOMESTIC CORPORATIONS REPRESENTATION (NOV 2015)

(a) Definitions. “Inverted domestic corporation” and “subsidiary” have the meaning given in the clause of this contract entitled Prohibition on Contracting with Inverted Domestic Corporations ([52.209-10](#)).

(b) Government agencies are not permitted to use appropriated (or otherwise made available) funds for contracts with either an inverted domestic corporation, or a subsidiary of an inverted domestic corporation, unless the exception at [9.108-2\(b\)](#) applies or the requirement is waived in accordance with the procedures at [9.108-4](#).

(c) Representation. The Offeror represents that.

(1) It ☐ is, ☐ is not an inverted domestic corporation; and

(2) It ☐ is, ☐ is not a subsidiary of an inverted domestic corporation.

(End of provision)

ATTACHMENT #1

STANDARD FROM 25, "PERFORMANCE AND GUARANTY BOND"

ATTACHMENT #2 STANDARD FORM 25A, "PAYMENT BOND"



ATTACHMENT #3 - SAMPLE LETTER OF BANK GUARANTY

Place [       ]  
Date [       ]

Contracting Officer  
U.S. Embassy, **Nairobi**  
**P.O BOX 606, 00621**  
**Nairobi**

Letter of Guaranty No. \_\_\_\_\_  
SUBJECT: Performance and Guaranty

The Undersigned, acting as the duly authorized representative of the bank, declares that the bank hereby guarantees to make payment to the Contracting Officer by check made payable to the Treasurer of the United States, immediately upon notice, after receipt of a simple written request from the Contracting Officer, immediately and entirely without any need for the Contracting Officer to protest or take any legal action or obtain the prior consent of the Contractor to show any other proof, action, or decision by an other authority, up to the sum of **[amount equal to 20% of the contract price in U.S. dollars during the period ending with the date of final acceptance and 10% of the contract price during contract guaranty period]**, which represents the deposit required of the Contractor to guarantee fulfillment of his obligations for the satisfactory, complete, and timely performance of the said contract **[contract number]** for **[description of work]** at **[location of work]** in strict compliance with the terms, conditions and specifications of said contract, entered into between the Government and **[name of contractor]** of **[address of contractor]** on **[contract date]**, plus legal charges of 10% per annum on the amount called due, calculated on the sixth day following receipt of the Contracting Officer's written request until the date of payment.

The undersigned agrees and consents that said contract may be modified by Change Order or Supplemental Agreement affecting the validity of the guaranty provided, however, that the amount of this guaranty shall remain unchanged.

The undersigned agrees and consents that the Contracting Officer may make repeated partial demands on the guaranty up to the total amount of this guaranty, and the bank will promptly honor each individual demand.

This letter of guaranty shall remain in effect until 3 months after completion of the guaranty period of Contract requirement.

Depository	<u>                    </u>	<b>[name]</b>	<u>                    </u>
Institution:	<u>                    </u>		<u>                    </u>
Address:	<u>                    </u>		<u>                    </u>
Representatives:	<u>                    </u>	Location:	<u>                    </u>
	<u>                    </u>	State of Inc.:	<u>                    </u>
	<u>                    </u>	Corporate Seal:	<u>                    </u>
	<u>                    </u>		<u>                    </u>

Certificate of Authority is attached evidencing authority of the signer to bind the bank to this

document.

ATTACHMENT #4 - UNITED STATES DEPARTMENT OF STATE

BREAKDOWN OF PRICE BY DIVISIONS OF SPECIFICATIONS

#	Descriptions	Units	Quantity
1	<b>Mobilization/Demobilization/Design interpretation:</b> The contractor shall safely secure the work area, provide all hounding, shoring, scaffolding, Protective gear and all associated materials to prepare safe working space. Upon completion of the project, allow for site demobilization, clean up, restoration of the landscape to blend with the existing ecosystem. Allow for architectural and engineering expert service dedicated to accurate interpretation of the client provided drawings and design concept to enhance effecting technical communication across the stakeholders. The vendor shall obtain all required permits from the relevant authorities for compliance.	Lump sum	1
2	Allowance for landscaping planning and services around entire perimeter of Pool Deck, assuming pool deck is 10cm above adjacent grade at closest point	Lump Sum	1
3	<b>Excavation and cart away:</b> Prepare site, provide labor, required equipment and undertake ground excavation on the space prior to swimming pool, pool pump room, cabanas and septic system construction. This shall be done in a systematic manner in with all factors put into considerations including but not limited to: Engineering design, Underground features, weather, project schedule, site operations convenience. <b>See drawings:</b>	M cubic	800
4	<b>Swimming Pool Construction:</b> Provide materials, labor, equipment and undertake construction of the swimming pool putting into consideration the attached drawings. This shall include decking, drainage channels, drain sump, reinforced concrete pool shell with all waterproofing treatments and reinforcement details as per SOW, tiling as per client's tiles selection,	Lump sum	1
5	<b>Pool features and finishes:</b> Provide materials, labor, equipment and undertake installation of all swimming pool features, putting into consideration of the attached drawings. This shall include but not limited to: Pool coping, skimmers, depth markings, water jets, pool ladders (s/steel), stair handrail, pool lights, gratings, drain ports, inspection manholes, stairs, <b>See drawings:</b>	Lump sum	1
6	<b>Pool pump room /plumbing:</b> Provide materials, labor, equipment and undertake construction of all	Lump sum	1

	plumbing and pump room, putting into to consideration the provided drawings. This shall include but not limited to: Supply and return lines in schedule 80 PVC, skimmers connection in schedule 80 PVC, sand filter housing complete with control valve and sand media, pumps as per the specifications, power connections, power panels and control panels. <b>See drawings:</b>		
7	<b>Pool heating:</b> Provide materials, labor, equipment and undertake pool heaters installation with the capacity to heat and maintain the pool water (150 cubic meter) to temperature between 26 deg C to 28Deg C, sized to Nairobi ambient condition (consider temperature profile for the entire year). The pool heater shall be powered using 415V/50hz three phase heat pump rated at 140000BTU heater. Allow for thermal blanket for heat conservation. <b>See drawings:</b>	Lump sum	1
8	<b>Swimming Pool fencing and other safety features:</b> In line with the SHEM pool safety policy, install a fence around the swimming pool, complete with children anti-tamper gates, signages. Allow for swimming pool safety equipment including but not limited to: Shepherd hooks, Buoy, cleaning equipment (brushes, vacuum lines, ) . See features in appendix 10 (checklist)		
9	Provide line item allowance for exterior lighting, photo sensing auto on/off for safety, security, and ambience lighting of pool deck	Lump sum	10 min.
10	<b>Pool and cabanas testing and commissioning:</b> Allow for testing and commissioning of the entire system including swimming pool, pumping station, toilets system, lighting. The pool shall be handed full of water at the appropriate chemical condition (heated to 28 Dec C, Free Chlorine at 4 ppm, PH at 7-8, clear water, Algae free. Allow for provision of the following requirements based upon OSHA standard CFR 1910.151.c: Start up chemicals, materials, buoy, shepherd hooks, pool surface scrubbing brushes.	Lump sum	1
	<b>Consider ADA features</b>		

TOTAL: \_\_\_\_\_

**KSHS**

Allowance Items:

PROPOSAL PRICE: \_\_\_\_\_

TOTAL: **KShs**

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Alternates (list separately; do not total):

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*Offeror:* \_\_\_\_\_ *Date* \_\_\_\_\_

PRICE BREAKDOWN BY DIVISION OF SPECIFICATION ITEMS

## **M. APPENDICES**


**Appendix 1: Swimming pool plans and details (see document attached)**



## **Appendix 2: Swimming pools technical files (see document attached)**

### **Appendix 3: Swimming Pools Characteristic/Design Data (see document attached)**

# Appendix 4: standard evalaution form.

 <b>PERFORMANCE EVALUATION CONSTRUCTION</b>		<b>Contract No</b>  SKE	
<b>PART I – GENERAL CONTRACT DATA</b>			
<b>3. TYPE OF EVALUATION</b> <input type="checkbox"/> INTERIM (List percentage _____%) <input checked="" type="checkbox"/> Final <input type="checkbox"/> Amended			<b>4. TERMINATED FOR DEFAULT</b>  <input type="checkbox"/>
<b>5. CONTRACTOR</b> (Name, Address, and ZIP Code)		<b>6.a. PROCUREMENT METHOD</b> <input type="checkbox"/> SEALED BID <input type="checkbox"/> NEGOTIATED	
		<b>b. TYPE OF CONTRACT</b> <input checked="" type="checkbox"/> Firm fixed price <input type="checkbox"/> Cost Reimbursement <input type="checkbox"/> OTHER ( <i>Specify</i> )	
<b>7. DESCRIPTION AND LOCATION OF WORK</b> ( <i>hit enter to wrap text</i> )			
<b>8. TYPE AND PERCENT OF SUBCONTRACTING</b> Direct contractor <input checked="" type="checkbox"/> Sub- contractor <input type="checkbox"/> If sub-contracted (what %) .....			
<b>9. FISCAL DATA KES</b>	a. AMOUNT OF BASIC CONTRACT	b. TOTAL AMOUNT OF MODIFICATIONS \$	c. LIQUIDATED DAMAGES ASSESSED \$
			d. NET AMOUNT PAID CONTRACTOR <b>KES</b>
<b>10. SIGNIFICANT DATES</b>	a. DATE OF AWARD	b. ORIGINAL CONTRACT COMPLETION DATE	c. REVISED CONTRACT COMPLETION DATE
			d. DATE WORK ACCEPTED
<b>PART II – PERFORMANCE EVALUATION OF CONTRACTOR</b>			
<b>11. OVERALL RATING</b> <input type="checkbox"/> OUTSTANDING <input type="checkbox"/> ABOVE AVERAGE <input type="checkbox"/> SATISFACTORY <input type="checkbox"/> MARGINAL <input type="checkbox"/> UNSATISFACTORY ( <i>Explain in block</i> )			
<b>12. EVALUATED BY</b>			
a. ORGANIZATION [ <i>Name and Address (include ZIP Code)</i> ] US EMBASSY – FACILITIES MANAGEMENT US Embassy, Nairobi		b. TELEPHONE NUMBER ( <i>include Area Code</i> ) +254 020 3636074	
c. NAME AND TITLE		d. SIGNATURE	e. DATE
<b>13. EVALUATION REVIEWED BY</b>			
a. ORGANIZATION [ <i>Name and Address (include ZIP Code)</i> ] US EMBASSY – FACILITIES MANAGEMENT US Embassy, Nairobi		b. TELEPHONE NUMBER ( <i>include Area Code</i> )	
c. NAME AND TITLE		d. SIGNATURE	e. DATE

PART III – EVALUATION OF PERFORMANCE ELEMENTS													
N/A = NOT APPLICABLE O = OUTSTANDING A = ABOVE AVERAGE S = SATISFACTORY M = MARGINAL U = UNSATISFACTORY													
14. QUALITY CONTROL	N/A	O	A	S	M	U	15. EFFECTIVENESS OF MANAGEMENT	N/A	O	A	S	M	U
a. Quality of Workmanship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a. Cooperation & Responsiveness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Adequacy of CQC Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b. Management of Resources/Personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. CQC Implementation Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c. Coordination & Control of Subs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Quality of QC Documentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	d. Adequacy of Site Clean-up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Storage of Materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	e. Effectiveness of Job-Site Supervision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Adequacy of Materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	f. Compliance w/Laws & Regulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Adequacy of Submittals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	g. Professional Conduct	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Storage of Testing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	h. Review/Resolution of Subcontractors Issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Storage of As-Built	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	i. Implementation of Subcontracting Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Use of Specified Materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17. COMPLAINTS WITH LABOR STANDARDS						
k. Identification/Correction of Deficient Work in a Timely Manner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a. Correction of Noted Deficiencies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. TIMELY PERFORMANCE							b. Payrolls Properly Completed & Submitted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. Adequacy of Initial Progress Schedule	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c. Compliance w/Labor Laws and Regulations with Specify Attention to the Davis-Bacon Act and EEO Requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Adherence to Approved Schedule	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18. COMPLIANCE WITH SAFETY STANDARDS						
c. Resolution of Delays	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a. Adequacy of Safety Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Submission of required Documentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b. Implementation of Safety Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Completion of Punchlist Items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c. Correction of Noted Deficiencies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Submission of Updated and Revised Progress Schedules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Warranty Response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>