BOQ

Item	Description of item	Unit	Rate
1	**Surface preparation** : removing the debris and cleaning the concrete surface shall before going for a first pond test.in client or contractor scope*__Civil Contractor scope__		*
2	**Treating the Cracks :** Chase opening the crack by providing " V " groove, removing the dust and clean the designated area and fill the prepared surface using Renderoc CS completely as per the manufacturer's Instruction,		
3	**Treating the Construction Joints** : Chase opening the Construction Joints by providing " V " groove, removing the dust and clean the designated area following by providing chemical injection treatment in the form of pressure grouting to the cold joint by injecting cement slurry mixed with grout admixture **Cebex 100** @ 225 gms.per bag of cement, in the required consistency through the pre fixed PVC nozzles in the 18 mm dia holes, fixing of PVC nozzles with **Renderoc Plug** and final cutting the projected nozzles and sealing off the PVC nozzles after the injection operation is over with Renderoc plug, nonshrink rapid setting mortar compound, finishing, curing etc. as per manufacturers specification and as directed.	**rmt**	
4	**Coving**: Providing and Appling at the junction of slab and vertical offsets with Cement Mortar 1:4 and admixed with **Conplast WL** at dosage of 125ml per bag of Cement at a size of 75 mm x 75 mm.	**rmt**	
5	**Bore Packing:** Preparing the inside surface of core and PVC by roughening using suitable file to get better adhesion prior to packing works. Cleaning the surface by wire brushing followed water jet to remove any laitance or loose flaky particles. Providing necessary formwork for packing the bore using suitable arrangement (depending upon site conditions). Applying a coat of styrene- butadiene based polymer coating using **Nitobond SBR** to enhance adhesion between the packing material and other surfaces. Packing the gap using non-shrink cement polymer based grout using **Conbextra GPi** upto the surface of the bore whilst the **Nitobond SBR** is in tacky state. The above analysis is based on assumption for 150mm diameter core with 110mm diameter PVC for 5" thick slab only. Typical Properties Compressive strength at 28day as per BS 1881 45N/$mm^{2,}$ completely as per the manufacturer's Instruction.	**Per no**	
6	**Internal side Base floor and wall using NITOCOTE CM 210 at 2mm thickness.**	**sqm**	*
6.1	**Surface Preparation**: Surface shall be grained manual to ensure free from frost, surface laitance and contamination free from loose aggregate or other sharp protrusions with fairly smooth finish for application of waterproof coating.		
6.2	**Priming surface**: shall be primed with water and wet the surfaces prior to coating any excess water collection shall be removed using sponge ensure for better bonding**.**		

"	**System**: Providing and applying two coats forms 2.0mm thickness, the waterproofing coating shall be **Nitocote CM210**, an elastomeric cementations coating. System shall consist of two-component polymer modified cementations coating is supplied in pre-packaged form. The product is designed to be easily mixed on site using a slow speed drill fitted with a mixing paddle and then applied to the substrate using a trowel for best results. Nitocote CM210, available in grey and white, cures to form an elastomeric impermeable membrane. Has an approved under the UK WBS (WRc Listed) Scheme No. 0510522. The cured coating, after immersion, shall be capable of withstanding cracked substrate cyclic movement from 0 - 300 - 0 microns at 15°C for 6,000 cycles without failure. It shall have the capability to resist a positive water pressure of 5 bar and a negative water pressure of 3 bar when tested to European standard CEN/TC 67-67072:2003 part A-7.complete as per manufacturer's specification, approved Drawings, as specified and as directed by Engineer, at all levels		
7	**Provide mechanical key:** Sand shall be manually broadcast over the second coat immediately to ensure the protective layer shall be bonded to waterproofed coating layer.		
8	**Protection Layer(Horizontal)** : Providing and laying min 50mm thick screed concrete of M20 grade mixed with approved water proofing compound like **Conplast WL**(Integral waterproofing compound confirming to IS 2645) over the coated surface including preparation of surface, finishing, curing etc., all complete as per manufacture's specifications and instruction and as directed**.** ****Civil Contractor scope***	**Sqm**	*
9	**Protective Layer (Vertical) :** Providing and applying plastering with CM 1:4 mixed with ***Conplast WL*** at the dosage of 125ml/bag of cement over waterproofing system to a minimum thickness of 12mm as per site requirement. ****Civil Contractor scope***	**Sqm**	*
10	**Surface preparation** : Surfaces Nitotile GPX can be applied directly on concrete, cement screeds, and cement or lime mortar. Special attention must be given to new construction prior to commencing tiling. Tiles should not be placed on concrete or brickwork until all shrinkage movement has taken place. **System-:** Providing and Applying Polymer modified tile adhesive a Nitotile GPX shall be mixed with clear potable water in the ratio 3:1 by weight (3 part powder : 1 part water). A slow speed drill fitted with a mixing paddle is recommended for mixing. Add powder to water and mix until a uniform, lump free consistency is achieved. The total quantitiy of water may be slightly adjusted to achieve the required consistency. Application of Nitotile GPX should be spread on the substrate to a uniform thickness of 3mm, and then combed horizontally with a serrated trowel. Place tiles firmly into adhesive bed, ensuring good contact with a twisting motion. Only apply to areas which can be tiled in the adhesive's open wet time (up to 1m2 at a time). Nitotile GPX conforms to BS 5980 Class AA Type 1 and suitability for contact with potable water as per BS 6920 Part 1. Supply mixing and Application shall be as per manufacturer's Current data sheet.	**Sqm**	
11	**Surface Preparation** All tiles must be securely fixed in place and thoroughly cleaned before Nitotile Grout is applied. The gap between tiles should not exceed 4mm. Tile joint filling should only be done 24 hours after fixing the tiles and the depth of 5mm. **System:** Providing and applying Nitotile Grout a blend of specially selected cements, fillers and synthetic organic polymers. When added to water it readily blends to produce a smooth creamy paste which when set is water and mould resistant. Nitotile Grout is used in conjunction with Nitotile* tile adhesives. Shall have the Compressive strength(ASTM C 109) : 38 N/mm2 @ 28 days Tensile strength (BS 6319: Pt 7): 3 N/mm² @ 28 days Supply mixing and Application shall be as per manufacturer's Current data sheet	**Rmt**	