



**LYCÉE LOUIS  
MASSIGNON**  
ليسيه لوي مسينيون

ÉTABLISSEMENT  
EN GESTION DIRECTE



**aefe**

Agence pour  
l'enseignement français  
à l'étranger

# **RENOVATION OF BLOCK B' FOR FRENCH SCHOOL (LYCEE LOUIS MASSIGNON)**


## **CONCRETE REPAIRS AND STRUCTURAL REINFORCEMENT**

**PLOT (26\_27), SECTOR (E40)  
ABU DHABI ISLAND  
EMIRATE OF ABU DHABI  
UNITED ARAB EMIRATES**

**VOLUME 2**  
**Specification Sheets**

**HP Project No. 1782**

**Revision 1**  
**April 18<sup>th</sup>, 2025**

<b>Lycée Louis Massignon School – Renovation of Block B’</b> <b>Concrete Repairs and Strengthening</b>			 <b>HELAL &amp; PARTNERS</b> ARCHITECTS   ENGINEERS   TOWN PLANNERS	
Plot (26_27), Sector (E-40), Abu Dhabi Island, Emirate of Abu Dhabi (U.A.E.)				
ISSUED BY: <b>NADIM HELAL</b> H&P	APPROVED BY: <b>FADI HELAL</b> H&P	DOCUMENT TITLE: <b>CIVIL / ARCHITECTURAL MATERIAL SCHEDULE</b>	DOCUMENT REF.: HP.1782.MS.CIV.01	REVISION REF.: Rev. 01


Item Reference	CIV.01
Item Name	Cement (OPC/SRC)
Description	Cement provided in sealed bags of 50 kg and conforming with: OPC Cement: BS EN 197-1:2000 CEM-1 Class 42.5N and ASTM C-150 Type I SRC Cement: BS 4207: Class 42.5N and ASTM C-150 Type V
Trade	Civil Works
Specialty	Cement
Unit Rate	N/ A
Quantity	To be evaluated by Contractor
BOQ Reference	N/A

Manufacturer List		
Option 1	Manufacturer	Emirates Cement Factory
	Model	SRC and OPC Cement
	Supplier	Emirates Cement Factory
	Contact	(+971) 3 701 2644
Option 2	Manufacturer	RAK Cement Company
	Model Number	SRC and OPC Cement
	Supplier	RAK Cement Company
	Contact	(+971) 7 266 0111
Option 3	Manufacturer	Al Fujairah Cement Ind.
	Model Number	SRC and OPC Cement
	Supplier	Al Fujairah Cement Ind.
	Contact	(+971) 9 222 3111

Graphic Representation of Material (for reference only as the selected material may differ in shape, dimensions and color)



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Item Reference	CIV.02
Item Name	Aggregate
Description	<p>Material delivered to be of uniform size and shape and to be washed to remove any impurities.</p> <p>Size of aggregate to be approved by the Consultant for each specific works prior to ordering of material and delivery to site.</p>
Trade	Civil Works
Specialty	Aggregate
Unit Rate	N/A
Quantity	To be evaluated by Contractor
BOQ Reference	N/A

Manufacturer List		
Option 1	Manufacturer	-
	Model	Ras Al Khaimah
	Supplier	-
	Contact	-
Option 2	Manufacturer	-
	Model Number	Hatta
	Supplier	-
	Contact	-
Option 3	Manufacturer	-
	Model Number	-
	Supplier	-
	Contact	-

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Item Reference	CIV.03
Item Name	Steel Rebars
Description	Hot rolled reinforcing steel bars manufactured to Grade B500B or Grade 460B (or to any new decree issued from the Department of Municipalities and Transport) and of appropriate diameter as per works requirements. Material to be procured in 12 m long bars and from a certified supplier only.
Trade	Civil Works
Specialty	Steel Rebars
Unit Rate	N/A
Quantity	To be evaluated by Contractor
BOQ Reference	N/A

Manufacturer List		
Option 1	Manufacturer	Emirates Steel
	Model	-
	Supplier	Certified Local Distributors
	Contact	(+971) 2 550 0965
Option 2	Manufacturer	-
	Model Number	-
	Supplier	-
	Contact	-
Option 3	Manufacturer	-
	Model Number	-
	Supplier	-
	Contact	-

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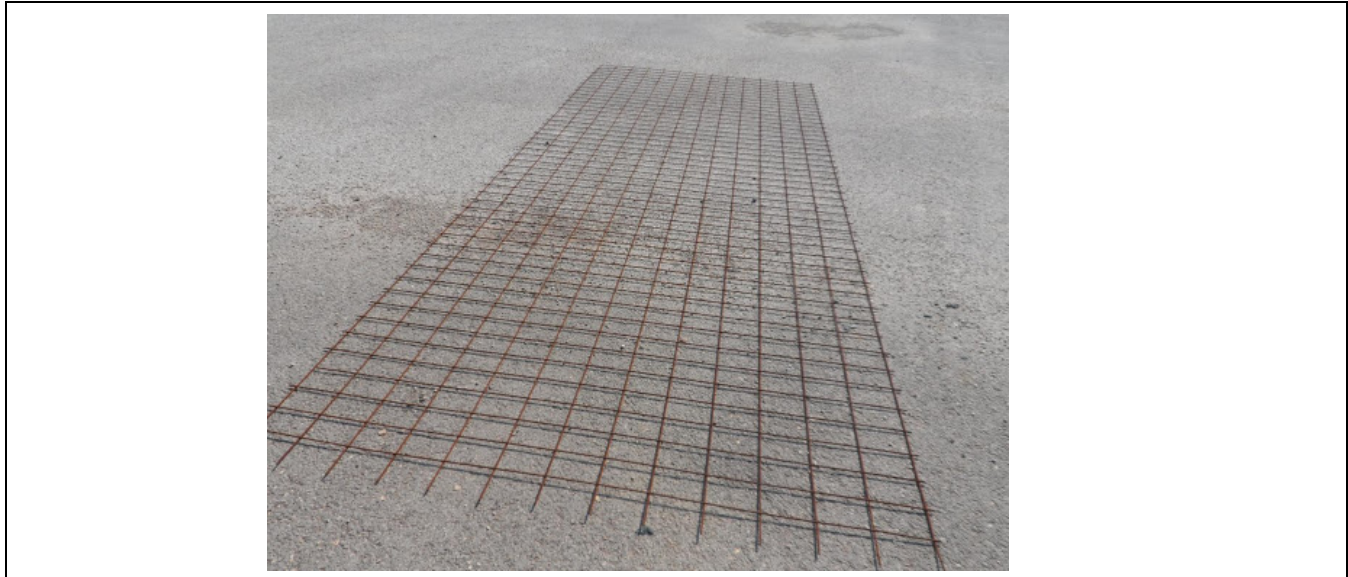
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Item Reference	CIV.04
Item Name	Steel & BRC Mesh
Description	Electric fusion welded prefabricated joined grid consisting of a series of parallel steel rebars.  To meet the requirements of ASTM A185 and A497.
Trade	Civil Works
Specialty	Steel & BRC Mesh
Unit Rate	N/A
Quantity	To be evaluated by Contractor
BOQ Reference	N/A

Manufacturer List		
Option 1	Manufacturer	BRC Arabia L.L.C.
	Model	-
	Supplier	BRC Arabia L.L.C.
	Contact	(+971) 4 451 5533
Option 2	Manufacturer	Cicon Building Materials
	Model Number	-
	Supplier	Cicon Building Materials
	Contact	(+971) 2 641 5444
Option 3	Manufacturer	Emirates Rebar Limited
	Model Number	-
	Supplier	Emirates Rebar Limited
	Contact	(+971) 4 393 1562

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Item Reference	CIV.05
Item Name	Ready-Mix Concrete
Description	Ready-mix concrete produced in factory and transported by truck to location site. Maximum Free Water / Cement ratio to be 0.4. Maximum Aggregate size to be 20 mm. Type of additives and strength of concrete to be approved by the Consultant.
Trade	Civil Works
Specialty	Concrete Mix
Unit Rate	N/ A
Quantity	To be evaluated by Contractor
BOQ Reference	N/A


Manufacturer List		
Option 1	Manufacturer	Readymix Abu Dhabi
	Model	As per mix design
	Supplier	Readymix Abu Dhabi
	Contact	(+971) 2 551 6464
Option 2	Manufacturer	Cemex UAE
	Model Number	As per mix design
	Supplier	Cemex UAE
	Contact	(+971) 2 551 5501
Option 3	Manufacturer	Unibeton Ready Mix
	Model Number	As per mix design
	Supplier	Unibeton Ready Mix
	Contact	(+971) 2 551 5522

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Item Reference	CIV.06
Item Name	Micro Concrete
Description	Cementitious, , one component, non-shrink micro-concrete.  <u>Drying Shrinkage (as per ASTM C157-93)</u> 7 Days: < 300 microstrain 28 Days: < 500 microstrain <u>Permeability (as per DIN 1048 Part 5):</u> < 10 mm <u>Flexural Strength (as per BS 6319 Pt. 3):</u> > 9 N/mm <sup>2</sup> at 28 Days <u>Compressive strength (as per BS EN 12390-3):</u> 3 Days: > 39 N/mm <sup>2</sup> 7 Days: > 45 N/mm <sup>2</sup> 28 Days: > 60 N/mm <sup>2</sup>
Trade	Civil Works
Specialty	Concrete Repair
Unit Rate	N/ A
Quantity	To be evaluated by Contractor
BOQ Reference	N/A

Manufacturer List		
Option 1	Manufacturer	Sika
	Model	Emaco S466
	Supplier	Sika
	Contact	(+971) 2 550 2323
Option 2	Manufacturer	Mapei
	Model Number	Mapegrout ME06
	Supplier	Mapei Das International
	Contact	(+971) 7 266 0111
Option 3	Manufacturer	Fosroc
	Model Number	Renderoc LAXtra
	Supplier	Al Gurg Fosroc Co. L.L.C.
	Contact	(+971) 2 673 1779
Option 4	Manufacturer	Conmix
	Model Number	ReCon MC05
	Supplier	Conmix
	Contact	(+971) 2 557 5681

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Item Reference	CIV.07
Item Name	Patch Repair Material
Description	Single component, medium-weight concrete (hand application) for vertical and overhead repairs to restore “covercrete”. <u>Compressive strength (as per BS 1881 Pt. 116):</u> 40 N/mm <sup>2</sup> at 7 Days 50 N/mm <sup>2</sup> at 28 Days <u>Slant Shear Bond Strength to Concrete (as per BS 6319 Pt.4):</u> 25 N/mm <sup>2</sup> at 28 Days <u>Water Absorption ISAT (as per BS 1881 Pt. 5):</u> 0.18 ml/m <sup>2</sup> /sec at 10 minutes 0.06 ml/m <sup>2</sup> /sec at 120 minutes <u>Setting Times (as per BS 5075):</u> 2-3 hours for Initial Set 4-6 Hours for Final Set
Trade	Civil Works
Specialty	Concrete Repairs
Unit Rate	N/ A
Quantity	To be evaluated by Contractor
BOQ Reference	N/A


Manufacturer List		
Option 1	Manufacturer	Sika
	Model	Emaco S488
	Supplier	Sika
	Contact	(+971) 2 550 2323
Option 2	Manufacturer	Mapei
	Model Number	Mapegrout T80
	Supplier	Mapei Das International
	Contact	(+971) 7 266 0111
Option 3	Manufacturer	Fosroc
	Model Number	Renderoc TG
	Supplier	Al Gurg Fosroc Co. L.L.C.
	Contact	(+971) 2 673 1779
Option 4	Manufacturer	Conmix
	Model Number	ReCon GP
	Supplier	Conmix
	Contact	(+971) 2 557 5681

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Item Reference	CIV.08
Item Name	Epoxy Resin for Crack Repair
Description	<p>Low viscosity, solvent free epoxy resin (2 components).  <u>Compressive Strength (as per ASTM D695):</u>  70 N/mm<sup>2</sup> (7 days)  <u>Flexural Strength (as per DIM EN ISO 178):</u>  70 N/mm<sup>2</sup> (7 days)  <u>Tensile Strength (as per ASTM D638):</u>  25 N/mm<sup>2</sup> (7 days)  <u>Shear Adhesion Strength (as per ASTM C882:1990):</u>  30 N/mm<sup>2</sup> (14 days)  <u>Viscosity (as per ASTM D2471):</u>  200 mPA.s  <u>Density (as per ASTM D1475):</u>  1.05 kg/l</p>
Trade	Civil Works
Specialty	Concrete Repairs
Unit Rate	N/ A
Quantity	To be evaluated by Contractor
BOQ Reference	N/A

Manufacturer List		
Option 1	Manufacturer	Sika
	Model	Sika Inject 471
	Supplier	Sika
	Contact	(+971) 2 550 2323
Option 2	Manufacturer	Sika
	Model Number	Sikadur 52 LP
	Supplier	Sika
	Contact	(+971) 2 550 2323
Option 3	Manufacturer	Mapei
	Model Number	Epoxyjet LV
	Supplier	Mapei Das International
	Contact	(+971) 7 266 0111
Option 4	Manufacturer	Fosroc
	Model Number	Nitrofill EPLV
	Supplier	Al Gurg Fosroc Co. L.L.C.
	Contact	(+971) 2 673 1779

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Item Reference	CIV.09
Item Name	Epoxy Resin for Steel Anchors
Description	Epoxy resin based, 2 parts (3: 1 by volume), thixotropic, high performance adhesive for anchoring steel reinforcement bars in both cracked and un-cracked, dry or damp concrete. <u>Compressive Strength (as per ASTM D695):</u> 95 N/mm <sup>2</sup> (7 days, +20°C) <u>Flexural Strength (as per ASTM D790):</u> 45 N/mm <sup>2</sup> (7 days, +20°C) <u>Tensile Strength (as per ASTM D638):</u> 23 N/mm <sup>2</sup> (7 days, +20°C) <u>Modulus of Elasticity in Tension (as per ASTM D638):</u> 5500 N/mm <sup>2</sup> (7 days, +20°C)
Trade	Civil Works
Specialty	Cement
Unit Rate	N/ A
Quantity	To be evaluated by Contractor
BOQ Reference	N/A

Manufacturer List		
Option 1	Manufacturer	Sika
	Model	Anchorfix 3030
	Supplier	Sika
	Contact	(+971) 2 550 2323
Option 2	Manufacturer	Fischer
	Model Number	Fischer FIS EM Plus
	Supplier	Fischer
	Contact	(+971) 4 883 7477
Option 3	Manufacturer	Mapei
	Model Number	Mapefix EP100
	Supplier	Mapei Das International
	Contact	(+971) 7 266 0111
Option 4	Manufacturer	Hilti
	Model Number	Hilti RE500
	Supplier	Hilti
	Contact	(+971) 4 810 7000

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