STANDARD NOTES -1

- 1. THE STRUCTURE DESIGNED FOR GROUND + FIRST FLOOR + ROOF ONLY
- 2. BRITISH STANDARD CODE OF PRACTICE CPS-BS.8110 TO BE FOLLOWED UNLESS OTHERWISE STATED.
- 3. FOOTINGS HAVE BEEN USED AS PER THE SUBMITTED SOIL REPORT SEE FOUNDATION SHEET FOR MORE DETAILS
- 4. THE REINFORCEMENT USED FOR R.C WORK SHALL BE AS FOLLOWS:
 - A * MARKED AS "T" HIGH YIELD STRENGTH DEFORMED BARS WITH MIN.YIELD STRENGTH OF 460 N/sq.mm "Y" PLAIN ROUND MILD STEEL BARS WITH MIN. YEILD STRENGTH OF 420 N/sq.mm
 - ${\it B}$ * MIN.LAP LENGTH FOR BARS 60 DIA OF SMALLEST BAR UNLESS OTHERWISE NOTED.
 - C * MIN LAP LENGTH FOR COLUMNS BARS 60 DIA.
 - D * EXTRA TOP BARS IN THE BEAMS AND SLABS SHALL EXTEND BY 0.25 SPAN IF NOT SHOWED IN DROWING.
 - E * TENSION REINFORCEMENT PROVIDED AT MID SPAN SHOULD EXTEND IN THE LOWER PART OF THE SLAB TO WITH IN 0.20 L OF CONTINEUOS EDGE OR 0.1L OF DISCONTINEUOS EDGE.
- F * IN SIMPLY SUPPORTED BEAMS STRAIGHT BARS PROVIDED IN THE BOTTOM OF THE BEAMS SHOULD HAVE AN EFFECTIVE ANCHORAGE OF 12 DIA, FROM THE CENTER OF THE SUPPORTS THE CUT BAR SHOULD EXTEND WITHIN 0.08L OF THE SUPPORT.
- C * IN CANTILEVER BEAMS STRAIGHT BARS PROVIDED AT SUPPORT SHOULD EXTEND TO THE FREE END OF THE CANTILEVER EXTRA OVER SUPPORT BARS SHOULD EXTEND ADISTANCE OF 1.5L.
- H * IN CONTINUOUS BEAMS EXTRA OVER SUPPORT REINFORCEMENT SHOULD EXTEND TO THE POINT NOT LESS THAN 0.25L FROM THE SUPPORT IN CASE OF CONTINEOUS SUPPORTS
- I * STRAIGHT BARS IN THE BOTTOM OF THE BEAMS SHOULD EXTEND TO SUPPORTS, OUT BARS AT BOTTOM SHOULD EXTEND WITH IN 0.15L OF INTERIOR SUPPORTS AND 0.1L OF EXTERIOR SUPPORTS
- THAN 0.06% AND IN COURSE AGGREGATE NOT MORE THAN
- 5. THE CONCRETE MIX USED FOR RC WORK SHALL BE AS FOLLOWS. FOR ALL SUB STRUCTURE WITH MIN.SR CEMENT 400kg/cubic mtr. FOR SUPER STRUCTURE WITH MIN.OF CEMENT 400kg/cubic mtr. CHARACTERSTIC STRENGTH OF CONCRETE AT 28 DAYS 350kg/cm

STANDARD NOTES -2

- 6. SULPHATE RESISTING CEMENT SHALL BE USED BELOW PLINTH LEVEL IN ALL STRUCTURE CONFIRMING TO B.S.S.NO.4027
- 7. CEMENT TO BE USED FOR ALL WORKS ABOVE PLINTH LEVEL SHALL BE OF ORDINARY PORTLAND CEMENT CONFIRMING TO B.S.S.NO.:12
- 8. THE CLEAR COVER TO THE MAIN REINFORCEMENT SHALL BE AS FOLLOWS:

ISOLATED AND COMBINED FOOTINGS ARE 50mm, COLUMNS IN SUB-STR. 50mm, TIE BEAM 30mm,COLUMNS IN SUPER 40mm, BEAMS 25mm OR DIA OF MAIN REINFO-RCEMENT WHICHEVER IS GREATER SLABS 20mm.

- 9. UNLESS OTHERWISE INDICATED IN THE DRAWING THE PILE CAPS ARE CONCENTRIC WITH THE COLUMNS.
- 10. 200mm THICK SOLID BLOCK MASONRY SHALL BE PROVIDED ON EXTERNAL PERIPHERY OF THE BUILDING FROM FOOTING LEVEL TO TIE BEAM BOTTOM.
- 11. ALL THE UNDERGROUND CONCRETE WORK/BLOCK WORK SHALL BE APPLIED WITH TWO COATS OF HOT BITUMEN.
- 12. WATER TABLE IS ASSUMED BELOW FOUNDATION LEVEL.
- 13. ALL NON LOAD BEARING BLOCKS USED FOR MASONRY WORK SHALL HAVE MIN.CRUSHING STRENGTH OF 7.5 N/mm2 AND THAT FOR LOAD BEARING BLOCKS IT SHALL BE 12.5 N/mm2 BLOCK TO BE FROM APPROVED AUTOMATIC
- 14. THE CONTRACTOR SHALL BE RESPANSIBLE FOR PROPER SETTING OUT WORKS FOR CORRECTNESS OF POSITION, LEVELS AND ALIGNMENTS OF ALL PARTS OF THE WORK FOR QUALITY AND FINAL FINISHES IF AT ANY TIME DURING THE PROGRESS OF WORKS.

ANY ERROR IS DETECTED AT ANY PART. THE CONTRACTOR SHALL RECTIFY THE SAME AT HIS OWN EXPENSES. THE CHECKING/APPROVAL BY THE CONSULTANT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR FROM HIS RESPANSIBILITY FOR THE CORRECTNESS OF ABOVE.

- 15. MIN.3'-0" DEPTH TO BE MAINTAINED FROM GROUND LEVEL TO TOP OF FOOTINGS ON ROAD & SIKKA SIDE.
- 16. THE SULPHATE CONTENTS IN COURSE & FINE AGGREGATE
 NOT TO EXCEED 0.4% AND TOTAL SULPHATE IN CONCRETE
 MIX INCLUDING SULPHATE IN CEMENT NOT TO EXCEED 4%
 BY WEIGHT OF CONCRETE.
- 17. THE CHLORIDES CONTENTS IN FINE AGGREGATE NOT MORE
 0.03% TOTAL CHLORIDES CONTENTS IN CONCRETE MIX. NOT
 TO EXCEED 0.15% BY WEIGHT OF CEMENT.

STANDARD NOTES -3

- 18. WATER TANK DESIGNED TO COMPLY WITH B.S.5337 AND
- 19. 100 GUAGE POLYTHENE SHEET SHALL BE PROVIDED BELOW OF CONCRETE AND STEEL PRIOR TO EXECUTION OR DURING THE PROGRESS OF WORK IF REQUIRED BY THE CONSULTANT CONTRACTOR SHALL TEST THE CONCRETE AND STEEL WITHOUT ANY EXTRA COST.
- 20. LINTEL TO BE ADDED FOR WALLS AT A HEIGHT EQUAL TO DOOR HEIGHT 20x20cm. WITH 2Y12 UP & DOWN STEEL WHEREVER THE ALL AREA 14sq.Mtr.
- 21. IN CASE OF DISCRIPANCIES IN DETAILS OR MISSING DETAIL
 THE CONSULTANT MUST BE APPROACHED FOR DECISION
 PRIOR TO TAKING OF RELATED WORK. CONSULTANTS DECISION
 IN SUCH MATTER SHALL BE FINAL WITHOUT ANY EXTRA CLAIMS.
- 22. ALL THE CEMENT BLOCKS WHICH USE AT THIS BUILDING MUST FOLLOW TO SPECIFICATIONS WHICH MENTIONED IN LOCAL ORDER NO.44/1991 AND ALSO COMES BEFORE IN ORDER NO.106/90 AND ITS MENTIONED IN DETAILS IN LOCAL ORDER NO.171/90 AND ALSO THE LABORATORIES RESULTS FOR THIS BLOCKS MUST BE APPROVED FROM BUILDING RESEARCH AND QUALITY CONTROL SECTION AT SHARJAH MUNICIPALITY.
- 23. MIN.SIX NUMBERS OF CONCRETE CUBES SHALL BE TAKEN FROM EACH DAYS CONCRETING OR EACH 100m CONCRETE AS DECIDED BY THE CONSULTANTS. THESE CUBES SHALL BE TESTED IN LABORATORY APPROVED BY THE CONSULTANTS. CUBE RESULT MUST BE SUBMITTED TO THE CONSULTANT IMMEDIATELY AFTER TESTING.
- 24. LOADS ARE ASSUMED AS FOLLOWS:

 $L.L = 200 \ Kg/m2.FOR \ ALL \ FLOORS$

LL = 300 Kg/m2.FOR STAIRSF.L = 200 Kg/m2. FOR ALL FLOORS

F.L = 300 Kg/m2. FOR ROOF

WEIGHT OF PARTITIONS OF 20 Cm. THICK = 350 Kg /m2 WEIGHT OF PARTITIONS OF 15 Cm. THICK = 275 Kg /m2 WEIGHT OF PARTITIONS OF 10 Cm. THICK = 230 Kg /m2 WEIGHT OF HOLLOW BLOCKS USED FOR SLABS = 1150 Kg /m3

- 25. CHARACTERSTIC STRENGTH OF CONCRETE FOR COLUMNS AT 28 DAYS 400kg/cm
- 26. CHARACTERSTIC STRENGTH OF CONCRETE FOR FOOTINGS AT 28 DAYS 400kg/cm
- 27. THE NET BEARING CAPACITY AT THE PROPOSED FOUNDATION LEVEL IS 1.40kg/cm2



NOTE:-		

CONSULTANT:	
كروكت لاين للإستشارات العندسية CROQUEE LINE CONSULTANT	CROQUE
TEL: +971 503991020 PHONE: 04 3797941	WWW.CROQEELINE.AE

ROJECT:	
PROPOSED VILLA (B+G +1+R)	

LOCATION:

AL MERKADH

PRAWING TITLE:

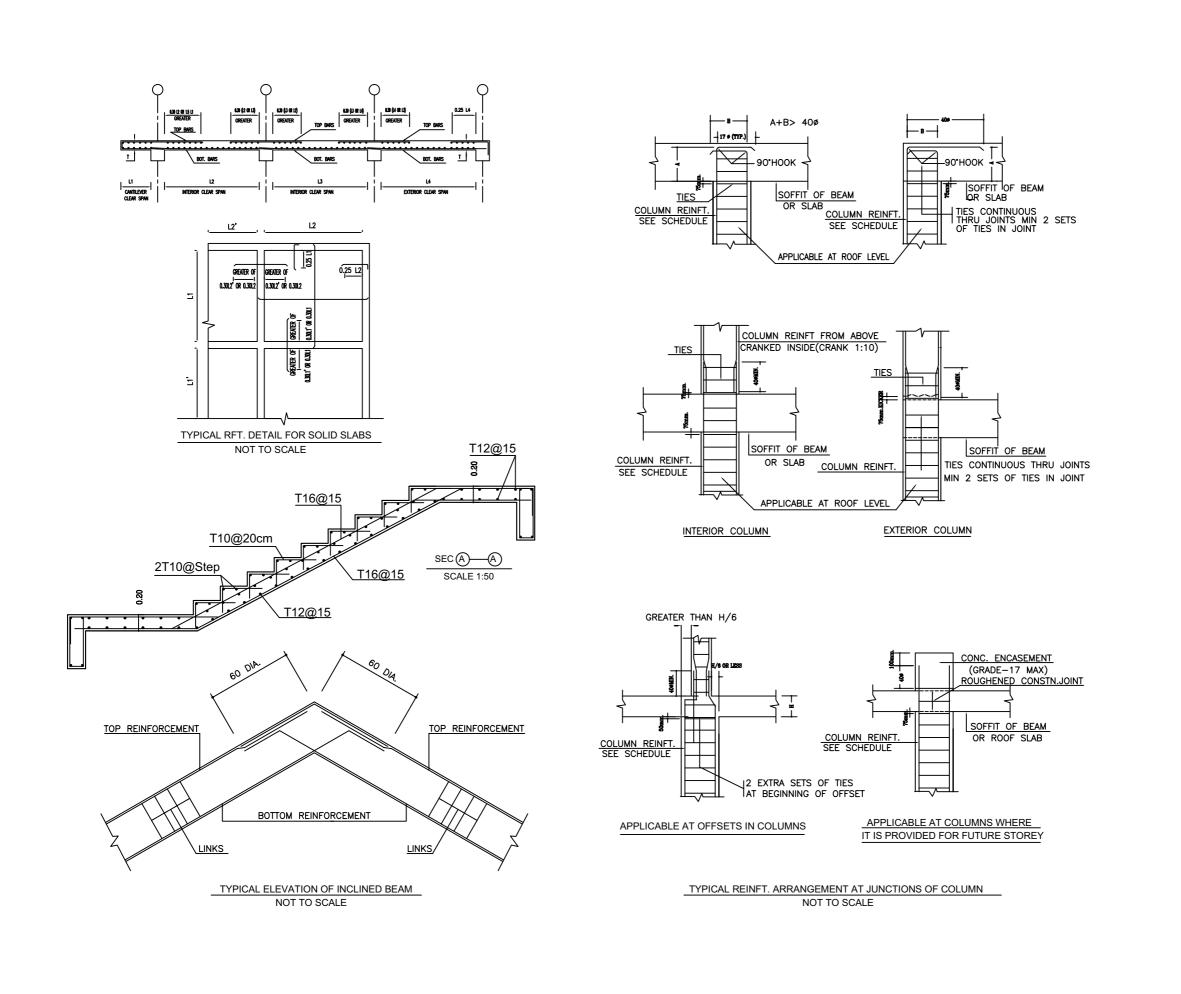
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DISTRICT ONE-FZ

NO. DATE: SHEET NO.

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Architecture	MARWA MOKBEL	
Structure	AHMED OMAR	
MEP		





NOTE:-

DISTRICT ONE-FZ

PROPOSED VILLA (B+G +1+R)

PLOT NO.

470861

LOCATION:
AL MERKADH

DRAWING TITLE:

STRUCTURAL DETAILS

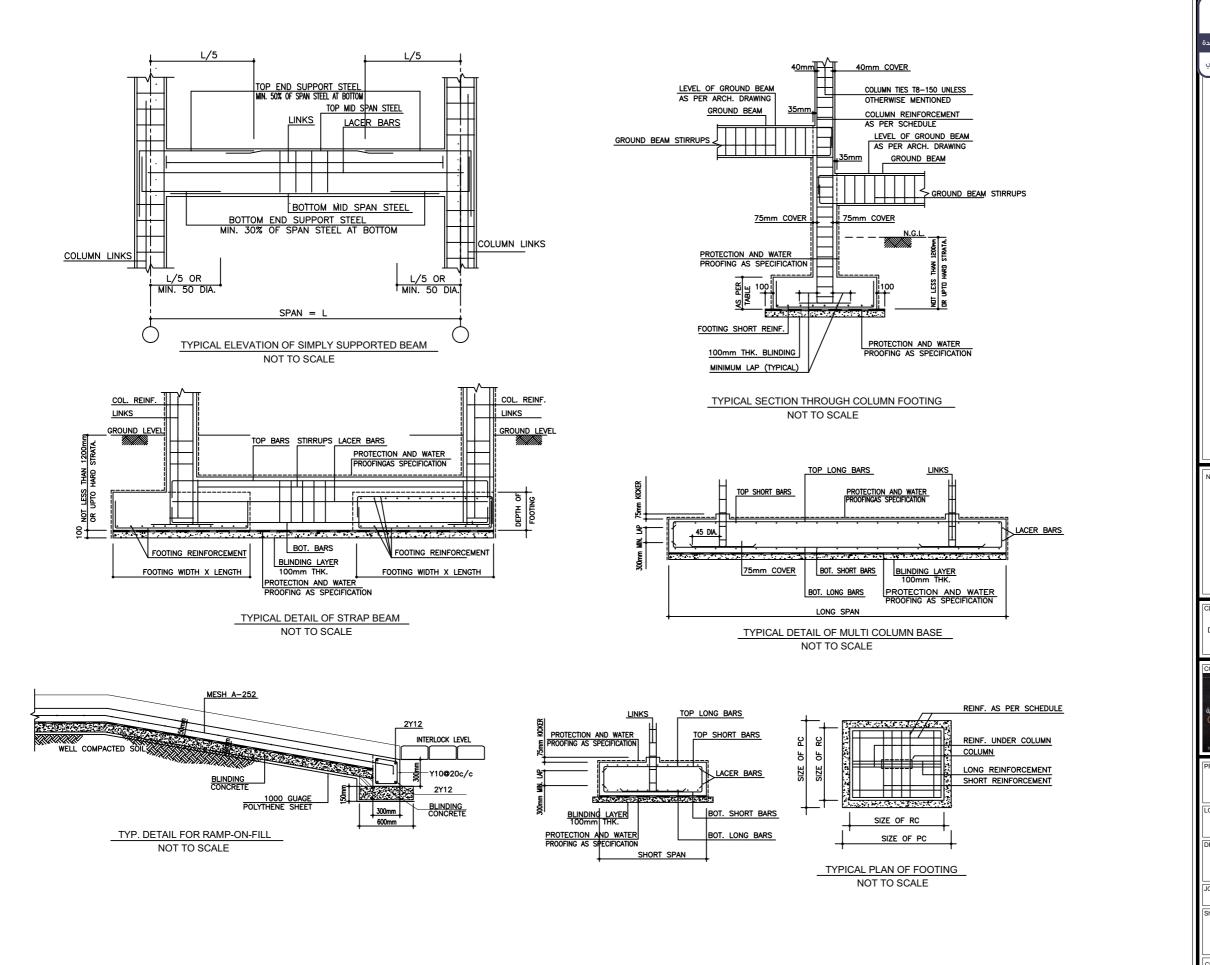
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Architecture MARWA MOKBEL

Structure AHMED OMAR

MEP





NOTE:-

DISTRICT ONE-FZ

CONSULTANT :

مُروكاتٍ لابن للإستشارات العندسية

CROQUEE LINE CONSULTANT

TIL - 107 (2007) PROME (04.377794)

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PROPOSED VILLA (B+G +1+R)

LOCATION:
AL MERKADH

DRAWING TITLE:

STRUCTURAL DETAILS

PLOT NO.

470861

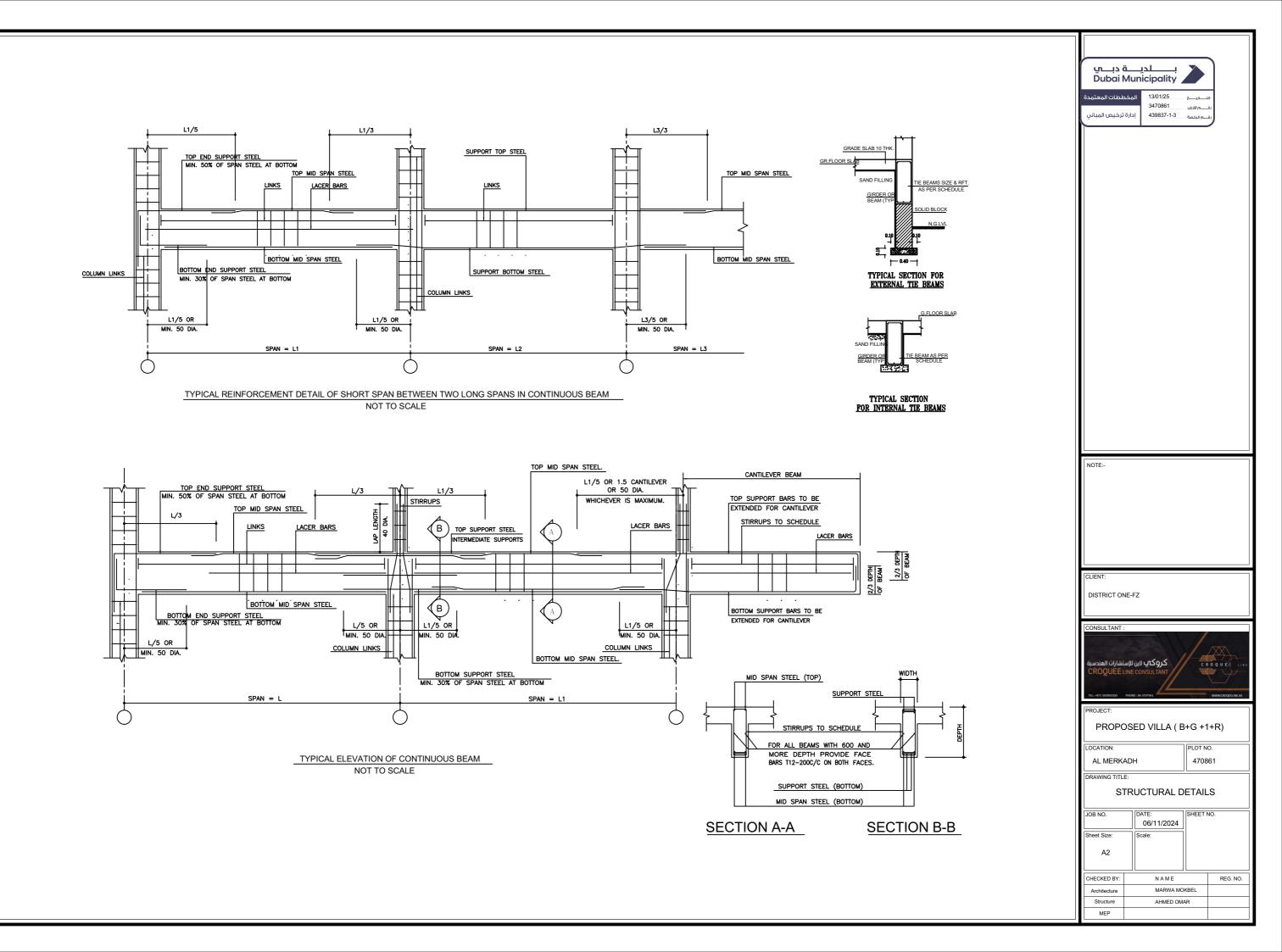
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Architecture MARWA MOKBEL

Structure AHMED OMAR

MEP



 $\begin{array}{ll} \text{fcu} &= 40 \text{ N/SQ.MM} \\ \text{fy} &= 460 \text{ N/SQ.MM} \end{array}$ 13/01/25 المخططات المعتمدة رقام الرخصة 139837-1-3 رقام الرخصة 439837-1-3

إدارة ترخيص المباني

	SCHEDULE OF COLUMNS		
TYPE	COLUMNS SECTIONS	TYPE	COLUMNS SECTIONS
CJ	MAIN STEEL: 12 T20 STIRRUP/ TIES: 3-Ø10@15C/C	8	MAIN STEEL: 22 T20 STIRRUP/ TIES: 6-Ø10@15C/C
C2	MAIN STEEL: 14 T20 STIRRUP/ TIES: 3-Ø10@15C/C	8	MAIN STEEL: 16 T20 STIRRUP/ TIES: 3-Ø10@15C/C
ຮ	MAIN STEEL: 16 T20 STIRRUP/ TIES: 4-Ø10@15C/C	C10	MAIN STEEL: 20 T20 STIRRUP/ TIES: 5-Ø10@15C/C
2	MAIN STEEL: 20 T20 STIRRUP/ TIES: 5-Ø10@15C/C	C11	MAIN STEEL: 24 T20 STIRRUP/ TIES: 6-Ø10@15C/C
35	MAIN STEEL: 14 T20 STIRRUP/ TIES: 3-Ø10@15C/C		80 80 80 80 80 80 80 80 80 80 80 80 80 8
90	x[VERTICAL STEEL: T16@15 HORIZONTAL STEEL: T12@20 25 25 25 25 25 26
0	MAIN STEEL: 18 T20 STIRRUP/ TIES: 4-Ø10@15C/C	W2	88
C7	MAIN STEEL: 14 T20		VERTICAL STEEL: T16@15 HORIZONTAL STEEL: T12@20
BE * FU	STIRRUP/ TIES: 3-Ø10@15C/C ES: L STIRRUPS WITHIN THE SPLICE LENGTH SHALL SPACED AT 0.10m CENTER TO CENTER ILL LENGTH OF COLUMN SHALL BE PROVIDED WITH SHEDULED STIRRUPS	RW	VERTICAL STEEL: T16@15 HORIZONTAL STEEL: T12@20

COLUMNS SECTIONS

SCALE: 1-100

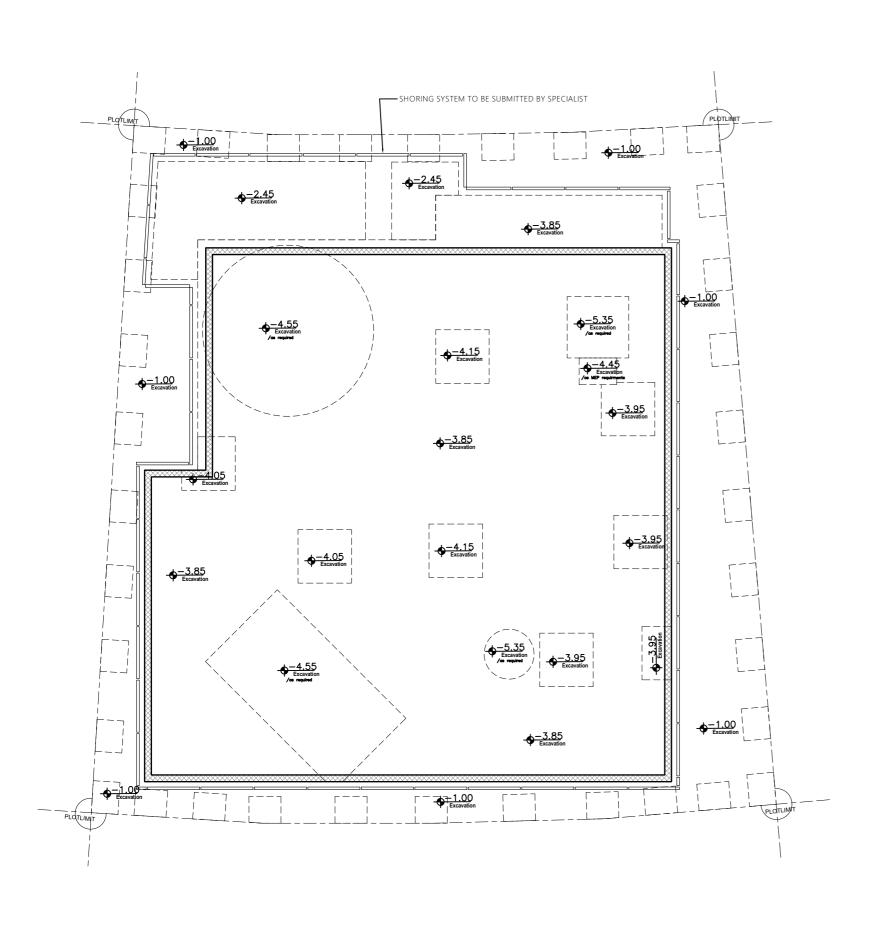
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يتشارات الهندسية CROQUEEL TIL: +871 503999000	PHONE: 04 3797943		WWW.CROQEELINE.A
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 $\begin{array}{ll} \text{fcu} &= 40 \text{ N/SQ.MM} \\ \text{fy} &= 460 \text{ N/SQ.MM} \end{array}$ 3470861 ـــم الأرض 3470861 ـــم الرخصة 3-1-3837 135 1 2 3 4 W1 RW **(5)** 6 7 DISTRICT ONE-FZ 8 9 10-PROPOSED VILLA (B+G+1+R) AL MERKADH BASEMENT FLOOR COLUMN LAYOUT 06/11/2024 A2 BASEMENT FLOOR COLUMN LAYOUT REG. NO. NAME MARWA MOKBEL SCALE: 1-100

 $\begin{array}{ll} \text{fcu} &= 40 \text{ N/SQ.MM} \\ \text{fy} &= 460 \text{ N/SQ.MM} \end{array}$ 3470861 ـــم الأرض 3470861 ـــم الرخصة 3-1-3837 1950 135 1 2 3 4 **(5)** 6 7 DISTRICT ONE-FZ 8 9 10-PROPOSED VILLA (B+G+1+R) AL MERKADH GROUND FLOOR COLUMN LAYOUT 06/11/2024 A2 GROUND FLOOR COLUMN LAYOUT REG. NO. CHECKED BY: NAME MARWA MOKBEL SCALE: 1-100

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EXCAVATION & SHORING LAYOUT

SCALE: 1-100

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OTE:-

DISTRICT ONE-FZ

PROPOSED VILLA (B+G+1+R)

LOCATION: PLOT NO.

AL MERKADH 470861

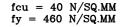
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EXCAVATION & SHORING LAYOUT

JOB NO.	DATE:	SHEET NO.
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CHECKED BY:	NAME	REG. NO.
Architecture	MARWA MOKBEL	
Structure	AHMED OMAR	
MEP		

fcu = 40 N/SQ.MM fy = 460 N/SQ.MM



-RAFT TIICK 400mm (UNO). -AND MESH T16-150 T&B (UNO).

SSL -3.10m

DATED: 28th SEP 2024 REPORT REF.: TFL/G-2308/24

- FOUNDATIONS SET ON THE TOP OF 0.20M THICK OF ROAD BASE MATERIAL.
- PRIOR TO CONSTRUCTING THE FOUNDATIONS, THE SOIL AT FORMATION LEVEL SHOULD BE THOROUGHLY COMPACTED IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE TO NOT LESS THAN(95% FOR SAND OR 98% FOR ROAD BASE) OF THE MAXIMUM DRY DENSITY AS DETERMIND BY THE
- THE COMPACTED SURFACE SHOULD THEN BE PROTECTED BY IMMEDIATELY COVERING WITH A LAYER OF
- GROUND WATER DEPTH 3.10M BELOW EXISTING GROUND SURFACE AT THE TIME OF SOIL INVESTIGATION.
- PRIOR TO COMMENCING EXCAVATION OPERATIONS FOR THE FOUNDATIONS IT IS STRONGLY RECOMMENDED THAT A SMALL PIT SHOULD BE DUG SUCH THAT THE WATER LEVEL MAY BE MORE ACCURATELY DETERMIND.
- 6. IN ORDER TO PREVENT LOOSENING OF THE SOILS THE BASE OF THE EXCAVATION FOR THE FOUNDATIONS SHOULD BE NOT LESS THAN 0.5M ABOVE THE WATER TABLE ENCOUNTERED AT HIGHER LEVEL THAN RECORDED AT THE TIME OF INVESTIGATION; OTHERWISE DEWATERING WOULD BE REQUIRED.
- MEMBRANE WATER PROOFING SHOULD BE USED FOR FOUNDATIONS 2 LAYERS 4MM.

REBAR LEGEND:

ADD'L TOP REINF. ADD'L BOTTOM REINF. -

SCHEDULE OF ADDITIONAL REINFORCEMENT		
TYPE	REINFORCEMENT	
A	T 12@200 C/C	
В	T 16@200 C/C	
С	T 16@100 C/C	

REINFORCEMENT NOTE:

- 1- ADDITIONAL TOP REINF. IS CONCENTRIC WITH COLUMNS CENTER (U.N.O.)
- 2- ADDITIONAL BOTTOM REINF. SHOULD BE LOCATED AT THE MID PONT BETWEEN COLUMN CENTERS.
- 3- REINFORCEMENT TO BE CUT WHERE NECESSARY.
- 4- THE INDICATED REINF. LENGTH IS THE PROJECTED LENGTH ON THE PLAN REINFORCEMENT TO BE CUT & SPLICES PROPERLY TO ACHIEVE THE PROJECTED LENGTHS.



NOTE:

DISTRICT ONE-FZ

CONSULTANT كروكب لاين للإستشارات الهند CROQUEE

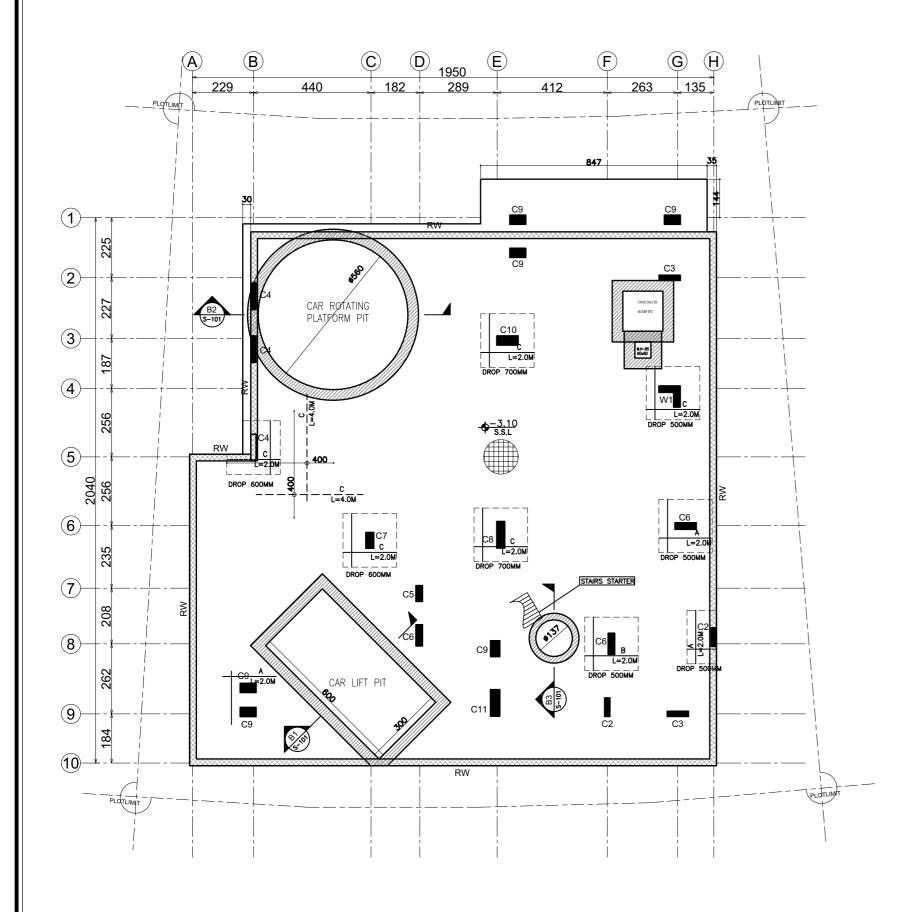
PROPOSED VILLA (B+G+1+R)

PLOT NO. OCATION 470861 AL MERKADH

VILLA FOUNDATION LAYOUT

JOB NO.	DATE: 06/11/2024	SHEET NO.
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NAME REG. NO. MARWA MOKBEL MEP



VILLA FOUNDATION LAYOUT

SCALE: 1-100



TRANS FAST ENGINEERING LABORATORY L.L.C – DUBAI مختبرات ترانس فاست للهندسة ش.ذ.م.م -دبي

The various field and laboratory test results contained within this report were used to inform the assessment, which has also made use of published empirical correlations given in BS EN 1997-1: 2004 + A1: 2013 and other reliable references.

A representative Geotechnical Design Parameters, Ground Model (based on the worst-case depths of strata and test results) is provided in Table 5 for preliminary design purposes. Parameter values for detailed design will depend on the specific proposed geometry, the design application (i.e., shallow, or deep foundations, retaining structures) and will need to consider seismic design codes and appropriate structural design codes.

Table 5: Geotechnical Design Parameters (Estimated from N-Values: SPT).

Soil Type	; e ues)	rted nsity 1³)	ted e rnal	ion n²)	ient tion sen nd g (f)	Earth Pressure Coefficient		
	S.P.T. Range (N=Value	Estimated Bulk Density (g/cm³)	Estimated Angle of Internal	Assumed Cohesion (C) (kg/cm²)	Coefficient of Friction Between Soil and Footing (f)	Ka	Κ _p	K _o
Loose SAND	6-10	1.500	30	0.0	0.36	0.33	3.0	0.50
Medium dense SAND	10 - 20	1.700	32	0.0	0.39	0.31	3.23	0.47
Medium dense SAND	20 - 30	1.750	34	0.0	0.42	0.28	3.54	0.44
Dense SAND	30-40	1.800	37	0.0	0.46	0.25	4.0	0.40
Very Dense SAND	>50	2.000	41	0.0	0.53	0.21	4.81	0.34

In the above table active earth pressure (Ka), Passive Earth Pressure (Kp) and earth pressure at rest (Ko) are calculated based on Rankine's Theory for retaining structures.

10.3 Shallow Foundation

Based on the results of the standard penetration tests completed in the boreholes, the following are our recommendations for conventional pad /isolated or strip footings and raft foundation. The total settlement will be within the allowable limits of 25 mm for isolated/pad or strip and 50 mm for raft foundation. The shallow foundations should be set at a depth of 1.0m and 4.0m to 4.50m below the existing ground.

10.3.1 Allowable Bearing Pressures (Shallow isolated/strip or raft Foundation) for G+1 Structures and boundary wall.

The foundation depth may vary according to the architectural requirement; however, the foundations can be placed at a minimum depth of 1.0m below adjacent asphalt road level.

TFM-G-R-02 issue No.01 issued on 06/05/2023 Rev#1 Rev. Dt. 11/05/2024

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Ref.: TFL/G-2308/24: PLOT NO.3470861. AL MERKADH. Dubai – U.A.E



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Prior to construction, the topsoil has to be excavated to at least 1.0m below. The excavated ground shall be well compacted to a degree of compaction not less than 95% of the maximum dry density of the soil using heavy roller (not less than 10 Ton).

Field density test (Compaction tests) must be carried out for each compacted layer to confirm the percentage of compaction. Based on the standard penetration test, practical experience and the empirical equations developed by Terzaghi, Meverhof and Bowels, below mentioned allowable bearing pressure were determined considering shallow foundation at the above specified depth.

Table No.6. Net Allowable Bearing capacity

Structure	Foundation Level, m	Foundation Level, DMD	Type of Foundation	Footing Width, m	Bearing Capacity KN/m2	Modulus of Subgrade Reaction KN/m3
G+ 1	-1.0m		Pad / Isolated	Up to 3.0	150	18000
Structure &	-1.Um		Footing	3.0 to 5.0	130	15600
Boundary wall	-1.0m	-	Strip Footing	Up to	130	15600

^{*} Levels are given from TBM ± (0.0) established at existing ground level

10.3.2 Allowable Bearing Pressure for RAFT Foundation for (PROPOSED B+G+1+Roof RESIDENTIAL VIIIa)

A net bearing pressure for Rigid RAFT foundations given in Table 7 at depth of between 4.0-4.50m below existing natural ground level, above one (01) layer of road base material and compacted in accordance with good construction practice to not less than 98% of Maximum Dry Density (MDD) as determined from the modified Proctor test. Prior to Laying of the road base material, the soil at formation level should be thoroughly compacted in accordance with good construction practice to not less than 95% of Maximum Dry Density (MDD) as determined from the modified Proctor test. The compacted surface should then be protected by immediately covering it with a layer of concrete blinding.

TFM-G-R-02 issue No.01 issued on 06/05/2023 Rev#1 Rev. Dt. 11/05/2024

Tel: +971 4 548 9252 | Mob.: +971 58 699 9502, +971 55 894 9600 | P.O.Box No: 60238 | Dubai - U.A.E.

Ref.: TFL/G-2308/24: PLOT NO.3470861. AL MERKADH. Dubai – U.A.E.



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Table 7: Net Allowable Bearing capacity

Structure	Depth of foundation m Below EGL	Foundation Level, DMD	Maximum Foundation Width(m)	Net bearing Pressure (KN/m²)	Modulus of Sub grade Reaction (KN/m³) Static
B+G+1 Roof Residential Villa	4.0-4.50	-	<40.0	250	15000

^{*} Levels are given from TBM ± (0.0) established at existing ground level.

When excavating to foundation level, care should be taken not to disturb strata underlying formation level otherwise settlements in excess of those quoted above could occur. If any disturbance does occur, or if any soft spots or gypsiferous material are encountered, the material should be removed and replaced by selected granular fill, which should be properly compacted before the foundations are constructed.

Groundwater was encountered at a depth of 3.10m below existing ground level. If ground water is ering has to be initiated such that the ground water leve lies 0.50 - 1.0m below the foundation level.

The above bearing pressure values for Isolated foundations are calculated by Meverhof Equation 4-12 given in Foundation Analysis and Design by Joseph E. Bowels (fifth edition)

$q_a = N/F2[(B+F_3/B)^2] K_d$

Where, qa = allowable bearing pressure for 25mm settlement

F2 = Factor from Table page 264 taken as 0.08 F3 = Factor from Table page 264 taken as 0.3

N= SPT average "N" Values

B = Footing width Kd = 1+0.33D/B

For the spread foundation on rock, the ultimate bearing capacity qult given by equation 1 is modified to account for the rock RQD (Bowels 1996). The modified ultimate capacity qult' is given by:

 $g_{ab}' = g_{ab} (RQD) 2$

The immediate settlement (Se) shall be calculated using the following equation (Das 1999).

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Se =B qo (1- µs 2) ar/Es

Applied foundation pressure Width of foundation Modulus of elasticity Poisson's ratio. Shape/rigidity factor

If any cut and/or fill operation be required to level the site, it is recommended that the foundation level given above should be taken after the site is being leveled and a borehole and minimum two plate load tests shall be performed on the formation level at the random locations selected by our engineer.

10.4 Excavations and Slopes

Excavations down to a depth of about 1.0m BGL are expected across most of the site. Un supported temporary excavation walls and slopes should be carried out at gradients that secure their stability. Temporary excavations in the Fill/Sand tend to stabilize at their angle of repose and should have slope gradients as per table No.7 below.

Table 7: Recommended cut slopes.

Material Type	SPT Range	Recommended Cut Slope (Horizontal: Vertical)
Very Loose to Loose SAND	0 - 10	2:1
Medium Dense SAND	10 - 30	1.5: 1
Dense SAND	30 - 50	1.3: 1
Rock Materials	-	Vertical *

^{*} Rock materials can be cut vertically for temporary purposes

10.5 BACKFILL MATERIALS & COMPACTION

The following notes must be considered as appropriate when applicable: The bottom of excavation/excavation surface must be compacted to at least 95% of the modified proctor maximum dry density of soil using a heavy compactor roller. Backfill material should not contain any roots, construction debris, or deleterious material. Recommended engineering fill material shall comply with the following specifications:

Type A material should be used under all foundations and should comply in general with the following specifications:

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NOTE:-			ī



CROQUEE	LINE CONSULTANT	
TEL: +971 503991020	PHONE: 04 3797941	WWW.CROQEELINE.AE
PROJECT:		
PROP	OSED VILLA (B	+G +1+R)

OCATION: PLOT NO. 470861 AL MERKADH

RAWING TITLE:

CLIENT

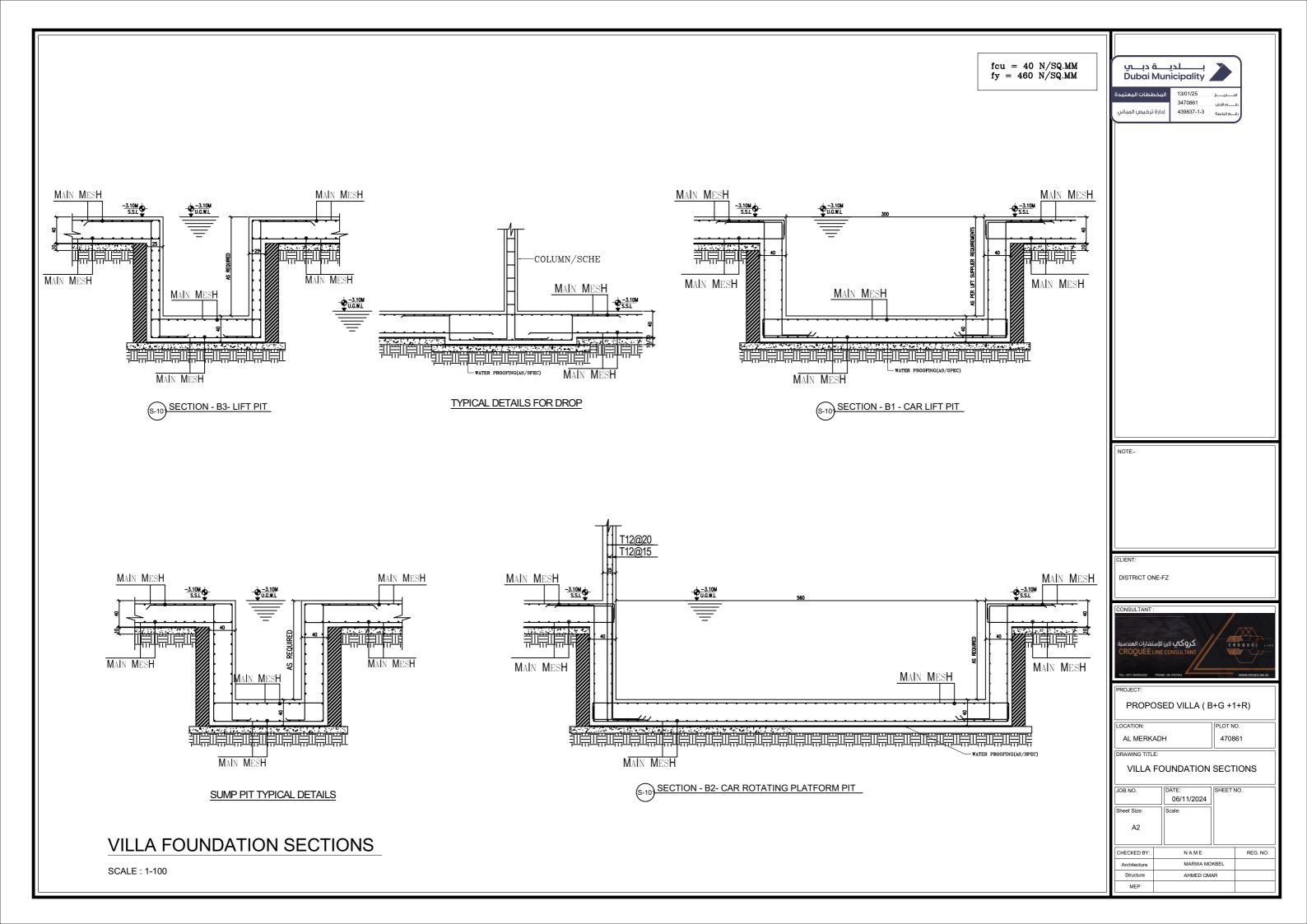
DISTRICT ONE-FZ

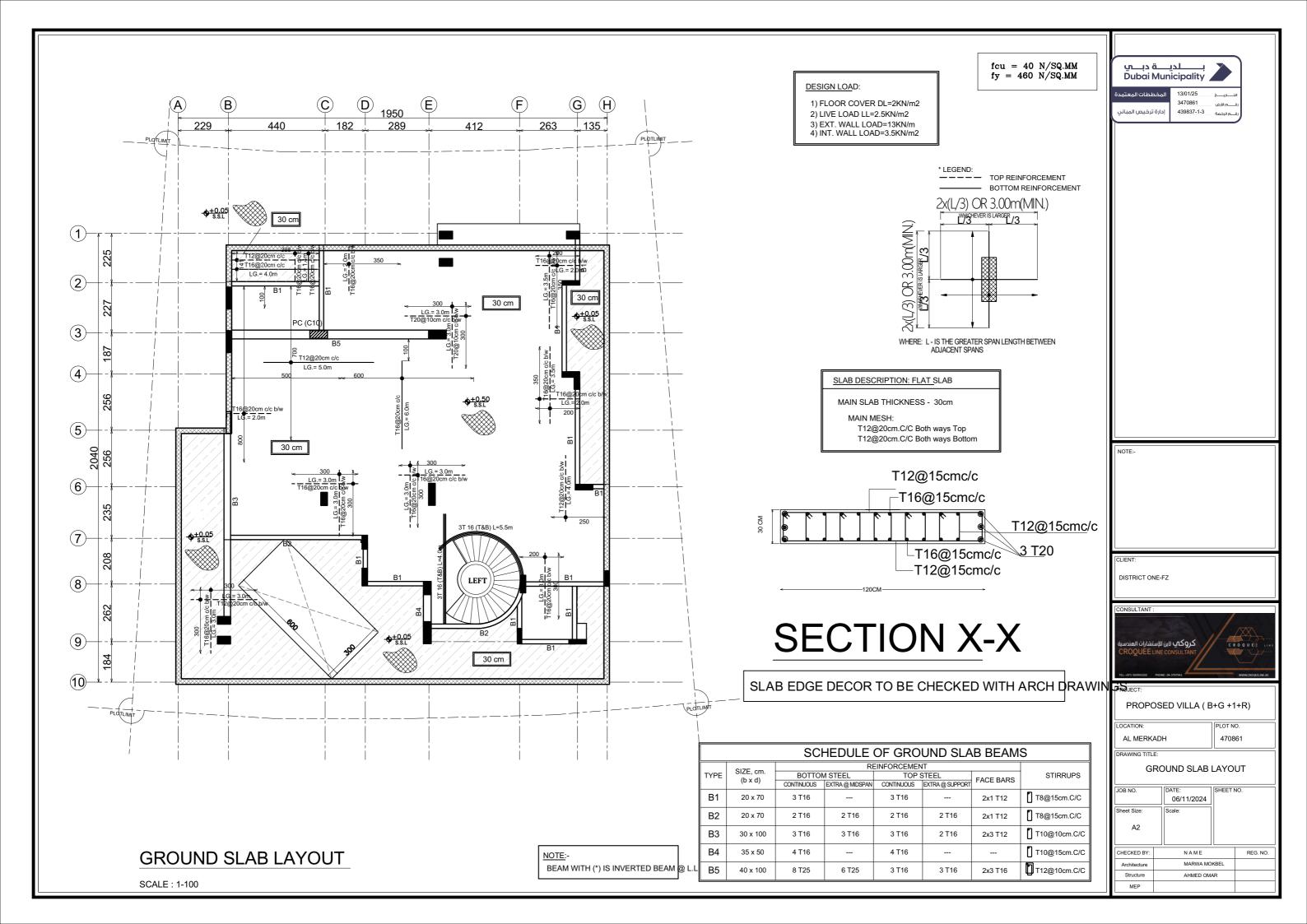
SOIL REPORT

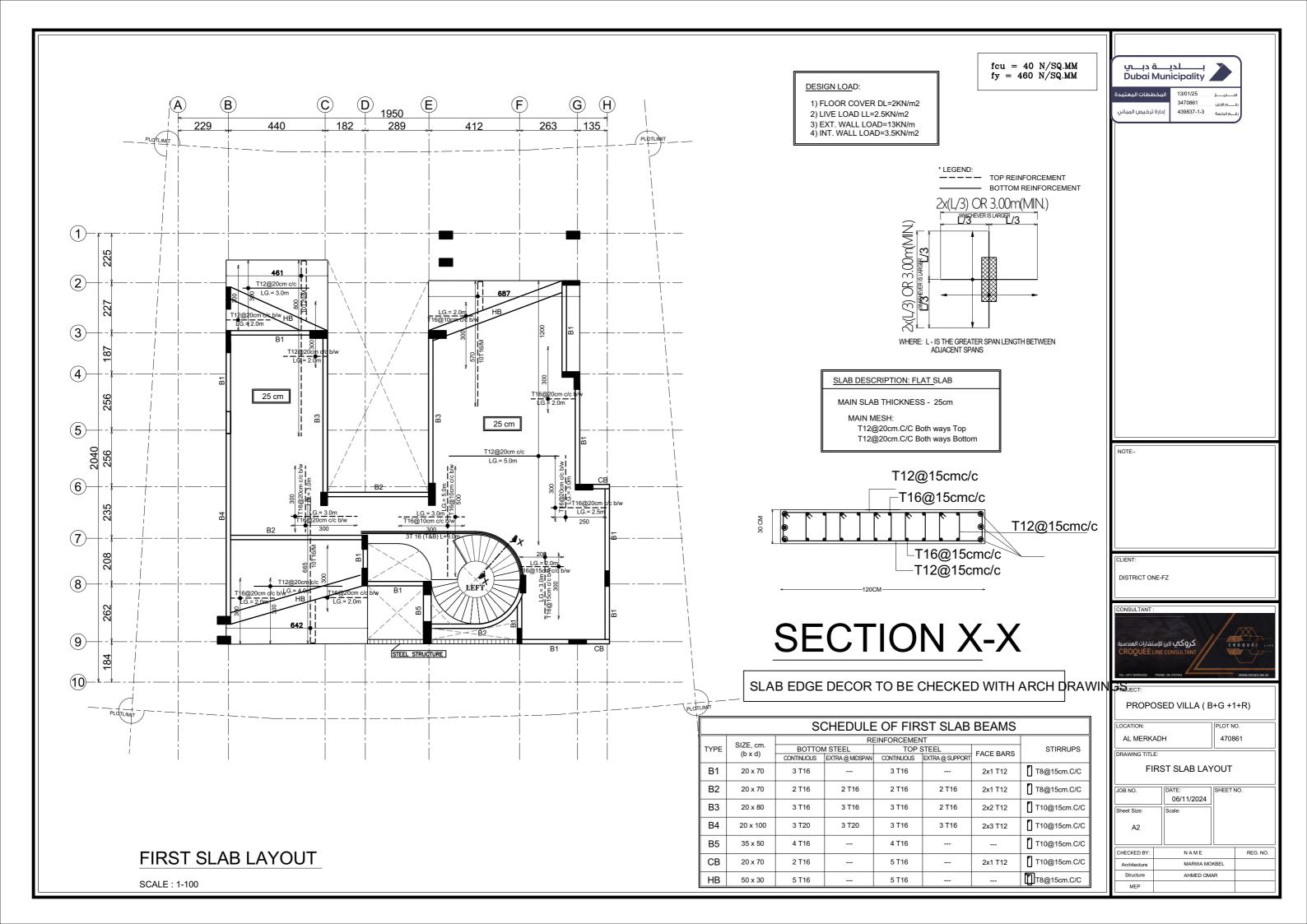
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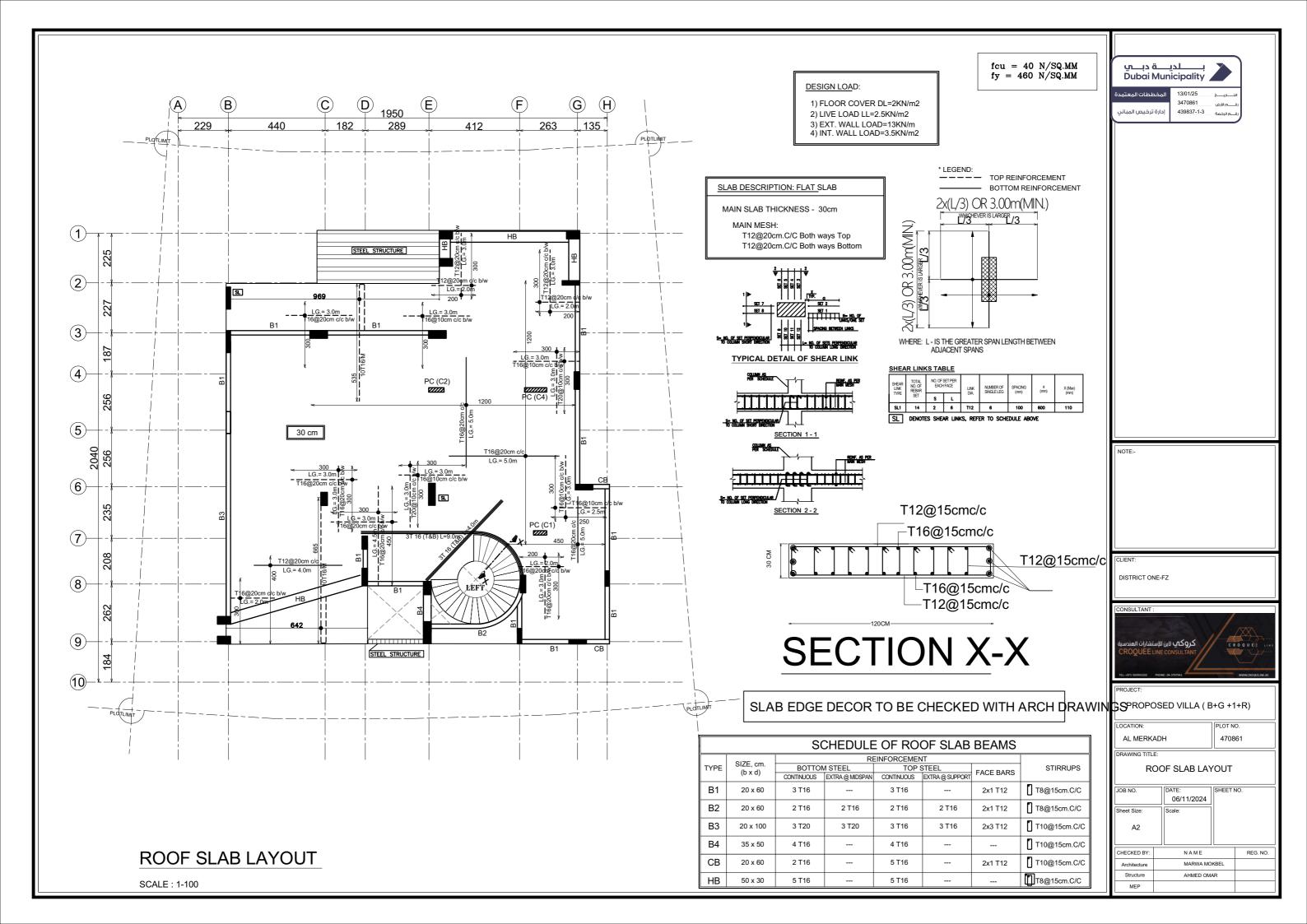
HECKED BY:	NAME	REG. NO.
Architecture	MARWA MOKBEL	
Structure	AHMED OMAR	
MEP		

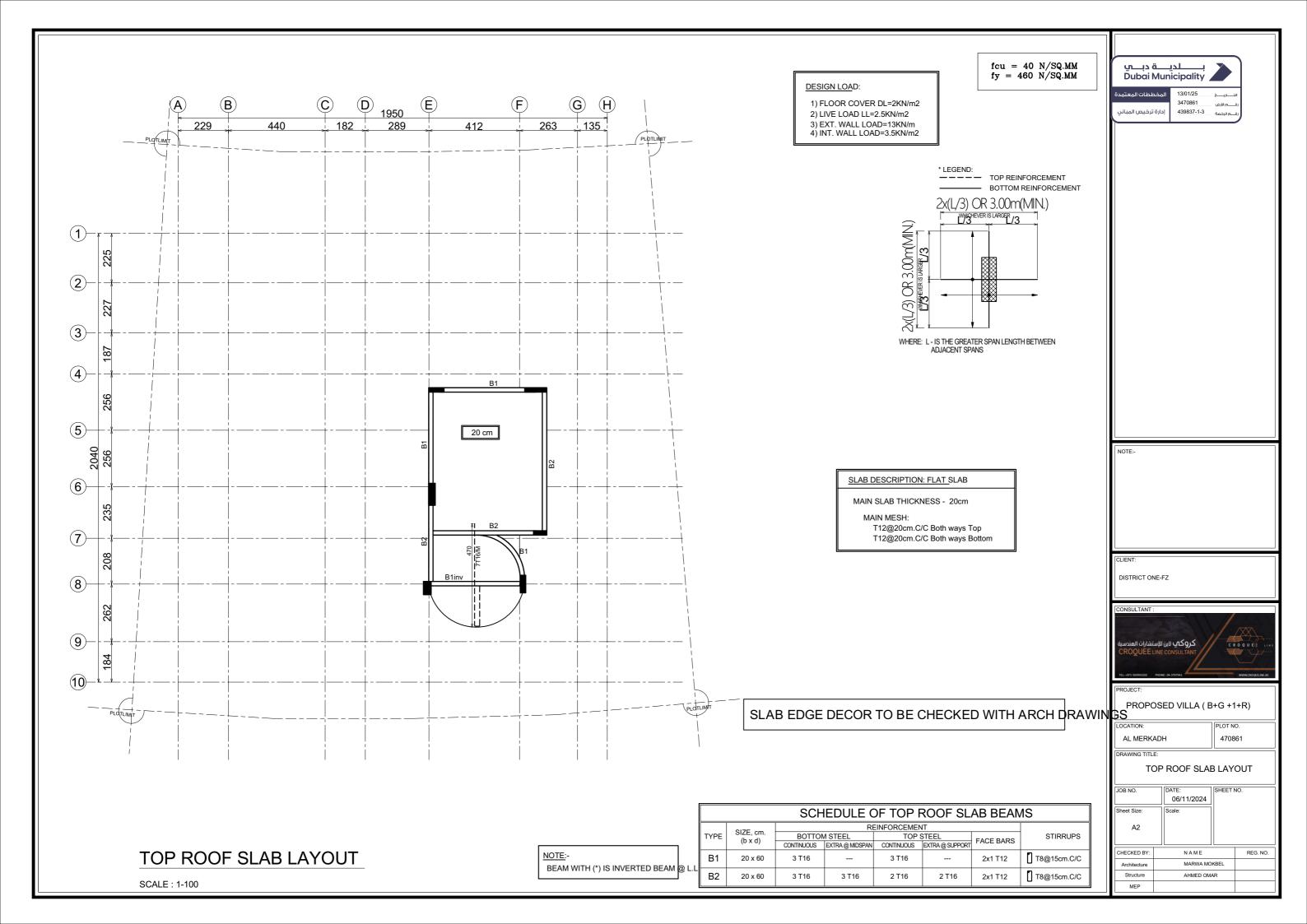
SOIL REPORT

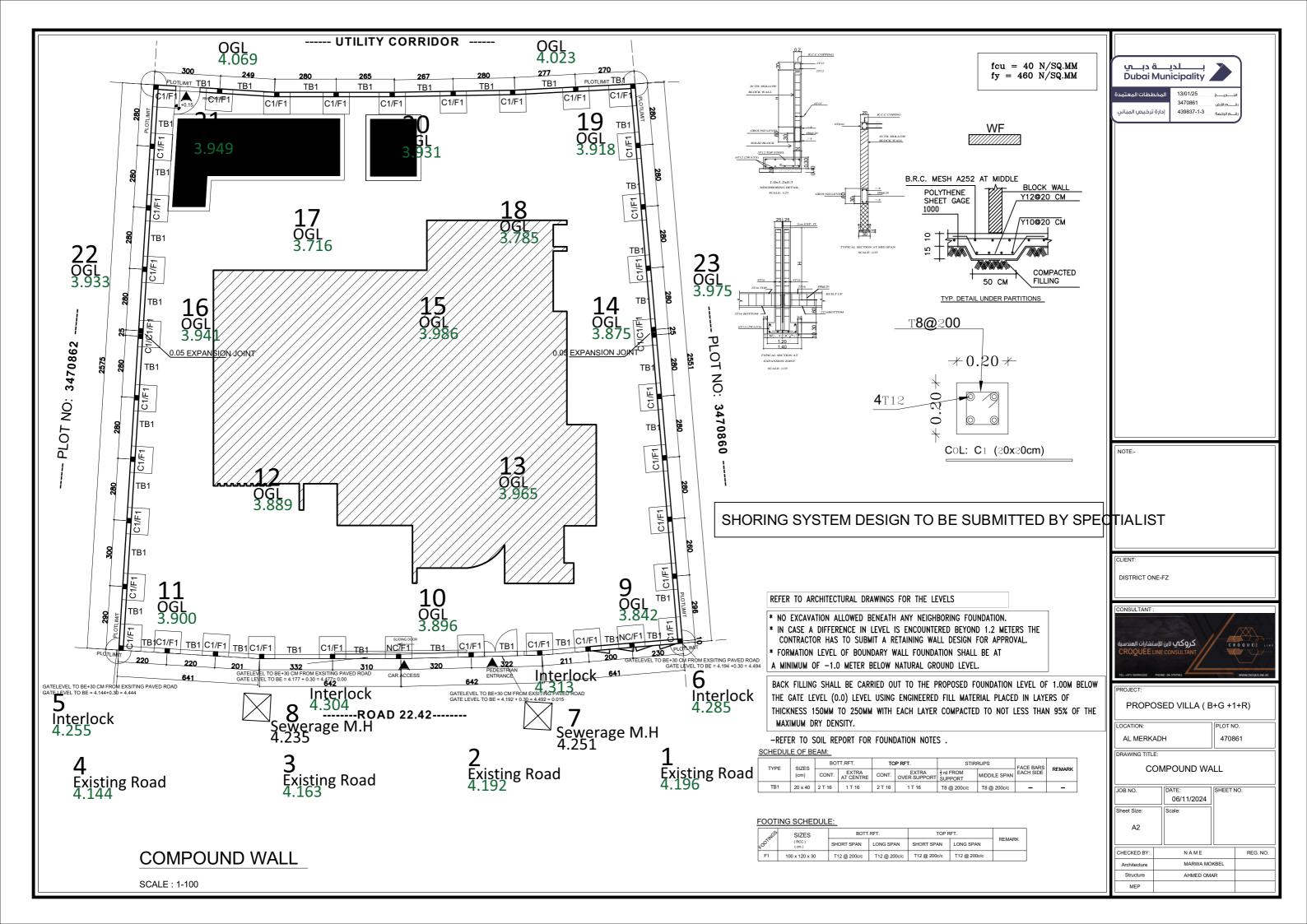






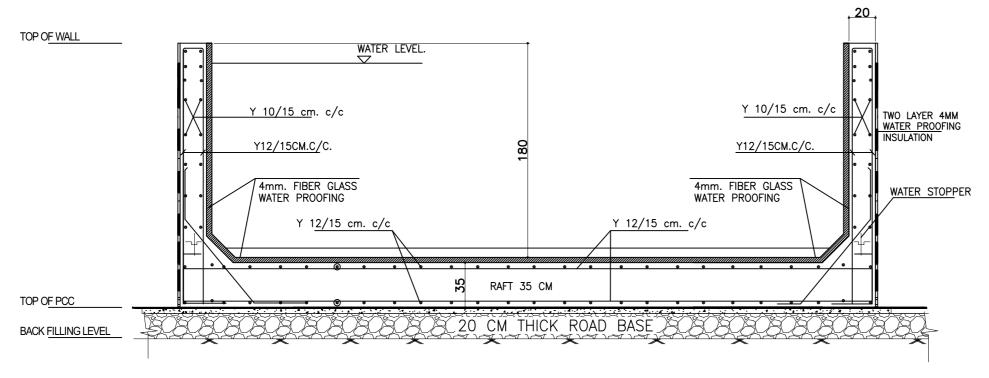






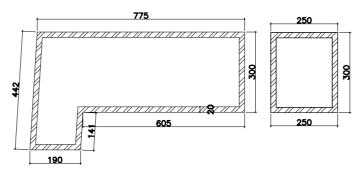
$\begin{array}{ll} \text{fcu} = 40 \text{ N/SQ.MM} \\ \text{fy} = 460 \text{ N/SQ.MM} \end{array}$





SHORING SYSTEM DESIGN TO BE SUBMITTED BY SPECTIALIST

(SWIMMING POOL SECTION)



SWIMMIN POOL PLAN

SWIMMING POOL SECTION

CONSULTANT:	
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PROJECT:	
PROPOSED VILLA (B+G	i +1+R)

PROPOSED VILLA (B+G+1+R)
, , ,

OCATION PLOT NO 470861 AL MERKADH

DISTRICT ONE-FZ

SWIMMING POOL SECTION

JOB NO.	DATE:	SHEET NO.
	06/11/2024	
Sheet Size:	Scale:	
A2		

CHECKED BY:	NAME	REG. NO.
Architecture	MARWA MOKBEL	
Structure	AHMED OMAR	
MEP		