

GENERAL STRUCTURAL NOTES

GENERAL:

- 1- ALL DIMENSIONS ARE WRITTEN IN CENTIMETERS UNLESS IT IS INDICATED OTHERWISE. LEVELS ARE IN METERS. ALL REINFORCING STEEL BARS DIAMETERS ARE SHOWN IN MILLIMETERS
- 2- DIMENSIONS SHALL NOT BE SCALED FROM DRAWINGS, THEY SHALL BE READ OR COMPUTED, CONSULT THE DESIGNER OTHERWISE
- 3- EVERY DRAWING SHALL BE READ IN CONJUNCTION WITH THE RELEVANT ARCHITECTURAL, MECHANICAL & ELECTRICAL DRAWINGS IN ADDITION TO ALL STRUCTURAL DRAWINGS OF THE SAME PART
- 4- CODES OF DESIGN:
STRUCTURAL DESIGN AND DETAILING WAS CARRIED ON IN ACCORDANCE WITH THE FOLLOWING JORDANIAN CODES:
1-CODE OF LOADS & FORCES
2-CODE OF STRUCTURAL CONCRETE
- 5- ALL CONSTRUCTION MATERIALS TO WHICH REFERENCE IS MADE IN THE DRAWINGS, SHALL CONFIRM TO THE MINISTRY OF PUBLIC WORKS & HOUSING CIVIL & ELECTROMECHANICAL SPECIFICATIONS/1996

MATERIAL PROPERTIES:

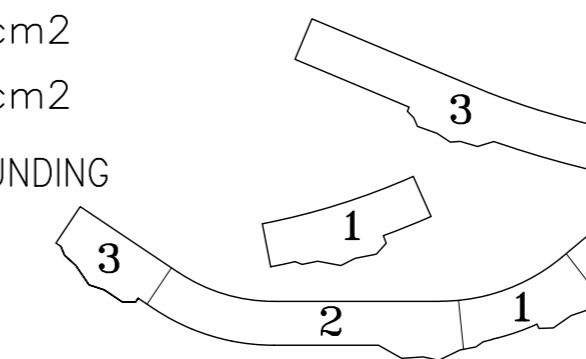
CONCRETE	CHARACTERISTIC CUBE STRENGTH@28 DAYS
BLINDING CONCRETE	15N/mm ²
SLAB ON GRADE	20N/mm ²
FOUNDATION	30N/mm ²
WALLS	30N/mm ²
COLUMNS	30N/mm ²
SLABS & BEAMS	30N/mm ²
REINFORCEMENT STEEL	YIELD STRESS
DEFORMED HIGH STEEL BARS	fy=420N/mm ²
MILD DEFORMED STEEL BARS (FOR Ø8 STIRRUPS ONLY)	fy=280N/mm ²
ALL LAP SPLICES ARE TO BE STAGGERED	
MINIMUM BARS LAP LENGTH=50*BAR DIAMETER	

NOMINAL CONCRETE COVER TO REINFORCEMENT:

FOOTING	50 mm
COLUMN	30 mm
SLABS & BEAMS	25 mm
WALLS	25 mm

FOUNDATION:

- THE ALLOWABLE SOIL BEARING CAPACITY FOR ZONE (1)=2.5Kg/cm²
- THE ALLOWABLE SOIL BEARING CAPACITY FOR ZONE (2)=2.0Kg/cm²
- THE ALLOWABLE SOIL BEARING CAPACITY FOR ZONE (3)=1.6Kg/cm²
- MINIMUM FOOTINGS DEPTH FOR ZONE (1) SHOULD BE 1.0m BELOW SURROUNDING NATURAL GROUND LEVEL.
- MINIMUM FOOTINGS DEPTH FOR ZONE (2&3) SHOULD BE 2.0m BELOW SURROUNDING NATURAL GROUND LEVEL.
- THE FOUNDATION DEPTH SHOULD BE CHECKED AND APPROVED BY THE GEOTECHNICAL OFFICE BEFORE CONCRETING.

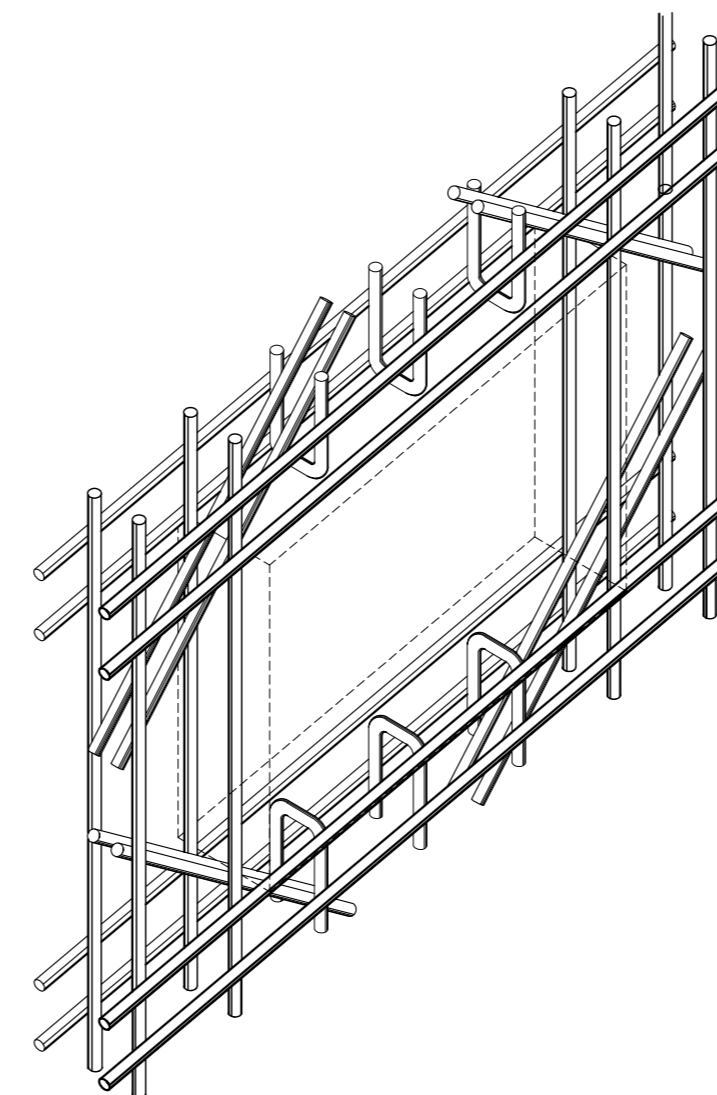


LEGEND:

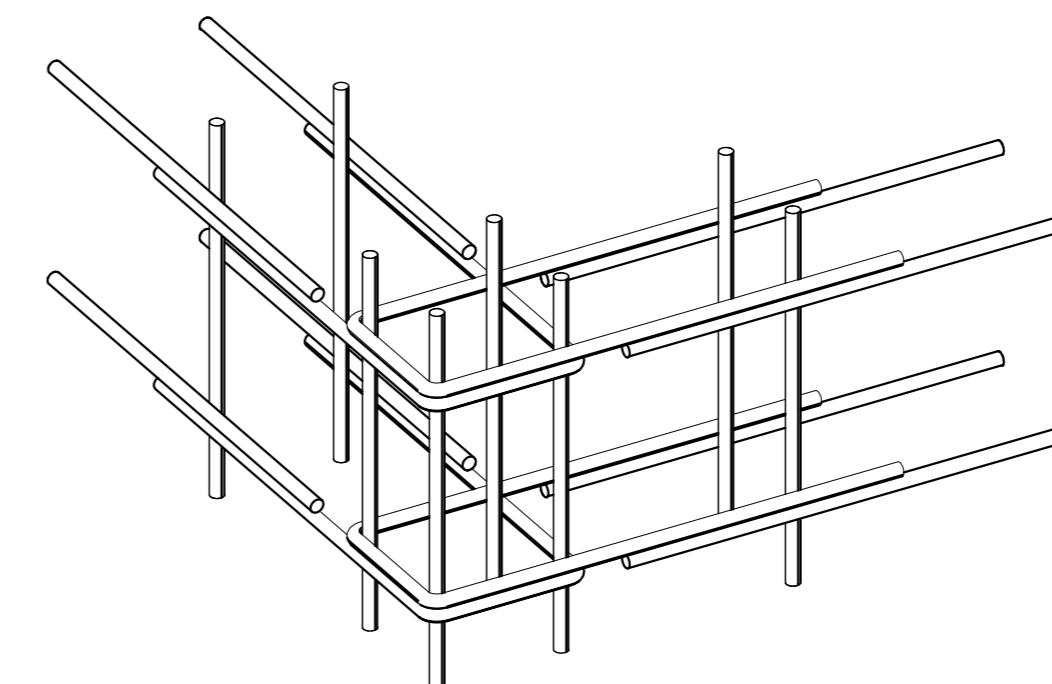
ADD	ADDITIONAL
B	BOTTOM
B.O.	BOTTOM OF
C	COLUMN
CL	CONCRETE LEVEL
CLR	CLEAR
db	BAR DIAMETER IN mm
DWLS	DOWELS
E.F	EACH FACE
E.W	EACH WAY
B.W	BOTH WAYS
F	FOOTING
G.B	GROUND BEAM
MAX.	MAXIMUM
MIN.	MINIMUM
N.T.S	NOT TO SCALE
I.S	INTERMEDIATE SUPPORT I.S SHOULD BE PLACED ON NATURAL UNDISTURBED SOIL
T	TOP
T&B	TOP & BOTTOM
T.O	TOP OF
TSS	TOP STRUCTURAL SLAB
TYP.	TYPICAL
U.N.O	UNLESS NOTED OTHERWISE
C.W	COMMON WITH
REINF.	REINFORCEMENT
VERT.	VERTICAL
HORZ.	HORIZONTAL
ARCH.	ARCHITECTURAL
STRUC.	STRUCTURAL
DRWGS.	DRAWINGS
CONST.	CONSTANT
c/c	CENTER TO CENTER OF BARS

NO. OF FLOORS

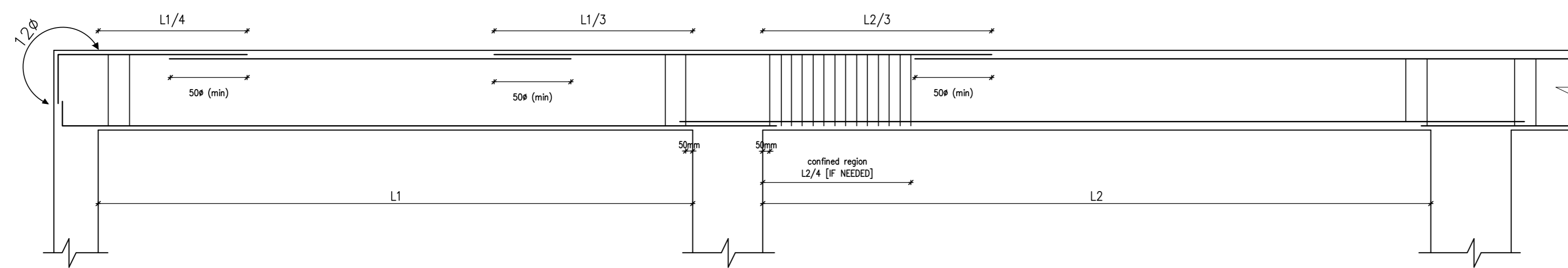
- COLUMNS & FOOTINGS ARE DESIGNED TO HOLD ONE FLOOR ,NO FUTURE EXTENSIONS.



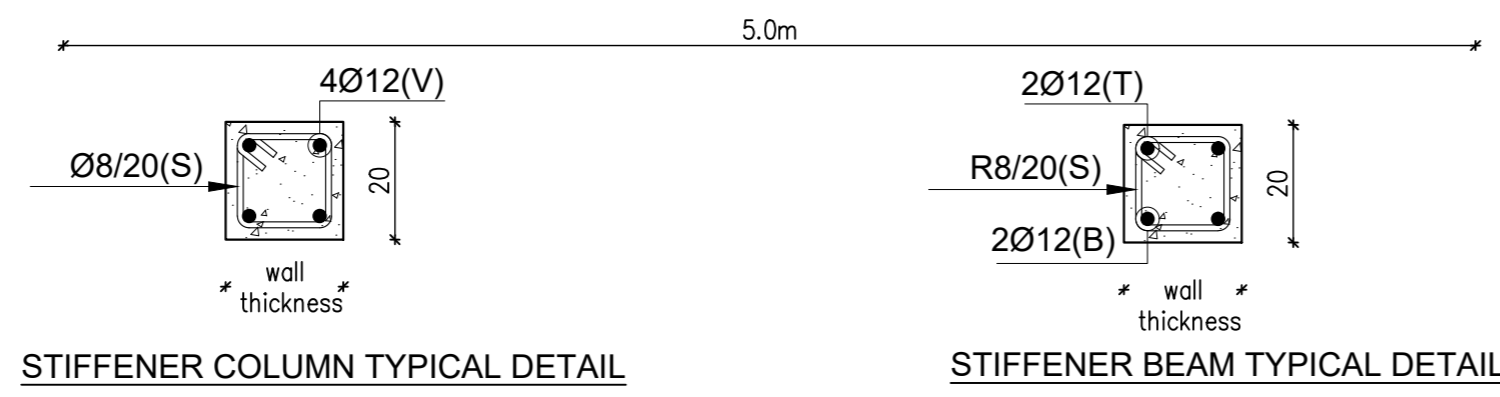
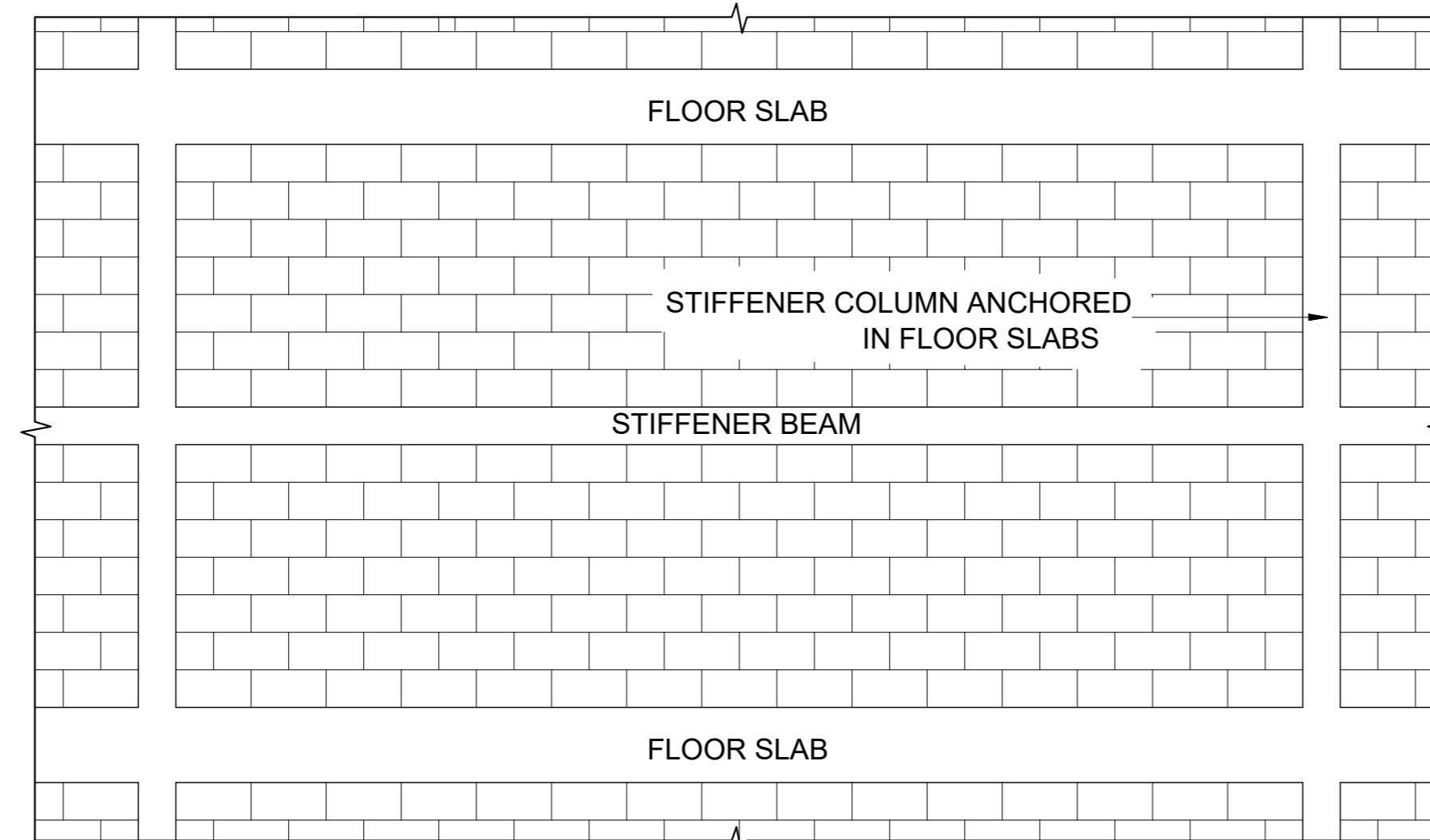
FOR ALL WALL OPENINGS
Fix diagonal 2Ø14X200 bars in both faces, at each corner.



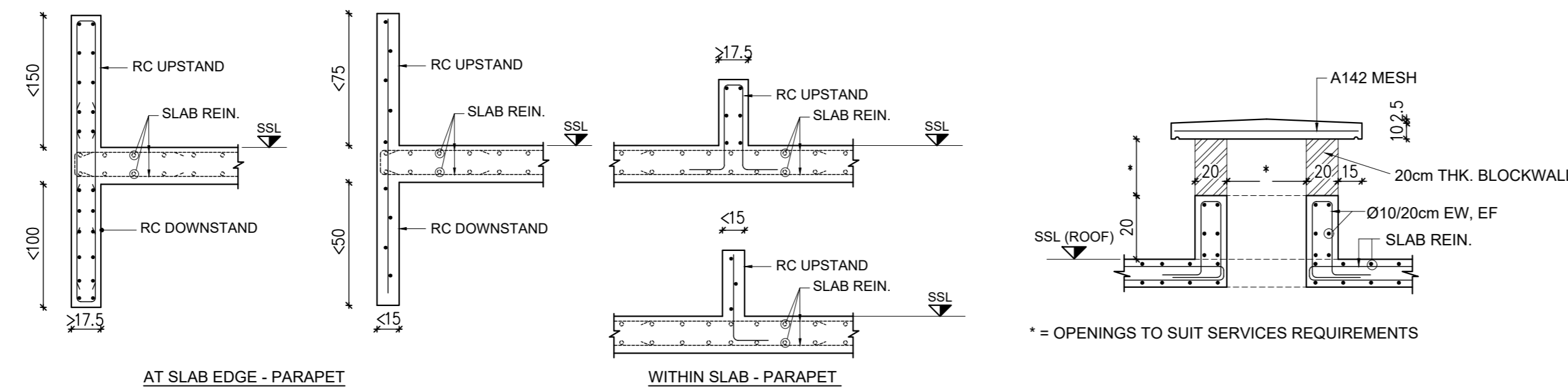
FOR ALL WALLS , WALL BEAMS AND DEEP BEAMS
Use U Bars for ends and corners



TYPICAL DETAIL FOR MULTI SPAN BEAM REINFORCEMENT



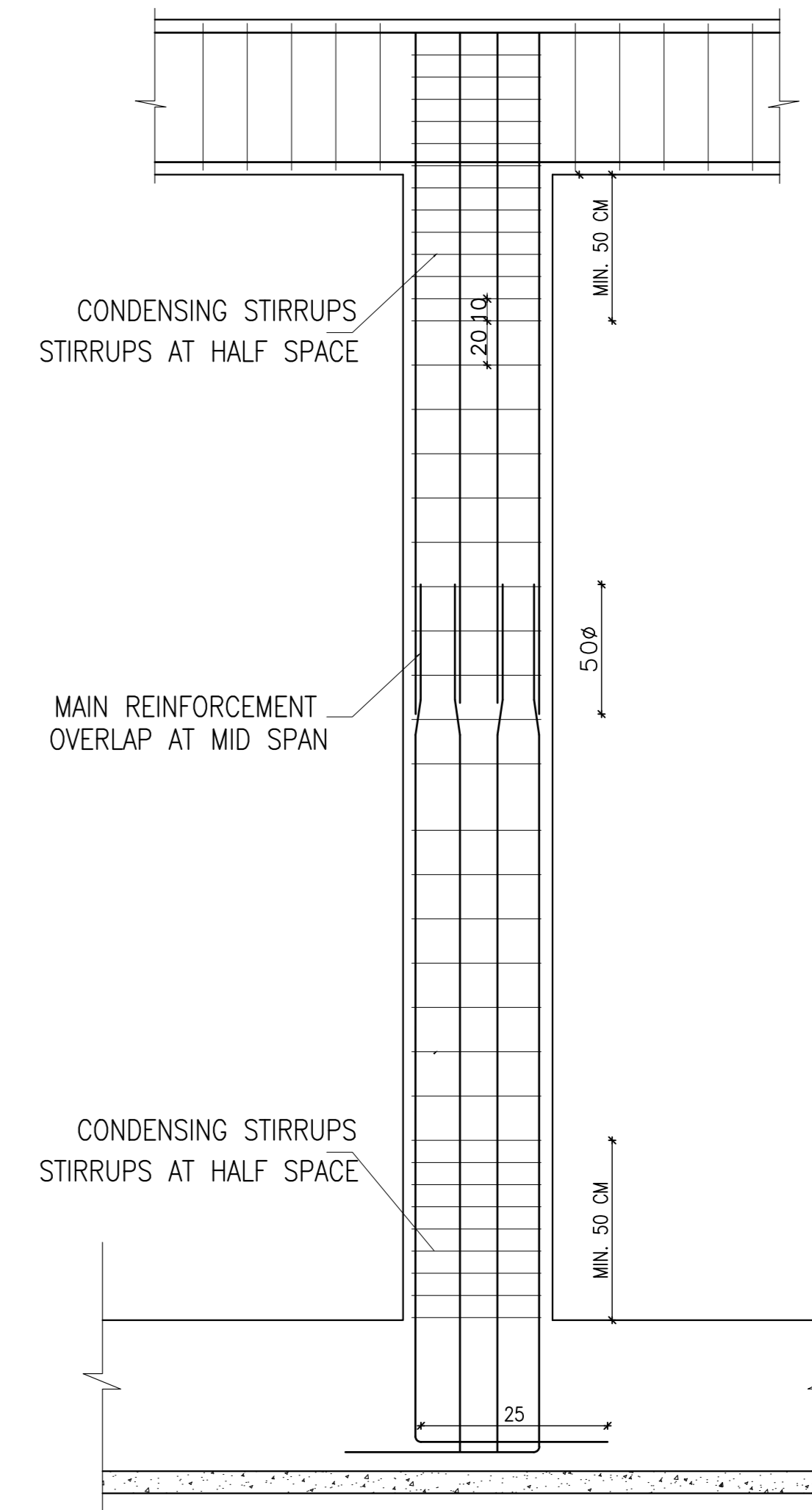
TYPICAL DETAILS OF STIFFENER BEAMS AND STIFFENER COLUMNS IN EXTERNAL BLOCK WALLS



SCHEDULE OF UPSTAND/DOWNSTAND REINFORCEMENT	
WIDTH	REINFORCEMENT
≤15cm	Ø10/20cm VERTICAL ONE LAYER Ø8/15cm HORIZONTAL (PLACED CENTRALLY)
≥17.5cm	Ø10/15cm VERTICAL E.F. Ø10/15cm HORIZONTAL E.F.

TYPICAL UPSTAND DOWNSTAND DETAILS

TYPICAL COVERED ROOF PENETRATION FOR MEP SERVICES

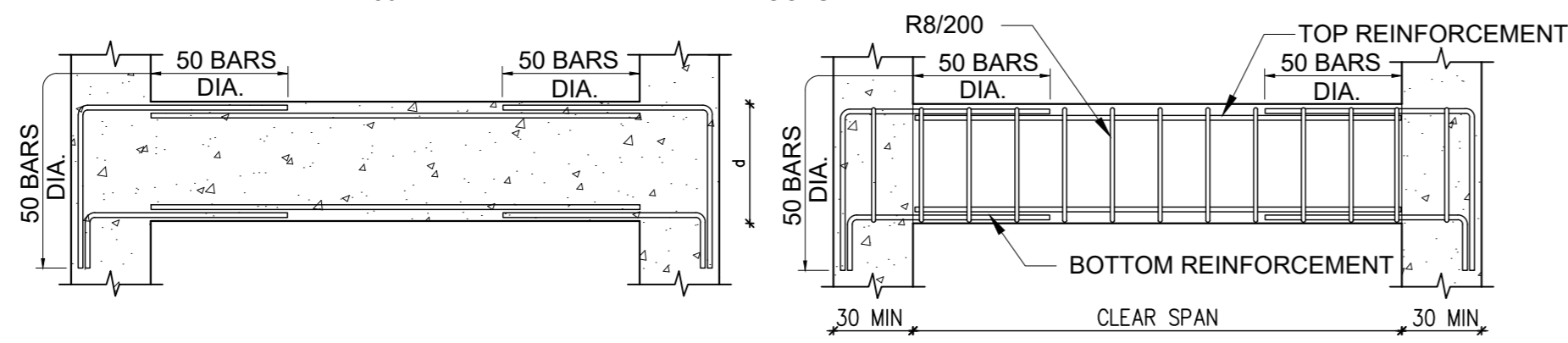


LONG SECTION IN COLUMN

NOTES:

2. MINIMUM MAIN BAR DIAMETER = 14mm.
1. FOR DETAILS OF BEAMS REFER TO COLUMN SCHEDULES
- 3) 50cm WHERE h IS THE LARGER COLUMN PLAN DIMENSION

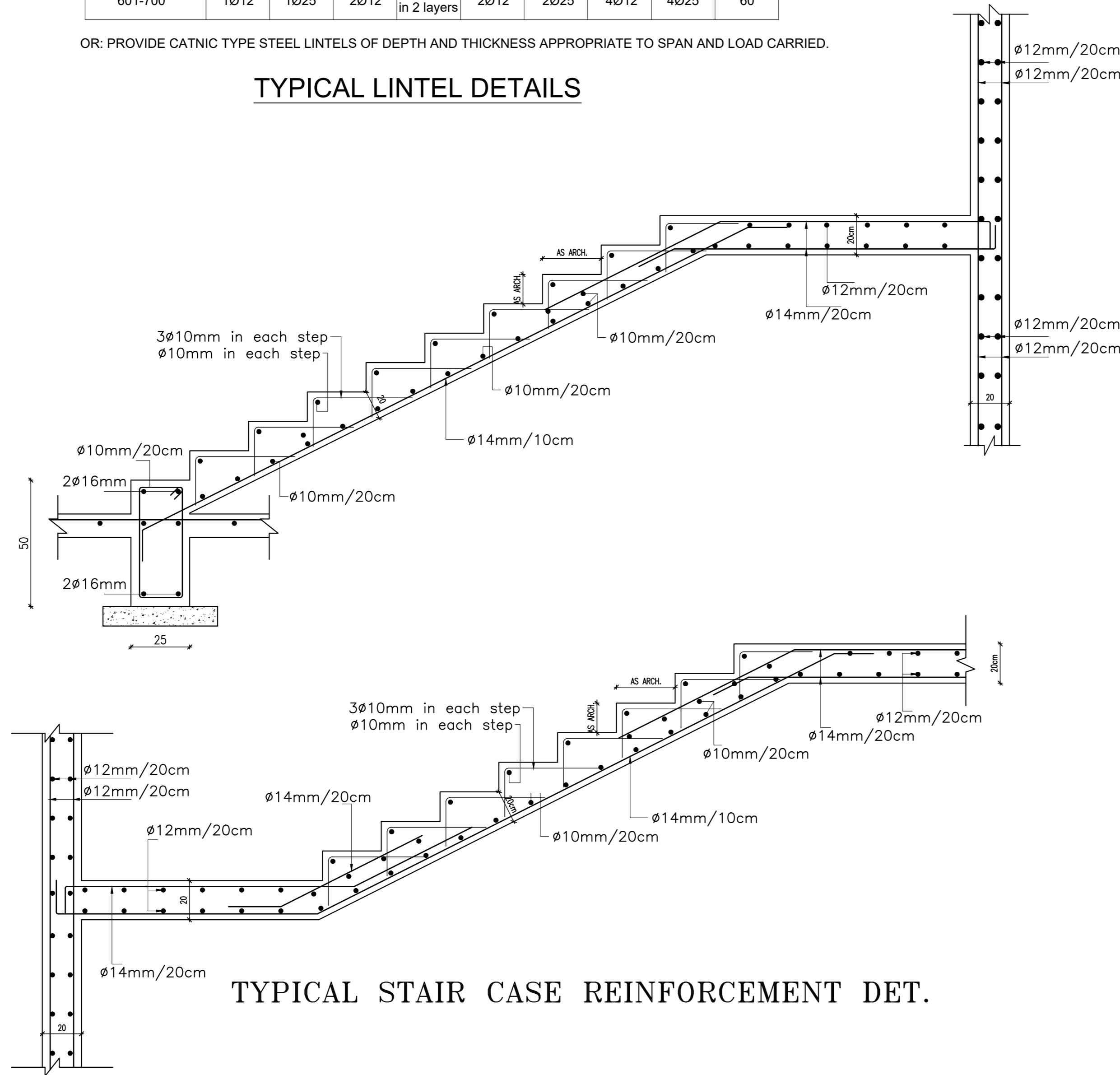
FOR ALL SILLS AND LENTILS BETWEEN COLUMNS AND NOT SUPPORTED BY A WALL, PROVIDE DOWELS IN THE COLUMN OF SAME SIZE AND NUMBER AS THE REINFORCEMENT OF THE LENTIL OR SILL. THESE DOWELS SHALL EXTEND 50 TIMES BAR DIAMETER FROM THE FACE OF THE COLUMN AND SHALL BE EMBEDDED 50 TIMES BAR DIAMETER IN THE COLUMN.



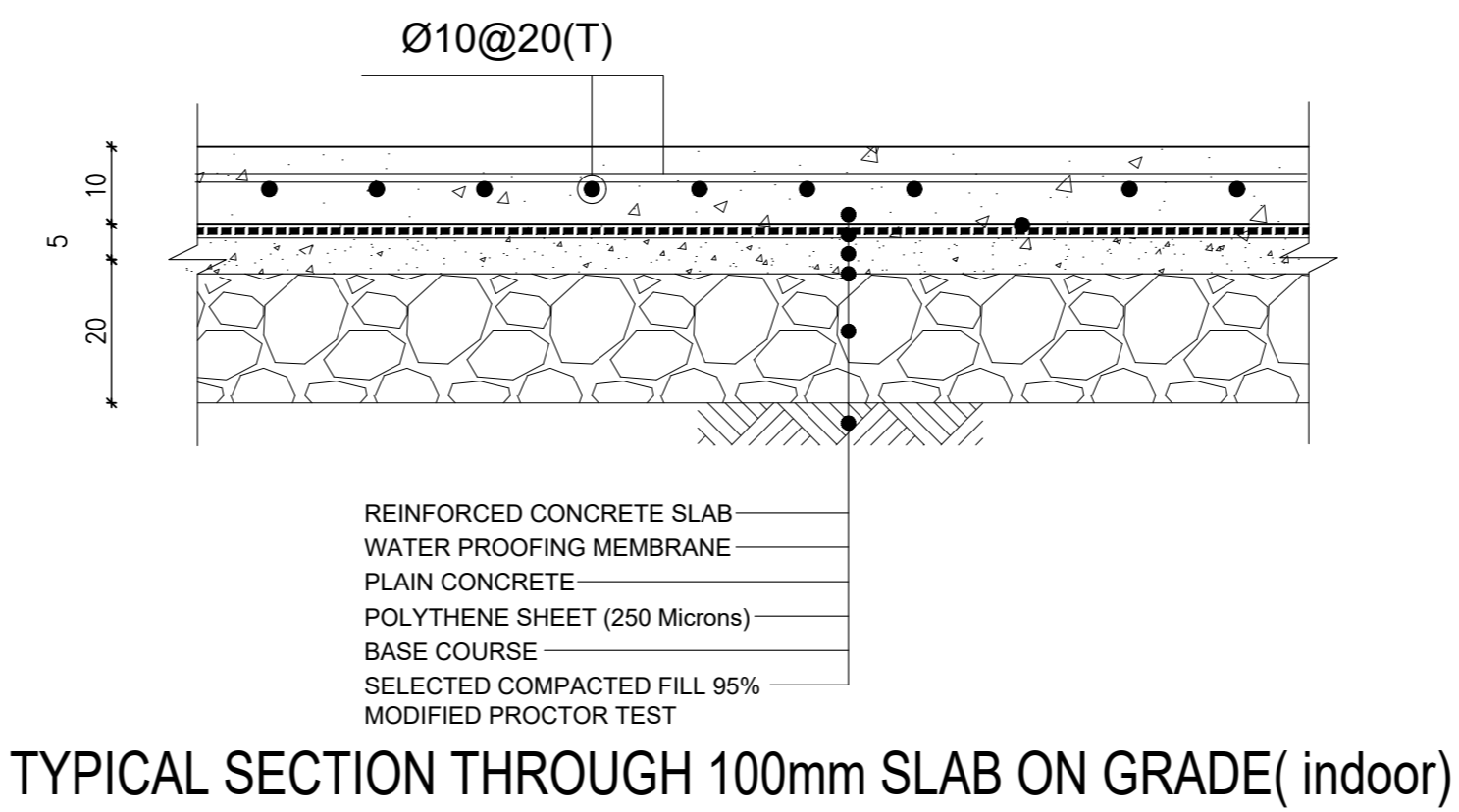
SCHEDULE OF LINTELS REINFORCEMENT									
CLEAR SPAN (cm)	b=10cm		b=15cm		b=20cm or 25cm		b=40cm		DEPTH = d (cm)
	TOP REINF.	BOTTOM REINF.	TOP REINF.	BOTTOM REINF.	TOP REINF.	BOTTOM REINF.	TOP REINF.	BOTTOM REINF.	
< 200	1Ø10	1Ø14	2Ø10	2Ø12	2Ø10	2Ø12	4Ø10	4Ø12	20
200-300	1Ø10	1Ø16	2Ø10	2Ø14	2Ø10	2Ø16	4Ø10	4Ø16	25
301-400	1Ø10	1Ø20	2Ø10	2Ø16	2Ø10	2Ø18	4Ø12	4Ø18	30
401-500	1Ø10	1Ø20	2Ø10	2Ø16	2Ø10	2Ø18	4Ø12	4Ø20	40
501-600	1Ø10	1Ø20	2Ø10	2Ø16	2Ø10	2Ø18	4Ø12	4Ø20	50
601-700	1Ø12	1Ø25	2Ø12	4Ø20 in 2 layers	2Ø12	2Ø25	4Ø12	4Ø25	60

OR: PROVIDE CATNIC TYPE STEEL LINTELS OF DEPTH AND THICKNESS APPROPRIATE TO SPAN AND LOAD CARRIED.

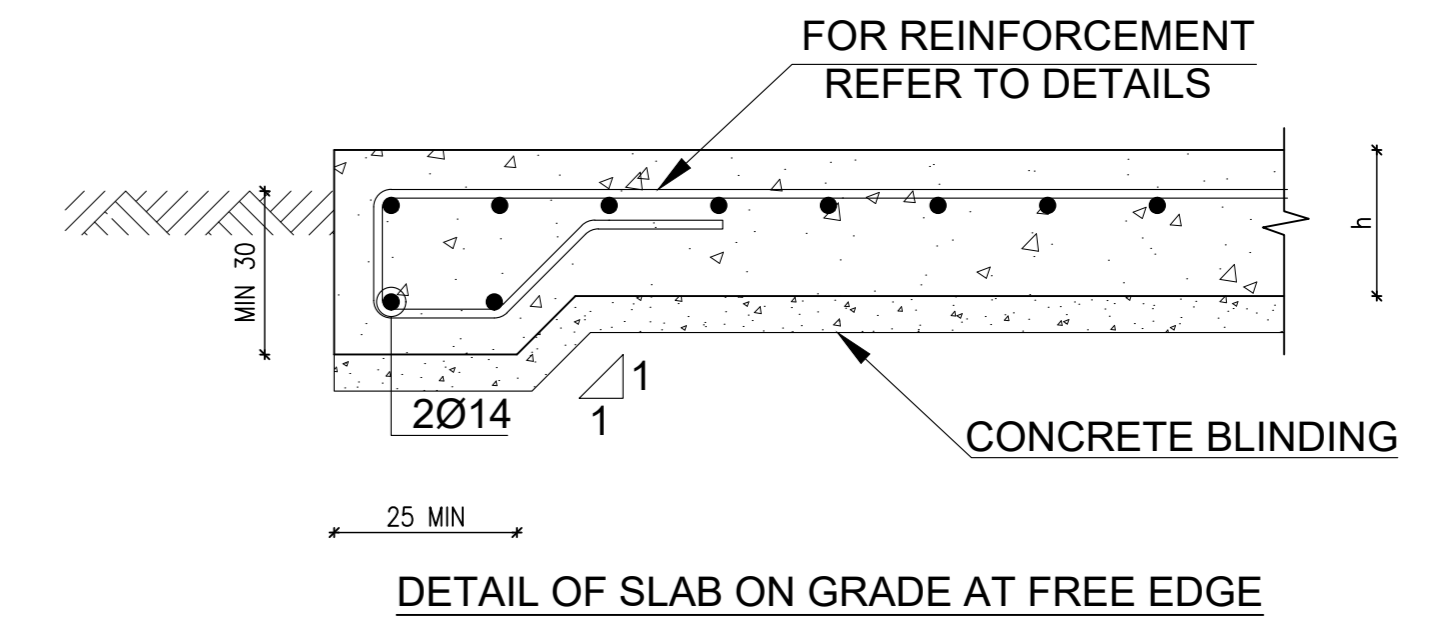
TYPICAL LINTEL DETAILS



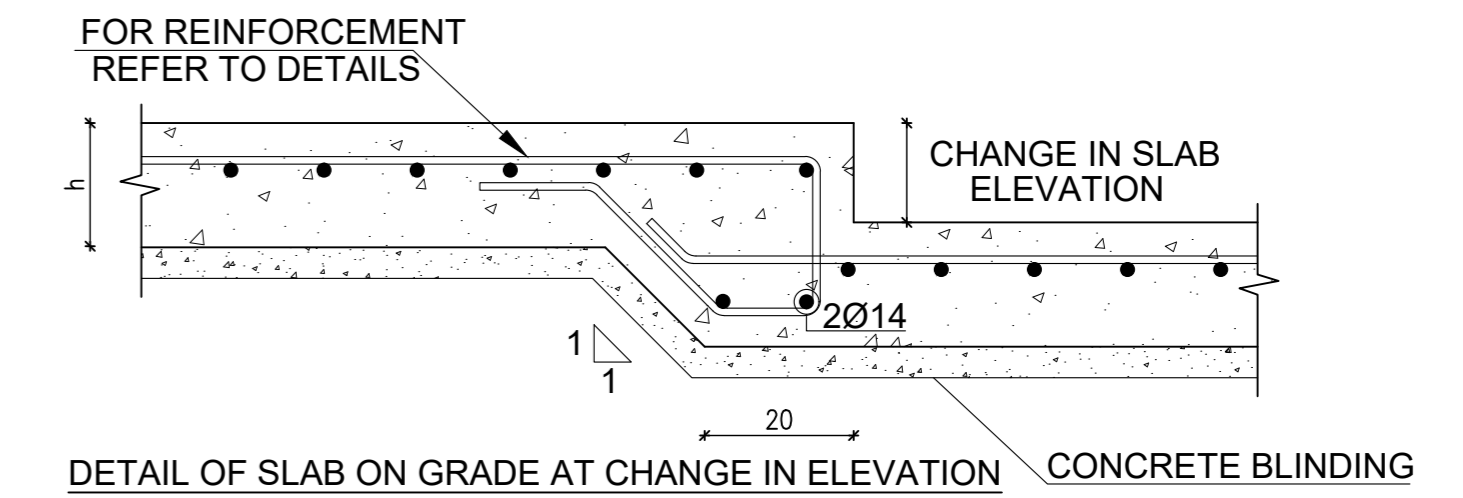
TYPICAL STAIR CASE REINFORCEMENT DET.



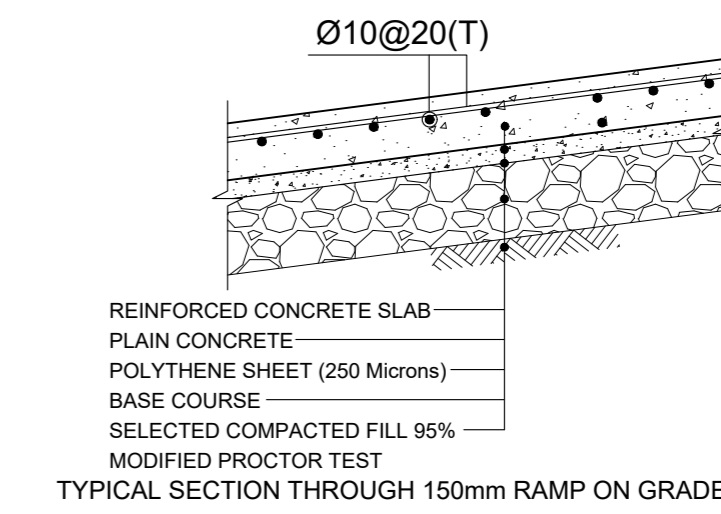
TYPICAL SECTION THROUGH 100mm SLAB ON GRADE(indoor)



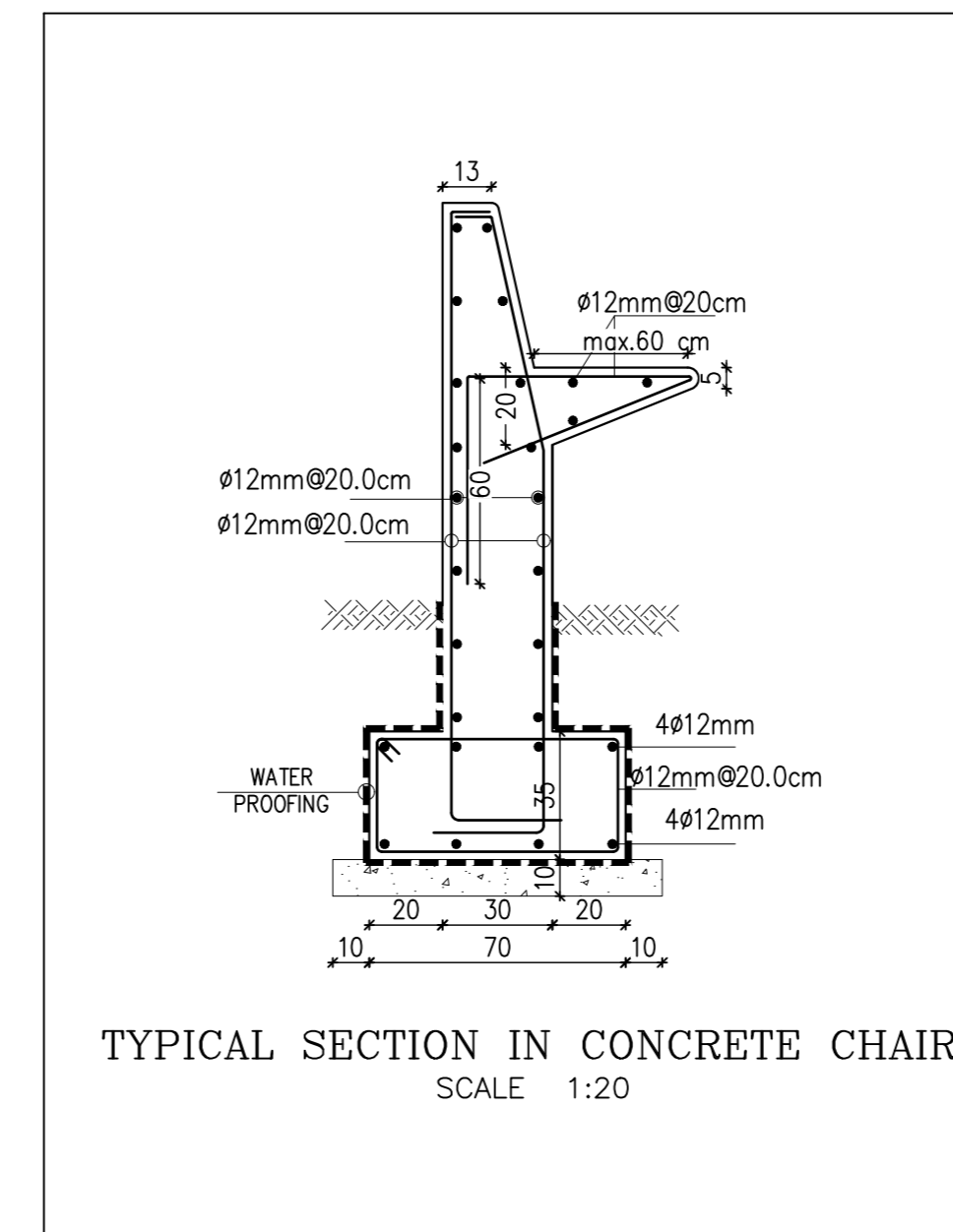
DETAIL OF SLAB ON GRADE AT FREE EDGE



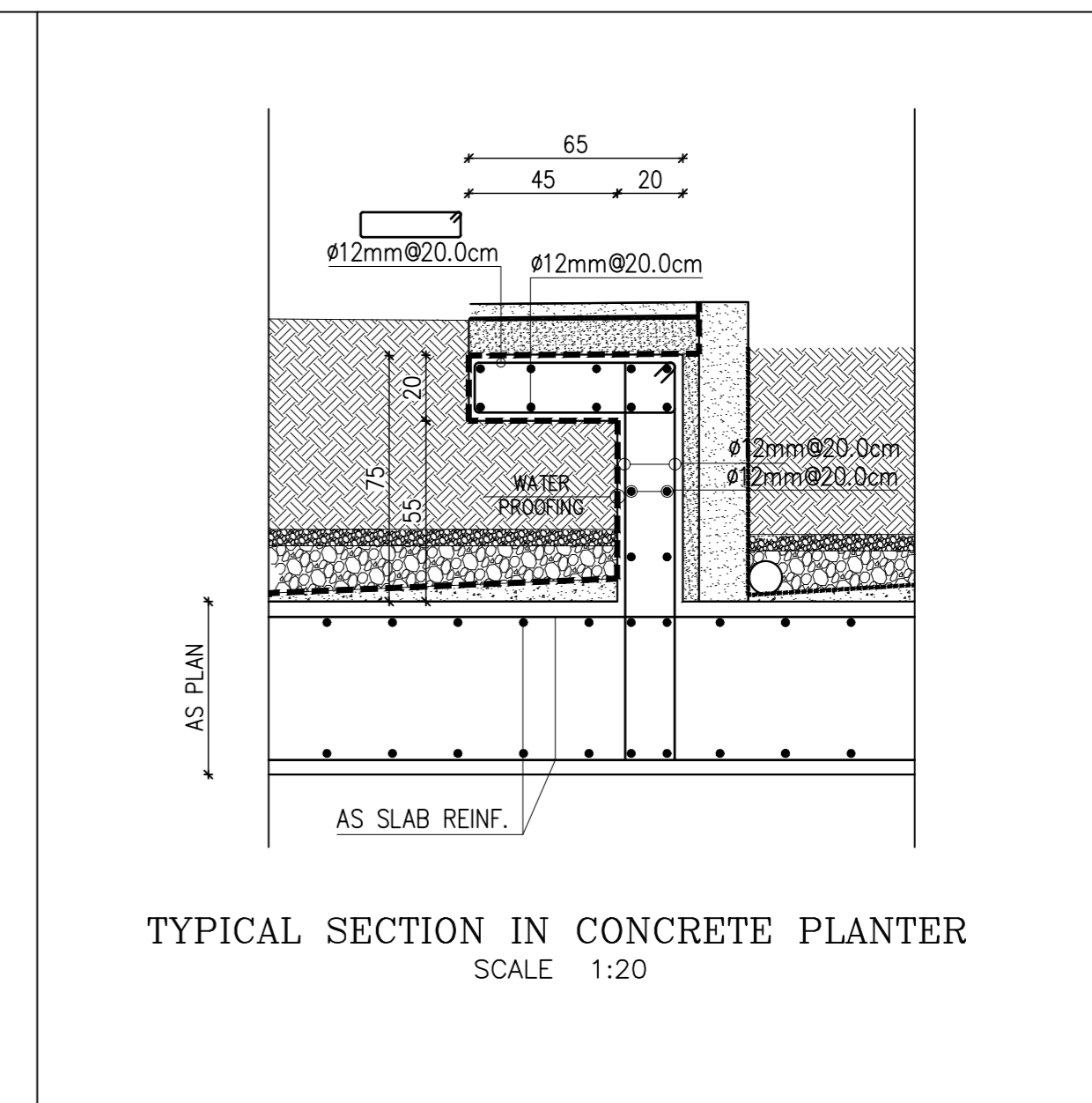
DETAIL OF SLAB ON GRADE AT CHANGE IN ELEVATION



TYPICAL SECTION THROUGH 150mm RAMP ON GRADE

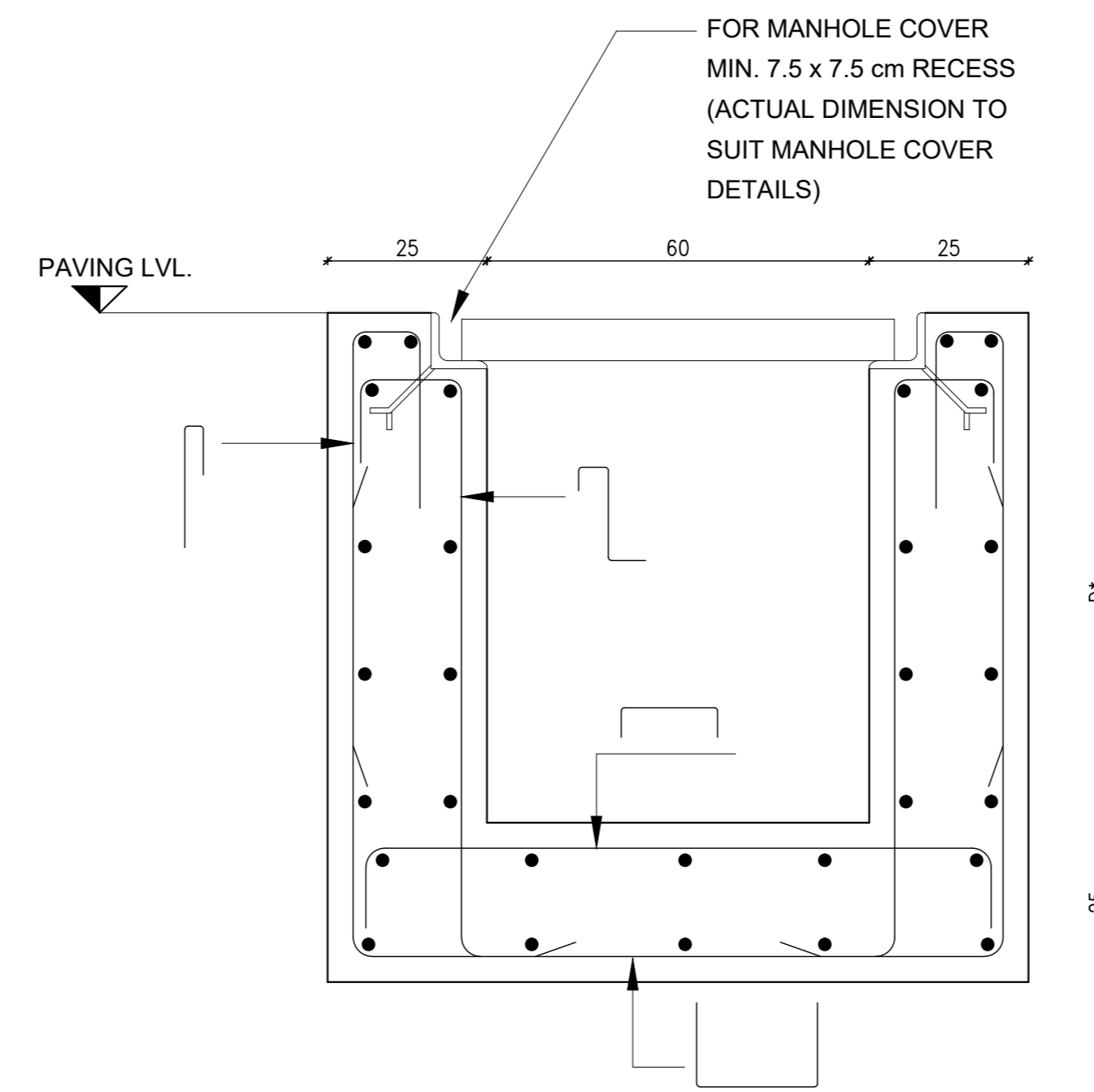
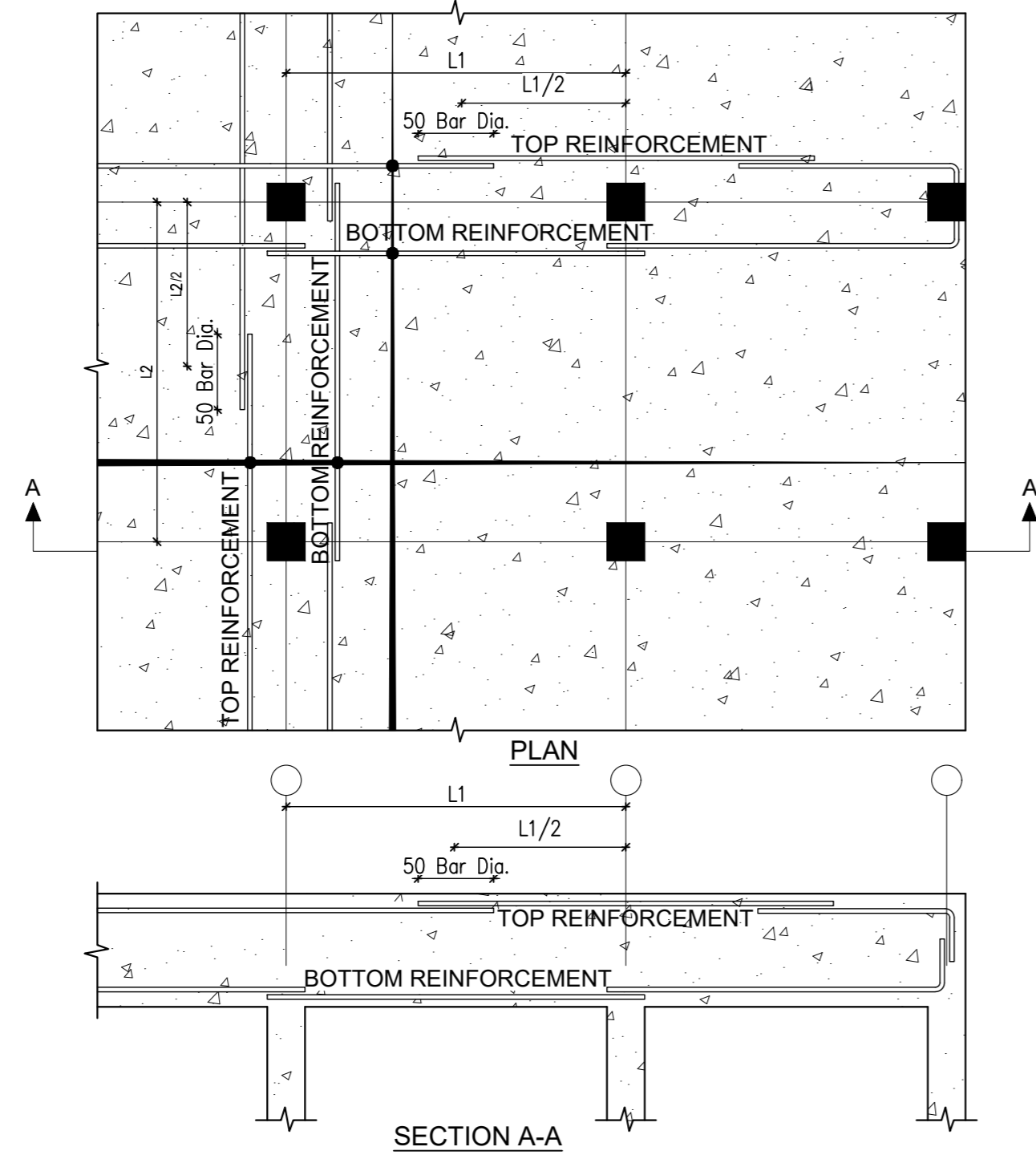


TYPICAL SECTION IN CONCRETE CHAIR
SCALE 1:20



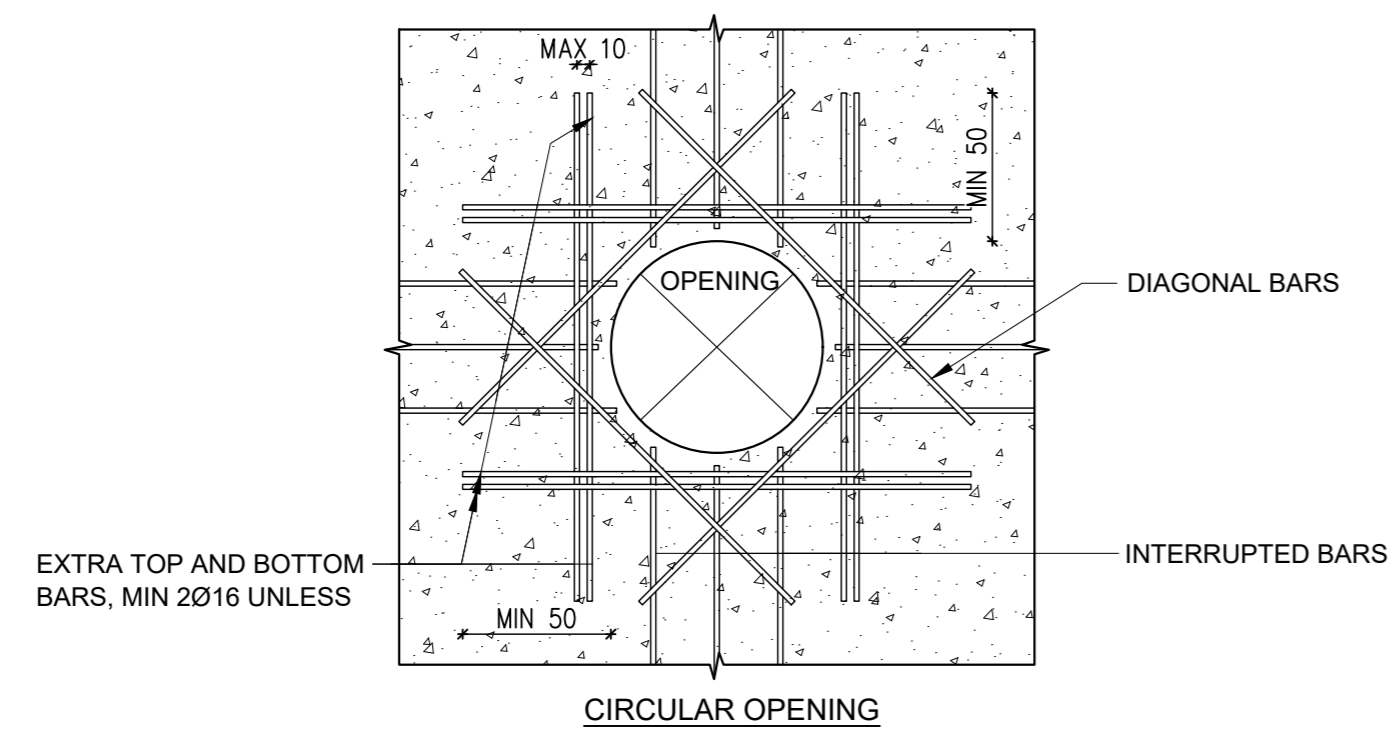
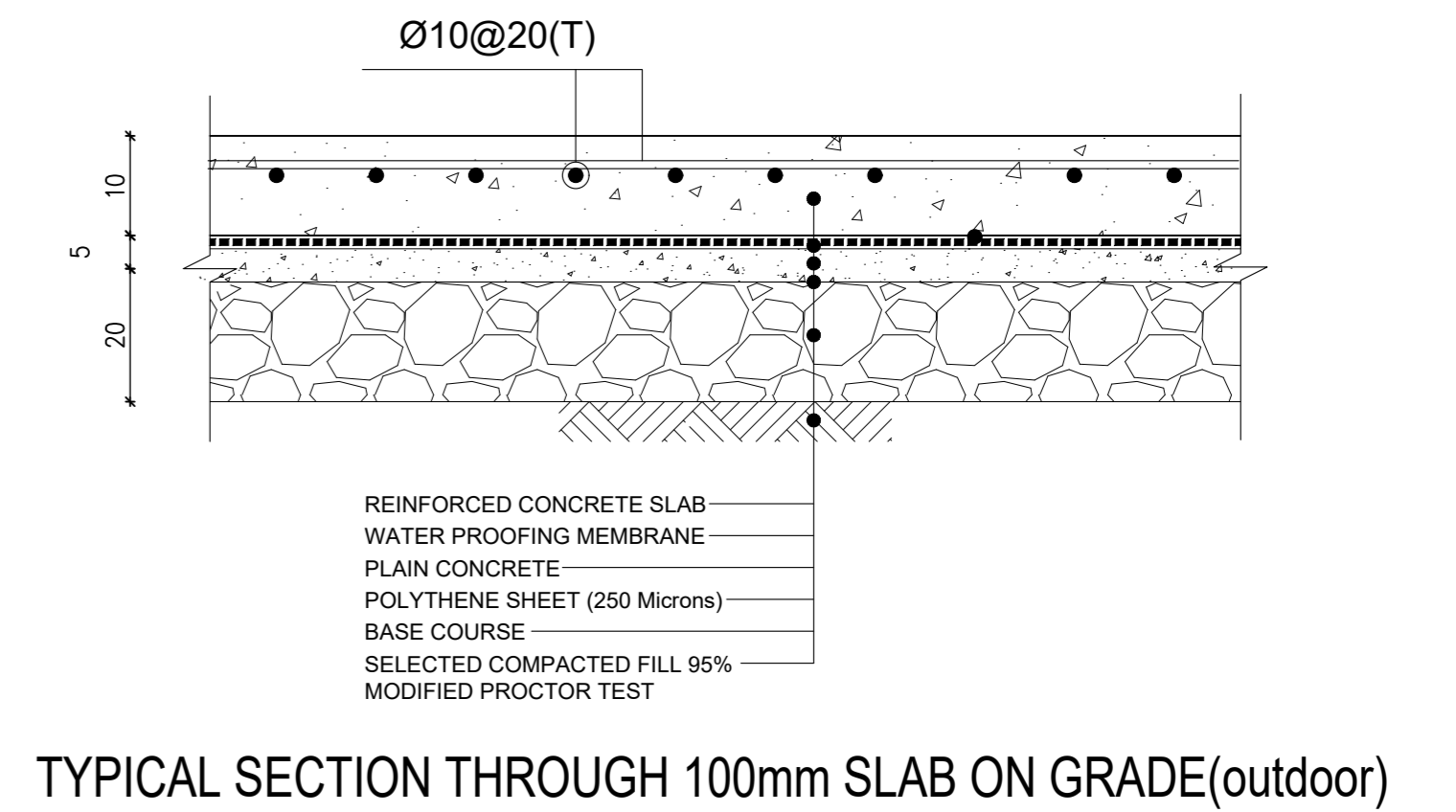
TYPICAL SECTION IN CONCRETE PLANTER
SCALE 1:20

TYPICAL FLAT SLAB REINFORCEMENT DETAIL

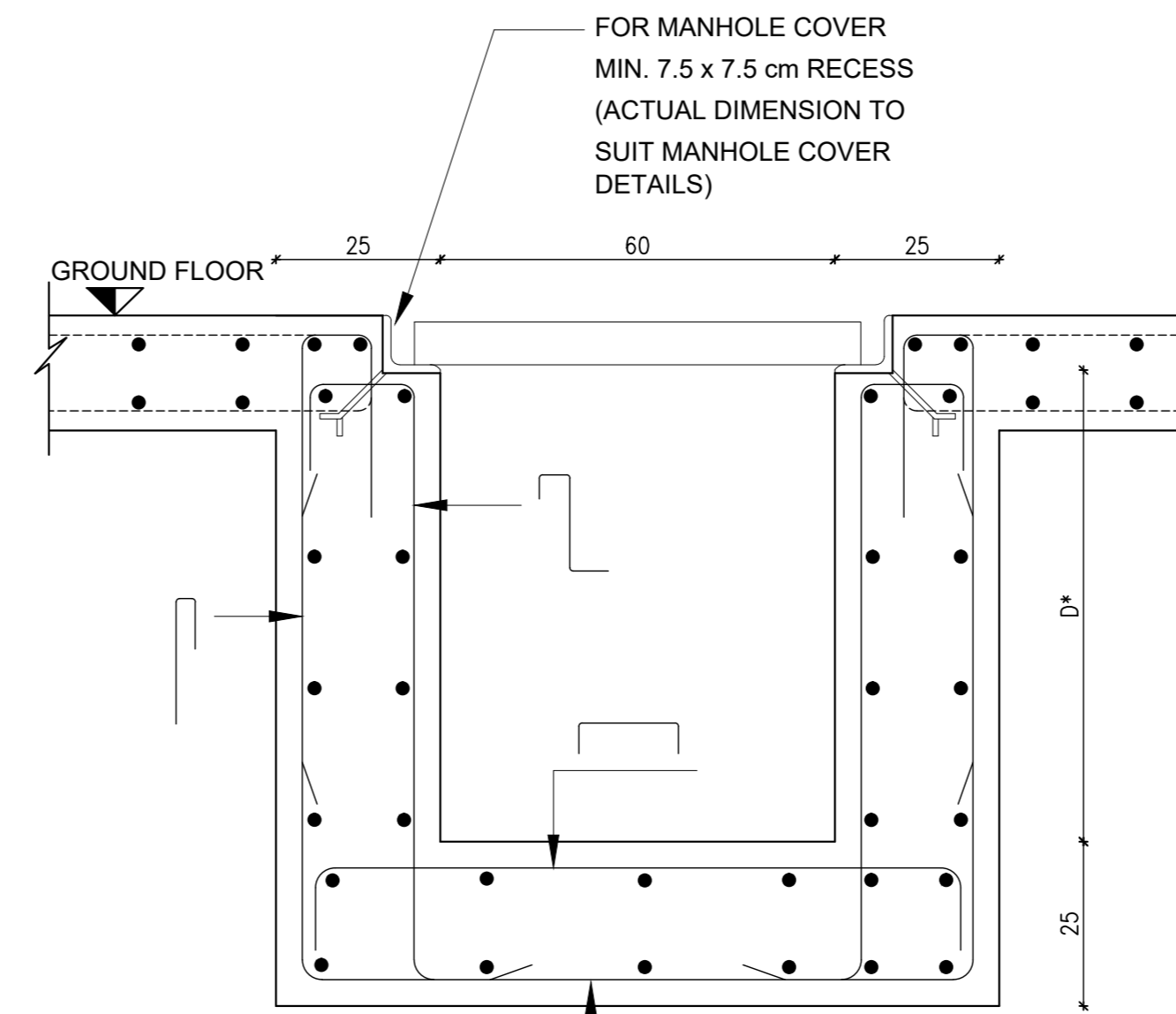
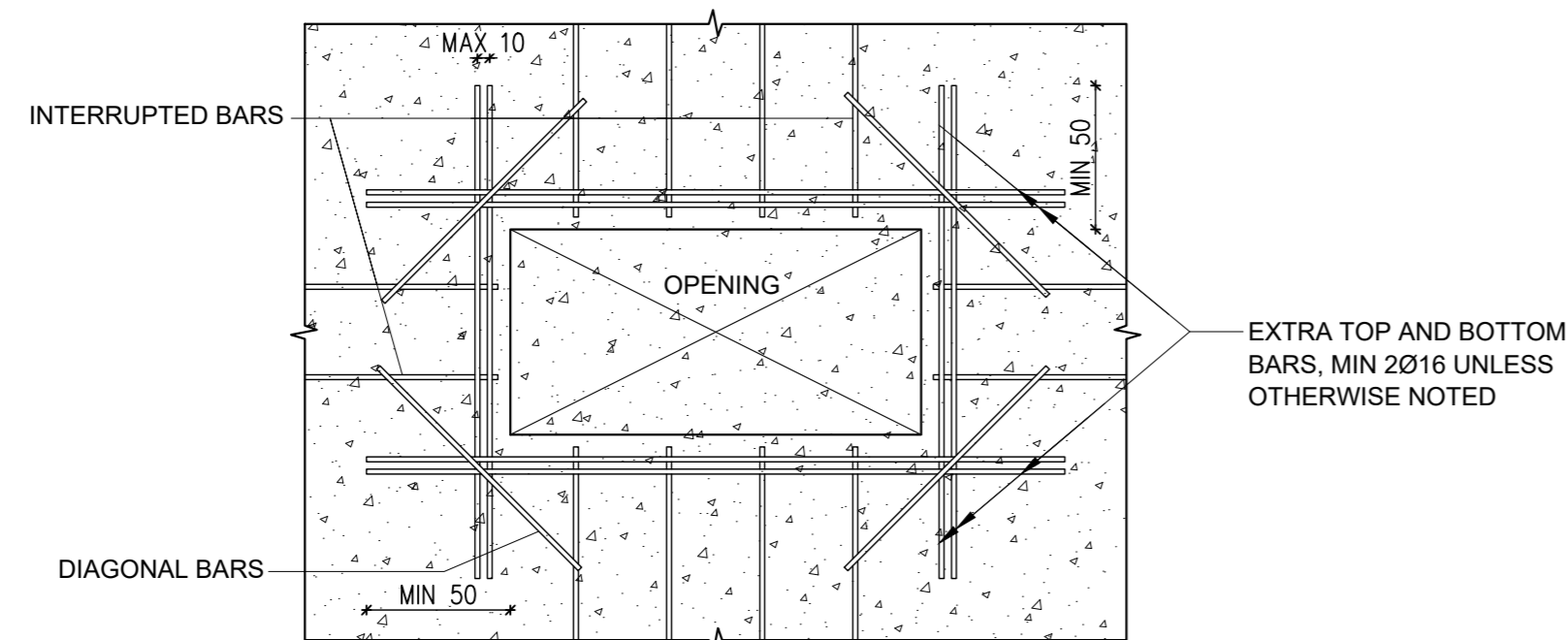


ALL REINFORCEMENTS ARE Ø10-20cm
(FOR MAX. DEPTH 100)
* DEPTH AS PER DRAINAGE LAYOUT DWG.

TYPICAL MANHOLE DETAIL

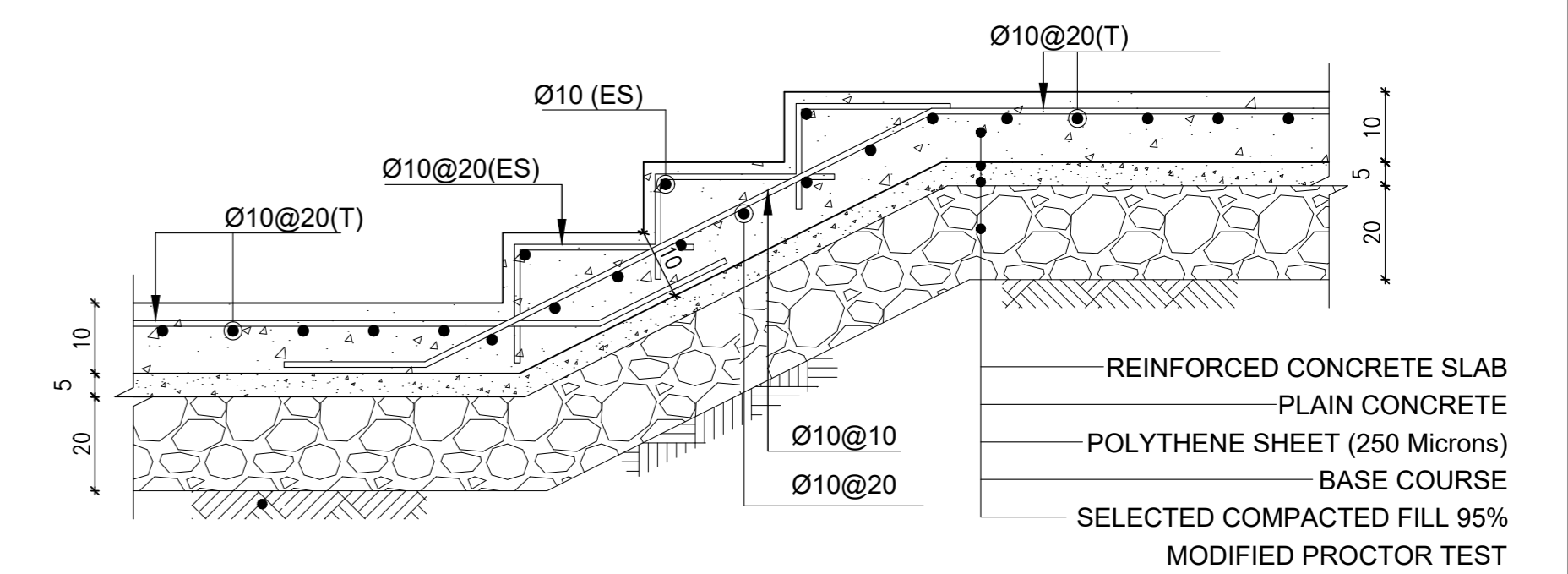


OPENINGS IN CONCRETE SLABS SCALE: 1/20

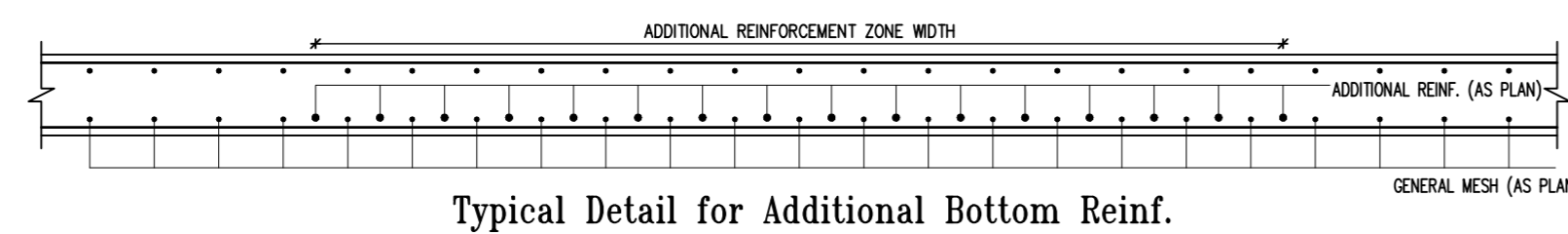


ALL REINFORCEMENTS ARE Ø10-20cm
(FOR MAX. DEPTH 100)
* DEPTH AS PER DRAINAGE LAYOUT DWG.

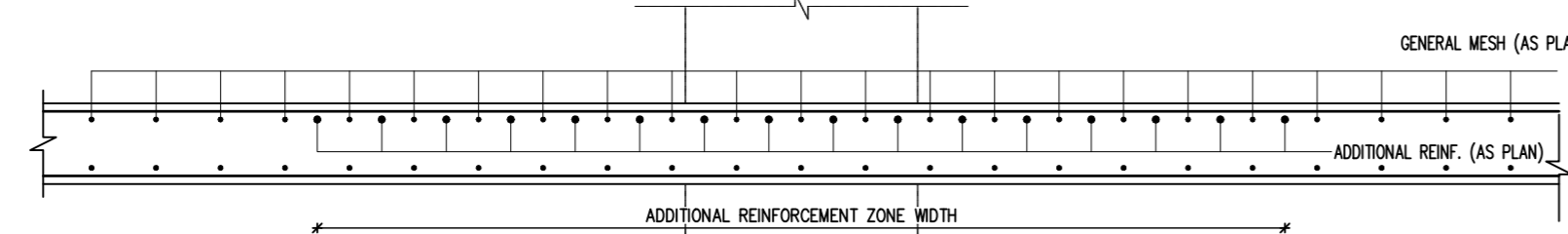
TYPICAL MANHOLE DETAIL



TYPICAL SECTION THROUGH STAIR ON GRADE

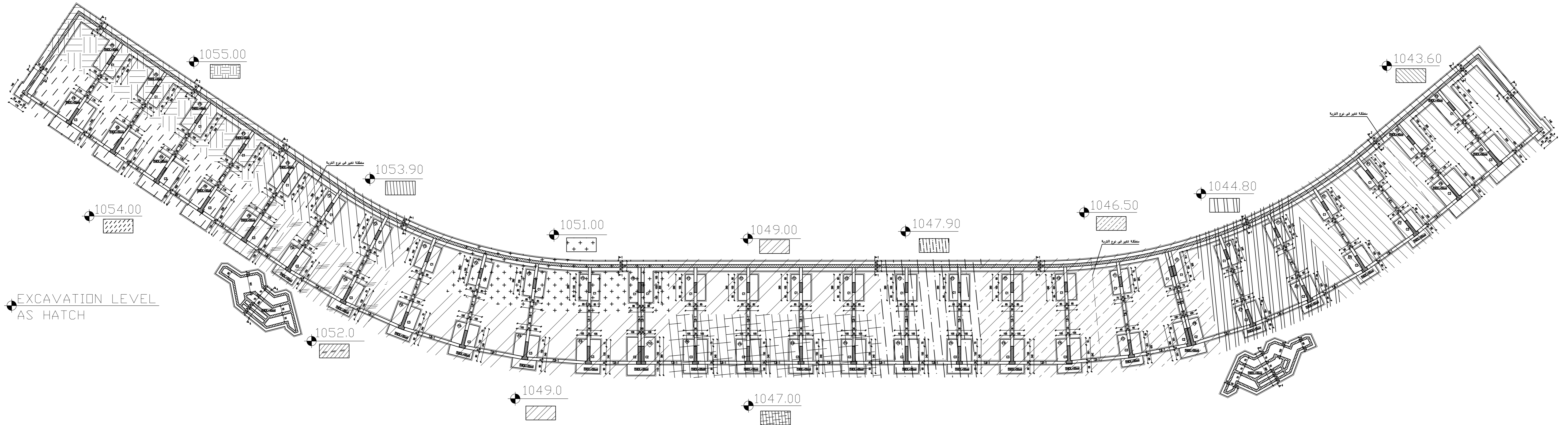
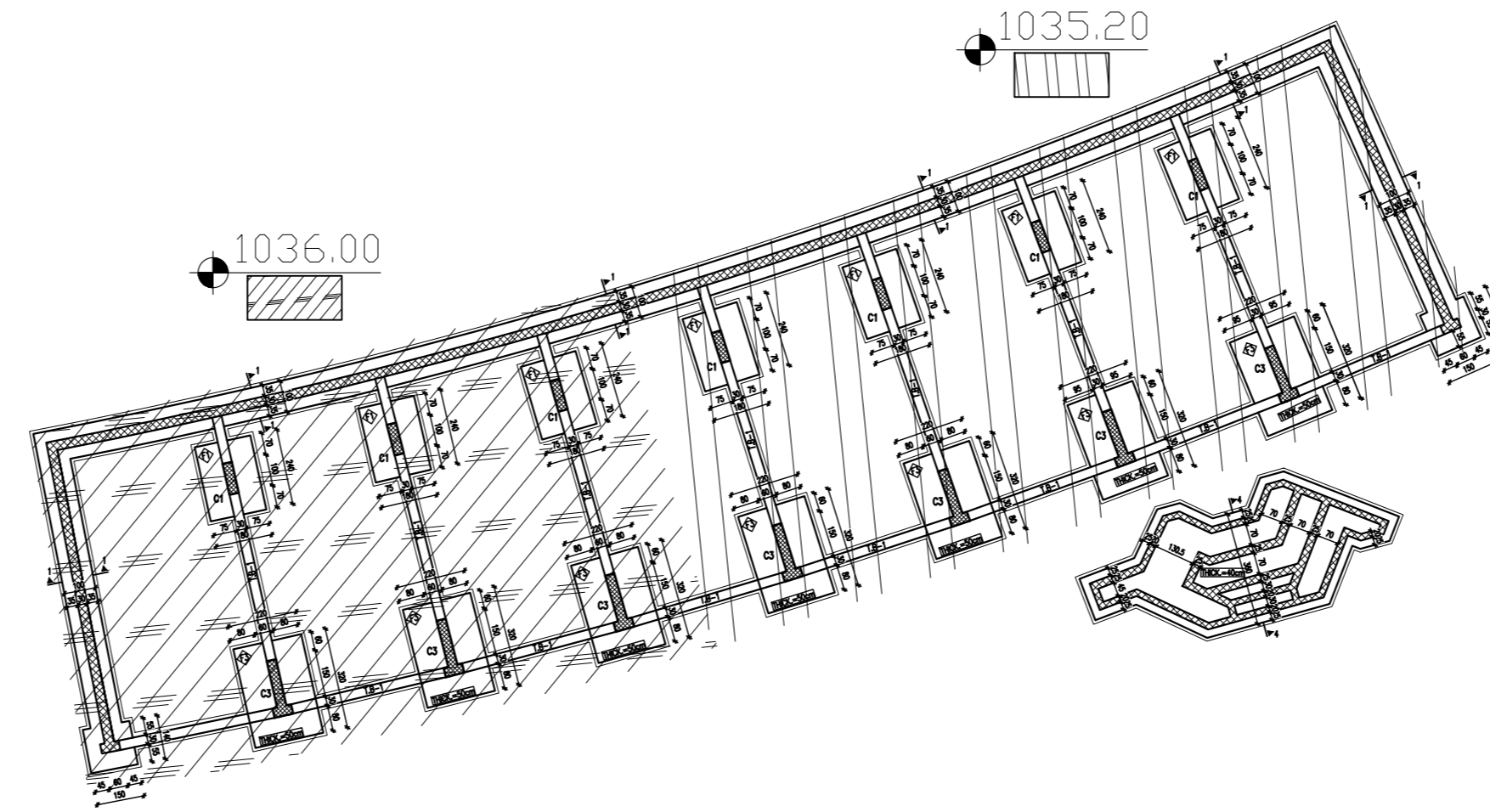


Typical Detail for Additional Bottom Reinf.

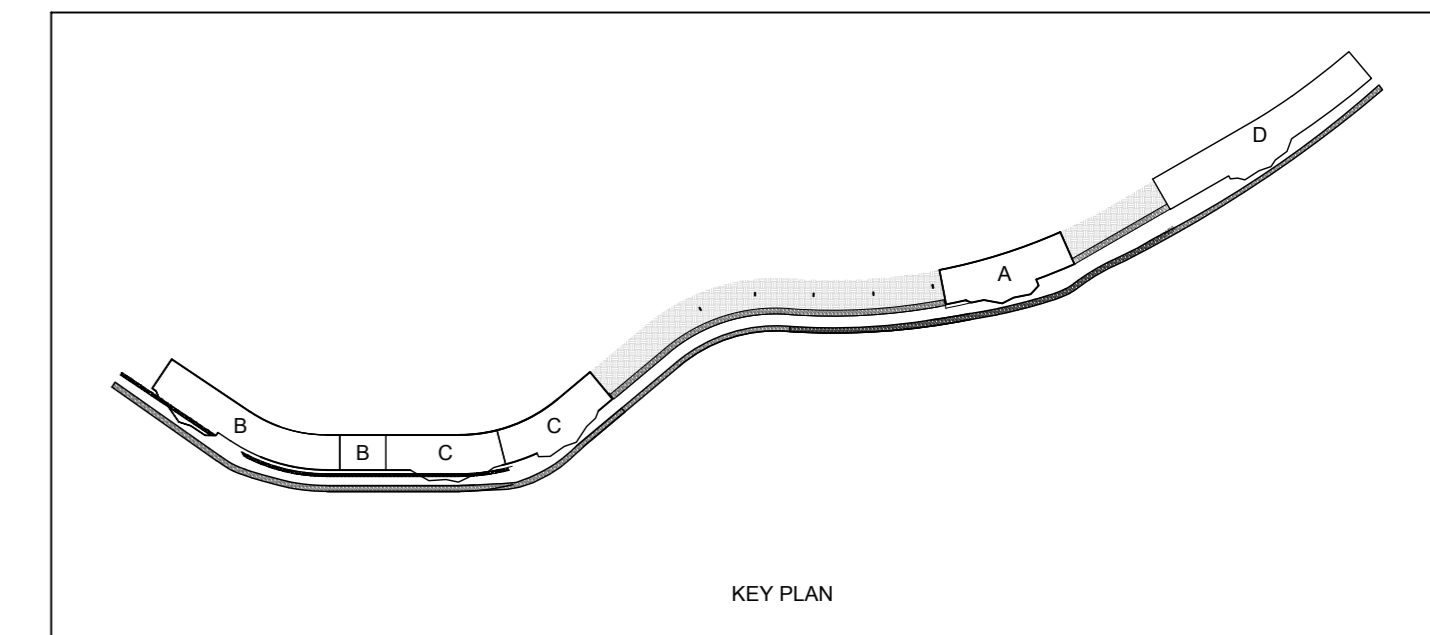


Typical Detail for Additional Top Reinf.

EXCAVATION LEVELS	
	+1055.00
	+1054.00
	+1053.90
	+1052.00
	+1051.00
	+1049.00
	+1047.00
	+1047.90
	+1046.50
	+1044.80
	+1043.60
	+1036.00
	+1035.20



FOOTING PLAN
SCALE 1:200



KHAMMASH ARCHITECTS

P.O. Box 51474, Amman - 11102, Jordan. Tel: +962 6 5655134. Fax: +962 6 5622386. Email: info@khammash.com

CLIENT
00000000000

P.O. Box 7003, Amman 11115, Jordan | T +962 6 5059551 | F +962 6 4650209 | W www.1010f.com

PROJECT
ADDRESS
0000000, JORDAN

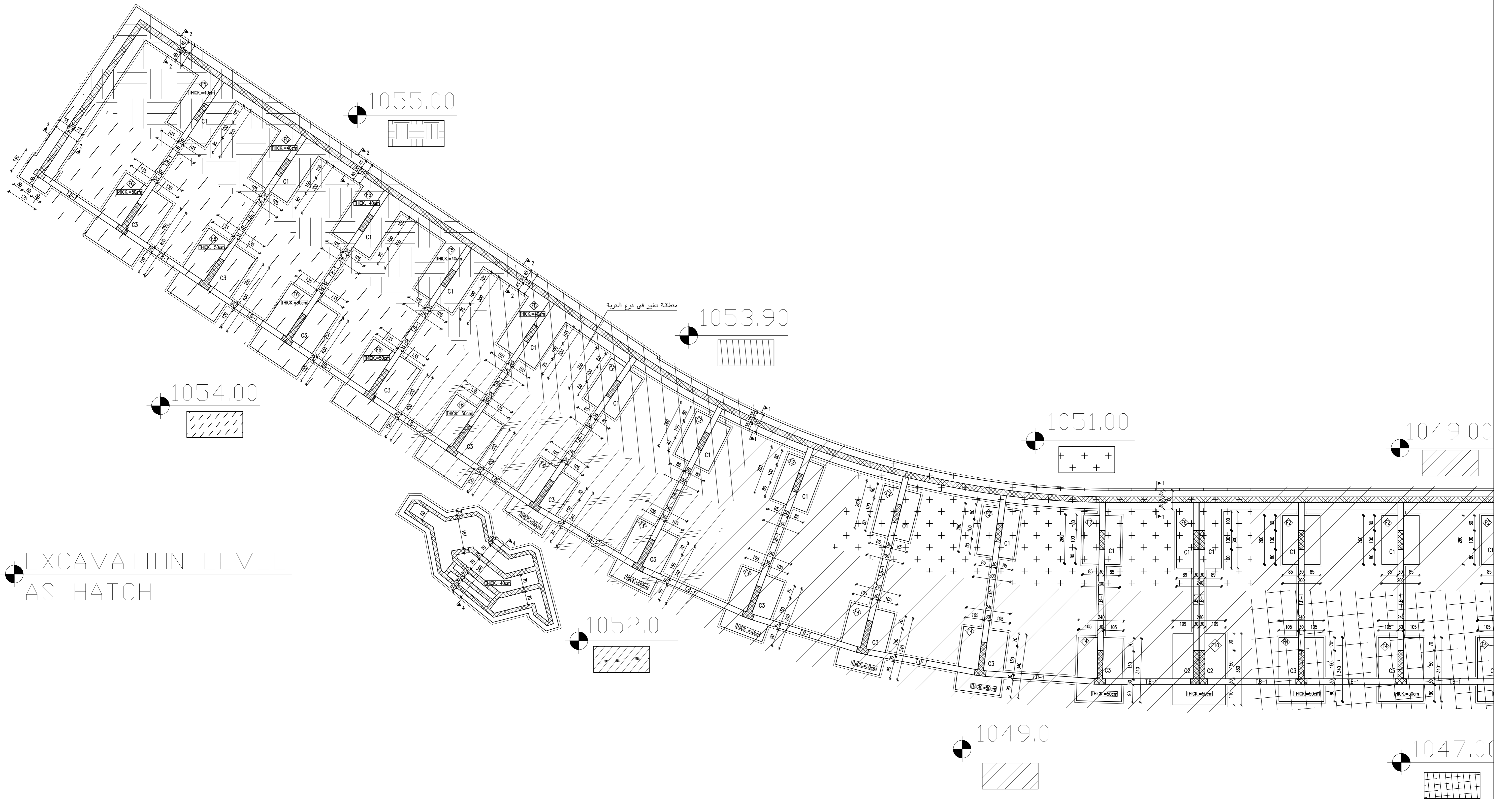
STATUS
TENDER
Copyright 2019 - Khammash Architects.
THIS DRAWING IS AND AT ALL TIMES REMAINS THE EXCLUSIVE PROPERTY OF KHAMMASH ARCHITECTS. ALL MEASUREMENTS MUST BE CHECKED BY THE CONTRACTOR ON SITE BEFORE THE COMMENCEMENT OF ANY WORKS.

NOTES

ISSUE	DATE	AMENDMENT	CHECKED	APPROVED

DRAWN
CHECKED
APPROVED
AK

DRAWING TITLE
SCALE
1:200
COLUMN LAYOUT & FOOTING PLAN
SHEET NUMBER
S05
ISSUE DATE
NOVEMBER 2019



FOOTING PLAN
SCALE 1:100

