

**NOTES**

- Bearing capacity = 3.5 kg/cm<sup>2</sup>
- Foundations are designed for one floor only.
- Foundations are designed for a maximum ground level of +3.00m.
- Concrete fill shall be on layers not to exceed 200mm thick & compacted 100% field density.
- All under ground reinforced concrete elements shall be painted with two coats of hot bituminous paint.
- Columns shall be reinforced with 4 longitudinal bars.
- Reinforced beams shall be reinforced with 4 longitudinal bars & 20mm diameter stirrups.
- Foundation depth is as shown on drawings.
- $f_y = 414 \text{ MPa}$
- $f_c = 24 \text{ MPa}$
- Reinforcement bars and Fasteners--
  - 70 mm for ledgers
  - 50 mm for columns & ground beams below grade.
  - 30 mm for columns & beams.
  - 20 mm for steel bars - 8 = Mild steel bars.
  - 6 = High grade steel - 8 = Mild steel bars.

COLUMNS SCHEDULE						
MARKS	C8	C9	C10	C11	C12	C13
LOCATION	ALL SECTION	ALL SECTION	ALL SECTION	ALL SECTION	ALL SECTION	ALL SECTION
N <sub>o</sub> of Columns	4	2	8	4	4	4
FIRST FLOORS						
D X B	60X60 16ø20	40X60 14ø16	60X60	60X60	60X60	30X30
MAIN BARS	3R10@10 cm for Lo 3R10@15 cm other Lo= See Note Below	3R10@10cm for Lo 3R10@15 cm other Lo= See Note Below	3R10@10 cm for Lo 3R10@15 cm other Lo= See Note Below	3R10@10 cm for Lo 3R10@15 cm other Lo= See Note Below	3R10@10 cm for Lo 3R10@15 cm other Lo= See Note Below	1R10@10cm for Lo 1R10@15 cm other Lo= See Note Below
HOOPS	2R10@10 cm for Lo 2R10@15 cm other	*****	*****	*****	*****	*****
TIE BARS	Note: use this section for Ground floor level also up to +3.00m					
BASEMENT FLOORS GROUND FLOORS						
D X B	60X60	40X60	60X60	60X60	60X60	30X30
MAIN BARS	28ø25 5R10@10 cm for Lo 5R10@15 cm other Lo= See Note Below	14ø16 3R10@10cm for Lo 3R10@15 cm other Lo= See Note Below	16ø20 3R10@10 cm for Lo 3R10@15 cm other Lo= See Note Below	20ø25 3R10@10 cm for Lo 3R10@15 cm other Lo= See Note Below	24ø25 3R10@10 cm for Lo 3R10@15 cm other Lo= See Note Below	8ø14 1R10@10cm for Lo 1R10@15 cm other Lo= See Note Below
HOOPS	4R10@10 cm for Lo 4R10@15 cm other	*****	*****	*****	*****	*****
TIE BARS						
STUMP						
D X B	60X60	40X60	60X60	60X60	60X60	30X30
MAIN BARS	28ø25 5R10@10 cm for Lo 5R10@15 cm other Lo= See Note Below	14ø16 3R10@10cm for Lo 3R10@15 cm other Lo= See Note Below	16ø20 3R10@10 cm for Lo 3R10@15 cm other Lo= See Note Below	20ø25 3R10@10 cm for Lo 3R10@15 cm other Lo= See Note Below	24ø25 3R10@10 cm for Lo 3R10@15 cm other Lo= See Note Below	8ø14 1R10@10cm for Lo 1R10@15 cm other Lo= See Note Below
HOOPS	4R10@10 cm for Lo 4R10@15 cm other	*****	*****	*****	*****	*****
TIE BARS						

Note:

Lo = Largest column dimension, but not less than one-sixth clear height, or 50cm

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**RAMALLAH RECREATIONAL COMPLEX  
 PHASE I  
 SPORTS CENTER  
 RAMALLAH PALESTINE**

Ramallah Municipality  
 Ramallah Municipality Centennial Project

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