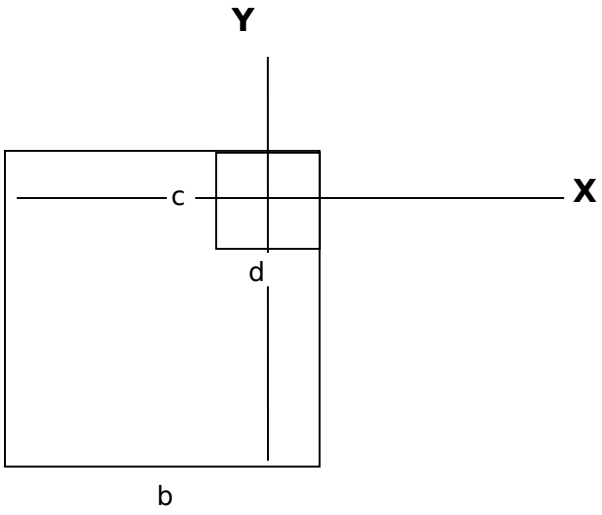
C-25 Km	S-300 Ks
19.00	3.95
20.00	3.96
21.00	3.96
22.00	3.97
23.00	3.98
24.00	3.98
25.00	3.99
26.00	4.00
27.00	4.02
28.00	4.03
29.00	4.04
30.00	4.05
31.00	4.06
32.00	4.07
33.00	4.08
34.00	4.09
35.00	4.10
36.00	4.11
37.00	4.12
38.00	4.15
39.00	4.17
40.00	4.18
41.00	4.20
42.00	4.21
43.00	4.24
44.00	4.26
45.00	4.29
46.00	4.31
47.00	4.34
48.00	4.36
49.00	4.39
50.00	4.41
51.00	4.46
52.00	4.49
53.00	4.51
54.00	4.56
55.00	4.62
56.00	4.65
57.00	4.67
58.00	4.73

ISOLATED FOOTING DESIGN



I. MAXIMUM DESIGN LOAD

Ps=	278	
Soil Wt. & own Wt. Of footing	2106.00	
Pmax=	2384.00	KN
Mx=	1668	KNm
My=	1668	KNm
sall=	200	KN/m²

Column dimensions

c=	0.40	m
d=	0.40	m

s= P/A(1+6xe_a/a+6e_b/b)

Where s= the allowable soil pressure

A= axb **ASSUME a/b=** 1.00

a= length of footing	6.00	6.00
b= width of footing	6.00	6.00

P= load sustained by the footing

ea=	0.700
eb=	0.700
s1=	158.89
s2=	66.22
s3=	66.22
s4=	-26.44
savg=	66.22

DMT: Use the "tools-Goal seek" command and feed the allowable soil pressure to obtain this result. The value in "E19" should be used as a variable to change in order to achieve this result.

Structural design

use concrete strength 25 Mpa

Fcd=	11.167
Fctd=	1.167
r_{min}=	0.00200

Steel S-300

Vup=	641.67
Vud=	385.00

A) Punching Sheer

d= 1.409 m

taking concrete cover to be = 50 mm

D=	1459.376	mm
~D=	1459.000	mm
hence d=	1409.000	mm

B) Wide beam shear

da=	817.98	mm
db=	817.98	mm
d=	**1409.000**	mm

C) Bending moment

Ma-a=	259.59
Mb-b=	259.59

D) Reinforcement

Asmin= **2818** 16 201

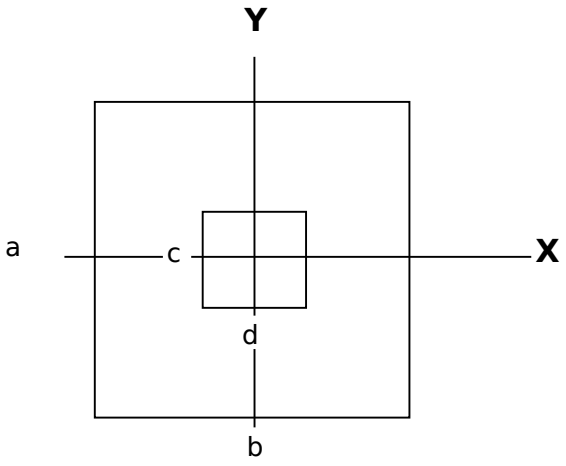
Kda-a=	0.0874513	11.43494	Ksa-a=	#N/A	Asa-a=	#N/A mm², **Φ16c/c**	#N/A
Kdb-b=	0.0874513	11.43494	Ksb-b=	#N/A	Asb-b=	#N/A mm², **Φ16c/c**	#N/A

mm
mm

ISOLATED FOOTING DESIGN

I. MAXIMUM DESIGN LOAD

Ps=	1397	
Soil Wt. & own Wt. Of footing	577.31	
Pmax=	1974.31	KN
Mx=	0.5	KNm
My=	0.13	KNm
sall=	200	KN/m²
Column dimensions c=	0.40	m
d=	0.40	m



s= P/A(1+6xe_a/a+6e_b/b)

Where s= the allowable soil pressure

A= axb **ASSUME a/b=** 1.00

a= length of footing 3.14 3.14

b= width of footing 3.14 3.14

P= load sustained by the footing

ea=	0.000
eb=	0.000
s1=	200.00
s2=	200.31
s3=	199.81
s4=	199.76
savg=	199.97

DMT: Use the "tools-Goal seek" command and feed the allowable soil pressure to obtain this result. The value in "E19" should be used as a variable to change in order to achieve this result.

Structural design

use concrete strength 25 Mpa

Fcd= 11.167

Fctd= 1.167

r_{min}= 0.00200

Steel S-300

Vup= 641.67

Vud= 385.00

A) Punching Sheer

d= 0.651 m

taking concrete cover to be = 50 mm

D= 700.682 mm

~D= 701.000 mm

hence d= 651.000 mm

B) Wide beam shear

da= 468.87 mm

db= 468.87 mm

d= 651.000 mm

C) Bending moment

Ma-a= 188.05

Mb-b= 188.05

D) Reinforcement

Asmin= **1302** 14 154

Kda-a= 0.0474723 21.06491 Ksa-a= 3.96 Asa-a= 1302 mm², **Φ14c/c** 118

Kdb-b= 0.0474723 21.06491 Ksb-b= 3.96 Asb-b= 1302 mm², **Φ14c/c** 118

3.97

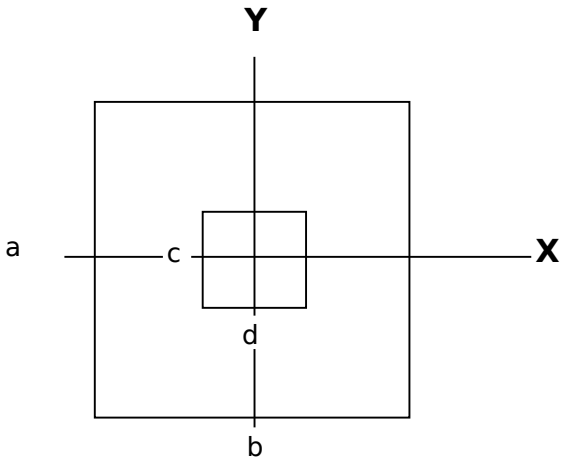
mm 8.462238
mm

ISOLATED FOOTING DESIGN

I. MAXIMUM DESIGN LOAD

Ps=	855	
Soil Wt. & own Wt. Of footing	357.07	
Pmax=	1212.07	KN
Mx=	2.21	KNm
My=	1.61	KNm
sall=	200	KN/m²

Column dimensions c= 0.40 m
d= 0.40 m



s= P/A(1+6xe$_a$/a+6e$_b$/b)

Where s= the allowable soil pressure

A= axb **ASSUME a/b=** 1.00

a= length of footing 2.47 2.47

b= width of footing 2.47 2.47

P= load sustained by the footing

ea= 0.002
eb= 0.001

s1= 200.00
s2= 198.91
s3= 198.24
s4= 196.96
savg= 198.53

DMT: Use the "tools-Goal seek" command and feed the allowable soil pressure to obtain this result. The value in "E19" should be used as a variable to change in order to achieve this result.

Structural design

use concrete strength 25 Mpa

Fcd= 11.167
Fctd= 1.167

r$_{min}$= 0.00200

Steel S-300

Vup= 641.67
Vud= 385.00

A) Punching Sheer

d= 0.475 m

taking concrete cover to be = 50 mm

D= 525.381 mm
~D= 525.000 mm
hence d= 475.000 mm

B) Wide beam shear

da= 354.05 mm
db= 354.05 mm

d= 475.000 mm

C) Bending moment

Ma-a= 106.46
Mb-b= 106.46

D) Reinforcement

Asmin= **950** 14 154

Kda-a=	0.0460372	21.72158	Ksa-a=	3.96	Asa-a=	950 mm², **Φ14c/c** 162
Kdb-b=	0.0460372	21.72158	Ksb-b=	3.96	Asb-b=	950 mm², **Φ14c/c** 162

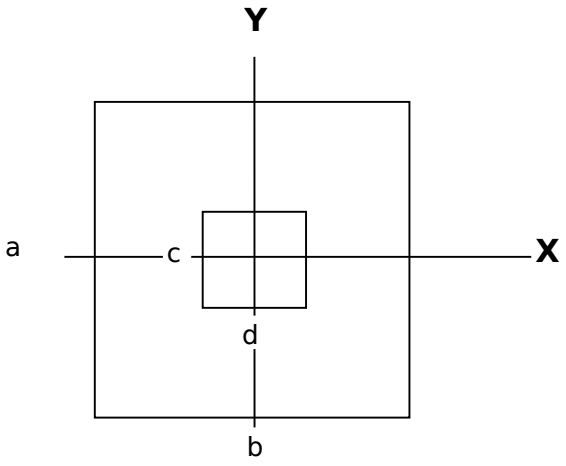
3.97

mm
mm

ISOLATED FOOTING DESIGN

I. MAXIMUM DESIGN LOAD

Ps=	681	
Soil Wt. & own Wt. Of footing	288.56	
Pmax=	969.56	KN
Mx=	0.7	KNm
My=	5.9	KNm
sall=	200	KN/m²
Column dimensions c=	0.40	m
d=	0.40	m



s= $P/A(1+6xe_a/a+6e_b/b)$

Where s= the allowable soil pressure

A= axb **ASSUME a/b=** 1.00

a= length of footing	2.22	2.22
b= width of footing	2.22	2.22

P= load sustained by the footing

ea=	0.001
eb=	0.006
s1=	200.00
s2=	193.88
s3=	199.23
s4=	192.78
savg=	196.47

DMT: Use the "tools-Goal seek" command and feed the allowable soil pressure to obtain this result. The value in "E19" should be used as a variable to change in order to achieve this result.

Structural design

use concrete strength 25 Mpa

Fcd=	11.167
Fctd=	1.167
r_{min}=	0.00200

Steel S-300

Vup=	641.67
Vud=	385.00

A) Punching Sheer

d= 0.411 m

taking concrete cover to be = 50 mm

D=	461.092 mm
~D=	461.000 mm
hence d=	411.000 mm

B) Wide beam shear

da=	311.44 mm
db=	311.44 mm
d=	**411.000** mm

C) Bending moment

Ma-a=	81.52
Mb-b=	81.52

D) Reinforcement

Asmin= **822** 12 113

Kda-a=	0.0455205	21.96815	Ksa-a=	3.96	Asa-a=	822 mm², **Φ12c/c**	138
Kdb-b=	0.0455205	21.96815	Ksb-b=	3.96	Asb-b=	822 mm², **Φ12c/c**	138

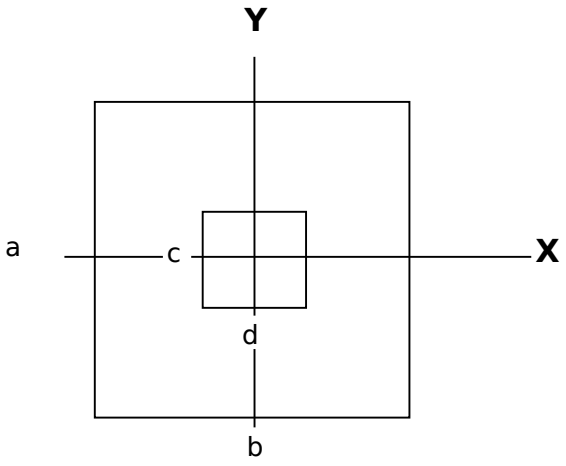
3.97

mm
mm

ISOLATED FOOTING DESIGN

I. MAXIMUM DESIGN LOAD

Ps=	442	
Soil Wt. & own Wt. Of footing	185.60	
Pmax=	627.60	KN
Mx=	1.64	KNm
My=	0.67	KNm
sall=	200	KN/m²



Column dimensions

c=	0.40	m
d=	0.40	m

s= P/A(1+6xe_a/a+6e_b/b)

Where s= the allowable soil pressure

A= axb **ASSUME a/b=** 1.00

a= length of footing	1.78	1.78
b= width of footing	1.78	1.78

P= load sustained by the footing

ea=	0.003
eb=	0.001
s1=	200.00
s2=	199.11
s3=	196.52
s4=	195.10
savg=	197.69

DMT: Use the "tools-Goal seek" command and feed the allowable soil pressure to obtain this result. The value in "E19" should be used as a variable to change in order to achieve this result.

Structural design

use concrete strength 25 Mpa

Fcd=	11.167
Fctd=	1.167
r_{min}=	0.00200

Steel S-300

Vup=	641.67
Vud=	385.00

A) Punching Sheer

d=	0.299	m
taking concrete cover to be =	50	mm
D=	349.429	mm
~D=	349.000	mm
hence d=	299.000	mm

B) Wide beam shear

da=	236.30	mm
db=	236.30	mm
d=	**299.000**	mm

C) Bending moment

Ma-a=	47.22
Mb-b=	47.22

D) Reinforcement

Asmin= **598** 12 113

Kda-a=	0.0435112	22.98256	Ksa-a=	3.97	Asa-a=	626.9871 mm², **Φ12c/c**	180
Kdb-b=	0.0435112	22.98256	Ksb-b=	3.97	Asb-b=	626.9871 mm², **Φ12c/c**	180

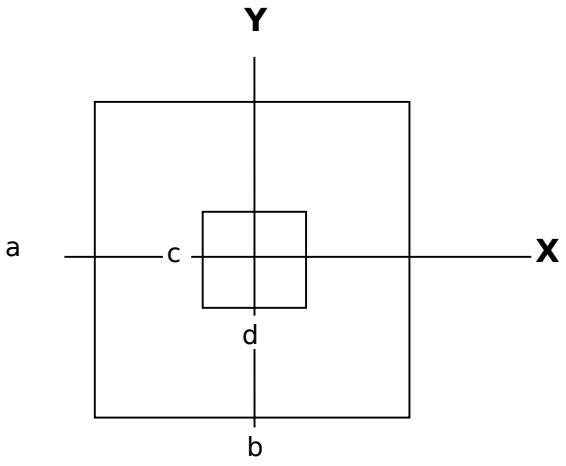
3.97

mm
mm

ISOLATED FOOTING DESIGN

I. MAXIMUM DESIGN LOAD

Ps=	1086	
Soil Wt. & own Wt. Of footing	449.03	
Pmax=	1535.03	KN
Mx=	0.02	KNm
My=	0.3	KNm
sall=	200	KN/m²



Column dimensions c= 0.40 m
d= 0.40 m

s= P/A(1+6xe$_a$/a+6e$_b$/b)

Where s= the allowable soil pressure

A= axb **ASSUME a/b=** 1.00

a= length of footing 2.77 2.77

b= width of footing 2.77 2.77

P= load sustained by the footing

ea= 0.000
eb= 0.000

s1= 200.00
s2= 199.98
s3= 199.99
s4= 199.82
savg= 199.95

DMT: Use the "tools-Goal seek" command and feed the allowable soil pressure to obtain this result. The value in "E19" should be used as a variable to change in order to achieve this result.

Structural design

use concrete strength 25 Mpa

Fcd= 11.167
Fctd= 1.167

r$_{min}$= 0.00200

Steel S-300

Vup= 641.67
Vud= 385.00

A) Punching Sheer

d= 0.553 m

taking concrete cover to be = 50 mm

D= 603.336 mm
~D= 603.000 mm
hence d= 553.000 mm

B) Wide beam shear

da= 405.30 mm
db= 405.30 mm

d= 553.000 mm

C) Bending moment

Ma-a= 140.51
Mb-b= 140.51

D) Reinforcement

Asmin= **1106** 12 113

Kda-a= 0.0466525 21.43508 Ksa-a= 3.96 Asa-a= 1106 mm², **Φ12c/c** 102

Kdb-b= 0.0466525 21.43508 Ksb-b= 3.96 Asb-b= 1106 mm², **Φ12c/c** 102

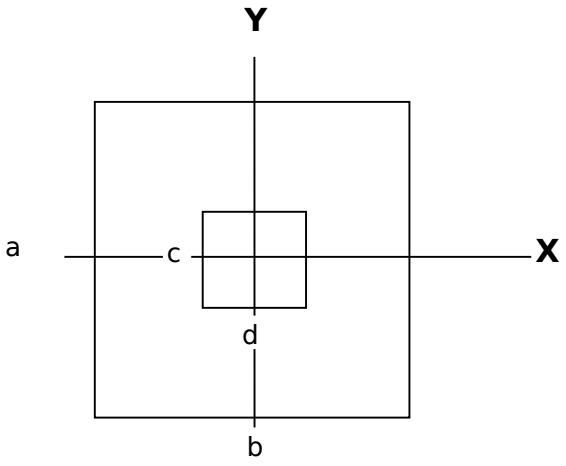
3.97

mm
mm

ISOLATED FOOTING DESIGN

I. MAXIMUM DESIGN LOAD

Ps=	1637	
Soil Wt. & own Wt. Of footing	501.73	
Pmax=	2138.73	KN
Mx=	1.33	KNm
My=	0.57	KNm
sall=	200	KN/m²
Column dimensions c=	0.40	m
d=	0.40	m



s= P/A(1+6xe_a/a+6e_b/b)

Where s= the allowable soil pressure

A= axb **ASSUME a/b=** 1.25

a= length of footing	3.66	3.66
b= width of footing	2.93	2.93

P= load sustained by the footing

ea=	0.001
eb=	0.000
s1=	200.00
s2=	199.53
s3=	199.59
s4=	199.37
savg=	199.62

DMT: Use the "tools-Goal seek" command and feed the allowable soil pressure to obtain this result. The value in "E19" should be used as a variable to change in order to achieve this result.

Structural design

use concrete strength 25 Mpa

Fcd=	11.167
Fctd=	1.167
r_{min}=	0.00200

Steel S-300

Vup=	641.67
Vud=	385.00

A) Punching Sheer

d= 0.685 m

taking concrete cover to be = 50 mm

D=	734.804	mm
~D=	735.000	mm
hence d=	685.000	mm

B) Wide beam shear

da=	557.09	mm
db=	557.09	mm
d=	**685.000**	mm

C) Bending moment

Ma-a=	265.02
Mb-b=	159.37

D) Reinforcement

Asmin= **1370** 14 154

Kda-a=	0.0420774	23.76573	Ksa-a=	3.98	Asa-a=	1538.552 mm², **Φ16c/c**	100
Kdb-b=	0.0542617	18.42919	Ksb-b=	3.95	Asb-b=	1370 mm², **Φ16c/c**	112
				3.97			

mm
mm