CALCULATION SHEET

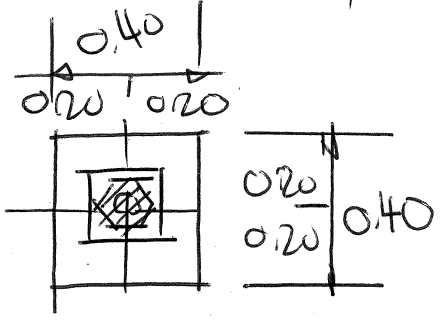
PROJECT	JOB ID	
SUBJECT	DESIGNED	PAGE
	CHECKED	SHEET

F1 : Max. load on Footing = 2000 kg

USE 1- Pile ⊙ ϕ0'x6.00

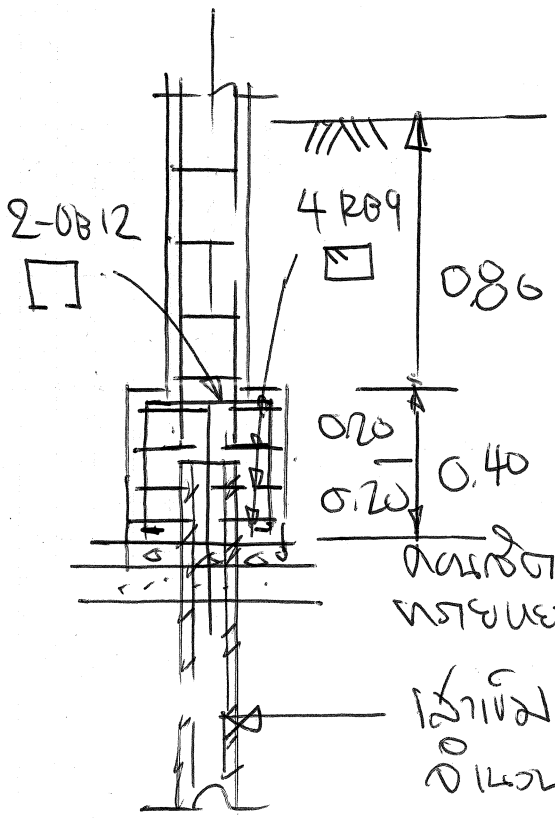
load/Pile = 2000 kg

USE: Pilecap. 0.40x0.40x0.40dp



F1: PLAN

Ast min = 2.88 cm²



ดินถมบดอัดแน่น 0.05 ม.
ทรายหยาบบดอัดแน่น 0.05 ม.
เสาเข็ม ⊙ ϕ0'x6.00 ม.
ปักลงดิน 1 ต้น/ตร.ม.

F1: SECTION

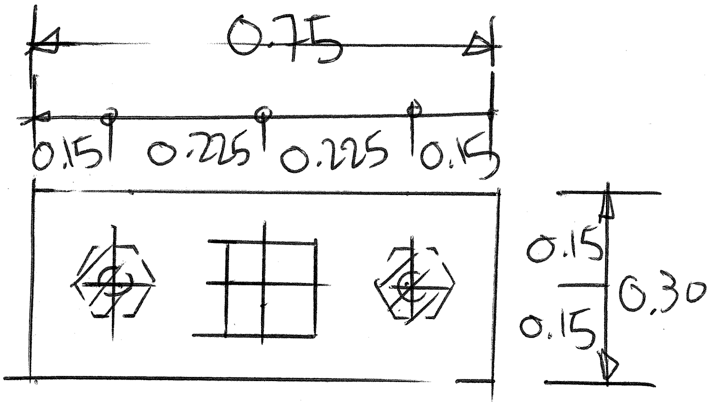
CALCULATION SHEET

PROJECT	JOB ID	
SUBJECT	DESIGNED	PAGE
	CHECKED	SHEET

F-2 Max. load on Footing = 4000 kg

USE - 2 - Pile (hex) Ø6" x 6.00 m.

load/Pile = 2,000 kg



F2 : PLAN

$M = 0.15 \times 2000$

$= 300$ kg.m

$A_{st} = 1.30$ cm²

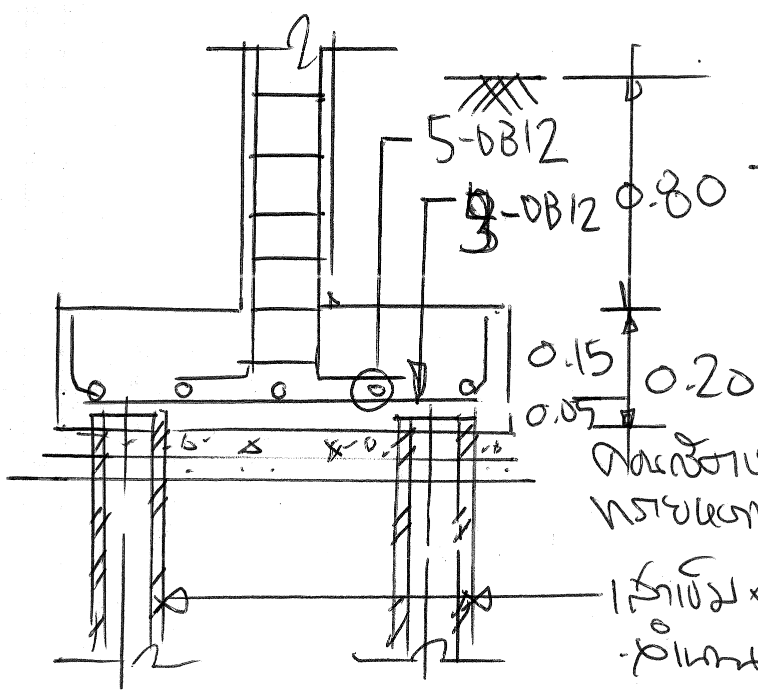
$\Sigma_0 = 6.73$ cm

} 3DB12

$\nu_u = 2.22$ ksc

$\nu_p = 4.45$ ksc

$A_{st\,min} = 2.7$ cm² = 5DB12



คอนกรีตหยาบ 0.05 ม.

ทรายหยาบบดอัดแน่น 0.05 ม.

เสาเข็ม (hex) Ø6" x 6.00 ม.

จำนวน 2 ต้น/ฐาน.

F2 : SECTION

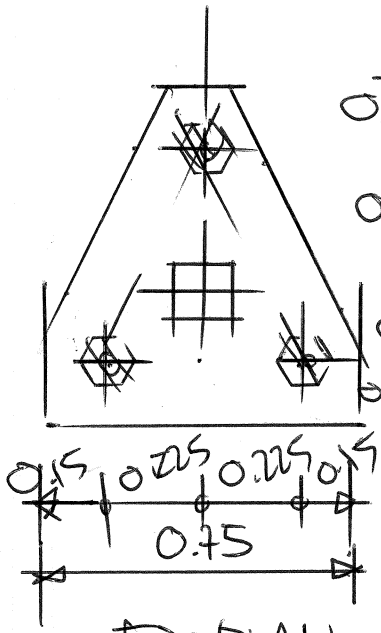
CALCULATION SHEET

PROJECT	JOB ID	
SUBJECT	DESIGNED	PAGE
	CHECKED	SHEET

F3. Max. load on footing = 6,000 kg

USE: 3-Pile ⊙ϕ6"×6.00 m.

load/Pile = 2,000 kg



F3: PLAN

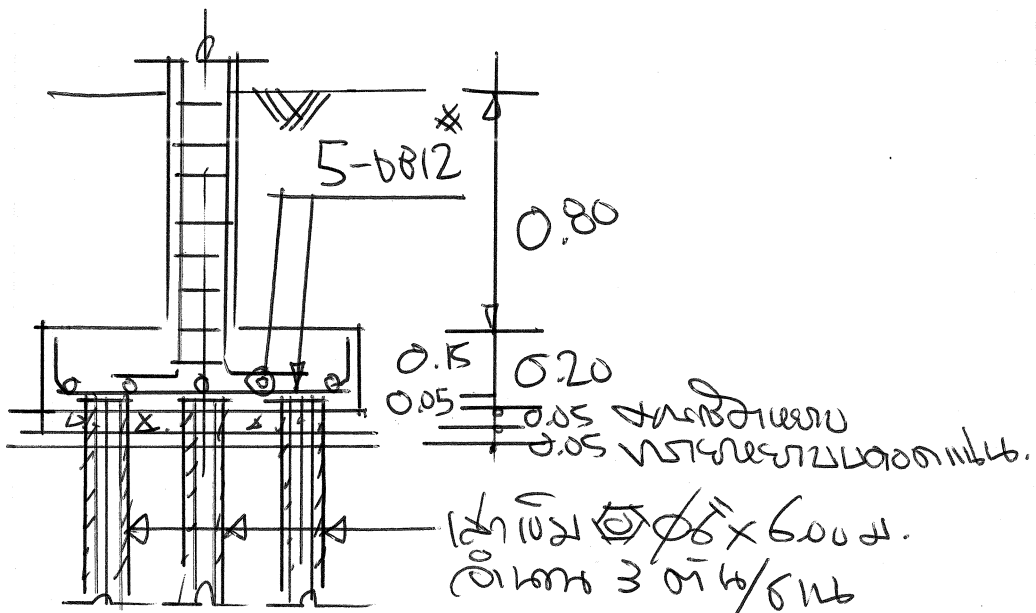
M = 2,000 × 0.225
= 450 kg.m

A_s = 1.95 cm² } 5-Ø12
Σ_o = 6.73 cm }

$A_{s\,min}$ = 2.70 cm² 5-Ø12

f_c = 0.83 ksc

f_p = 3.34 ksc.



F3: SECTION.

CALCULATION SHEET

PROJECT	JOB ID	
SUBJECT	DESIGNED	PAGE
	CHECKED	SHEET

F-4 : Maxload on Footing = 8000 kg

USE : 4-Pile ⊙ Ø6" x 6.00 m.

load/Pile = 2000 kg

$M = 2 \times 2000 \times 0.15$

$= 600$ kg.m

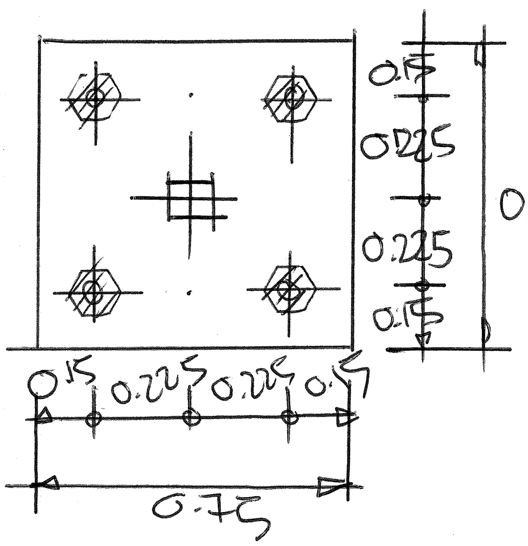
$A_s = 2.59\ cm^2$ } 5-DB12

$\Sigma_o = 13.47$ cm

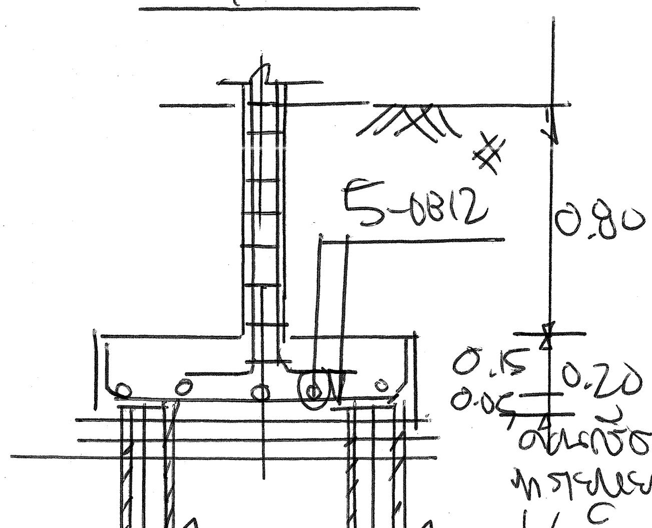
$A_{s\,min} = 2.70\ cm^2$

$v_c = 1.78$ ksc

$v_p = 4.45$ ksc



F4 : PLAN



คอนกรีตหยาบ 0.05 ม.

ทรายหยาบ 0.05 ม.

เสาเข็ม ⊙ Ø6" x 6.00 ม.

จำนวน 4 ต้น/ฐาน.

F4 : SECTION

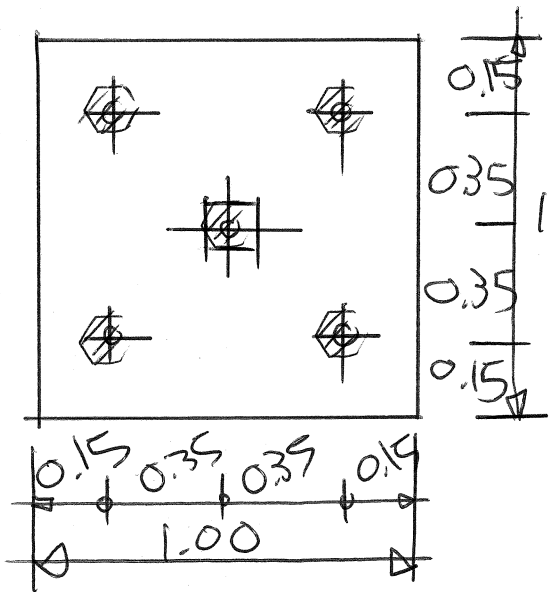
CALCULATION SHEET

PROJECT	JOB ID	
SUBJECT	DESIGNED	PAGE
	CHECKED	SHEET

F-5 : Max. load on Footing = 70000 kg

USE : 5-Pile ⊙ ϕ0.60 x 6.00 m.

load/Pile = 2000 kg/Pile



F5 : PLAN

$M = (2) \times 2000 \times 0.275$

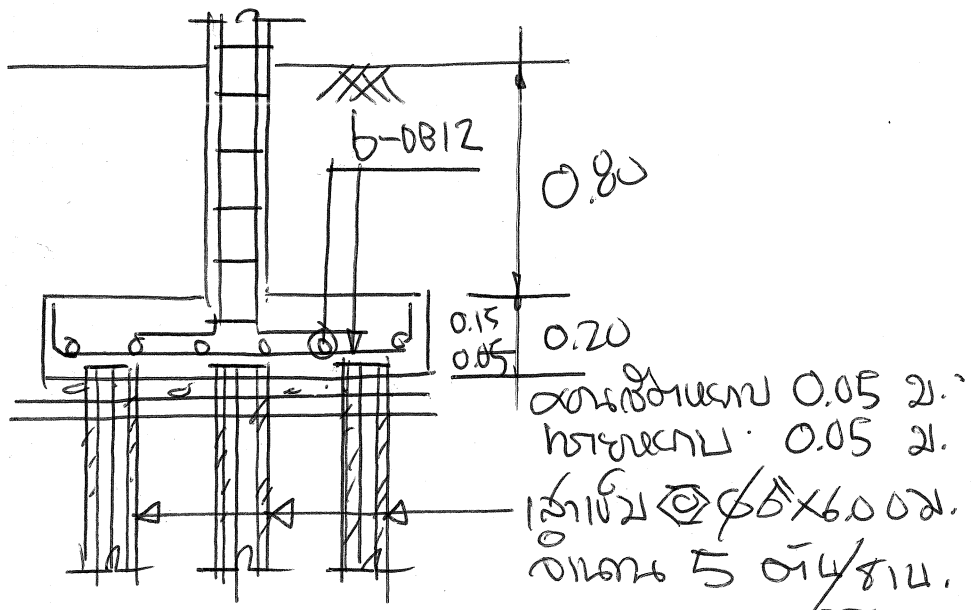
$= 1100$ kg/m

$R_f = 4.75$ cm²

$\Sigma_0 = 13.47$ cm } b-DB12

$\sigma_b = 2.45$ ksc

$\sigma_p = 5.56$ ksc.



F5 : SECTION

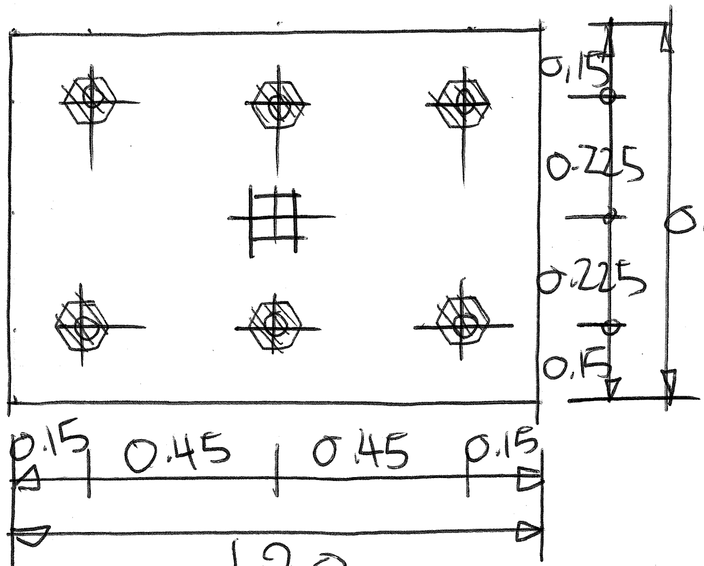
CALCULATION SHEET

PROJECT	JOB ID	
SUBJECT	DESIGNED	PAGE
	CHECKED	SHEET

F-6 : Max. load on Footing = 12,000 kg

USE = 6-Pile ⬡ Ø6" x 6.00 m.

load/Pile = 2,000 kg



F6: PLAN

$M_s = 900$ kg.m

$A_{st} = 3.89\ cm^2$ } 6-DB12

$\Sigma_o = 20.2$ cm

$M_u = 1500$ kg.m

$A_{su} = 6.48\ cm^2$ } 6-DB12

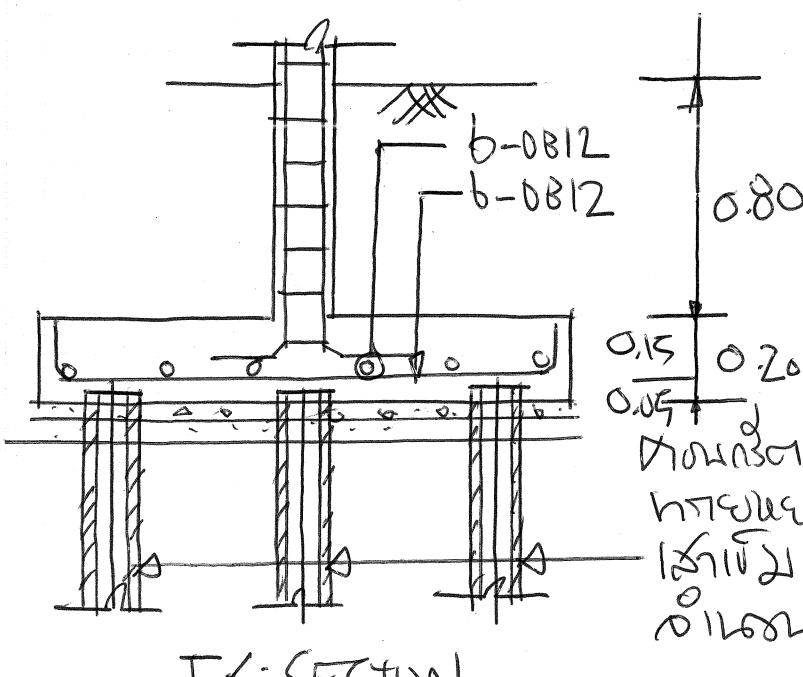
$\Sigma_o = 13.46$ cm

$A_{st\,min} = 4.32\ cm^2$

$\sigma_{b} = 1.67$ ksc

$\sigma_{b_L} = 3.56$ ksc

$\sigma_p = 6.67$ ksc



F6: SECTION

คอนกรีตหยาบ 0.05 ม.

ทรายหยาบ 0.05 ม.

เสาเข็ม ⬡ Ø6" x 6.00

จำนวน 6 ต้น/ฐาน.

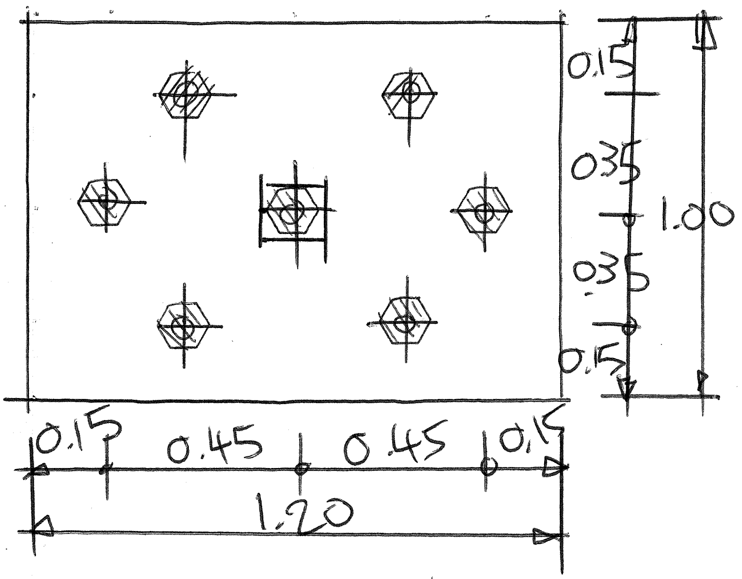
CALCULATION SHEET

PROJECT	JOB ID	
SUBJECT	DESIGNED	PAGE
	CHECKED	SHEET

F-7 : Max. load on Footing = 14000 kg

USE : 7-Pile ⬡ ø6" x 6.00 m.

load/Pile = 2000 kg



F7 : PLAN

$M_S = 1100$ kg.m

$A_{st} = 3.56$ cm^2

$\Sigma_0 = 10.1$ cm

} 7-DB12

$M_L = 1350$ kg.m

$A_{st} = 4.37$ cm^2

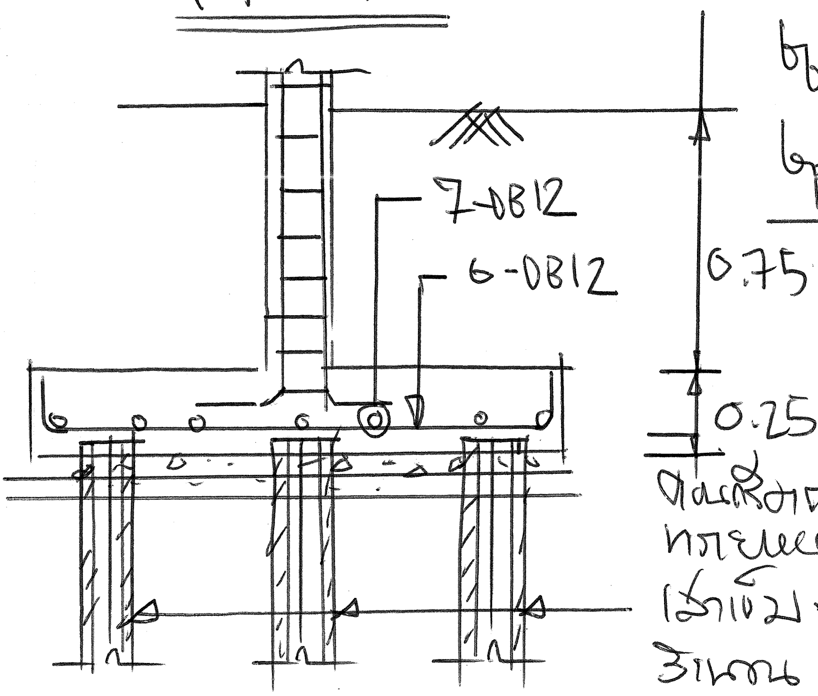
$\Sigma_0 = 15.2$ cm

} 6-DB12

$v_{b_S} = 0.45$ ksc

$v_{b_L} = 2.00$ ksc

$v_p = 5.00$ ksc.



F7 : SECTION

คอนกรีตหยาบ 0.05 ม.

ทรายหยาบ 0.05 ม.

เสาเข็ม ⬡ ø6" x 6.00 m.

จำนวน 7 ต้น/ฐาน.

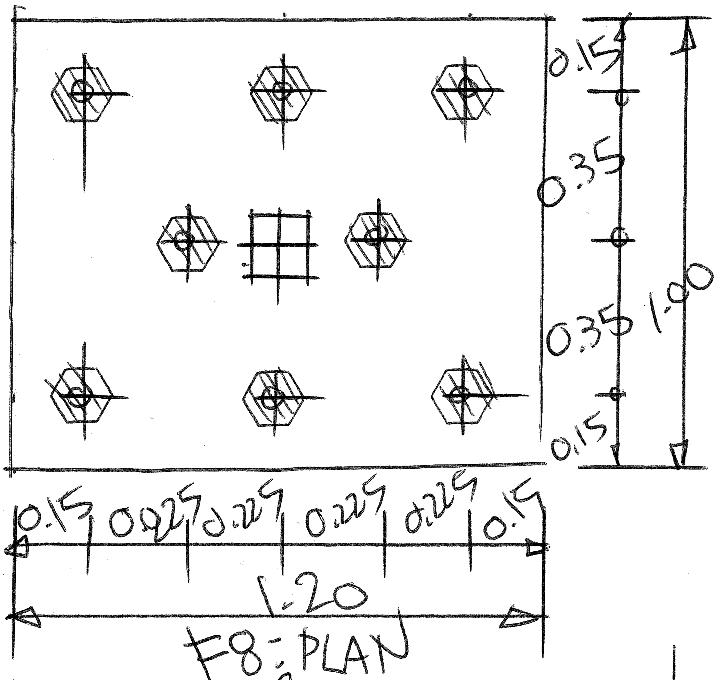
CALCULATION SHEET

PROJECT	JOB ID	
SUBJECT	DESIGNED	PAGE
	CHECKED	SHEET

F-8 : Max load on footing = 16000 kg

USE: 8-Pile ⬡ Ø6" x 8.00 m.

load/Pile = 2,000 kg/Pile



M_s = 1650 kg.m

A_s = 5.34 cm^2 } 7-DB12

Σ_0 = 15.2 cm

M_L = 1800 kg.m

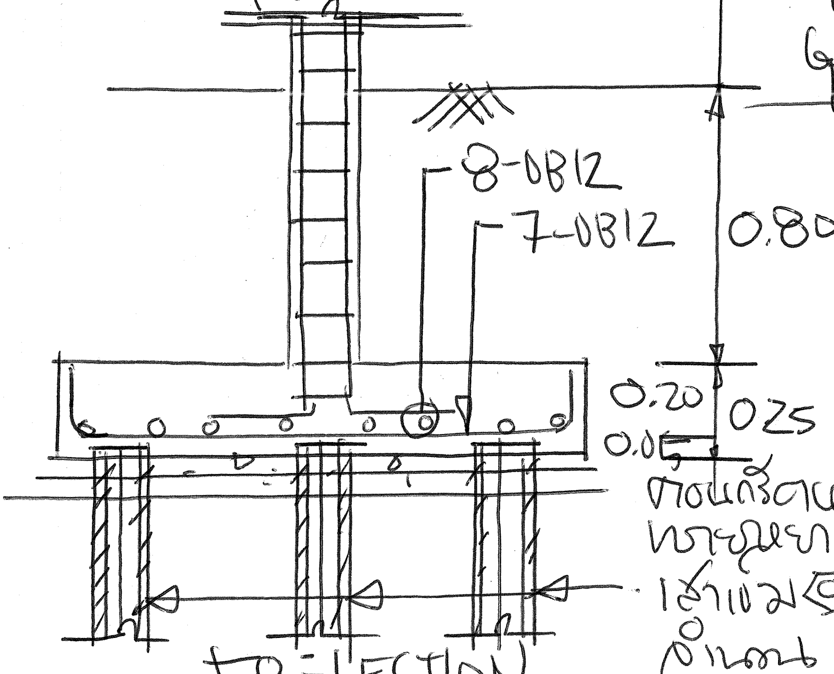
A_L = 5.83 cm^2 } 8-DB12

Σ_0 = 15.2 cm

u_{bs} = 2.30 ksc

u_{bL} = 2.50 ksc

v_p = 5.71 ksc



คอนกรีตหยาบ 0.05 ม.

ทรายหยาบอัดแน่น 0.05 ม.

เสาเข็ม ⬡ Ø6" x 6.00 ม.

จำนวน 8 ต้น/ฐาน

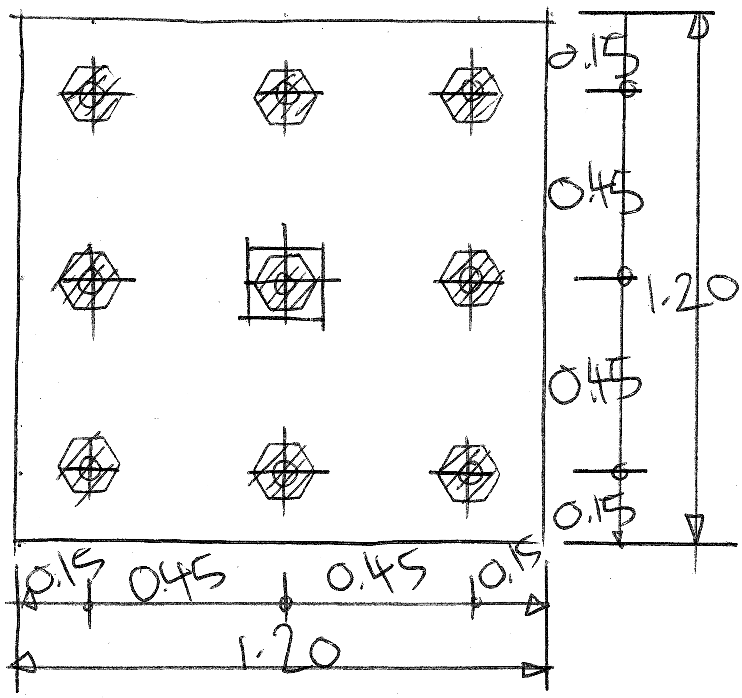
CALCULATION SHEET

PROJECT	JOB ID	
SUBJECT	DESIGNED	PAGE
	CHECKED	SHEET

F9: Max. load on Footing = 18,000 kg

USE : 9-Pile ⬡ Ø6" x 6.00

load/Pile = 2,000 kg/Pile



M = 2750 kg.m

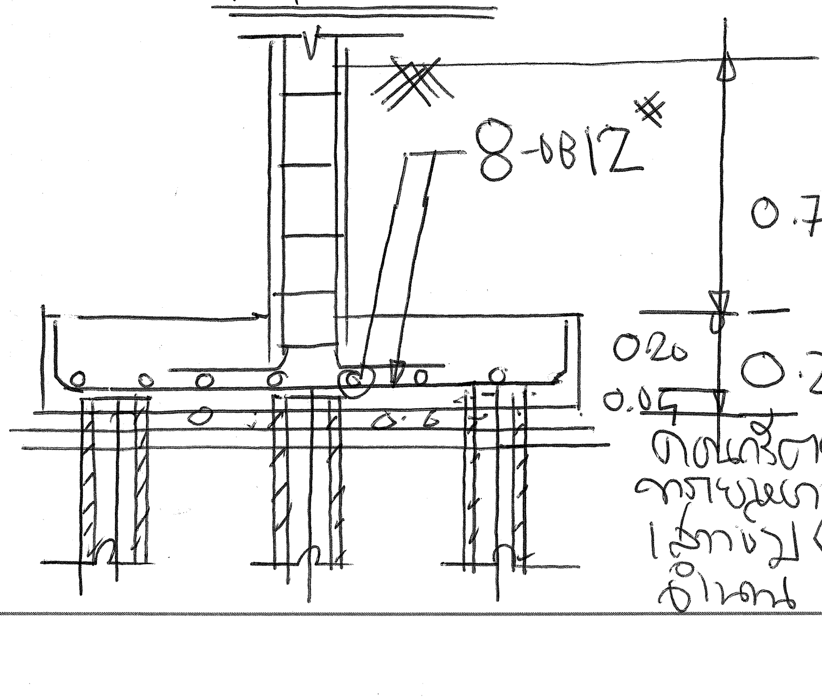
A_{st} = 7.28 cm²

Σ_0 = 15.2 cm

σ_b = 2.50 ksc

σ_p = 6.42 ksc.

F9 : PLAN



คอนกรีตหยาบ 0.05 ม.

ทรายหยาบ 0.05 ม.

เสาเข็ม ⬡ Ø6" x 6.00

จำนวน 9 ต้น/ฐาน

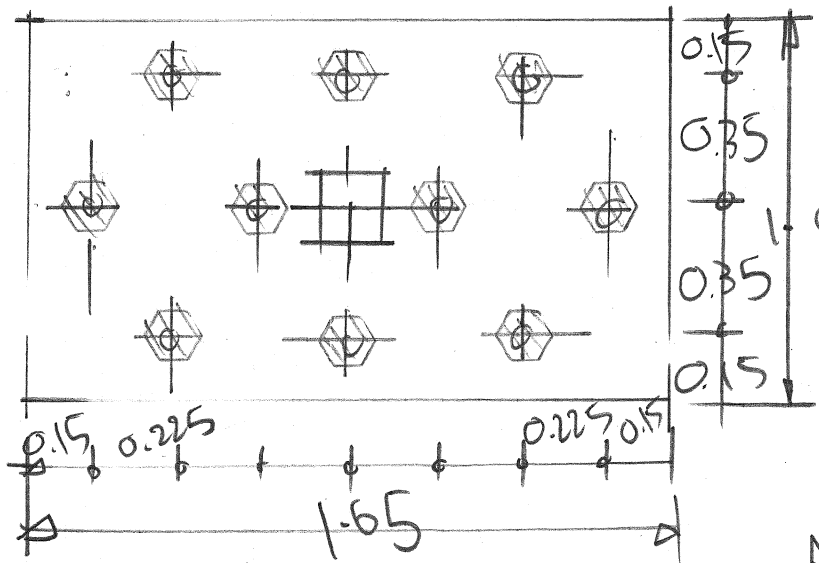
CALCULATION SHEET

PROJECT	JOB ID	
SUBJECT	DESIGNED	PAGE
	CHECKED	SHEET

F10 : Max load on footing = 20,000 kg

USE : 10 - Pile ⊙ ϕ6" × 6.00

load/pile = 2,000 kg



F10 : PLAN

M_S = 1650 kg.m

A_{sb} = 4.28 cm²

ε_0 = 12.12 cm

A_{smin} = 8.91 cm²

9-DB12

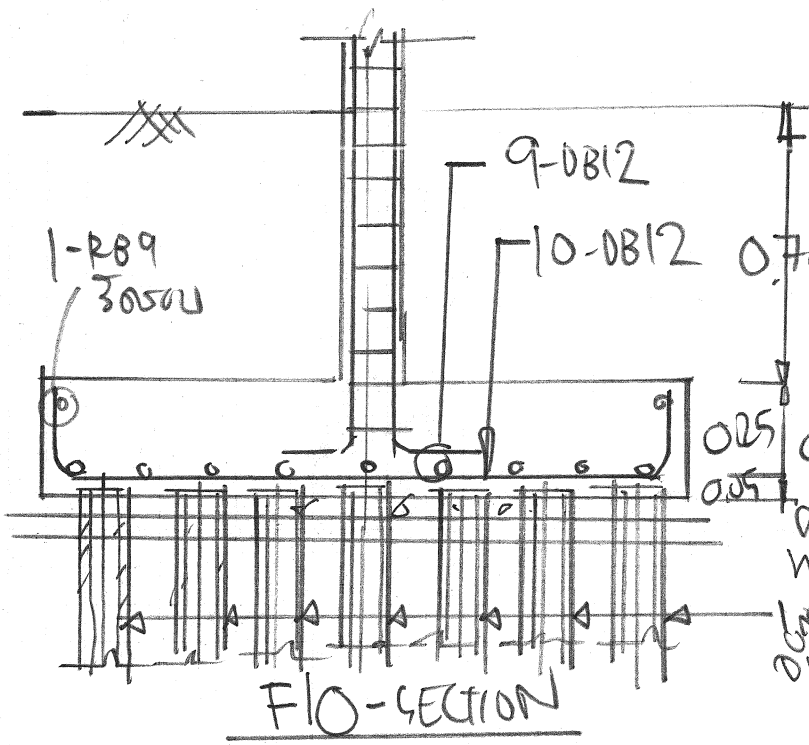
M_L = 3000 kgm

A_{sL} = 7.76 cm²

ε_0 = 16.16 cm

A_{smin} = 5.4 cm²

10-DB12



v_b = 0.85 ksc

v_{bL} = 2.53 ksc

v_p = 5.00 ksc

ดินถมบดแน่น 0.05 ม.

ทรายรองพื้น 0.05 ม.

ใช้เสาเข็ม ⊙ ϕ6" × 6.00

ปักลึกลง 10 ตัน/ต้น.

F10 - SECTION

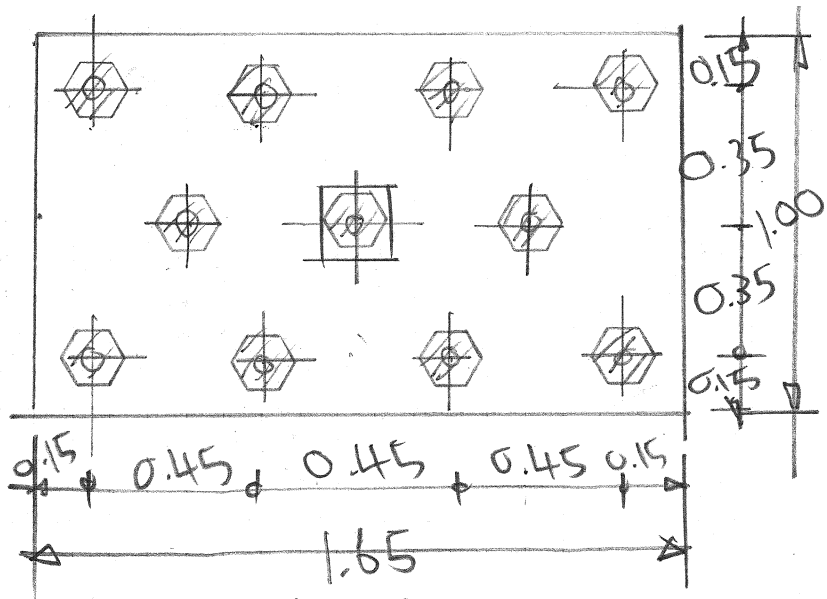
CALCULATION SHEET

PROJECT	JOB ID	
SUBJECT	DESIGNED	PAGE
	CHECKED	SHEET

F11 : Max. load on footing = 22,000 kg

USE 11 - Pile ⬡ ø8" x 6.00 .

load/Pile = 2000 kg



F11 : PLAN

M_S = 2200 kgm

A_{ϕ} = 5.7 cm²

Σ_o = 16.2 cm

$A_{\phi m}$ = 8.91 cm²

10-08-12

M_L = 3750 kg.m

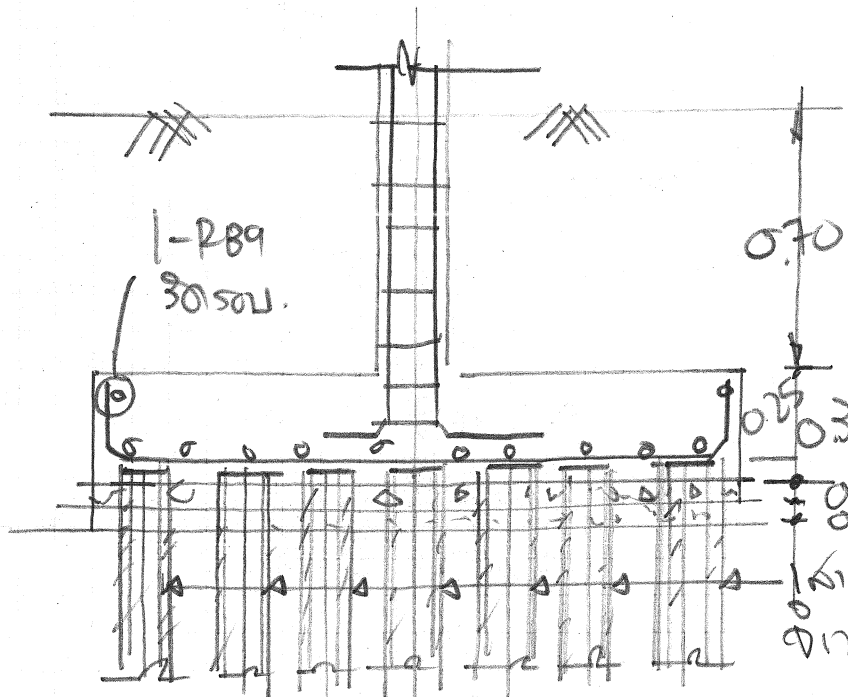
A_{ϕ} = 9.71 cm²

Σ_o = 20.2 cm²

12-0812

σ_b = 2.60 ksc

b_p = 5.50 ksc



F11 : SECTION

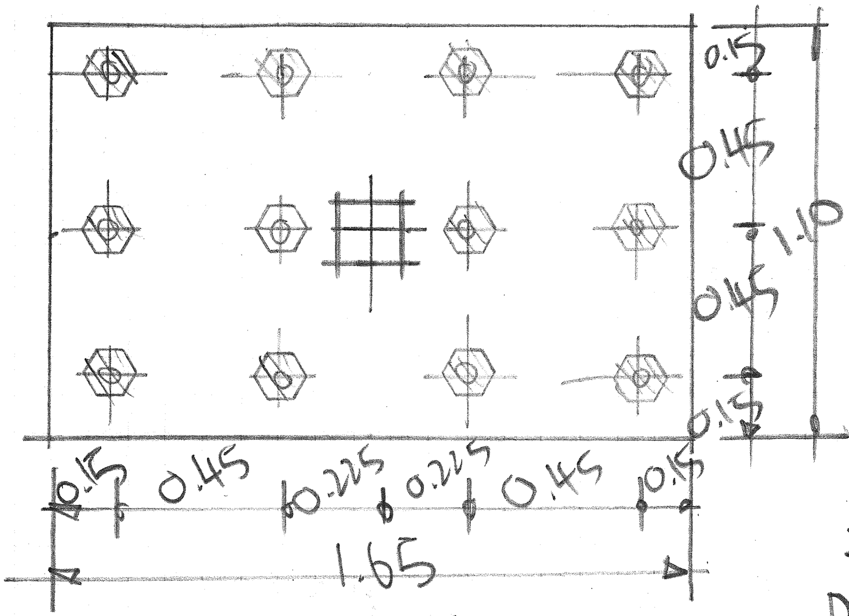
CALCULATION SHEET

PROJECT	JOB ID	
SUBJECT	DESIGNED	PAGE
	CHECKED	SHEET

F12 : Max. load on Footing = 24,000 kg

USE 12-Pile ⬡ ϕ6" × 6.00

load/Pile = 2,000 kg



F12 : PLAN

M_y = 3000 kg.m

A_{st} = 7.77 cm²

Σ_0 = 16.2 cm

$A_{st\,min}$ = 8.91 cm²

9-DB16

M_L = 4500 kg.m

A_{st} = 11.65 cm²

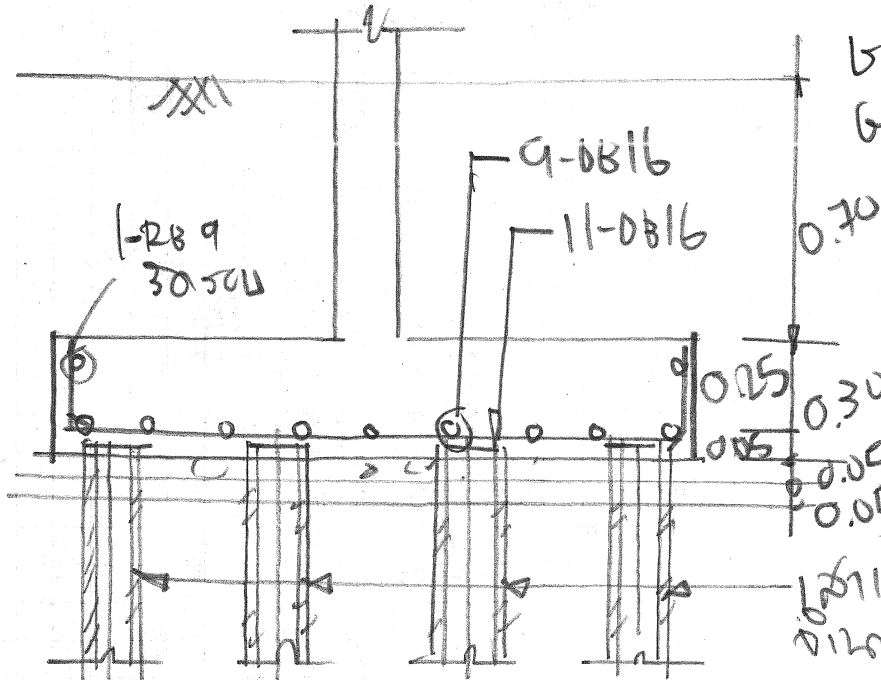
Σ_0 = 24.25 cm

$A_{st\,min}$ = 5.44 cm²

11-DB16

v_b = 3.27 ksc

v_p = 6.00 ksc



F12 : SECTION