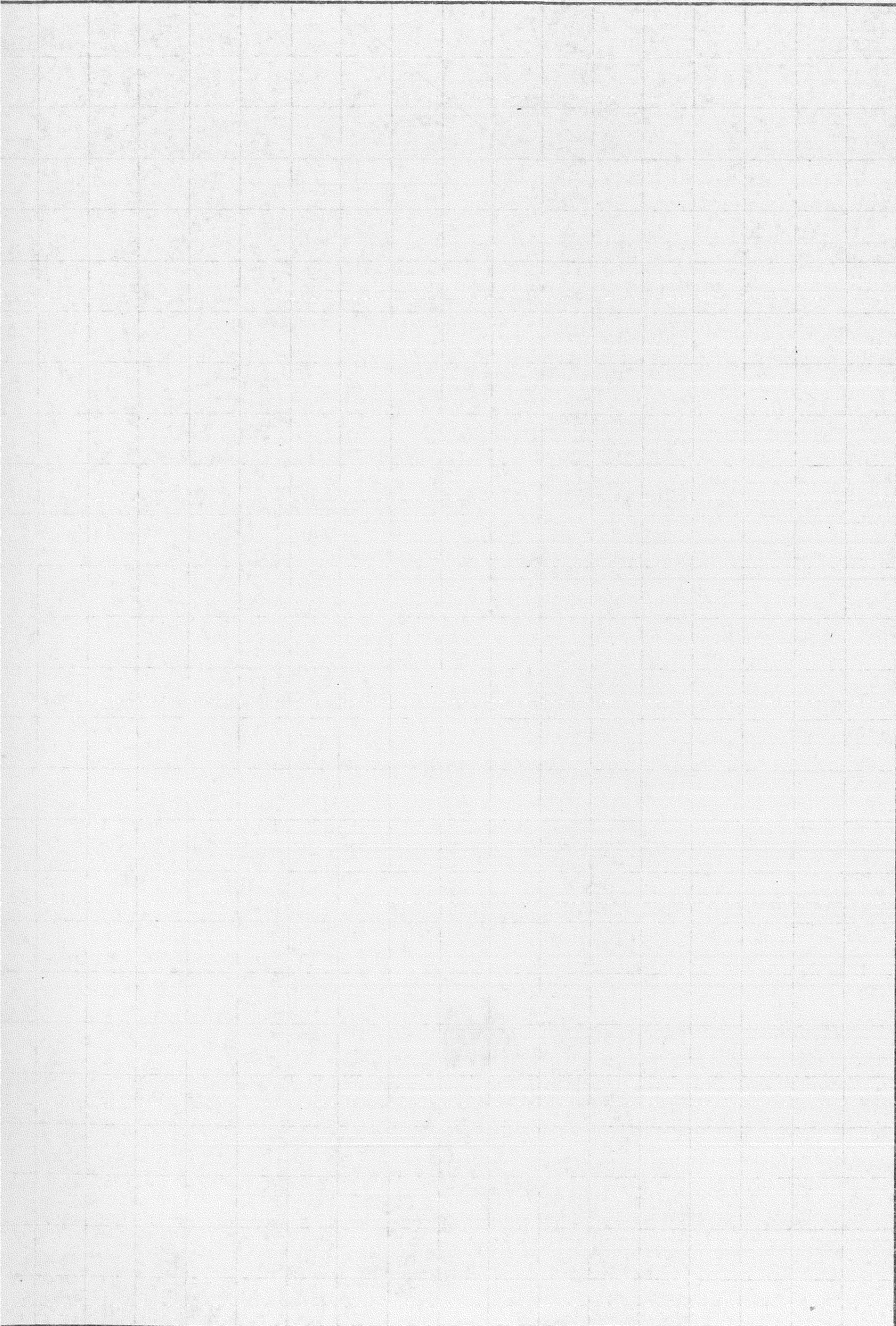


No. 22



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梁断面設計

Fc =

kg/cm², 鉄筋

SR
SD

No 73

符号	階	E C	b	D		M (t-m)	C	γ Pt	at	n-φ	sec	Q ₀		Q _y / b _j	Q ₀ / f _{aj}	Pw	St	
				d	bd ²							(t)	(t)					
Y1 Y2 FG1	X1	35	110	120	3.85	L				4-D25		L					1.2 D10=20φ D10-150 [Ⓢ]	
						H						H						
						S						S						
	中					26.8	L	6.3	.35	13.5	3		L					
							H						H					
							S						S					
	X2	35	110	120	4.24	49.5	L	11.7	.65	25.0	6		L	22.2				<70
							H						H					
							S						S					
	Y0 FG2	西	35	110	120	79.5	L				6-D25		L	31.5	9.3		43 D10=16φ D10-150 [Ⓢ]	
							H						H					
							S						S					
中						39.5	L	9.3	.53	20.1	3		L					
							H						H					
							S						S					
Y0 FG3	西	35	110	120	38.0	L	9.0	.50	19.25	5-D25		L	21.6	6.4			D10-150 [Ⓢ]	
						H						H						
						S						S						
	中					27.4	L	6.5	.36	13.9	3		L					
							H						H					
							S						S					
Y1 FG4	X3	35	110	120	63.5	L	15.0	.84	32.4	4-D25		L	18.6				D10-150 [Ⓢ]	
						H						H						
						S						S						
	中	↓	35	110		76.2	L	15.7	.88	38.7	5		L	77.5	11.53		.65 3-D10-14φ 3-D10-100 [Ⓢ]	
							H						H					
							S						S					
	X4	40	120	110	7.84	9.1	L	15.7	.88	38.7	8		L	77.5	11.53		.65 3-D10-14φ 3-D10-100 [Ⓢ]	
							H						H					
							S						S					
	Y0 Y1 FB1	Y0	35	110	120	9.1	L				4-D25		L					D10-150 [Ⓢ]
							H						H					
							S						S					
中						9.1	L	9.7			3		L					
							H						H					
							S						S					
Y1						57.7	L	13.6	.77	29.7	7		L	20.3				
							H						H					
							S						S					
Y1 Y2 FB2		Y1	35	110	120	52.7	L				7-D25		L	28.7	7.5		1.35 D10=11.6 D10-100 [Ⓢ]	
							H						H					
							S						S					
	中					50.0	L	11.8	.66	25.4	3		L					
							H						H					
							S						S					
	Y2						L				6		L					
							H						H					
							S						S					

No. 24

符号	階	E C	b	D		M (t-m)	C	γ Pl	at	n- ϕ	sec	Q _D		Q _D / b _j	Q _D / f _{aj}	P _w	St
				d	bd ²							(t)					
FB ₃	丙		35	120	3.85	28.6	6.7	37	143	上	4	L	22.6	6.7	<20		
				110	4.24	H				3	H						
						S					S		D10-15 ^②				
	甲						24.8	5.8			上	3	L				
							H					H					
							S					S					
											上		L				
							H					H					
							S					S					
											上		L				
							H					H					
							S					S					
											上		L				
							H					H					
							S					S					
											上		L				
							H					H					
							S					S					
											上		L				
							H					H					
							S					S					
											上		L				
							H					H					
							S					S					
										上		L					
						H					H						
						S					S						
										上		L					
						H					H						
						S					S						
										上		L					
						H					H						
						S					S						

§ 5. 基礎設計

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柱軸方向力

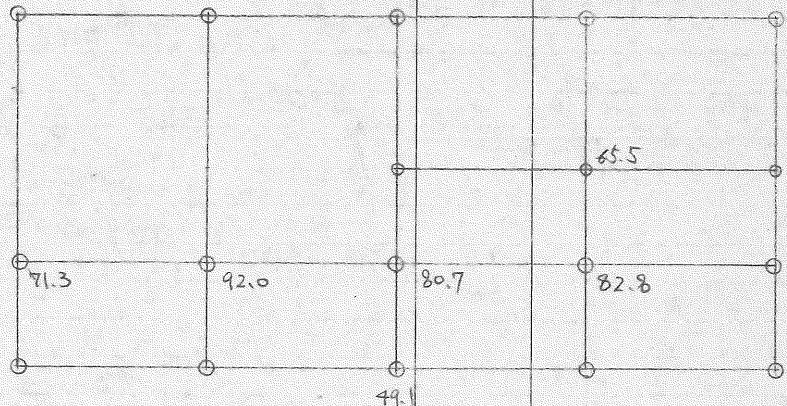
壁自重 $.25 \frac{t}{m^2}$

No. 75

符号	階	床	W (ton)	梁、壁、etc	W (ton)	ΣW (ton)	
Cx1y1	1	$.23 \times 5.0 \times 6.5 = 7.48$ $.06 \times 5.0 \times 2.75 = .83$	8.4	加 $.25 \times (5.0 + 6.5) \times 5.4 = 15.53$	15.6	24.0	
Cx5y1				梁 $1.01 \times (5.0 + 6.5) = 11.62$ $1.01 \times 2.75 = 2.78$ 鋪装 $.54 \times 2.75 = 1.49$ 加 $.44 \times 1.5 \times (5.0 + 6.5) = 7.59$ $.44 \times 1.5 \times 5.0 = 3.30$ 上載 $2.62 \times 11.5 \times .5 = 15.01$ $2.0 \times 2.75 = 5.50$	47.3	(62.9)	(71.3)
Cx2y1	1	$.23 \times 10.0 \times 6.5 = 14.95$ $.06 \times 10.0 \times 2.75 = 1.65$	16.6	加 $.25 \times 10.0 \times 5.4 = 13.5$	13.5	30.1	
				梁 $1.01 \times (10.0 + 6.5) = 16.67$ $1.01 \times 2.75 = 2.78$ 鋪装 $.54 \times 2.75 = 1.49$ 加 $.44 \times 1.5 \times 10.0 = 6.6$ 上載 $2.62 \times (6.0 + 10/2) = 28.82$ $2.0 \times 2.75 = 5.5$	61.9	(75.4)	(92.0)
Cx5y1	1	同 Cx2y1 用	16.6	加 $.25 \times 10.0 \times 5.4 = 13.5$ $.25 \times 2.5 \times 4.8 = 3.0$	16.5	33.1	
				梁 $1.01 \times (10 + 2.5 + 2.75) = 15.4$ 鋪装 $.54 \times 2.75 = 1.49$ 加 $.44 \times (10.0 + 2.5) = 5.50$ 上載 $2.62 \times (2.5 \times 10/2) = 19.65$ $2.0 \times 2.75 = 5.5$	47.6	(64.1)	(80.7)
Cx4y1	1	同 Cx2y1 用	16.6	加 $.25 \times 10.0 \times 5.4 = 13.5$ $.25 \times 2.5 \times 4.8 = 3.0$	16.5	33.1	
				梁 $1.01 \times (10.0 + 2.5) = 12.63$ $0.84 \times 2.5 = 2.10$ 鋪装 $.54 \times 2.75 = 1.49$ 加 $.44 \times (10.0 + 2.5) \times 1.5 = 8.25$ 上載 $2.62 \times (2.5 \times 10/2) = 19.65$ $2.0 \times 2.75 = 5.5$	49.7	(66.2)	(82.8)
Cx3y0		$.06 \times 10 \times 4.75 = 2.85$	2.9	柱 $2.4 \times .7 \times .55 \times 1.5 = 1.39$ 梁 $1.01 \times 10.0 + .84 \times 2.75 = 12.41$ 鋪装 $.54 \times (10.0 + 2.75) = 6.89$ 上載 $2.0 \times (10 + 2.75) = 25.5$	46.2	49.1	

No. 76

符号	階	床	W (ton)	梁、壁、etc	W (ton)	ΣW (ton)
Cx41				$1.01 \times (6.5 + 6.5) = 13.13$ $.84 \times 6.5 = 5.46$ $.25 \times (6.5 + 6.5) \times 1.8 = 5.85$ $.44 \times 10.3 \times 1.5 = 6.80$ 土載 $2.62 \times 13.0 = 34.19$	65.5	



杭耐力

。地盤に与えられた支持力 $N = 50$

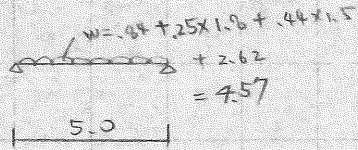
$$R_a = \frac{1}{3} \times 30 \times N \times A_p$$

350φ

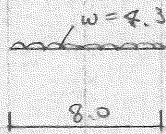
$$R_a = \frac{1}{3} \times 30 \times 50 \times .175^2 \times \pi = 78.1$$

↓
78.0 T

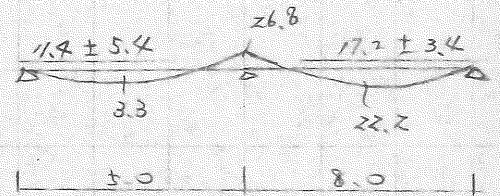
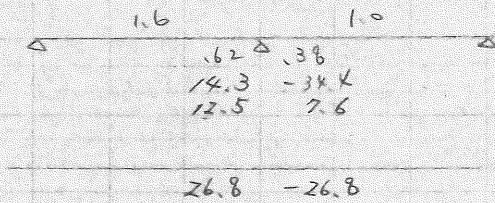
小梁設計



$$\left\{ \begin{array}{l} C = 9.5 \\ M_0 = 14.3 \\ Q = 11.4 \end{array} \right.$$



$$\left\{ \begin{array}{l} C = 22.9 \\ M_0 = 34.4 \\ Q = 17.2 \end{array} \right.$$



$b \times D = 35 \times 100 \text{ (90)}$

$b \cdot d = 3.15 \quad b \cdot d^2 = 2.84$

端 $M = 26.8 \quad C = 9.4 \quad P_w = .53$

$a_f = 16.7 \quad (I) 7 - D25$

(F) 3

中梁 $M = 22.2 \quad C = 7.8 \quad P_w = .44$

$a_f = 13.9 \quad (E) 3 - D25$

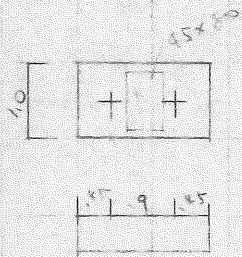
(F) 4

中斷 $Q = 20.6$

$C = 7.46 \quad P_w = .25$

$D10 \times 16.3 \rightarrow \text{5} \phi \text{ } D10 \sim 150 \text{ @}$

基礎設計



$$N = 82.8$$

$$WF = 2.0 \times 1.8 \times 1.0 \times 2.0 = 7.2$$

$$\frac{82.8 + 7.2}{480} = 1.88 \rightarrow 2 \text{ \#}$$

$$\frac{90}{2} = 45.0$$

$$D = 100 \quad d = 90 \quad B = 100$$

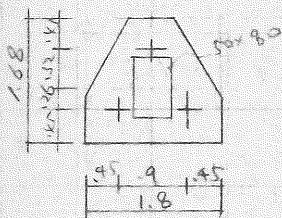
$$\gamma = 45.0 \times (23 + .1) = 14.9$$

$$Q = 45.0$$

$$\alpha T = \frac{1490 \times 1.1K}{2.0 \times 90} = 9.4 \quad 4 - D19$$

$$\psi = \frac{45000 \times 1.1K}{21 \times 90} = 27.1 \quad 5 - D19 (30.0)$$

$$\tau = \frac{45000 \times 1.1K}{100 \times 90} = 5.7 < 7.0$$



$$N = 92.0$$

$$WF = 2.0 \times 1.8 \times 1.68 \times 2.0 - 2.0 \times .64 \times 1.10 \times 2$$

$$= 9.28$$

$$\frac{92.0 + 9.28}{48} = 2.11 \rightarrow 3 \text{ \#}$$

$$\frac{101.28}{3} = 33.8$$

$$D = 100 \quad d = 90 \quad B = 100$$

$$\gamma = 33.8 \times (.12 + .1) = 7.7$$

$$Q = 33.8$$

$$\alpha T = 7.7 \quad 2 - D19$$

$$\psi = 20.4 \quad 4 - D19$$

$$\tau = 7.3 < 7.0$$