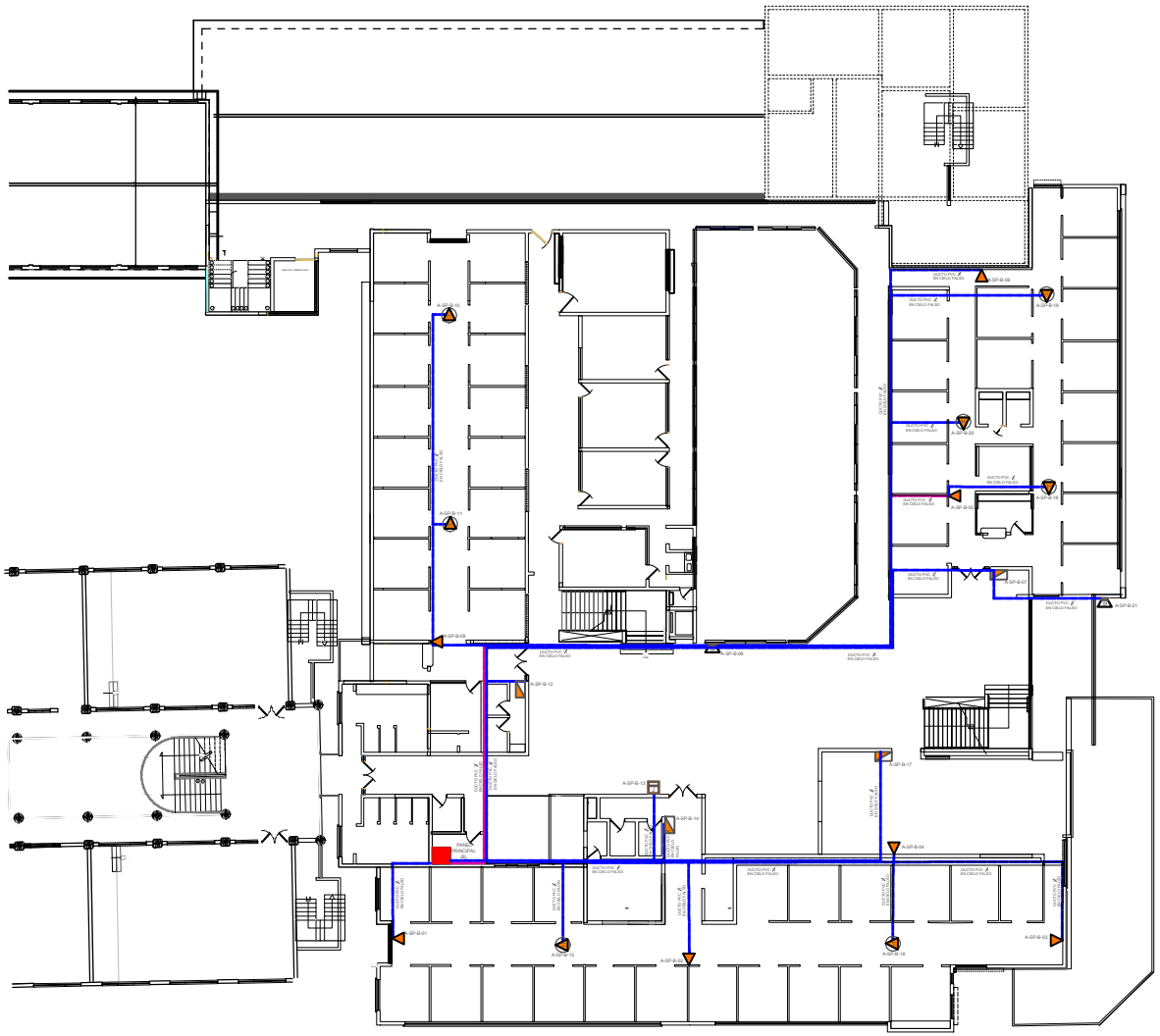
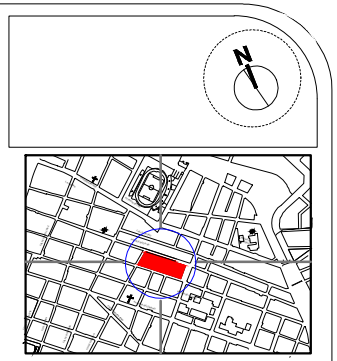




Sensor de Movimiento	"HZ"	(A-SP-B-XX)	
Sensor de Humo		(A-SP-B-XX)	
Sirena - S.estrobo	"HZ"	(A-SP-B-XX)	
Teclado	"HX"	(A-SP-B-XX)	
Jalador de Incendio	"HX"	(A-SP-B-XX)	
Puesto en "Cielo Falso"			

HZ= Altura Piso-Pto: 2,85m.
HX= Altura Piso-Pto: 1,40m.
HY= Altura Piso-Pto: 0,35m.

Panel Principal "Alarma" (B)

Tubo pvc 1/2

Tubo pvc 3/4

UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO

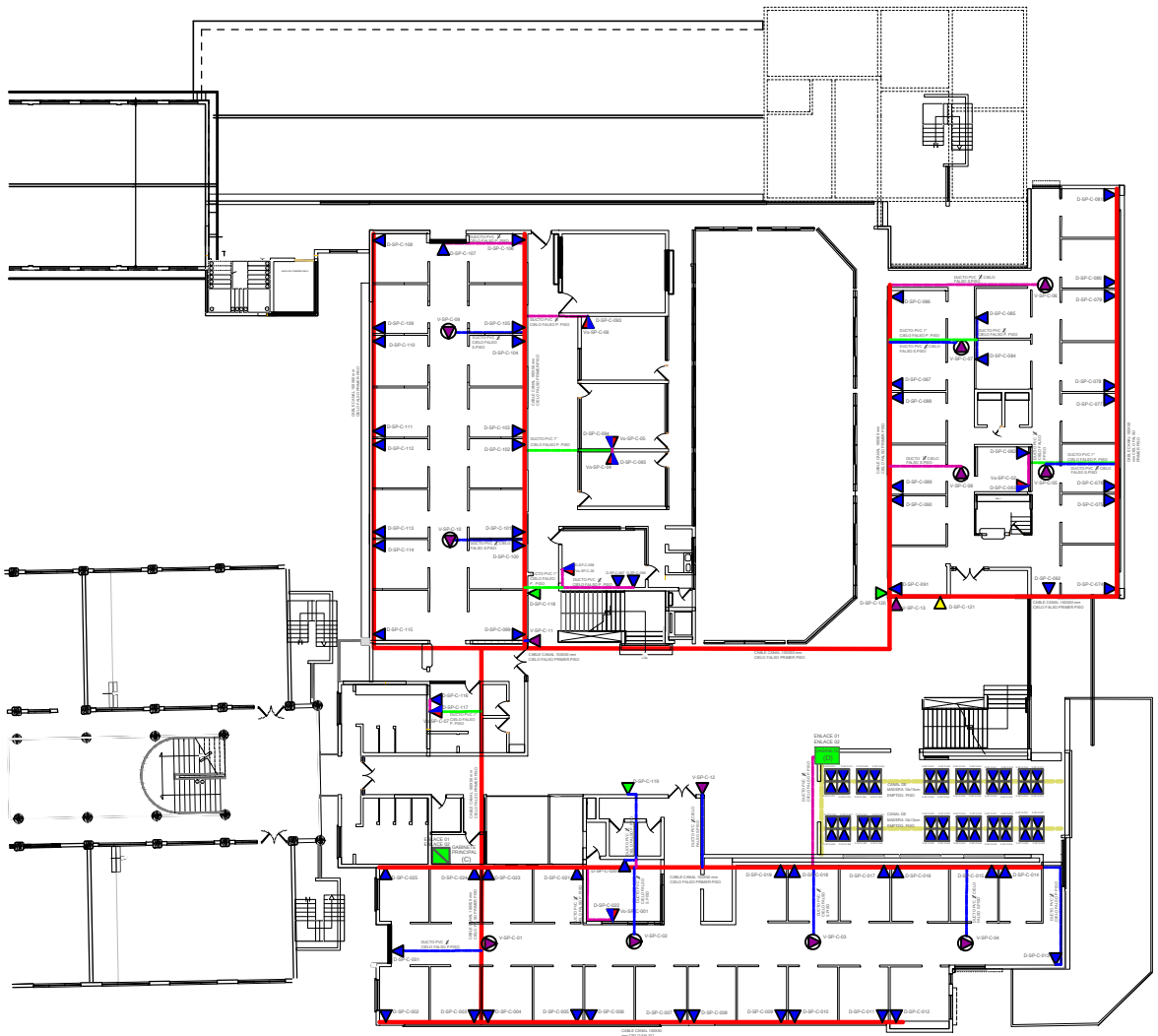
ESTUDIO A DISEÑO FINAL: **PROYECTO CONSTRUCCIÓN Y DOTACIÓN MOBILIARIO NUEVO BLOQUE FACULTAD DE ODONTOLOGIA: CONSULTORÍA POR PRODUCTO**

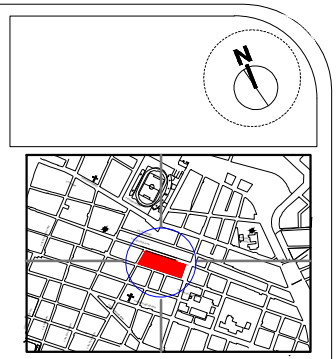
CARACTER: **SEGUNDO PISO - RED DE ALARMA** LÁMINA: **6/8**

EJECUTE: **TREBOL S.R.L.** VºBº **DIR. INFRAESTRUCTURA** VºBº **SUPERVISIÓN ESTUDIO**

1:100

ESPECIALISTA | GERENTE PROY. | ESCALA: **INDICADA** | FECHA: **T.JA./OCTUBRE/2012**





Punto de Datos	"HY"	(D-SP-X-XX)	
Punto de Datos "Emptdo. Madera"		(D-SP-X-XX)	
Datos - Voz Conpartido	"HY"	(Vo-SP-C-XX)	
		(D-SP-C-XX)	
Punto Wifi	"HZ"	(D-SP-C-XX)	
Punto de Video	"HZ"	(V-SP-C-XX)	
Punto de Biometrico	"HX"	(D-SP-C-XX)	
Puesto en"Cielo falso"			
Gabinete Principal		(C)	
Gabinete Secundario		(D)	

HZ= Altura Piso-Pto: 2,85m.
HX= Altura Piso-Pto: 1,40m.
HY= Altura Piso-Pto: 0,35m.

Tubo pvc 1/2

Tubo pvc 3/4

Tubo pvc 1"

Cable Canal 100x50 mm

Canal de Madera 100x150 mm

UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO

ESTUDIO A: **PROYECTO CONSTRUCCIÓN Y DOTACIÓN MOBILIARIO NUEVO BLOQUE FACULTAD DE ODONTOLOGIA: CONSULTORIA POR PRODUCTO**

DISEÑO FINAL:

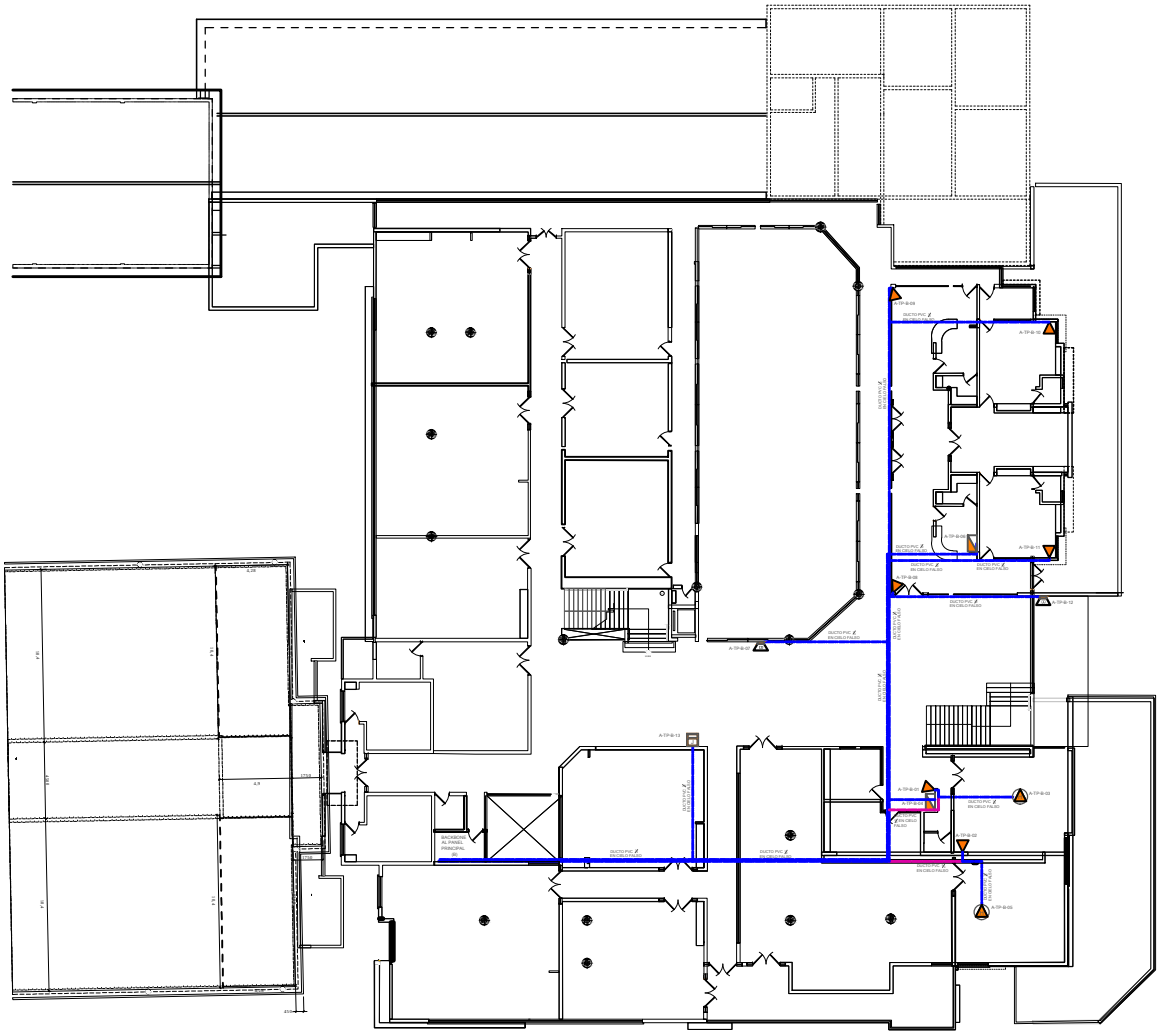
CARACTER: **SEGUNDO PISO - RED DE DATOS**

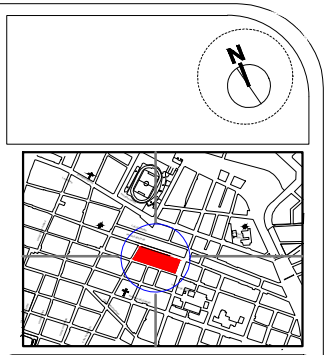
LÁMINA: **5/8**

EJECUTE:	VoBo DIR. INFRAESTRUCTURA	VoBo SUPERVISIÓN ESTUDIO
TREBOL S.R.L.		

1:100

ESPECIALISTA	GERENTE PROY.	ESCALA: **INDICADA**	FECHA: **TJA./OCTUBRE/2012**





Sensor de Movimiento	"HZ"	(A-TP-B-XX)	
Sensor de Humo		(A-TP-B-XX)	
Sirena - S.estrobo	"HZ"	(A-TP-B-XX)	
Teclado	"HX"	(A-TP-B-XX)	
Jalador de Incendio	"HX"	(A-TP-B-XX)	
Puesto en "Cielo Falso"			

HZ= Altura Piso-Pto: 2,85m.
HX= Altura Piso-Pto: 1,40m.
HY= Altura Piso-Pto: 0,35m.

Backbone "Panel Principal"	(B)
Tubo pvc 1/2	
Tubo pvc 3/4	

UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO

ESTUDIO A: **PROYECTO CONSTRUCCIÓN Y DOTACIÓN MOBILIARIO NUEVO BLOQUE FACULTAD DE ODONTOLOGÍA: CONSULTORÍA POR PRODUCTO**

DISEÑO FINAL:

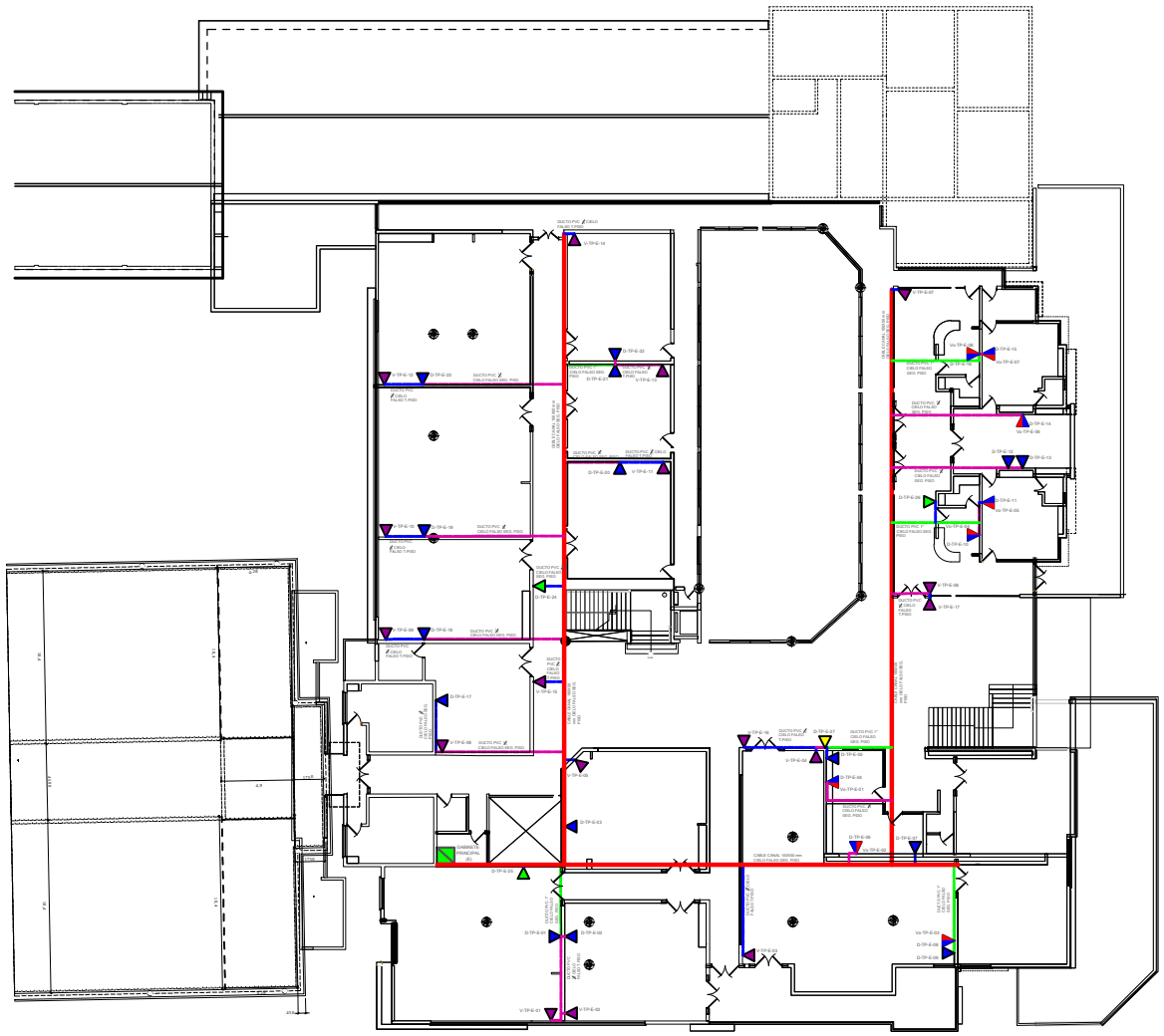
CARACTER: **TERCER PISO - RED DE ALARMA**

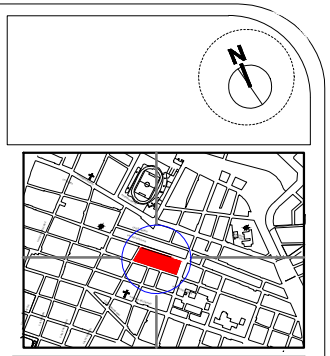
LÁMINA: 8/8

EJECUTA	V°B° DIR. INFRAESTRUCTURA	V°B° SUPERVISIÓN ESTUDIO
TREBOL S.R.L.		

1:100

ESPECIALISTA	GERENTE PROY.	ESCALA: INDICADA	FECHA: TJA./OCTUBRE/2012





Punto de Datos	"HY"	(D-TP-E-XX)	
Datos - Voz Conpartido	"HY"	(Vo-TP-E-XX)	
		(D-TP-E-XX)	
Punto Wifi	"HZ"	(D-TP-E-XX)	
Punto de Video	"HZ"	(V-TP-E-XX)	
Punto de Biometrico	"HX"	(D-TP-E-XX)	
Puesto en"Cielo falso"			
Gabinete Principal		(E)	

HZ= Altura Piso-Pto: 2,85m.
HX= Altura Piso-Pto: 1,40m.
HY= Altura Piso-Pto: 0,35m.

Tubo pvc 1/2	
Tubo pvc 3/4	
Tubo pvc 1"	
Cable Canal 100x50 mm	

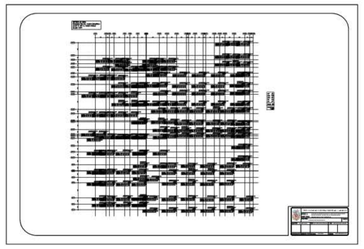
UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO

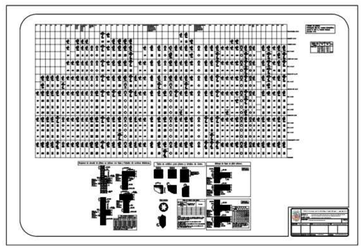
ESTUDIO A DISEÑO FINAL: **PROYECTO CONSTRUCCIÓN Y DOTACIÓN MOBILIARIO NUEVO BLOQUE FACULTAD DE ODONTOLOGÍA: CONSULTORIA POR PRODUCTO**

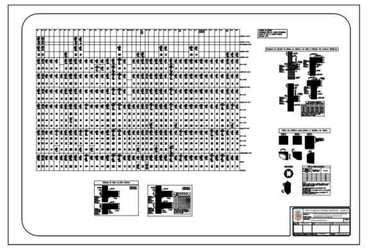
CARACTER: **TERCER PISO - RED DE DATOS**

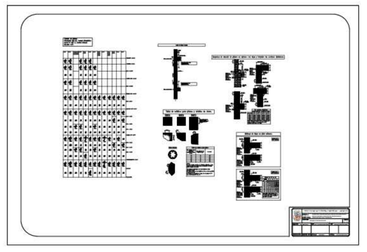
LÁMINA: **7/8**

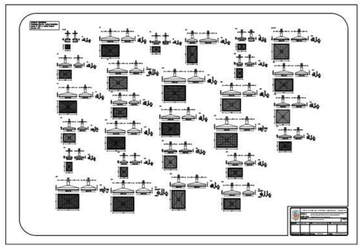
EJECUTE:		V°B° DIR. INFRAESTRUCTURA	V°B° SUPERVISIÓN ESTUDIO
TREBOL S.R.L.			
		1:100	
ESPECIALISTA	GERENTE PROY.	ESCALA: **INDICADA**	FECHA: **TJA./OCTUBRE/2012**

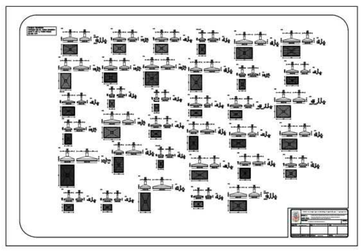


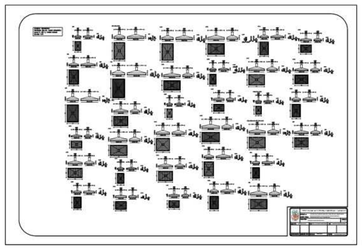


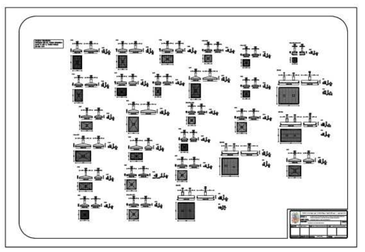


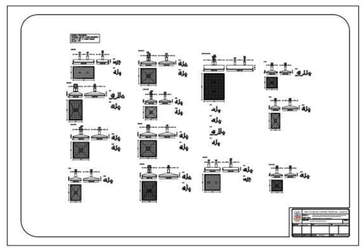


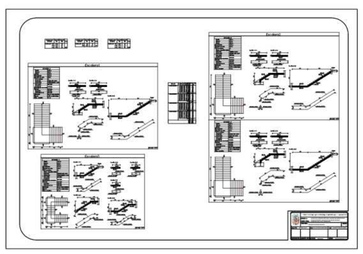


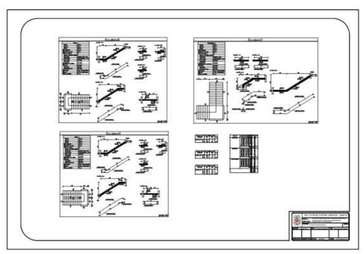


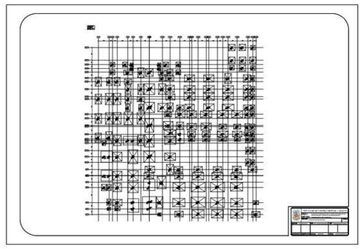


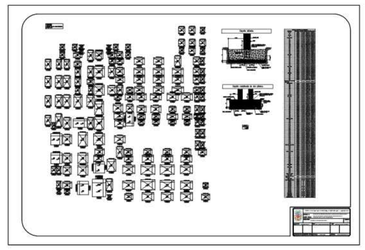


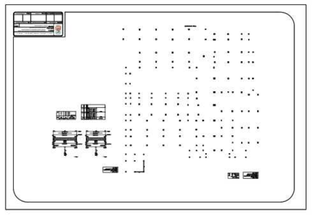


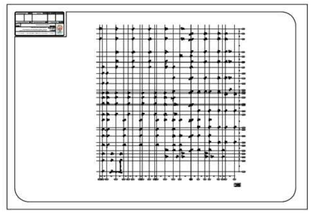


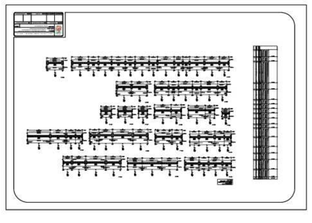


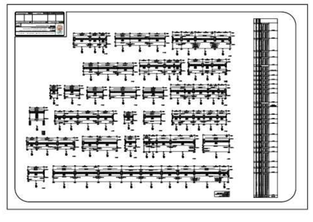


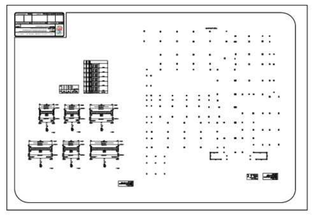


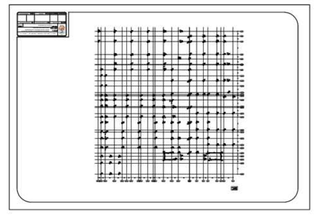


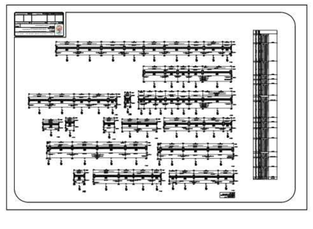


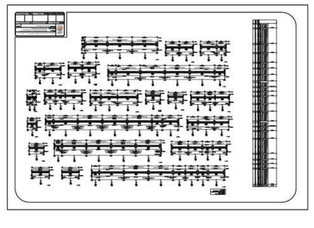


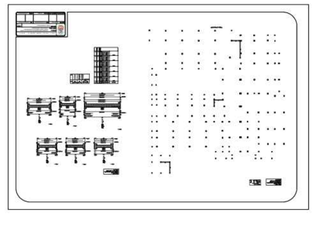


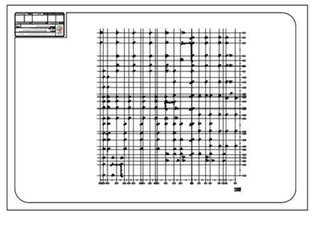


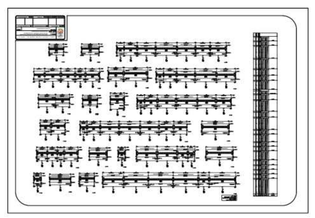


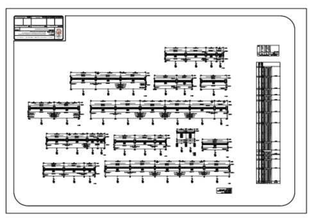


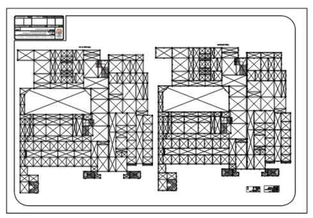


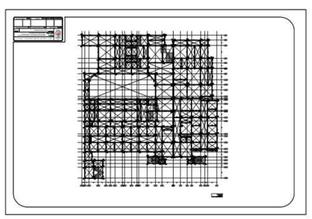


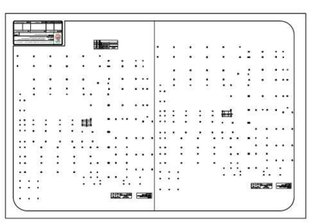


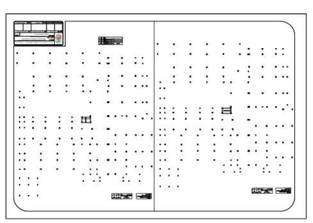


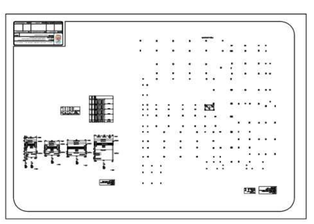


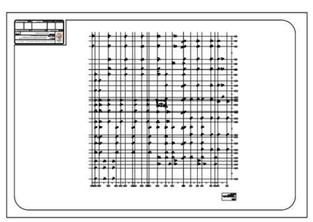


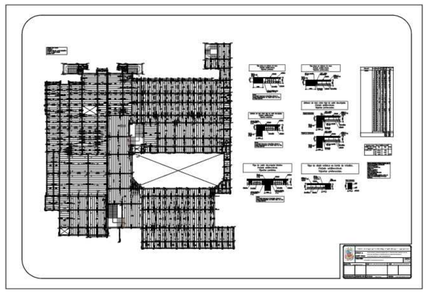


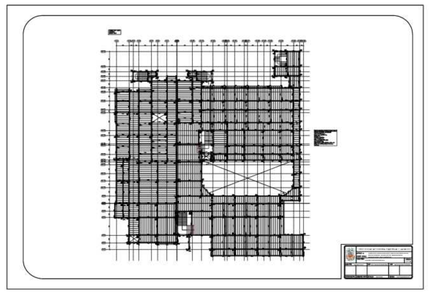


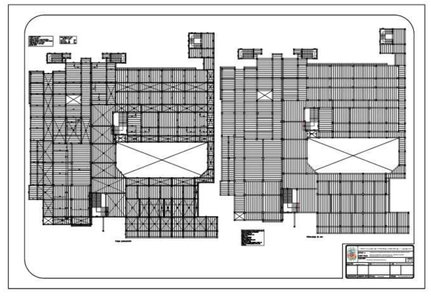


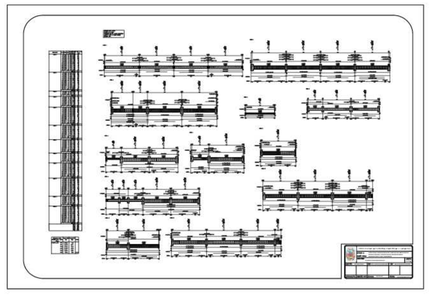


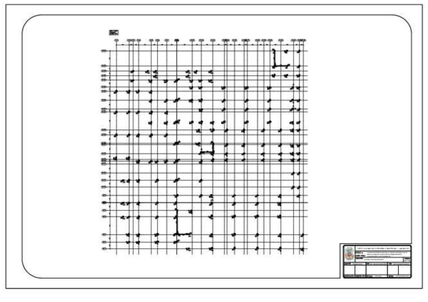


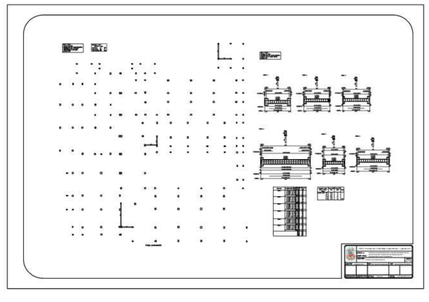


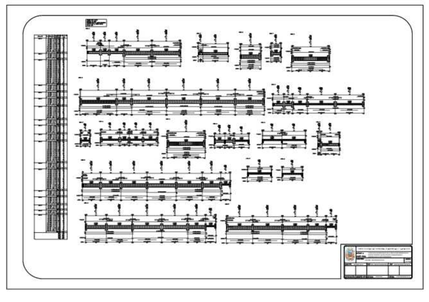


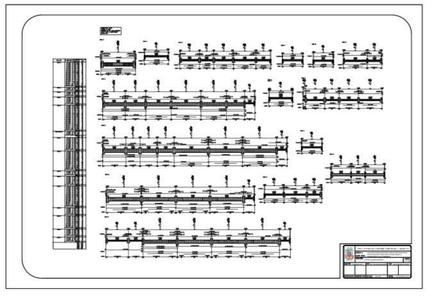


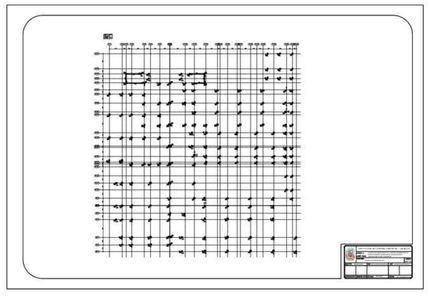


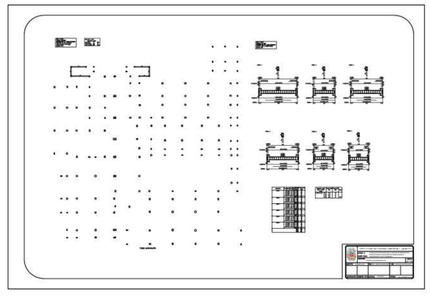


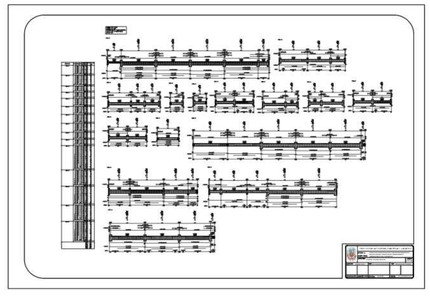


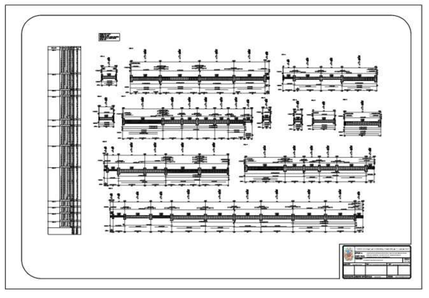


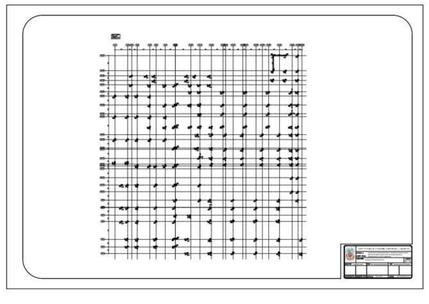


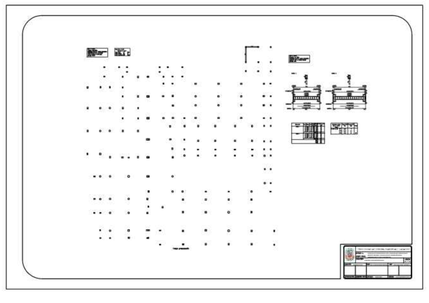


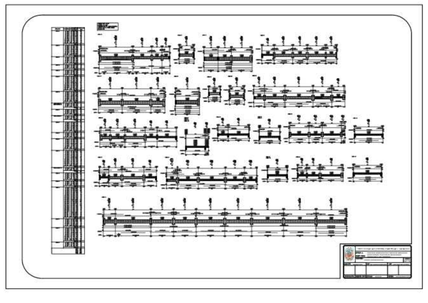


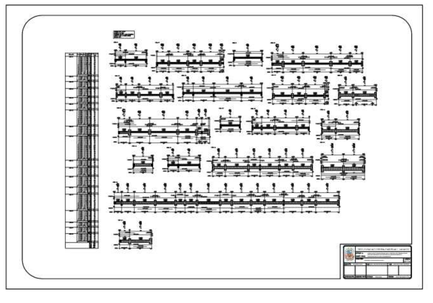


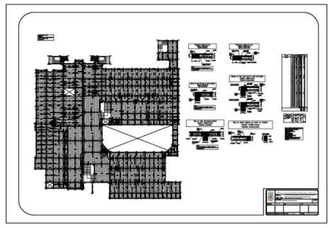


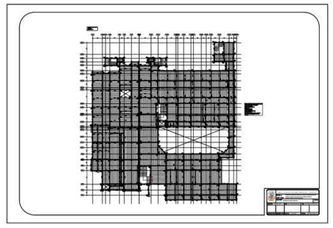


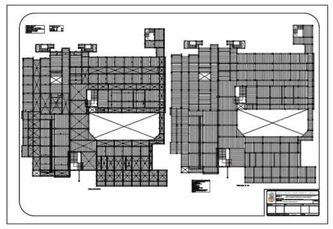


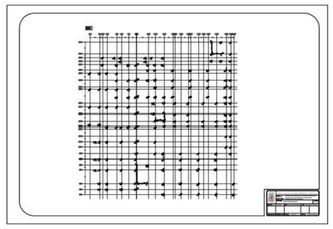


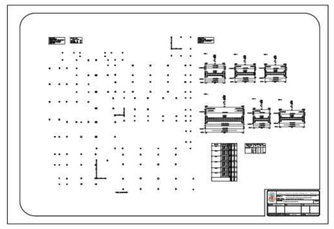


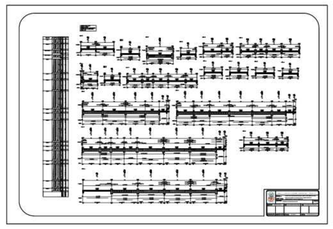


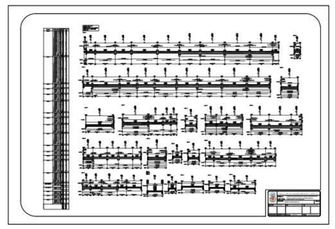


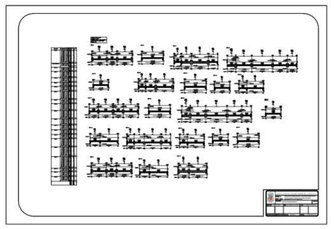


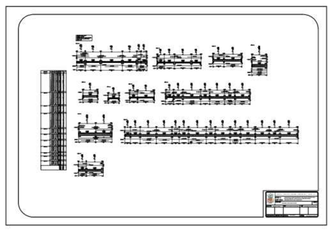


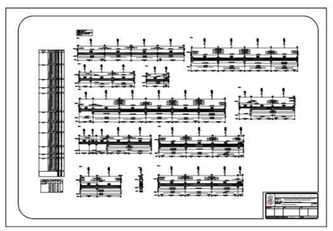


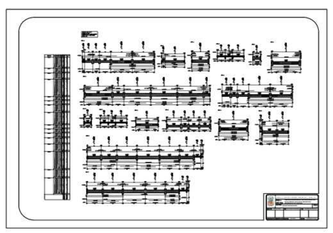


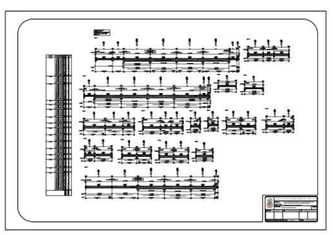


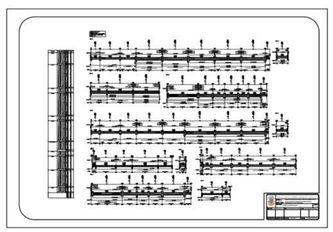


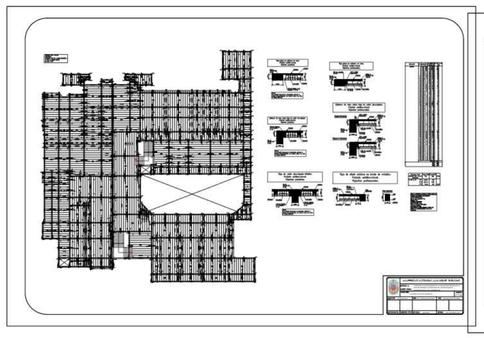


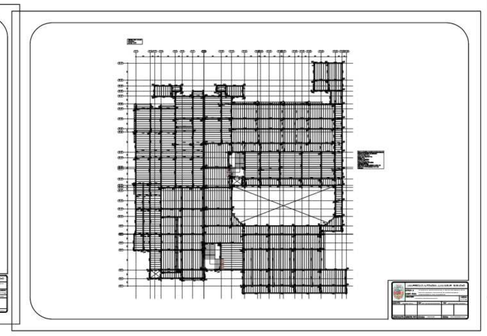


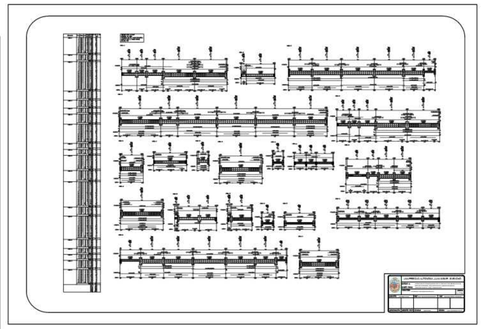


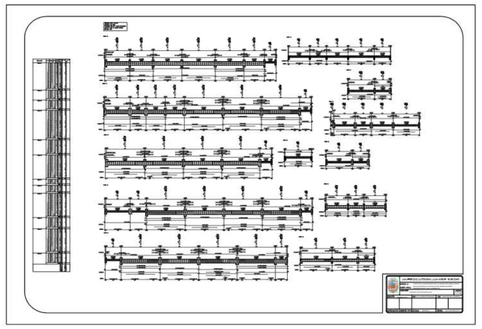


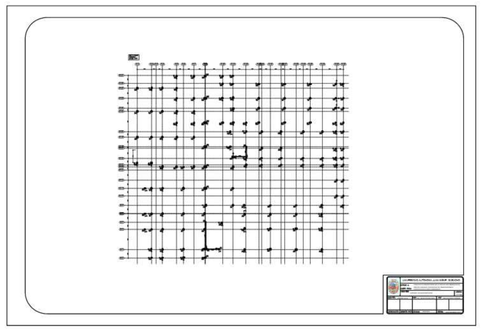


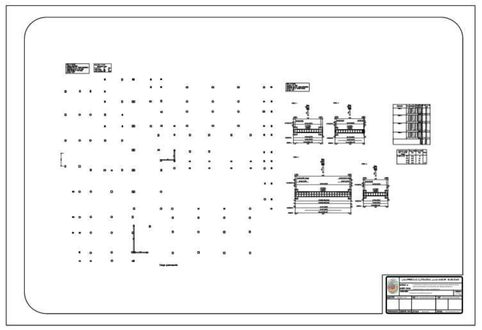


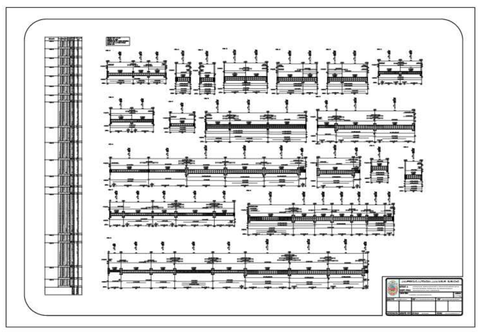


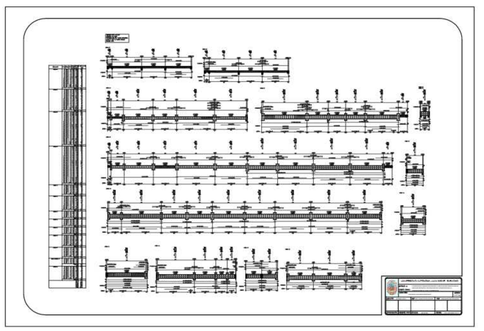


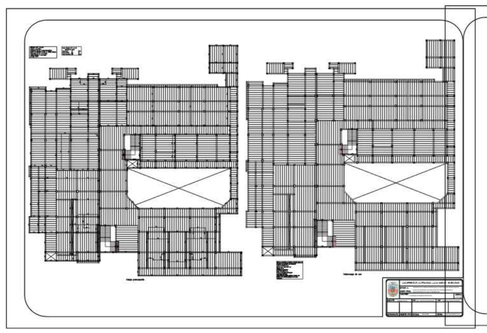


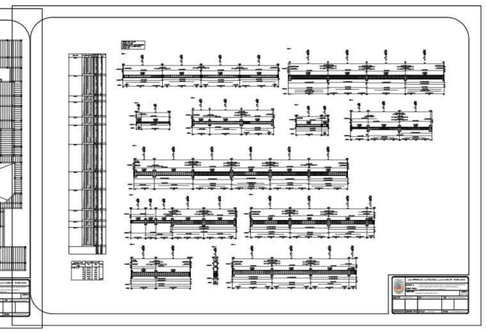


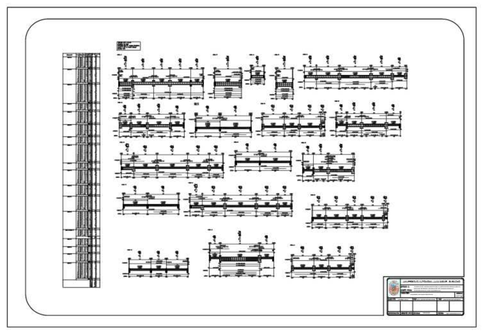


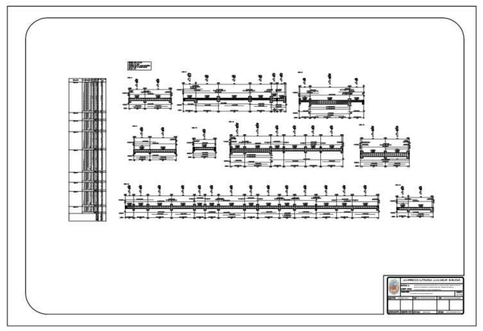


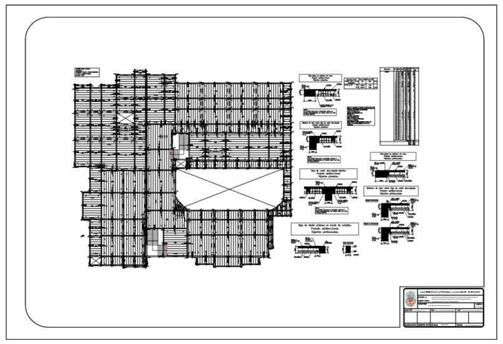


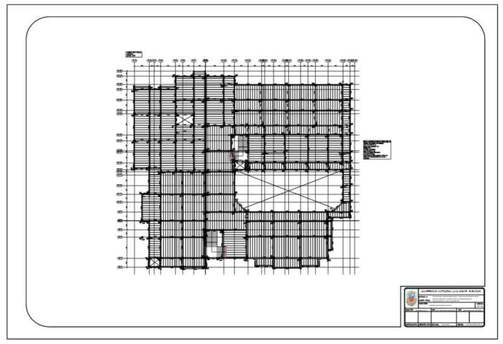


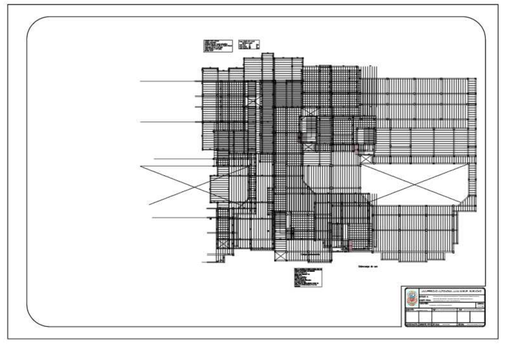


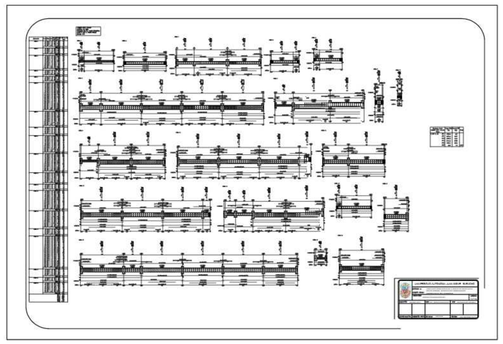


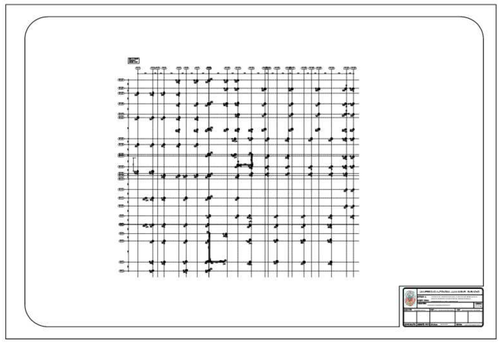


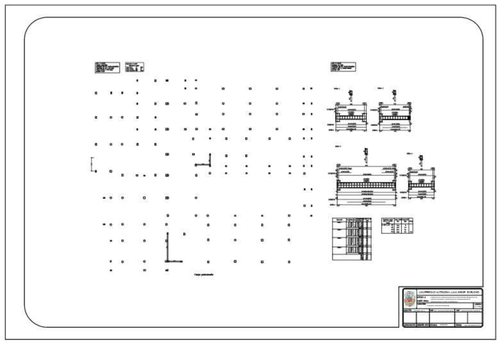


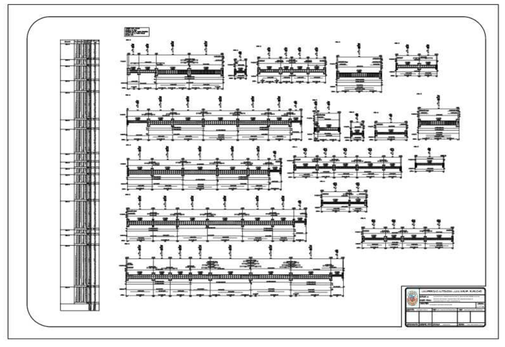


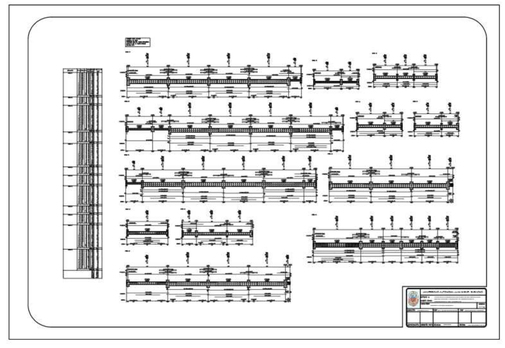


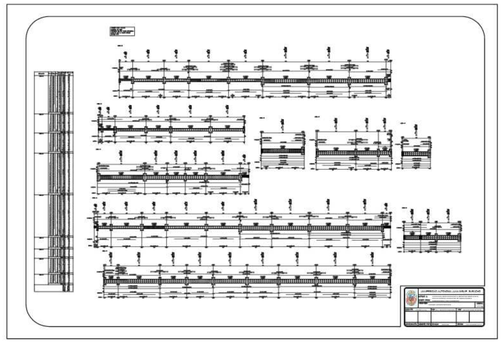


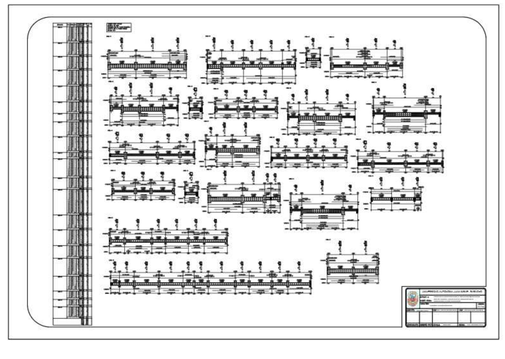


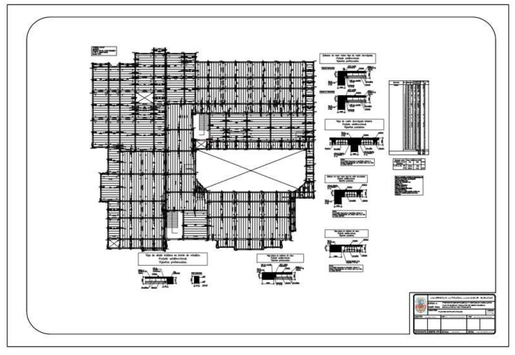


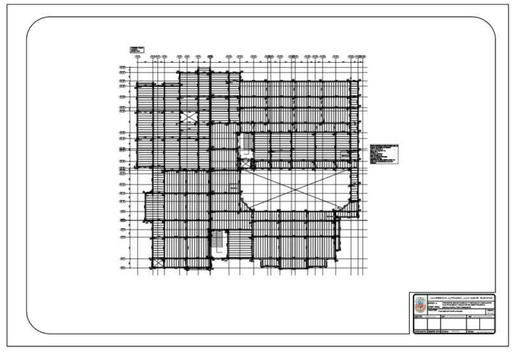


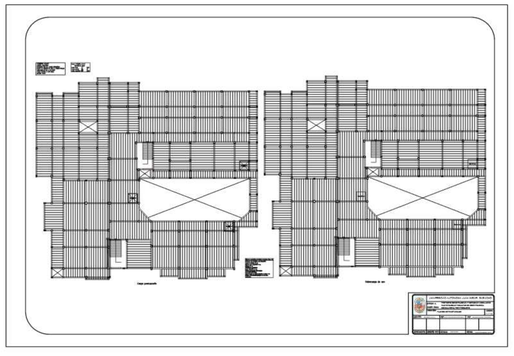


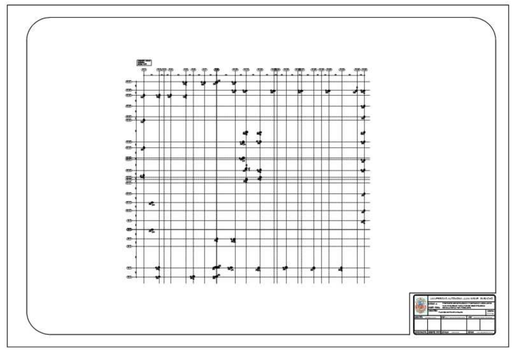


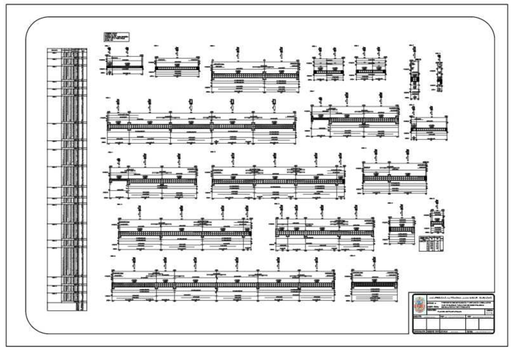


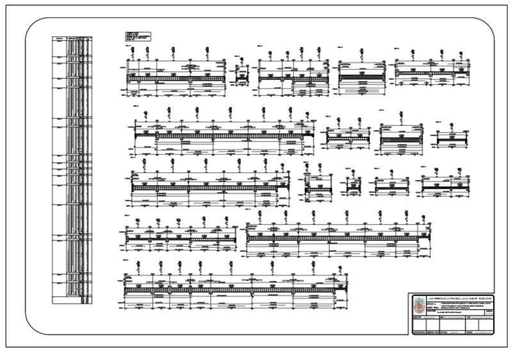


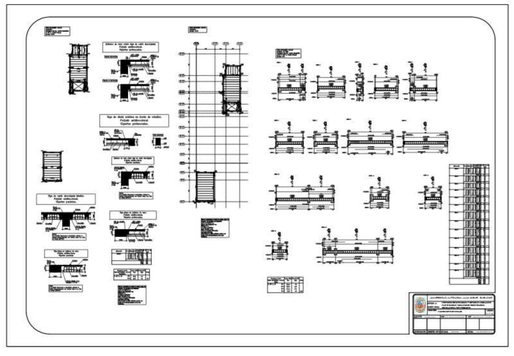


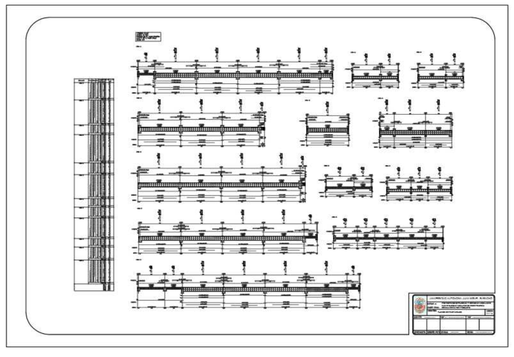


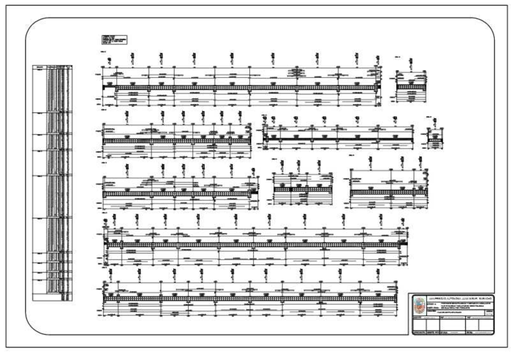


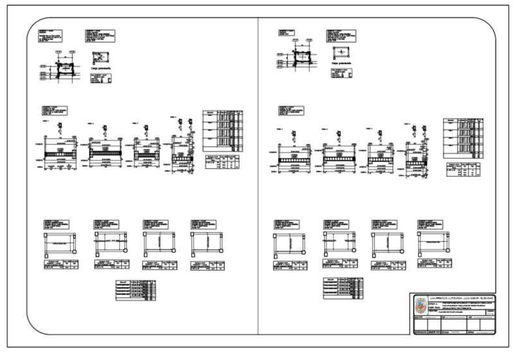


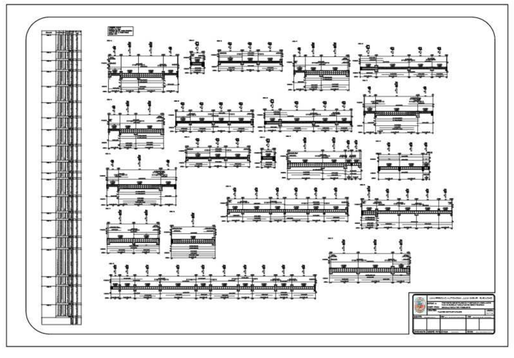


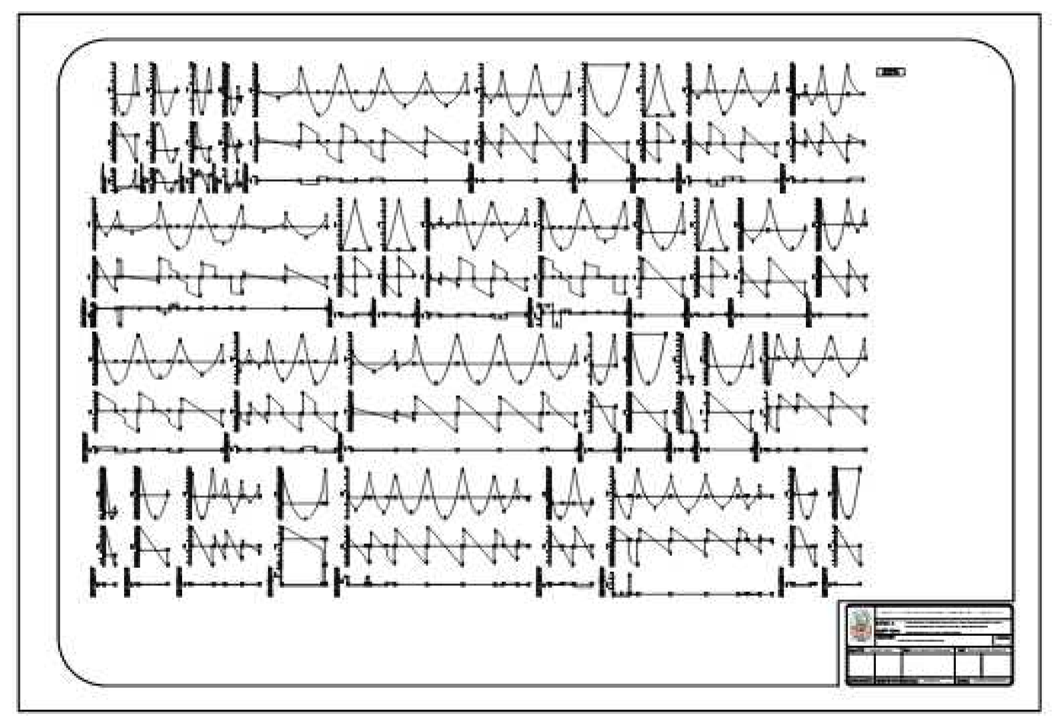
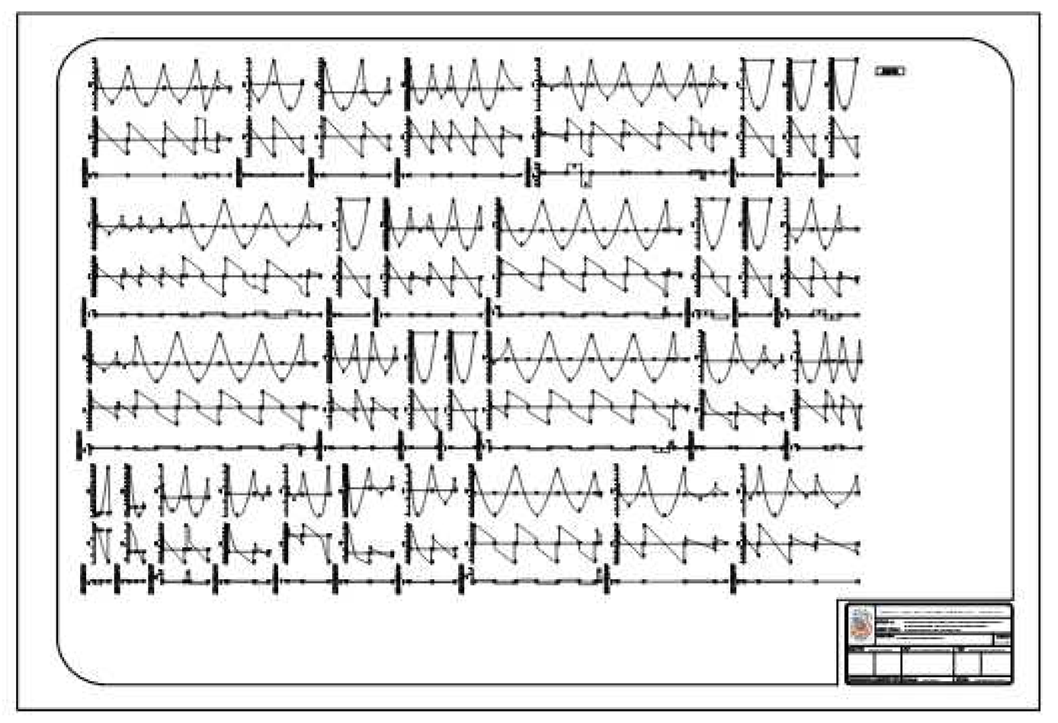
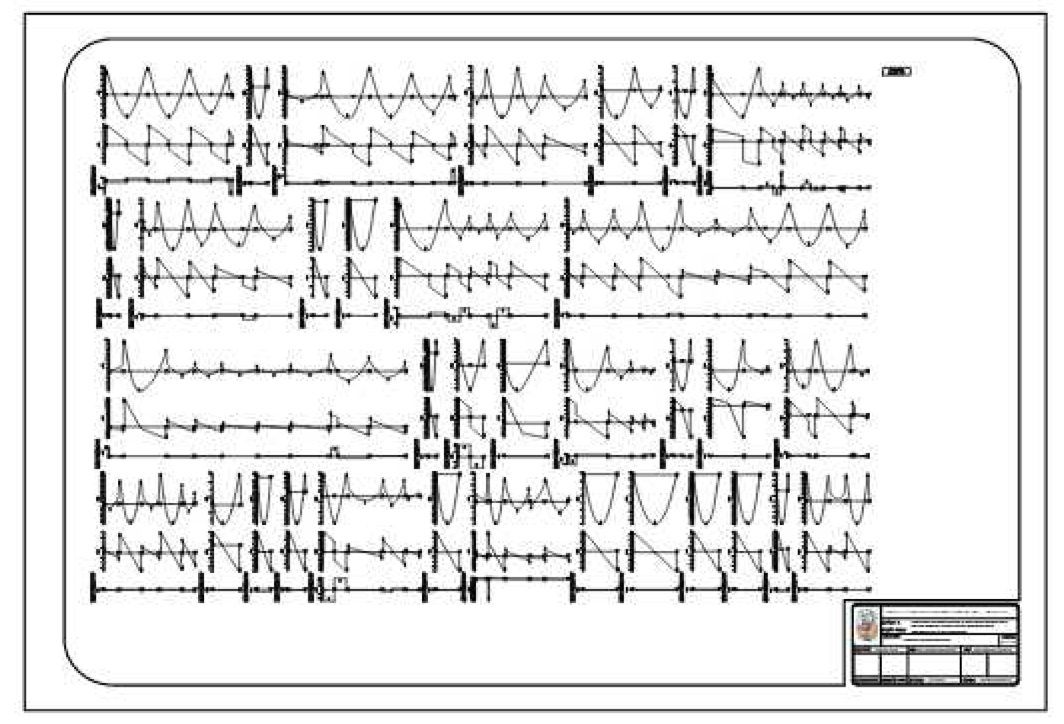
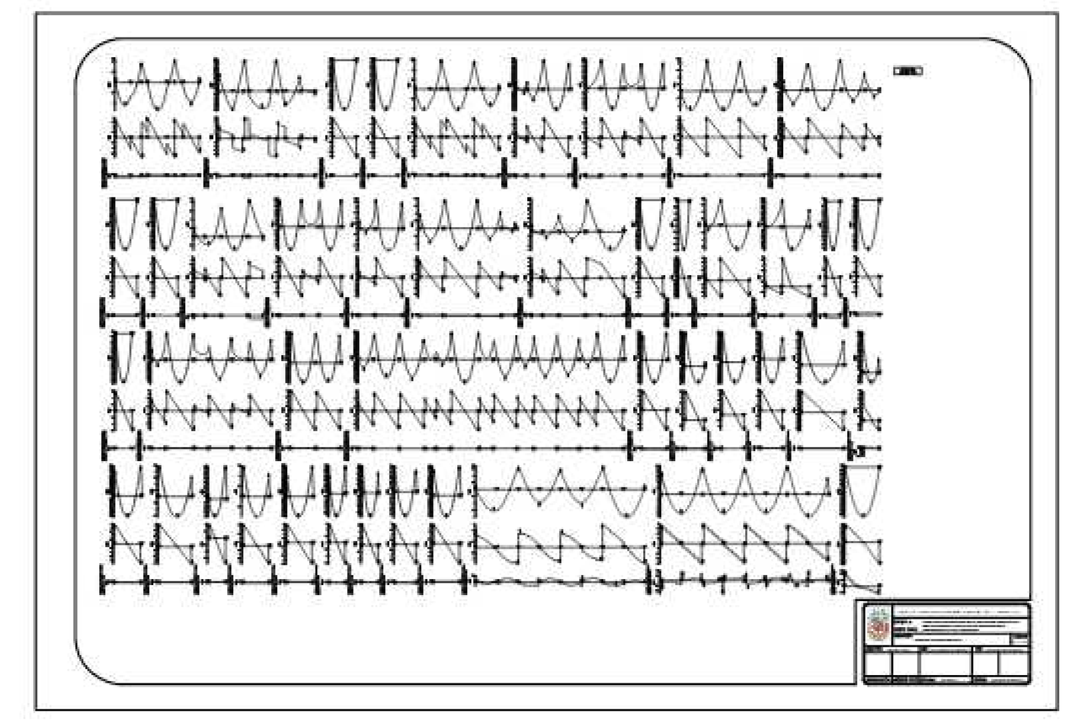
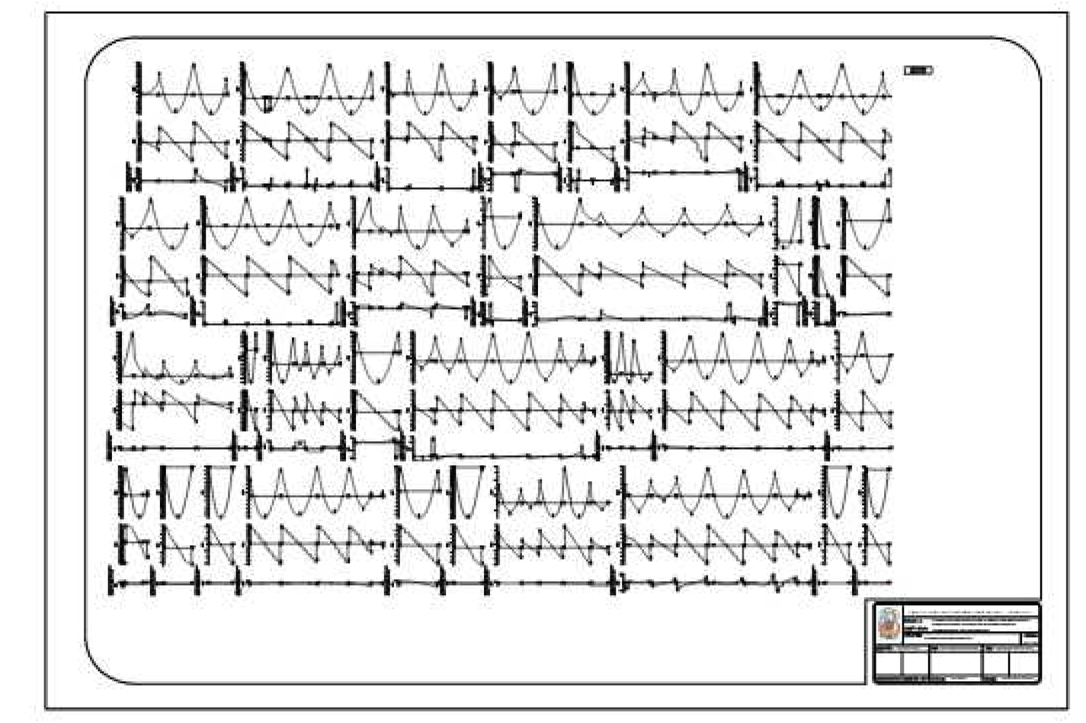
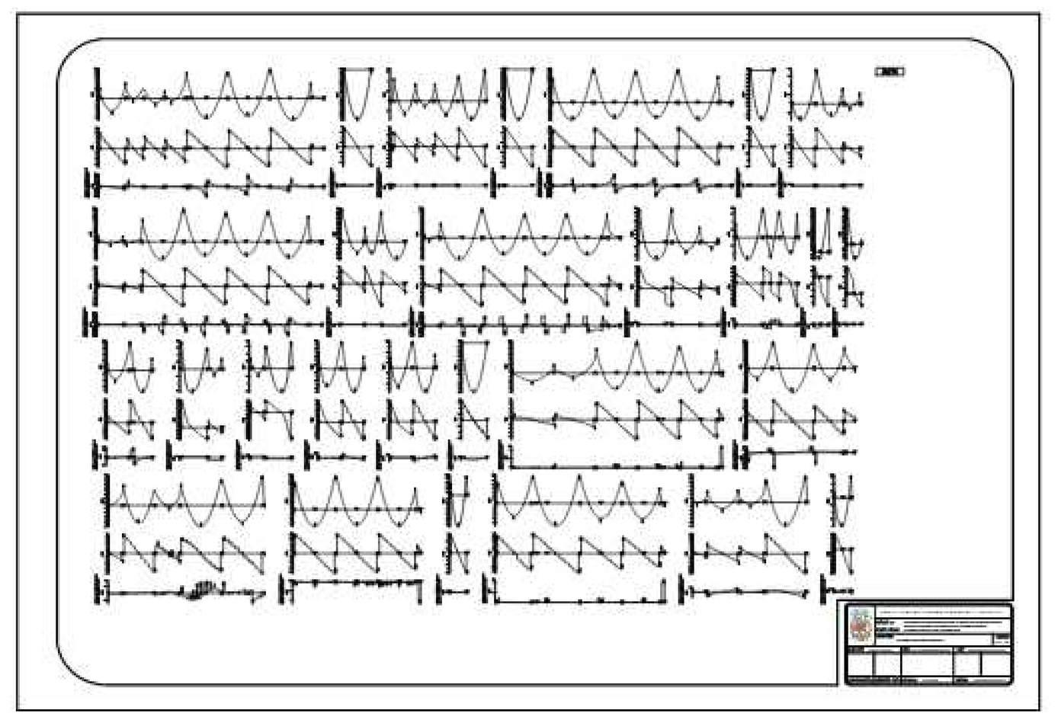
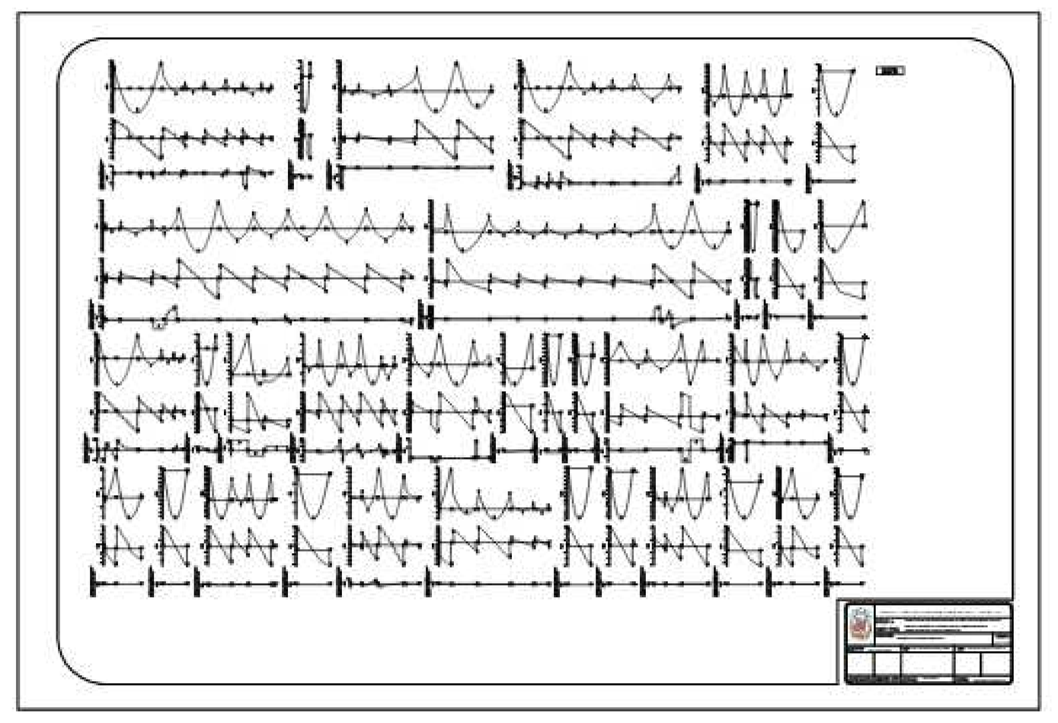
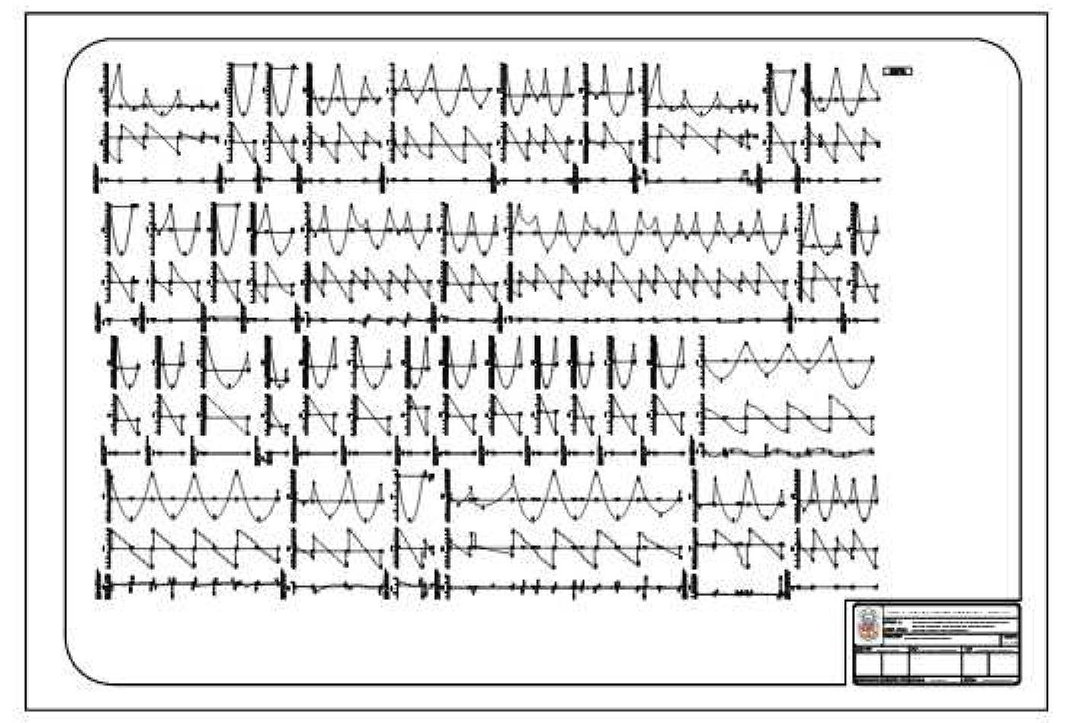
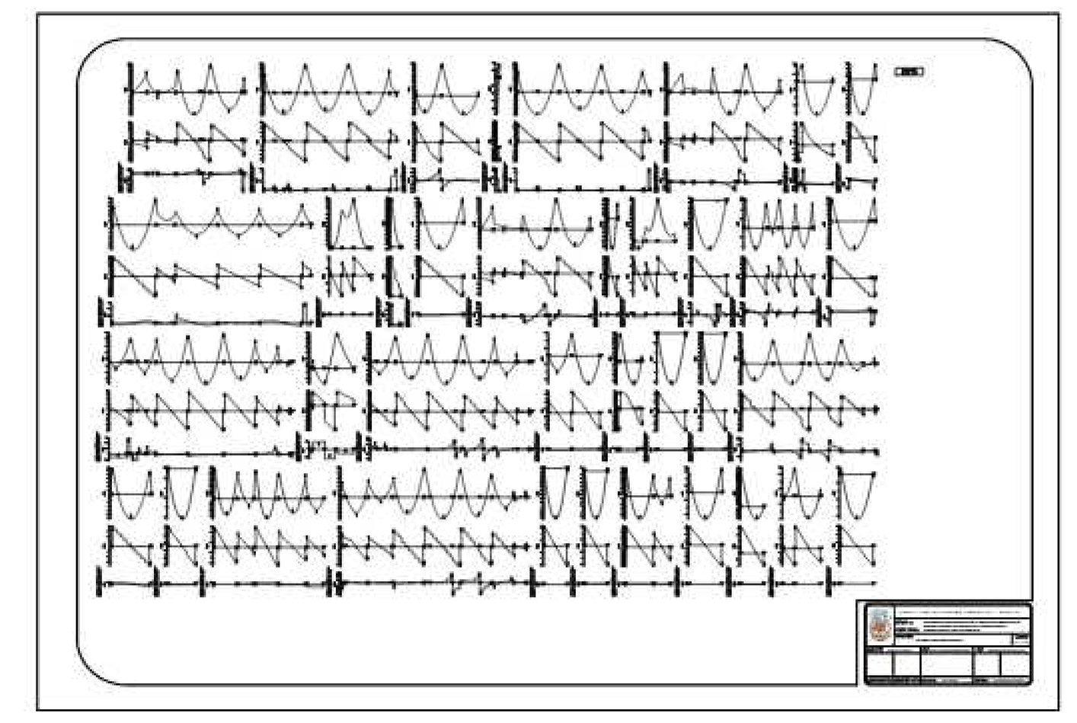
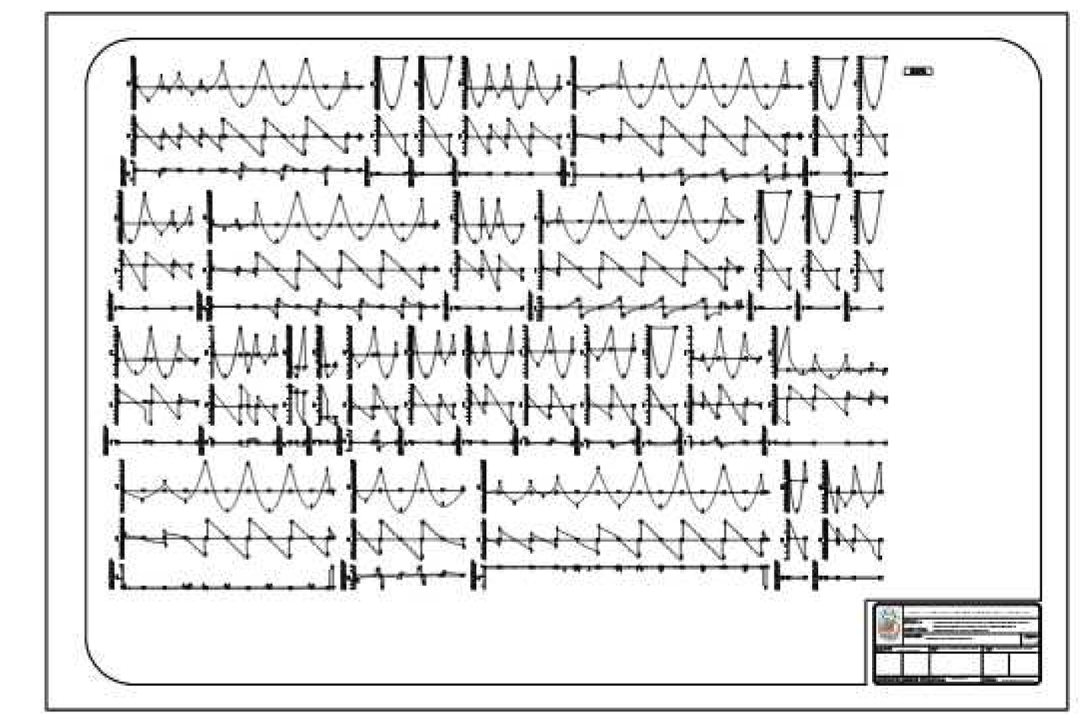
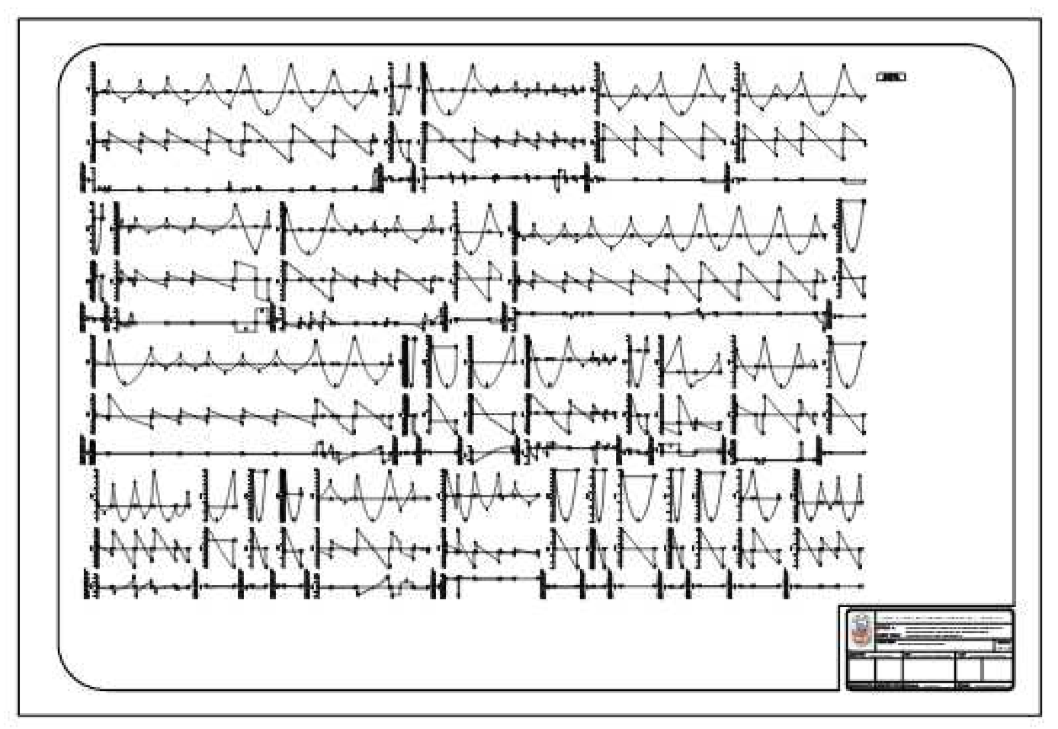
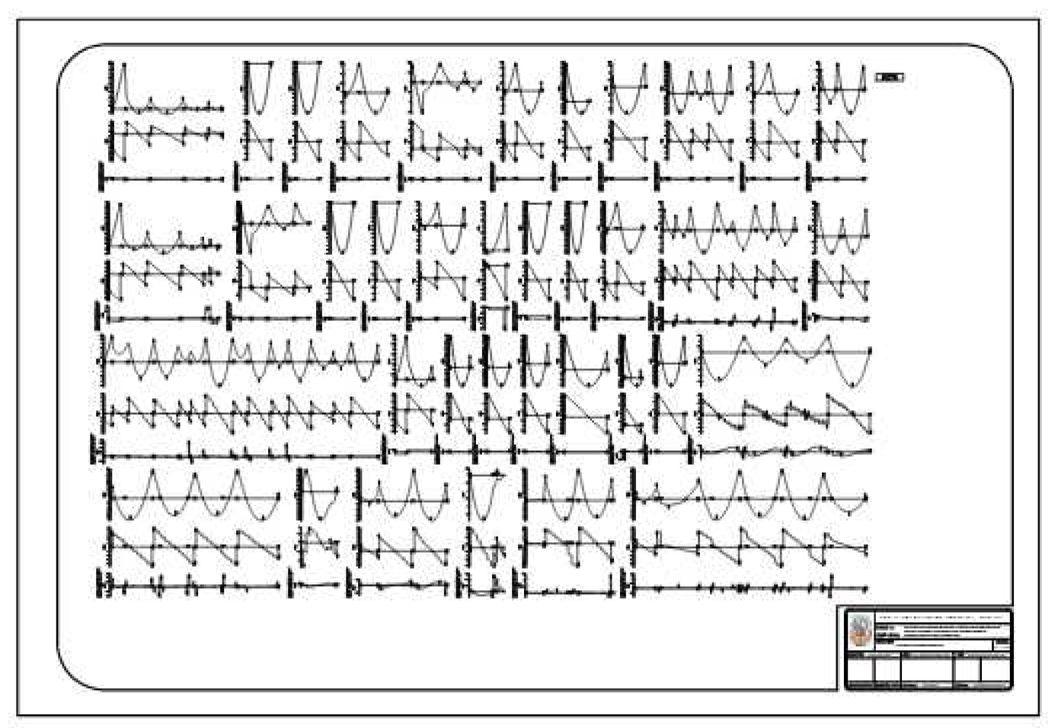
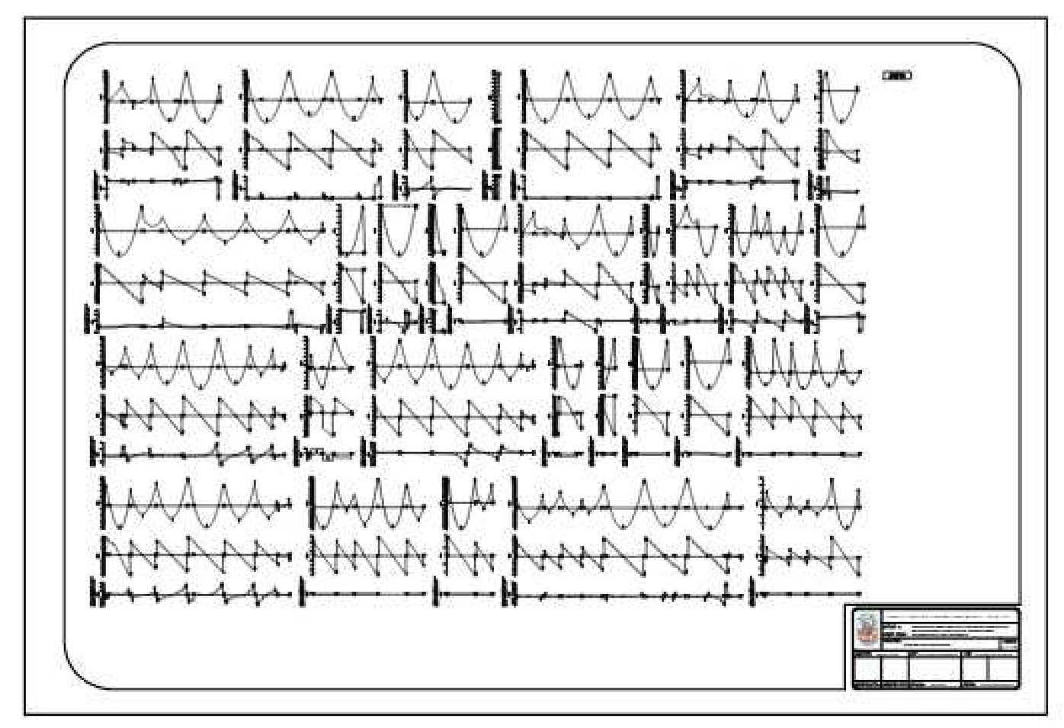
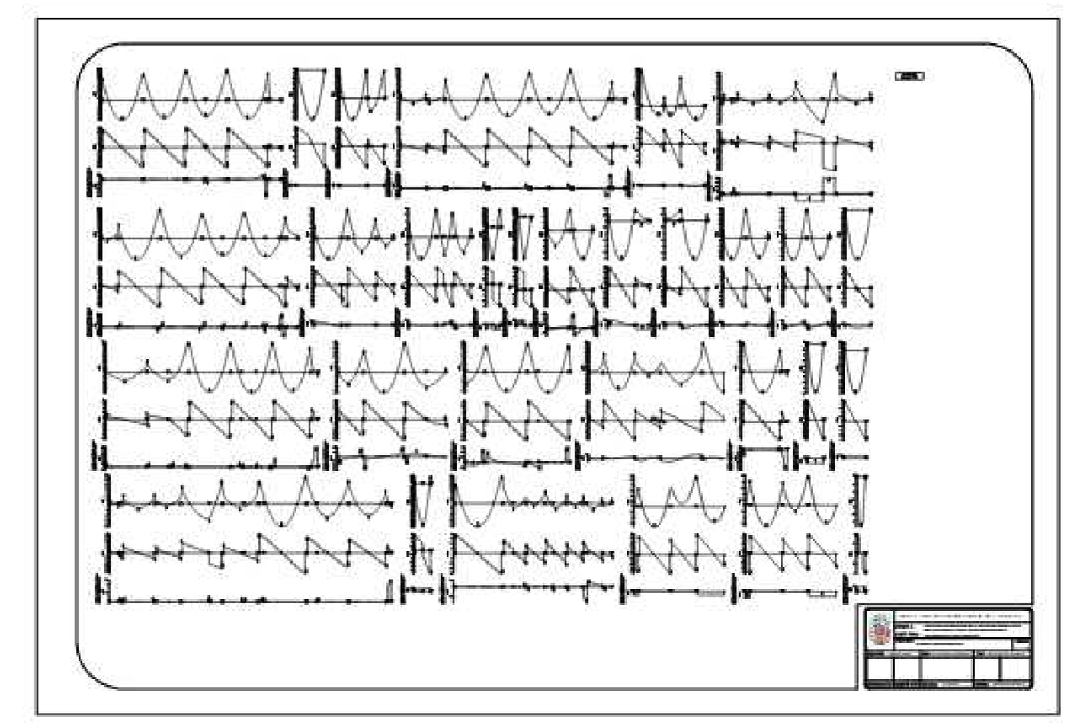
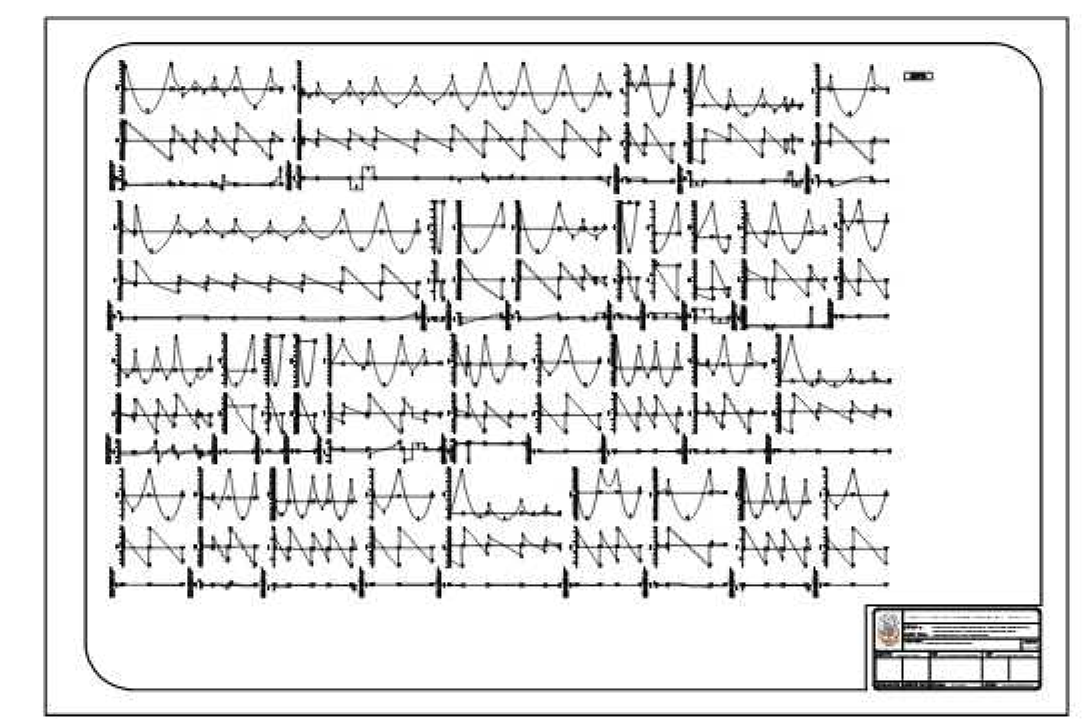
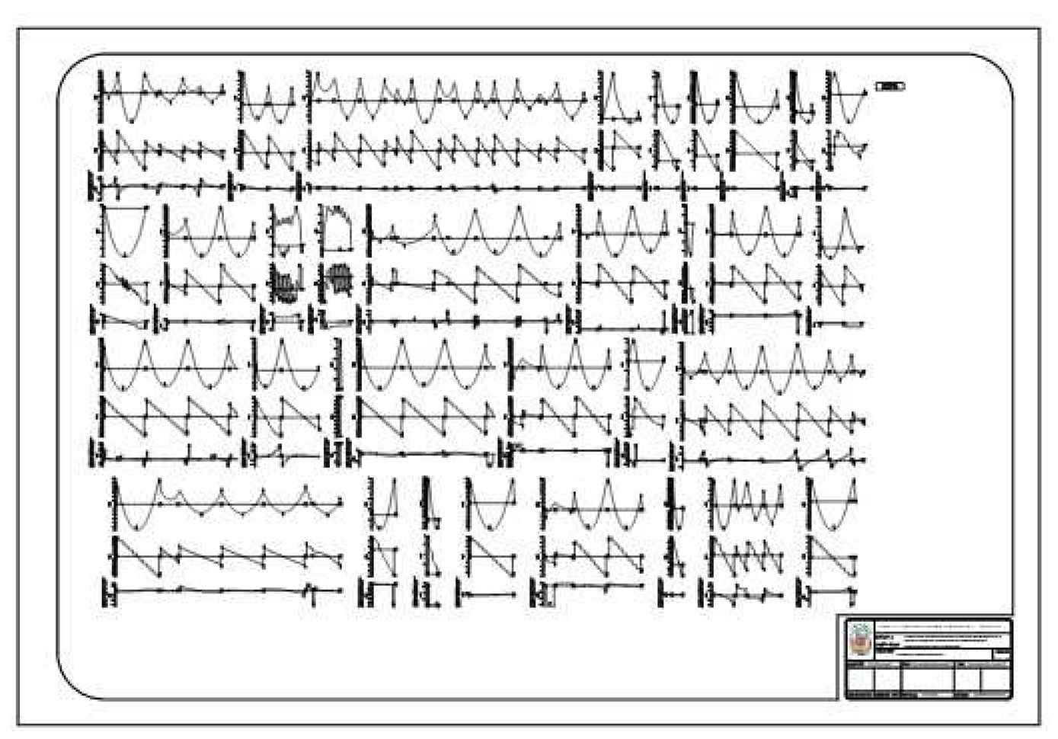
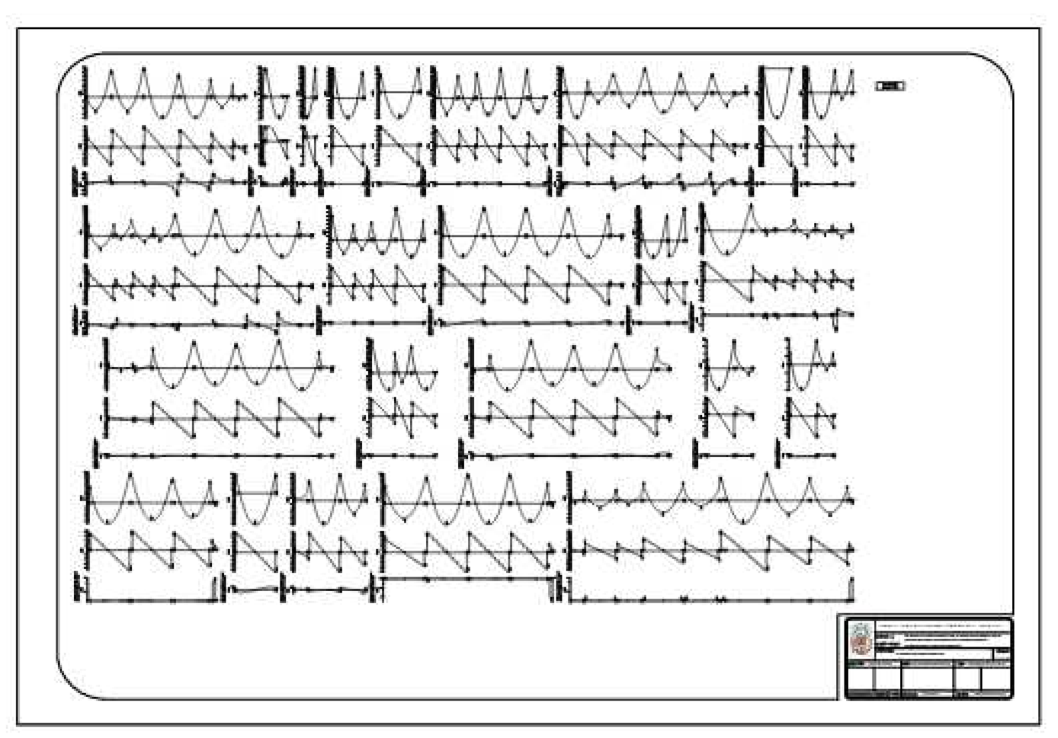
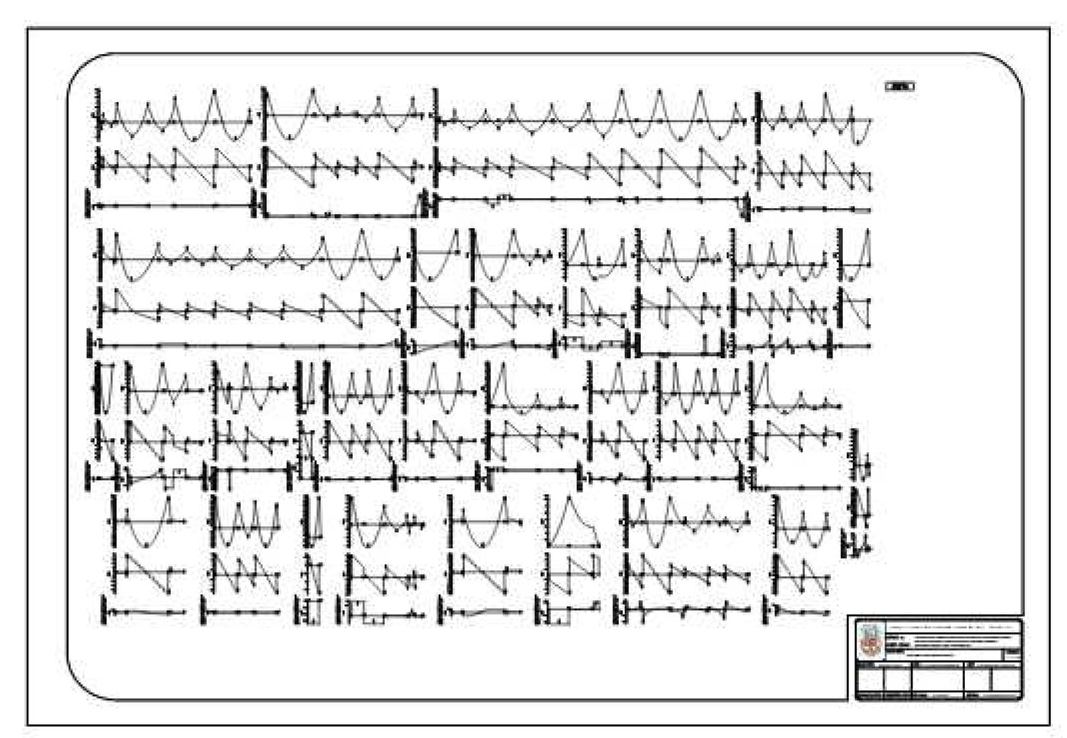
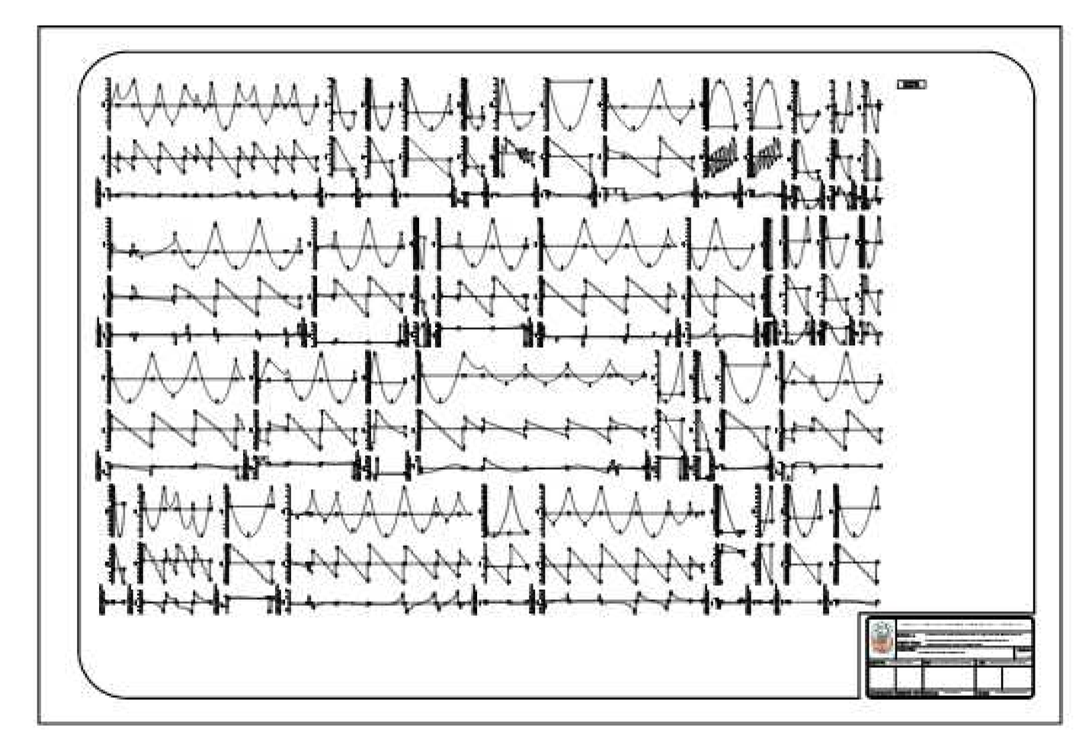
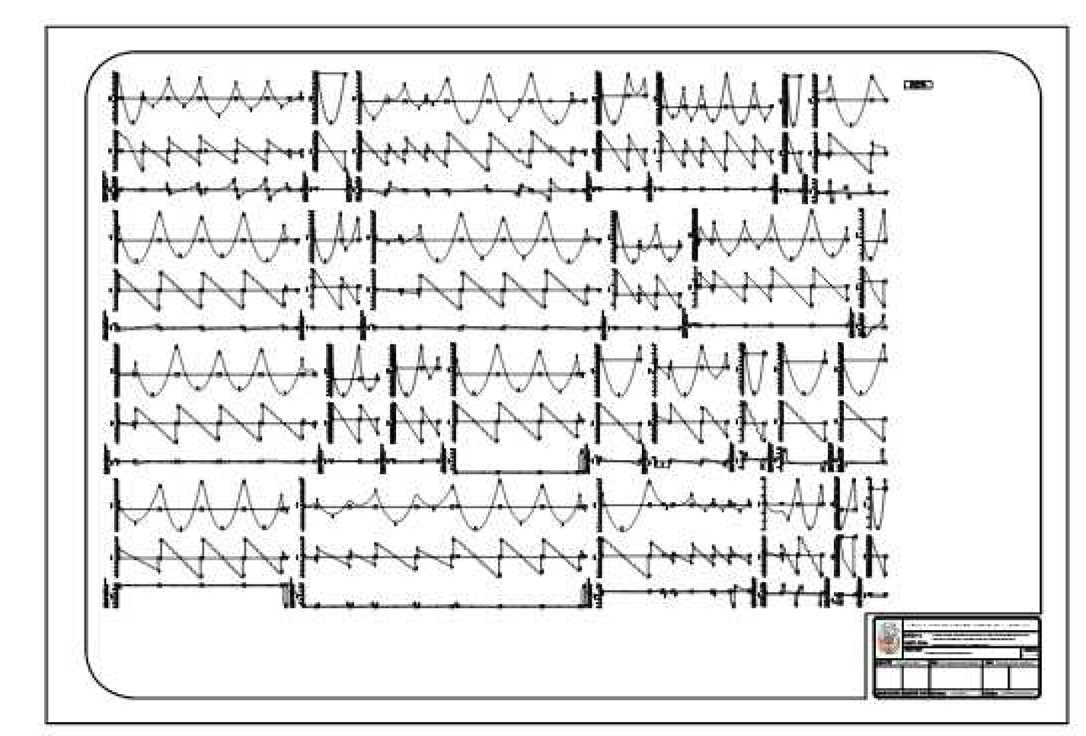
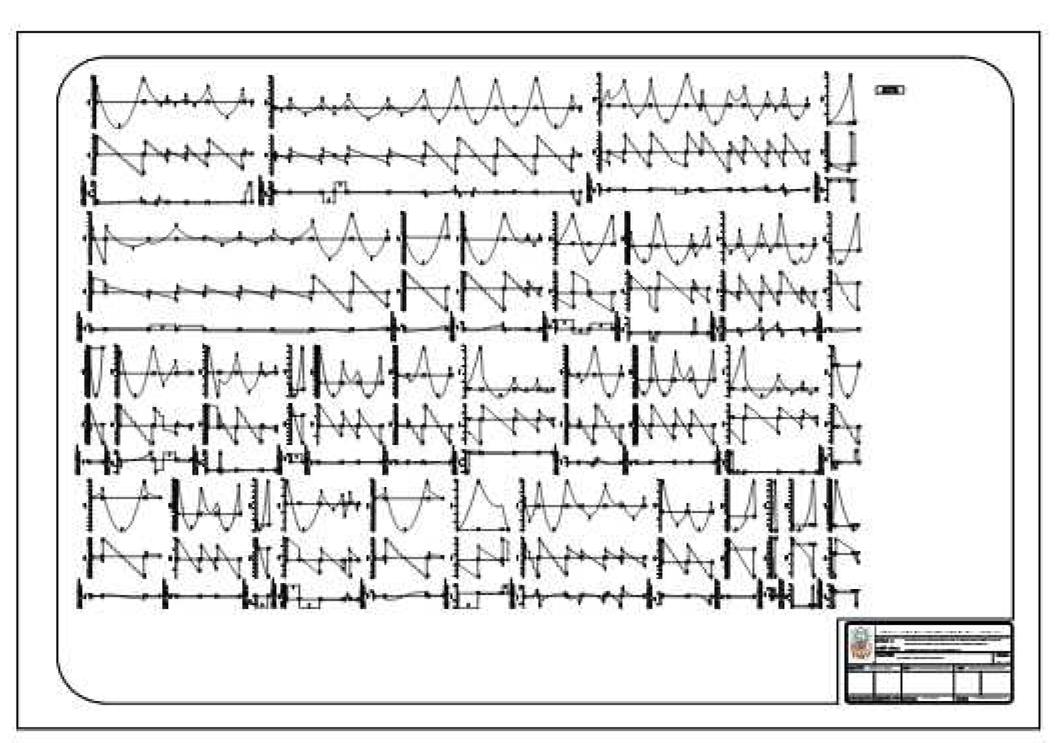






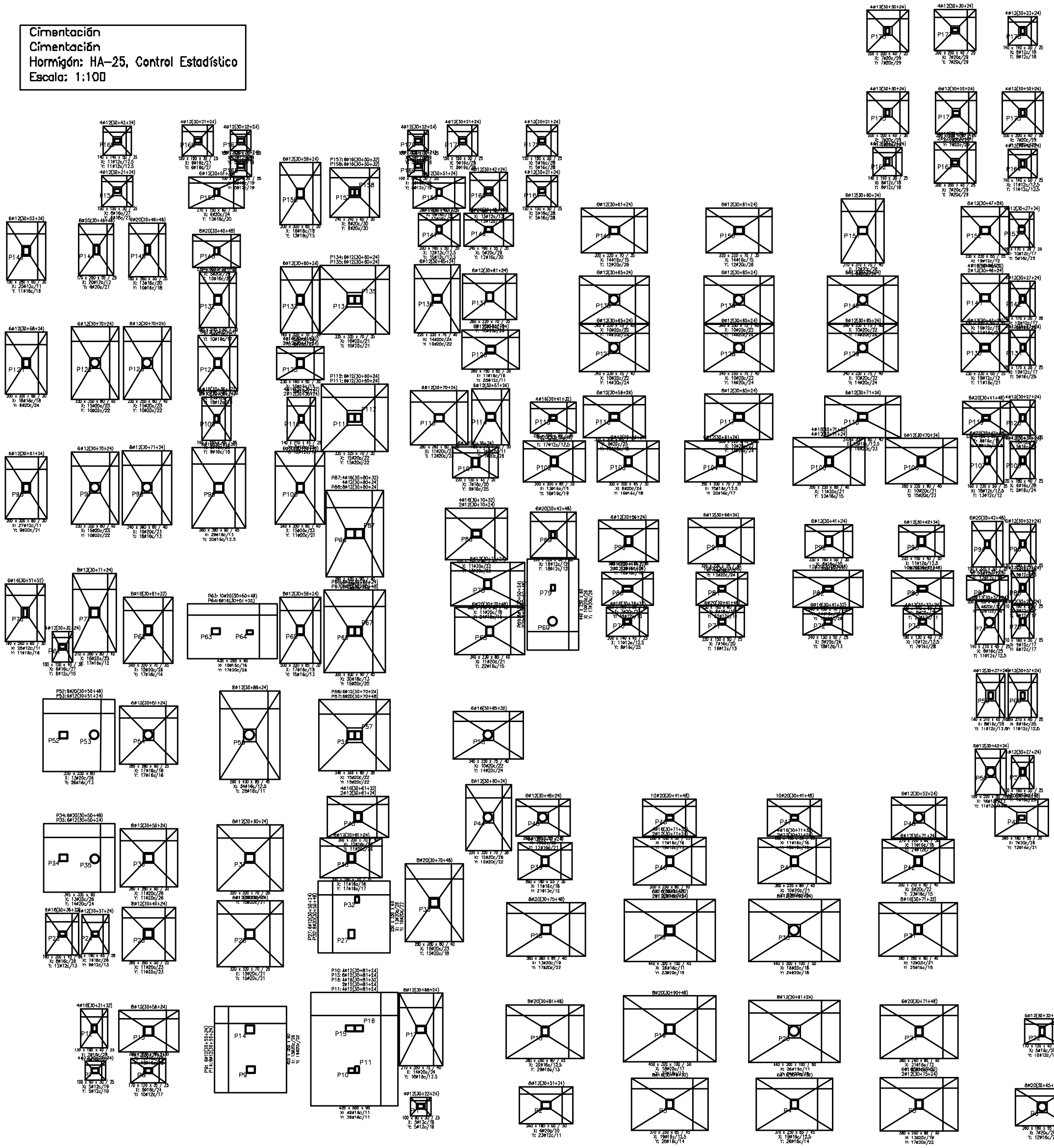




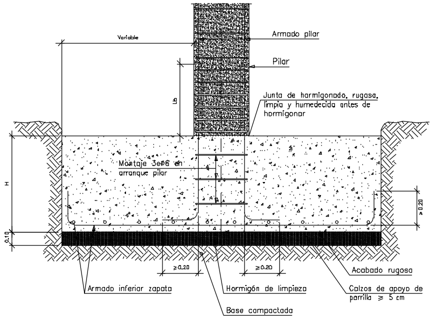






















Ejemplo de PLanos Estructurales - Cimentaciones

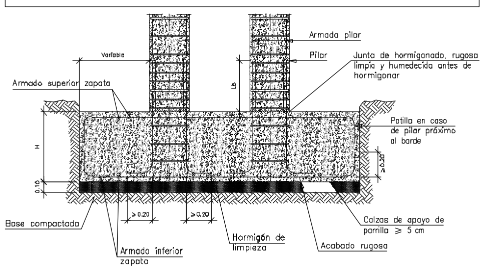
Cimentación
Cimentación
Hormigón: HA-25, Control Estadístico
Escala: 1:100



Zapata aislada.



Zapata combinada de dos pilares.



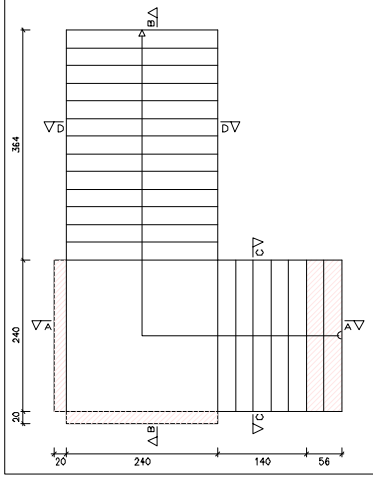
CUADRO DE ELEMENTOS DE CIMENTACIÓN

Referencias	Dimensiones (cm)	Canto (cm)	Armado inf. X	Armado inf. Y
P1 y P7	100x90	30 / 25	5ø12c/19	5ø12c/19
P2	280x180	60 / 30	6ø20c/30	23ø12c/11
P3 y P4	370x250	85 / 45	19ø16c/12.5	26ø16c/14
P5	380x260	85 / 40	13ø20c/19	17ø20c/22
P6, P45 y P49	260x180	55 / 30	7ø20c/26	12ø16c/21
P8	170x120	38 / 28	5ø16c/24	10ø12c/17
P12	130x190	40 / 25	7ø16c/28	8ø16c/22
P13	280x200	65 / 35	12ø16c/16	16ø16c/18
P17	210x350	75 / 40	14ø20c/24	16ø16c/12.5
P18	380x260	90 / 45	20ø16c/12.5	29ø16c/13
P19	480x320	100 / 60	18ø20c/17	37ø16c/12
P20	440x300	100 / 50	26ø16c/11	24ø20c/18
P21	380x260	80 / 40	21ø16c/12	25ø16c/15
P22	170x120	40 / 25	5ø16c/25	10ø12c/16
P23	160x200	45 / 25	8ø16c/26	12ø12c/13
P24	130x190	48 / 28	7ø16c/26	9ø12c/13
P25	260x260	50 / 25	11ø20c/23	11ø20c/23
P26 y P37	320x320	70 / 25	15ø20c/21	15ø20c/21
P28	380x260	85 / 40	13ø20c/19	17ø20c/22
P29	440x300	100 / 45	28ø16c/11	23ø20c/19
P30	440x300	100 / 50	16ø20c/18	24ø20c/18
P31	380x260	80 / 40	12ø20c/21	25ø16c/15
P33	280x380	80 / 40	16ø20c/23	15ø20c/18
P36	280x280	60 / 30	11ø20c/26	11ø20c/26
P38	300x190	70 / 35	11ø16c/16	17ø16c/17
P39	260x180	55 / 30	11ø16c/16	21ø12c/12
P40 y P105	380x230	80 / 40	11ø20c/21	23ø16c/18
P41	350x220	80 / 40	10ø20c/21	23ø16c/15
P42	350x210	80 / 40	9ø20c/22	23ø16c/15
P43	300x200	70 / 40	12ø16c/16	11ø20c/26
P44	220x320	70 / 35	12ø20c/26	10ø20c/22
P46 y P47	260x180	60 / 28	11ø16c/16	19ø12c/13
P48	270x200	60 / 30	11ø16c/18	24ø12c/11
P50	150x220	50 / 25	16ø12c/13	11ø12c/12.5
P51	110x160	35 / 25	9ø12c/17	4ø16c/29
P54	280x280	60 / 25	17ø16c/16	17ø16c/16
P55	290x430	95 / 45	34ø16c/12.5	26ø16c/11
P58, P127, P128, P129, P138, P139 y P140	340x230	75 / 40	10ø20c/22	14ø20c/24
P59, P60 y P74	140x210	45 / 28	8ø16c/26	11ø12c/12.5
P61	100x150	40 / 30	6ø16c/27	8ø12c/15
P62	240x320	70 / 35	12ø20c/26	17ø16c/14
P65	200x320	65 / 30	17ø16c/18	15ø16c/13
P68	340x230	80 / 40	11ø20c/21	22ø16c/15
P70	200x140	45 / 28	11ø12c/12.5	8ø16c/26
P71	220x150	50 / 25	7ø16c/20	16ø12c/13
P72	240x130	50 / 25	5ø20c/26	18ø12c/13
P73	180x130	40 / 25	10ø12c/12.5	7ø16c/28
P75 y P85	110x160	35 / 25	9ø12c/17	8ø12c/17
P76 y P143	190x280	60 / 30	25ø12c/11	11ø16c/16
P77	210x380	80 / 40	16ø20c/23	17ø16c/12
P78	360x210	80 / 40	11ø20c/18	24ø16c/15
P80	250x160	50 / 25	7ø20c/24	19ø12c/13
P81	250x160	60 / 30	8ø16c/19	22ø12c/11
P82	340x180	70 / 35	14ø16c/12.5	13ø20c/26
P83	300x170	60 / 30	8ø20c/21	27ø12c/11
P84	200x120	40 / 25	4ø20c/30	12ø12c/16
P88	300x250	80 / 40	11ø20c/23	13ø20c/23
P89	220x220	50 / 35	18ø12c/12	18ø12c/12
P90	290x200	65 / 35	12ø16c/16	16ø16c/18
P91	320x220	75 / 40	14ø16c/15	13ø20c/24
P92	230x160	50 / 30	8ø16c/20	10ø16c/23
P93	220x150	50 / 30	11ø12c/12.5	9ø16c/23
P94	150x220	50 / 35	17ø12c/12.5	12ø12c/12
P95	130x190	40 / 25	7ø16c/28	9ø12c/13
P96	200x300	60 / 30	27ø12c/11	9ø20c/21
P97, P122 y P123	230x350	80 / 40	15ø20c/23	10ø20c/22
P98	240x360	80 / 40	15ø20c/23	18ø16c/13
P99	280x390	90 / 45	29ø16c/13	20ø16c/12.5
P100	240x350	80 / 40	15ø20c/23	11ø20c/21
P101	220x150	45 / 25	7ø16c/20	9ø16c/25
P102	300x200	65 / 30	13ø16c/15	16ø16c/18
P103	300x200	65 / 30	8ø20c/24	16ø16c/18
P104	350x200	70 / 35	15ø16c/12.5	20ø16c/17
P106	350x220	80 / 40	10ø20c/21	15ø20c/23
P107	160x230	50 / 35	18ø12c/12.5	13ø12c/12
P108	120x180	40 / 25	5ø16c/28	5ø16c/24
P109	140x210	45 / 25	8ø16c/25	9ø16c/15
P110	140x210	45 / 25	8ø16c/25	12ø12c/11
P113	280x260	80 / 40	11ø20c/23	12ø20c/23
P114	180x270	60 / 30	24ø12c/11	7ø20c/26
P115	220x150	50 / 35	7ø16c/20	17ø12c/12.5
P116	300x200	65 / 30	8ø20c/23	16ø16c/18
P117	330x220	75 / 35	10ø20c/22	14ø20c/24
P118	370x200	80 / 40	15ø16c/12.5	16ø20c/23
P119	230x160	50 / 35	8ø16c/19	18ø12c/12.5
P105, P120, P131, P142 y P153	120x170	38 / 28	10ø12c/17	5ø16c/26
P121	200x300	65 / 30	16ø16c/18	8ø20c/24
P124	190x270	60 / 30	24ø12c/11	18ø12c/10
P125	230x160	50 / 30	10ø16c/15	10ø16c/23
P126	280x190	60 / 30	11ø16c/16	25ø12c/11
P130, P141 y P152	230x230	55 / 25	19ø12c/12	11ø16c/21
P132	180x270	60 / 30	24ø12c/11	10ø16c/17
P133	190x320	70 / 35	12ø20c/26	8ø20c/22
P136	220x330	75 / 40	14ø20c/24	10ø20c/22
P137	280x220	70 / 35	13ø16c/16	10ø20c/26
P144	170x250	55 / 25	20ø12c/12	6ø20c/27
P145	180x260	55 / 35	13ø16c/20	10ø16c/18
P146	230x160	50 / 30	5ø20c/29	10ø16c/23
P147	200x160	50 / 35	12ø12c/12.5	15ø12c/12.5
P148	240x160	55 / 35	5ø20c/29	12ø16c/20
P149 y P150	320x220	70 / 35	14ø16c/15	12ø20c/26
P151	210x310	70 / 40	12ø20c/26	9ø20c/24
P154 y P166	150x150	30 / 25	6ø16c/27	6ø16c/27
P155	270x150	60 / 30	6ø20c/24	13ø16c/20
P156	200x300	65 / 30	16ø16c/18	13ø16c/15
P159	250x150	60 / 30	8ø16c/18	12ø16c/20
P160	180x180	50 / 25	13ø12c/13	13ø12c/13
P161, P171 y P172	150x150	30 / 25	5ø16c/28	5ø16c/28
P162 y P178	140x140	30 / 25	8ø12c/18	8ø12c/18
P163, P173, P174, P175, P176 y P177	200x200	40 / 25	7ø20c/29	7ø20c/29
P164 y P165	140x140	50 / 25	11ø12c/12.5	11ø12c/12.5
P167, P168, P169 y P170	100x100	30 / 25	5ø12c/19	5ø12c/19
(P9–P14)	420x350	60	13ø20c/26	19ø20c/22
(P27–P32)	380x360	60	13ø20c/26	16ø20c/22
(P34–P35)	345x335	60	13ø20c/26	14ø20c/24
(P52–P53)	350x350	60	13ø20c/26	26ø16c/13
(P56–P57)	345x345	80 / 35	15ø20c/22	15ø20c/22
(P63–P64)	435x265	60	16ø16c/16	17ø20c/26
(P66–P67)	300x400	90 / 45	30ø16c/13	15ø20c/20
(P69–P79)	440x250	60	10ø20c/26	17ø20c/26
(P87–P86)	280x420	90 / 40	20ø20c/21	14ø20c/19
(P112–P111)	325x325	70 / 35	15ø20c/22	15ø20c/22
(P134–P135)	335x335	70 / 35	16ø20c/21	16ø20c/21
(P157–P158)	240x240	60 / 30	8ø20c/30	8ø20c/30
(P10–P15–P16–P11)	425x550	90	49ø16c/11	38ø16c/11

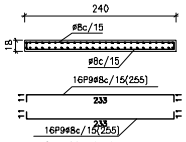
Ejemplo de PLanos Estructurales - Escaleras de Hormigon Armado

Escalera1

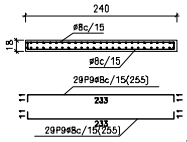
ESCALERA A		
Geometría	Ámbito	2.400 m
	Espesor	0.18 m
	Huella	0.280 m
	Contrahuella	0.175 m
	Desnivel que salva	3.85 m
	N° de escalones	22
	Planta final	PRIMER PISO +3.85
	Planta inicial	SOBRECIMIENTOS +0.00
Cargas	Peso propia	0.450 t/m2
	Peldañeado (Hormigonado con la losa)	0.185 t/m2
	Solado	0.100 t/m2
	Barandillas	0.300 t/m
	Sobrecarga de uso	0.500 t/m2
Materiales	Hormigón	HA-25, Control Estadístico
	Acero	B 400 S, Control Normal
	Rec. geométrico	3.0 cm



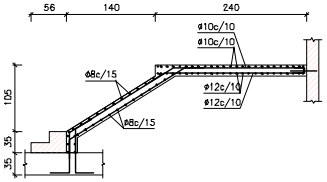
Sección C-C

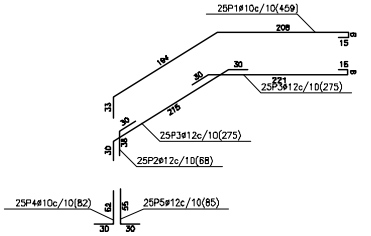


Sección D-D

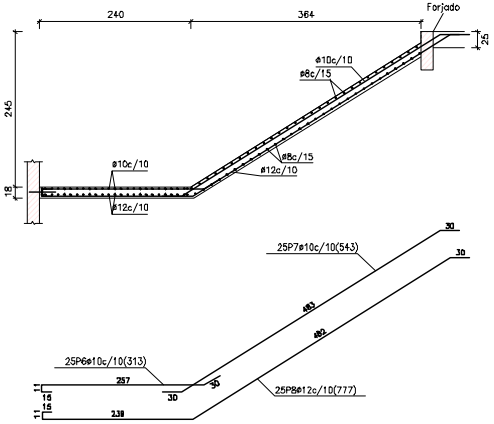


Sección A-A





Sección B-B



Resumen Acera Escalera1		Long. total (m)	Peso+10% (kg)	Total
B 400 S, CN	ø8	229.5	100	
	ø10	349.3	237	
	ø12	370.0	361	698

Resumen Acera Escalera3		Long. total (m)	Peso+10% (kg)	Total
B 400 S, CN	ø8	91.6	40	
	ø10	206.3	140	180

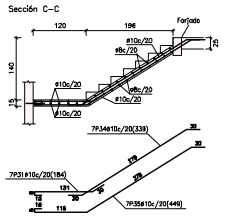
Resumen Acero Escalera2		Long. total (m)	Peso+10% (kg)	Total
B 400 S, CN	ø8	459.0	199	
	ø10	706.0	479	
	ø12	747.5	730	1408

Elemento	Pos.	Diám.	No.	Long. (cm)	Total (cm)	B 400 S, CN (kg)
Escalera1 - ESCALERA A	1	ø10	25	459	11475	70.7
	2	ø12	25	68	1700	15.1
	3	ø12	50	275	13750	122.1
	4	ø10	25	82	2050	12.6
	5	ø12	25	85	2125	18.9
	6	ø10	25	313	7825	48.2
	7	ø10	25	543	13575	83.7
	8	ø12	25	777	19425	172.5
	9	ø8	90	255	22950	90.8
				Total+10%:		687.8
Escalera2 - ESCALERA B	10	ø10	25	459	11475	70.7
	11	ø12	25	68	1700	15.1
	12	ø12	50	275	13750	122.1
	13	ø10	25	87	2175	13.4
	14	ø12	25	90	2250	20.0
	15	ø10	25	313	7825	48.2
	16	ø10	25	543	13575	83.7
	17	ø12	25	777	19425	172.5
	18	ø8	90	255	22950	90.8
				Total+10%:		699.9
				(x3):		2099.7
Escalera2 - ESCALERA A	19	ø10	25	459	11475	70.7
	20	ø12	25	68	1700	15.1
	21	ø12	50	275	13750	122.1
	22	ø10	25	107	2675	16.5
	23	ø12	25	110	2750	24.4
	24	ø10	25	313	7825	48.2
	25	ø10	25	543	13575	83.7
	26	ø12	25	777	19425	172.5
	27	ø8	90	255	22950	90.8
				Total+10%:		708.2
Escalera3 - ESCALERA C	28	ø10	7	419	2933	18.1
	29	ø10	7	344	2408	14.8
	30	ø10	14	146	2072	12.8
	31	ø10	14	184	2576	15.8
	32	ø10	7	350	2450	15.1
	33	ø10	7	382	2674	16.5
	34	ø10	7	339	2373	14.6
	35	ø10	7	449	3143	19.4
	36	ø8	71	129	9159	36.1
				Total+10%:		179.8
				(x2):		359.2
				ø8:		577.5
				ø10:		1470.3
				ø12:		1817.1
				Total:		3864.8

Escalera3

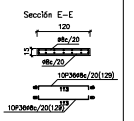
ESCALERA C		
Geometría	Ámbito	1.200 m
	Espesor	0.15 m
	Huella	0.280 m
	Contrahuella	0.175 m
	Desnivel que salva	3.85 m
	N° de escalones	22
	Tramos consecutivos iguales	2
	Planta final	SEGUNDO PISO +7.70
	Planta inicial	SOBRECIMIENTOS +0.00
Cargas	Peso propia	0.375 t/m2
	Peldañeado (Hormigonado con la losa)	0.185 t/m2
	Solado	0.100 t/m2
	Barandillas	0.300 t/m
	Sobrecarga de uso	0.500 t/m2
Materiales	Hormigón	HA-25, Control Estadístico
	Acero	B 400 S, Control Normal
	Rec. geométrico	3.0 cm

Sección C-C

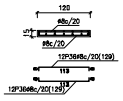


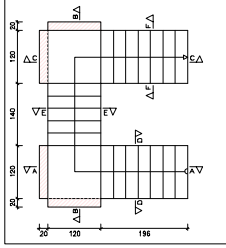
Sección D-D

Sección E-E

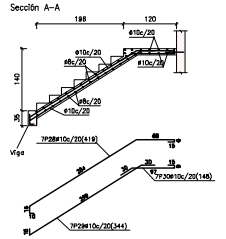


Sección F-F

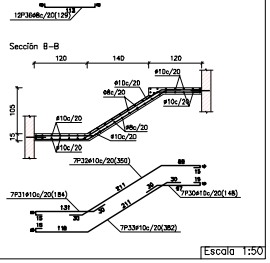




Sección A-A



Sección B-B



Escala 1:50