5．当該国データ

目　　次

1．主要指数

	１９８３	１９８４	１９８５	１９８６	１９８７	１９８８
ＧＤＰ％	－2.6	0.5	-1.0	0.5	3.1	3.5
民間消費％	－1.4	1.1	-0.7	1.2	3.5	4.0
民間投資％	-23.2	2.6	2.6	4.4	9.6	12.0
公共投資％	-33.3	-25.5	-20.3	-1.6	24.2	11.0
輸出％	-10.6	－3.3	3.2	-14.1	6.4	7.0
輸入％	-19.8	7.1	-13.2	-14.1	49.1	2.1
公共対外債務Ｑ	2000.0	2387.0	2536.0	2516.0	2507.0	2335.0
国際収支Ｑ	-224.0	-377.0	-267.0	-18.8	-441.0	-389.0
中央政府赤字Ｑ	-295.0	-334.0	-282.0	-239.0	-236.0	-311.0
中央支払い％	2.1	12.9	28.4	20.2	15.2	11.1
失業率％	9.9	9.1	12.0,	14.0	11.7	9.2
インフレ％	5.2	3.0	18.5	37.2	9.6	12.3
実質賃金％	100.0	99.3	86.1	70.3	74.7	82.3

出典　経済企画庁

2．国際収支

百万ドル

	1983	1984	1985	1986	1987	1988
当座勘定	-224	-377	-267	-18	-441	-389
貿易収支	36	－50	－17	168	-355	-241
輸出	1092	1132	1060	1044	978	1164
輸入	1056	1182	1077	876	1333	1485
サービス	-290	-356	-269	-261	-279	-314
債務	－54	－93	-159	-156	-124	-192
その他	-236	-263	-110	-105	-155	-122
移転	31	29	20	75	193	166
総資本	313	416	335	67	367	363
公共資本	217	388	72	-36	-12	28
個人資本	95	12	243	119	399	335
保険	1	16	20	-16	-20	0
外貨準備	-89	-39	-68	-49	74	26

出典　BANCO DE GUATEMALA

3．輸出品目

単位　百万　ドル

	1983	1984	1985	1986	1987	1988
コーヒー	309	361	452	502	355	385
綿花	67	72	73	24	16	27
砂糖	95	71	46	52	51	60
バナナ	54	55	71	74	75	101
肉	16	13	10	4	14	17
域外	230	269	200	204	236	334
中米共同市場	321	291	208	185	231	240
合計	1092	1132	1060	1045	978	1164

出典　BANCO DE GUATEMALA

4．輸入品目

単位　百万　ドル

	1983	1984	1985	1986	1987	1988
消費財	235	264	225	159	254	250
原料＆中間製品	604	677	622	494	672	725
燃料	113	131	121	94	105	117
建築資材	60	56	50	39	73	74
機械道具	15	147	154	174	343	369
その他	8	3	3	0	0	1
計	1135	1278	1175	960	1447	1536

出典　BANCO DE GUATEMALA

5．ＧＤＰ／産業別

（百万ケッツァル／１９５８）

	1983	1984	1985	1986	1987
合計	2940	2954	2925	2940	3032
農牧	745	757	750	753	780
製造	466	468	467	468	476
建設	76	54	49	51	57
商業	764	773	745	731	749
公共事業	185	198	191	199	209
その他	785	713	723	738	761

6．名目および実質賃金

年　度	名　目	実　質	(1983=100)
１９８３	１８７９	１６０６	１００．０
１９８４	１９３０	１５９５	９９．３
１９８５	１９７６	１３８２	８６．１
１９８６	２２１２	１１２９	７０．３
１９８７	２６５２	１２００	７４．７
１９８８	２９４８	１３２１	８２．３

維持管理予定路線および、箇所

Dirección General de Caminos.

PROYECTOS CON FINANCIAMIENTO DEFINIDO

Región	Ruta No.	Nombre del proyecto Tramo	Longitud Kms	Categoría 1 2 3	Superficie Pv Ba Tr	Trabajo a realizar Sl Rh Rc AM Cn	Financiamiento: Institución	Prestamo No
		MANTENIMIENTO DE LA RED ASFALTADA						
I, III	CA 9 Nt	Guatemala - El Rancho	80.0	p	p	h a	BID	
I	CA 9 Sr	Guatemala - Palín	29.2	p	p	h	BID	
V	CA 9 Sr	Palín - Escuintla	23.5	p	p	c	Italia	
VII	CA 1 Oc	Los Encuentros - 4 caminos	61.8	p	p	h r	BIRF	
VI	RN 1	4 caminos - Quetzaltenango	12.0	p	p	h r	BIRF	
VI	CA 2 Oc	Popoyá - Mahualate	34.8	p	p	h r	BIRF	
VI	CA 2 Oc	Retalhuleu - Coatepeque	41.0	p	p	h r	BIRF	
VI	CA 2 Oc	Coatepeque - Tecun Uman	43.0	p	p	s	Gob	
VI	CA 2 Oc	Bif CA 2 Oc - El Carmen (**)	35.4	p	p	h r	BIRF	
III	CA 10	Rio Hondo - Agua Caliente	101.0	p	p	s	Gob	
IV	CA 12	Padre Miguel - Angiatú	21.7	p	p	s	Gob	
VII	CA 14	El Rancho - Cobán	130.0	p	p	s	Gob	
VII	RN 17	Santa Elena - Salaná	17.0	s	p	s	Gob	
VII	RN 15	Los Encuentros - Quiché	36.6	s	p	a	Gob	
	(**)	Tecun Uman - Pte. Talisaán						
		PROYECTOS DE INTEGRACION REGIONAL						
VIII	CA 13	Modesto Mendez-Poptún-Flores	160.0	p	b t	c	Alemania	
VII	7W	Chiantla - Sacapulas	58.0	s	b	h r	BIRF	
II, VII	7W	Sacapulas-Sn Cristobal Verapaz	103.0	s	b	h a	BIRF	
II, III	7E	San Julian - El Estor	137.9	s	t	h a	BIRF	
IV	SR3	Barberena-Casillas-Mataquesc.	52.7	s	b	h a	Gob	
IV	RN16	Mataquescuintla - Ka 32 Jalapa	32.0	s	b	h a	BIRF	
IV	RN18	Jalapa - San Pedro Pinula	30.3	s	t	h a	BIRF	
III, IV	RN19	Sanarate - Jalapa	41.5	s	b	a	Gob	
I, IV	RN18	Sn José Pinula-Mataquescuintla	55.6	s	t	h a	BIRF	

Pv = Pavimento
Ba = Balasto
Tr = Tierra

Sl = Sello
Rh = Rehabilitación
Rc = Reconstrucción

AM = Ampliación y Mejoramiento
Cn = Construcción

Dirección General de Caminos.

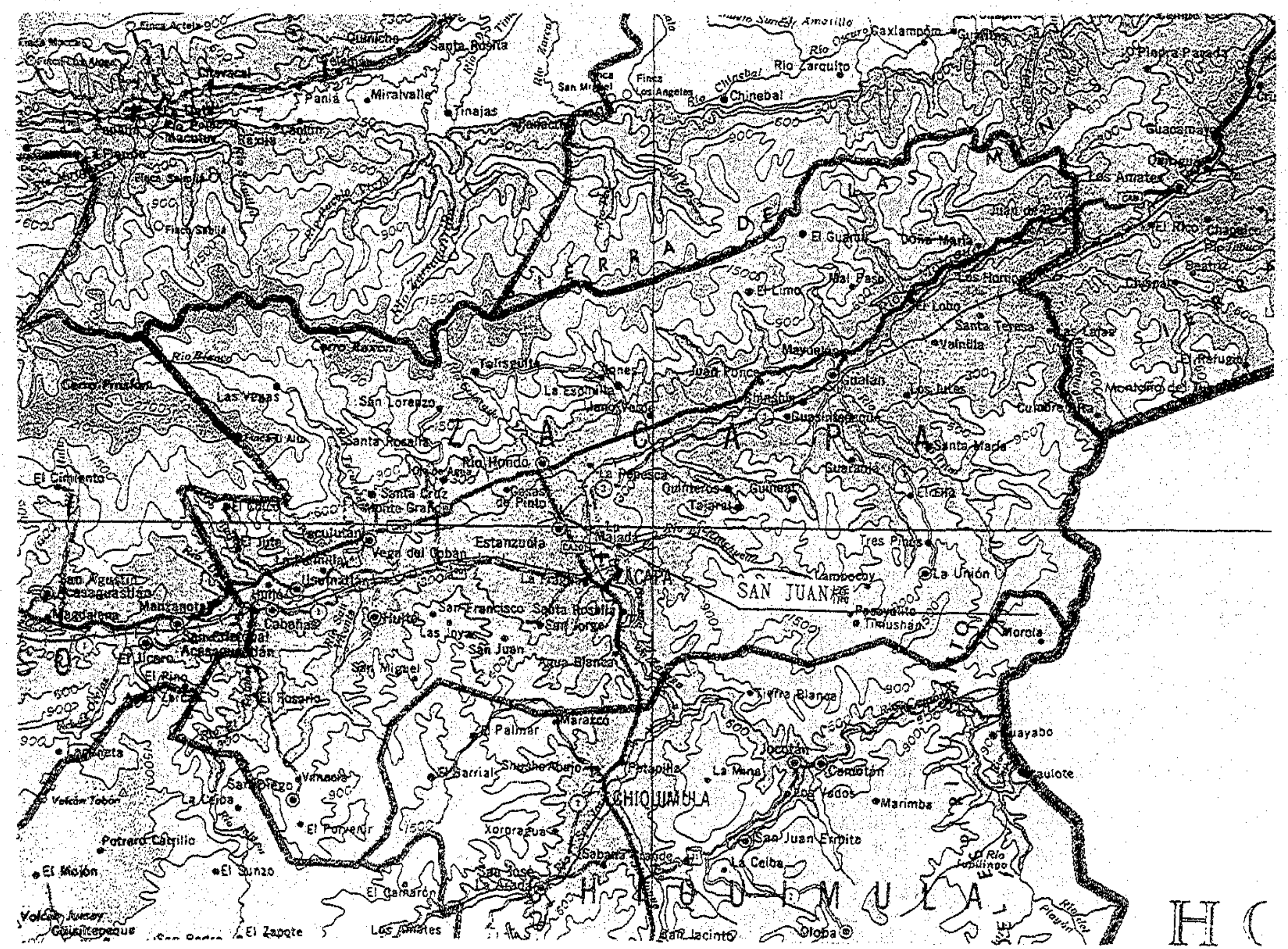
PROYECTOS CON FINANCIAMIENTO DEFINIDO

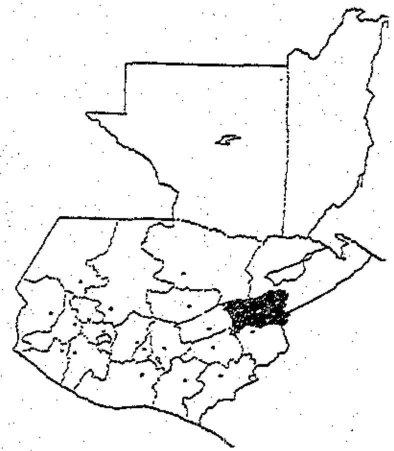
Región	Nombre del proyecto Ruta No.	Trano	Longitud Kms	Categoría 1 2 3	Superficie Pv Ba Tr	Trabajo a realizar Sl Rh Rc AM Cn	Financiamiento Institución	Prestamo No
	APOYO A PROYECTOS DE OTROS SECTORES							
	CAMINOS DE ACCESO							
VII	RN 9 N	Chiantla-desvio Todos Santos C	21.0	s	b	h a	BIRF	
VI		Sn Ant. Such.- Sn Miguel Panán	7.4	s	t	c	Gob	
V		CA 1 Oc - San Juan Conalapa	16.0	s	t	a c	Gob	
III	CH 2	Vequitas - Olopa	24.0	s	b	a	Gob	
VI		CA 2 Oc - Sn Juan Bautista	4.4	t		c	Gob	
III		Aldea Conacaste-Plan Bna Vista	25.0	t			Gob	
VI		Malacatán - Hospital Regional	4.0	t		c	Gob	
	CONSTRUCCION Y MEJORAMIENTO DE PUENTES		Mts					
	Puente	Río Grande, Zacapa	120.0			c	Gob	

Pv = Pavimento
Ba = Balasto
Tr = Tierra

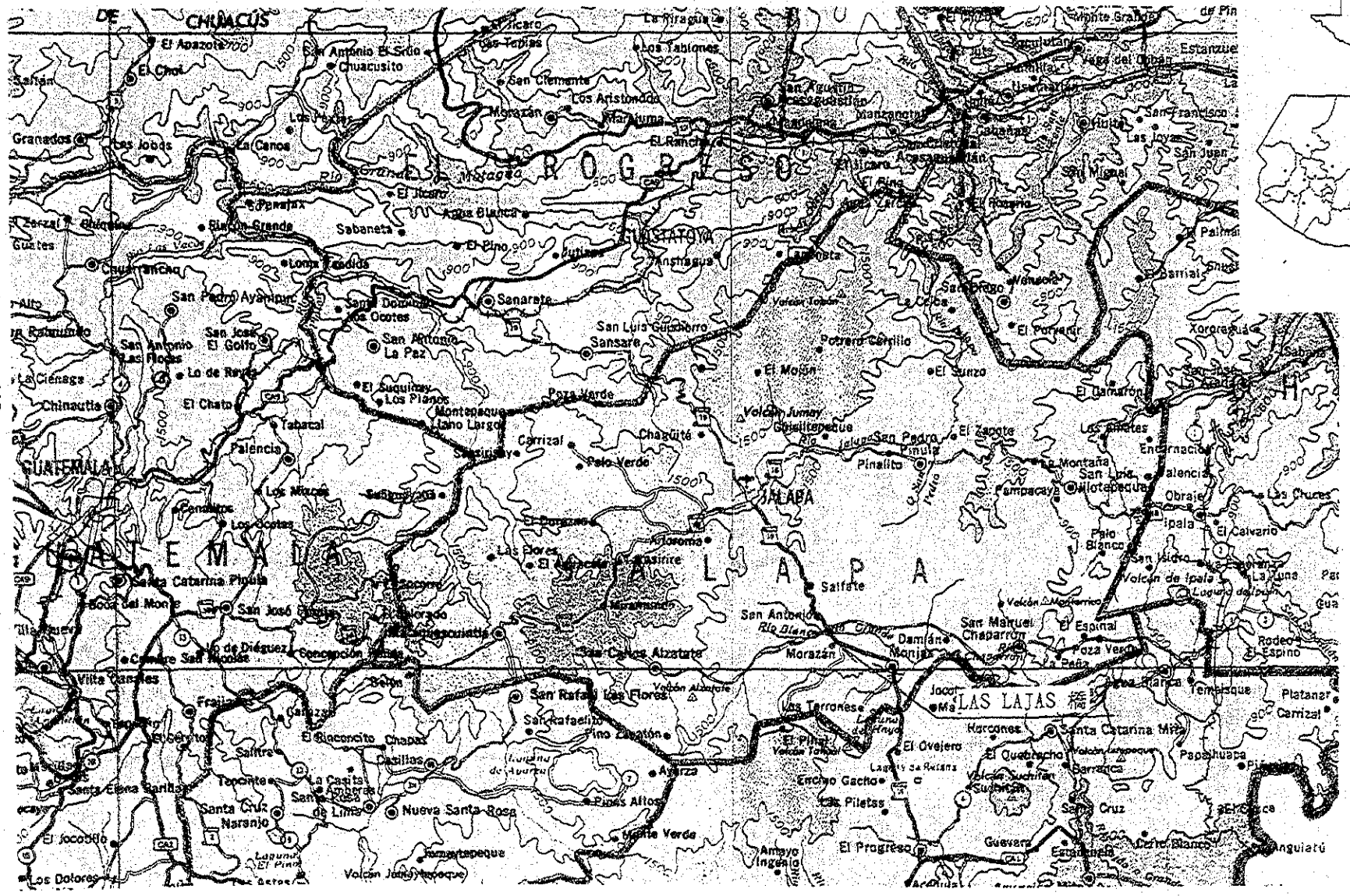
Sl = Sello
Rh = Rehabilitación
Rc = Reconstrucción

AM = Ampliación y Mejoramiento
Cn = Construcción

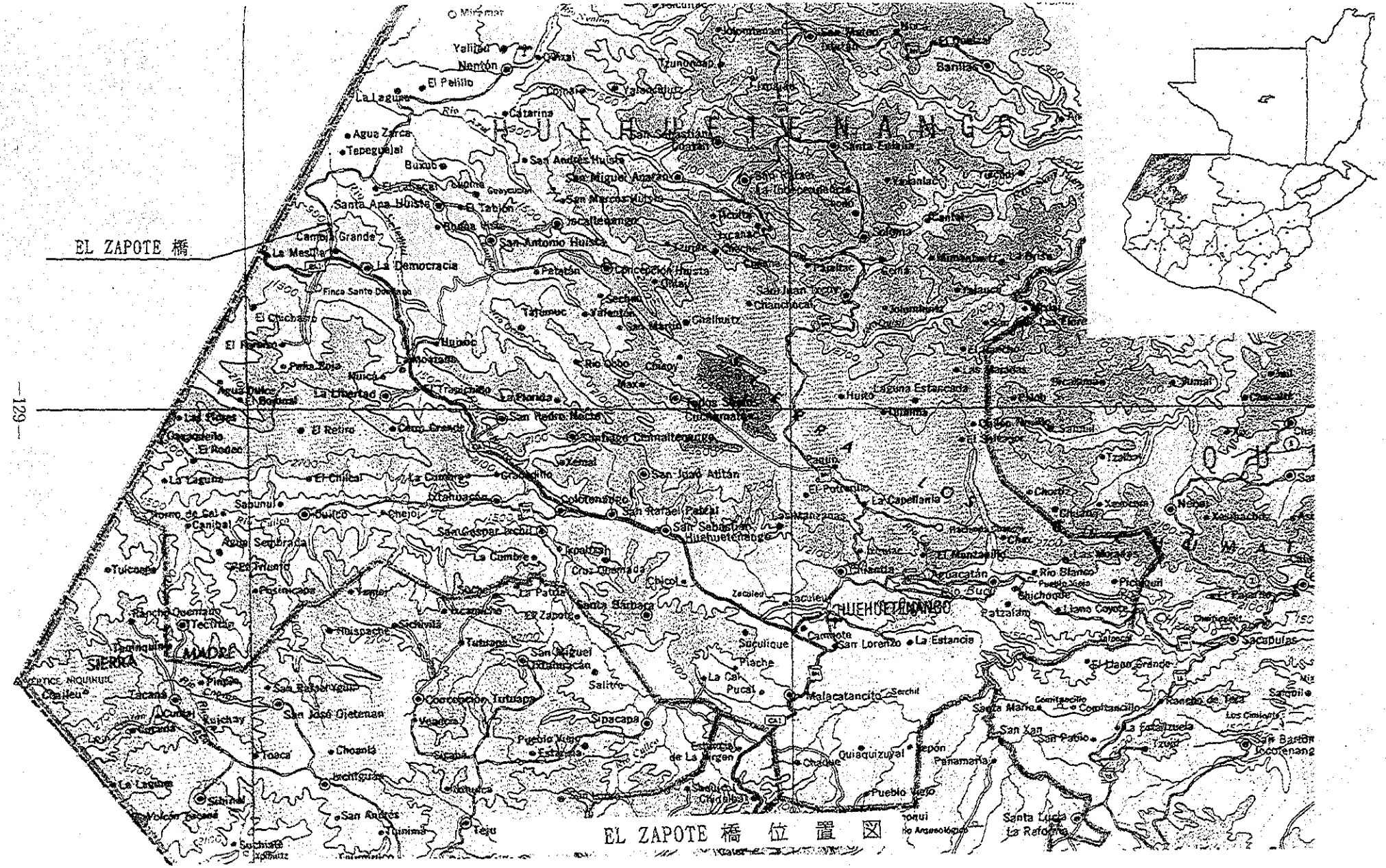


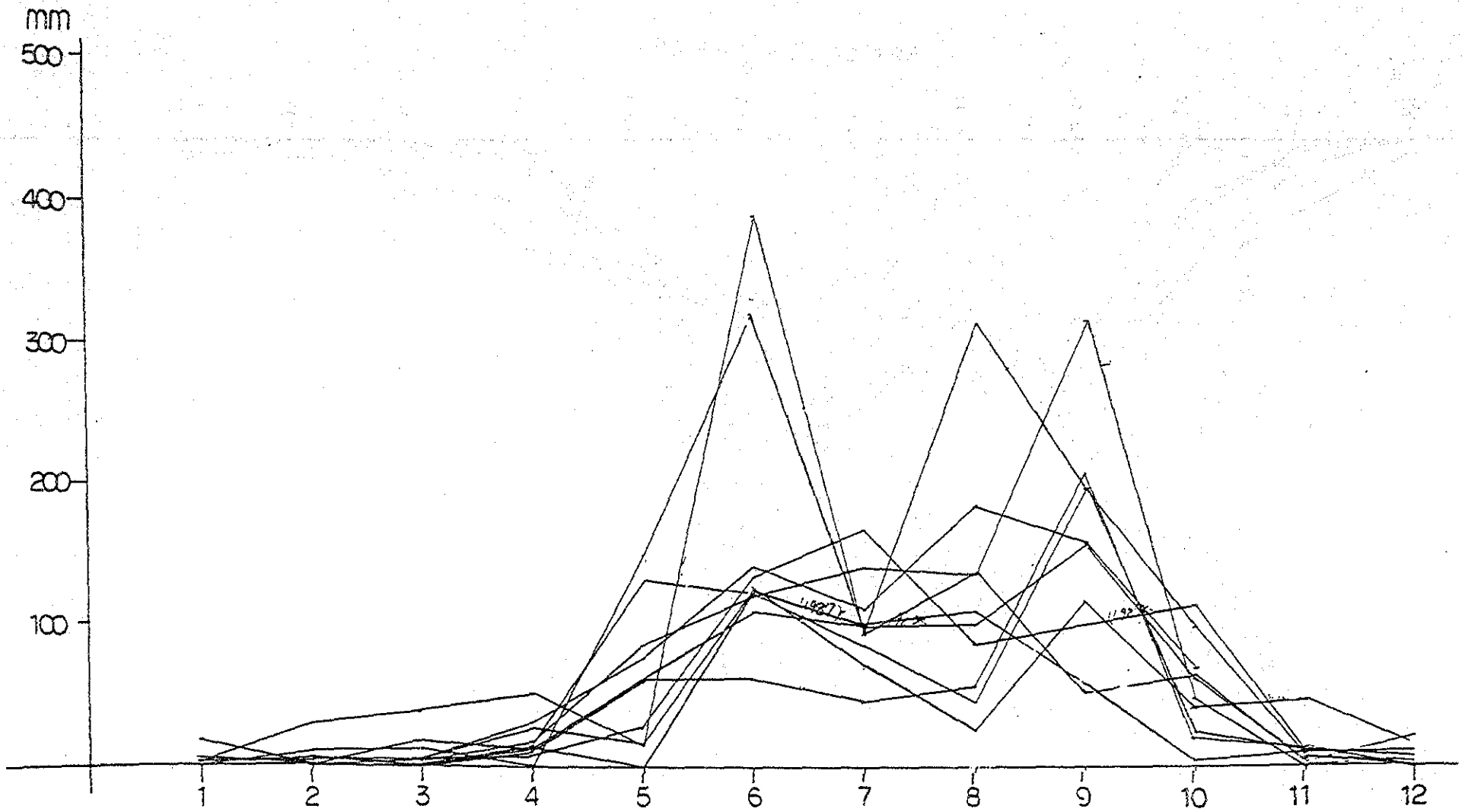


SAU JUAN橋 位 置 図

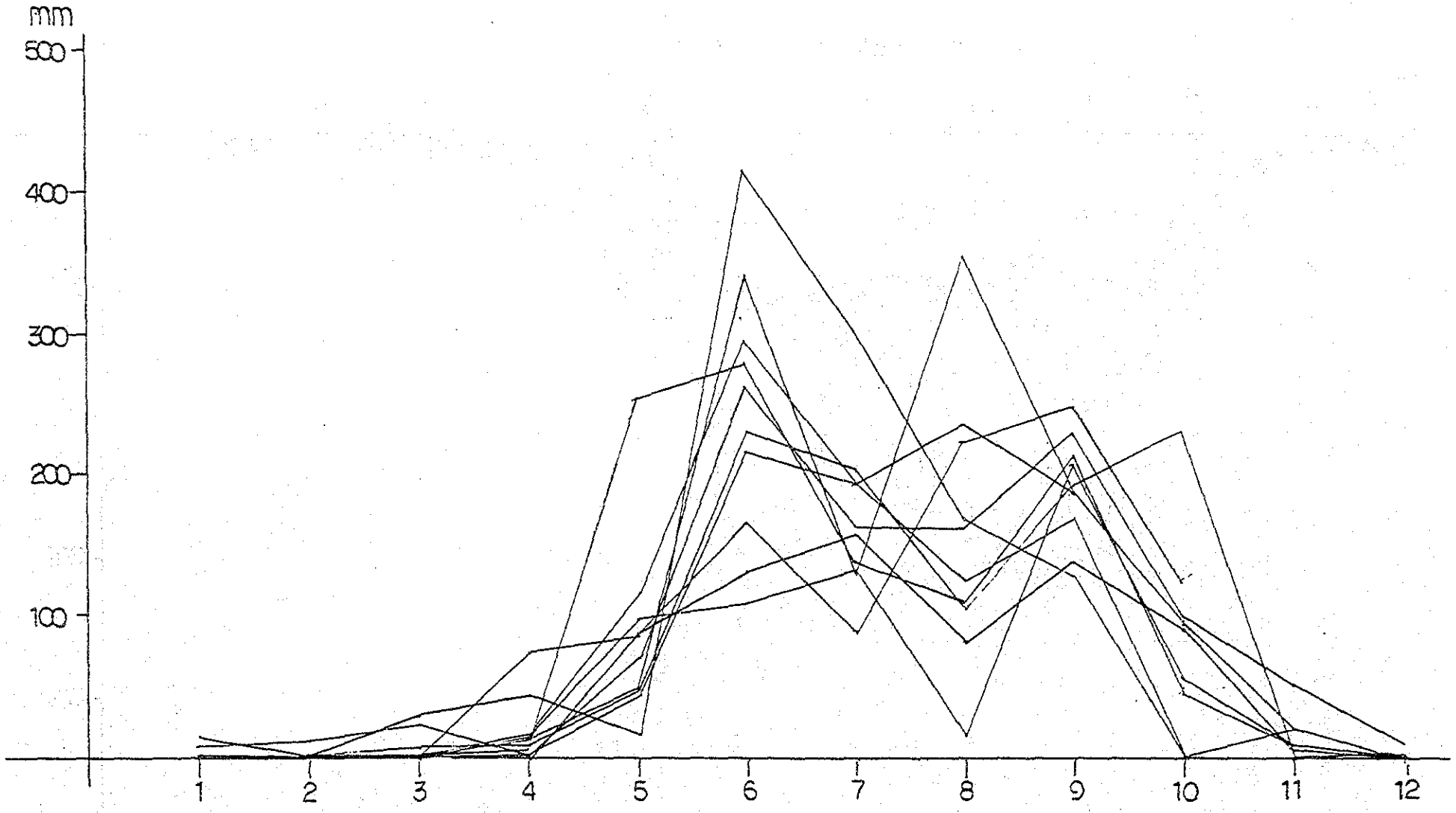


LAS LAJAS 橋 位 置 図

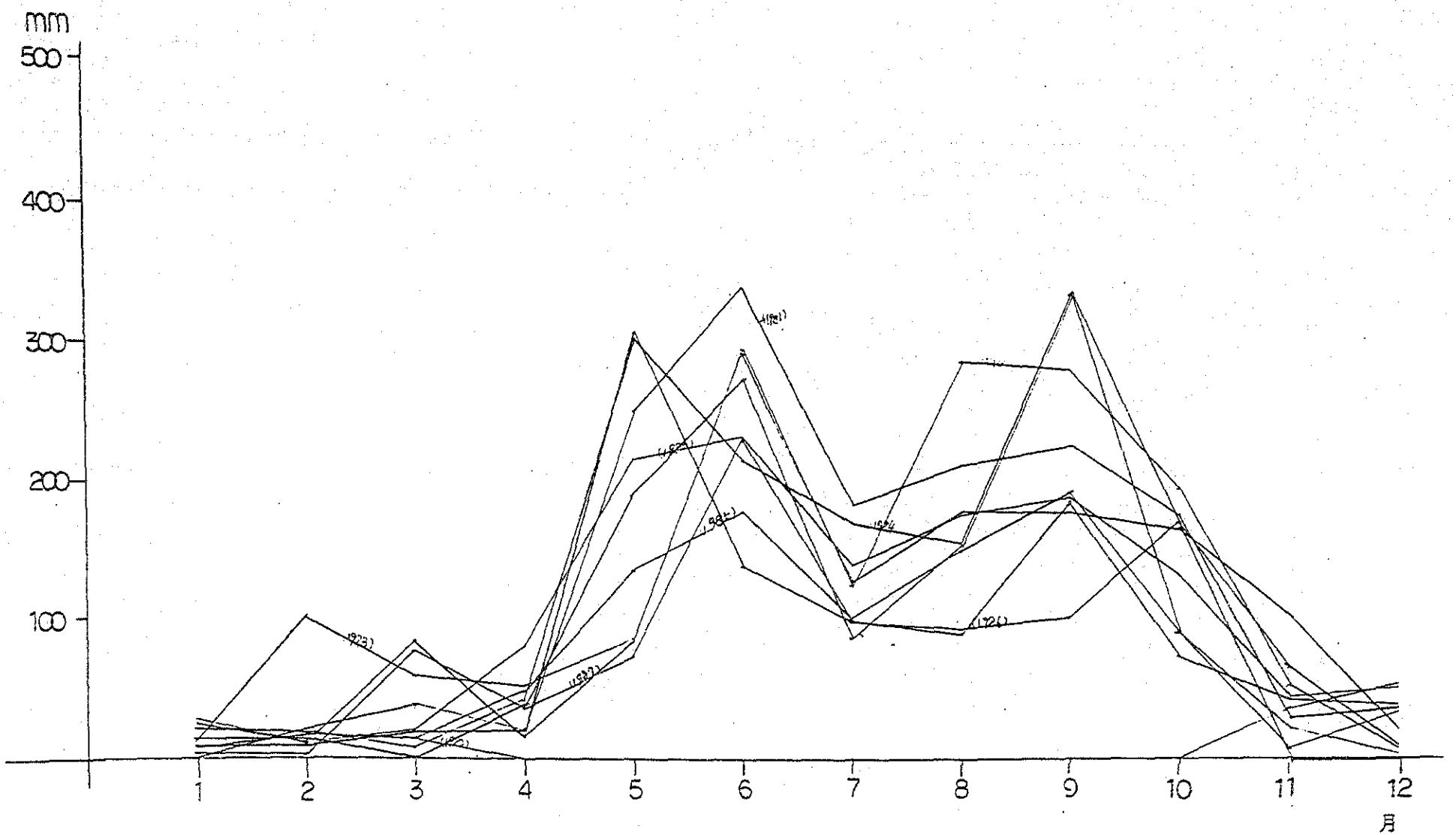

EL ZAPOTE 橋
HUEHUETENANGO
SIERRA MADRE
EL ZAPOTE 橋 位 置 図



サンフアン地域月別降雨量図



ラスラハス地域月別降雨量図



エルサポーテ地域月別降雨量図

STRATIGRAPHIC CHANGE	STRATIGRAPHIC DESCRIPTION	GRAPHIC SIMBOLS	DATE	RECOVERED SAMPLE (%)	SAMPLES INDISTURB	SAMPLES DISTURBED	DEPHT	CASING	COMMENTS
	Coorse to medium sand. Some coorse gravel - SW-		4.29.90	12		ST 1	0.00		Recently river deposits
1.50	Medium to fine sand w/gravel SP			89		SP 1	1.50 1.95		Regional fluvial deposits
	Medium to fine sand w/ some coorse to medium gravel. Little silt firm, non plastic - SM-			34		ST 2	3.00		
	Medium to fine sand, fine gravel SW			100		SP 2	3.45		
	- SM-			46		ST 3	4.50	MW	
	Coorse sand and fine gravel SW			100		SP 3	4.95		
	SM- SW			26		ST 4			
	coorse sand, fine gravel, silt SW			140		ST 4	6.00 6.23		* S.P.T.: 6.00 - 6.23m. 8cm / 50 blows
6.50	Coorse to medium quarz sand cobbles until 16 cm, very firm, non plastic SM- SW			39		DT 1	7.00		
				60		DT 2			
				65		DT 3	8.05		
				52		DT 4	8.20		
				97		DT 5	8.70		
			4.30.90	36		DT 6	9.40 9.60		
	Blocks of quartzite; coorse gravel w/coorse sand. Very firm SM-SW			64		DT 7	10.05		
				72		DT 8	10.90		
				73		DT 9	11.50		
				80		DT 10	12.00		

STANDARD PENETRATION RESISTENSE
No. of blows per food. (N =)
140 lb. hammer 30" free fall
split spoon sampler 2" o.d.

10 20 30 40 50 60 70

GENERAL DATA

BORING No. 1

LOCATION, COORD.

ELEVATION 100.677

TOTAL DEPHT 12.00 m

DIP Vertical

DATE STARTED April 29, 1990

DATE FINISHED April 30, 1990

LEGEND

SP	split spoon
MA	altered sample
MW	washed sample
MS	indisturbed sample (Shelb)
AS	auger boring
ST	single tube sampler
DT	double tube sampler

Swissboring Overseas Corp. Ltd.
Procedimientos Radio
Apartado postal 2435
Guatemala C.A.

swissboring

CHODAI Co. Ltd.

PROYECT OF BRIDGES

BORING No. 1

DRILLING LOG

BRIDGE: San Juan
Right Bank

SCALE 1/100 | LOGGED BY J.H. del A.

STRATIGRAPC CHANGE	STRATIGRAPHIC DESCRIPTION	GRAPHIC SIMBOLS	DATE	RECOVERED SAMPLE (%)	SAMPLES INDISTURB	SAMPLES DISTURBED	DEPHT	STANDARD PENETRATION RESISTENSE No. of blows per food. (N =) 140 lb. hammer 30"free fall split spoon sampler 2" o.d.	CASING	COMMENTS
1	Medium to fine sand w/medium to fine gravel, loose. -SW-		4-26-90	21		ST 1	0.00			Recently alluvial deposits.
	Coarse to medium sand, gravel -SW-			33		SP 1	1.50 1.95			* S.P.T: 15cm/2 blows
2	Medium to coarse gravel w/medium sand, loose -GW-			28		ST 2				
3	Coarse sand, fine gravel - SW-			51		SP 2	3.00 3.45			
4	Coarse gravel, fine to medium sand loose. - GW-		4-27-90	82		ST 3				
4.58				100		SP 3	4.50 4.58			* S.T.P. 4.50-4.58 m 8cm/50 blows
5	Coarse gravel, fine to medium sand, little clay, medium hard. Old alluvial deposit - GP-			45		DT 1				
6				100		SP 4	6.00			* S.T.P.: 6.00-6.06 6cm/50 blows
				87		DT 2	6.06 6.75			
7	Coarse gravel, coarse to medium sand, yellowish clay, medium hard, Metamorphics pebbles and cobles, semi rounded. Coarse sand very rich in quarts grains Yellowish fine silt. Cobles since 3cm to 10 cm some blocks of 42 cm. diam.			65		DT 3	7.30			
8				14		DT 4				
				100		DT 5	8.20 8.78			
9				61		DT 6				
				67		DT 7	9.73			
10				100		DT 8	10.43			
11							10.88			
				50		DT 9				
12							12.18			
				61		DT 10	13.41			
13				93		DT 11				
14							14.26			
				85		DT 12	15.00			
15										Regional fluvial deposits
16										
17										
18										
19										
20										
21										
22										

GENERAL DATA

BORING No. 2

LOCATION, COORD.

ELEVATION 96.946

TOTAL DEPHT 15.00m

DIP Vertical

DATE STARTED April 26, 1990

DATE FINISHED April 27, 1990

LEGEND

SP	split spoon
MA	altered sample
MW	washed sample
MS	indisturbed sample (Shelb)
AS	auger boring
ST	single tube sampler
DT	double tube sampler

Swissboring Overseas Corp. Ltd.
Procedimientos Rodio
Apartado postal 2435
Guatemala C.A.

swissboring

CHODAI Co. Ltd.

PROYECT OF BRIDGES

BORING No. 2

DRILLING LOG

BRIDGE: San Juan River Bed

SCALE 1/100 | LOGGED BY J.H.delA.

STRATIGRAPC CHANGE	STRATIGRAPHIC DESCRIPTION	GRAPHIC SIMBOLS	DATE	RECOVERED SAMPLE (%)	SAMPLES INDISTURB	SAMPLES DISTURBED		DEPHT
								0.00
1	Fill material: coorse gravel w/ coorse to medium sand, little clay, loose. - GW-		4.28.90	42		ST	1	1.50
2	Coorse gravel and coorse sand GW-SW			22		SP	1	1.95
	GW-SW			27		ST	2	
3	Medium to fine gravel, coorse sand. GW			33		SP	2	3.00 3.30
	GW-SW			10		ST	3	
4 4.50	Coorse to medium gravel, coorse sand GW			22		SP	3	4.50 4.95
5	Coorse to medium sand, large pebbles of metamorphics rocks - SW-			48		ST	4	
6	Coorse to medium gravel, coorse sand GW			67		SP	4	6.00 6.45
7	SW (river deposit)			33		ST	5	
	Rock block			100		CO	5	7.50 7.62
8	SW (river deposit)			69		DT	1	
8.33	Coorse gravel. w/ coorse to medium sand, little clay (yellowish brown); medium dense GW-SW. Cobbles, pebbles and sand are very rich in quorz.			100		DT	2	8.08 8.33
				100		DT	3	8.78
9				100		DT	4	9.60
				77		DT	5	10.40
10				100		DT	6	10.55
11				70		DT	7	11.58
				100		DT	8	11.80
12				84		DT	9	12.63
			4.29.90	50		DT	10	13.00
13				57		DT	11	14.00
14				64		DT	12	14.50
15				65		DT	13	15.00
16								
17								
18								
19								
20								
21								
22								

STANDARD PENETRATION RESISTENSE
No. of blows per food. (N =)
140 lb. hammer . 30"free fall
split spoon sampler 2" o.d.

10 20 30 40 50 60 70

CASING: NW

COMMENTS

Fill material

Recently river deposits.

* S.T.P.: 7.50-7.62 m
12cm / 50 blows

Regional fluvial deposits.

GENERAL DATA

BORING No. 3

LOCATION, COORD.

ELEVATION 100.889

TOTAL DEPHT 15.00 m

DIP Vertical

DATE STARTED April 28, 1990

DATE FINISHED April 29, 1990

LEGEND

SP	split spoon
MA	altered sample
MW	washed sample
MS	indisturbed sample (Shelb)
AS	auger boring
ST	single tube sampler
DT	double tube sampler

Swissboring Overseas Corp. Ltd.
Procedimientos Rodio
Apartado postal 2435
Guatemala C.A.

swissboring

CHODAI Co. Ltd.

PROYECT OF BRIDGES

BORING No. 3
DRILLING LOG

BRIDGE: San Juan
Left Bank

SCALE 1/100 | LOGGED BY J.H.delA.

STRATIGRAPHIC CHANGE	STRATIGRAPHIC DESCRIPTION	GRAPHIC SIMBOLS	DATE	RECOVERED SAMPLE (%)	SAMPLES INDISTURB	SAMPLES DISTURBED	DEPHT
1	Alluvium deposit. Coorse gravel w/medium to coarse sand, loose -GP-		4.22.90	38		ST 1	0.00
1.50						SP 1	1.50
1.83	Fine gravel and coarse sand - GP -			76		DT 1	1.83
2	Coorse gravel w/ coarse sand, loose to light firm.			100		DT 2	2.13
				100		DT 3	2.43
3	Cobbles since 8cm to 20cm			46		DT 4	2.80
				44			3.50
4				51		DT 5	3.93
				30		DT 6	4.28
5				10		DT 7	
5.50							5.50
6	Coorse pyroclastic sand, light gray Poorly cemented - SM-			39		DT 8	
6.30							6.30
7	Coorse gravel w/ coarse sand. loose to firm			42		DT 9	
7.38							7.38
	Blocks of volcanic rock w/ coarse gravel and coarse sand Since 8 cm to 22 cm. Firm. GR-		4.23.90	100		DT 10	7.63
8				49		DT 11	
				70		DT 12	8.40
				62		DT 13	8.60
9				67		DT 14	9.05
				74		DT 15	9.45
10				91		DT 16	10.03
							10.38
11				36		DT 17	
				60		DT 18	11.53
12				20		DT 19	11.78
				42		DT 20	12.21
13							13.00
14							
15							
16							
17							
18							
19							
20							
21							
22							

STANDARD PENETRATION RESISTENSE
No. of blows per food. (N =)
140 lb. hammer 30"free fall
split spoon sampler 2" o.d.

10 20 30 40 50 60 70

CASING: MW

COMMENTS

Alluvial deposit of the river.

* S.P.T: 18cm/93 blows

GENERAL DATA

BORING No. 1

LOCATION, COORD.

ELEVATION 90.305

TOTAL DEPHT 13.00m

DIP Vertical

DATE STARTED April 22, 1990

DATE FINISHED April 23, 1990

LEGEND

SP	split spoon
MA	altered sample
MW	washed sample
MS	indisturbed sample (Shelb)
AS	auger boring
ST	single tube sampler
DT	double tube sampler

Swissboring Overseas Corp. Ltd.
Procedimientos Rodio
Apartado postal 2435
Guatemala C.A.

swissboring

CHODAI Co. Ltd.

PROYECT OF BRIDGES

BORING No. 1

DRILLING LOG

BRIDGE: LAS LAJAS
RIGHT BANK

SCALE 1/100 | LOGGED BY J.H.delA.

STRATIGRAPC CHANGE	STRATIGRAPHIC DESCRIPTION	GRAPHIC SIMBOLS	DATE	RECOVERED SAMPLE (%)	SAMPLES INDISTURB	SAMPLES DISTURBED	DEPHT
1	Very coarse gravel, coarse sand loose. -GW-		4.21.90	66		ST 1	0.00
	No recovery			0		SP 1	1.50
2	Coarse to medium sand, well graded. Scarse fine gravel, loose -SP-			50		ST 2	1.95
3	Medium to coarse sand w/ gravel			44		SP 2	3.00
4	Coarse to medium gravel Some volcanic blocks, loose -SP-			40		ST 3	3.45
						SP 3	4.50
	Round pebbles and blocks of volcanic rocks. Little coarse sand -GP-			100		DT 1	4.73
5				54		DT 2	
	Cobbles of volcanic rock, since 10 cm to 22 cm, some fine gravel -GP-			100		DT 3	5.63
6				83		DT 4	5.93
6.75							6.75
7	Andesite, dark gray colour, very hard, Regularly jointed (sub-vertical joints)			100		DT 5	7.13
				100		DT 6	7.43
			4.22.90				
8				100		DT 7	
				89		DT 8	8.38
9							9.00
10							
11							

STANDARD PENETRATION RESISTENSE
No. of blows per food. (N =)
140 lb. hammer 30"free fall
split spoon sampler 2" o.d.

10 20 30 40 50 60 70

CASING: NW

COMMENTS:
Alluvial deposit of river

* S.P.T.: 0 cm/50 blows

Volcanic flow:
Andesite, very fine grain, gray dark, porphiritic, very hard.

GENERAL DATA

BORING No. # 2

LOCATION, COORD.

ELEVATION 88.422

TOTAL DEPHT 9.00

DIP Vertical

DATE STARTED April 21, 90

DATE FINISHED April 22, 90

LEGEND

SP	split spoon
MA	altered sample
MW	washed sample
MS	indisturbed sample (Shelb)
AS	auger boring
ST	single tube sampler
DT	double tube sampler

Swissboring Overseas Corp. Ltd
Procedimientos Rodio
Apartado postal 2435
Guatemala C.A.

swissboring

CHODAI Co. Ltd..

PROYECT OF BRIDGES

BORING No. 2

DRILLING LOG

BRIDGE: LAS LAJAS

RIVER BED

SCALE 1/50 | LOGGED BY J.H.delA.

STRATIGRAPC CHANGE	STRATIGRAPHIC DESCRIPTION	GRAPHIC SIMBOLS	DATE	RECOVERED SAMPLE (%)	SAMPLES INDISTURB	SAMPLES DISTURBED	DEPHT	STANDARD PENETRATION RESISTENSE No. of blows per food. (N =) 140 lb. hammer 30" free fall split spoon sampler 2" o.d. 10 20 30 40 50 60 70	CASING	COMMENTS
	Fine to medium sand, loose. Alluvial deposit. Traces of fine gravel. -SW-		4.23.90	46		ST 1	0.00			Alluvial deposit
1	Coorse gravel, w/ medium to fine sand - GP-			24		ST 2	1.00		NW	
	Coorse gravel, traces of clay and fine sand - GP-		4.24.90	47		SP 1	1.50			S.P.T: 30cm/80 blows
1.95 2	Volcanic rock, andesite type, porphiritic, micro-grained, dark gray color, very hard.			46		DT 1	1.95	*		In situ volcanic flow.
3										
4	Plastic clay and altered rock, greenish gray. ? Zone of fault?			67		DT 2	3.38			
5	Andesite dark gray color			100		DT 3	4.50			
6							6.00			
7										
8										
9										
10										
11										

GENERAL DATA

BORING No. 3

LOCATION, COORD.

ELEVATION 91.013

TOTAL DEPHT 6.00m

DIP VERTICAL

DATE STARTED APRIL 23, 1990

DATE FINISHED APRIL 24, 1990

LEGEND

SP	split spoon
MA	altered sample
MW	washed sample
MS	indisturbed sample (Shelb)
AS	auger boring
ST	single tube sampler
DT	double tube sampler

Swissboring Overseas Corp. Ltd.
Procedimientos Rodio
Apartado postal 2435
Guatemala C.A.

swissboring

CHODAI Co. Ltd.

PROYECT OF BRIDGES

BORING No. 3

DRILLING LOG

BRIDGE : LAS LAJAS

LEFT BANK

SCALE 1/50 | LOGGED BY J.H.delA.

STRATIGRAPC CHANGE	STRATIGRAPHIC DESCRIPTION	GRAPHIC SIMBOLS	DATE	RECOVERED SAMPLE (%)	SAMPLES INDISTURB	SAMPLES DISTURBED	DEPHT
0.50	Fill material, Coarse gravel and silty sand - GM-		4.19.90	30		ST 1	0.50
1	Coarse colluvial deposit: blocks and boulders since 20cm to 200 cm w/ coarse sand and silt. Brownish red, firm to hard.			33		ST 2	1.50
	Coarse sand with fine silty sand, brownish red, medium hard, - SP-			58		SP 2	1.95
2	Coarse colluvial deposit.			48		ST 3	
3	Coarse Gravel w/ silt - GM-			40		SP 2	3.00 / 3.15
	Coarse colluvial deposit.			38		DT 1	4.50
4							
5				35		DT 2	
6				48		DT 3	6.00
7							7.15
8				33		DT 4	
							8.65
9				57		DT 5	9.09
9.09	Sandstone and fine conglomerate, very hard. Gray to brownish red.			100		DT 6	
10							
11							

STANDARD PENETRATION RESISTENSE
No. of blows per food. (N =)
140 lb. hammer 30"free fall
split spoon sampler 2" o.d.
10 20 30 40 50 60 70

CASING

COMMENTS

Fill material

Colluvial deposit. Blocks of sandstone, brownish red, very heterogeneous (Talus debris).

* S.P.T.: 5cm/50 blows

Todos Santos formation. Sandstone. Quarz sandstone and Quarz conglomeratic sandstone

GENERAL DATA

BORING No. 1

LOCATION, COORD.

ELEVATION 97.137

TOTAL DEPHT 10.00 m

DIP Vertical

DATE STARTED 4.19.90

DATE FINISHED 4.19.90

LEGEND

SP split spoon
MA altered sample
MW washed sample
MS indisturbed sample (Shelb)
AS auger boring
ST single tube sampler
DT double tube sampler

Swissboring Overseas Corp. Ltd.
Procedimientos Rodio
Apartado postal 2435
Guatemala C.A.

swissboring

CHODAI Co. Ltd.

PROYECT OF BRIDGES

BORING No. 1
DRILLING LOG

Bridge: El Zapote
(Right bank)

SCALE 1/50 LOGGED BY J.Hdez A.

STRATIGRAPC CHANGE	STRATIGRAPHIC DESCRIPTION	GRAPHIC SIMBOLS	DATE	RECOVERED SAMPLE (%)	SAMPLES INDISTURB	SAMPLES DISTURBED	DEPHT	STANDARD PENETRATION RESISTENSE No. of blows per food. (N =) 140 lb. hammer 30"free fall split spoon sampler 2" o.d.	CASING	COMMENTS
	Fill material : Coarse to medium gravel w/ fine sand and lime, red brick, loose		4.18.90				0.00		6 ½" hollow stem auger — 3 ½" x 6 ½"	Fill material
1.50	Medium to fine sand with fine silt, red brick color, firm - SM-			88		ST 1	1.50 / 1.95			Colluvium deposit and weathered sandstone.
2	Medium to fine sand with silt. Scarce fine gravel, rounded Firm to hard layer - SM-					AS 1				
3	Medium to fine sand, clay and silt scarce fine gravel. - SM-			78		SP 2	3.00 / 3.45			
4	SM- Some gravel medium to coarse					AS 2				
4.50	No recovery			0		SP 3	4.50			
5	Medium to fine sand, some medium to coarse gravel - SW-			24		SP 4	4.95			
5.40	- SM- gray color, medium hard.		4.19.90	42		ST 1	5.40			
6	Recovery only a gray pebble			2		SP 5	6.45 / 6.90			
7	Quarz sand medium to coarse red brick, medium hard. Some silt and clay - SM-			25		ST 2				
8										* S.P.T: 15cm/50 blows
8.40	Quarz sandstone, red brick			100		SP 6	8.40 / 8.55			Todos Santos formation Coarse sandstone and Quarz conglomerate sandstone, gray to brownish red.
8.55	Coarse sandstone, fine layers of gravel. Todos Santos Formation Very hard.			48		ST 3	10.00			
9										
10										
11										

GENERAL DATA

BORING No. 2

LOCATION, COORD.

ELEVATION 97.406

TOTAL DEPHT 10.00m

DIP Vertical

DATE STARTED April 18, 1990

DATE FINISHED April 19, 1990

LEGEND

SP	split spoon
MA	altered sample
MW	washed sample
MS	indisturbed sample (Shelb)
AS	auger boring
ST	single tube sampler
DT	double tube sampler

Swissboring Overseas Corp. Ltd.
Procedimientos Rodio
Apartado postal 2435
Guatemala C.A.

swissboring

CHODAI Co. Ltd.

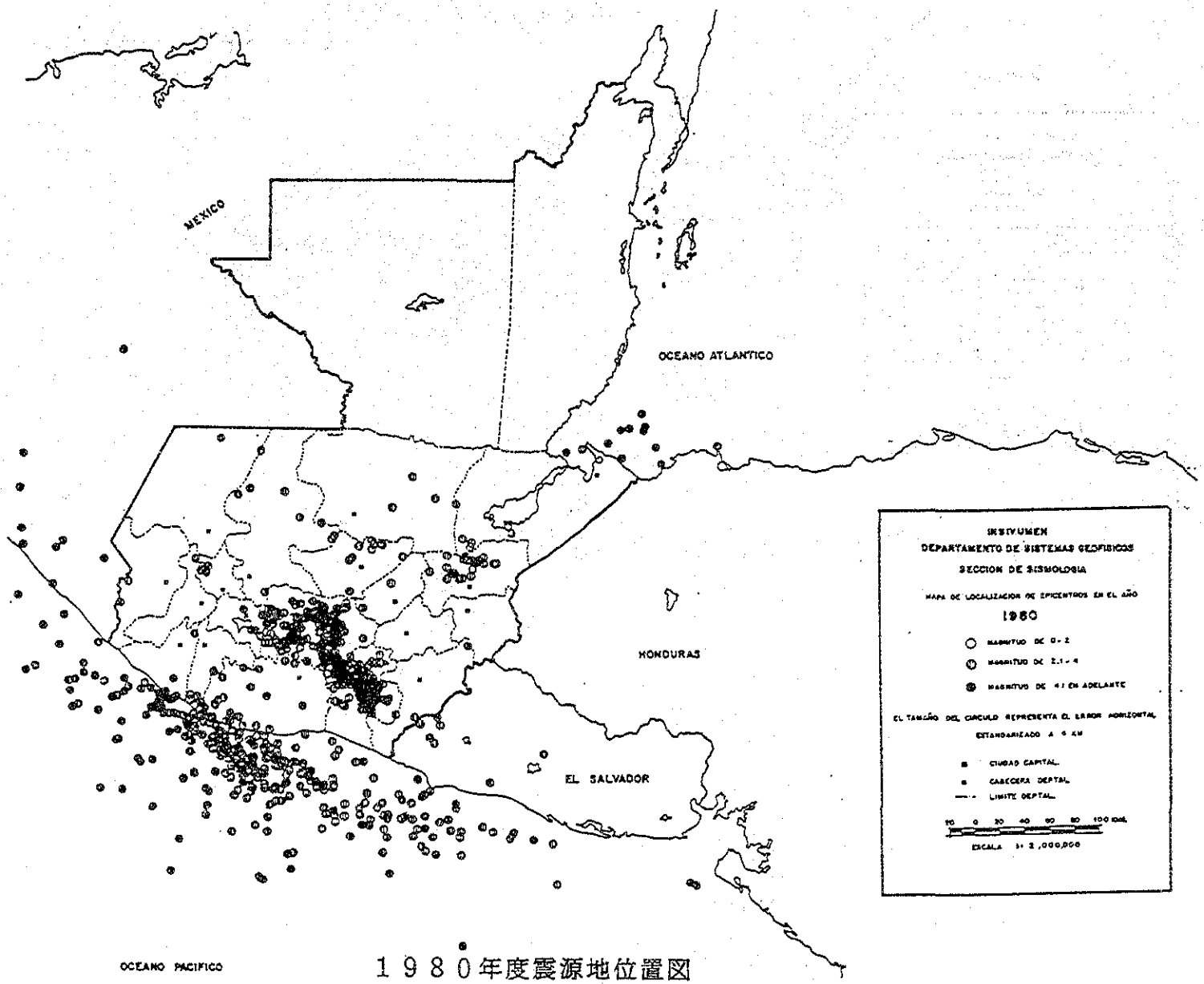
PROYECT OF BRIDGES

BORING No. 2

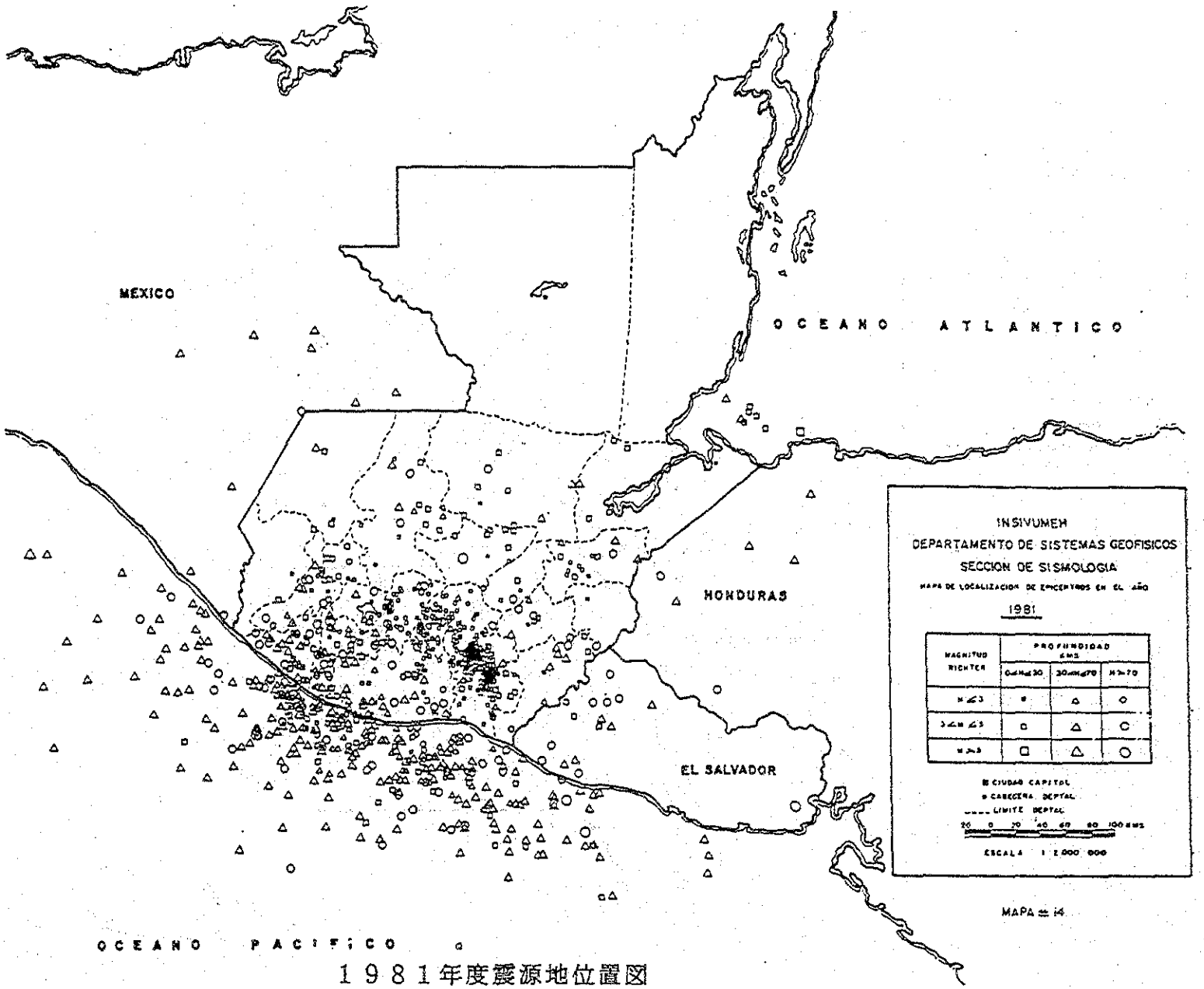
DRILLING LOG

Bridge: El Zapote (Left Bank)

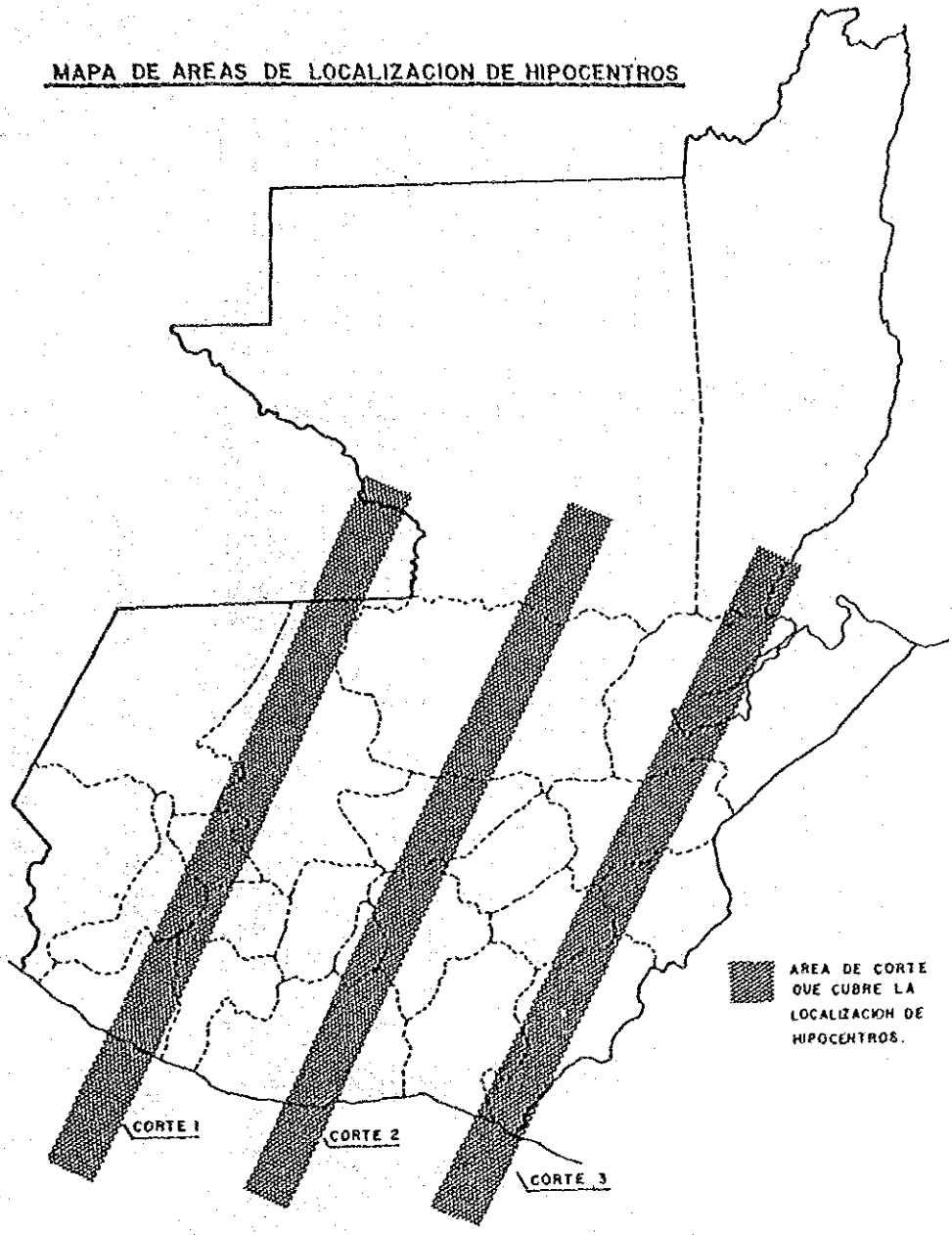
SCALE 1/50 | LOGGED BY J.H.del A.



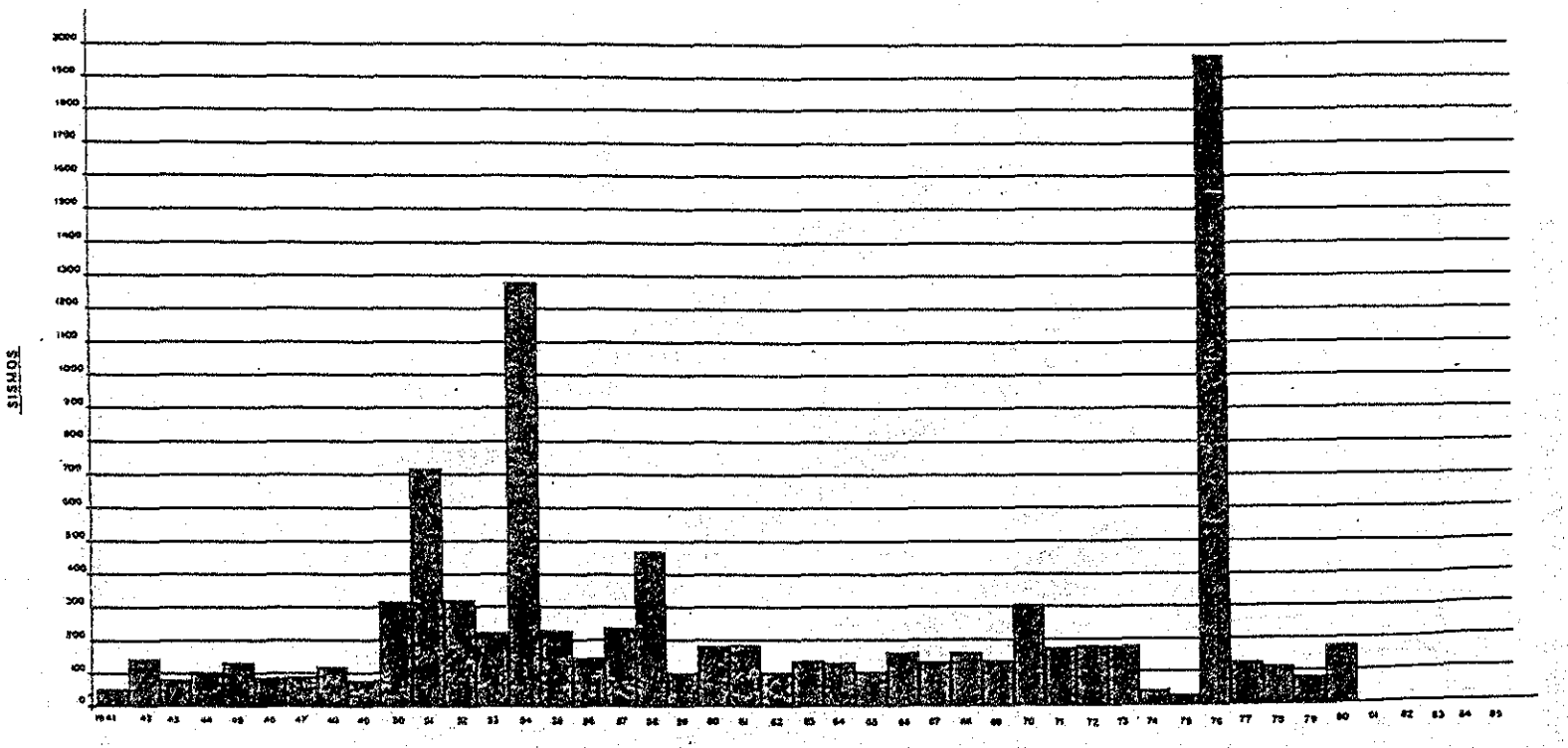
１９８０年度震源地位置図



1981年度震源地位置図



震源地別集約地域位置図



GRAFICA COMPARATIVA DE NUMERO DE SISMOS SENSIBLES DE 1941 A 1980

GRAFICA No. 22

年度別地震回数一覧図

下部工，基礎工数量総括表

（１）躯体工

項目	種別	単位	LAS LAJAS	SAN JUAN	EL ZAPOTE	合計
コンクリート	躯体	M3	971.0	331.8	1124.1	2426.9
	均し	M3	29.6	14.4	24.6	68.6
鉄筋		T	61.6	15.7	78.2	155.5
型枠	普通型枠	M2	1275.8	482.3	1343.6	3101.7
	円形型枠	M2	101.8	27.8	0.0	129.6
足場工		掛M2	1154.2	392.3	877.1	2423.6
支保工		空M3	0.0	15.0	0.0	15.0
栗石		M3	59.2	28.8	49.2	137.2
土工	掘削土砂	M3	2517.0	1343.0	3114.0	6974.0
	掘削岩	M3	130.1	0.0	0.0	130.1
	埋戻し	M3	2067.0	753.0	1579.0	4399.0
既設コンクリート撤去		M3	0.0	292.8	206.6	499.4
取付道路	盛土	M3	5,775.8	0.0	3,558.8	9,334.6
	ｱｽﾌｧﾙﾄ	M2		495.0	1,640.0	2,135.0

（２）基礎杭

項目	種別	単位	LAS LAJAS	SAN JUAN	EL ZAPOTE	合計
H鋼杭	H-300	T	0.0	42.1	0.0	42.1

（３）仮締切

項目	種別	単位	LAS LAJAS	SAN JUAN	EL ZAPOTE	合計
親杭	H型鋼	T	90.0	33.1	78.5	201.6
シートパイル	III 型	T	0.0	94.0	0.0	94.0
腹起し		T	26.6	33.7	24.9	85.2
木矢板	t=30㎜	M3	16.7	6.0	16.7	39.4
ウェルポイント		本	32.0	16.0	0.0	48.0
ヘッダーパイプ		M	92.0	44.0	0.0	136.0
土納		M3	229.4	0.0	0.0	229.4

上部工数量総括表

(1) 鋼材重量

1) 主桁重量

主　　桁	73.2
横　　桁	-
対 傾 構	23.1
横　　構	-
シ ュ ー	3.0
小　　計	99.3 t

2) 付属物重量

伸縮継手	10.0
排水装置	0.6
添加物支持金具	2.8
小　　計	13.4 t

3) 鋼材合計重量　112.7 t

(2) 橋面工数量

1) 舗装面積
(コンクリート舗装) 車道部　t=5 cm　600 ㎡

2) 床版工数量

コンクリート体積	181 ㎥
ノンシュリケージュモルタル	0.5 ㎥
型枠面積	700 ㎡
鉄筋 (SD 30)	47.3 t

3) 排水管(VP 125A)　26.4 m

4) ガードレール　68 m

上部工数量総括表

(1) 鋼材重量

1) 主桁重量

主　　桁	62.6
横　　桁	4.0
対 傾 構	-
横　　構	-
シ ュ ー	1.4
小　　計	68.0 t

2) 付属物重量

伸縮継手	7.5
排水装置	0.4
添加物支持金具	1.6
小　　計	9.5 t

3)鋼材合計重量　77.5 t

(2) 橋面工数量

1)舗装面積
(コンクリート舗装) 車道部　t=5 cm　320 m²

2)床版工数量

コンクリート体積	100 m³
ノンシュリケージュモルタル	0.3 m³
型枠面積	393 m²
鉄筋 (SD 30)	23.3 t

3)排水管(VP 125A)　11.2 m

4)ガードレール　68 m

上部工数量総括表

(1) 鋼材重量

1) 主桁重量

主　　桁	37.5
横　　桁	-
対 傾 構	5.2
横　　構	62.7
シ ュ ー	2.0
小　　計	107.4 t

2) 付属物重量

伸縮継手	5.0
排水装置	0.3
添加物支持金具	3.3
小　　計	8.6 t

3)鋼材合計重量　116.0 t

(2) 橋面工数量

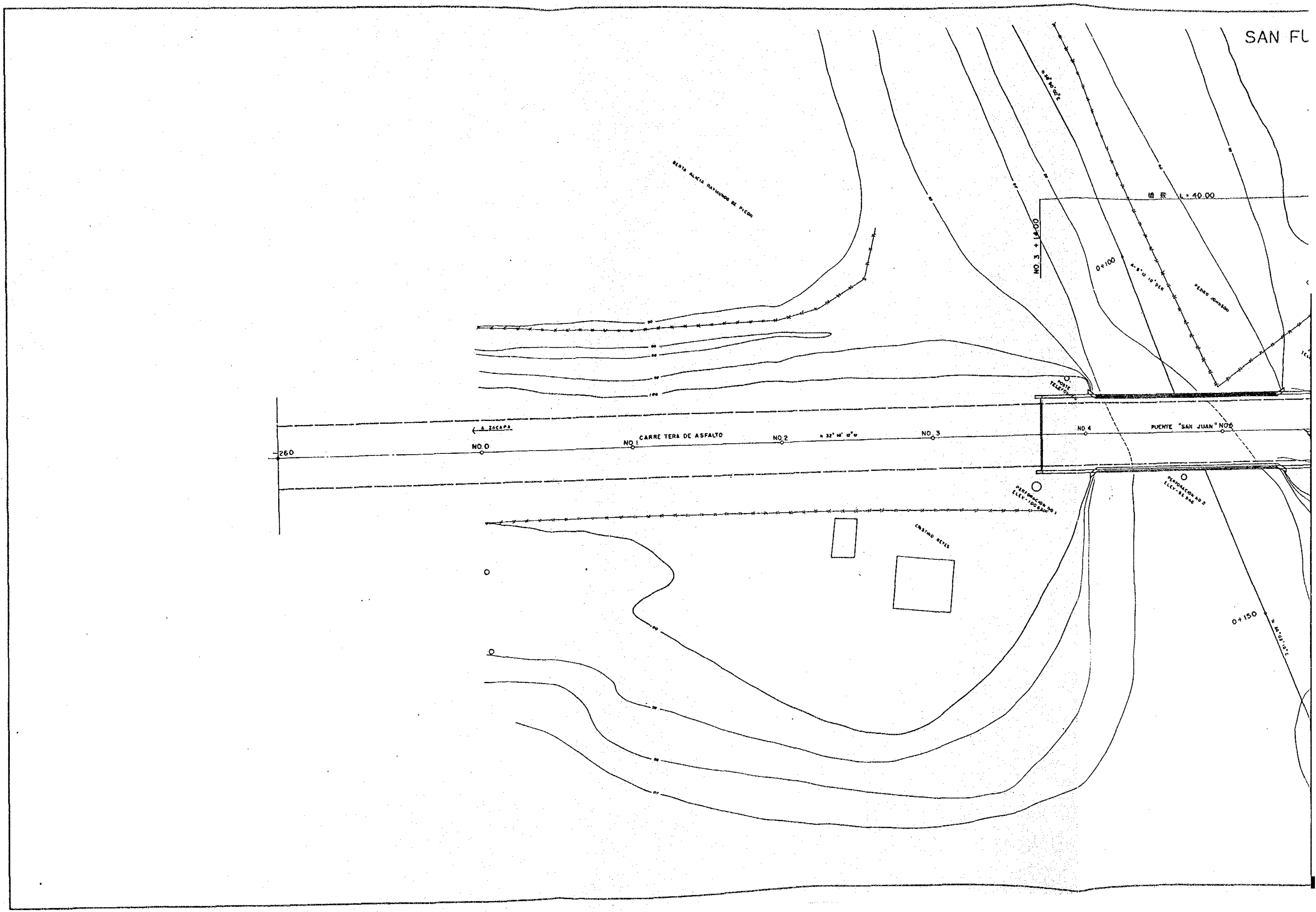
1)舗装面積
(コンクリート舗装) 車道部　t=5 cm　400 ㎡

2)床版工数量

コンクリート体積	125 ㎥
ノンシュリケージュモルタル	0.2 ㎥
型枠面積	492 ㎡
鉄筋 (SD 30)	29.1 t

3)排水管(VP 125A)　8.4 m

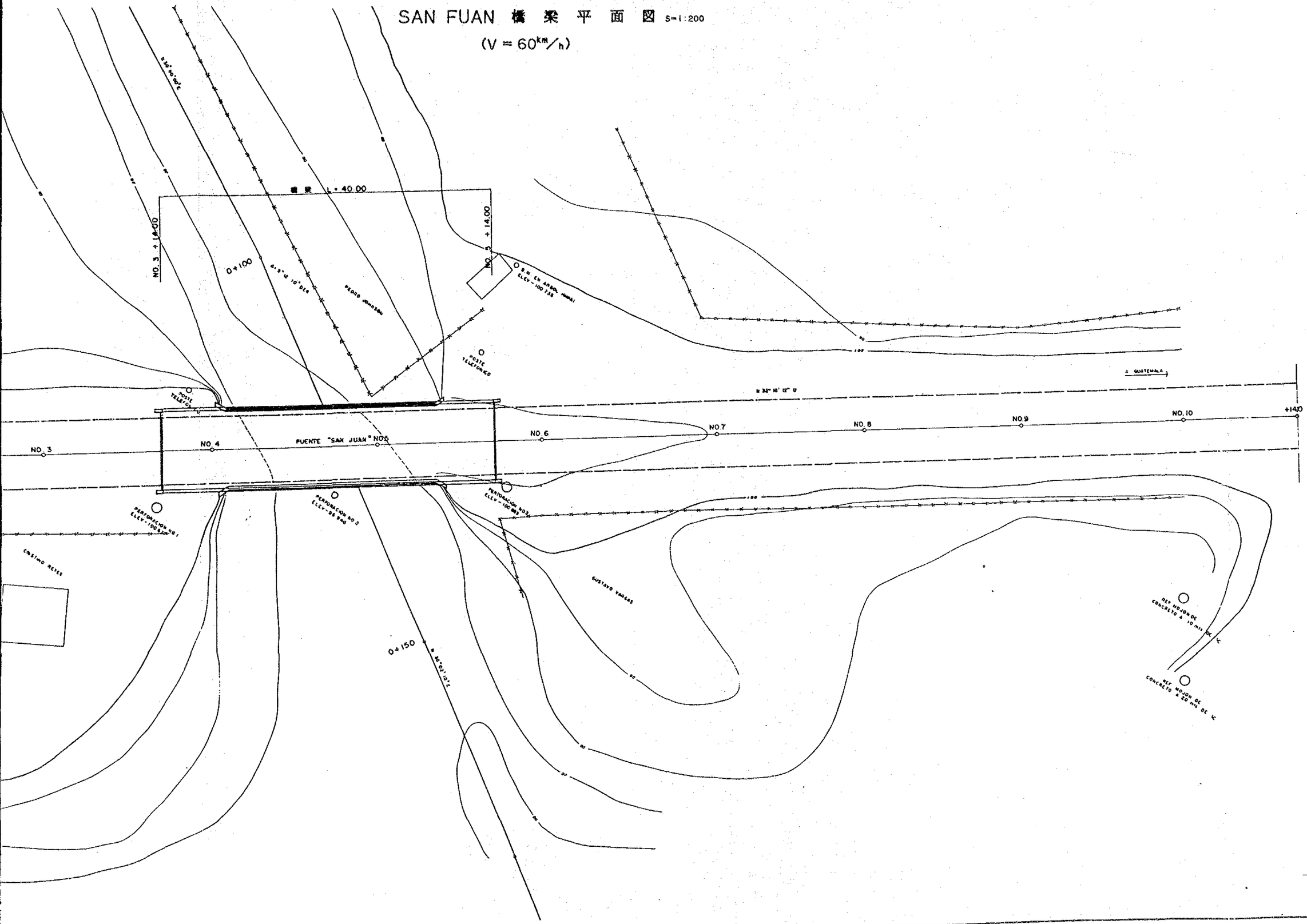
4)ガードレール　68 m



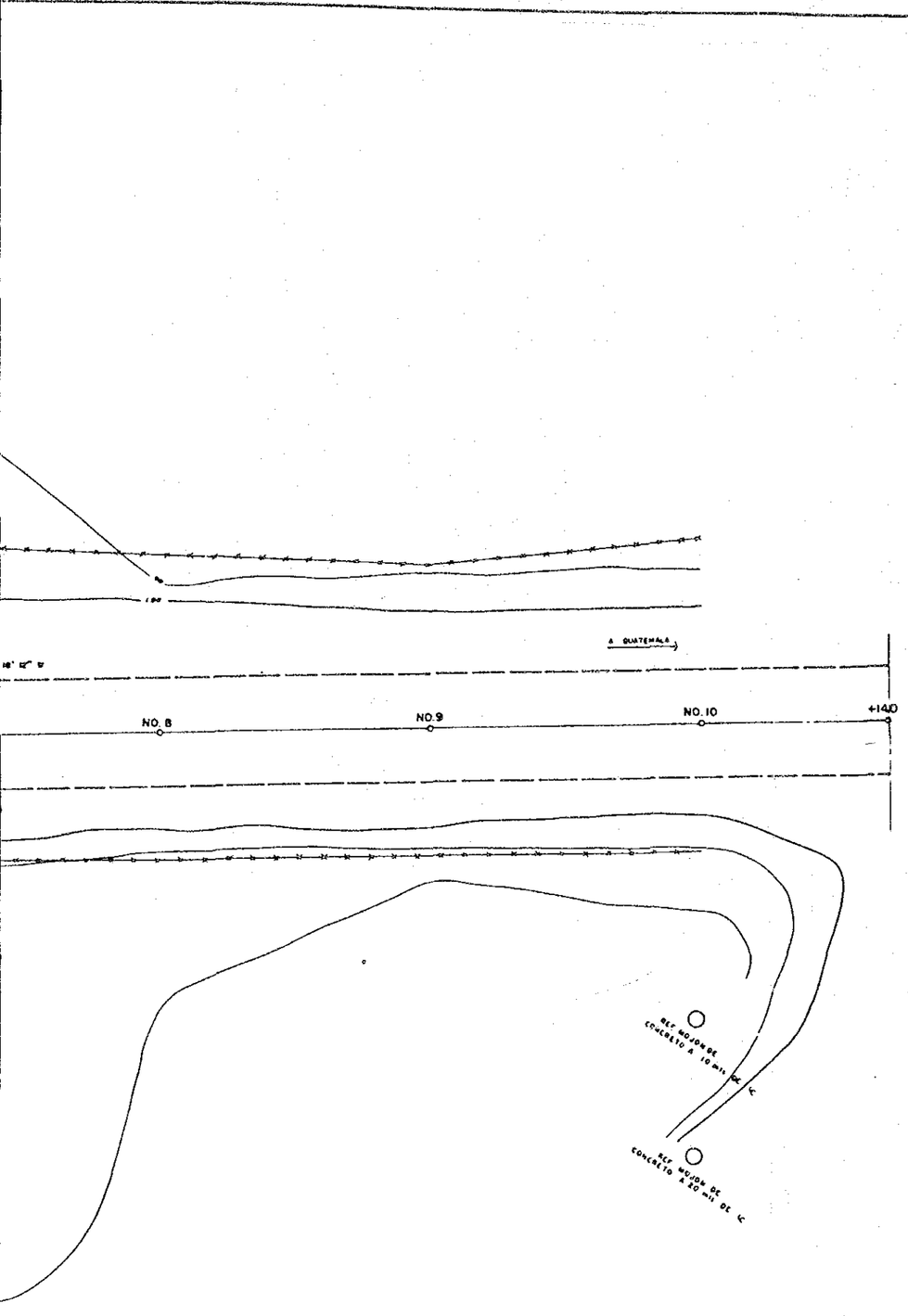
SAN FU
L = 40.00
NO. 3 + 14.00
0+100
0+150
260
A ZACAPA
CARRE TERA DE ASFALTO
NO.0
NO.1
NO.2
NO. 3
NO.4
PUENTE "SAN JUAN"
POSTE TELEFO.

SAN FUAN 橋梁平面図 S=1:200

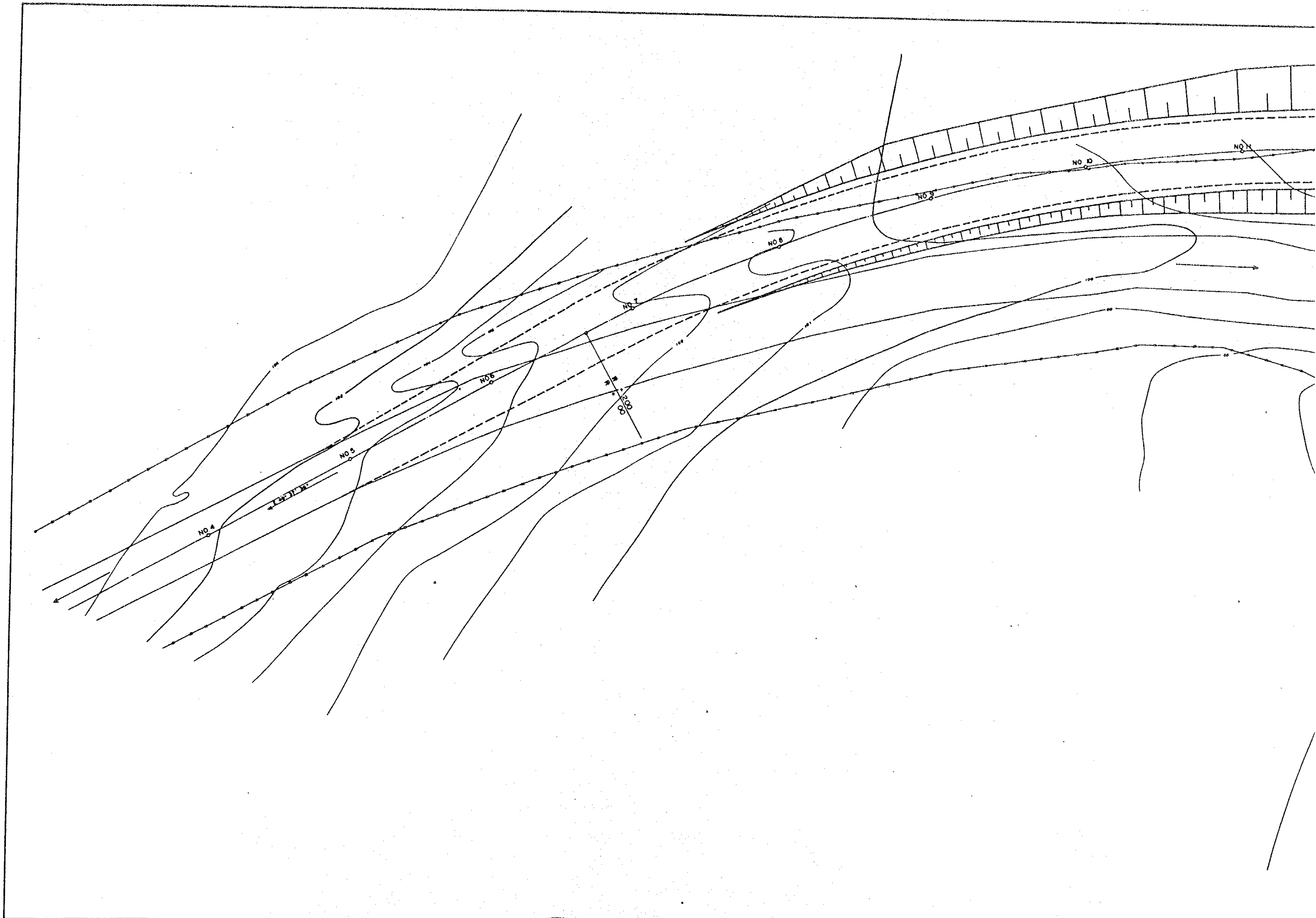
(V = 60km/h)



工事名	地方
施工箇所名	
図面の種類	
縮尺	1:4



工　事　名	地方橋梁建設計画基本設計調査		
施工箇所名	サンファン橋		
図面の種類	平　面　図		
縮　　尺	1:400	図面番号	1/3


NO 4
NO 5
NO 6
NO 7
NO 8
NO 9
NO 10
NO 11

LAS LAJAS 橋 梁

(V = 60 km/h)

NO 10
NO 11
NO 12
NO 13
NO 14
NO 15
NO 16
NO 17
NO 18

R = 200.00

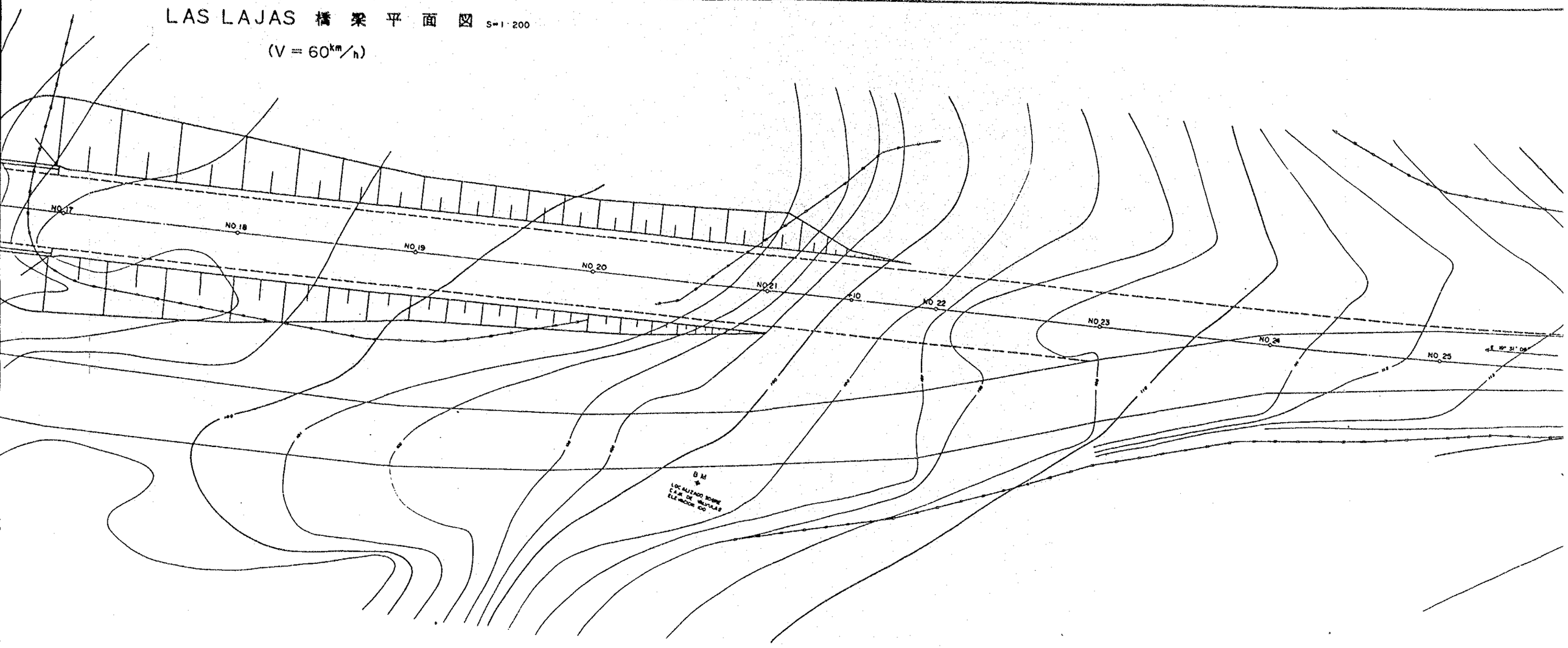
NO 12 + 15.00

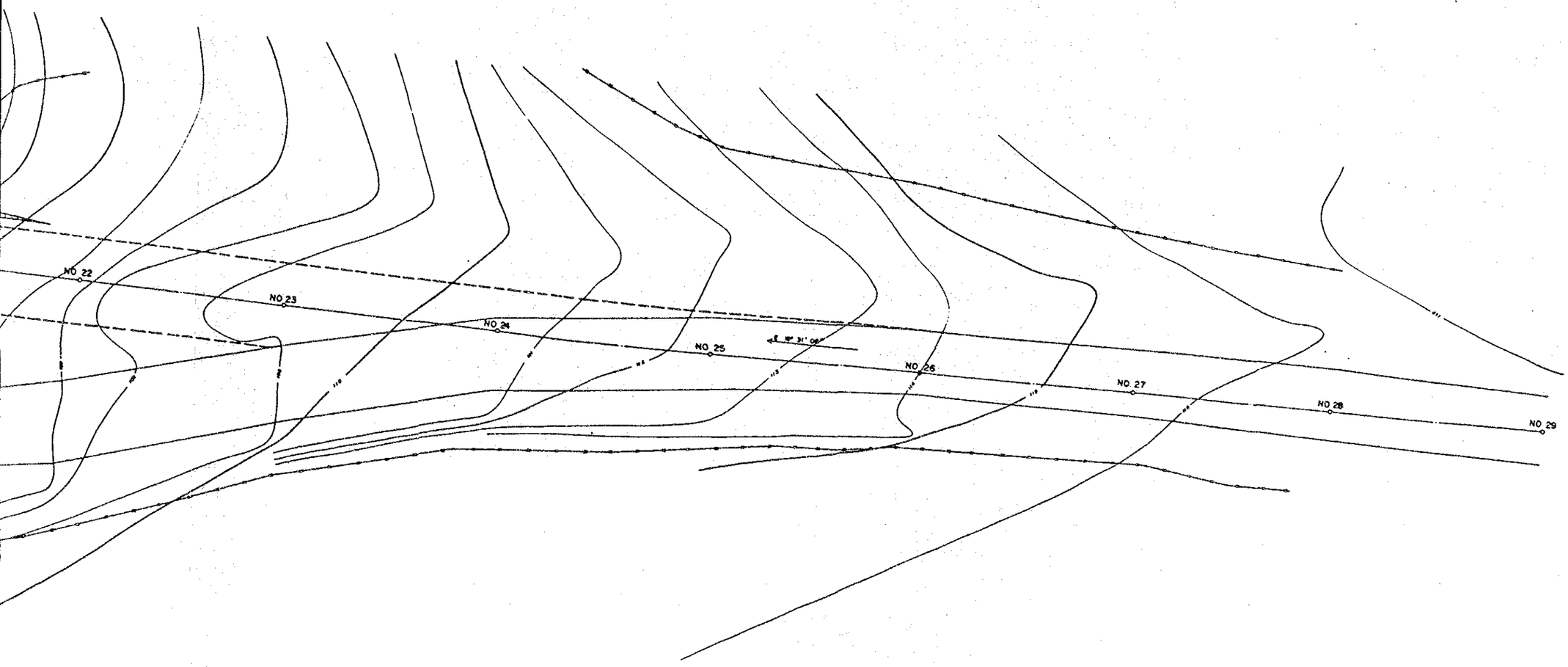
橋長 L = 75.00

NO 16 + 10.00

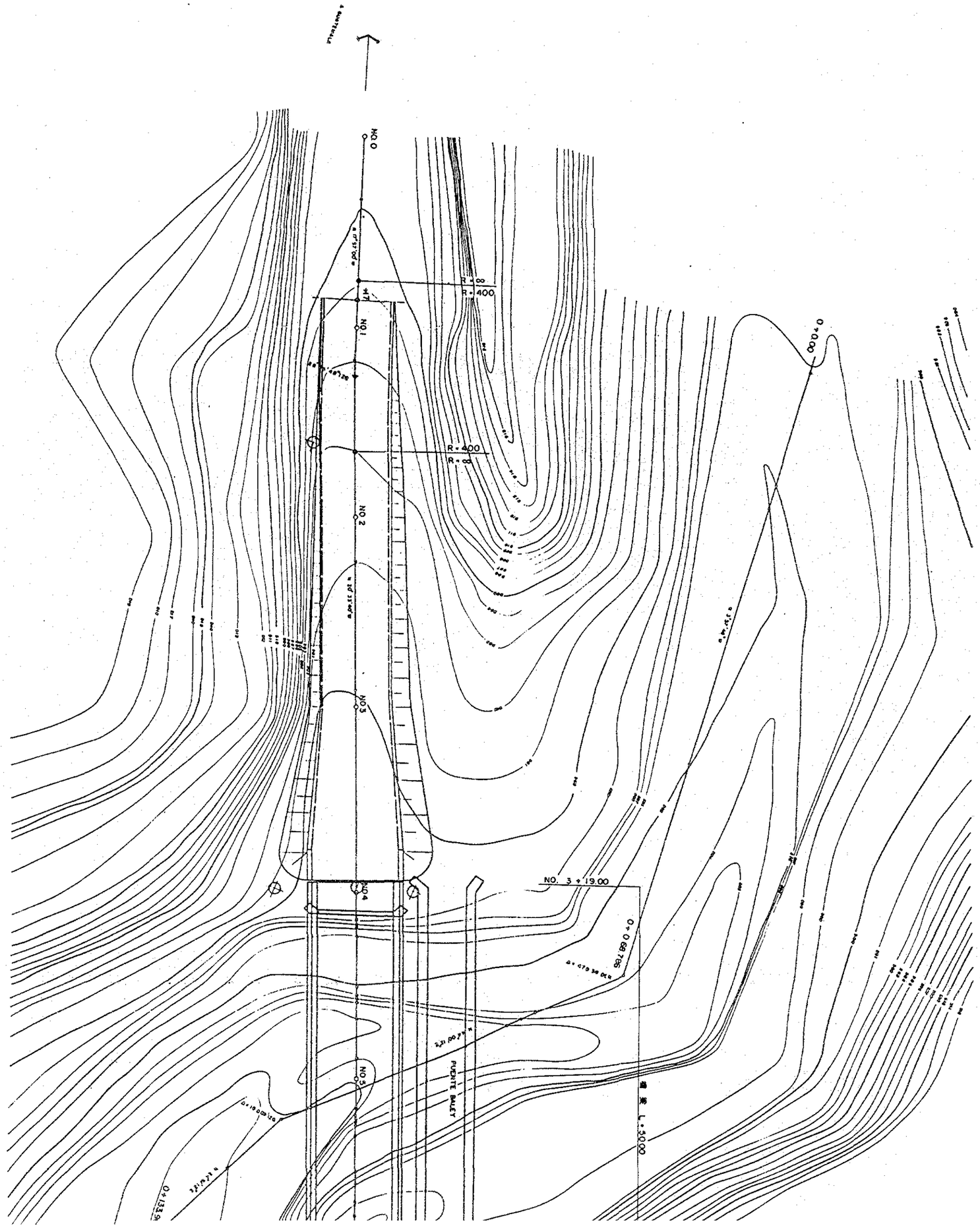
LAS LAJAS 橋梁平面図 S=1:200

(V = 60 km/h)



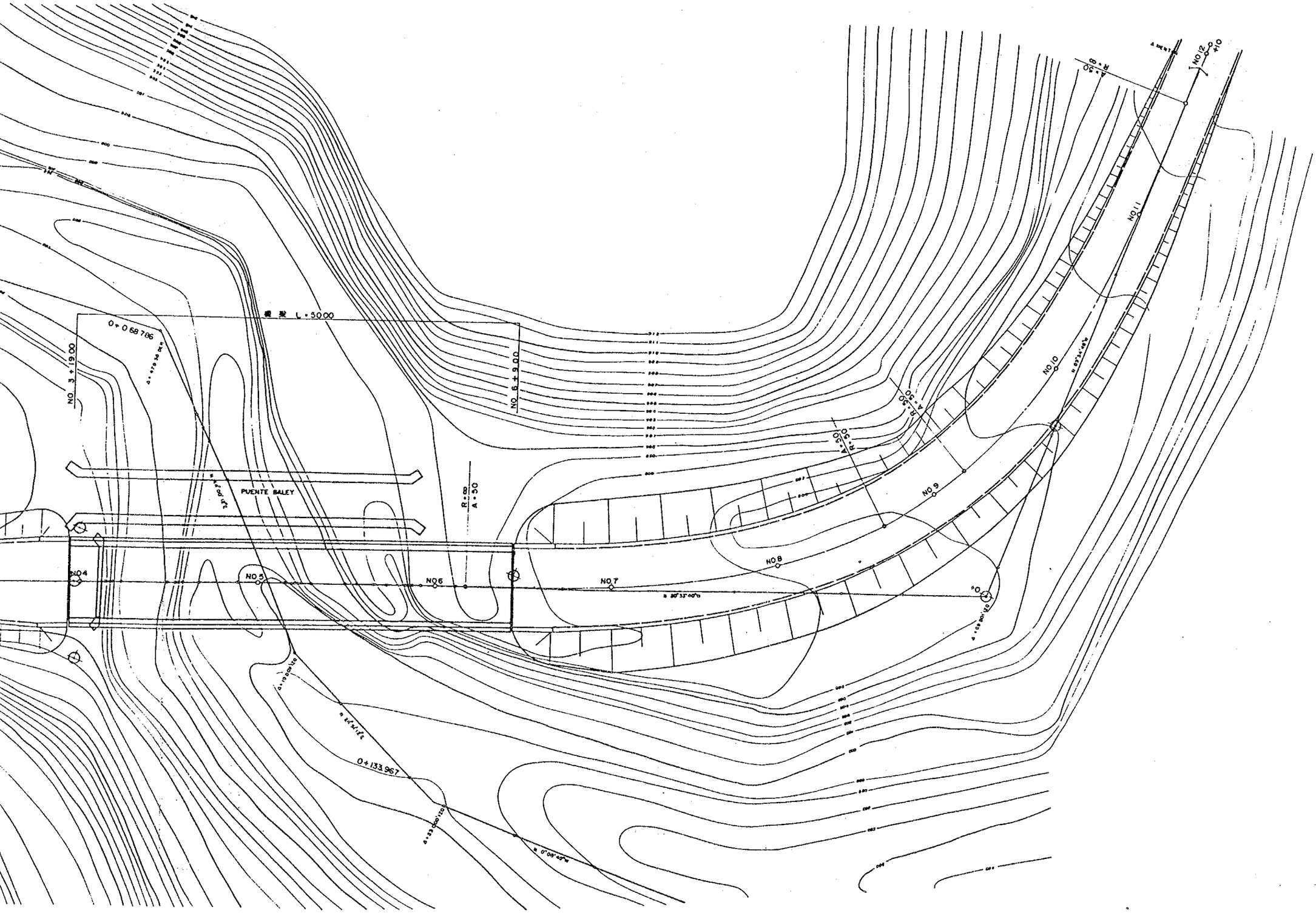


工　事　名	地方橋梁建設計画基本設計調査		
施工箇所名	ラスラハス橋		
図面の種類	平　面　図		
縮　　尺	1:400	図面番号	2/3


NO. 0
NO. 1
NO. 2
NO. 3
NO. 4
NO. 5
R = ∞
R = 400
R = 400
R = ∞
NO. 3 + 19.00
PUENTE BAILEY
L = 30.00

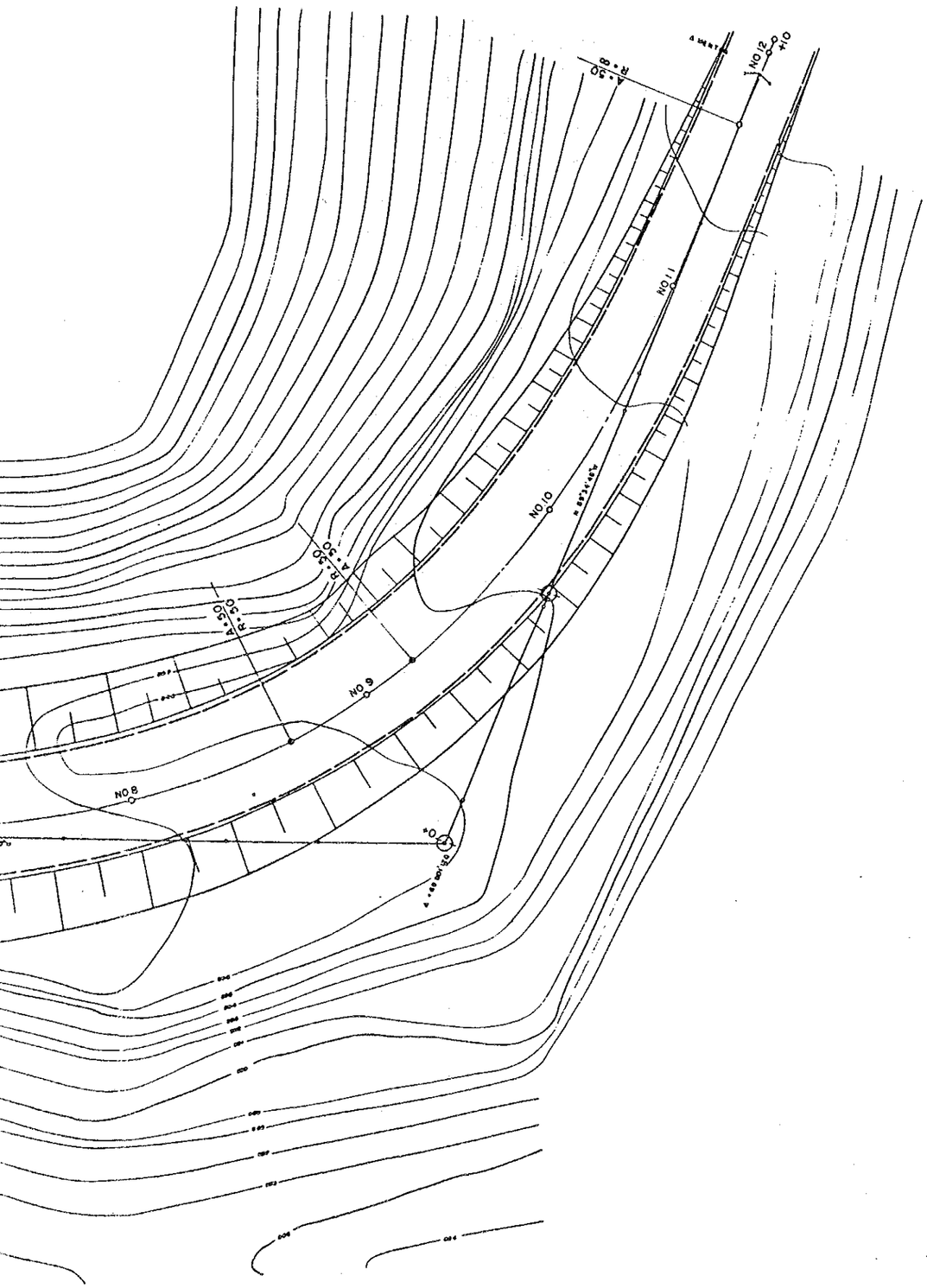
EL ZAPOTE 橋梁平面図 S=1:200

(V = 40km/h)



工事名	地方橋架建
施工箇所名	エルサ
図面の種類	平
縮尺	1:400

平 面 図 S=1:200



工 事 名	地方橋梁建設計画基本設計調査		
施工箇所名	エルサポーテ橋		
図面の種類	平 面 図		
縮 尺	1:400	図面番号	3/3

6．収集資料リスト

1）BOOKS

①無償資金協力要請書		A4	コピー	外務省
②地震記録年鑑	1977~1981, 1983,	A4	ORIG'L	国立地震・火山・気象・水文研究所
③HUEHUETENANNGO	経済社会資料 1987,	A4	コピー	経済企画庁
④ZAKAPA	〃		〃	
⑤JALAPA	〃		〃	
⑥建設および資材購入法		B5	ORIG'L	内務省
⑦道路および橋梁建設に関する解説書		B5	ORIG'L	道路局

2）MAPS

①全グァテマラ地図	S=1:500,000	1987年版	B0	ORIG'L	軍地理局
②全グァテマラ地図	S=1:1,000,000	1981年版	A1	ORIG'L	国土地理院
③全グァテマラ色別地形図	S=1:500,000	1989年版	B0	ORIG'L	軍地理局
④全グァテマラ土壌相関図	S=1:600,000	1987年版	B0	コピー	経済企画庁
⑤グァテマラ市道路地図					市販
⑥全グァテマラ模型図	S=1:1,000,000	1982年版	A1	ORIG'L	国土地理

JICA