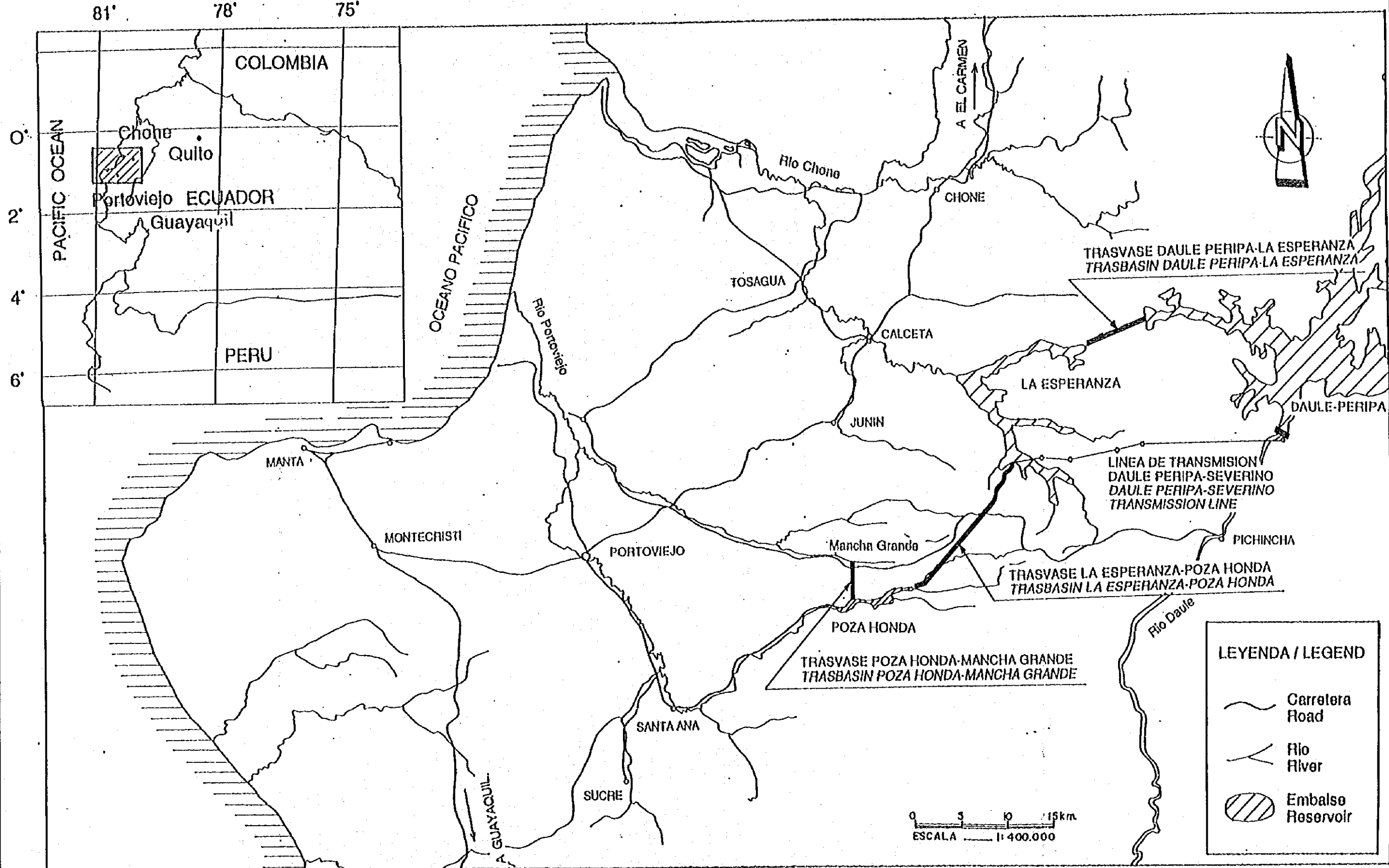


## LIST OF FIGURES

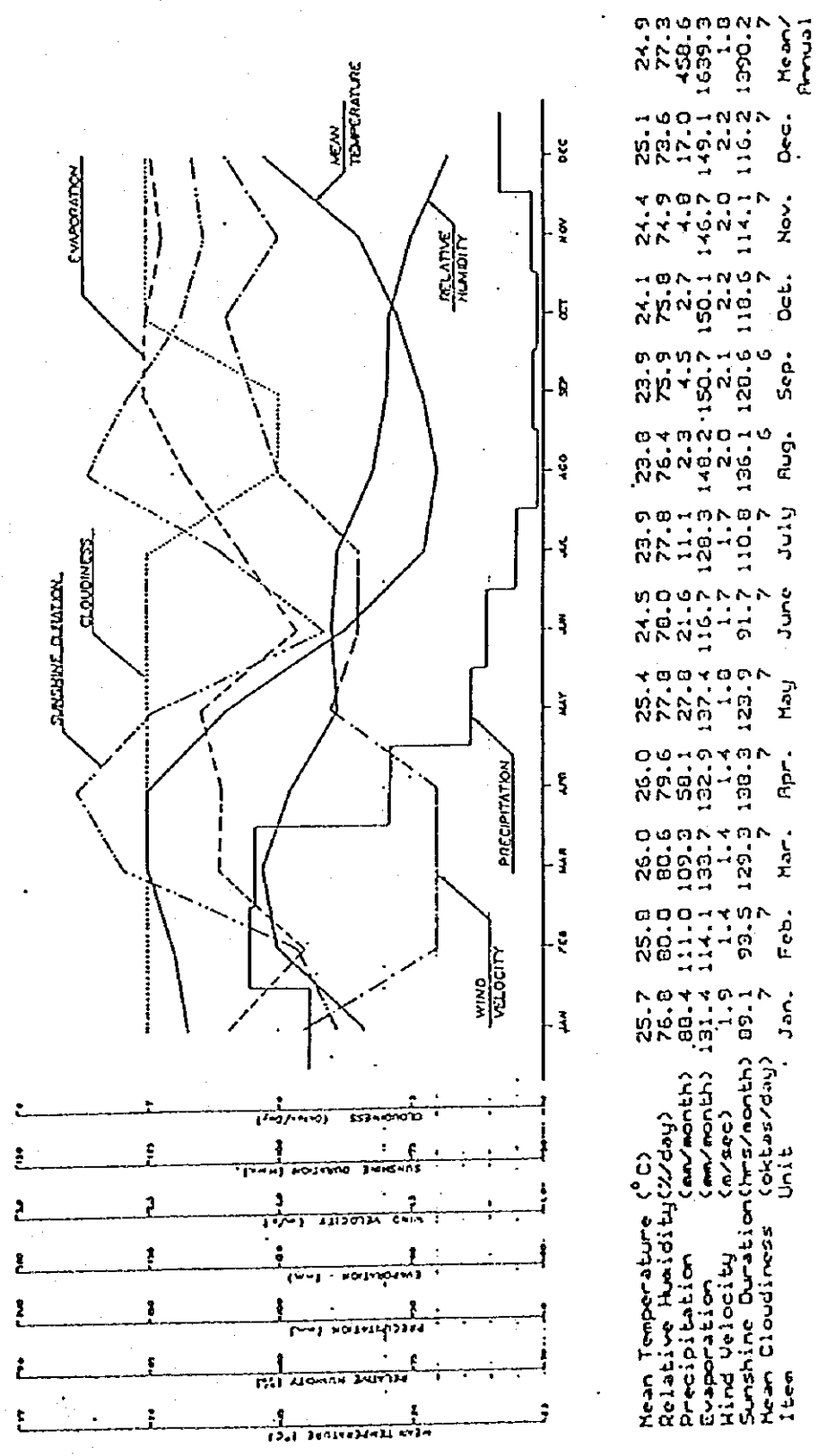
<u>TABLE</u>	<u>DESCRIPTION</u>
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3.	MEAN METEOROLOGICAL AND HYDROLOGICAL DATA AT PORTOVIEJO UTM.
4.	ISOHYETAL MAP OF PROJECT AREA
5.	POZA HONDA DAM, RESERVOIR WATER LEVEL RECORD
6.	TRANSPORT DISTANCE FOR CONCRETE AGGREGATE
7.	LOCATION MAP FOR PICOAZA QUARRY SITE
8.	SEVERINO PUMPING STATION, GENERAL LAYOUT
9.	OPEN CHANNEL, PLAN AND PROFILE(1)
10.	OPEN CHANNEL, PLAN AND PROFILE(2)
11.	OPEN CHANNEL TYPICAL CROSS SECTIONS
12.	LA ESPERANZA~POZA HONDA DIVERSION TUNNEL, PLAN AND PROFILE
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14.	POZA HONDA~MANCHA GRANDE DIVERSION TUNNEL, PLAN AND PROFILE
15.	POZA HONDA~MANCHA GRANDE DIVERSION TUNNEL, TYPICAL CROSS SECTIONS

FIGURA 1

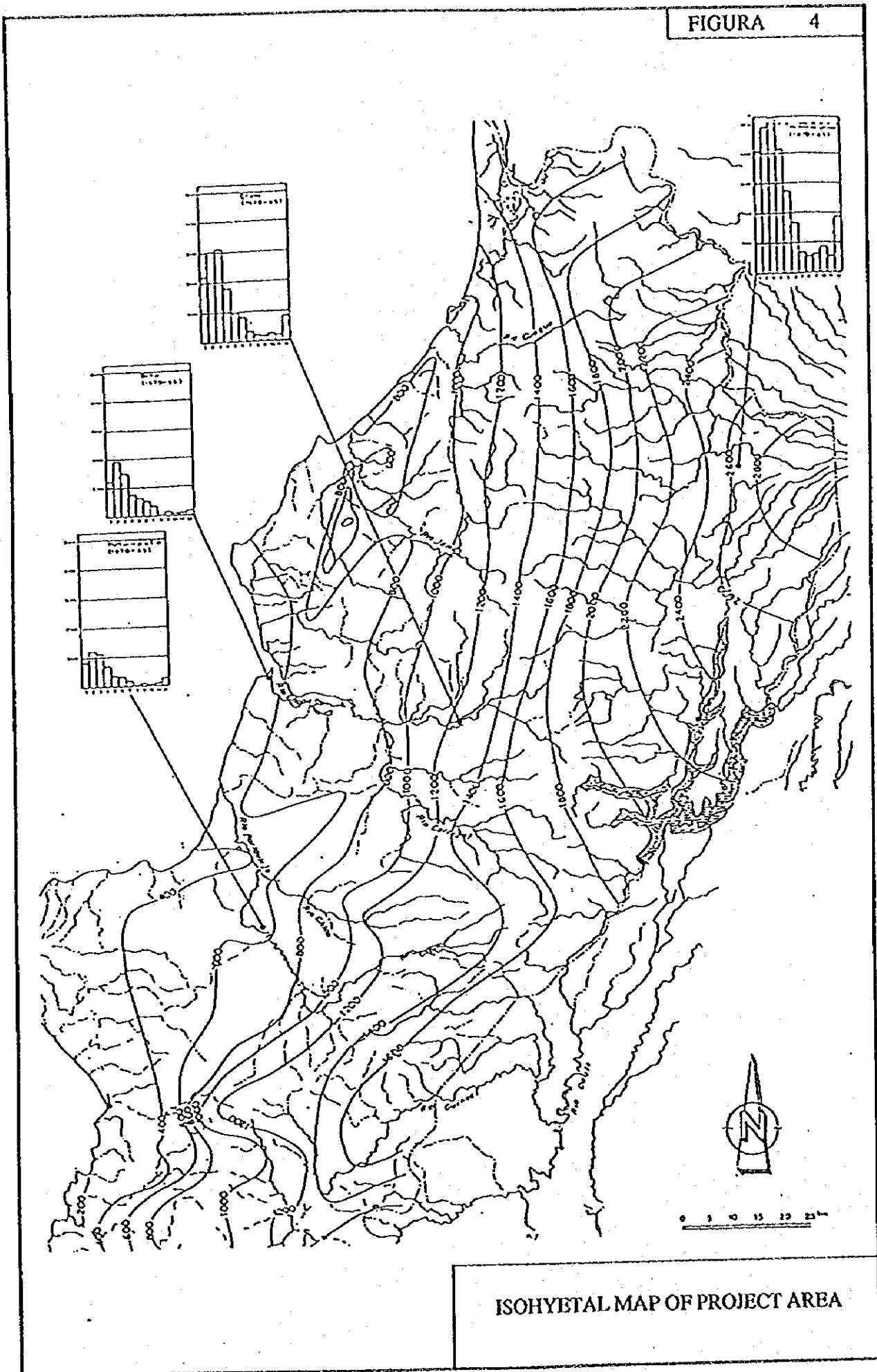


LOCATION MAP:



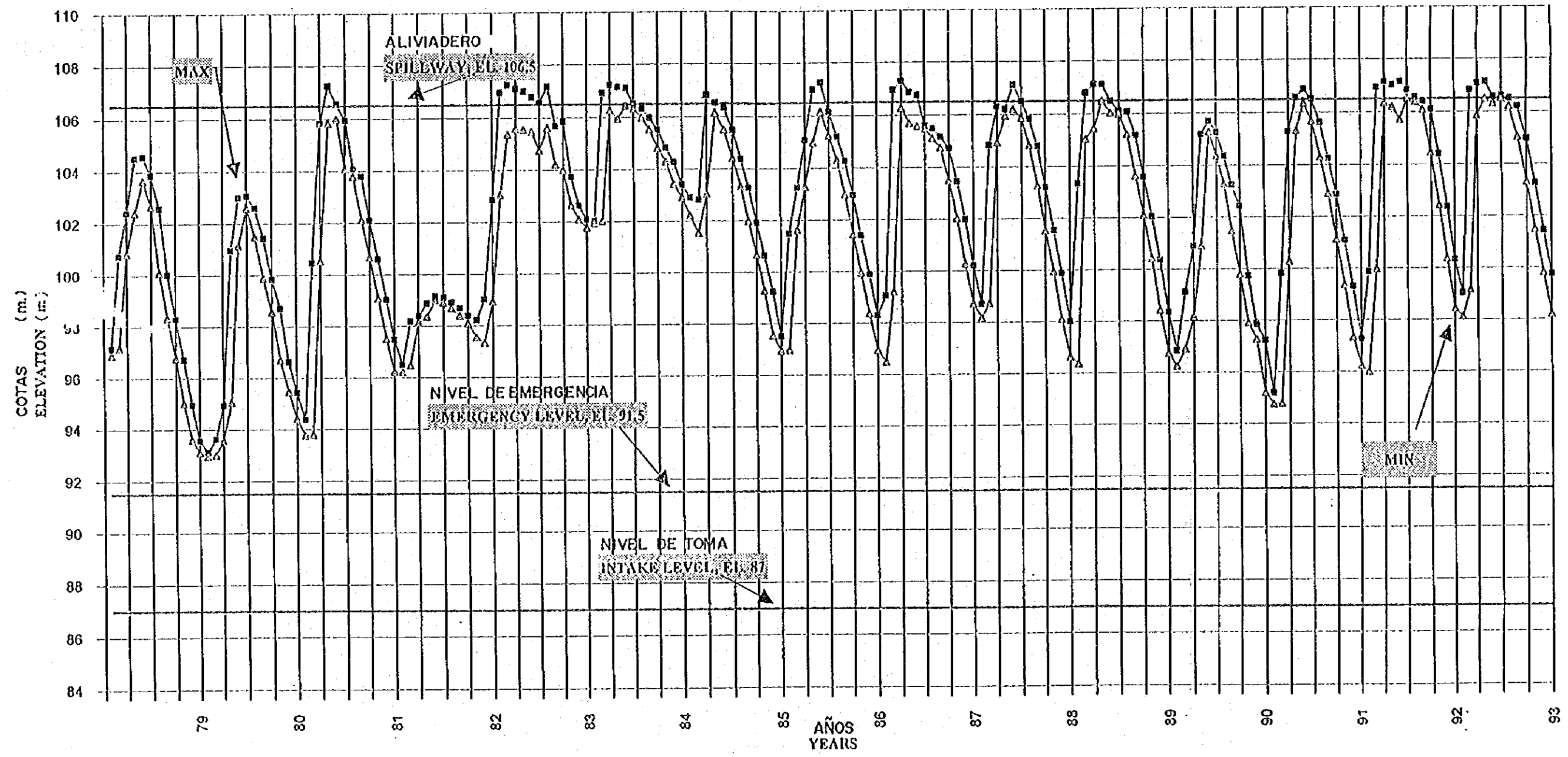


MEAN METEOROLOGICAL AND HYDROLOGICAL DATA AT PORTOVIEJO UTM.



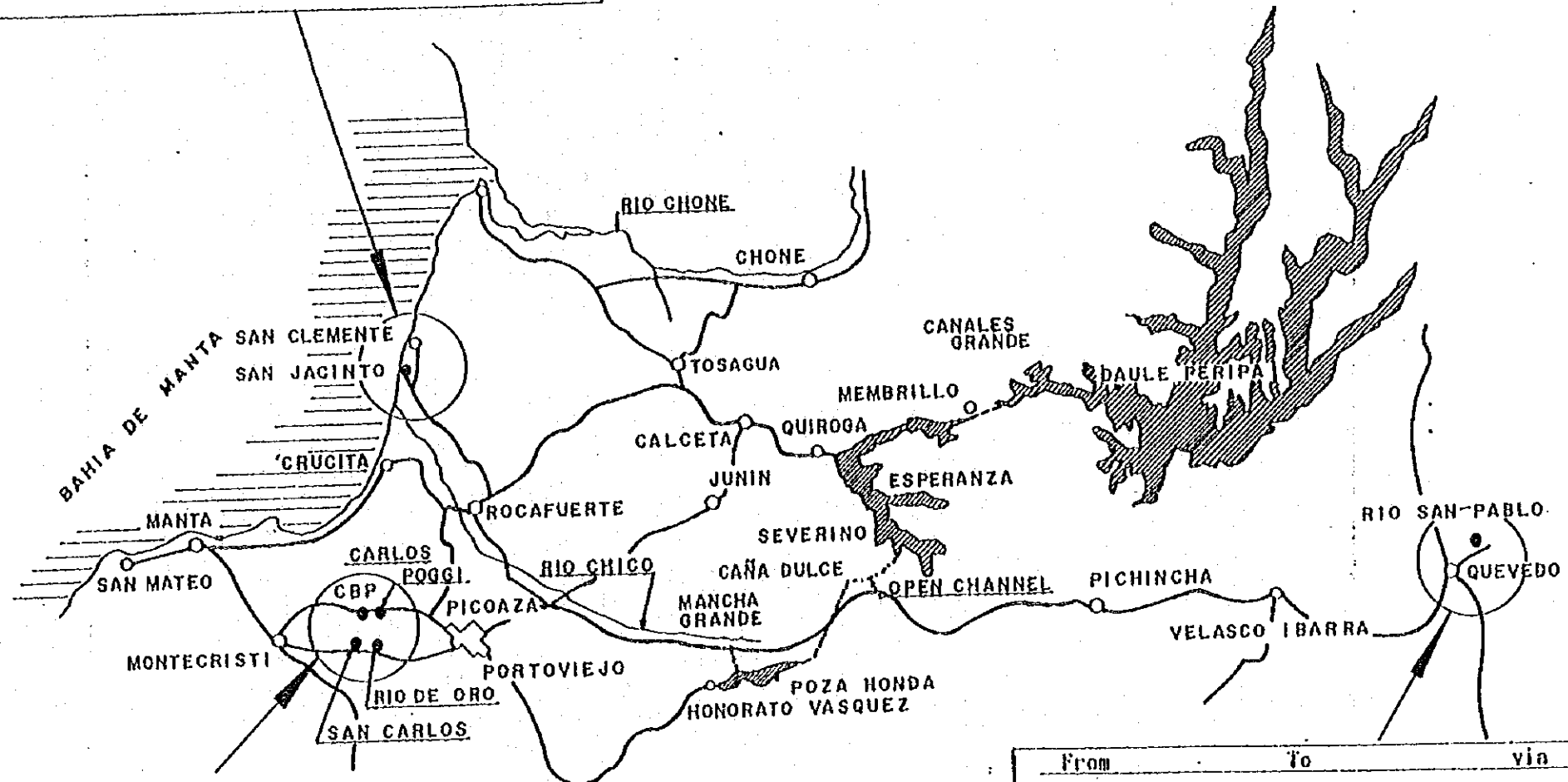
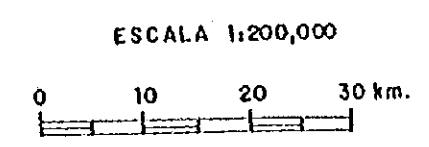
ISOHYETAL MAP OF PROJECT AREA





POZA HONDA DAM, RESERVOIR  
WATER LEVEL RECORD

From	To	via	Km
San Jacinto	Poza Honda Inlet	Portoviejo	95
	Poza Honda Outlet	Portoviejo	108
(Sea Sand)	Mancha Grande Outlet	Rocafuerte	63
	Membrillo Outlet	Calceta	118
	Canales Grande Inlet	Calceta	132
	Severino Pump station	R. fuerte/Delicias	126
	Open Channel	R. fuerte/Delicias	121

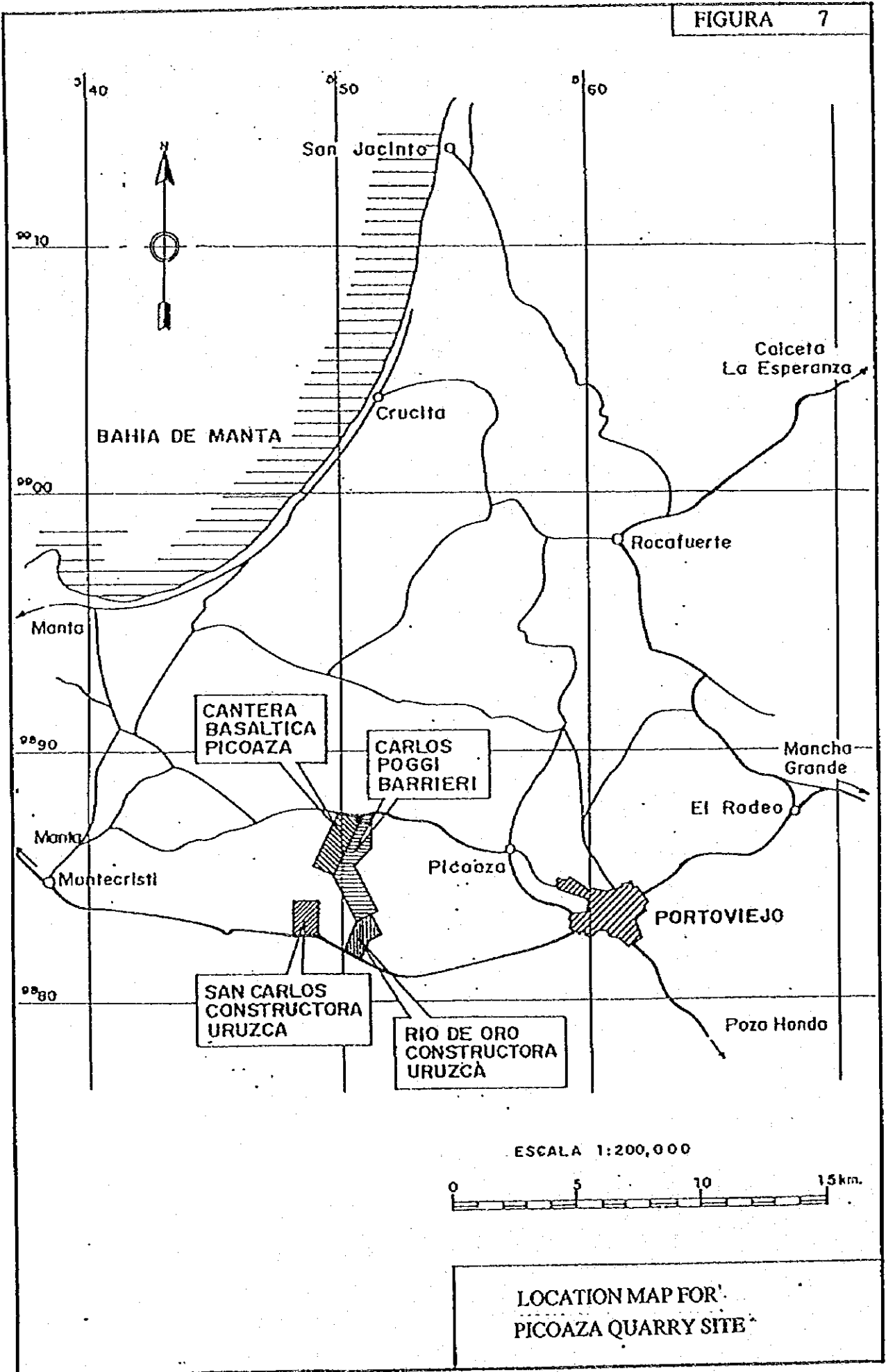


From	To	via	Km
CDP/C. Poggi	Poza Honda Inlet	Portoviejo	72
S. Carlos	Poza Honda Outlet	Portoviejo	59
	Mancha Grande Outlet	Rodeo	47
(Quarry)	Membrillo Outlet	R. fuerte/Calceta	104
	Canales Grande Inlet	R. fuerte/Calceta	107
	Severino P. Station	Rodeo/Delicias	79
	Open Channel	Rodeo/Delicias	74

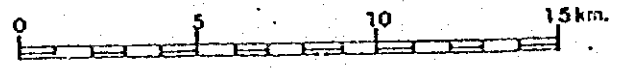
From	To	via	Km
Quevedo	Poza Honda Inlet	Portoviejo	185
R.S. Pablo	Poza Honda Outlet	Portoviejo	193
	Mancha Grande Outlet	Pichincha	110
(River Sand)	Membrillo Outlet	Rocafuerte/Calceta	223
	Canales Grande Inlet	Rocafuerte/Calceta	237
	Severino Pump station	Delicias	95
	Open Channel	Delicias	100

TRANSPORT DISTANCE FOR  
CONCRETE AGGREGATE



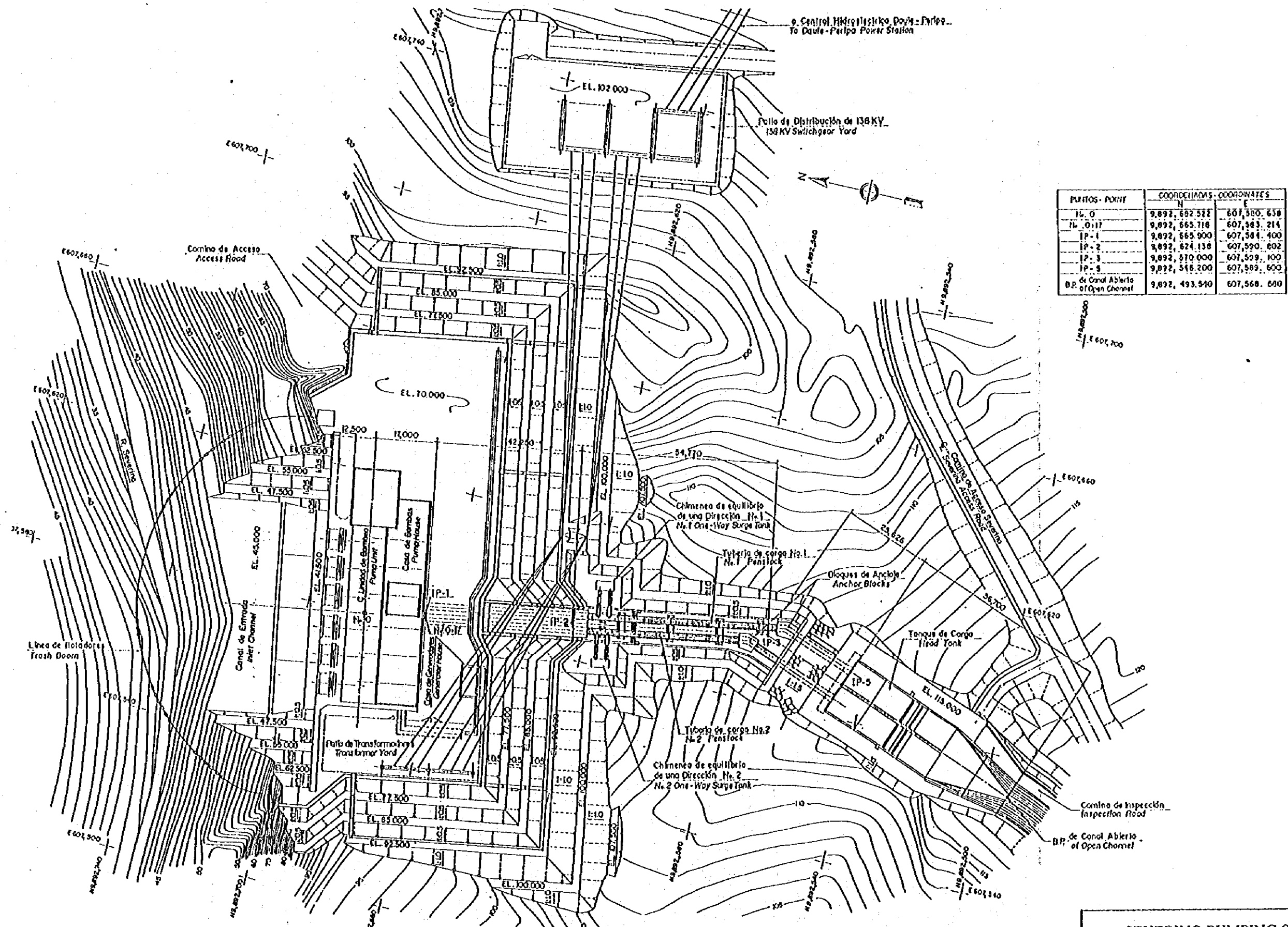


ESCALA 1:200,000



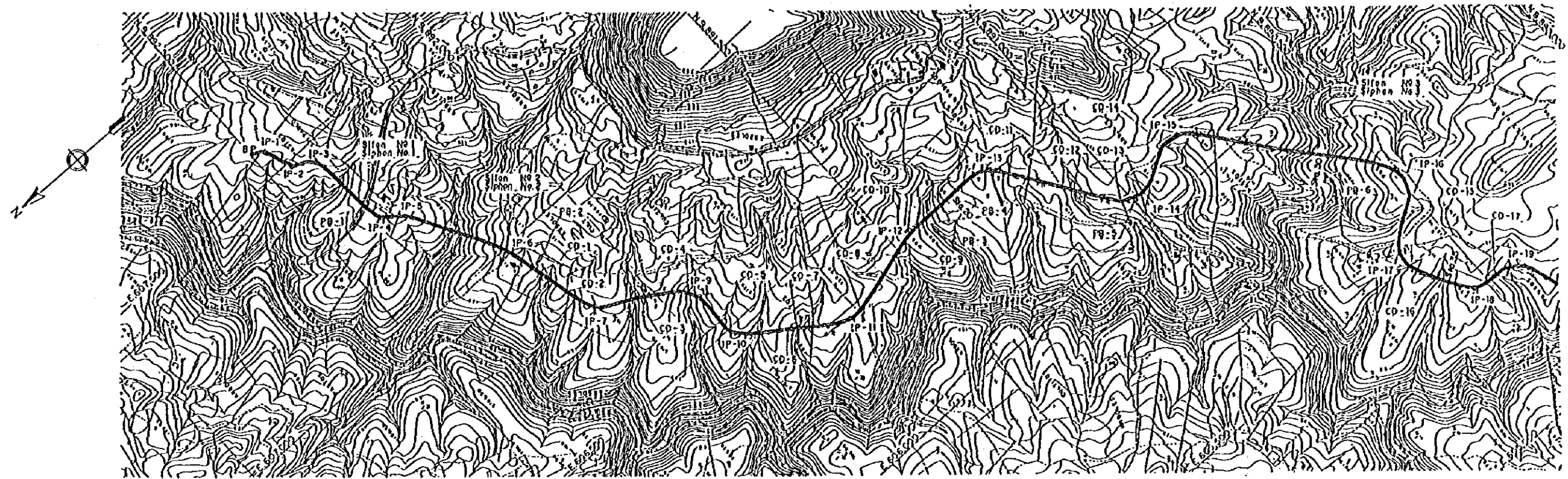
LOCATION MAP FOR  
PICOAZA QUARRY SITE



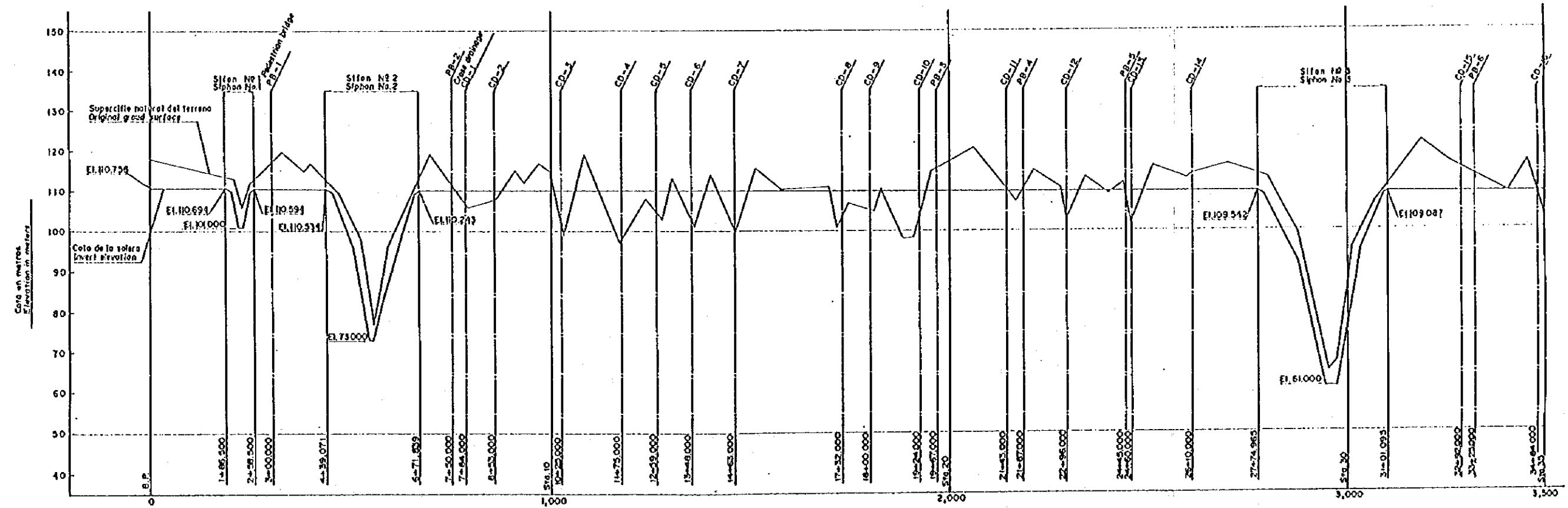


PUNTOS - POINT	COORDENADAS - COORDINATES	
	N	E
EL. 0	9,892, 682.522	607,380. 638
IN. 0-117	9,892, 665.718	607,383. 214
IP-1	9,892, 665.900	607,384. 400
IP-2	9,892, 624.138	607,390. 802
IP-3	9,892, 570.000	607,399. 100
IP-9	9,892, 548.200	607,389. 600
B.P. de Canal Abierto of Open Channel	9,892, 493.540	607,368. 810

SEVERINO PUMPING STATION,  
GENERAL LAYOUT

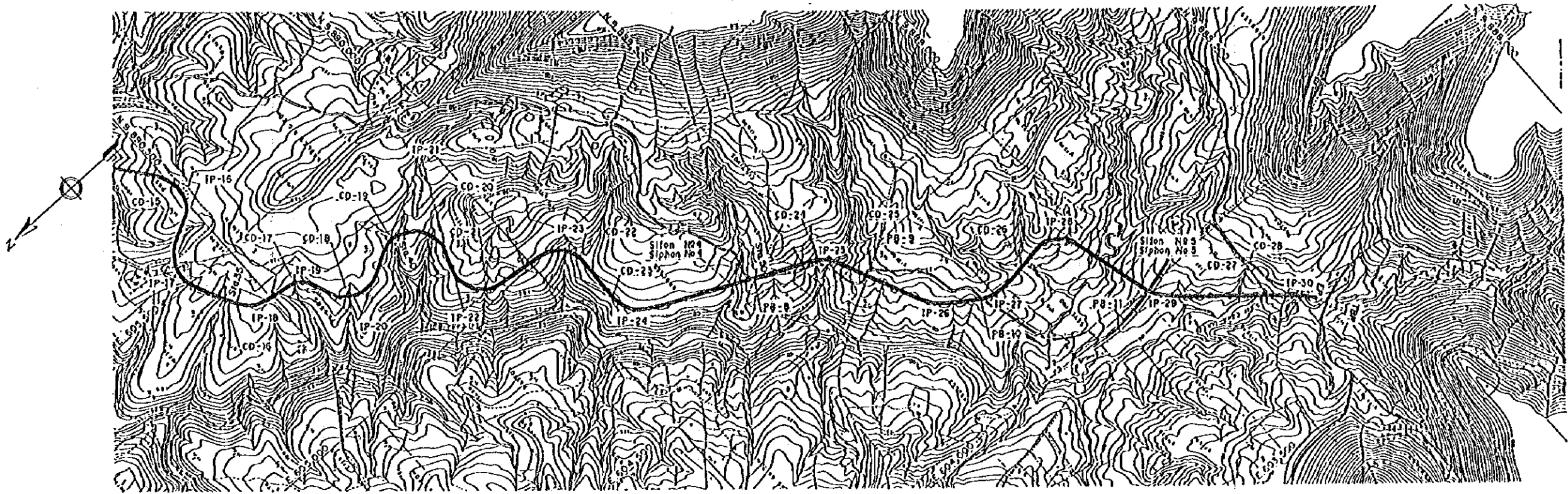


PLANTA ESCALA A  
PLAN SCALE A

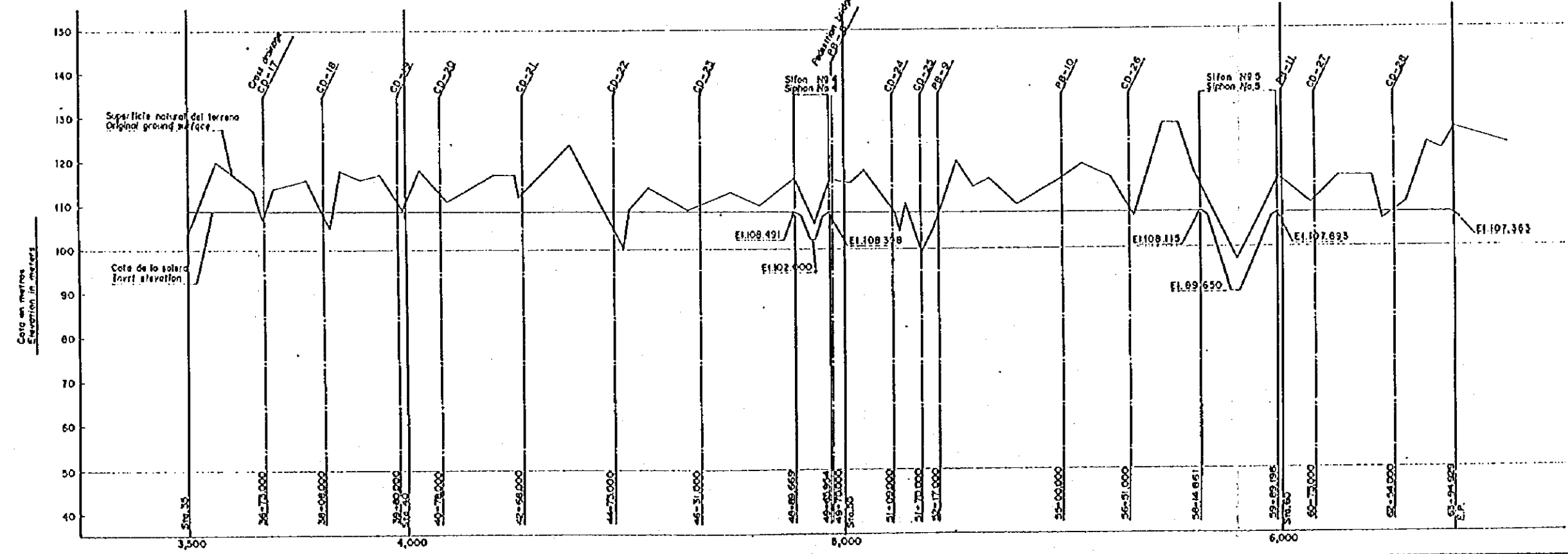


PERFIL ESCALA Hor. A Ver. B  
SCALE

OPEN CHANNEL,  
PLAN AND PROFILE(1)

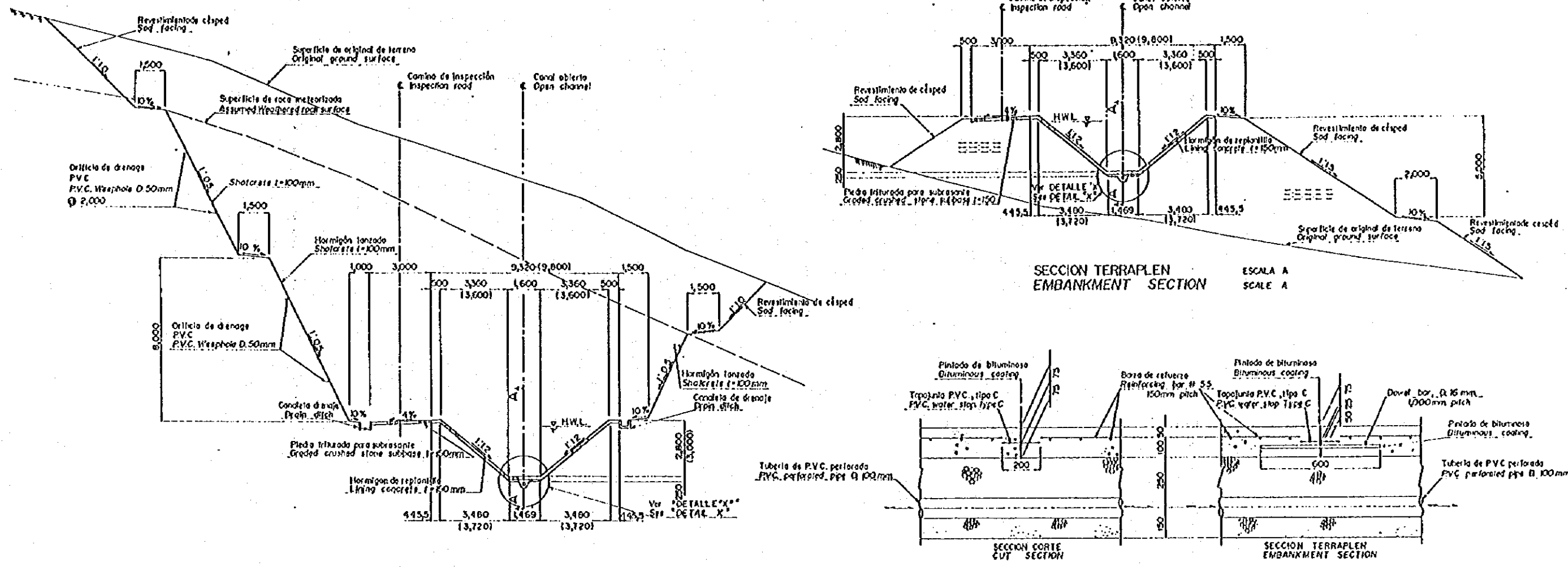


PLANTA ESCALA A  
PLAN SCALE A



PERFIL ESCALA Hor. A Var. B  
PROFILE SCALE

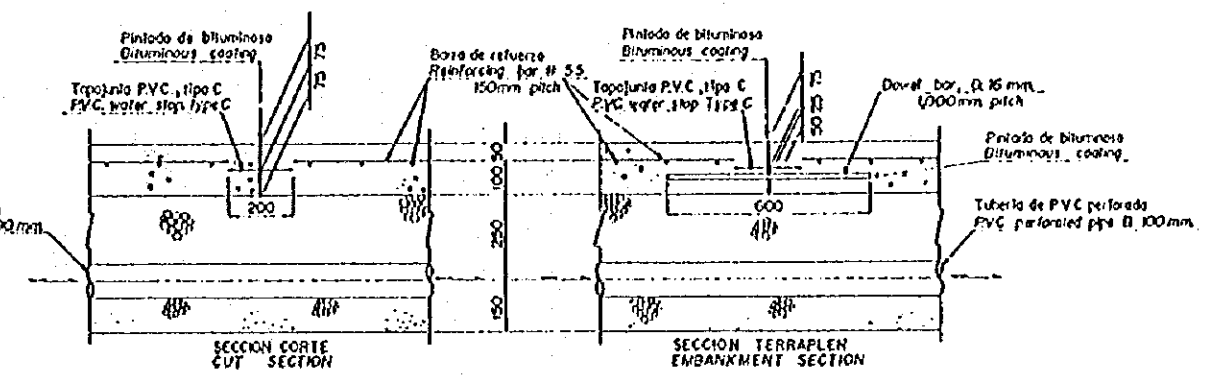
OPEN CHANNEL,  
PLAN AND PROFILE(2)



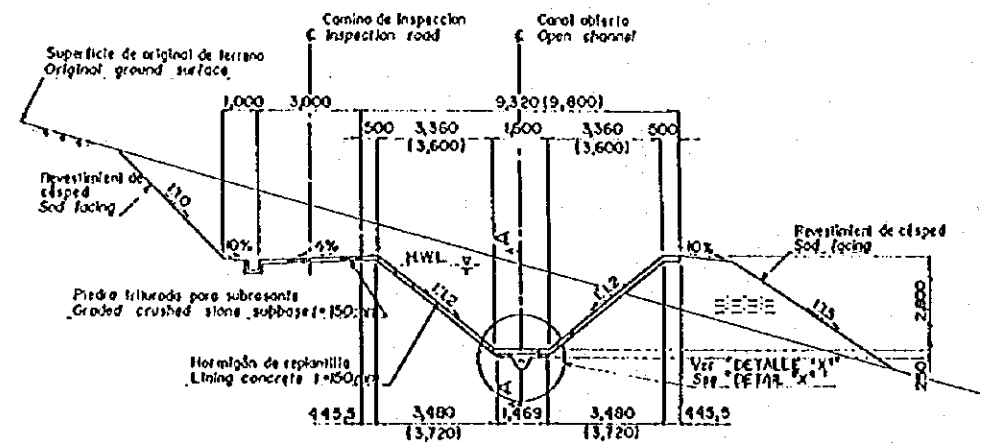
SECCION CORTE EMBANKMENT SECTION ESCALA A

SECCION TERRAPLEN EMBANKMENT SECTION ESCALA A

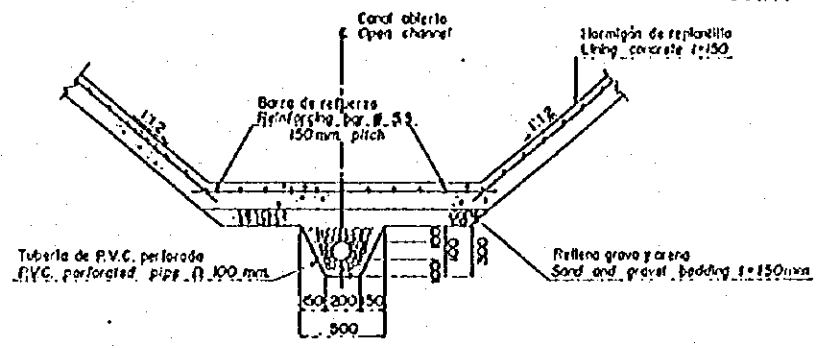
SECCION CORTE CUT SECTION ESCALA A



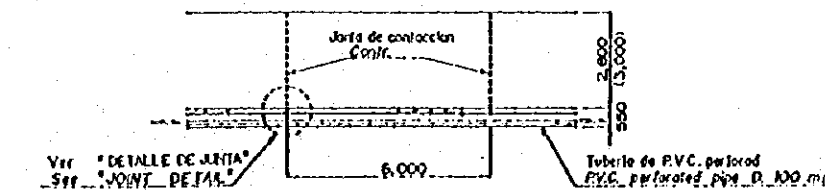
DETALLE DE JUNTA EMBANKMENT SECTION ESCALA C



SECCION CORTE Y TERRAPLEN CUT AND EMBANKMENT SECTION ESCALA A



DETALLE "X" EMBANKMENT SECTION ESCALA B



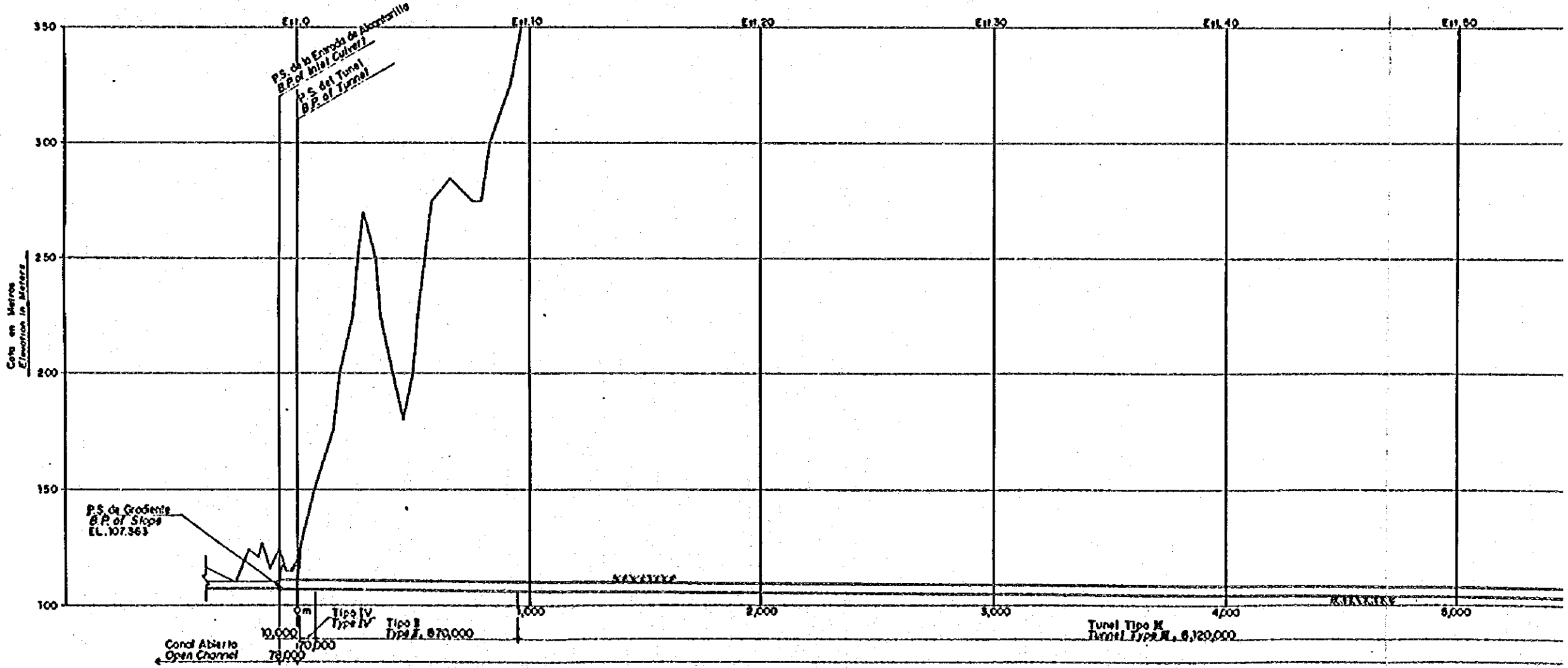
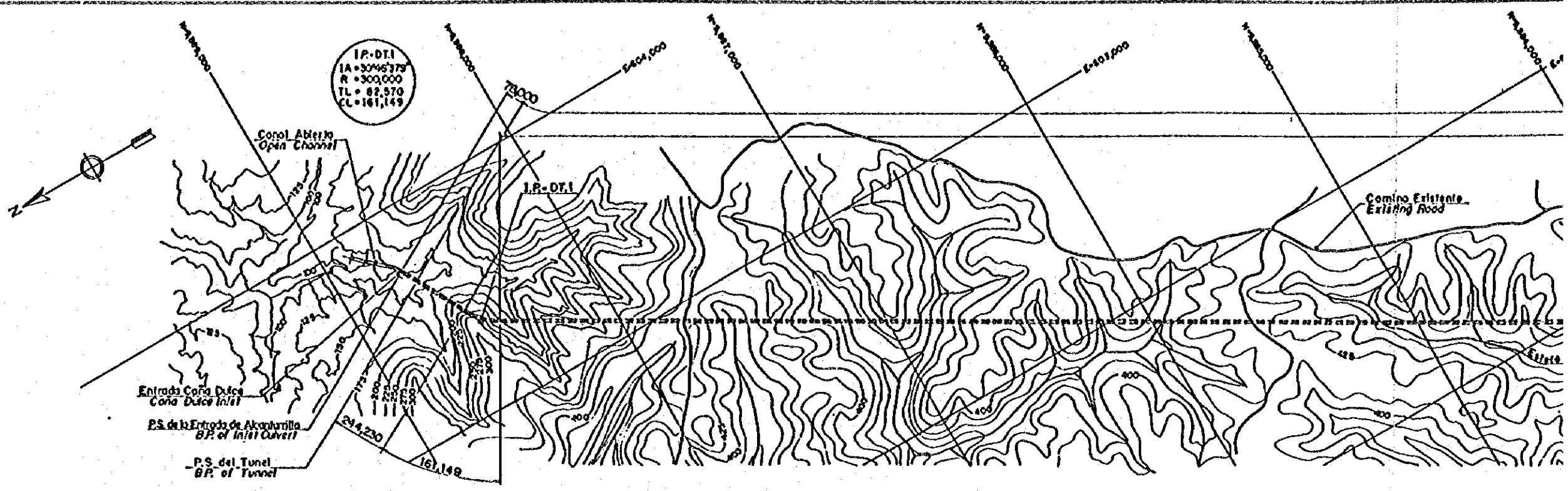
SECTION A-A EMBANKMENT SECTION ESCALA A

Notes - Longitudinal construction joint shall be provided as directed by the Supervision  
 - Number in ( ) shows dimension of open channel between B.P. and Sta. 1+06.500

Concrete requirements

1) Class of concrete mixes	Class F
Lining concrete	Class F
2) Concrete finishes	
Exposed surface	F3 or U3
Formed surface	F1 or U1

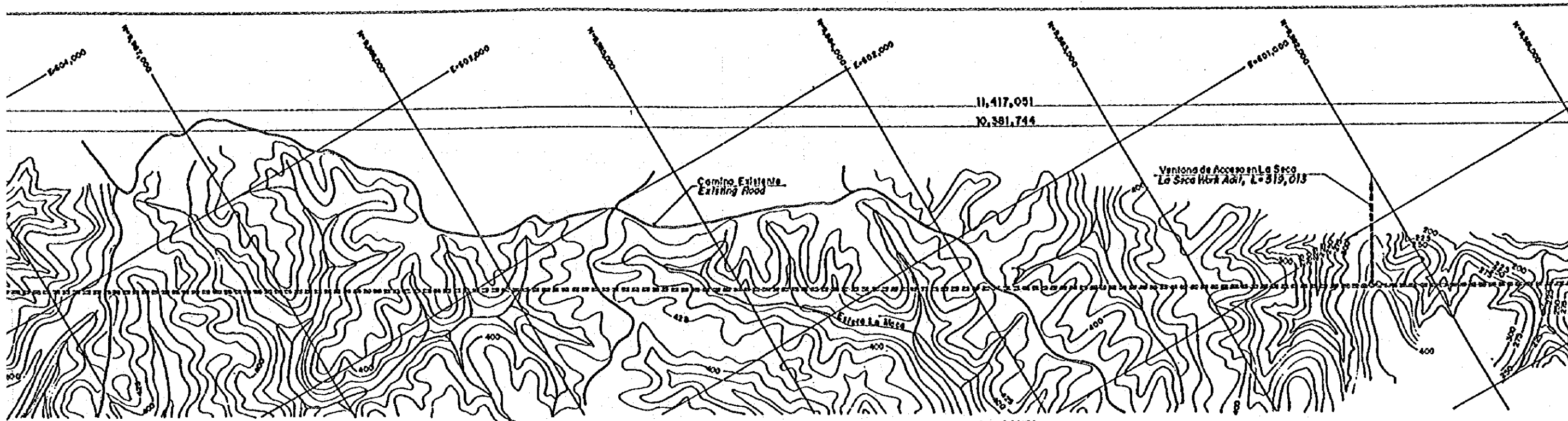
OPEN CHANNEL  
 TYPICAL CROSS SECTIONS



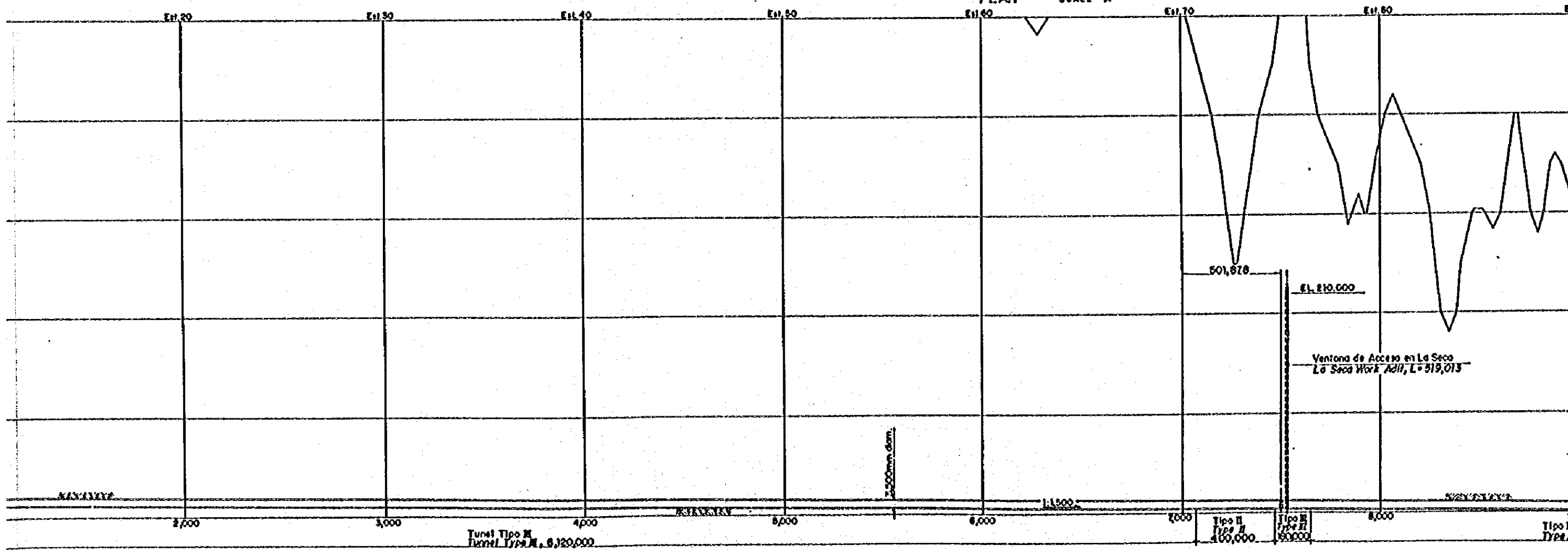
Nota:  
 Aplicaciones de los tipos de túnel se cambiarán de acuerdo a las condiciones geológicas actuales que se encuentren y estarán sujetos a la dirección de la Fiscalización

Note:  
 Application of tunnel type will be changed according to actual geological conditions to be encountered and shall be subject to the direction of the Supervisor.





PLANTA ESCALA A  
PLAN SCALE A



PERFIL ESCALA HOR. A, VER. B  
PROFILE SCALE

de los tipos de túnel se cambiarán de acuerdo a las condiciones  
actuales que se encuentren y estarán sujetos a las directrices de la  
in

Note:  
Application of tunnel type will be changed  
according to actual geological conditions to  
be encountered and shall be subject to  
the direction of the Supervisor.

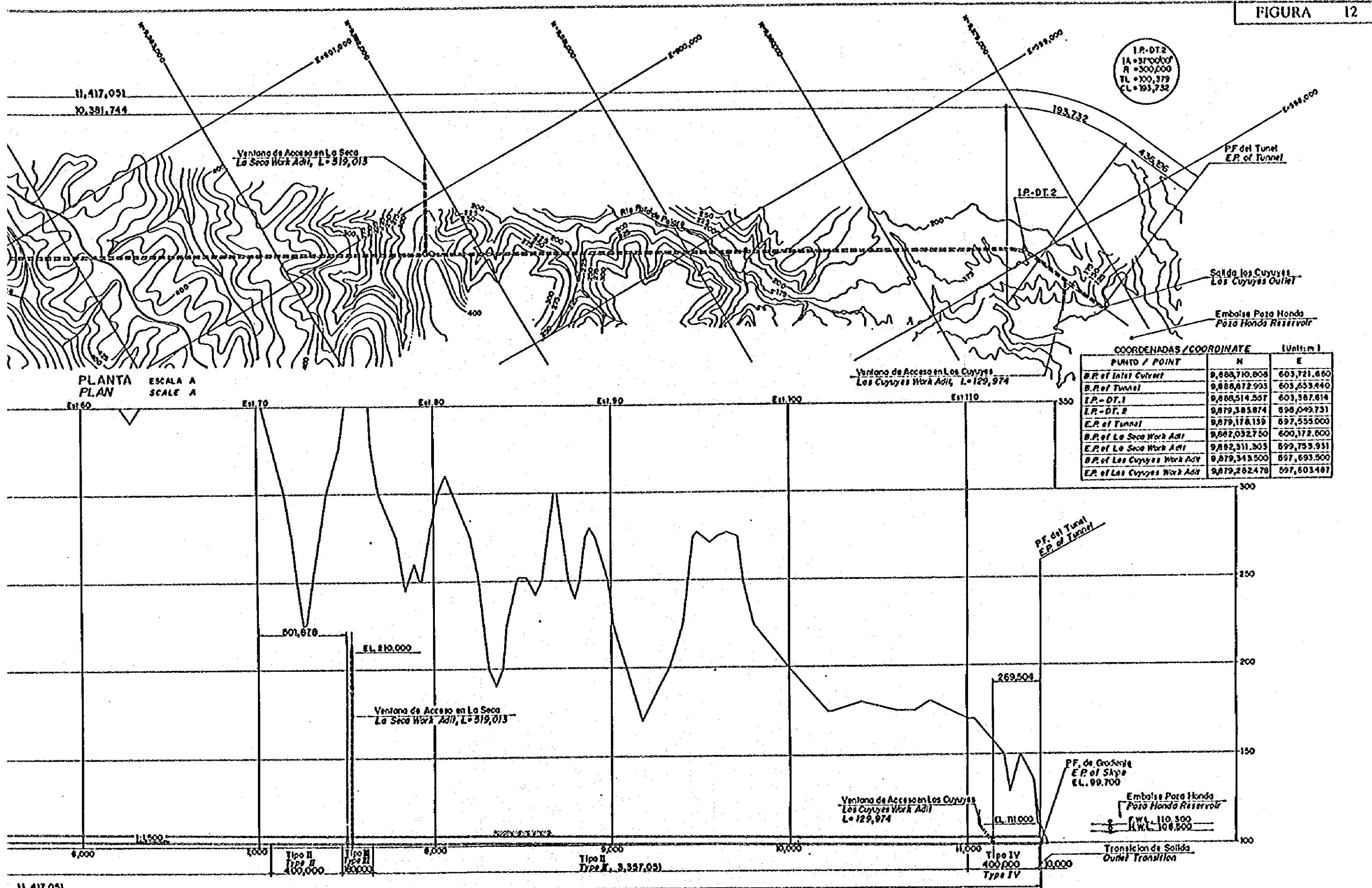
Túnel Tipo M  
Tunnel Type M, 6,120,000

Tipo II  
Tipo II  
400,000

Tipo II  
Tipo II  
800,000

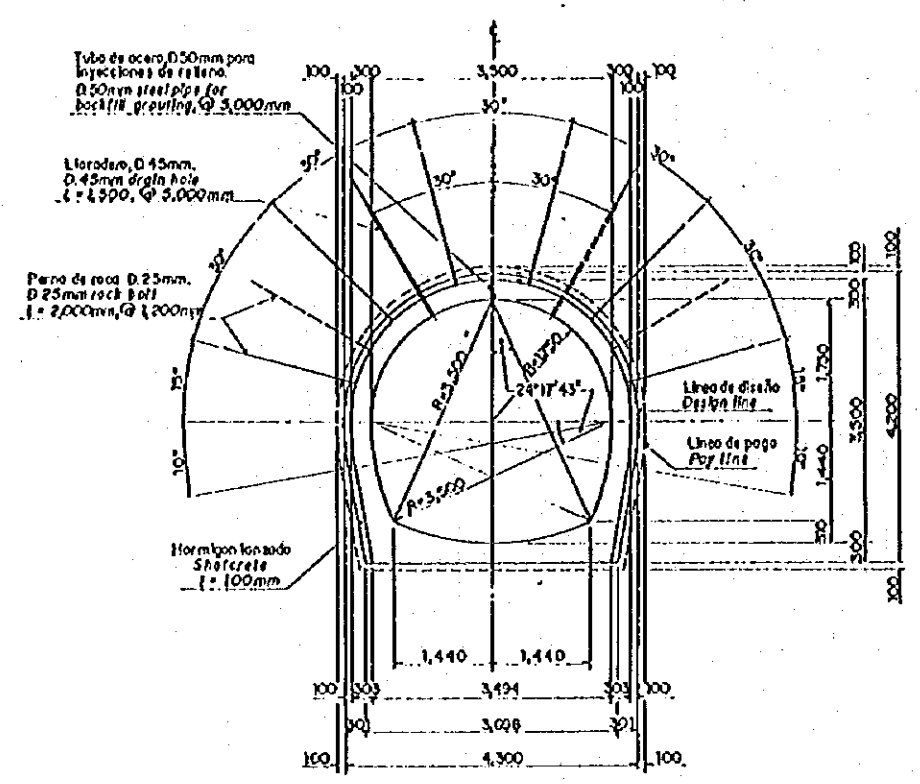
11,417,091



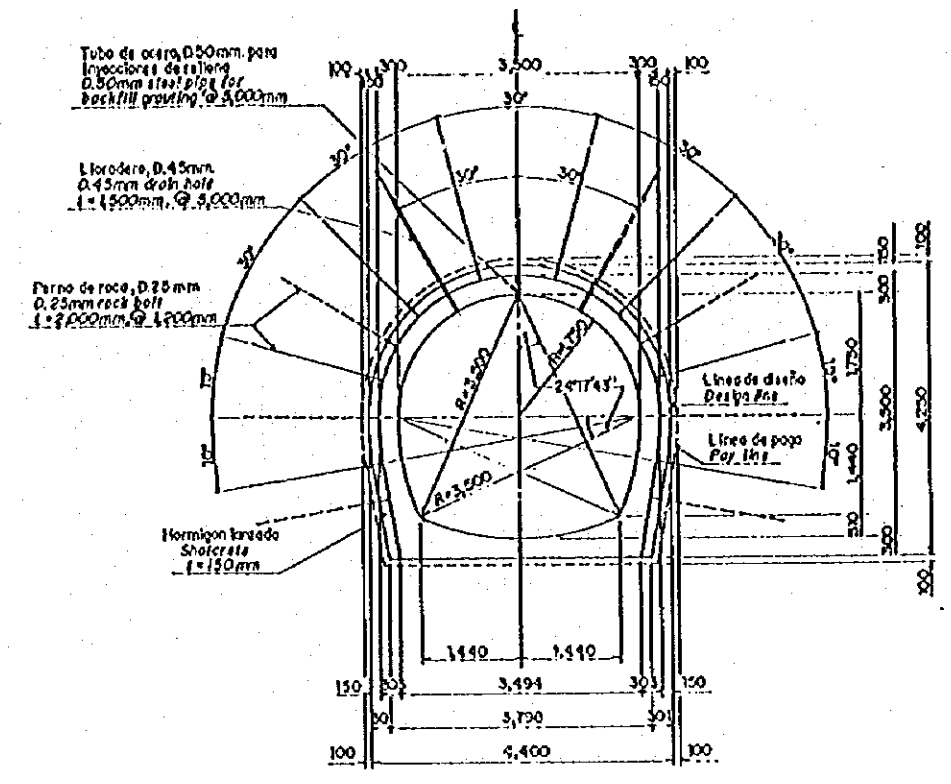


FILE ESCALA HOR. A, VER. B  
 FILE SCALE

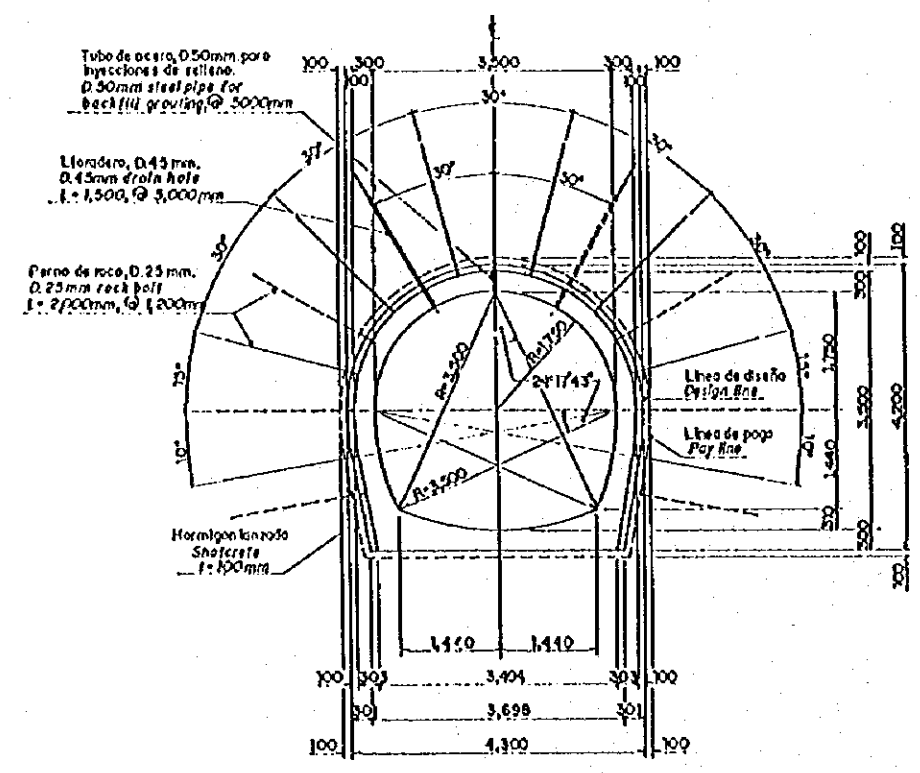
LA ESPERANZA-POZA HONDA  
 DIVERSION TUNNEL, PLAN  
 AND PROFILE



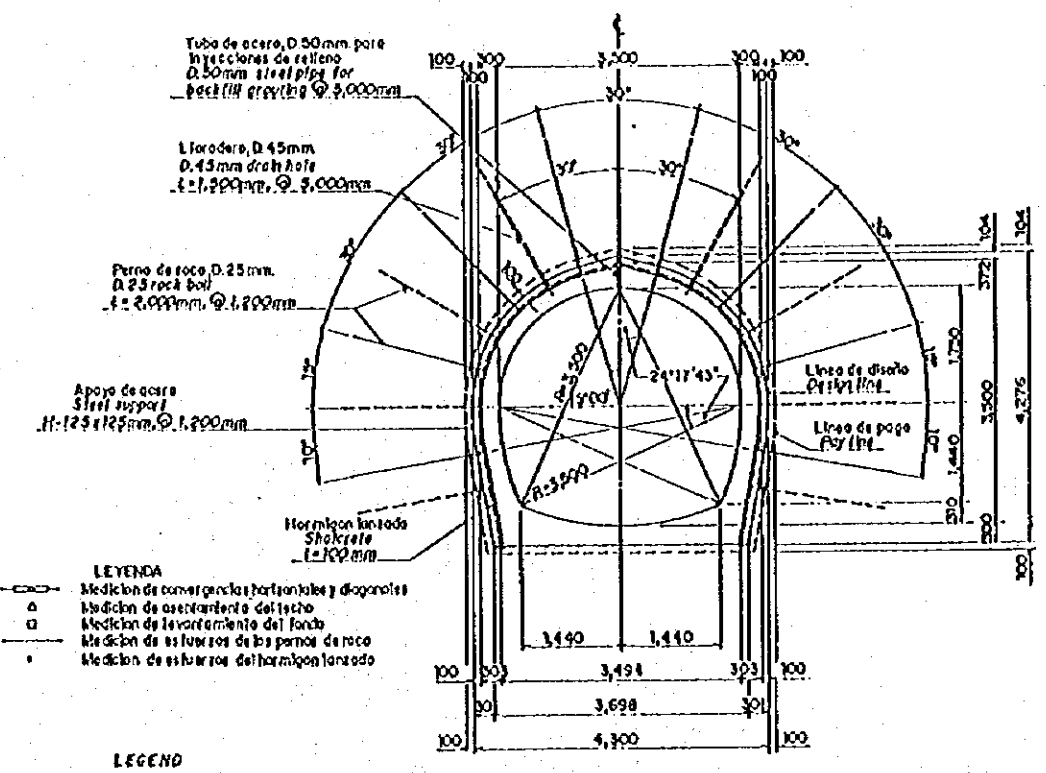
TIPO I  
TYPE I



TIPO III  
TYPE III



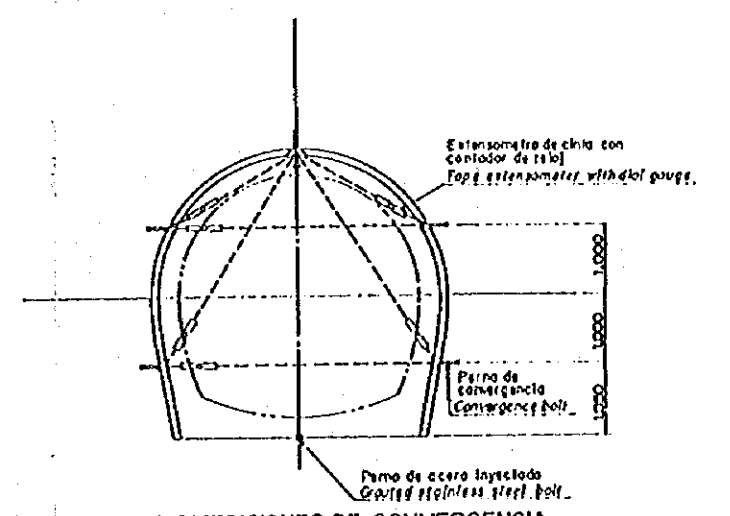
TIPO II  
TYPE II



TIPO IV  
TYPE IV

**LEYENDA**  
 - - - - - Medición de convergencia horizontal y diagonal  
 Δ Medición de asentamiento del techo  
 □ Medición de levantamiento del fondo  
 • Medición de esfuerzos de los pernos de roca  
 • Medición de esfuerzos del hormigón lanzado

**LEGEND**  
 - - - - - Measurement of horizontal and diagonal convergence  
 Δ Measurement of roof settlement  
 □ Measurement of invert upheaval  
 • Stress measurement of rock bolts  
 • Stress measurement of shotcrete



DISTRIBUCION DE MEDICIONES DE CONVERGENCIA  
ARRANGEMENT OF CONVERGENCE MEASUREMENT

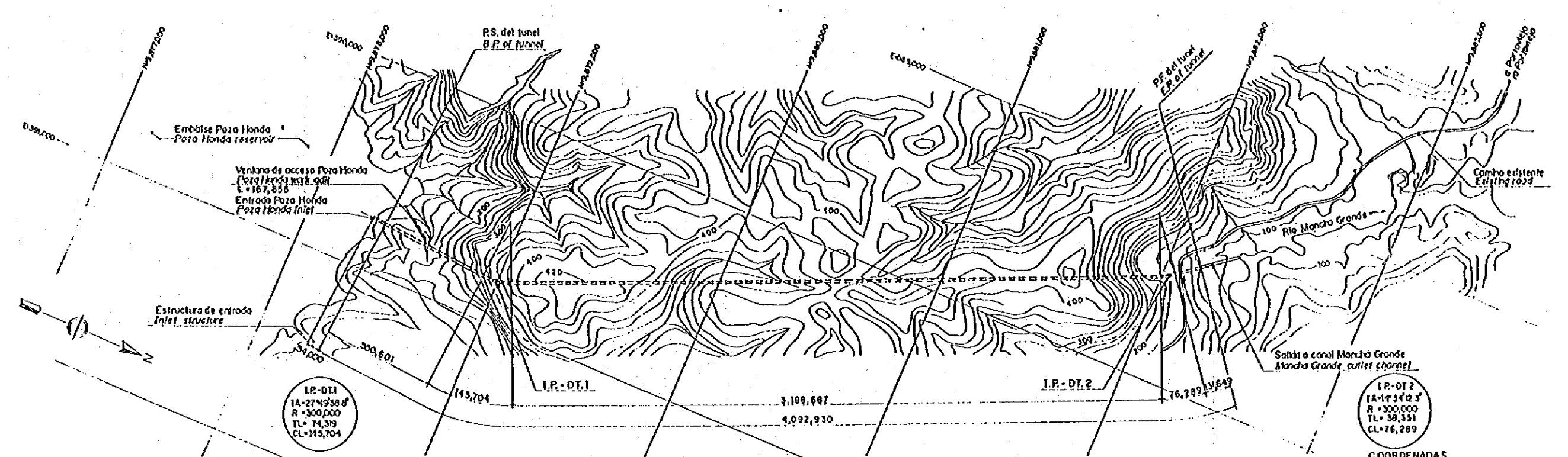
**Notas**  
 1) La aplicación del tipo de túnel será dirigida e aprobada por la Inspección de acuerdo a las condiciones geológicas actuales del sitio.  
 2) La junta de construcción longitudinal entre el arco de revestimiento y la solera será provisto como se ordena e aprueba la Inspección.  
 3) La ubicación de las mediciones de convergencia serán provistas como lo ordena e aprueba la Inspección.

**Notes**  
 1) The application of tunnel type will be directed or approved by the Supervision according to the actual geological conditions.  
 2) Longitudinal construction joint between lining arch and invert shall be provided as directed by the Supervision.  
 3) Location of the convergence measurement will be directed or approved by the Supervision.

**Requerimientos del hormigón**  
 1) Clase de mezcla de hormigón  
 Revestimiento de hormigón del túnel ..... Clase D  
 2) Acabados del hormigón  
 Superficie interna expuesta ..... Clase F4 o U3  
 Otras superficies expuestas ..... Clase F2 o U2  
 Todas las otras superficies ..... Clase F1 o U1

**Concrete requirements**  
 1) Class of concrete mix  
 Tunnel lining concrete ..... Class D  
 2) Concrete finishes  
 Exposed inner surface ..... F4 or U3  
 Other exposed surface ..... F2 or U2  
 All other surface ..... F1 or U1

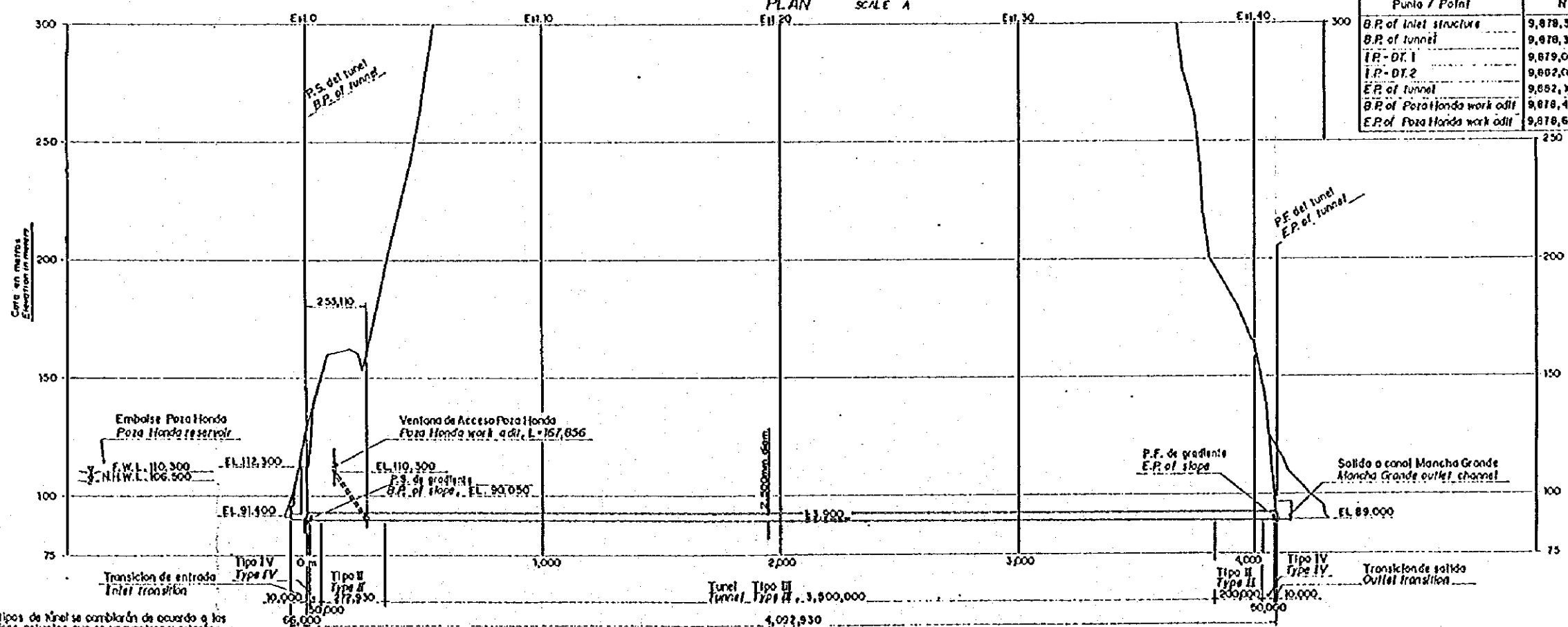
LA ESPERANZA ~ POZA HONDA  
 DIVERSION TUNNEL, TYPICAL  
 CROSS SECTIONS



PLANTA ESCALA A SCALE A

COORDENADAS COORDINATES (Units m)

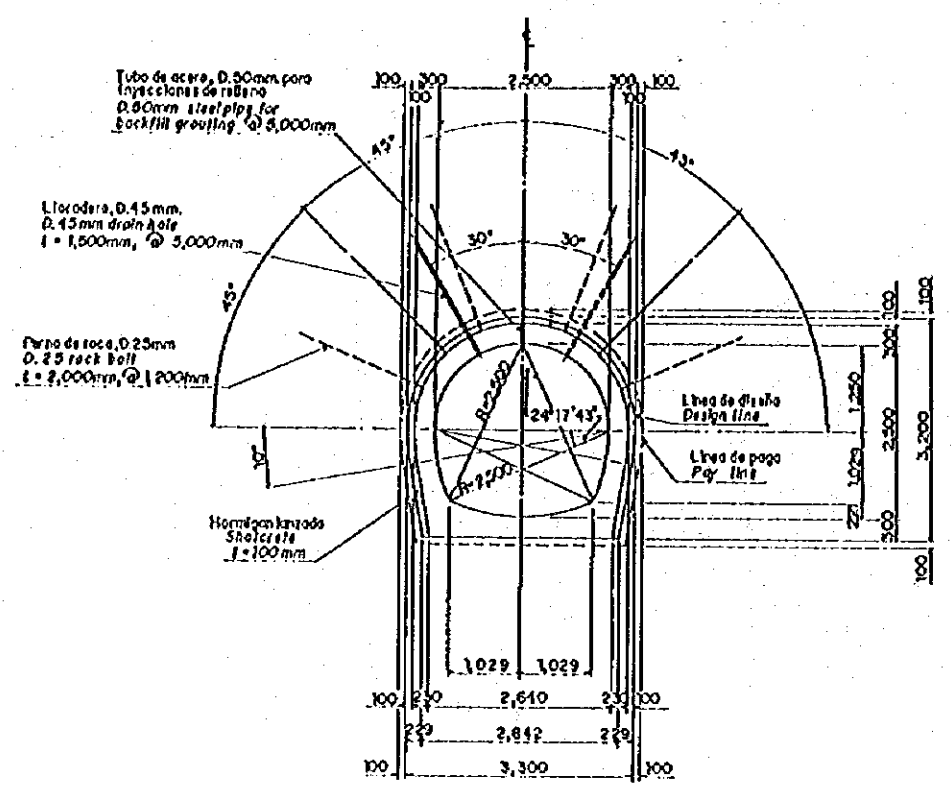
Punto / Point	N	E
B.P. of inlet structure	9,878,343.021	590,749.463
B.P. of tunnel	9,878,376.921	590,752.070
I.P.-DT.1	9,879,000.000	590,800.000
I.P.-DT.2	9,882,629.179	589,487.356
E.P. of tunnel	9,882,103.143	589,302.690
B.P. of Poza Honda work adit.	9,878,492.000	590,678.500
E.P. of Poza Honda work adit.	9,878,631.200	590,771.637



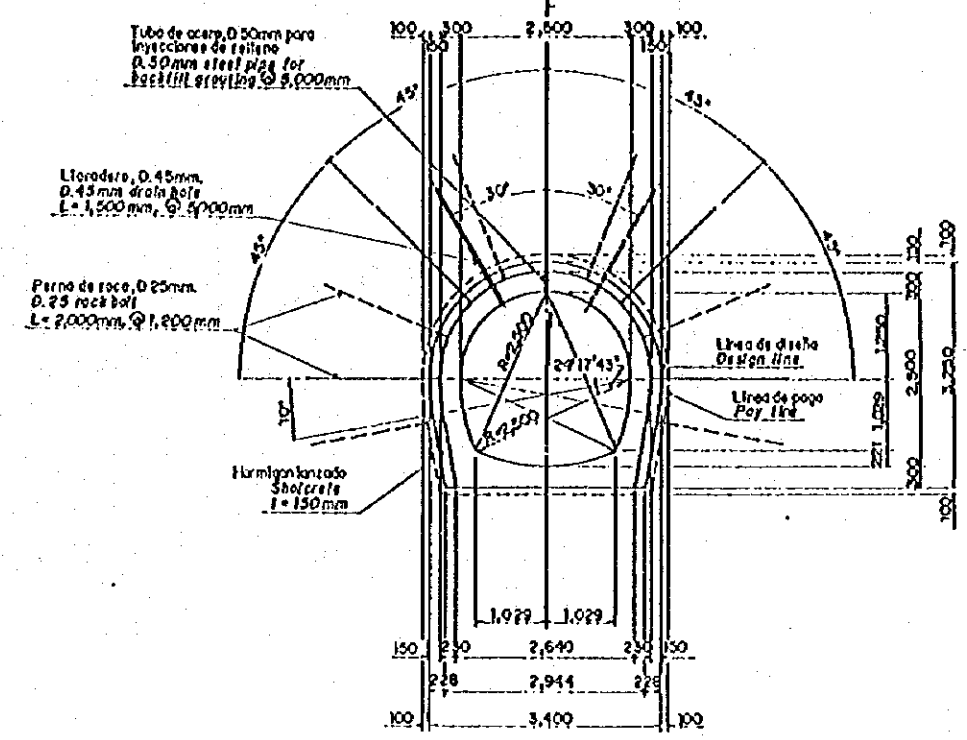
PERFIL ESCALA 1:1000 A VER. B PROFILE SCALE

POZA HONDA-MANCHA GRANDE DIVERSION TUNNEL, PLAN DE AND PROFILE IL GENERAL

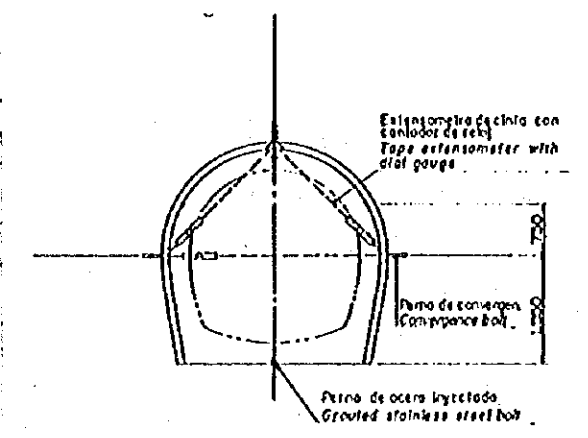
Note: Aplicaciones de los tipos de tunel se cambiarán de acuerdo a las condiciones geológicas actuales que se encuentren y estarán sujetos a las directrices de la fiscalización.  
 Note: Application of tunnel type will be changed according to actual geologic condition to be encountered and shall be subject to the direction of the Supervision.



TIPO I  
TYPE I



TIPO III  
TYPE III



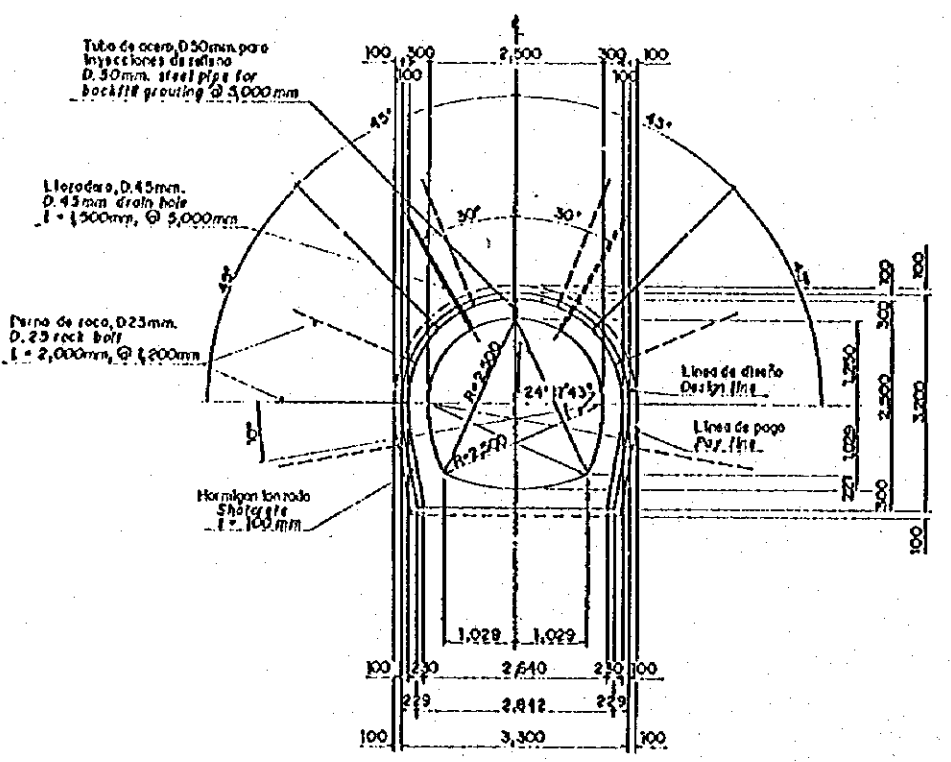
DISTRIBUCION DE MEDICIONES DE CONVERGENCIA  
ARRANGEMENT OF CONVERGENCE MEASUREMENT

- Notas:
- 1) La aplicación del tipo de tunel será dirigida o aprobada por la Fiscalización de acuerdo a las condiciones geológicas actuales del sitio.
  - 2) La junta de construcción longitudinal entre el arco de revestimiento y la sotera será provista como lo ordena o aprueba la Fiscalización.
  - 3) La ubicación de las mediciones de convergencia serán provistas como lo ordena o aprueba la Fiscalización.

- Notes:
- 1) The application of tunnel type will be directed or approved by the Supervision according to the actual geological conditions.
  - 2) Longitudinal construction joint between lining arch and invert shall be provided as directed by the Supervision.
  - 3) Location of the convergence measurement will be directed or approved by the Supervision.

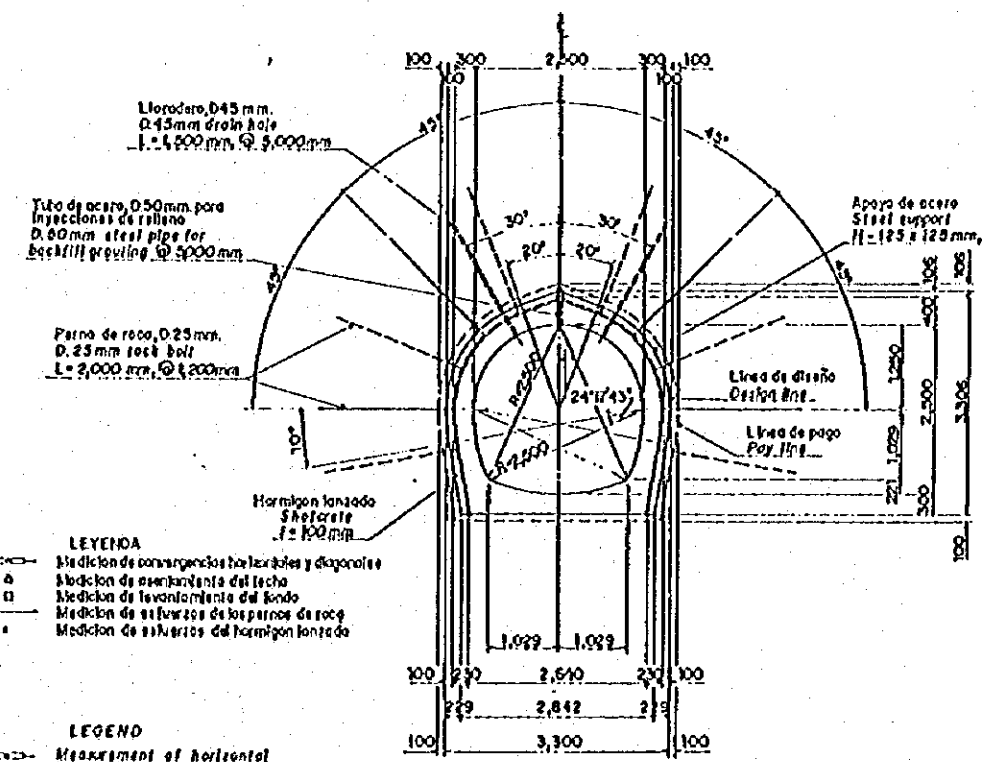
- Requerimientos del hormigón:
- 1) Clase de mezcla de hormigón Revestimiento de hormigón del tunel ..... Clase D
  - 2) Acabados del hormigón Superficie interna expuesta ..... Clase F4 o U3  
Otras superficies expuestas ..... Clase F2 o U2  
Todos los otros superficies ..... Clase F1 o U1

- Concrete requirements:
- 1) Class of concrete mix Tunnel lining concrete ..... Class D
  - 2) Concrete finishes Exposed inner surface ..... F4 or U3  
Other exposed surface ..... F2 or U2  
All other surfaces ..... F1 or U1



TIPO II  
TYPE II

- LEYENDA
- Medición de convergencias horizontales y diagonales
  - △ Medición de asentamiento del techo
  - Medición de levantamiento del fondo
  - Medición de esfuerzos de los pernos de roca
  - Medición de esfuerzos del hormigón lanzado
- LEGEND
- Measurement of horizontal and diagonal convergence
  - △ Measurement of roof settlement
  - Measurement of invert upheaval
  - Stress measurement of rock bolts
  - Stress measurement of shotcrete



TIPO IV  
TYPE IV

POZA HONDA-MANCHA GRANDE  
DIVERSION TUNNEL,  
TYPICAL CROSS SECTIONS

REPUBLIC OF ECUADOR

CRM

Centro de Rehabilitacion de Manabí

WATER TRANSBASIN PROJECT FOR CHONE-PORTOVIEJO RIVER  
BASINS

CRM-OECF

INTERNATIONAL TENDERING No. \_\_\_\_\_

FOR

CONSTRUCTION OF CIVIL WORKS

PACKAGE 2

LA ESPERANZA~POZA HONDA TRANSBASIN  
AND  
POZA HONDA~MANCHA GRANDE TRANSBASIN

(PART II)

PRE-QUALIFICATION FORMS  
GENERAL REQUIRED INFORMATION

DECEMBER 1994

The necessary information to be submitted by the Applicants for the Pre-Qualification, must be consigned in individual form, for each one of the Construction Firms, whether national or foreign. And in joint form for the Associations, in the respective forms that have been designed for that effect, considering besides the explanatory notes included in determined cases and forms.

The documents must have all their numbered and the original will have the signature of the Legal Representative of the Association in the case the Associations that have been legally constituted, or the signature of the sole Legal Representative when it is being constituted.

The book binding will be done in such a manner that the pages of the documents do not lost and it could be accompanied with any additional illustrative information that the Applicants may consider useful in order to complement its reference. This additional information do not require to have the signature of the sole Legal Representative.

## LIST OF THE DOCUMENTS TO BE ATTACHED

### No. ORDER

- A. Presentation and Commitment Letter (Form No. 1)
- B. General Data of the Firms (Form No. 2)
- C. Documents that would accredit the Legal Constitution of the Firms or Association and the Nomination of their Legal Representative
- D. Experience and Capabilities in the Execution of Similar Works (Forms Nos. 3, 3A, 3B and 4), attaching Certificate about the Execution Fulfillment issued by the Clients
- E. Personal Data and Experiences of the Directive and Technical Personnel of the Applicant that would be assigned to the Project (Forms Nos. 5, 5A, 5B, 5C and 5D), attaching Curriculum Vitae and Commitment Letter (Forms Nos. 5E and 5F)
- F. List and Characteristics of the Construction Equipment available for the Work (Forms Nos. 6 and 6A)
- G. List of Occasional Sub-contractors (Form No. 7) and General Data of Them (Form No. 7A)
- H. Affiliation Certificate issued by the Construction Chamber, or the Chamber of Commerce or Another Similar Entity of the Country that the Applicant comes from
- I. Certificate of No Pending Debts to the Ecuadorian Institute of Social Security (IESS)
- J. Certificate from the Comptroller's Office on the Fulfillment of the Contracts
- K. Certificate from the Company's Superintendence
- L. Certificate from the Ministry of Finances about the Amount caused by Concept of the Income Tax for the Year 1995
- M. Solvency Certificate issued by National or Foreign Banks backed-up by Banks domiciled in Ecuador
- N. Financial Statements for the Years 1993, 1994 and 1995, duly audited (Forms Nos. 8 and 8A)
- O. Name of the Bank or Company that will issue the Bond on the Execution of the Contract (Form No. 9)
- P. Total Sales in the Last Ten (10) Years (Form No. 10)
- Q. List of the Stockholder's Structure (Form No. 11)
- R. Declarations and/or Demonstrations
- S. Additional Illustrative Information that the Tenderer considers Useful

**A. PRESENTATION AND COMMITMENT LETTER**

**(FORM No. 1)**



**PRESENTATION AND COMMITMENT LETTER**

Gentlemen  
Centro de Rehabilitación de Manabí  
Portoviejo

**REF: PRESENTATION AND COMMITMENT LETTER**

The Subscribed \_\_\_\_\_  
(Name of the Legal or Sole Representative)

Representative of \_\_\_\_\_  
(Name of the Firm or Association constituted or to be constituted )

domiciled in \_\_\_\_\_ is interested to participate in the Tendering No. \_\_\_\_\_, and presents the required documentation, according to the instructions contained in the Pre-Qualification Documents received from CRM, in order to participate in the Pre-Qualification for the Firms for the Construction of Civil Works, Package 2: La Esperanza~Poza Honda Transbasin and Poza Honda~Mancha Grande Transbasin of the Water Transbasin Project for Chone-Portoviejo River Basins.

The subscribed representative, acting for and on behalf of \_\_\_\_\_  
(Denomination of the Firm or Association)

- (1) Declares to have thoroughly examined the Pre-Qualification Documents and accepts to obey to the requirements and demands and other conditions of this Documents.
- (2) Guarantees the truthfulness and accuracy of all the declarations and answers dine in the attached Documents.
- (3) Authorizes CRM, or to whom it may delegate, to carry out investigations to prove the truthfulness of the declarations and Documents submitted and for obtaining explanations and information about the technical and economical conditions of this Firm or Association.

- (4) Accepts unconditionally CRM's decision about the Pre-Qualification and waives to any claim.
- (5) Waives expressly the right to utilize the diplomatic ways for any matter related to the Pre-Qualification.
- (6) Declares that in virtue to the authorization that has been granted, counts with ample legal capacity to perform all the necessary transactions for the Pre-Qualification.

\_\_\_\_\_  
Place and date

\_\_\_\_\_  
Legal Representative

ADDRESS:

NOTE:

In the case of an Association, include the following paragraphs:

The Association that presents the documentation is composed of the following firms:

EXPECTED SHARE

- |    |             |
|----|-------------|
| a. | (        )% |
| b. | (        )% |
| c. | (        )% |
| d. | (        )% |

Accepts that the responsibility of each one of the member Firms of the Association will be indivisible and solidarity.

**(7) Please indicate the outline of your site organization particularly for the following aspects:**

**General:**

**Scheduling:**

**Quality Control:**

**Safety Control:**

**Contract Administration:**

**Records and Reports:**

**Some other particular matters if any:**

**B. GENERAL DATA OF THE FIRMS**

**(FORM No. 2)**

GENERAL DATA

Kind of Firm \_\_\_\_\_  
(Sole Firm, Existing Association of Firms or to be Constituted)

Denomination of the Firm \_\_\_\_\_  
\_\_\_\_\_

Domicile of the Main headquarters \_\_\_\_\_  
Telephone (s) \_\_\_\_\_ Telex \_\_\_\_\_ Fax \_\_\_\_\_

Cable Address \_\_\_\_\_ Postal Office Box (PO Box) \_\_\_\_\_

Constitution date of the Firm:  
\_\_\_\_\_

Type of Firm:

- Stock Holding Company
- Company Limited
- In collective name
- Other (specify)

Locations of the Filials, Subsidiaries or Branches  
(specify)

NAME	COMMERCIAL ADDRESS	TELEX, FAX OR P.O. BOX
a. _____	_____	_____
b. _____	_____	_____
c. _____	_____	_____
d. _____	_____	_____

Firms with which usually celebrates contracts or associates

	NAMES	ADDRESS
	_____	_____
	_____	_____
	_____	_____
Nominal Capital :	_____	_____
	(Original Currency)	(Equivalent US\$)
Paid-up Capital to 31-12-1993 :	_____	_____
	(Original Currency)	(Equivalent US\$)
Paid-up Capital plus legal reserves to 31-12-1993 :	_____	_____
	(Original Currency)	(Equivalent US\$)
Paid-up Capital to 31-12-1994 :	_____	_____
	(Original Currency)	(Equivalent US\$)
Paid-up Capital Plus legal reserves to 31-12-1994 :	_____	_____
	(Original Currency)	(Equivalent US\$)
Paid-up Capital to 31-12-1995 :	_____	_____
	(Original Currency)	(Equivalent US\$)
Paid-up Capital plus legal reserves to 31-12-1995 :	_____	_____
	(Original Currency)	(Equivalent US\$)

Adopted exchange rate  
for the equivalents in  
US Dollars \_\_\_\_\_

Field of specialization \_\_\_\_\_

The number of employees and laborers that have been reckoned on the full time basis during  
the last five years

1991 Employees No. \_\_\_\_\_ Laborers No. \_\_\_\_\_

1992 Employees No. \_\_\_\_\_ Laborers No. \_\_\_\_\_

1993 Employees No. \_\_\_\_\_ Laborers No. \_\_\_\_\_

1994 Employees No. \_\_\_\_\_ Laborers No. \_\_\_\_\_

1995 Employees No. \_\_\_\_\_ Laborers No. \_\_\_\_\_

Address to where CRM could send the correspondence in regards to this Pre-Qualification

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
(Place and date)

\_\_\_\_\_  
(Legal Representative)

NOTE: In case of Association; fill in the Form with the information of each of the Member  
Firms.

C. DOCUMENTS THAT WOULD  
ACCREDIT THE LEGAL  
CONSTITUTION OF THE FIRMS OR  
ASSOCIATION AND THE  
NOMINATION OF THEIR LEGAL  
REPRESENTATIVE

(ATTACH)



**D. EXPERIENCE AND CAPABILITIES IN  
THE EXECUTION OF SIMILAR WORKS  
(FORMS Nos. 3, 3A AND 4),  
ATTACHING CERTIFICATE ABOUT  
THE EXECUTION FULFILLMENT  
ISSUED BY THE CLIENTS**

**FORM No. 3**  
**EXPERIENCE IN EXECUTION OF SIMILAR WORKS**

1	2	3	4	5	6(1)	7(2)	8	9	10	11(2)	12(2)	13(2)	14	15
No. of Order	Contract Date	Contractor's Name	Name of the Project	Project Location	Description of the part of the work done, that the Firm carried out with its own personnel and its relation with the Project	If intervene as a member of a Consortium, indicate the functions and percentage of the participation	Name of the Engineer responsible	Value of the Contract or Sub-Contract	Contract Duration	Contract completed within Due Term	Was there a Fine imposed?	Was there a Claim or a Cease a Order	Value of the Work done with its Own Personnel	Percentage Cost of the Contract

- (1) Use additional pages if necessary
- (2) Answer yes or not and give additional explanation if necessary

\_\_\_\_\_ (Place and date)

\_\_\_\_\_ (Legal Representative)

**FORM No. 3A**  
**EXPERIENCE IN THE EXECUTION OF THE MAIN ITEMS OF THE CONTRACT**

1	2	3						
Name of the Project	Contract Price	Construction of Waterway including Pumping Station						
		Pumping Station	Vertical Shafts	Mechanical Tunneling	Open Channel	Access Road	Complementing Works	Others

**Note:** Summarize in the column 2 the values established in the said column.

\_\_\_\_\_  
 (Place and date)

\_\_\_\_\_  
 (Legal Representative)

**FORM No. 3B**  
**EXPERIENCE IN EXECUTION OF CIVIL WORKS IN GENERAL**

1	2	3	4	5	6(1)	7(2)	8	9	10	11(2)	12(2)	13(2)	14	15
No. of Order	Contract Date	Contractor's Name	Name of the Project	Project Location	Description of the part of the work done, that the Firm carried out with its own personnel and its relation with the Project	If intervene as a member of a Consortium, indicate the functions and percentage of the participation	Name of the Engineer responsible	Value of the Contract or Sub-Contract	Contract Duration	Contract completed within Due Term	Was there a Fine imposed ?	Was there a Claim or a Cease Order	Value of the Work done with its Own Personnel	Percentage Cost of the Contract

(1) Use additional pages if necessary  
(2) Answer yes or not and give additional explanation if necessary

\_\_\_\_\_  
(Place and date)

\_\_\_\_\_  
(Legal Representative)

**FORM No. 4  
SIMILAR WORKS NOT CONCLUDED**

No. of Order	Contract Date	Project Name	Project Location	Description	Project Value	Contract or Sub-Contract Value	Value of Finished and Billed Part	Value of the Works Additional to the Contracted Ones	Percentage of the Finished Physical Works	Established by the Contract Due Date	Estimated Due Date

NOTE: In the case of a Consortium, this form must be filled in with the data of each one of the integrating Firms.

\_\_\_\_\_  
(Place and date)

\_\_\_\_\_  
(Legal Representative)

**E. PERSONAL DATA AND EXPERIENCE  
OF THE DIRECTIVE AND TECHNICAL  
PERSONNEL OF THE APPLICANT  
THAT WOULD BE ASSIGNED TO THE  
PROJECT (FORMS Nos. 5, 5A, 5B, 5C  
AND 5D), ATTACHING CURRICULUM  
VITAE AND COMMITMENT LETTER  
(FORMS Nos. 5E AND 5F)**

**FORM No. 5**  
**(1) PERSONNEL DATA OF THE MAIN DIRECTORS OF THE FIRM**  
 (President, Board of Directors, Vice-President, Technical Directors and Administrators)

Name	Nationality	Age	Language	Specialization	Profession		Experience (Years)		Positions
					Title	Years of Practice	In the Firm	In Other Firm	

ANNEX: CURRICULUM VITAE for each person on the list  
 NOTE: In the case of a Consortium, this form must be filled in with the data of each one of the integrating Firms.

\_\_\_\_\_ (Place and date)

\_\_\_\_\_ (Legal Representative)

**FORM No. 5A**  
**(2) PERSONNEL DATA OF TECHNICIANS CONSIDERED MOST IMPORTANT AND THAT WORK FULL TIME IN THE FIRM**

Name	Nationality	Age	Language	Specialization	Profession		Construction Experience (Years)					Positions	
					University Title	Years of Practice	Pumping Station	Diversion Tunnel	Inlet Structure	Open Channel	Access Road		

ANNEX: CURRICULUM VITAE for each person on the list  
 NOTE: In the case of a Consortium, this form must be filled in with the data of each one of the integrating Firms.

\_\_\_\_\_ (Place and date) \_\_\_\_\_ (Legal Representative)



**FORM No. 5B**  
**(3) PERSONNEL DATA HIGH LEVEL CONSULTANTS AND THAT WORK OCCASIONALLY IN THE FIRM**

Name	Nationality	Age	Language	Specialization	Profession		Construction Experience (Years)					Positions	
					University Title	Years of Practice	Pumping Station	Diversion Tunnel	Inlet Structure	Open Channel	Access Road		

ANNEX: CURRICULUM VITAE for each person on the list.  
 NOTE: In the case of a Consortium, this form must be filled in with the data of each one of the integrating Firms.

\_\_\_\_\_ (Place and date) \_\_\_\_\_ (Legal Representative)

**FORM No. 5C**  
**(4) LIST OF THE KEY TECHNICAL PERSONNEL THAT WOULD BE IN CHARGE OF THE WORKS**  
**IN THE MAIN OFFICES OF THIS PROJECT**

Name	Nationality	Age	Language	Specialization	Profession			Construction Experience (Years)				Positions	
					University Title	Years of Practice	Pumping Station	Diversion Tunnel	Inlet Structure	Open Channel	Access Road		

ANNEX: CURRICULUM VITAE for each person on the list  
 NOTE: In the case of a Consortium, this form must be filled in with the data of each one of the integrating Firms.

\_\_\_\_\_  
 (Place and date) \_\_\_\_\_  
 (Legal Representative)

**FORM No. 5D**  
**(5) LIST OF THE TECHNICAL PERSONNEL THAT WILL WORK IN THE WORKS SITE OF THIS PROJECT**

Name	Nationality	Age	Language	Specialization	Profession		Construction Experience (Years)				Positions	
					University Title	Years of Practice	Pumping Station	Diversion Tunnel	Inlet Structure	Open Channel		Access Road

ANNEX: CURRICULUM VITAE for each person on the list  
 NOTE: In the case of a Consortium, this form must be filled in with the data of each one of the integrating Firms.

\_\_\_\_\_ (Place and date) \_\_\_\_\_ (Legal Representative)

**SAMPLE OF THE CURRICULUM VITAE FOR THE  
TECHNICAL PERSONNEL OF THE FIRM THAT WILL BE  
ASSIGNED FOR THE EXECUTION OF THE PROJECT**

1. Full Name: \_\_\_\_\_
2. Age: \_\_\_\_\_ (years) Nationality: \_\_\_\_\_
3. University Title (attach diplomas), Specialization (attach diplomas): \_\_\_\_\_
4. Professional Experience: \_\_\_\_\_ Years: \_\_\_\_\_
5. Will work on (field of activity): \_\_\_\_\_

6. Language:		SPEAK		WRITE	
		WELL	FAIR	WELL	FAIR
Spanish	( )	( )	( )	( )	( )
English	( )	( )	( )	( )	( )

7. Actual Position in the Firm: \_\_\_\_\_
8. Years of Activity in the Firm: \_\_\_\_\_
9. Work Experience in the Firm:  
Brief summary of the functions and responsibilities:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

10. Work Experience in other firms or institutions, indicate in the last 10 years:

NAME OF THE ENTITY	ACTIVITY	DATES	
		FROM	UNTIL
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

11. Brief description of the works executed in relation with the activity field indicated in the Item 5, indicating the related activities and execution period:

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12. Description of other jobs executed related directly to the scope of the works, matter of the present tender, indicating Executing Agency and execution period:

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13. Technical associations membership:

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14. Published technical works in the related field to this Tender:

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Signature of the Directives and/or Technicians

Date:

**COMMITMENT LETTER FOR THE DIRECTIVE AND/OR  
TECHNICIANS THAT WILL BE ASSIGNED TO THE  
EXECUTION OF THE PROJECT**

Place and date

I, \_\_\_\_\_

with the specialization of, \_\_\_\_\_

I commit myself during the period of \_\_\_\_\_

To provide my professional services in the activity of \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

The Construction of the Civil Works, Package 2: La Esperanza-Poza Honda Transbasin and Poza Honda-Mancha Grande Transbasin of the Water Transbasin Project for Chone-Portoviejo River Basins.

Signatures of the Directive and/or the Technicians

**F. LIST AND CHARACTERISTICS OF THE  
CONSTRUCTION EQUIPMENT  
AVAILABLE FOR THE WORK (FORMS  
Nos. 6 AND 6A)**

**FORM No. 6**  
**LIST OF MACHINERY AND EQUIPMENT OF HIS PROPERTY THAT WILL BE USED IN THE CONSTRUCTION**

No. of Order	Name and Type of Machinery	Manufacturer or Make	No. of Series	* Capacity	** Potency	Equipment Actual Condition	Years of Service	Limit Date that Equipment will go in Service of Work	Actual Location of the Equipment	Remarks

\* In units of Volume per Time Units  
 \*\* In H.P.

\_\_\_\_\_  
 (Place and date)

\_\_\_\_\_  
 (Legal Representative)



**FORM No. 6A**  
**LIST OF MACHINERY AND EQUIPMENT THAT WOULD PURCHASE OR RENT FOR THE CONSTRUCTION**

No. of Order	Name and Type of Machinery	Manufacturer or Make	No. of Series	* Capacity	** Potency	Equipment Actual Condition	Years of Service	Limit Date that Equipment will go in Services of Work	Manufacturer or Company to which the Equipment will be bought	Actual Location of the Equipment	Remarks

\* In units of Volume per Time Units  
 \*\* In H.P.

\_\_\_\_\_  
 (Place and date)

\_\_\_\_\_  
 (Legal Representative)

**G. LIST OF OCCASIONAL SUB-  
CONTRACTORS (FORM No. 7) AND  
GENERAL DATA OF THEM (FORM No. 7A)**



**SUB-CONTRACTOR'S GENERAL DATA**

1. Legal Denomination of the Sub-Contractors:

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2. Domicile and Main Address:

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3. Constitution Date of the Firm:

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(Place)	(Day)	(Month)	(Year)
---------	-------	---------	--------

4. Nominal Capital: \_\_\_\_\_  
(Original currency) (US\$)

Paid-up Capital  
to 31-12-1995 : \_\_\_\_\_  
(Original currency) (US\$)

Paid-up Capital  
plus legal  
reserves to  
31-12-1995 : \_\_\_\_\_  
(Original currency) (US\$)

5. Field of Specialization:

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6. The number of employees and laborers that have been reckoned on the full time basis during the last three years:

	Employees No.	Laborers No.
1993	_____	_____
1994	_____	_____
1995	_____	_____

7. Main Works Executed:

- (1) \_\_\_\_\_
- (2) \_\_\_\_\_
- (3) \_\_\_\_\_
- (4) \_\_\_\_\_
- (5) \_\_\_\_\_
- (6) \_\_\_\_\_
- (7) \_\_\_\_\_
- (8) \_\_\_\_\_
- (9) \_\_\_\_\_
- (10) \_\_\_\_\_

(Indicate location and type of activity)

\_\_\_\_\_  
(Place and date)

\_\_\_\_\_  
(Legal Representative)

SUBCONTRACTOR'S GENERAL DATA

SUB-CONTRACTOR\* \_\_\_\_\_

PART A: PERSONAL DATA OF THE KEY TECHNICIANS THAT WORK IN THE FIRM ON A FULL TIME BASIS

POSITION	CONSTRUCTION EXPERIENCE (YEARS)					
	PUMPING STATION	DIVERSION TUNNEL	INLET STRUCTURE	OPEN CHANNEL	ACCESS ROAD	OTHERS

NAME            AGE    SPECIALIZATION

---

PART B        LIST OF THE TECHNICAL PERSONNEL THAT WOULD WORK ON THE WORKS AT SITE

POSITION	CONSTRUCTION EXPERIENCE (YEARS)					
	PUMPING STATION	DIVERSION TUNNEL	INLET STRUCTURE	OPEN CHANNEL	ACCESS ROAD	OTHERS

NAME    AGE    LANGUAGES    SPECIALIZATION

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PART C        EXPERIENCE IN SIMILAR WORKS TO THE WORKS TO BE SUBLET

NAME OF THE PROJECT	CONTRACT PRICE	SUMMARY OF THE MOST IMPORTANT ITEMS
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\_\_\_\_\_  
(Place and date)

\_\_\_\_\_  
(Legal Representative)

**H. AFFILIATION CERTIFICATE ISSUED BY  
THE CONSTRUCTION CHAMBER, OR  
THE CHAMBER OF COMMERCE OR  
ANOTHER SIMILAR ENTITY OF THE  
COUNTRY THAT THE APPLICANT  
COMES FROM (ATTACH)**

**I. CERTIFICATE OF NO PENDING DEBTS  
TO THE ECUADORIAN INSTITUTE OF  
SOCIAL SECURITY (ATTACH)**



J. CERTIFICATE FROM THE  
COMPTROLLER'S OFFICE ON THE  
FULFILLMENT OF THE CONTRACTS  
(ATTACH)

**K. CERTIFICATE FROM THE COMPANY'S  
SUPERINTENCE (ATTACH)**

L. CERTIFICATE FROM THE MINISTRY OF  
FINANCES ABOUT THE AMOUNT  
CAUSED BY CONCEPT OF THE INCOME  
TAX IN THE YEAR 1995 (ATTACH)

M. SOLVENCY CERTIFICATE ISSUED BY  
NATIONAL OR FOREIGN BANKS  
BACKED-UP BY BANKS DOMICILED IN  
ECUADOR (ATTACH)

Package 2

**N. FINANCIAL STATEMENTS FOR THE  
YEARS 1993, 1994 AND 1995, DULY  
AUDITED (FORMS Nos. 8 AND 8A)**

**CONSOLIDATED BALANCE SHEET  
(TO DECEMBER 31, 1995, 1994, 1993)**

All the values  
equivalents in  
US\$ (type of  
exchange I  
US\$ = .....)

**ASSETS**

**A. CURRENT ASSETS:**

1.	Cash on hands.....		\$.....
2.	Cash in Banks.....		\$.....
3.	Accounts receivable.....		\$.....
4.	Stock and bonds.....		\$.....
	present market value.....		\$.....
5.	Other currents Assets		
	a.....	\$.....	
	b.....	\$.....	
	c.....	\$.....	
	d.....	\$.....	
	e.....	\$.....	
		(Subtotal of 5)	\$.....
	<b>Total Current Assets</b>		\$.....

**B. FIXED ASSETS:**

1.	Construction cost.....	\$.....
2.	Land.....	\$.....
3.	Building (net).....	\$.....
4.	Construction equipment.....	\$.....
5.	Office equipment (net).....	\$.....
6.	Vehicles (net).....	\$.....
7.	Other fixed assets.....	\$.....

a.....	\$.....	
b.....	\$.....	
c.....	\$.....	
d.....	\$.....	
e.....	\$.....	
	(Subtotal of 7)	\$.....

Total Fixed Assets \$.....

**TOTAL OF ASSETS** \$.....

**LIABILITIES AND CAPITAL**

**A. CURRENT LIABILITIES AND CAPITAL:**

1. Accounts to pay .....		\$.....
2. Payments to banks .....		\$.....
3. Notes payable.....		\$.....
4. Other Current Liabilities:		
a.....	\$.....	
b.....	\$.....	
c.....	\$.....	
d.....	\$.....	
e.....	\$.....	
	(Subtotal of 4)	\$.....

Total of Current Liabilities \$.....

**B. LONG TERM DEBTS:** \$.....

**C. CAPITAL:**

1. Stockholders.....		\$.....
2. Retained Income.....		\$.....
3. Allowance/Reserves .....		\$.....
4. Profit on turnover .....		\$.....
5. ....		\$.....
6. ....		\$.....
7. ....		\$.....
	<b>Total of Capital</b>	\$.....

TOTAL OF LIABILITIES AND CAPITAL

\$ \_\_\_\_\_

.....

\_\_\_\_\_  
(Place and date)

\_\_\_\_\_  
(Legal Representative)

Certified by .....

Certified Public Accountant,

Additional certificate  
according to Clause  
4.2 of the Pre-  
Qualification Bases if  
it has been prepared  
in a foreign country

Date.....

This form also applies to the Parent Firms of an Association.



**PROFIT AND LOSS STATEMENT  
(TO DECEMBER 31, 1995, 1994 AND 1993)**

All the values  
equivalents in  
US\$ (type of  
exchange 1  
US\$ = .....)

1.	Revenues.....		\$_____
2.	Construction Cost		
a.	Finished Works .....	\$.....	
b.	Works in Execution.....	\$.....	
	(Subtotal a + b).....	\$_____	
	Gross Profit/Loss (1-2) .....	\$_____	
3.	Operation Expenses		
	Sales expenses		
	.....	\$.....	
	.....	\$.....	
	.....	\$.....	
	.....	\$.....	
	.....	\$.....	
a.	Total of sales expenses	\$_____	
	General and administration expenses		
	.....	\$.....	
	.....	\$.....	
	.....	\$.....	
	.....	\$.....	
b.	Total of general and administration expenses	\$_____	
	Total of Operation Expenses (subtotal a + b)	\$_____	
	Net Profit/Loss of operation, before taxes		\$_____

4.	Other Revenues		
	.....	\$.....	
	.....	\$.....	
	.....	\$.....	
	.....	\$.....	
	.....	\$.....	
	(Subtotal).....		\$_____
5.	Other Expenses		
	.....	\$.....	
	.....	\$.....	
	.....	\$.....	
	.....	\$.....	
	.....	\$.....	
	(Subtotal).....		\$_____
	Net Profit/Loss, before taxes		
	Taxes .....		\$ .....
	Taxes .....		\$ .....
	Net Profit/Loss, After taxes.....		\$_____

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(Place and date)	(Legal Representative)
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This form also applies to the Parent Firms of an Association.

O. NAME OF THE BANK OR COMPANY THAT  
WILL ISSUE THE BOND ON THE  
EXECUTION OF THE CONTRACT (FORM  
No. 9)

Name of the bank or company that will issue the policy bond for the execution of the Contract

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(Place and date)

---

(Legal Representative)

P. TOTAL SALES IN THE LAST TEN (10)  
YEARS (FORM No. 10)

Package 2

**TOTAL SALES IN THE LAST TEN (10)  
YEARS, IN THE EQUIVALENT IN US DOLLARS**

All the values  
in equivalents  
in US\$ (type  
of exchange  
rate 1 US\$ =  
.....)

FISCAL YEAR	TOTAL VALUE	EQUIVALENT IN US\$

\_\_\_\_\_  
(Place and date)

\_\_\_\_\_  
(Legal Representative)

This form also applies to the Parent Firms of an Association.

**Q. LIST OF THE STOCKHOLDER'S  
STRUCTURE (FORM No. 11)**

**Package 2**

**LIST OF THE STOCKHOLDER'S STRUCTURE**

No.	NAME OF THE STOCKHOLDER	NATIONALITY OF THE STOCKHOLDER	PERCENTAGE OF SHARES	REMARKS

\_\_\_\_\_  
(Place and date)

\_\_\_\_\_  
(Legal Representative)

This form also applies to the Parent Firms of an Association.



R. DECLARATIONS AND/OR DEMONSTRATIONS  
(ATTACH SUBSCRIBED LETTERS BY THE  
LEGAL REPRESENTATIVE CONTAINING THE  
DECLARATIONS AND/OR DEMONSTRATIONS  
REQUESTED IN CLAUSE 4.2 OF THE "PRE-  
QUALIFICATION BASES")

**S. ADDITIONAL ILLUSTRATIVE INFORMATION  
THAT THE TENDERER CONSIDERS USEFUL  
(ATTACH)**

**Package 2**

REPUBLIC OF ECUADOR

CRM

Centro de Rehabilitacion de Manabí

WATER TRANSBASIN PROJECT  
FOR  
CHONE-PORTOVIEJO RIVER BASINS

CRM-OECF

INTERNATIONAL TENDERING No. \_\_\_\_\_

FOR

CONSTRUCTION OF CIVIL WORKS

PACKAGE 2

LA ESPERANZA~POZA HONDA TRANSBASIN  
AND  
POZA HONDA~MANCHA GRANDE TRANSBASIN

EVALUATION CRITERIA

FOR

PRE-QUALIFICATION

MARCH 1995

## EVALUATION CRITERIA

CRM

CENTRO DE REHABILITACION DE MANABI

WATER TRANSBASIN PROJECT FOR CHIONE-PORTOVIEJO RIVER  
BASINS

CRM - OECF

INTERNATIONAL TENDERING No. \_\_\_\_\_

FOR

CONSTRUCTION OF CIVIL WORKS

PACKAGE 2

LA ESPERANZA~POZA HONDA TRANSBASIN  
AND  
POZA HONDA~MANCHA GRANDE TRANSBASIN

### 1. GENERAL

#### 1.1 Procedure

The Applicants shall be examined by means of scoring system (100 points full mark).

For being qualified, minimum 60 points are necessary. In case that the number of qualified Applicant is less than three, the Pre-Qualification procedure will be made again in a little bit different form.

#### 1.2 Principles for Association

For scoring, for which 22 items categorized into three have been prepared as indicated Sections 3 and 4. Score for the Association shall be computed as follows:

- (1) All member firms shall be examined item by item and scores for respective categories shall be computed.
- (2) For computation of total score, the weighted average will be attained by category in accordance with the percentage in which each member firm participates and will be totalized.

Package 2

## 2. ELIGIBILITY

CRM has full right without giving any justification to disqualify any Applicant that, at CRM's discretion, is not acceptable to the CRM in his opinion to be substantial. In this context, the Applicant shall fulfill the following requirements that an Applicant and/or any member firm of the Association has not overdue debt of any kind toward the Revenue Authorities and the Customs of the Ecuadorian Government.

Only the Applicants who suffice the above shall be examined by means of counting systems.

## 3. ITEMS EVALUATED AND DISTRIBUTION OF SCORES

There are 22 items, which can be categorized into three, to be evaluated for the Pre-Qualification of Tenderers. Distribution of scores for respective items as well as those of categories are as follows:

	Score Distributed	Minimum Requirement	Observation
A. Engineering Data	<u>50</u>	<u>30</u>	
(1) Key Personnel	4		
(2) Pumping Station, Diversion Tunnel, Inlet Structure, Open Channel and Access Road	10		
(3) Corresponding Works to the Most Important Items of Tendering	10		
(4) Civil Engineering Works	10		
(5) Back-up Support	4		
(6) Sub-Contractors	4		
(7) Project Organization	4		
(8) Equipment	4		
B. Financial Data	<u>30</u>	<u>18</u>	
(1) Total Assets	3		
(2) Sales	3		
(3) Total Assets/Profit Ratio	3		
(4) Growth in Financial Aspects	5		
(5) Earnings	6		
(6) Soundness	8		
(7) Bank's Declaration	2		
C. Company Data	<u>20</u>	<u>12</u>	
(1)			

	Number of Employee	4
(2)	Scientific Support	2
(3)	Experience in Ecuador	4
(4)	Experience in Central/South America	2
(5)	Experience in Other Countries of the World	2
(6)	Branches in Ecuador or Association with Ecuadorian Firm(s) or Association with Ecuadorian Firm(s)	2
(7)	Ability for Maintaining Work Schedule	4

#### 4. EVALUATION METHOD

##### 4.1 Overall Discussion

The evaluation of Pre-Qualification Questionnaire will be made in accordance with the Applicant's scale of business, past performances, financial capacity, etc.

CRM considers that first of all the Applicant's engineering data mainly composed of past performance in the similar fields and the outline of the Applicant's project appreciation should be examined and further consider that this component should be the most important factors of the evaluation, since CRM should not qualify the Applicant whose experience is poor or whose engineering aspect is not attractive.

Thus, 50 points will be awarded to the Category A, Engineering Data, taking account of its importance and various precedents involved in.

The other aspects to be examined are the Category B, Financial Data, and the Category C, Company Data. The former consists of various financial parameters world-widely used and the relation between the Applicant and a bank, with which the Applicant ought to have had business. The latter is composed of some other aspects in business, degree of familiarity with Ecuador and Central/South America and world-wide, regional or local reputation.

Thus, 30 points will be awarded to the Category B, Financial Data, and 20 points will be awarded to the Category C, Company Data, taking account of magnitude of its importance and the balance of three categories as well as various precedents involved in.

##### 4.2 Detailed Discussion for the Engineering Data

###### 4.2.1 Distribution of Scores and the Points aimed at

In the Category A, Engineering Data, eight items are to be evaluate; three items, i.e. (2), (3) and (4), are related to the Applicant's experience or past performance. And three items, i.e. (5), (6) and (7), are related to the site organization proposed or envisaged by the Applicant himself. Remaining two, i.e. (1) and (8), are personnel expected to be engaged in and equipment mobilization. The reasons why such points are taken up and such score are given are as follows:

- (1) The Category A is prepared for examining the Applicant's past performance in the similar fields and the outline of his project appreciation. Out of eight items in the Category A, three (3) items inquire the Applicant past performance. While, with three items and two items which are related to the proposed organization and arrangement of the personnel and equipment, respectively, it may be possible to know the degree of the Applicant's project appreciation and his enthusiasm.
- (2) For clarification of the Applicant's experience, exhibition of actual past performance certified with the completion certificate by the Employer is the best way.

For the same purposes, the works being undertaken by the Applicant himself will also be examined. Major points to be examined are determined taking account of the nature of works included in this Project.

- (3) For examining the Applicant's understanding about the Project and knowing the degree of his interest, two items with which the Applicant's basic key personnel arrangement and the way of equipment mobilization can be seen, and three items through which the Applicant's capability of the site organization or his skillfulness of the work organization can be seen, are provided.

#### 4.2.2 Scoring

##### (1) Key Personnel

For smooth construction management, certain kinds of key personnel become indispensable. With regard to the position proposed in this Contract, it is desirable that out of the following or the like, at least five are referred by the Applicant, fulfilling the minimum requirement for each.

	<u>Position to be Referred</u>	<u>Minimum Requirement</u>
(a)	Project Manger	Age: 35 years or more Experience: 15 years
(b)	Chief Engineer for the engineering works (or Deputy Project Manager)	Experience: 10 years
(c)	Chief Construction Engineer	Experience: 10 years
(d)	Chief Tunnel Engineer	Experience: 10 years
(e)	Chief Design Engineer	Experience: 8 years
(f)	Chief Topo. surveyor	Experience: 8 years
(g)	Chief Mechanic	Experience: 8 years
(h)	Chief Quantity Surveyor	Experience: 8 years
(i)	Chief Concrete Engineer	Experience: 8 years
(j)	Chief Electrical Engineer	Experience: 8 years
(k)	Chief Mechanical Engineer	Experience: 8 years
(l)	Chief Accountant	Experience: 8 years
(m)	Personnel Manager	Experience: 10 years

For each position proposed, full mark of four thirteenth (4/13) points will be given; if minimum requirement is sufficed.

Points given =  $X * 4/13$

X= Sum of the points of satisfied positions

**(2) Pumping Station, Diversion Tunnel, Inlet Structure, Open Channel and Access Road**

To have carried out within the last five (5) years construction of work of similar technical characteristics as follows:

- (a) For an amount between sixty five (65) million and seventy (70) million US Dollars or the equivalent, 4 points will be awarded.
- (b) For an amount between seventy (70) million and seventy five (75) million US Dollars or the equivalent, 6 points will be awarded.
- (c) For an amount between seventy five (75) million and eighty (80) million US Dollars or the equivalent, 8 points will be awarded.
- (d) For an amount equal or larger than eighty (80) million US Dollars or the equivalent, 10 points will be awarded.

**(3) Corresponding Works to the Most Important Items of Tendering**

To have carried out within the last five(5) years works corresponding to the most important items of the Tendering (see Form No. 3A):

- (a) For an amount between seventy (70) million and seventy five (75) million US Dollars or the equivalent, 4 points will be awarded.
- (b) For an amount between seventy five (75) million and eighty (80) million US Dollars or the equivalent, 6 points will be awarded.
- (c) For an amount between eighty (80) million and eighty five (85) million US Dollars or the equivalent, 8 points will be awarded.
- (d) For an amount equal or larger than eighty five (85) million US Dollars or the equivalent, 10 points will be awarded.

**(4) Civil Engineering Works**

To have carried out within the last five (5) years civil engineering works in general, other than the works included in the above Items (2) and (3), for the amount specified as follows:



- (a) For an amount between seventy five (75) million and eighty (80) million US Dollars or the equivalent, 4 points will be awarded.
  - (b) For an amount between eighty (80) million and eighty five (85) million US Dollars or the equivalent, 6 points will be awarded.
  - (c) For an amount between eighty five (85) million and ninety (90) million US Dollars or the equivalent, 8 points will be awarded.
  - (d) For an amount equal or larger than ninety (90) million US Dollars or the equivalent, 10 points will be awarded.
- (5) Back-up Support**

The following points will be given:

- (a) Back-up Support from the Applicant's Head Office

Technical matters	2 points
Administrative matters	2 points
Some other matters	1 point

- (b) Back-up Support from some other firm(s) or the consultant(s)

Technical matters	1 point
Administrative matters	1 point
Some other matters	1 point

Points awarded =  $X/8 * 4$

X = Total points for the types of support

- (6) Sub-Contractors**

Modernized construction works often require the presence of Sub-contractor(s), since the every contractor, excepting very large scale of the contractor who can hold various kinds of particularized field in his company, has been trying to have specialized field for competing. In case of this Contract, the requirement of the Sub-contractor(s) may be more intensified owing to very wide contractual requirements. Therefore, scoring is made in the following manner:

- (a) If the Applicant intend to use any Sub-contractor in a percentage larger than 10%, these will be evaluated in function to the amounts and the Works proposed to execute:

Solvency	1 point
Similar Works	1 point
Experience in the main activities to execute	1 point
Experience in Ecuador	1 point

(b) In case that the Applicant does not intent to use any Sub-contractor, the points will be given in proportion of the points obtained by the company according to Clause 3.A, (Items (1) to (8), except (6)); of which maximum points are 46, that will correspond to 4 points.

**(7) Project Organization**

For each item mentioned below, the following points will be given, in accordance with the degree of appropriateness of the description upon Form No. 1:

Aspect	Max.	Medium	Min.
General	0.4	0.3	0.1
Scheduling	0.8	0.5	0.3
Quality Control	0.8	0.5	0.3
Safety Control	0.8	0.5	0.3
Contract Administration	0.4	0.3	0.1
Records and Report	0.4	0.3	0.1
Some other particular matters	0.4	0.3	0.1

**(8) Equipment**

For each category; earth-moving works, concrete works, topo. survey works, various equipment for quality control, workshop equipment, at least two items should be described. (Ownership, the number of equipment, output of equipment, etc. will not be objective of scoring, since neither work items nor quantities are known.). Each category that should include more than two items will be given 0.8 (eight tenths). In case , one item only is there, score becomes a 0.4 (four tenths).

**4.3 Detailed Discussion for the Financial Data**

**4.3.1 Distribution of Scores and the Points aimed at**

The Category B, Financial Data, must be evaluated in seven items, for which 30 points altogether have been given. Out of seven items, two are directly related to the scale of business and are of merely figures in the financial statements. And out of remaining five, four are of indication used commonly for business analysis. Remaining one is related to the Applicant's credit creation function. In this evaluation criteria, out of 30 points, 6 points are allotted to the Applicant's scale of business. And 22 points for which 4 scoring items are reckoned have been dispensed for examining the Applicant's business condition. For the Applicant's credit to the bank(s), remaining two(2) points have been assigned. It is seen from above that about 70% of score and about 20% of that are used for judgement of the

Applicant's business and its magnitude, respectively and further seen that remaining 10% for his credit.

#### 4.3.2 Scoring

##### (1) Total Assets

The Works in the Tender will require certain magnitude of the Applicant's business. It is considered that in case of this Project, his business that has the Total Assets for US\$ eighty (80) million or more, or the equivalent can be appropriate scale of business. Thus scoring is made with following manner:

$$\frac{\text{Total Sales}}{\text{US\$ 80,000,000}} \times 3 = \text{Points awarded}$$

Maximum score: 3 points

##### (2) Sales

With the same reason described in Item (1) above, the Applicant's scale of business in terms of annual sales should be more than US\$ eighty (80) million or equivalent. Therefore scoring is made as indicated below:

$$\frac{\text{Total Sales}}{\text{US\$ 80,000,000}} \times 3 = \text{Points awarded}$$

Maximum score: 3 points

##### (3) Profit/Total Assets Ratio

It is commonly understood that the profit/total assets ratio of a construction firm staggers at the range of seven (7) to eight (8) percent. Therefore, the score is calculated by the formula:

$$\frac{\text{Profit/Total Assets Ratio}}{\text{US\$ 80,000,000}} \times 3 = \text{Points awarded}$$

Maximum score: 3 points

**(4) Growth in Financial Aspects**

In order to examine the stable growth in the business and the basic strategy for the business administration, the following indexes are to be computed:

- (a) Annual growth rate of Ordinary Profit
- (b) Annual growth rate of Gross Profit on Sales
- (c) Annual growth rate of Sales
- (d) Annual growth rate of Total Liabilities and Net Worth
- (e) Annual growth rate of Total Number of Employee

Among these indexes, (a) and (b) show nature of the qualitative growth. While (c), (d) and (e) give the quantitative growth. It has been said that the qualitative growth should prevail on the quantitative one as an ideal nature of the construction business in recent economic circumstances. Accordingly, the score will be given through checking of the balance sheets of the last three (3) economic years of the firm.

Maximum score: 5 points

**(5) Earnings**

The Applicant's business has to be examined in terms of earnings also. For this purpose, the following indexes have to be taken up.

- (a) Profit/Total Assets Ratio                      See Item (3) above
- (b) Ratio of Gross Profit on Sales
- (c) Ratio of Net Profit to Sales
- (d) Turnover of Total Capital
- (e) Ratio of General and Administrative Expenses to Sales
- (f) Ratio of Non-operation Income to Sales

To each item listed above, one (1) point will be given. Scoring is made by means of the following formulas:

- (a) Profit/Total Assets Ratio  
(Ordinary Profit / Total Assets) / 0.07
- (b) Ratio of Gross Profit on Sales  
(Gross Profit on Sales / Sales) / 0.16
- (c) Ratio of Ordinary Profit to Sales  
(Ordinary Profit / Sales) / 0.04
- (d) Turnover to Total Capital  
(Sales / Total Liabilities and Net Worth) / 2
- (e)

**Ratio of General and Administrative Expenses to Sales**  
This ratio is evaluated based on the following:

Less than 13 %	Score 1.00	point
14 %	0.75	
15 %	0.50	
16 %	0.25	
20 %	0.15	
30 %	nil	

**(f) Ratio of Non-operating Income to Sales**

Ratio of non-operating income to sales is calculated by the formula stated below and evaluated according to the following:

$(\text{Non-operating Expenses} - \text{Non-operating Income}) / \text{Sales}$

Less than 1.5 %	Score 1.00	point
1.7 %	0.75	
2.0 %	0.50	
3.0 %	0.25	
4.0 %	nil	

**(6) Soundness**

For evaluation of soundness of the Applicant's business, the following indexes have to be taken up:

- (a) Current Ratio
- (b) Quick Ratio
- (c) Ratio of Net Worth
- (d) Ratio of Fixed Assets to Net Worth

To each item, two (2) points are allotted. The formula for scoring is:

$(\text{Current Ratio}/1.2) \times 2 + (\text{Quick Ratio}/0.8) \times 2 + (\text{Ratio of Net Worth}/0.2) \times 2 + (\text{Ratio of Fixed Assets to Net Worth}/0.7) \times 2 = \text{Total Score for Soundness (Maximum score: two (2) points for each)}$ .

Where,

- (a) Current Ratio =  $(\text{Current Asset}/\text{Current Liabilities})$
- (b) Quick Ratio =  $(\text{Cash on Hand in Banks} + \text{Notes Receivable Trade} + \text{Account Receivable Trade})/\text{Current Liabilities}$
- (c)

Ratio of Net Worth = (Total Stockholders' Equity/Total Liabilities and Net Worth)

(d) Ratio of Fixed Assets to Net Worth = (Fixed Assets/Total Stockholders' Equity)

**(7) Bank's Declaration**

With the Bank's Declaration which can be acceptable, maximum two (2) points will be given.

**4.4 Detailed Discussion for the Company Data**

**4.4.1 Distribution of Scores and the Points aimed at**

The Applicant should have enough capacity for undertaking the Works in terms of the number of employee. And it is desirable that the Applicant's business is covering various field of the construction work or that the Applicant has strong linkage with Sub-contractors.

On the other hand, the Applicant should be well acquainted with Ecuador and Ecuadorian in various aspects for smooth execution of the Works. In this context, his experience in Ecuador, regardless of the kind of work, ought to be appreciated. Likewise, the experience in Central/South America should also be evaluated as an advantage more or less. In this context, if the Applicant has branch office(s) in Ecuador and/or Central/South America, this advantage should also be evaluated. Therefore, if the foreign Applicant intends to utilize the Ecuadorian contractors by means of either Association or sub-contract, his attempt also ought to be esteemed.

Apart from these discussions mentioned above, it may also be necessary to pay attention to the Applicant's ability on the punctual completion of the work.

Taking account of these matters, out of twenty (20) points, six (6) points have been allotted to the labor force and eagerness for technical improvement. And ten (10) points have been given to the Applicant's familiarity with Ecuador and/or Ecuadorian and the remaining four points for the Applicant's ability on the punctual completion of works.

**4.4.2 Scoring**

**(1) Number of Employee**

When the magnitude of works is considered, the number of engineers and administrative staff required altogether will be more than eighty five (85) or one hundred (100). Although with regard to the mobilization of manpower, various temporary way can be taken. However at least key staff may be not less than 15.

The labor force to be utilized in this Project, regardless of the number of the permanent

employees, must be proposed by the Applicant according to the experience and the magnitude of the works to be executed. This item will be qualified with a maximum of four (4) points.

**(2) Scientific Support**

When either the Applicant performance or that of sub-contractor fulfill any of the following;

(a) The Applicant has either research institute or has the support certified by an investigation institute the like at which:

(i) always more than 25 permanent staff altogether are working, (regardless of the kind of study or investigation)

yes.....2 point

no.....refer to (ii) below

(ii) always more than 10 permanent staff altogether are working, (regardless of the kind of study or investigation)

yes.....1 point

no.....nil

**(3) Experiences in Ecuador**

Importance of this aspect has been repeatedly described in the foregoing Clauses. Scoring is made in the following manner:

Work experience in Ecuador as a prime contractor

(a) two times or more..... 4 points

(b) yes, but only once..... 2 points

(c) no .....nil

**(4) Work Experience in Central/South America**

(a) two times or more..... 2 points

(b) yes, but only once..... 1 point

(c) no .....nil

**(5) Participant experience in foreign countries different from those indicated before in Items (3) and (4) above:**

(a) yes ..... 2 points

(b) no .....nil

**(6) Branch Office (or Project Office) in operation in Ecuador or consortium of Ecuadorian firm(s)**

**(a) yes ..... 2 points**

**(b) no ..... nil**

**(7) Ability for Maintaining Work Schedules:**

**This Item will be awarded with four points at the maximum.**











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