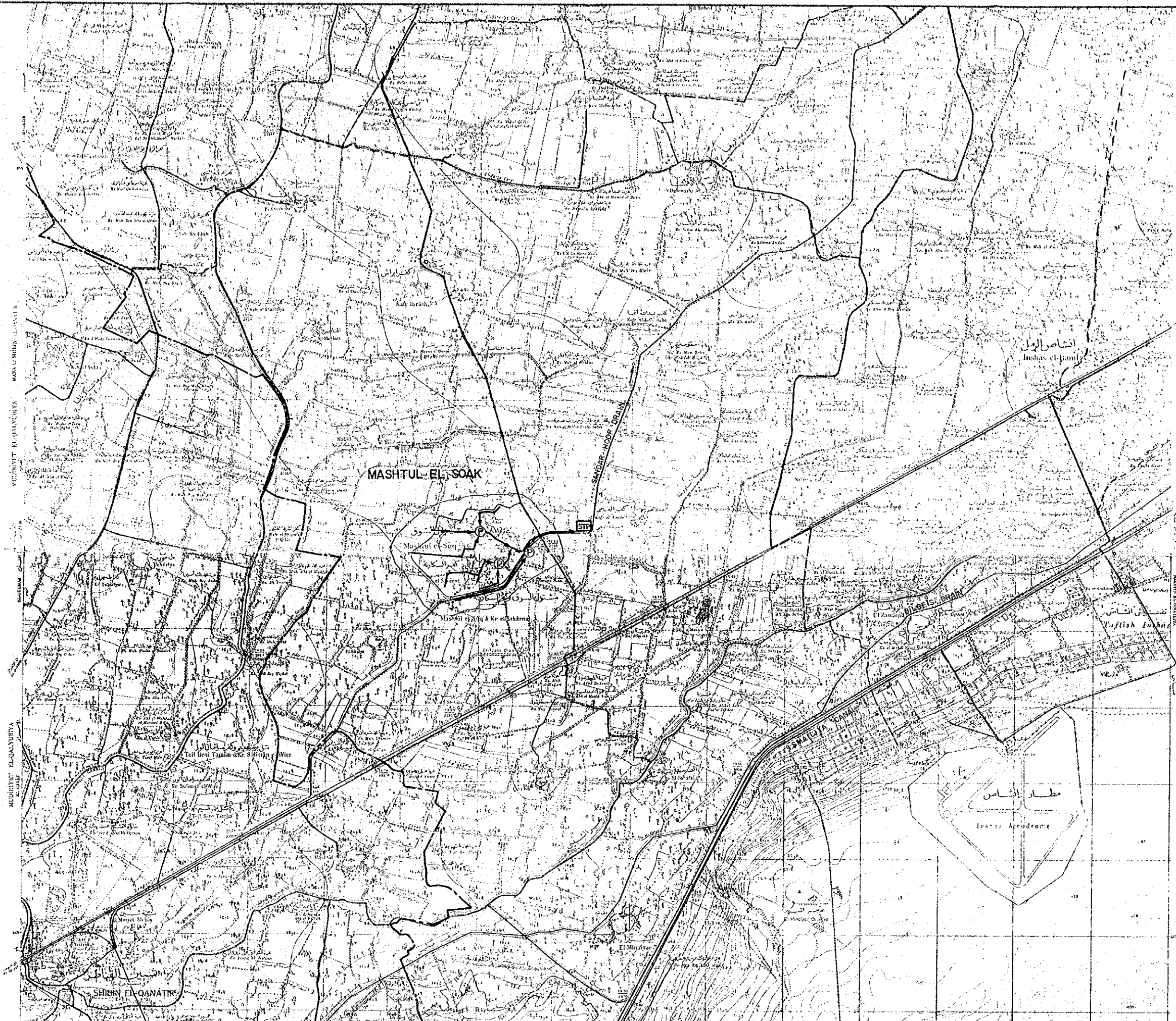


LEGEND

- BOUNDARY OF MARKAZ
- BOUNDARY OF URBAN AREA IN THE YEAR 2005
- BOUNDARY OF PRESENT URBAN AREA
- PROPOSED TRUNK SEWER
- PROPOSED FORCE MAIN
- (P) PROPOSED PUMPING STATION
- (P) EXISTING PUMPING STATION
- (STP) SEWAGE TREATMENT PLANT

FEASIBILITY STUDY ON
 SHARQIYA SEWERAGE SYSTEM
 SEWERAGE GENERAL PLAN
 FOR MINYET EL QAMH CITY (0-8)

DATE	JICA
SEP. 1988	
SCALE	DRAWING NO.
1 : 25,000	I - 9

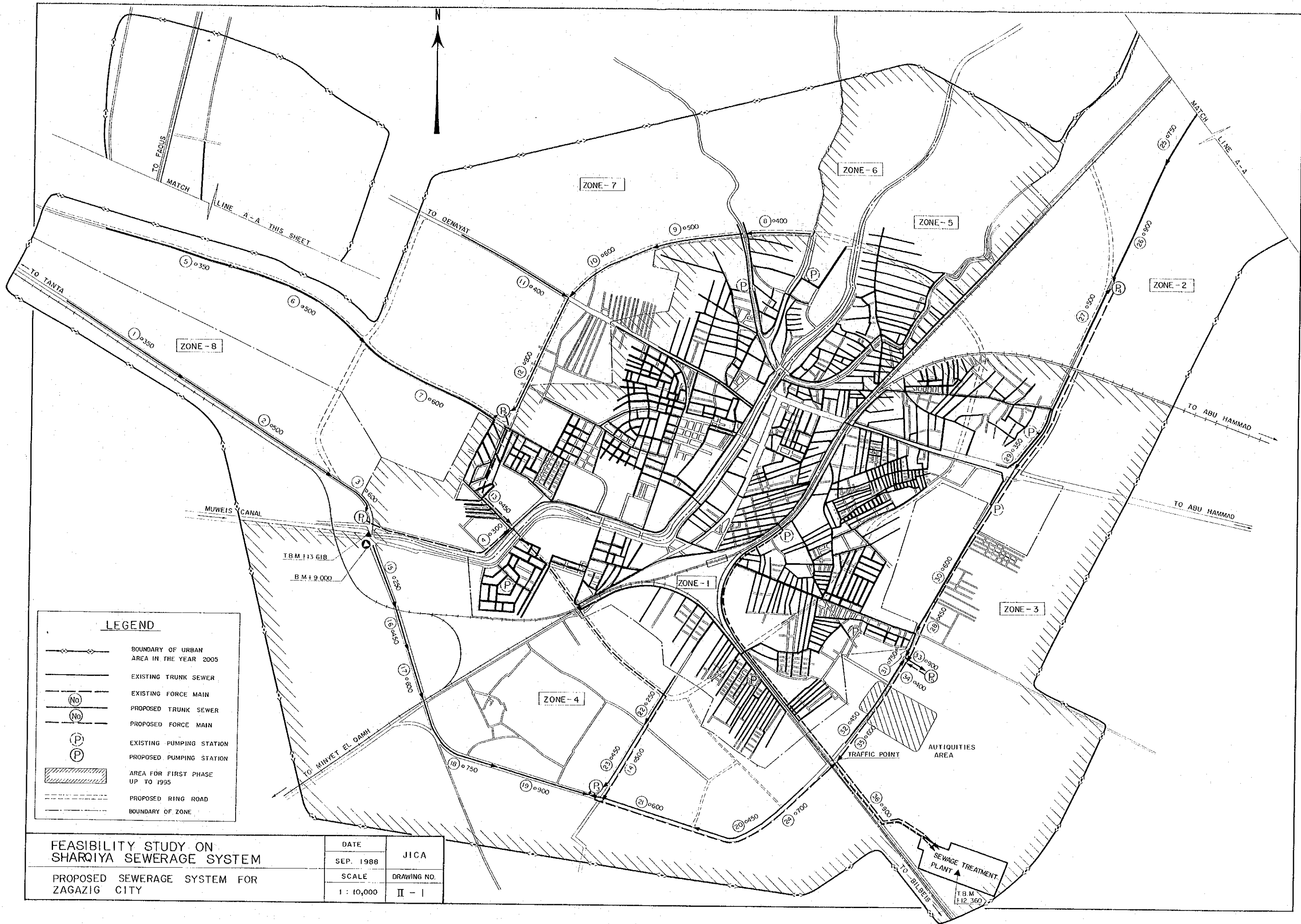


LEGEND


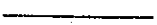




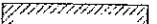

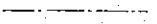

- BOUNDARY OF MARKAZ
- - - BOUNDARY OF URBAN AREA IN THE YEAR 2006
- BOUNDARY OF PRESENT URBAN AREA
- PROPOSED TRUNK SEWER
- PROPOSED FORCE MAIN
- (P) PROPOSED PUMPING STATION
- (P) EXISTING PUMPING STATION
- [STP] SEWAGE TREATMENT PLANT

FEASIBILITY STUDY ON
 SHARQIYA SEWERAGE SYSTEM
 SEWERAGE GENERAL PLAN
 FOR MASHTUL EL SOAK CITY (0-9)

DATE	JICA
SEP. 1988	
SCALE	DRAWING NO.
1 : 25,000	I - 10



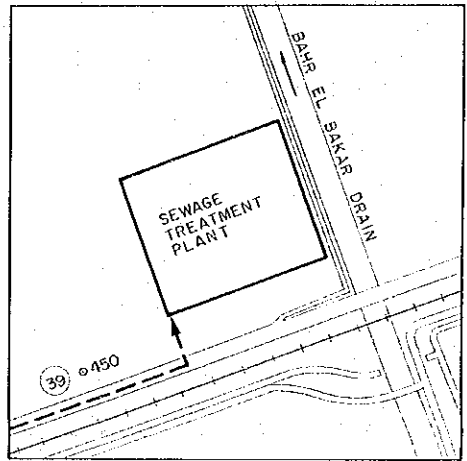
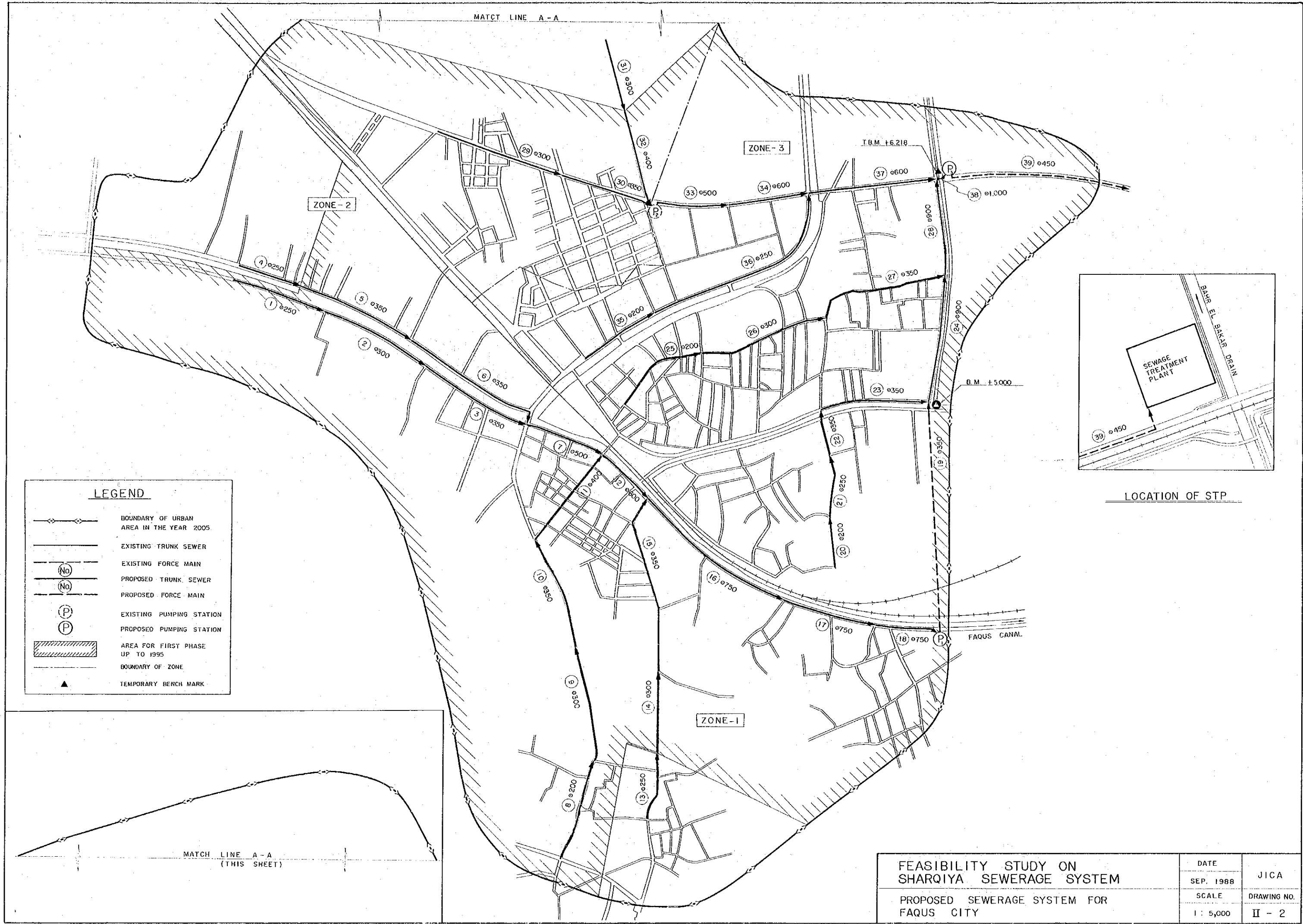
LEGEND

-  BOUNDARY OF URBAN AREA IN THE YEAR 2005
-  EXISTING TRUNK SEWER
-  EXISTING FORCE MAIN
-  PROPOSED TRUNK SEWER
-  PROPOSED FORCE MAIN
-  EXISTING PUMPING STATION
-  PROPOSED PUMPING STATION
-  AREA FOR FIRST PHASE UP TO 1995
-  PROPOSED RING ROAD
-  BOUNDARY OF ZONE

FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM

PROPOSED SEWERAGE SYSTEM FOR ZAGAZIG CITY

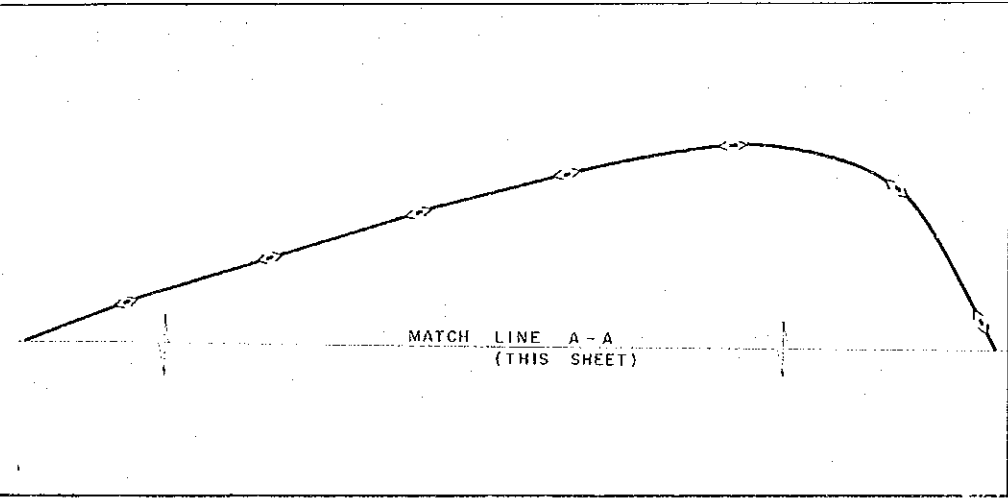
DATE	JICA
SEP. 1988	DRAWING NO.
SCALE	II - I
1 : 10,000	



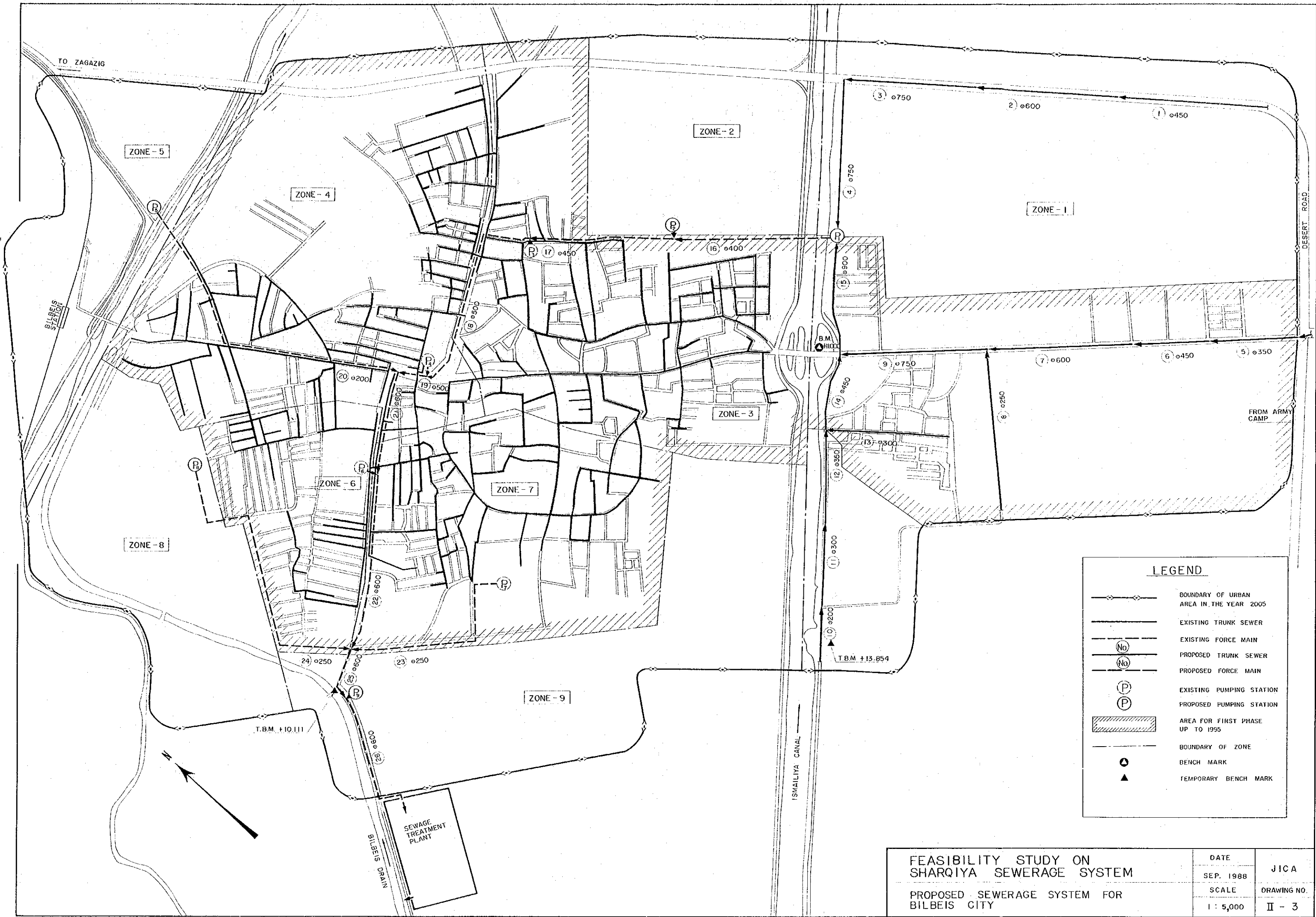
LOCATION OF STP

LEGEND

	BOUNDARY OF URBAN AREA IN THE YEAR 2005
	EXISTING TRUNK SEWER
	EXISTING FORCE MAIN
	PROPOSED TRUNK SEWER
	PROPOSED FORCE MAIN
	EXISTING PUMPING STATION
	PROPOSED PUMPING STATION
	AREA FOR FIRST PHASE UP TO 1995
	BOUNDARY OF ZONE
	TEMPORARY BENCH MARK

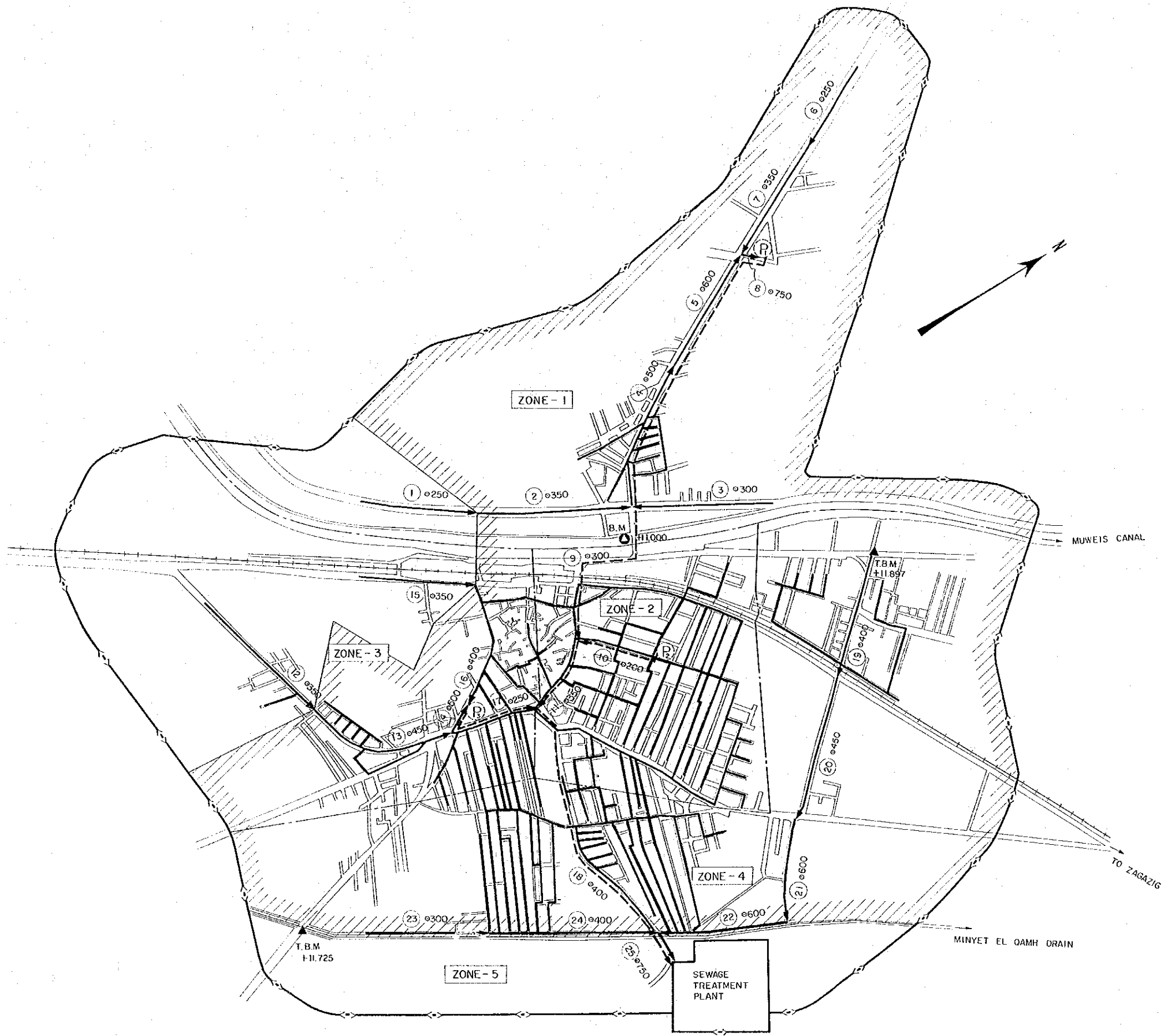


FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM PROPOSED SEWERAGE SYSTEM FOR FAQUS CITY	DATE	JICA
	SEP. 1988	
	SCALE	DRAWING NO.
1 : 5,000	II - 2	



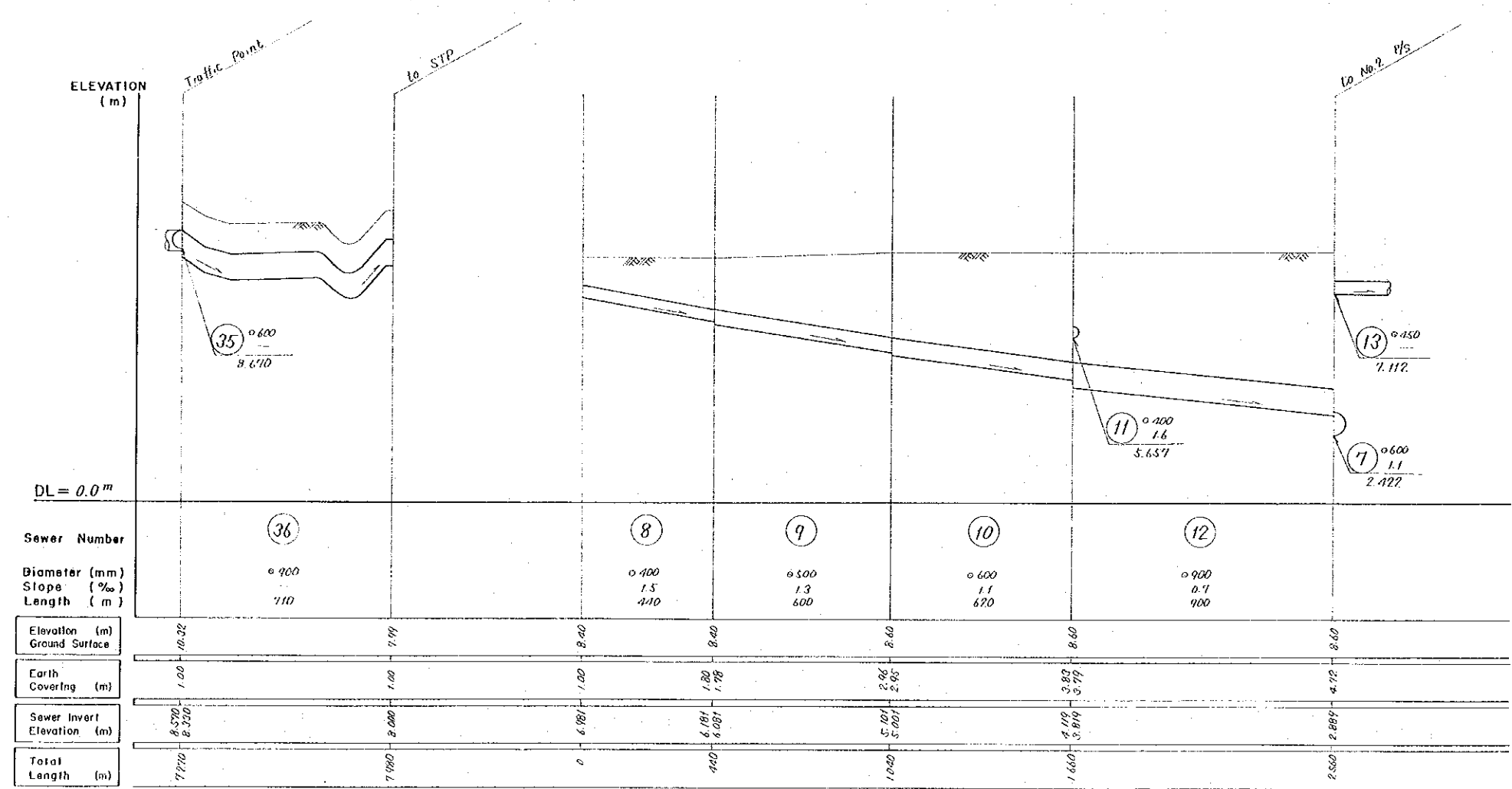
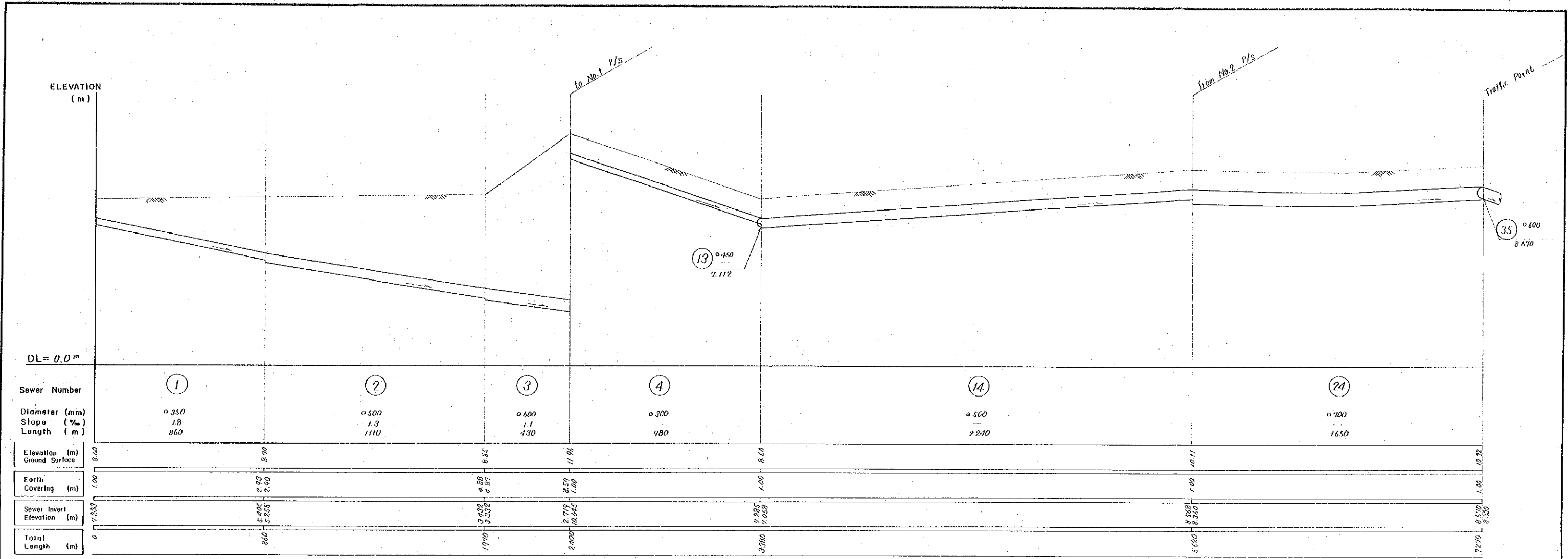
LEGEND	
	BOUNDARY OF URBAN AREA IN THE YEAR 2005
	EXISTING TRUNK SEWER
	EXISTING FORCE MAIN
	PROPOSED TRUNK SEWER
	PROPOSED FORCE MAIN
	EXISTING PUMPING STATION
	PROPOSED PUMPING STATION
	AREA FOR FIRST PHASE UP TO 1995
	BOUNDARY OF ZONE
	BENCH MARK
	TEMPORARY BENCH MARK

FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM PROPOSED SEWERAGE SYSTEM FOR BILBEIS CITY	DATE	JICA
	SEP. 1988	DRAWING NO.
	SCALE	II - 3
	1 : 5,000	



LEGEND	
	BOUNDARY OF URBAN AREA IN THE YEAR 2005
	EXISTING TRUNK SEWER
	EXISTING FORCE MAIN
	PROPOSED TRUNK SEWER
	PROPOSED FORCE MAIN
	EXISTING PUMPING STATION
	PROPOSED PUMPING STATION
	AREA FOR FIRST PHASE UP TO 1935
	BOUNDARY OF ZONE
	BENCH MARK
	TEMPORARY BENCH MARK

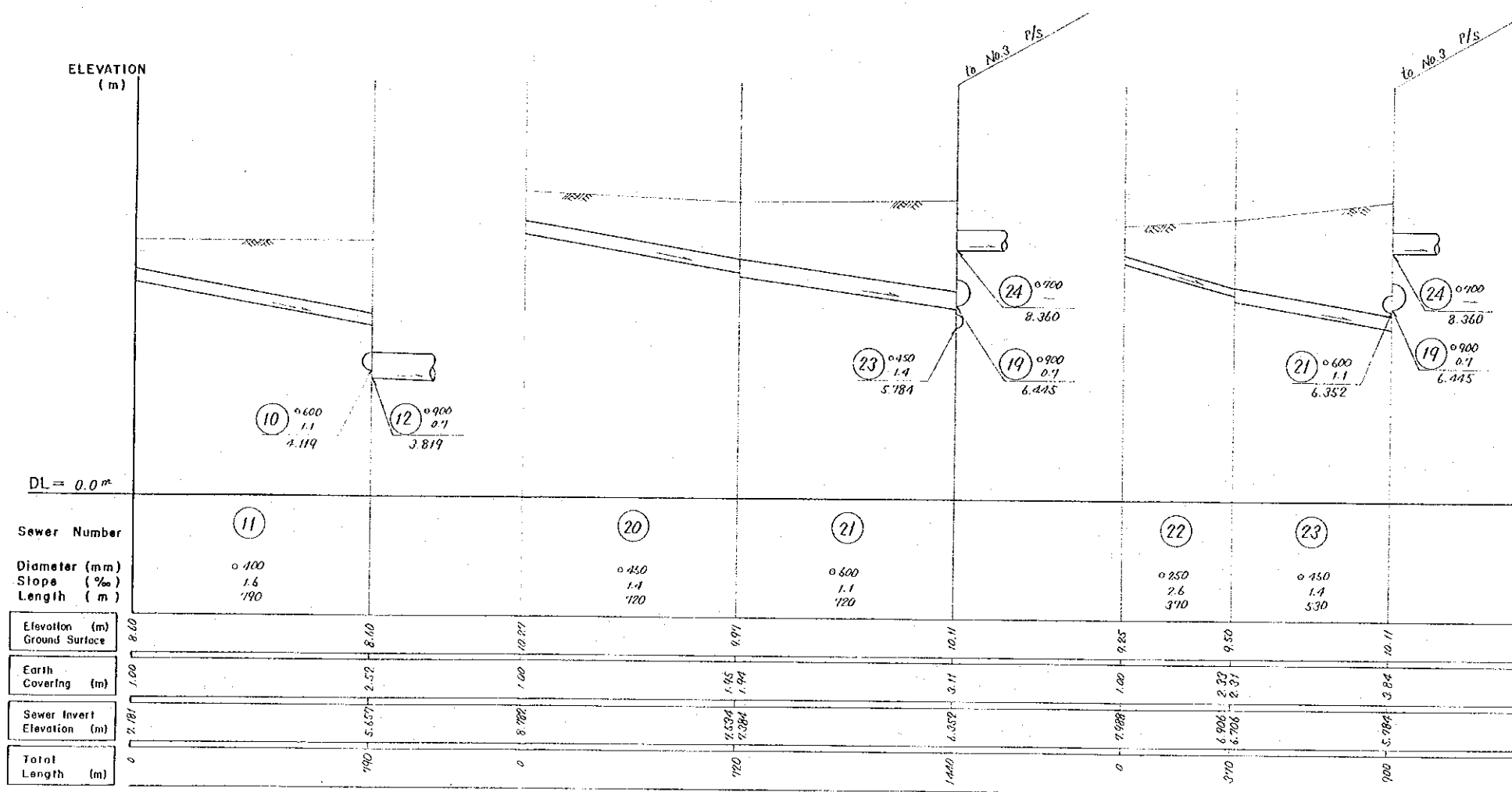
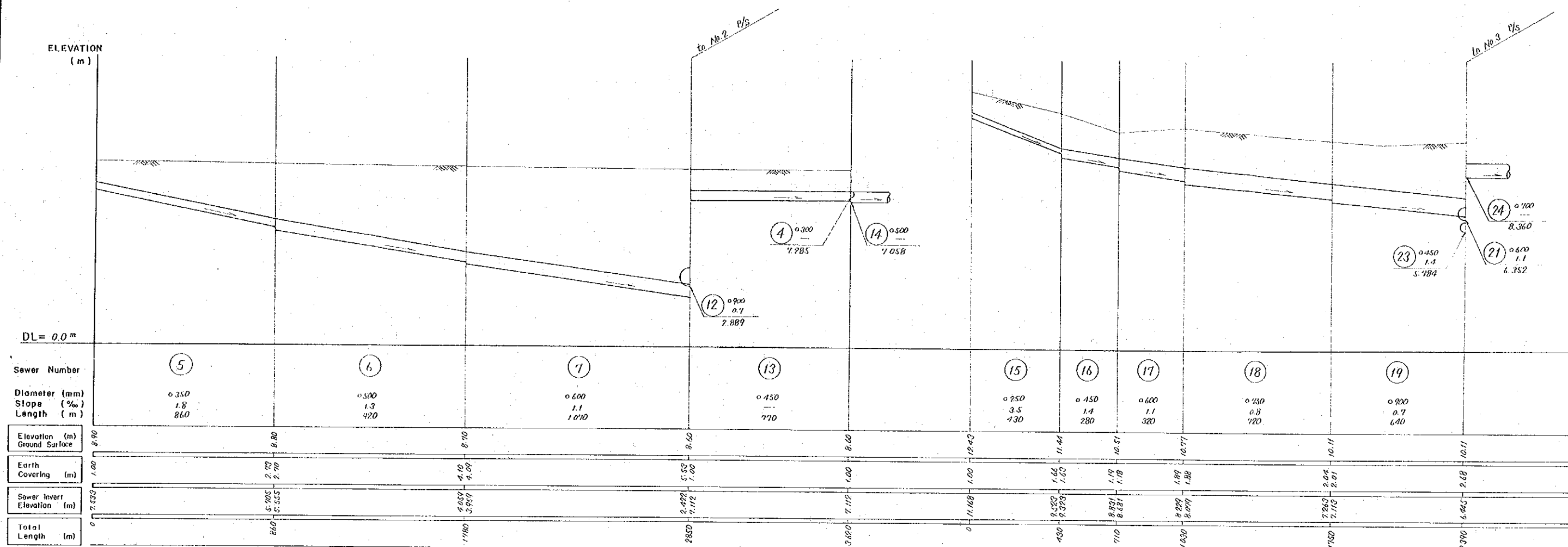
FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM PROPOSED SEWERAGE SYSTEM FOR MINYET EL QAMH CITY	DATE	JICA
	SEP. 1988	
	SCALE	DRAWING NO.
	1 : 5,000	II - 4



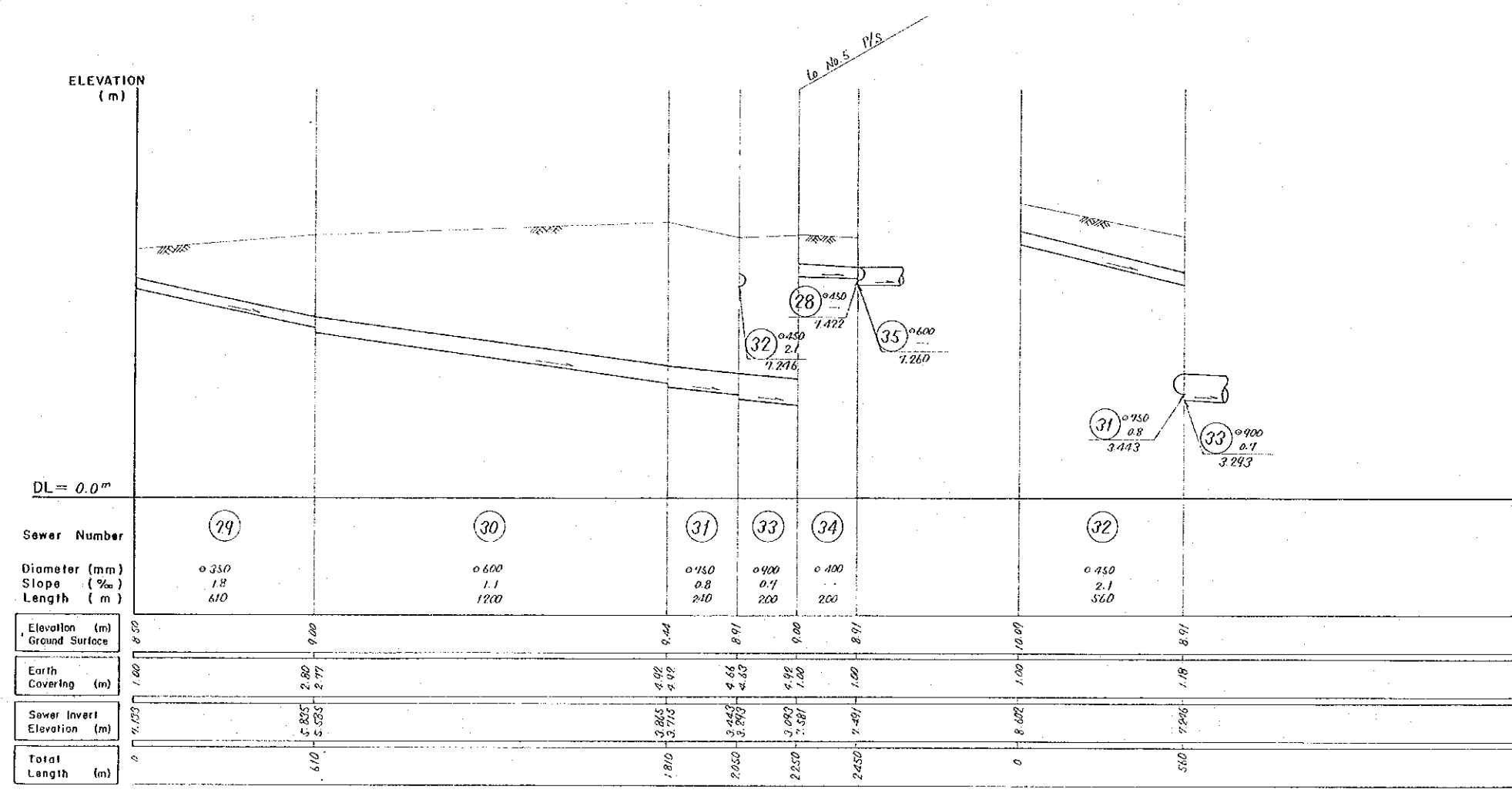
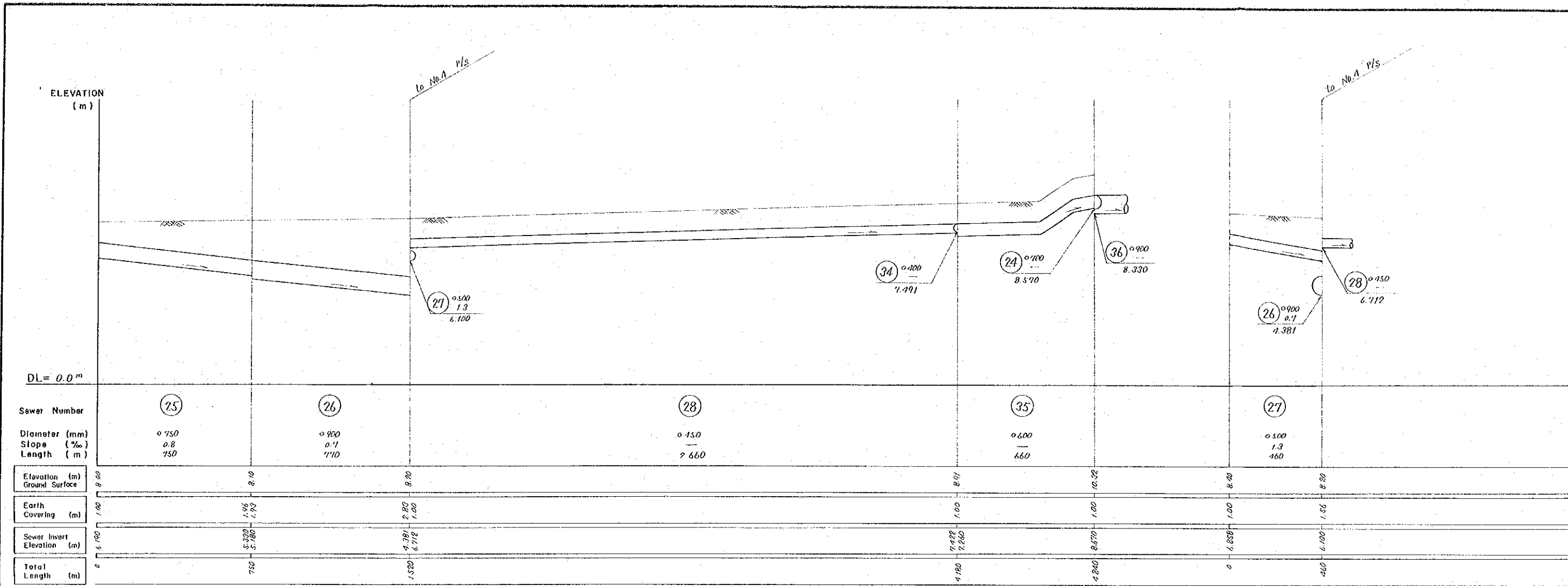
FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM

TRUNK SEWER PROFILE FOR ZAGAZIG CITY (1 OF 3)

DATE	SEP. 1988	JICA
SCALE	SV 1:100	DRAWING NO.
	SH 1:10,000	II - 5



FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM		DATE	JICA
TRUNK SEWER PROFILE FOR ZAGAZIG CITY (2 OF 3)		SEP. 1988	DRAWING NO.
		SCALE	II - 6
		SV 1:100	
		SH 1:10,000	



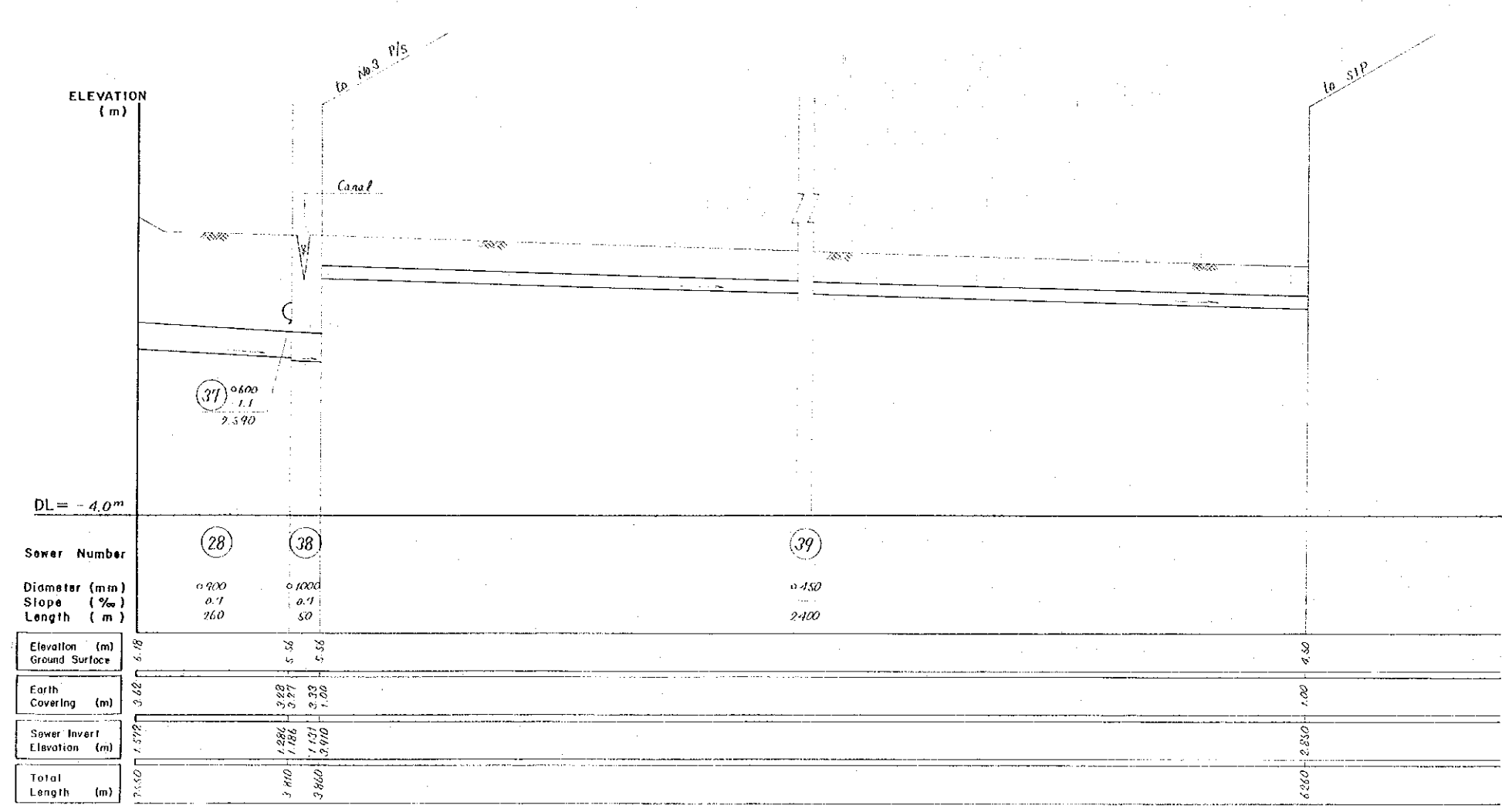
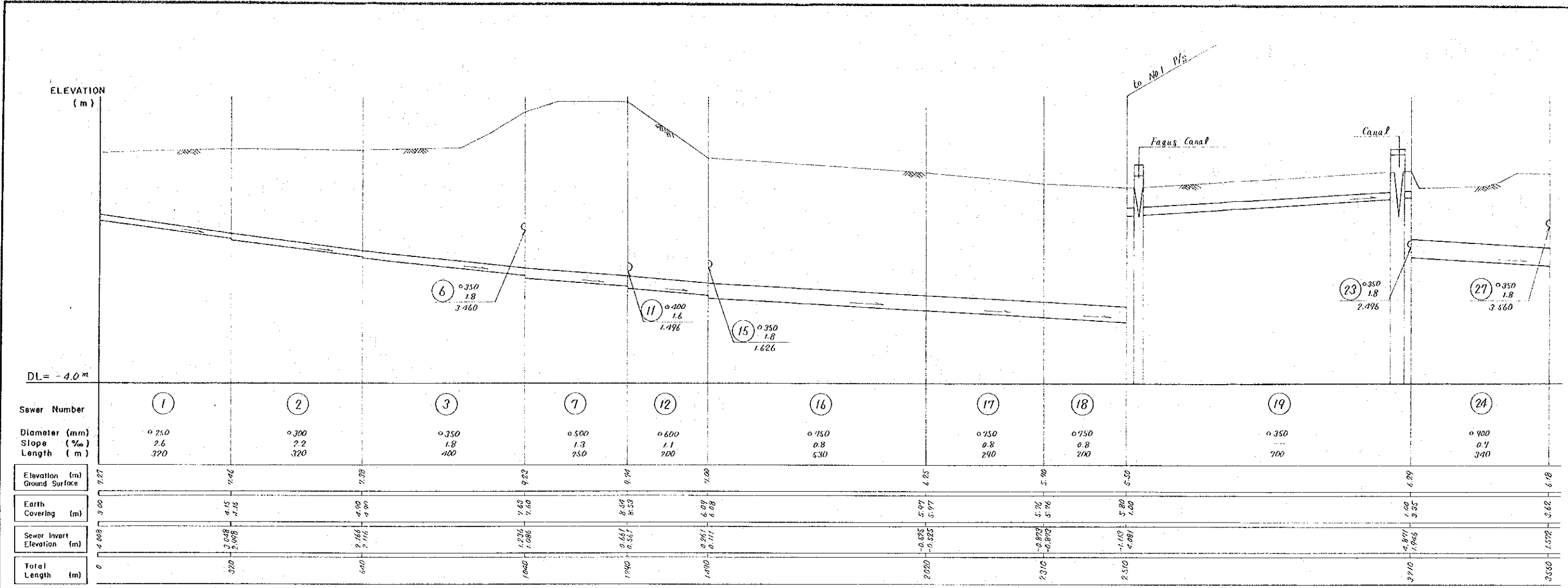
FEASIBILITY STUDY ON
SHARQIYA SEWERAGE SYSTEM

TRUNK SEWER PROFILE
FOR ZAGAZIG CITY (3 OF 3)

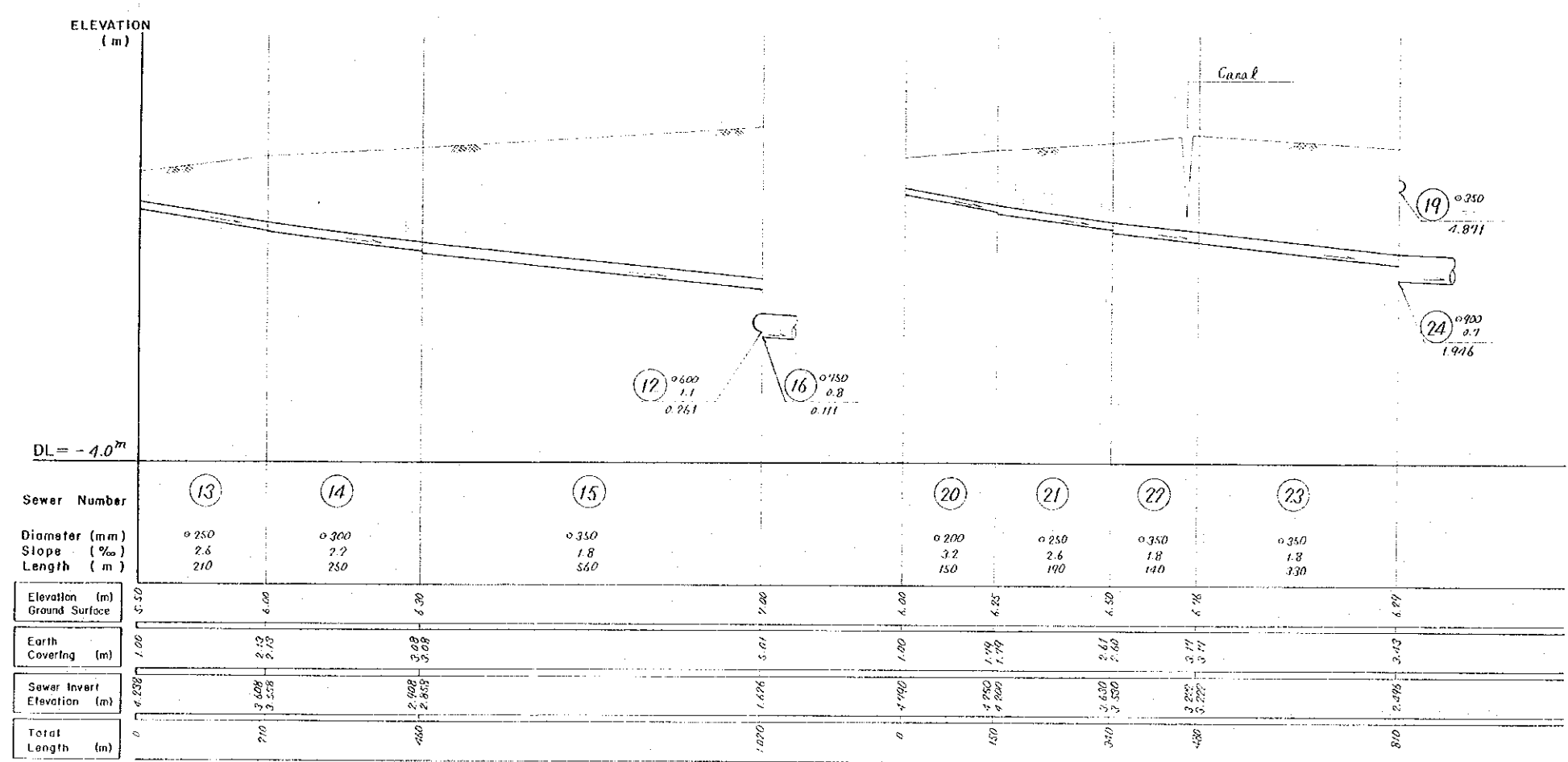
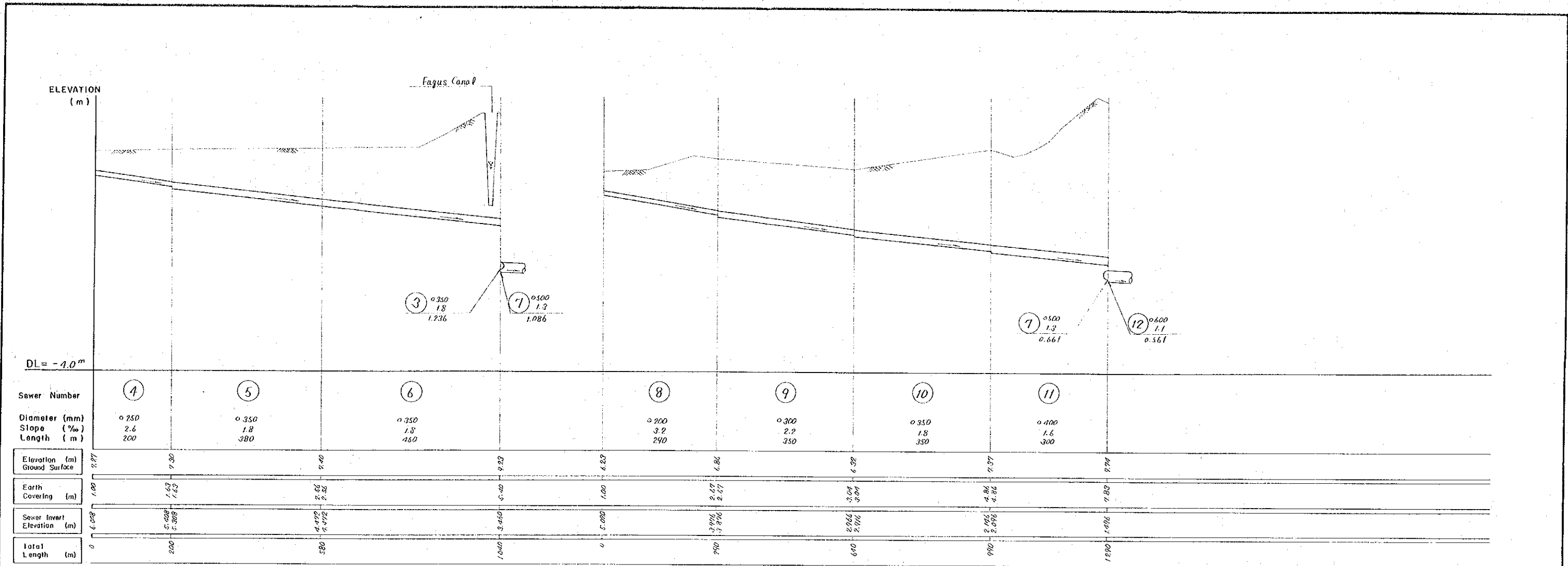
DATE
SEP. 1988

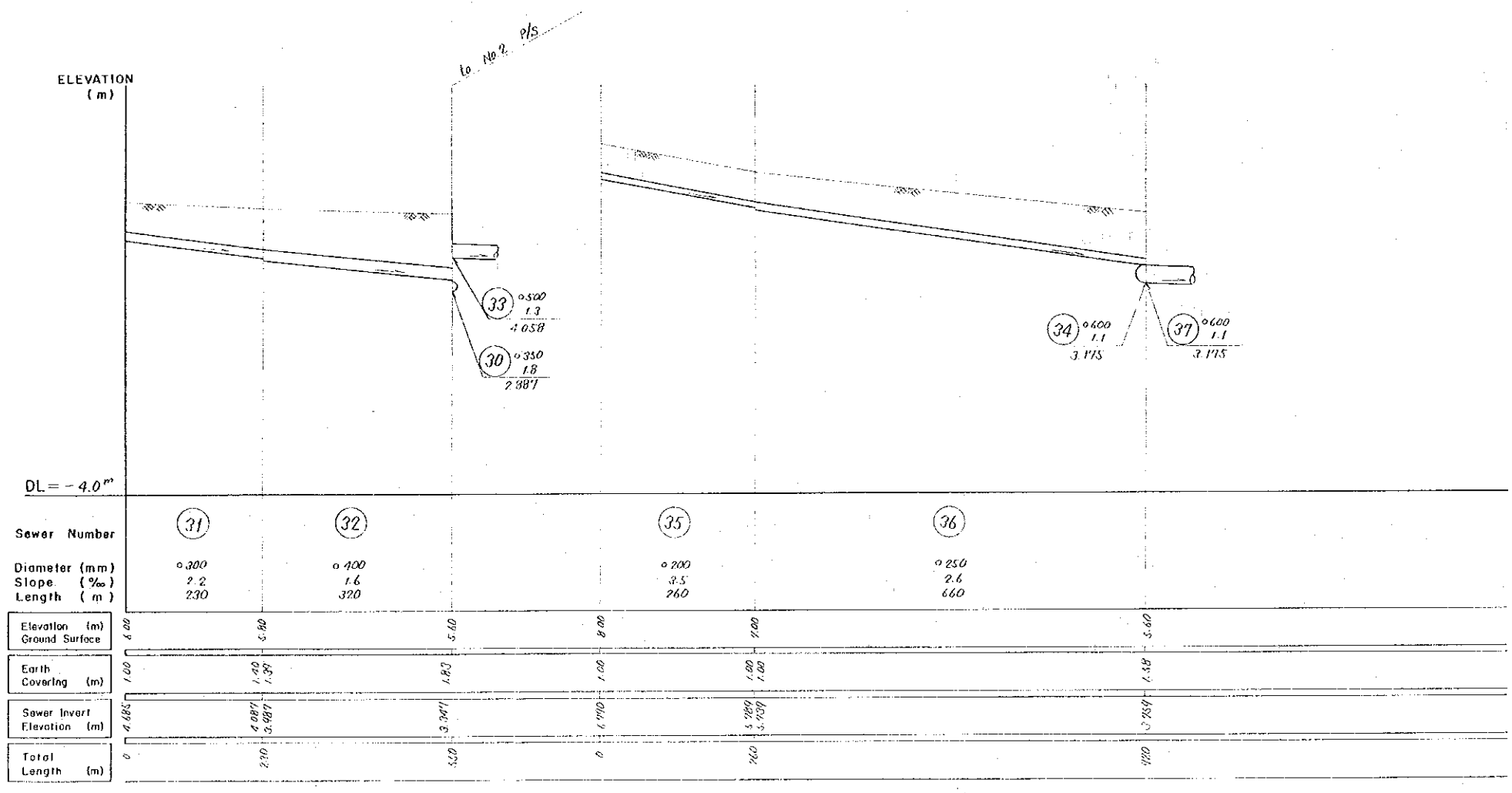
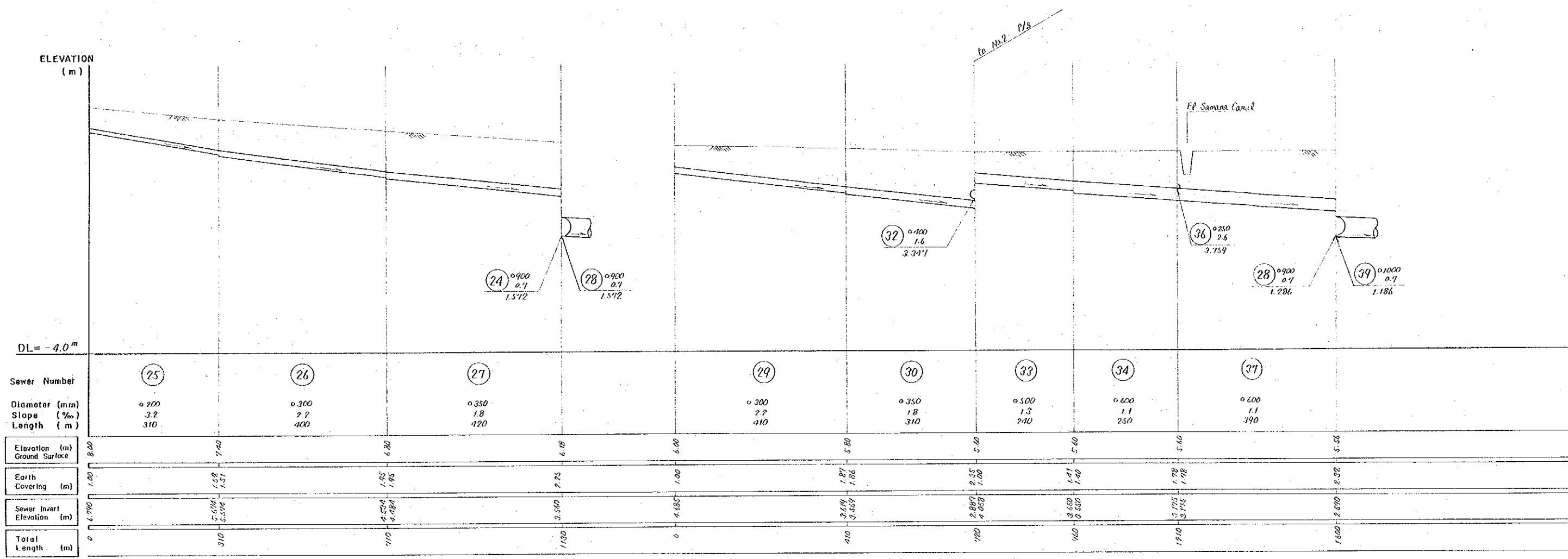
SCALE
SV 1 : 100
SH 1 : 10,000

JICA
DRAWING NO.
II - 7

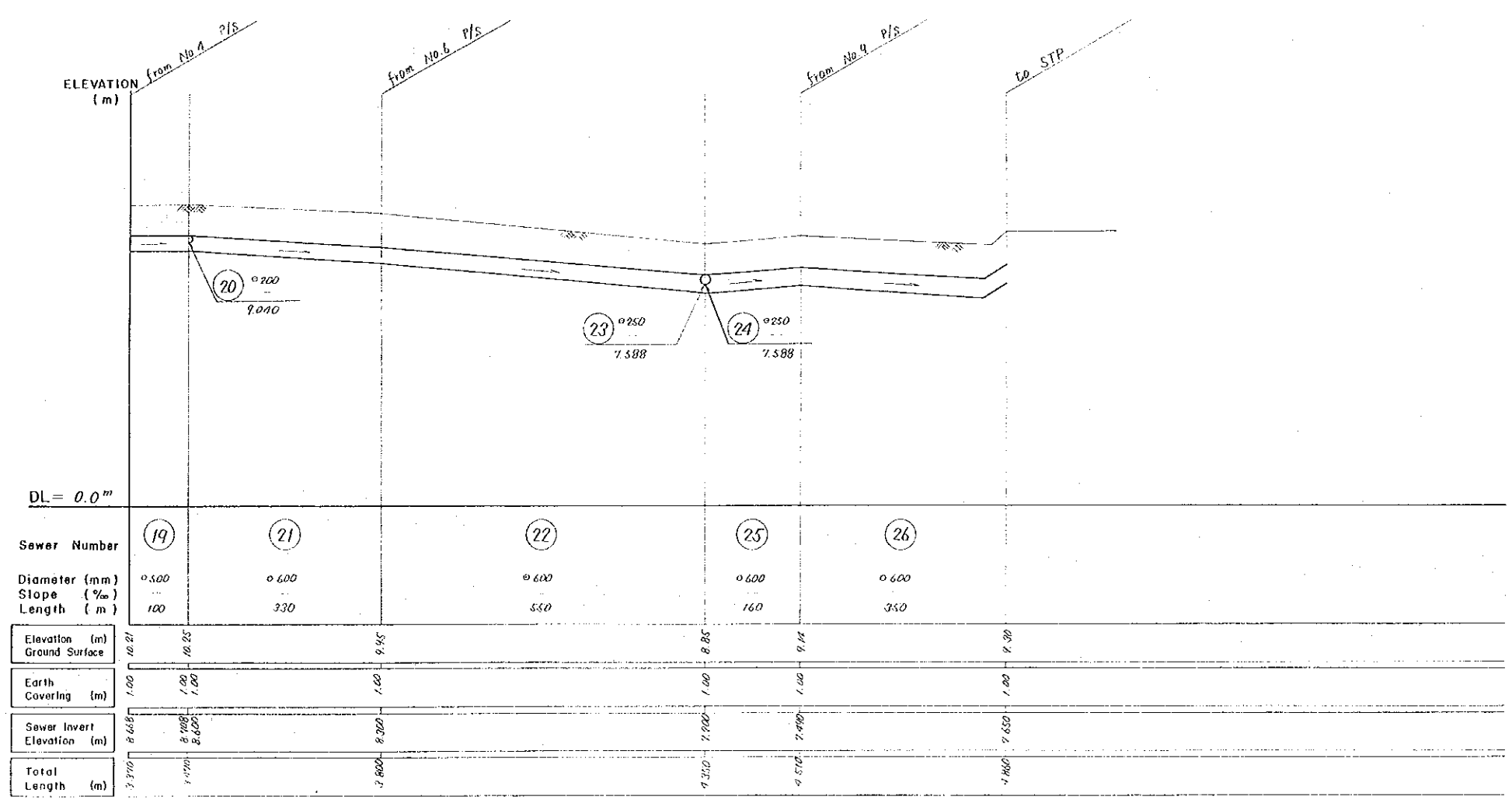
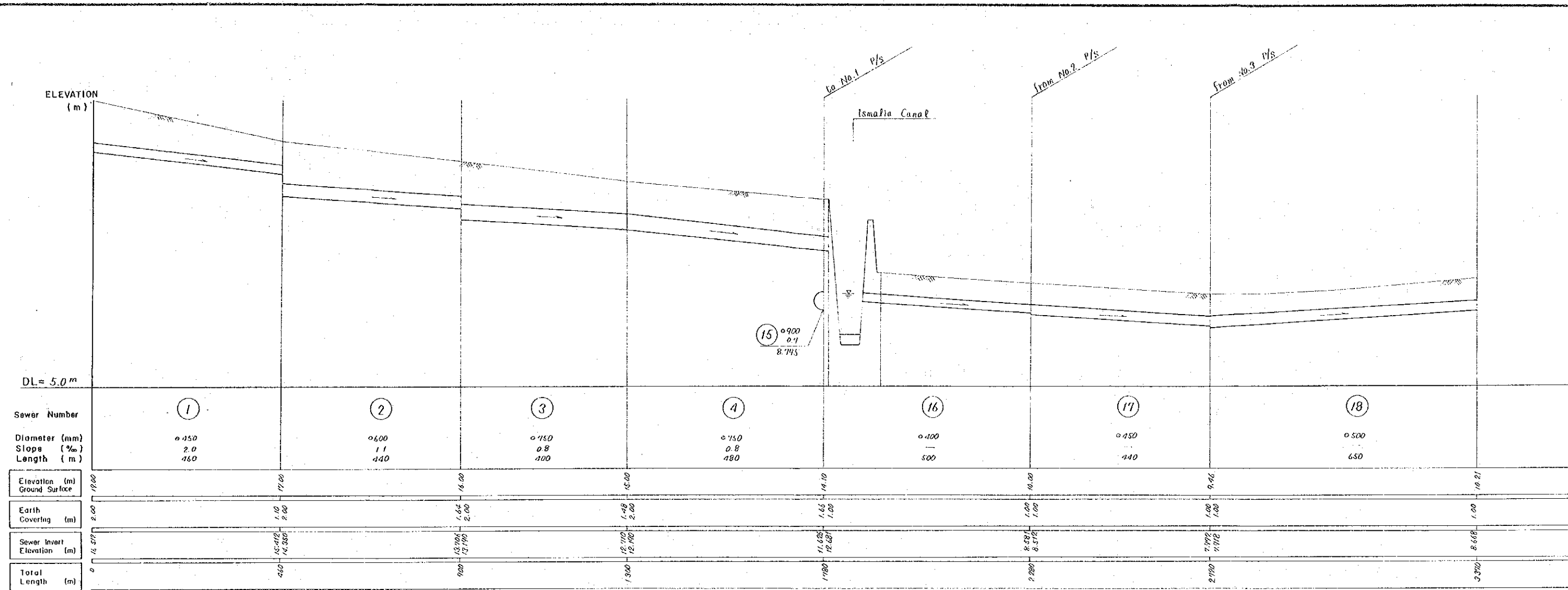


FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM		DATE	JICA
TRUNK SEWER PROFILE FOR FAQUS CITY (1 OF 3)		SEP. 1988	DRAWING NO.
SCALE		SV 1:100	II - 8
		SH 1:5,000	

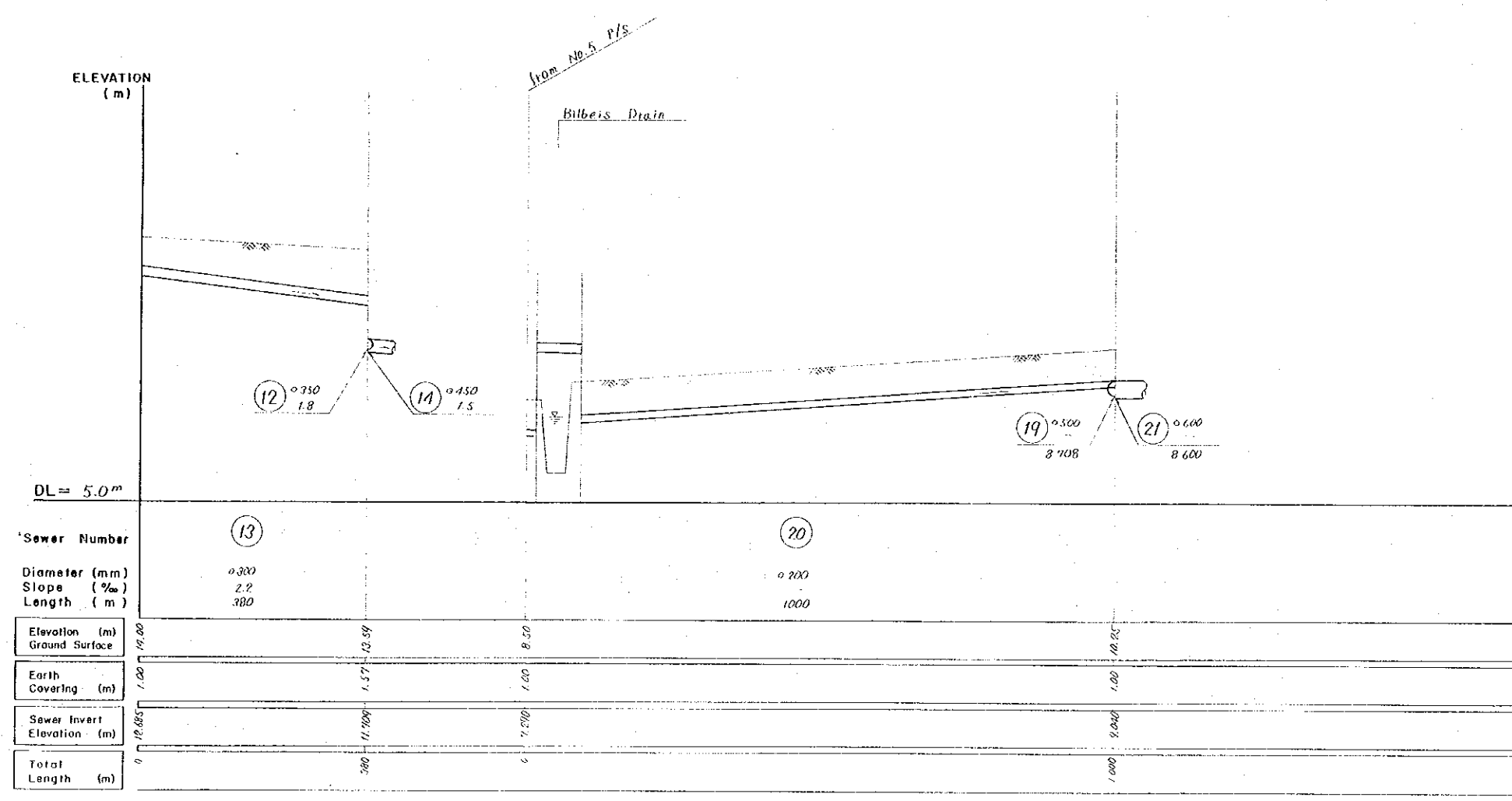
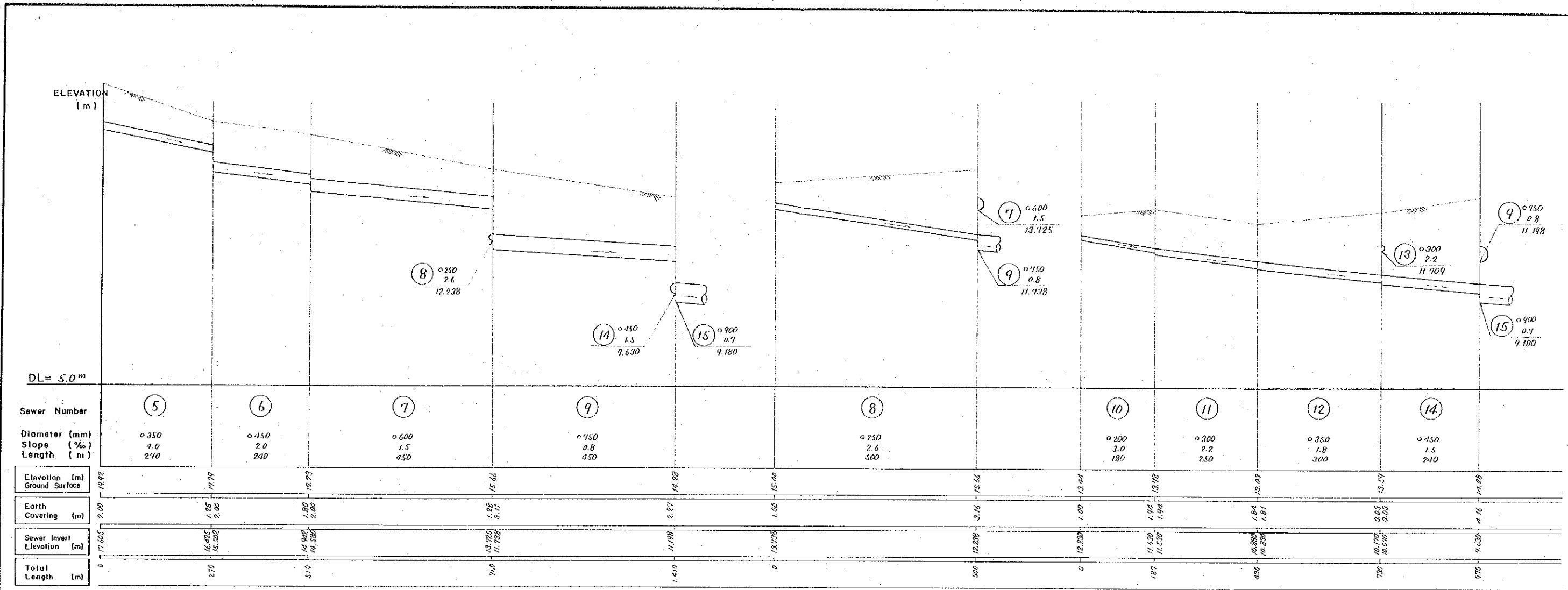




FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM TRUNK SEWER PROFILE FOR FAQUS CITY (3 OF 3)	DATE	JICA
	SEP. 1988	
	SCALE	DRAWING NO.
	SV 1:100 SH 1:5,000	II - 10



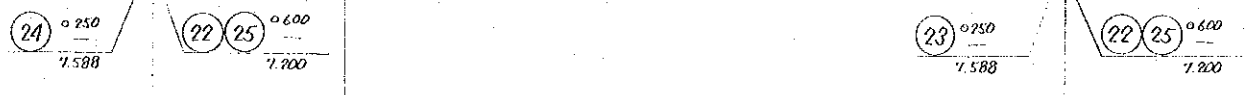
FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM		DATE	JICA
TRUNK SEWER PROFILE FOR BILBEIS CITY (1 OF 3)		SEP. 1988	DRAWING NO.
		SCALE	II - 11
		SV 1:100	
		SH 1:5,000	



FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM		DATE	JICA
TRUNK SEWER PROFILE FOR BILBEIS (2 OF 3)		SEP. 1988	
		SCALE	DRAWING NO.
		SV 1:100	II - 12
		SH 1:5,000	

ELEVATION (m) from No.1 P/S

from No.8 P/S



DL = 0.0 m

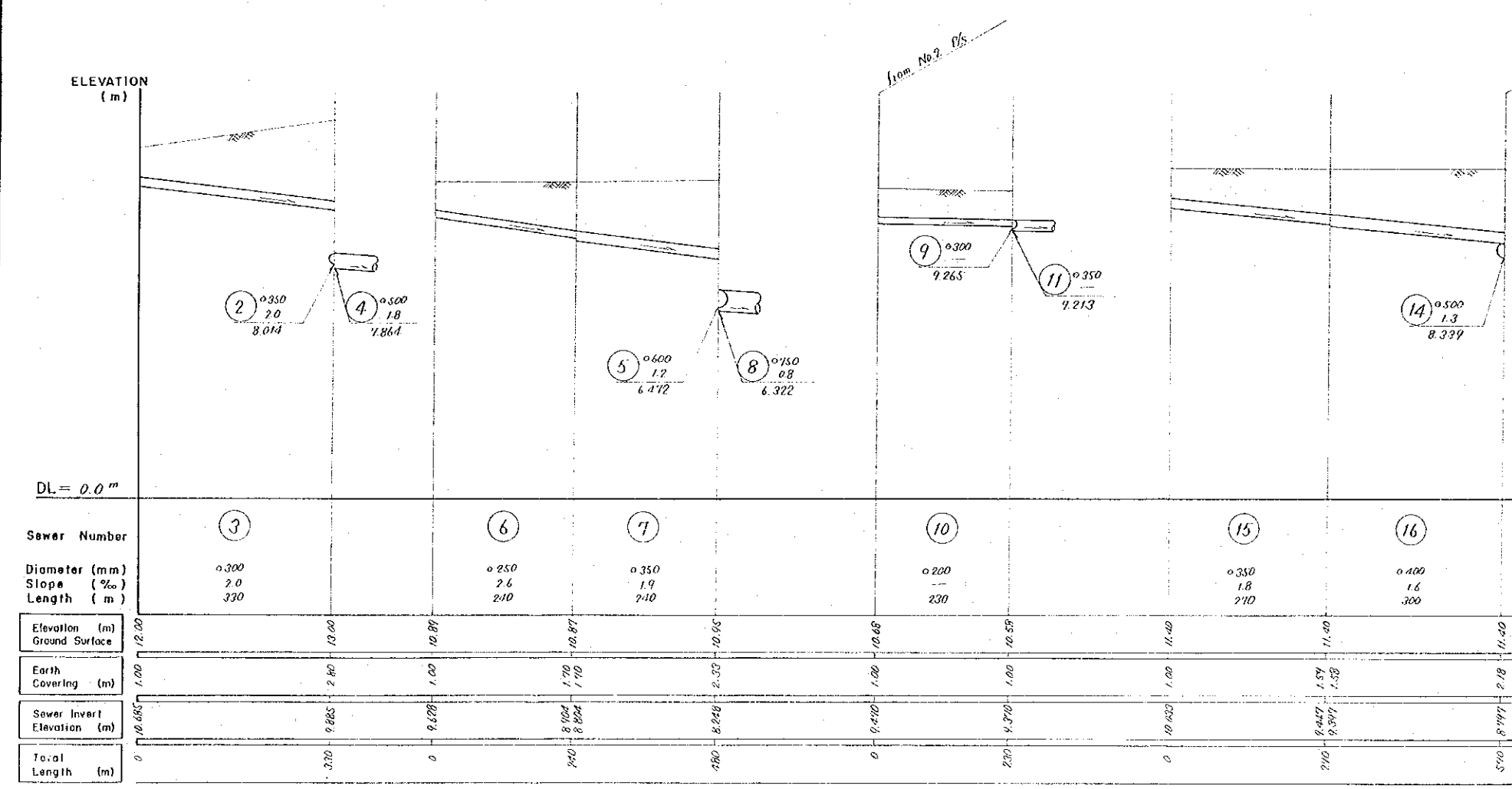
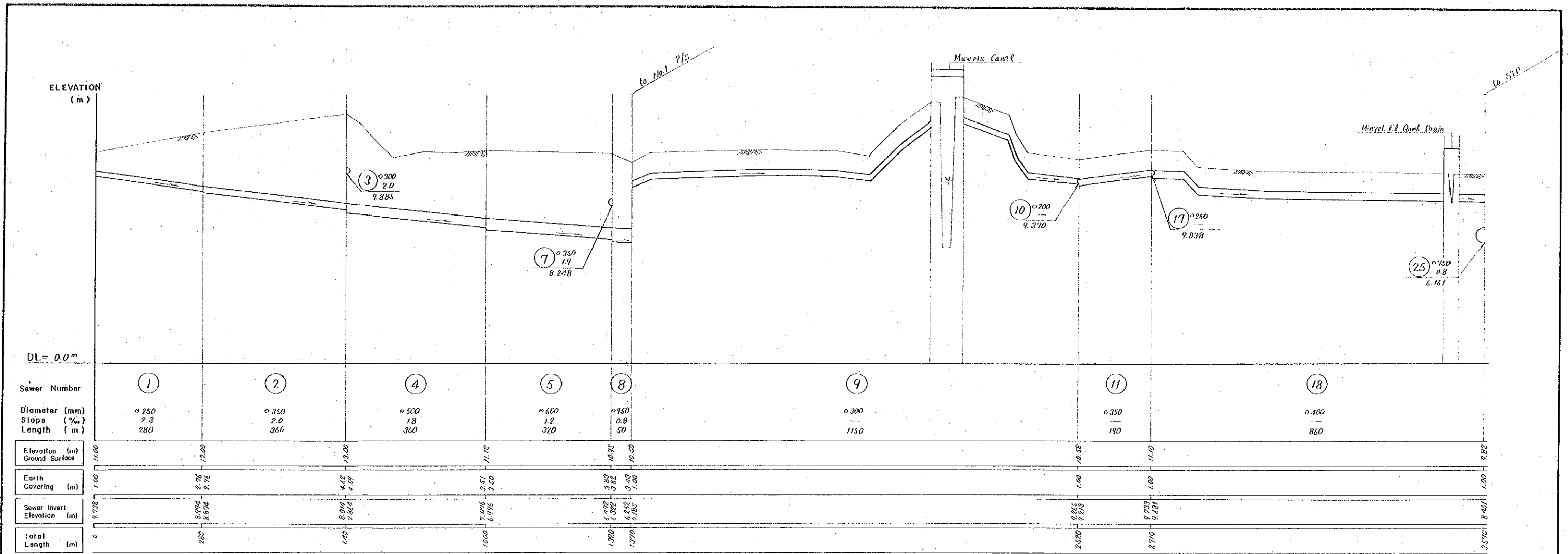
Sewer Number	23	24
Diameter (mm)	250	250
Slope (‰)	0.600	0.600
Length (m)	650	950
Elevation (m) Ground Surface	8.50	8.50
Earth Covering (m)	1.00	1.00
Sewer Invert Elevation (m)	7.500	7.500
Total Length (m)	0	0

ELEVATION (m)

DL =

Sewer Number	
Diameter (mm)	
Slope (‰)	
Length (m)	
Elevation (m) Ground Surface	
Earth Covering (m)	
Sewer Invert Elevation (m)	
Total Length (m)	

FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM	DATE	JICA
	SEP. 1988	
TRUNK SEWER PROFILE FOR BILBEIS CITY (3 OF 3)	SCALE	DRAWING NO.
	SV 1 : 100 SH 1 : 5,000	II - 13



FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM

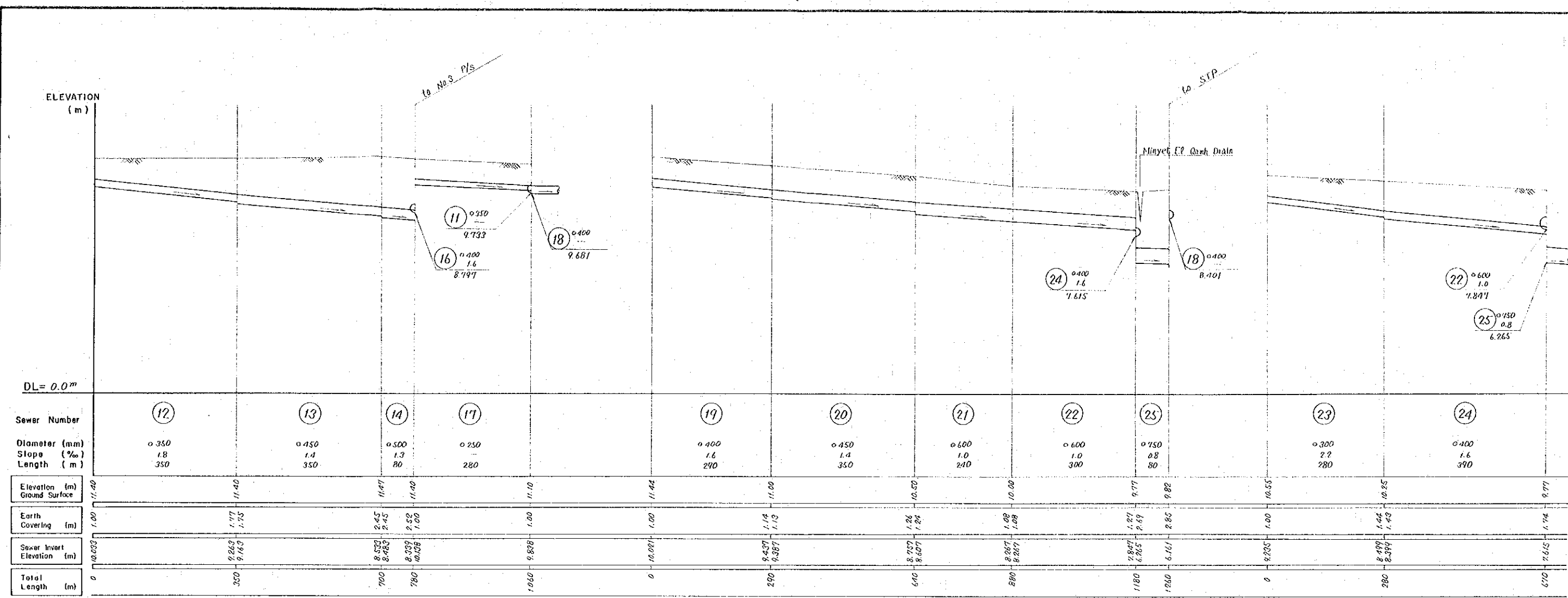
TRUNK SEWER PROFILE FOR MINYET EL QAMH CITY (1 OF 2)

DATE: SEP. 1988

SCALE: SV 1:100, SH 1:5,000

JICA

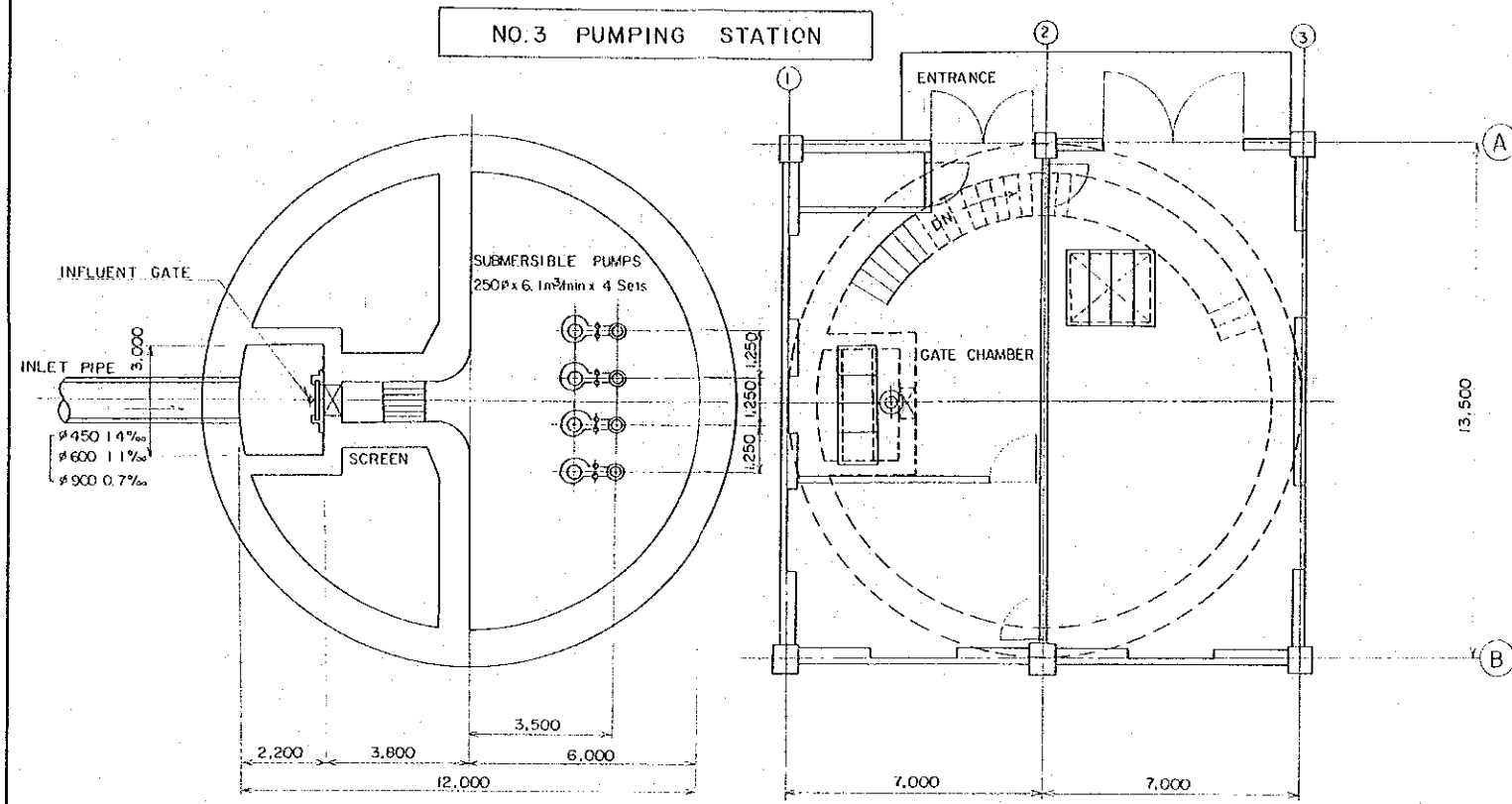
DRAWING NO. II - 14



ELEVATION (m)

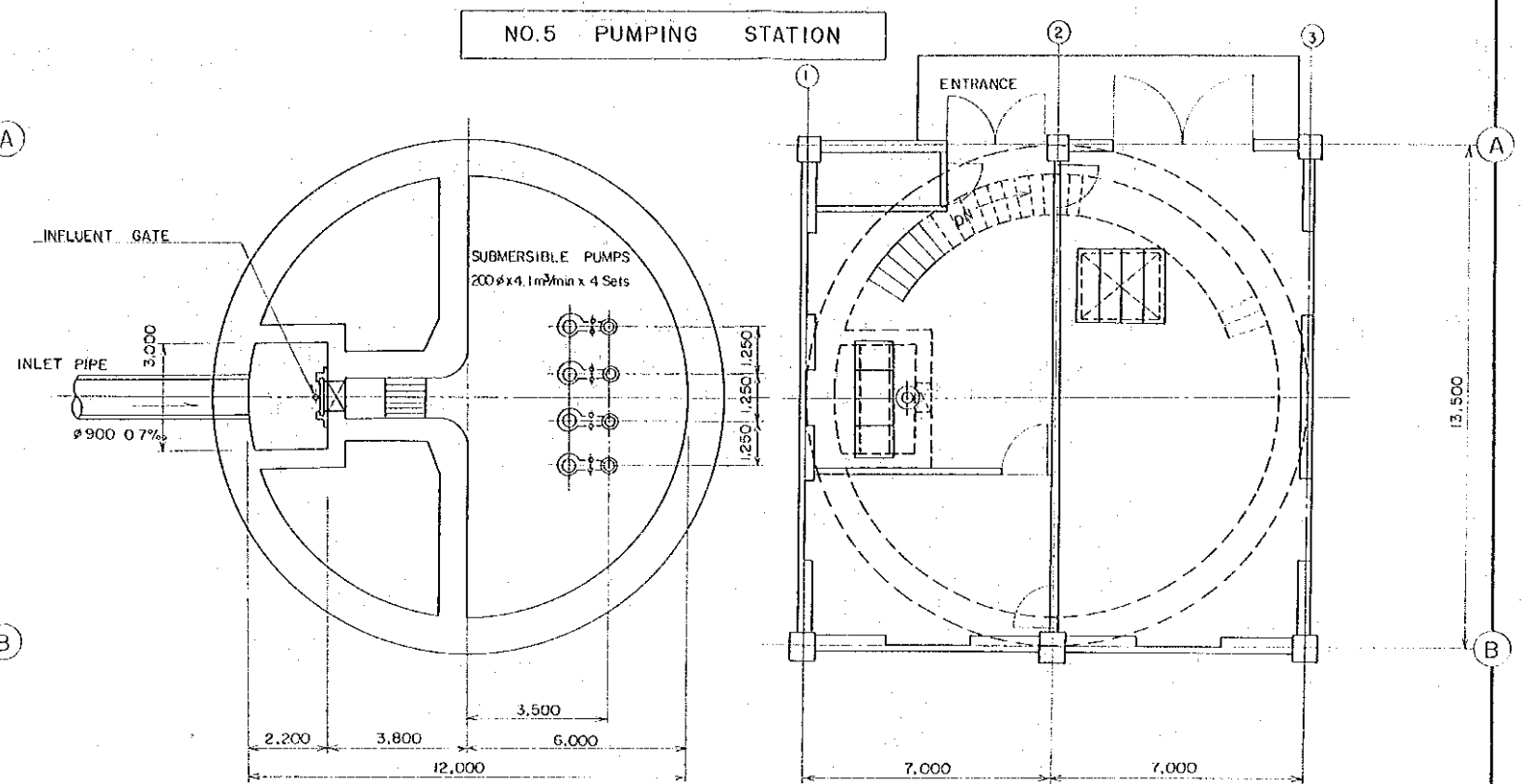
DL =

Sewer Number	Diameter (mm)	Slope (‰)	Length (m)	Elevation (m) Ground Surface	Earth Covering (m)	Sewer Invert Elevation (m)	Total Length (m)



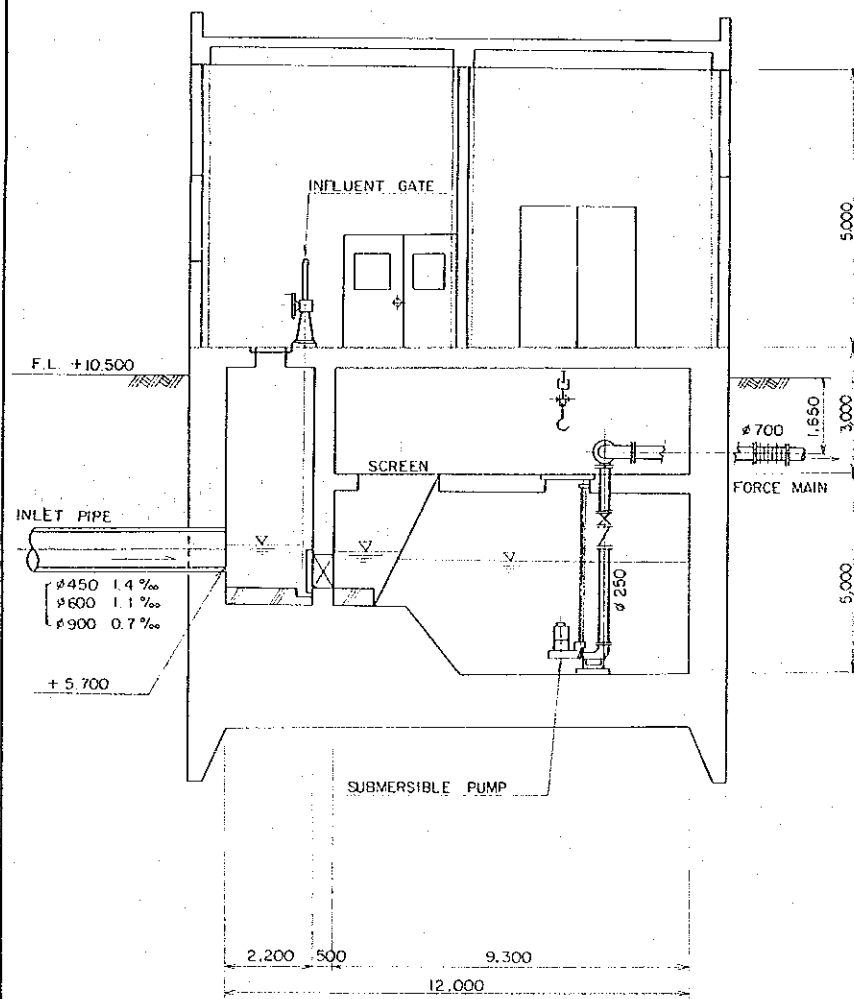
B2F PLAN

IF PLAN

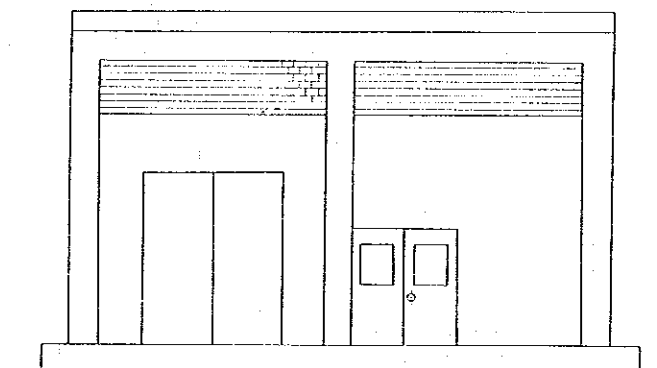


B2F PLAN

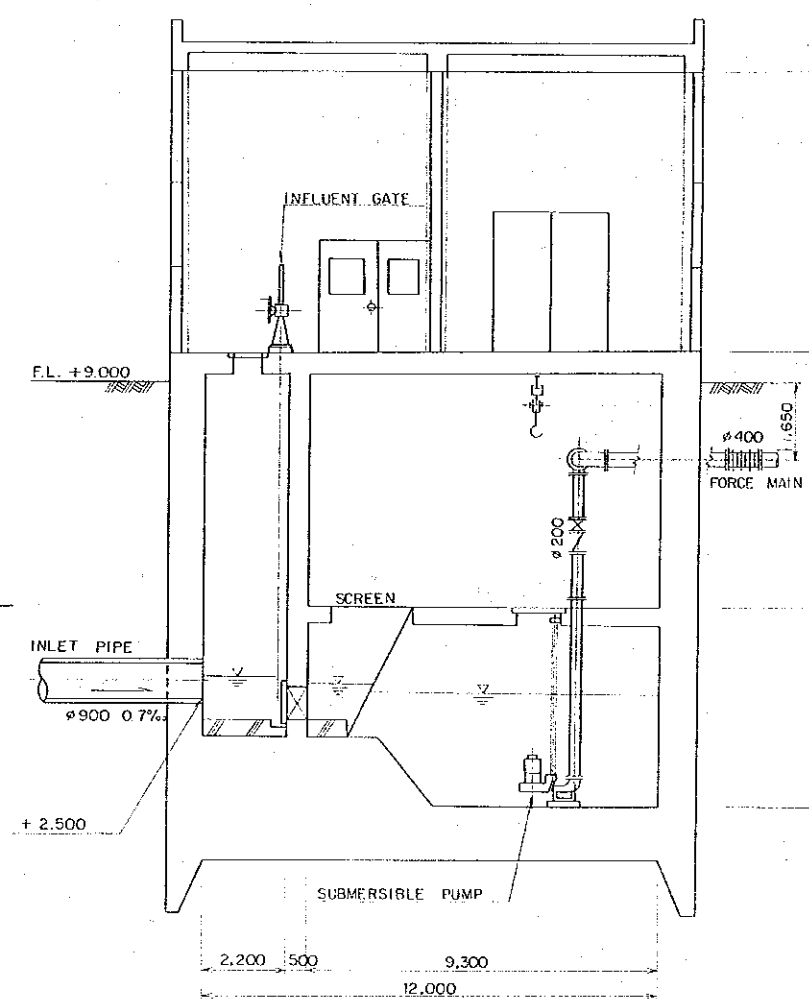
IF PLAN



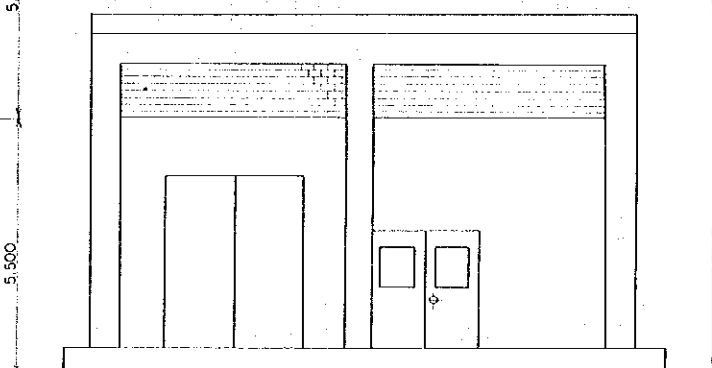
SECTION



ELAVATION



SECTION



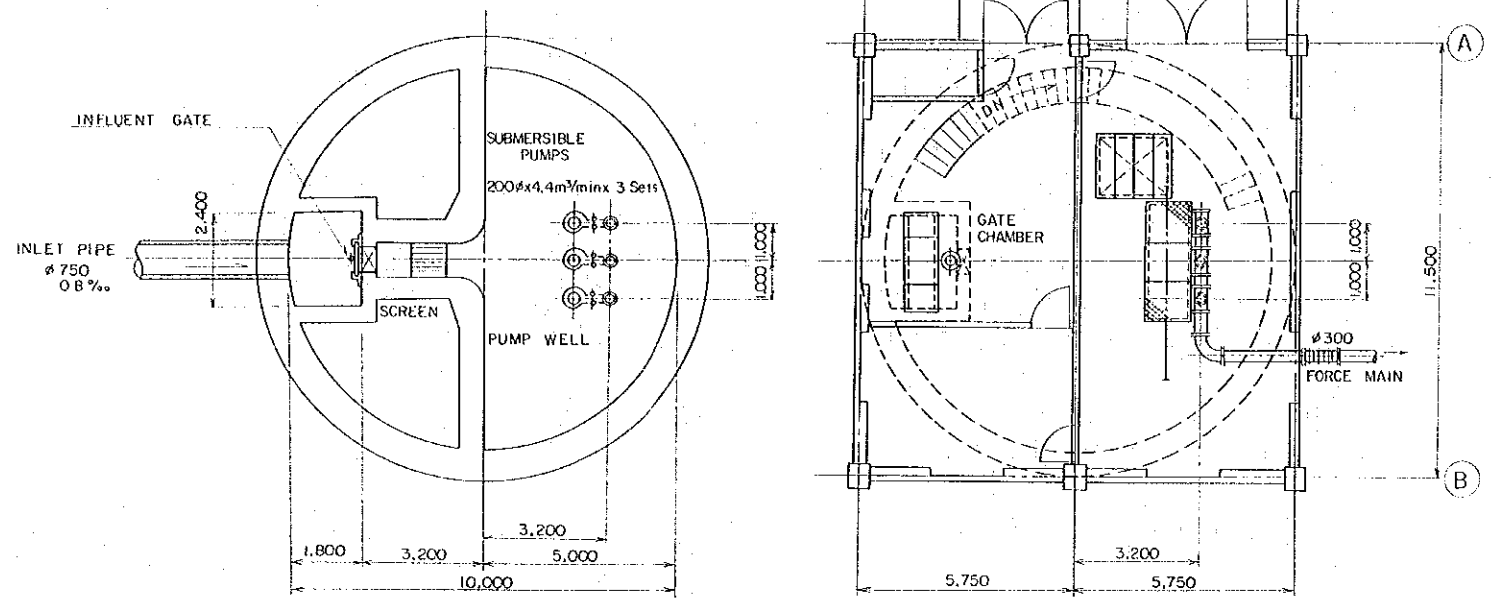
ELAVATION

FEASIBILITY STUDY ON
SHARQIYA SEWERAGE SYSTEM

PUMPING STATIONS FOR ZAGAZIG CITY PLANS,
SECTIONS AND ELEVATIONS

DATE	JICA
SEP. 1988	
SCALE	DRAWING NO.
1:100	II-16

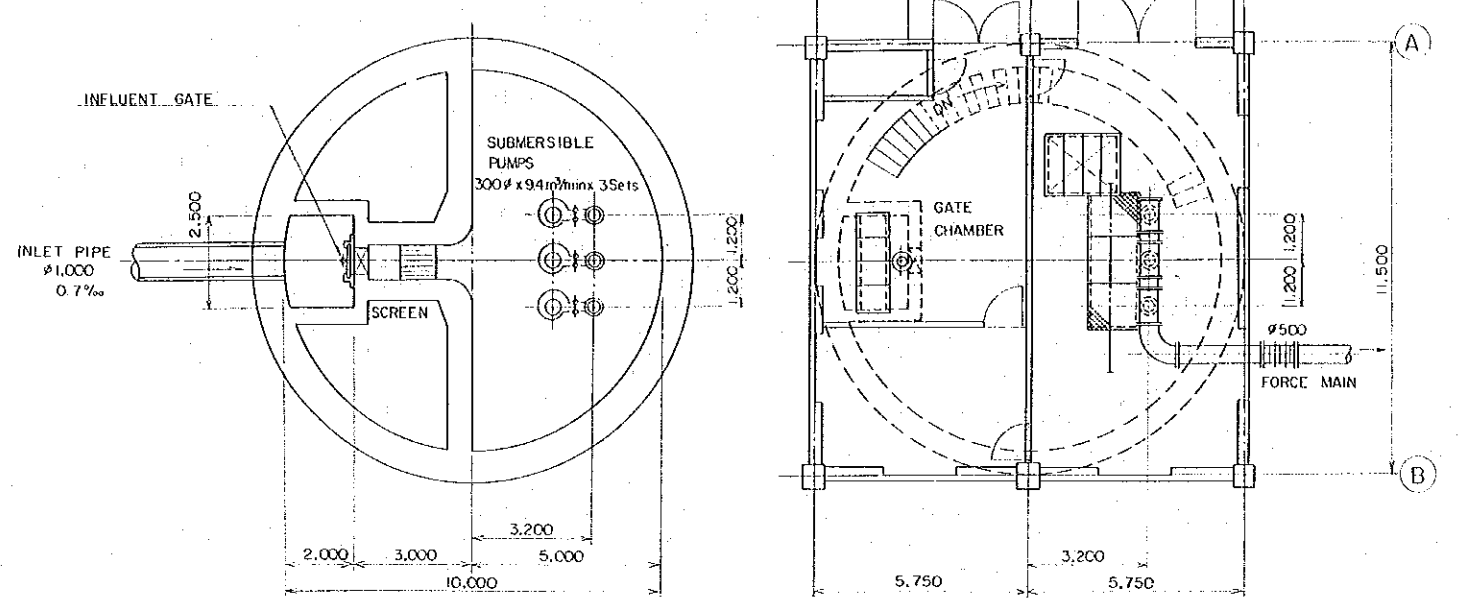
NO.1 PUMPING STATION



B2F PLAN

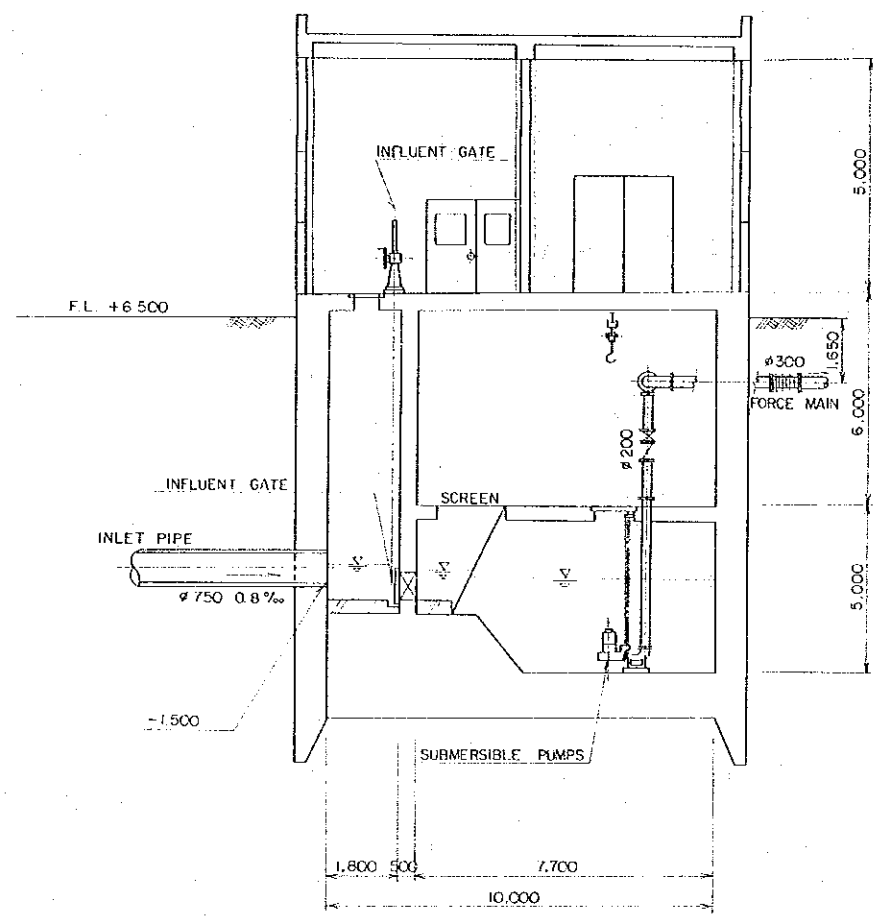
IF PLAN

NO.3 PUMPING STATION

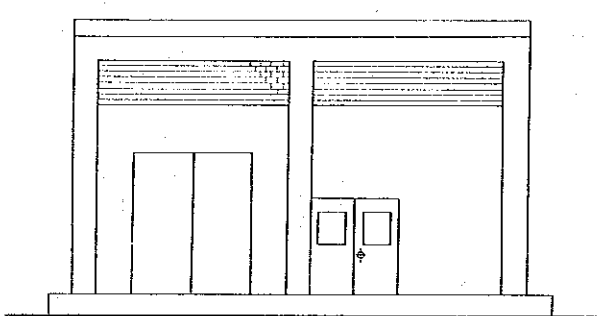


B2F PLAN

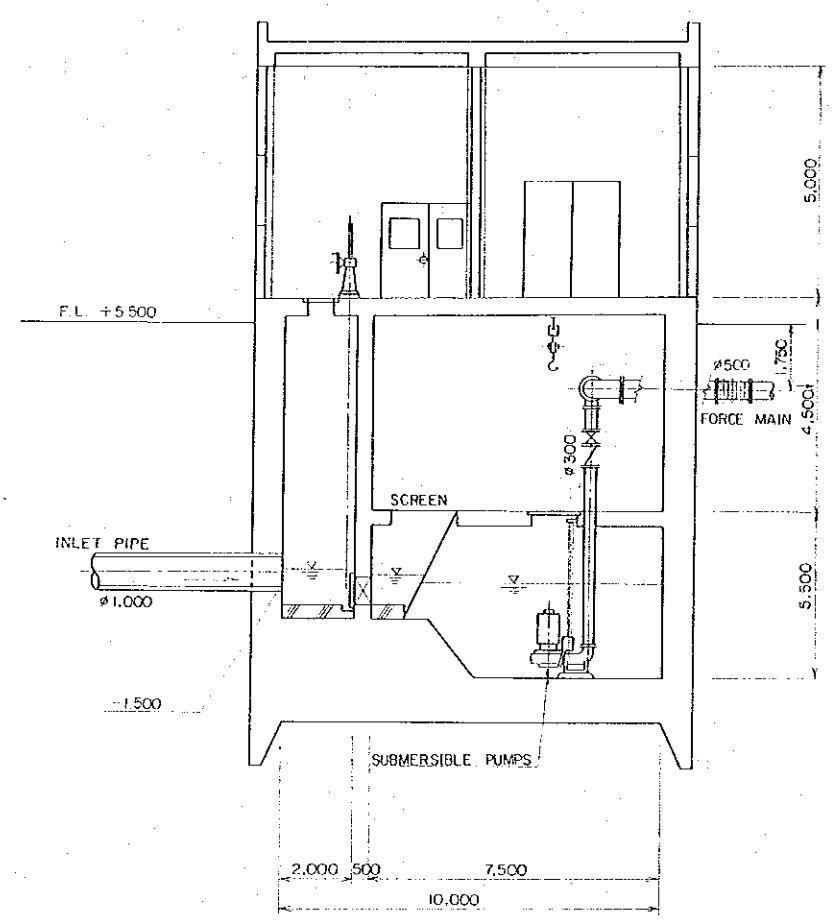
IF PLAN



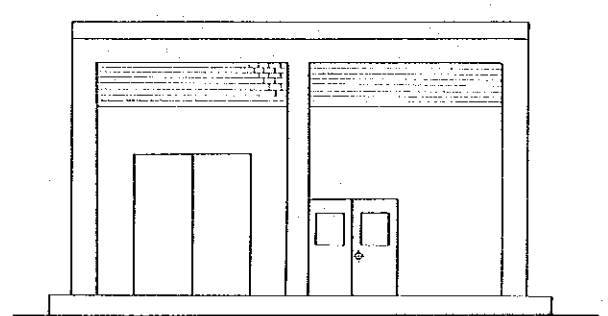
SECTION



SOUTH ELEVATION



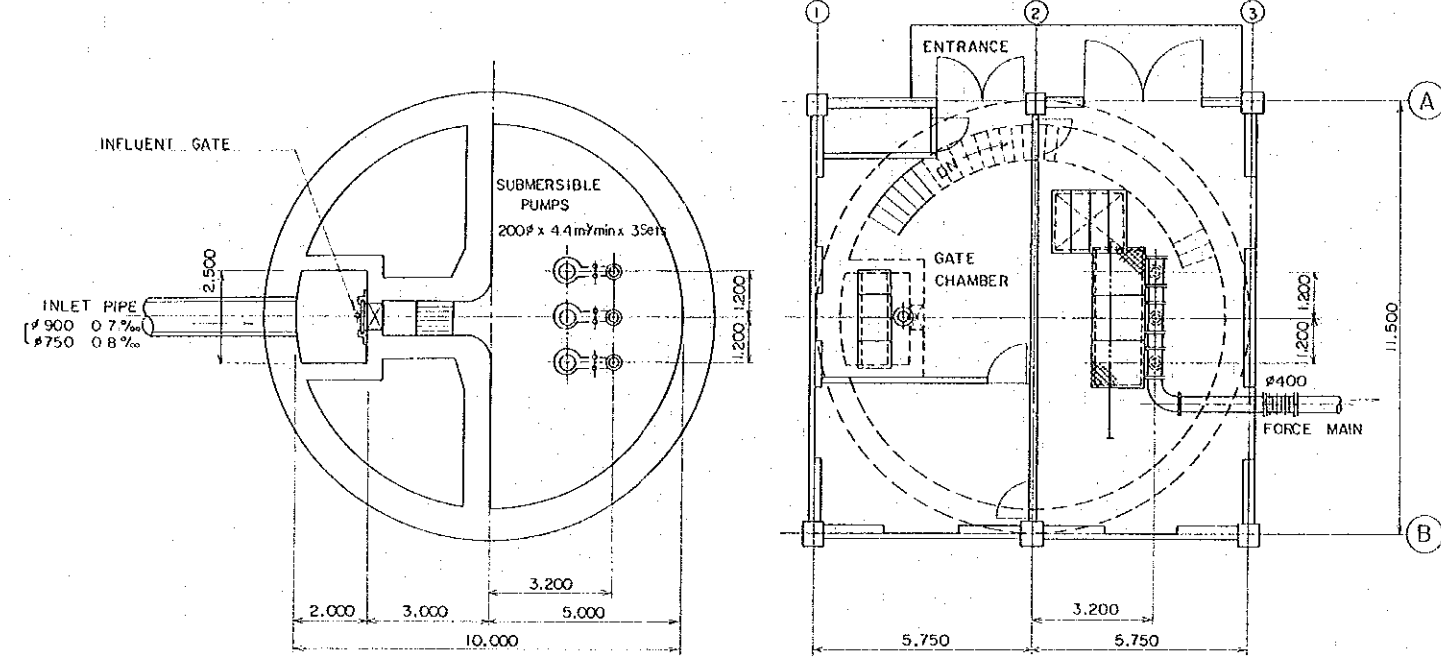
SECTION



SOUTH ELEVATION

FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM PUMPING STATIONS FOR FAQUS CITY PLANS, SECTIONS AND ELEVATIONS	DATE	JICA
	SEP. 1988	
	SCALE	DRAWING NO.
	1 : 100	II - 17

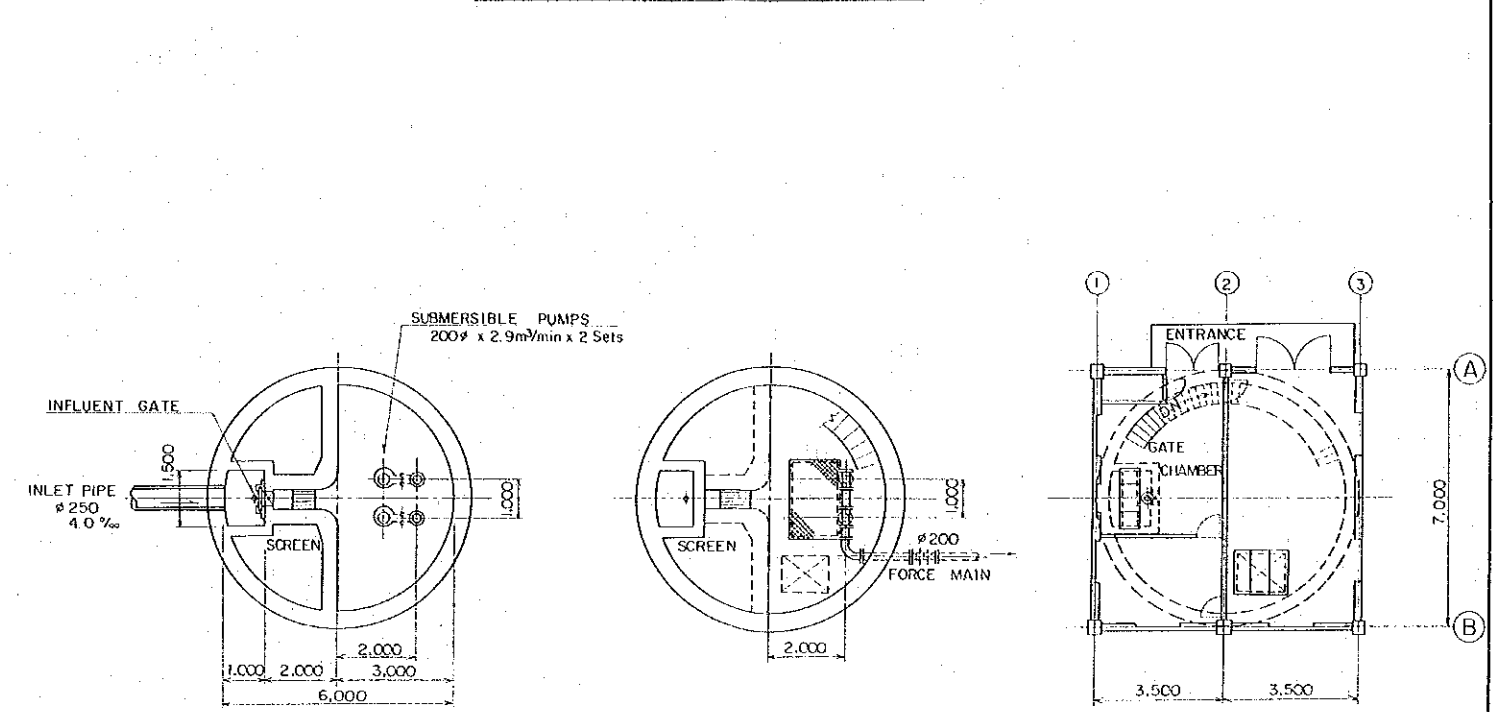
NO.1 PUMPING STATION



BIF PLAN

IF PLAN

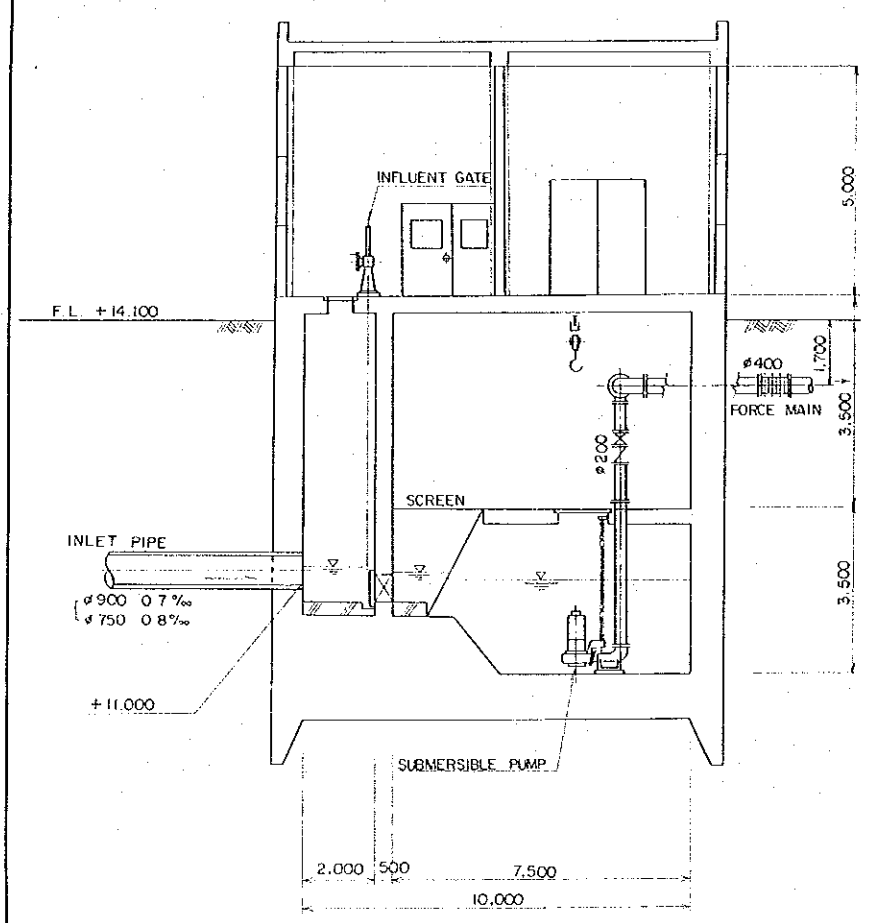
NO.8 PUMPING STATION



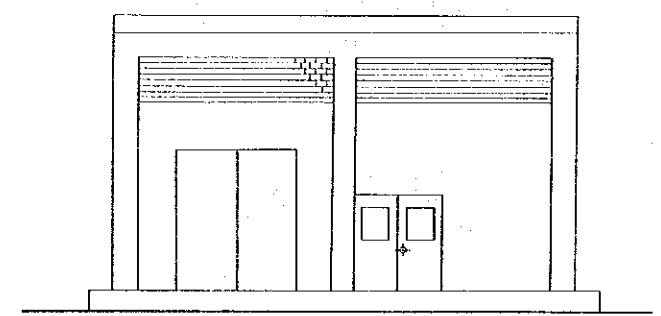
B2F PLAN

BIF PLAN

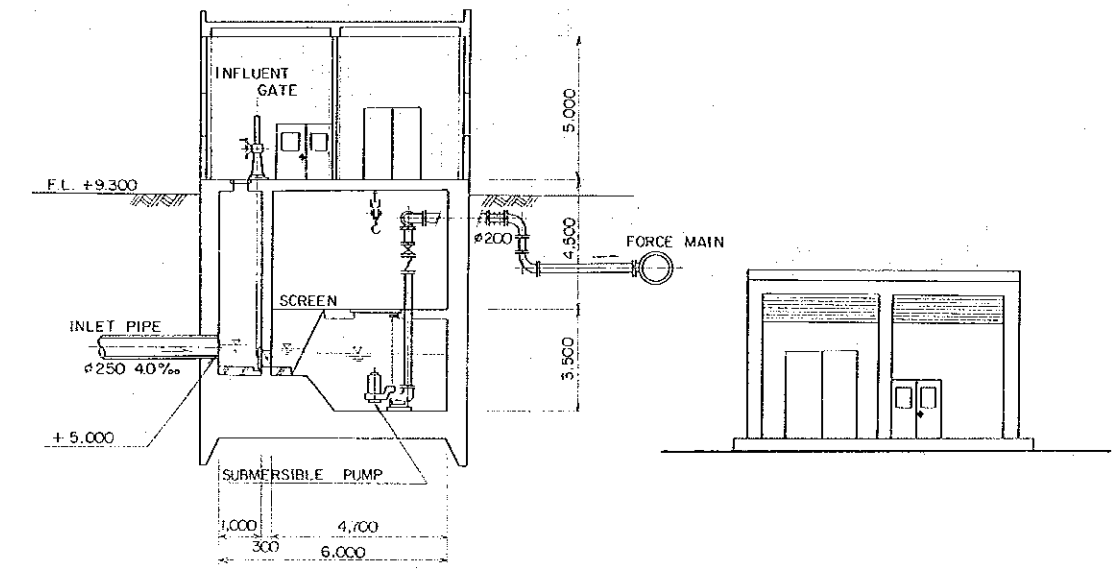
IF PLAN



SECTION



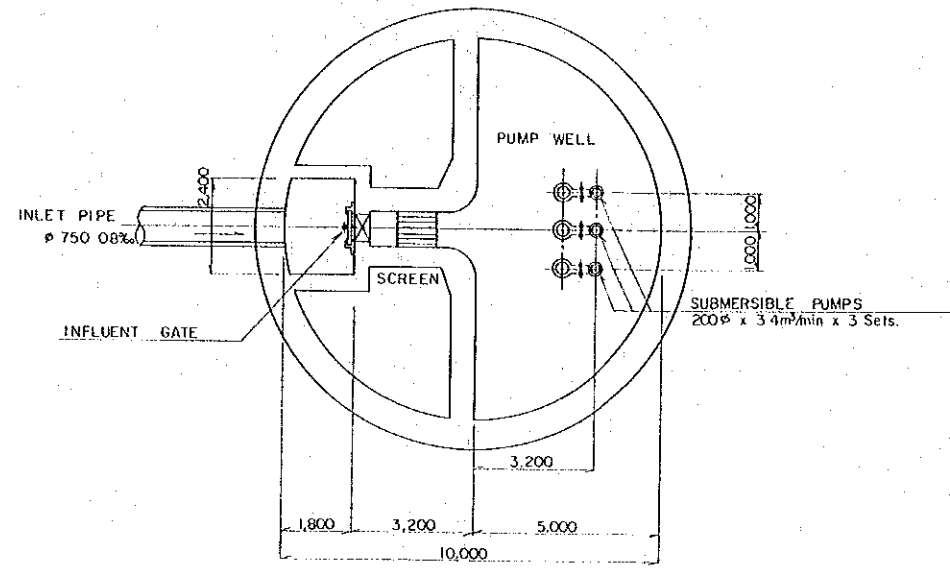
SOUTH ELEVATION



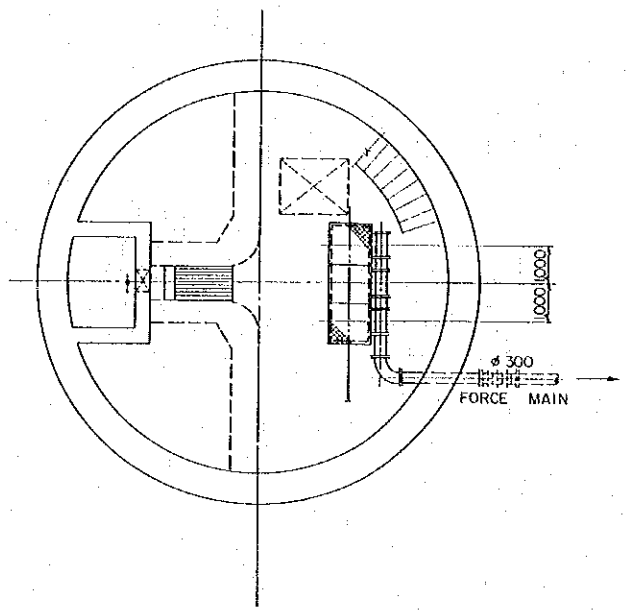
SECTION

SOUTH ELEVATION

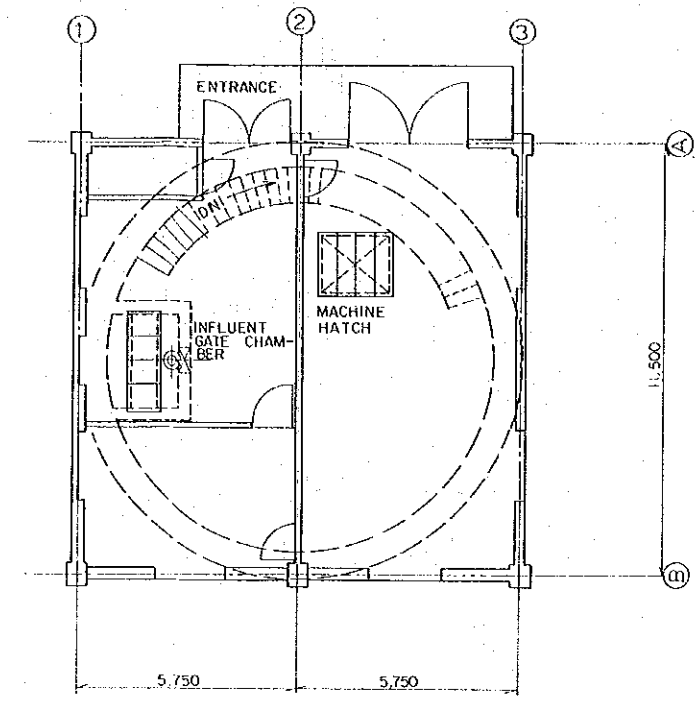
FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM		DATE	JICA
PUMPING STATIONS FOR BILBEIS CITY - PLANS, SECTIONS AND ELEVATIONS		SEP. 1988	DRAWING NO.
		SCALE	II - 18
		1 : 100	



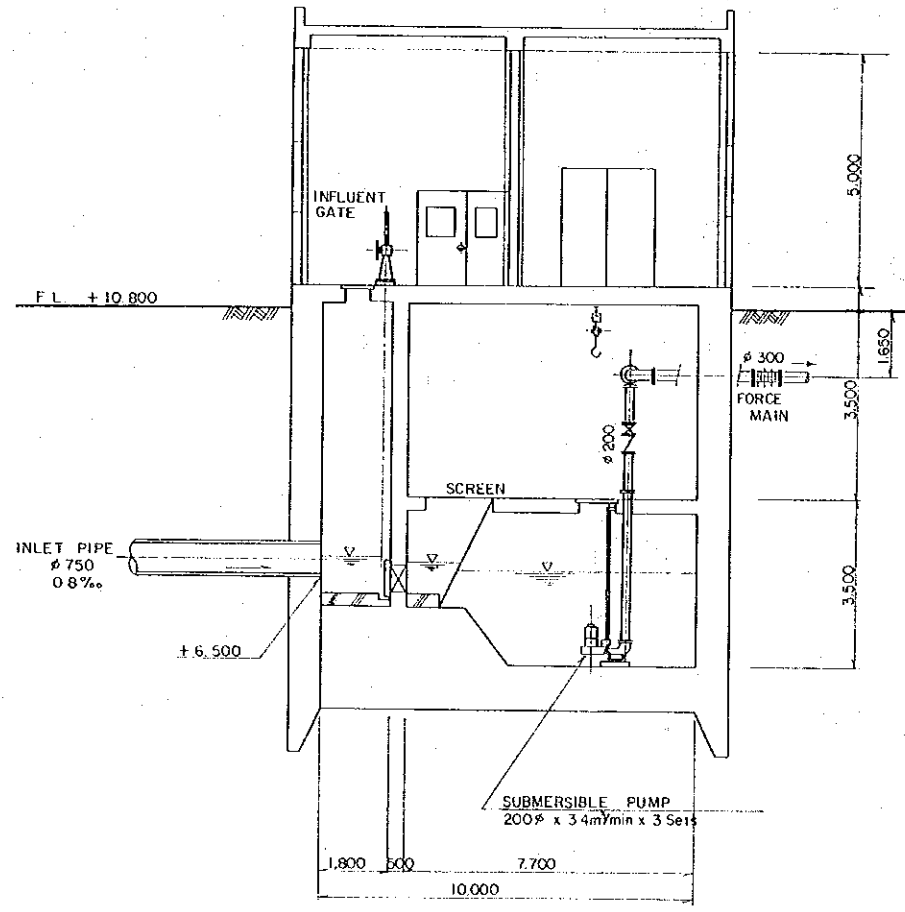
B2F PLAN



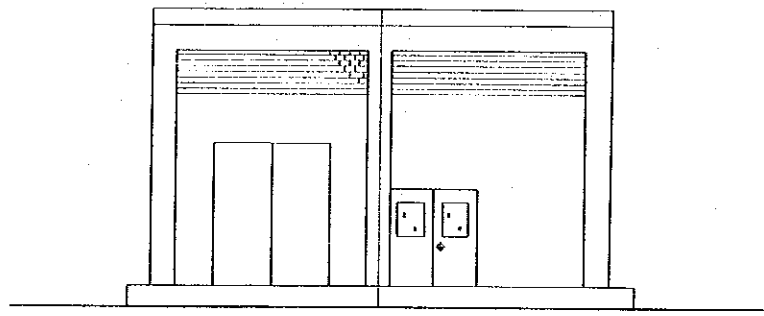
B1F PLAN



1F PLAN

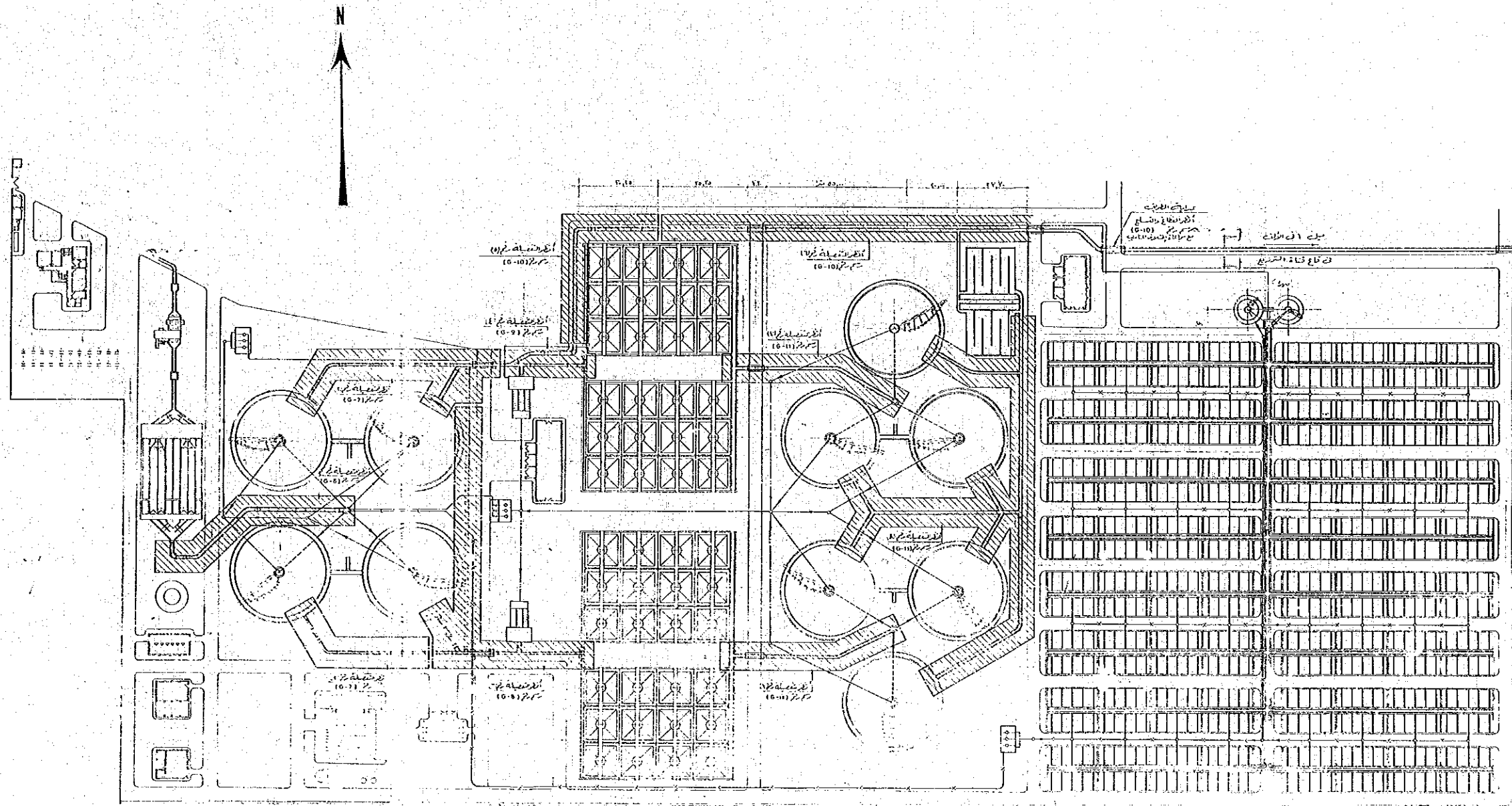


SECTION

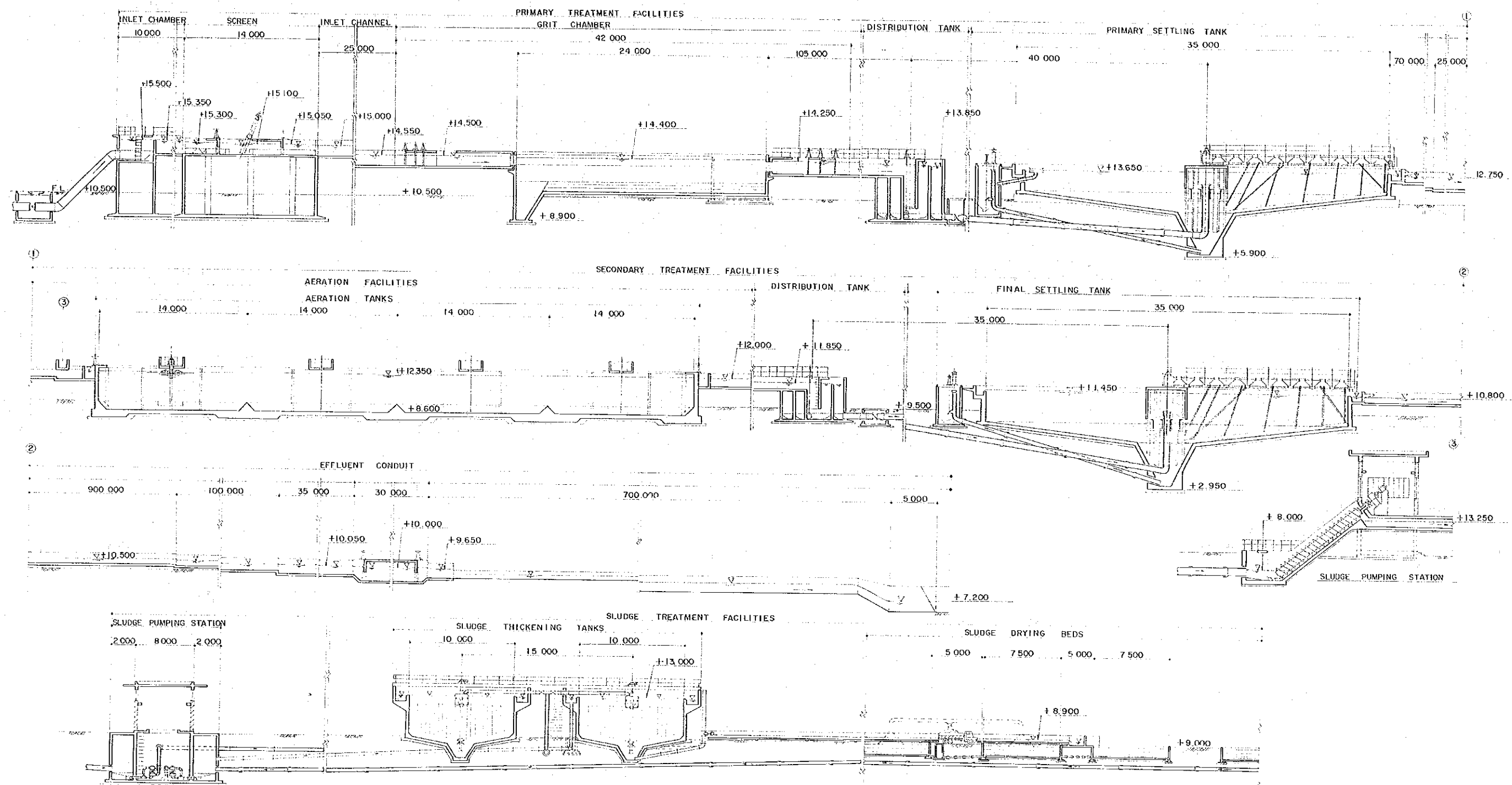


SOUTH ELEVATION

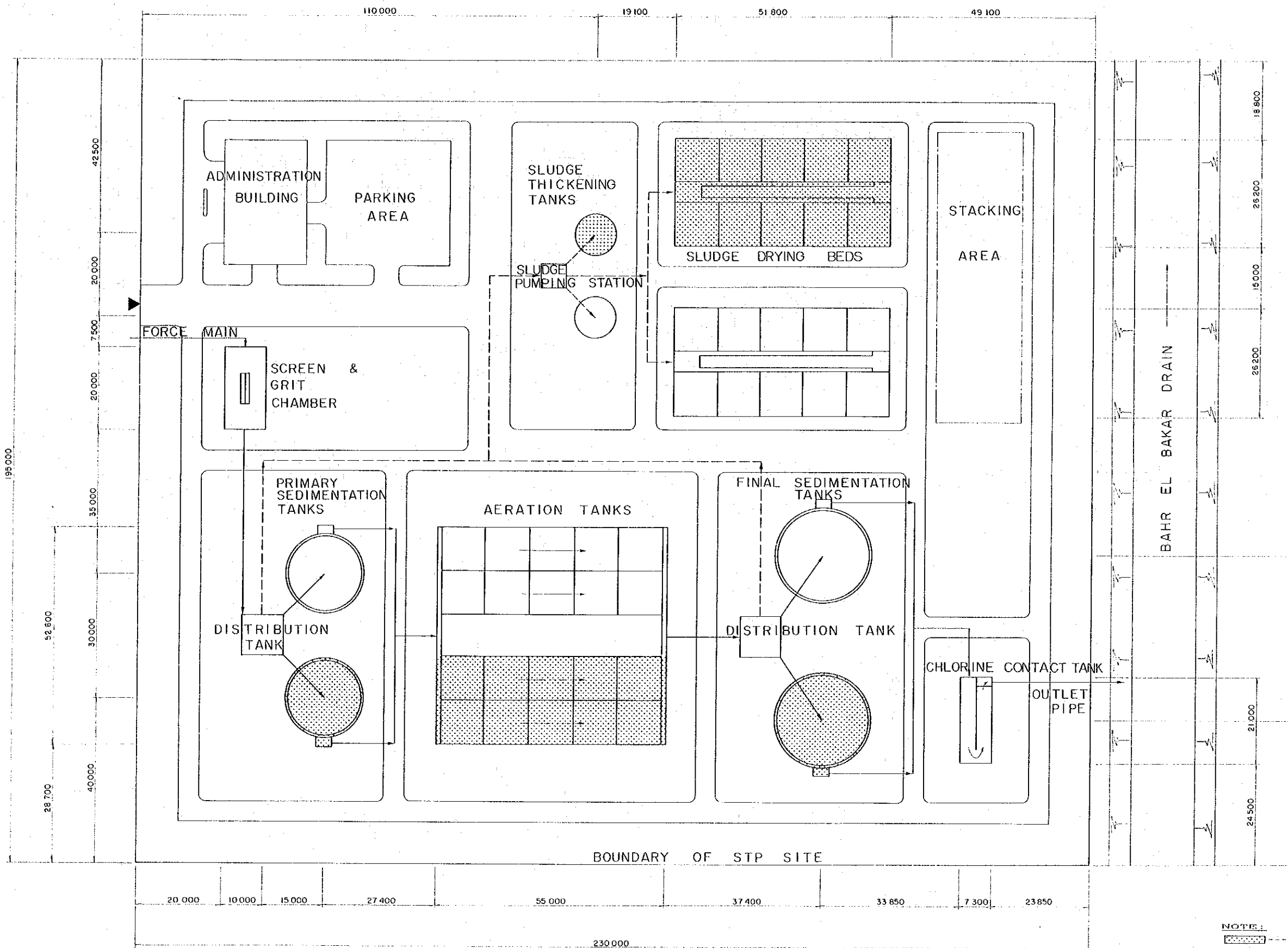
FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM		DATE	JICA
PUMPING STATION FOR MINYET EL QAMH CITY		SEP. 1988	
PLANS, SECTION AND ELEVATION		SCALE	DRAWING NO.
		1 : 100	II - 19



FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM		DATE	JICA
		SEP. 1988	
ZAGAZIG NEW STP GENERAL LAYOUT PLAN		SCALE	DRAWING NO.
		1 : 1,000	II - 20

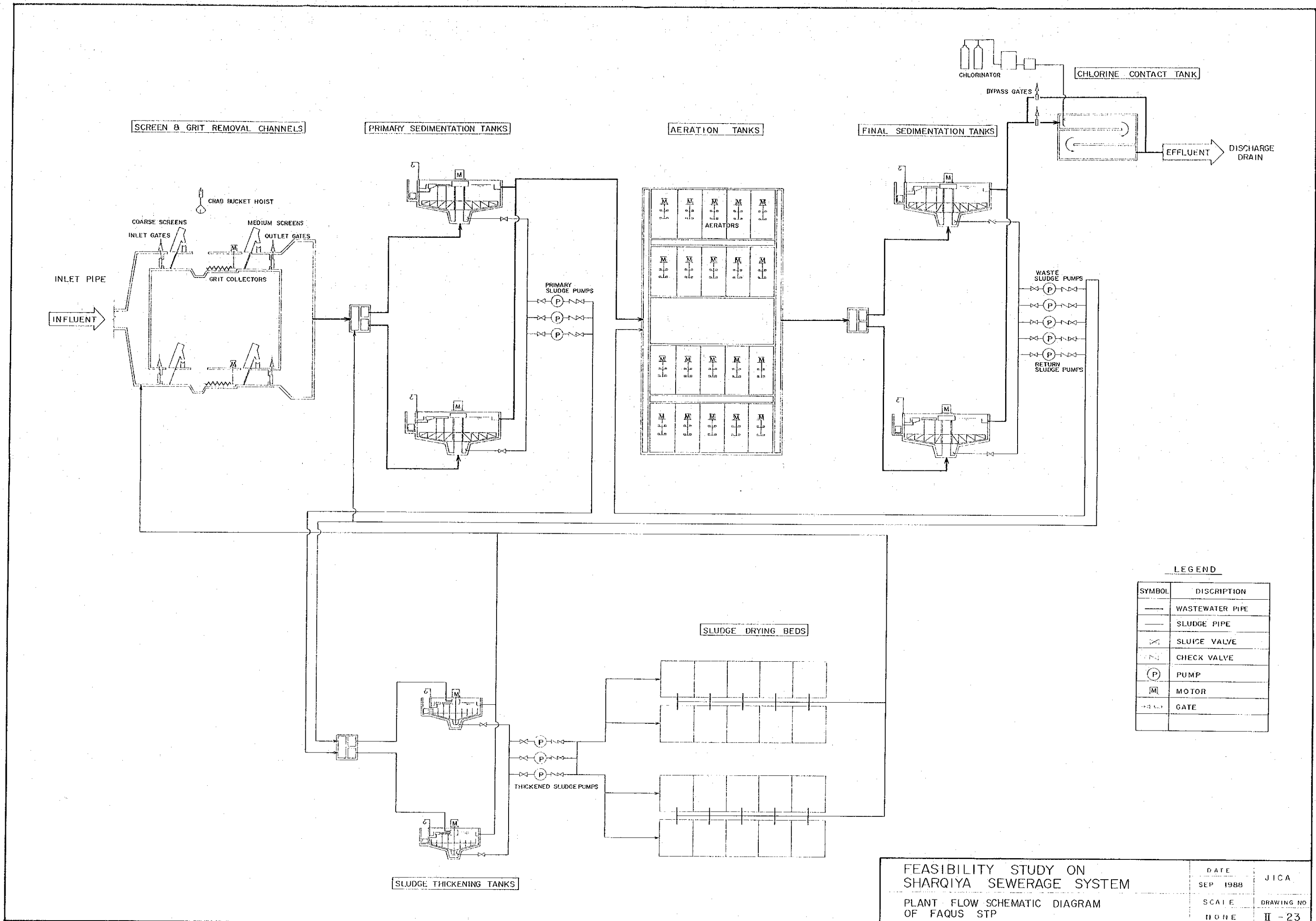


FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM		DATE	JICA
		SEP. 1988	
ZAGAZIG NEW STP HYDRAULIC PROFILE		SCALE	DRAWING NO.
		1:200	II - 21



FEASIBILITY STUDY ON
SHARQIYA SEWERAGE SYSTEM
PROPOSED LAYOUT PLAN FOR
FAQUS STP

DATE	JICA
SEP. 1988	
SCALE	DRAWING NO.
1 : 500	II - 22

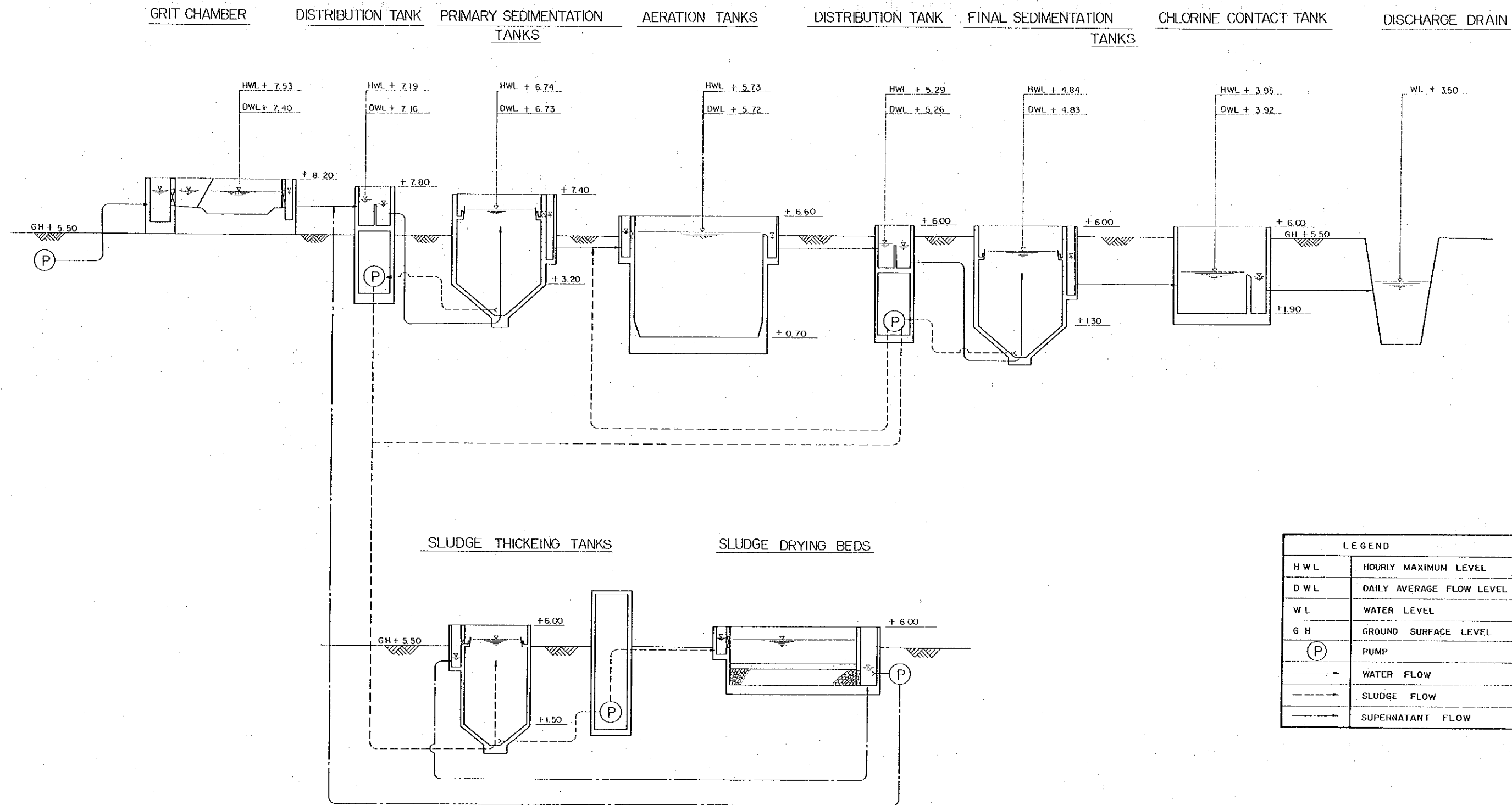


LEGEND

SYMBOL	DISCRIPTION
—	WASTEWATER PIPE
—	SLUDGE PIPE
⋈	SLUDGE VALVE
⋈	CHECK VALVE
(P)	PUMP
(M)	MOTOR
(G)	GATE

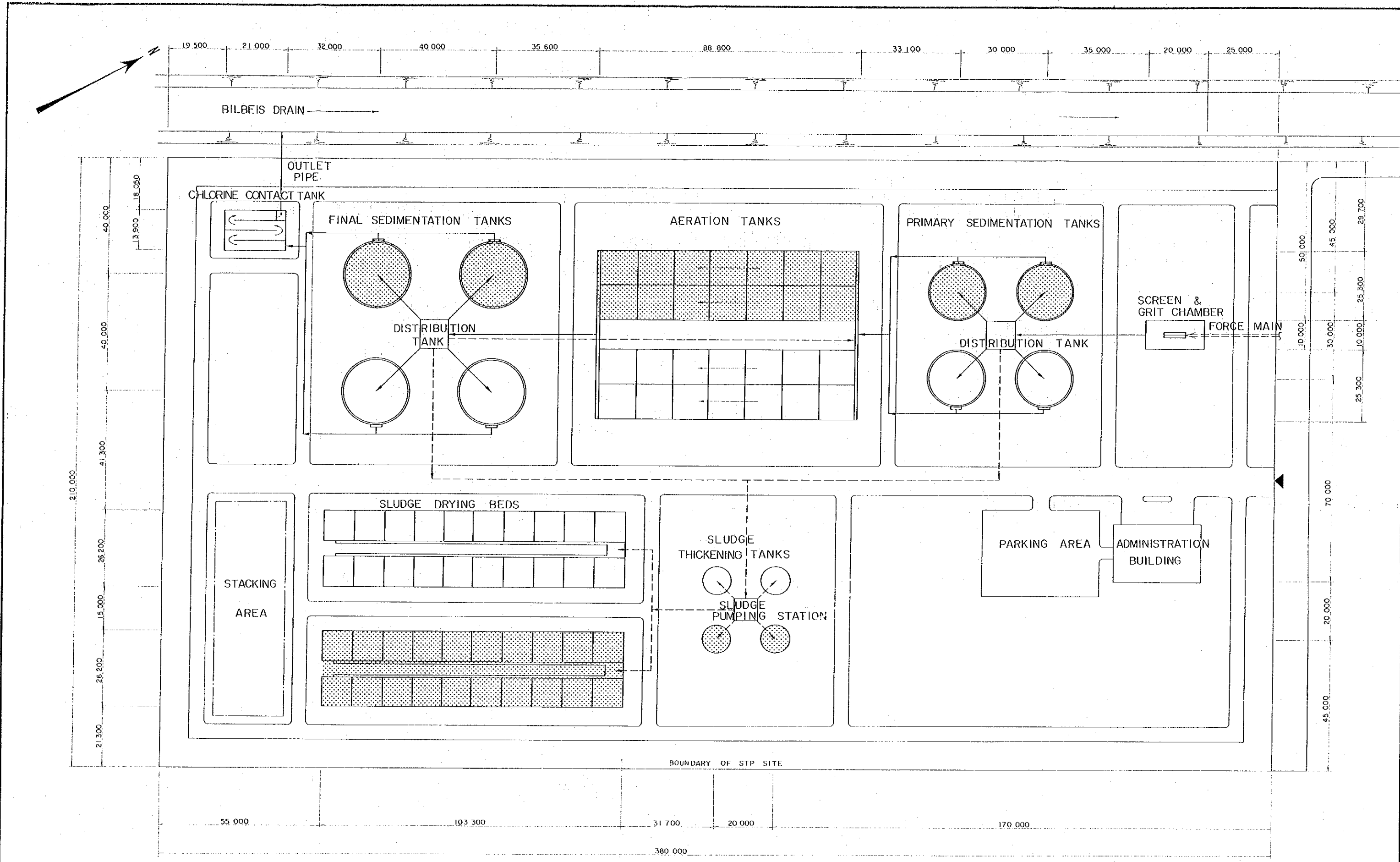
FEASIBILITY STUDY ON
SHARQIYA SEWERAGE SYSTEM
PLANT FLOW SCHEMATIC DIAGRAM
OF FAQUS STP

DATE	JICA
SEP 1988	
SCALE	DRAWING NO
NONE	II - 23



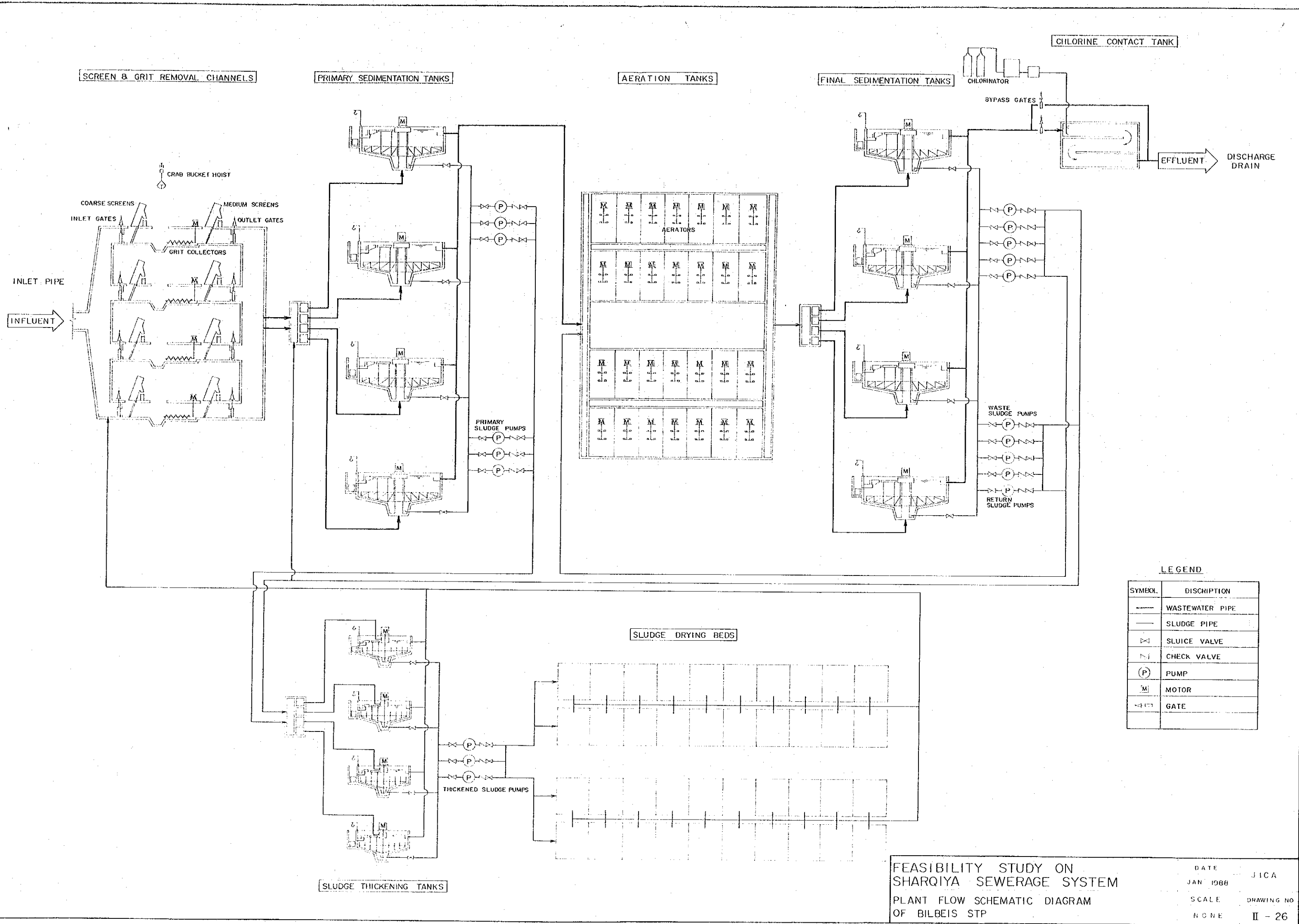
LEGEND	
HWL	HOURLY MAXIMUM LEVEL
DWL	DAILY AVERAGE FLOW LEVEL
WL	WATER LEVEL
GH	GROUND SURFACE LEVEL
(P)	PUMP
—	WATER FLOW
- - -	SLUDGE FLOW
—	SUPERNATANT FLOW

FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM HYDRAULIC PROFILE OF FAQUS STP	DATE	JICA
	SEP. 1988	
	SCALE	DRAWING NO.
VS = 1:100	II - 24	
HS = NON		



NOTE: FUTURE EXPANSION FACILITIES

FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM		DATE	JICA
PROPOSED LAYOUT PLAN FOR BILBEIS STP		SEP. 1988	DRAWING NO.
		SCALE	II - 25
		1 : 600	

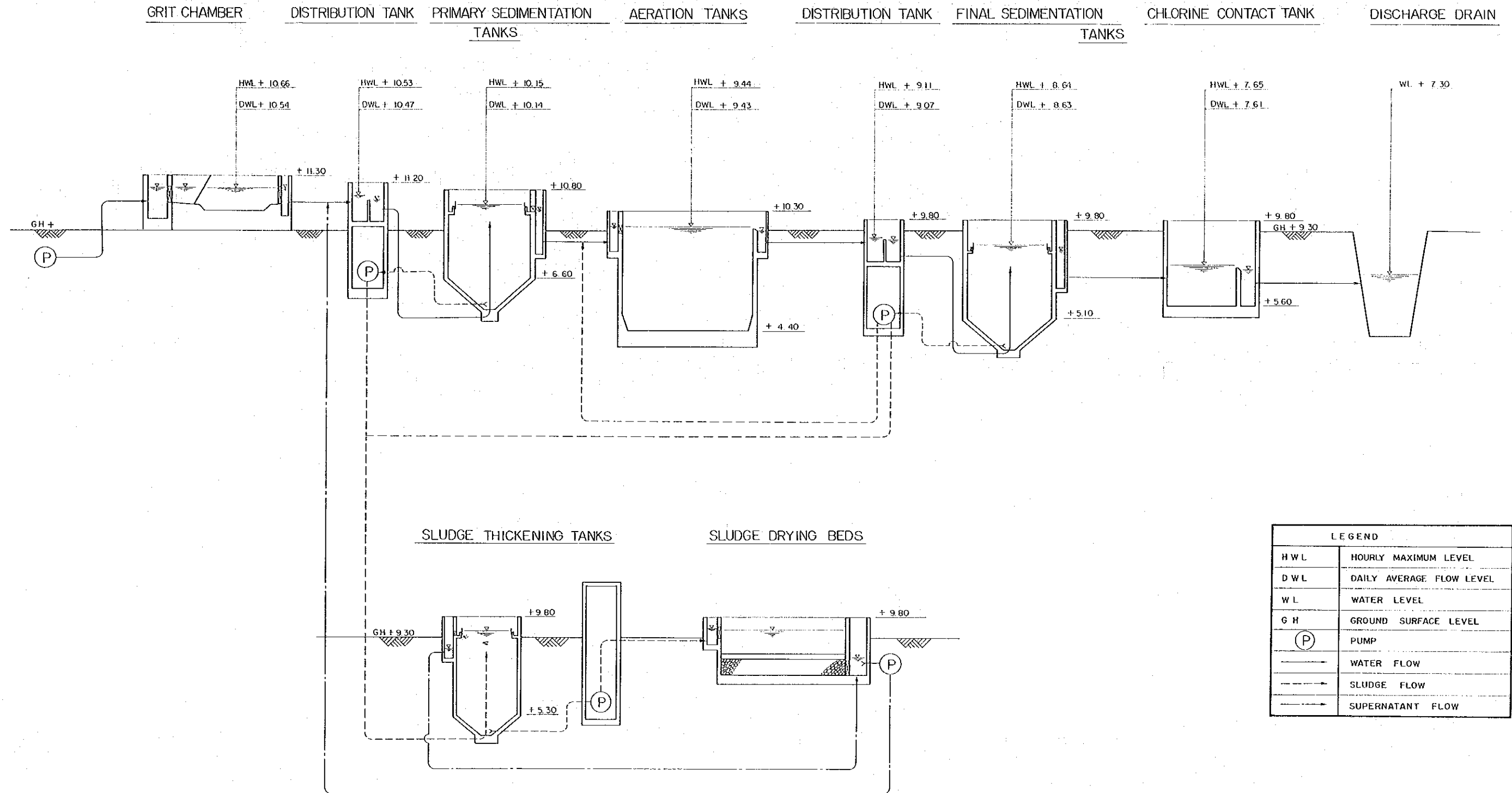


LEGEND

SYMBOL	DISCRIPTION
—	WASTEWATER PIPE
—	SLUDGE PIPE
⋈	SLUICE VALVE
∇	CHECK VALVE
(P)	PUMP
(M)	MOTOR
— —	GATE

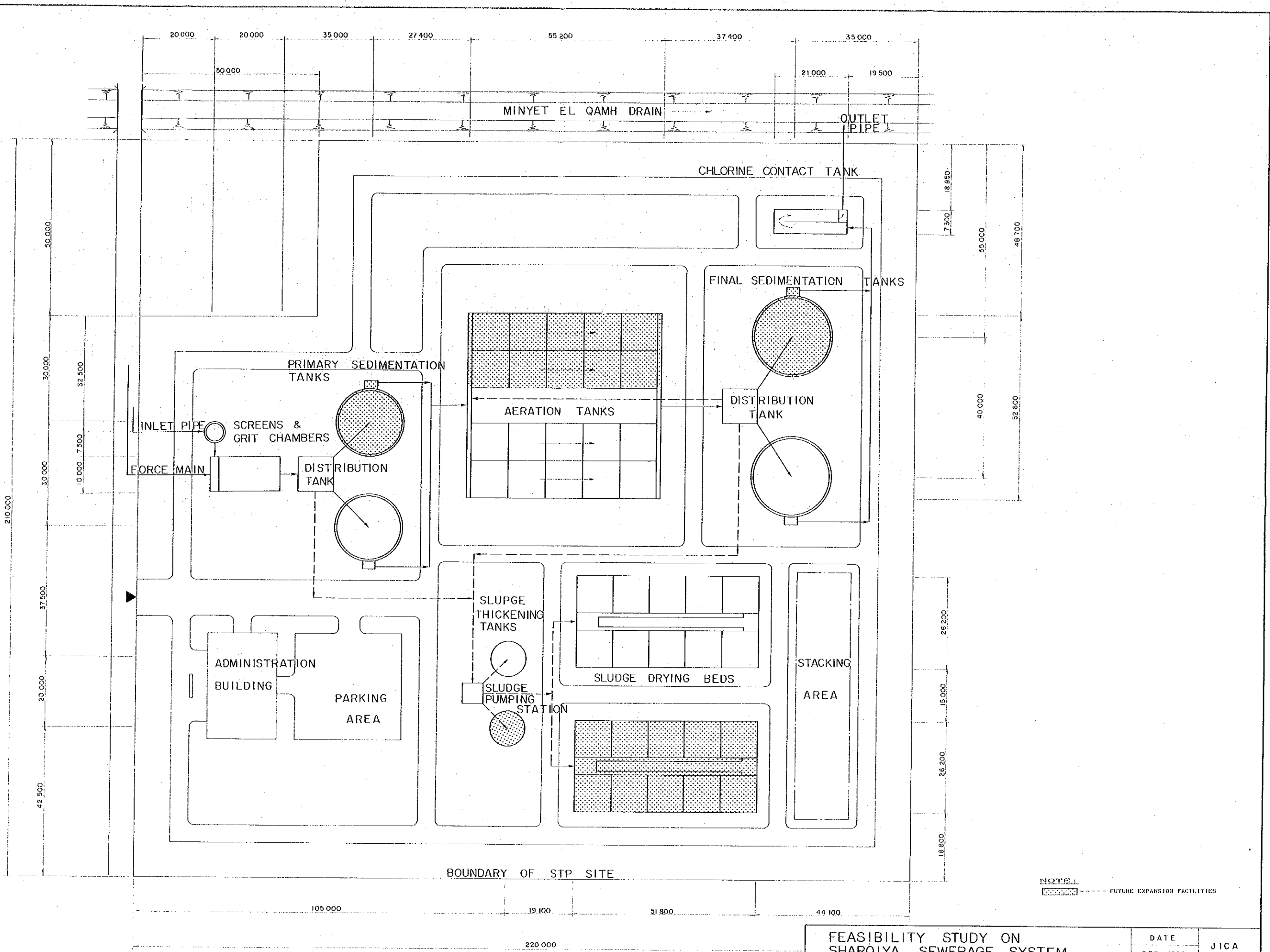
FEASIBILITY STUDY ON
 SHARQIYA SEWERAGE SYSTEM
 PLANT FLOW SCHEMATIC DIAGRAM
 OF BILBEIS STP

DATE JAN 1988
 SCALE NCNE
 JICA
 DRAWING NO II - 26



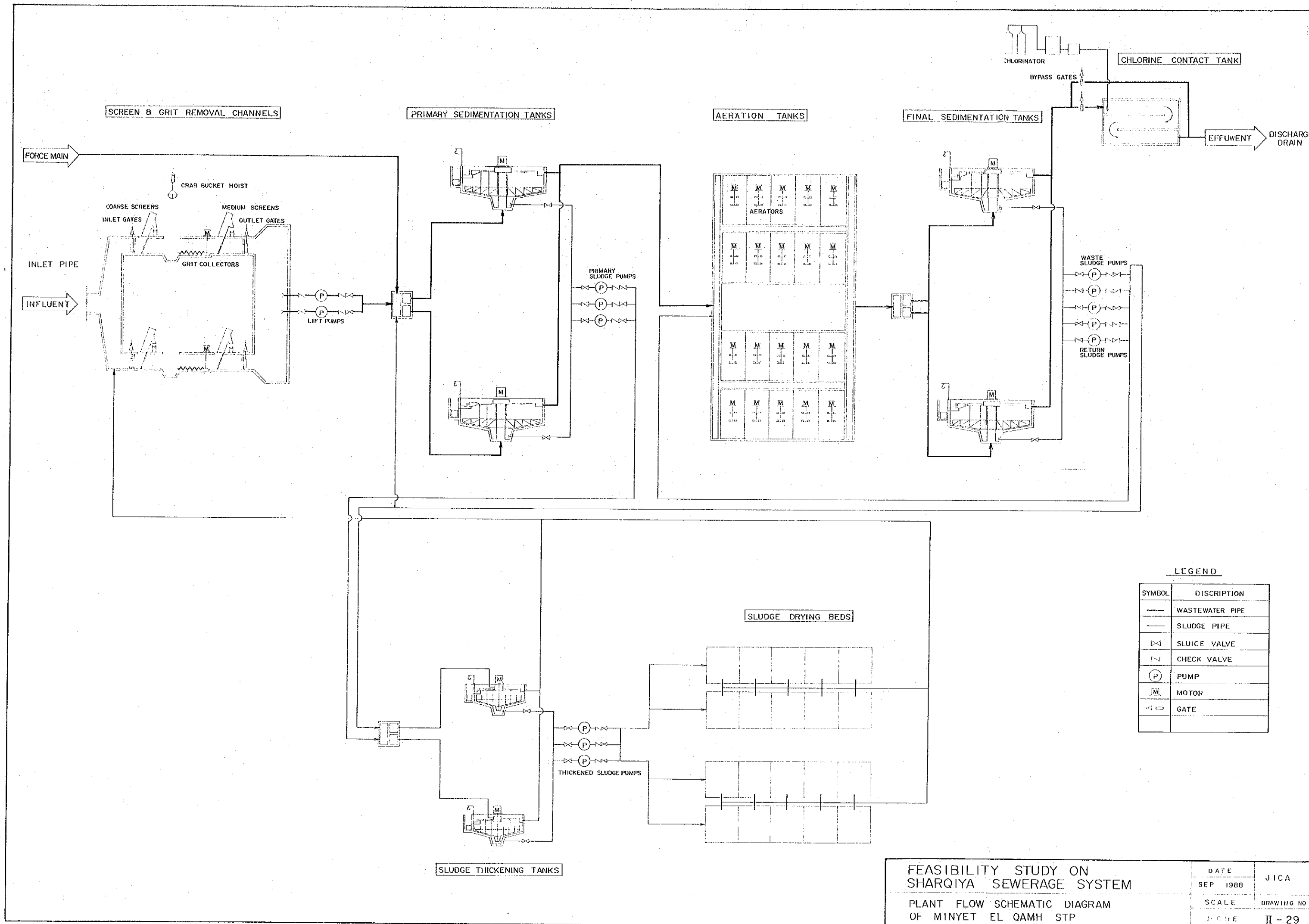
LEGEND	
HWL	HOURLY MAXIMUM LEVEL
DWL	DAILY AVERAGE FLOW LEVEL
WL	WATER LEVEL
GH	GROUND SURFACE LEVEL
(P)	PUMP
—	WATER FLOW
- - -	SLUDGE FLOW
· · ·	SUPERNATANT FLOW

FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM	DATE	JICA
	SEP. 1988	DRAWING NO.
HYDRAULIC PROFILE OF BILBEIS STP	SCALE	II - 27
	VS = 1:100 HS = NON	



FEASIBILITY STUDY ON
 SHARQIYA SEWERAGE SYSTEM
 PROPOSED LAYOUT PLAN FOR
 MINYET EL QAMH STP

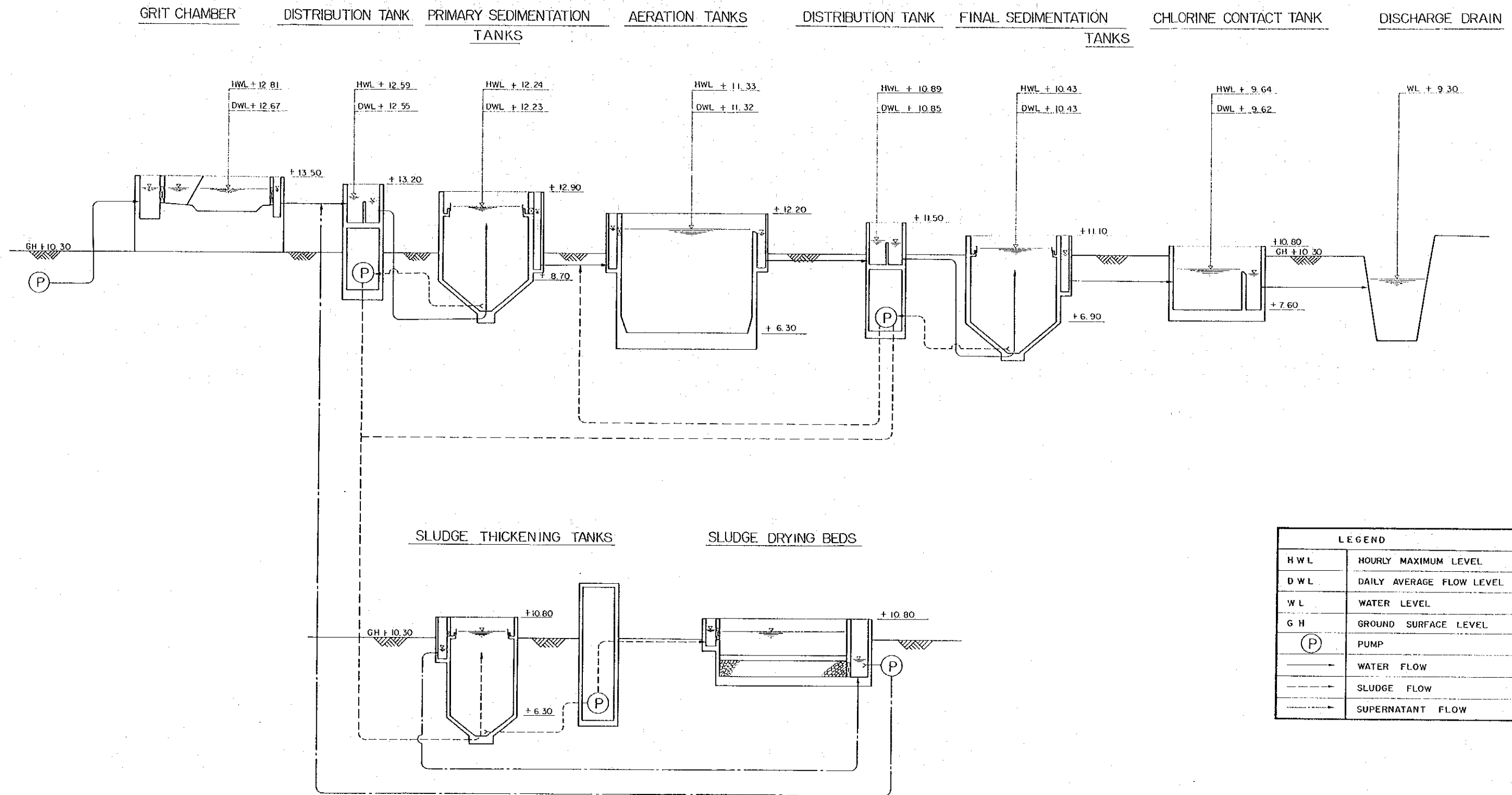
DATE	JICA
SEP 1988	
SCALE	DRAWING NO
1 : 500	II - 28



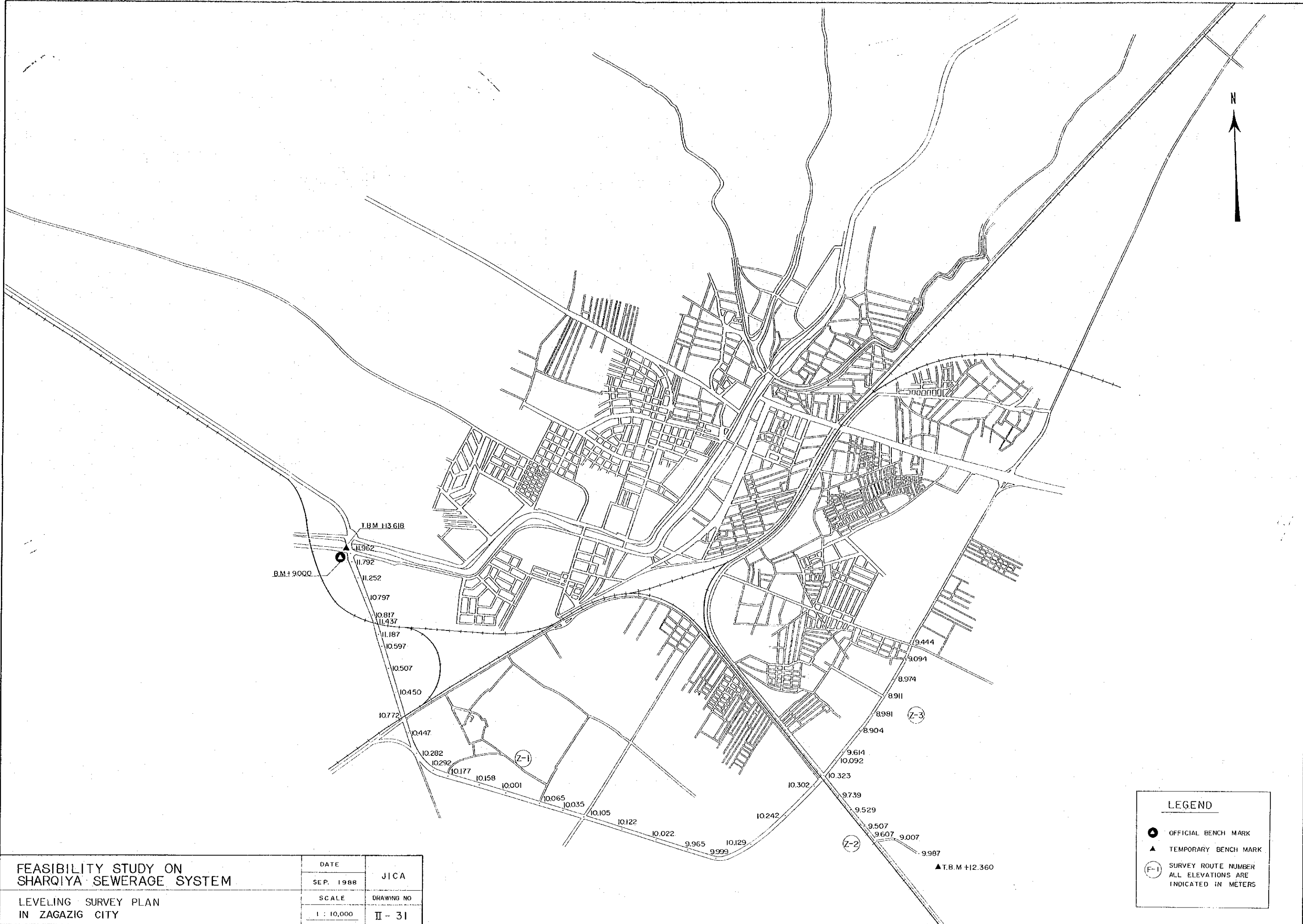
LEGEND

SYMBOL	DISCRIPTION
—	WASTEWATER PIPE
—	SLUDGE PIPE
⋈	SLUICE VALVE
⋈	CHECK VALVE
(P)	PUMP
(M)	MOTOR
⋈	GATE

FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM		DATE SEP 1988	JICA
PLANT FLOW SCHEMATIC DIAGRAM OF MINYET EL QAMH STP		SCALE	DRAWING NO
		1:100	II - 29



FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM	DATE	JICA
	SEP. 1988	DRAWING NO.
HYDRAULIC PROFILE OF MINYET EL QAMH STP	SCALE	II - 30
	VS = 1:100 HS = NON	



FEASIBILITY STUDY ON
SHARQIYA SEWERAGE SYSTEM
LEVELING SURVEY PLAN
IN ZAGAZIG CITY

DATE	JICA
SEP. 1988	
SCALE	DRAWING NO
1 : 10,000	II - 31

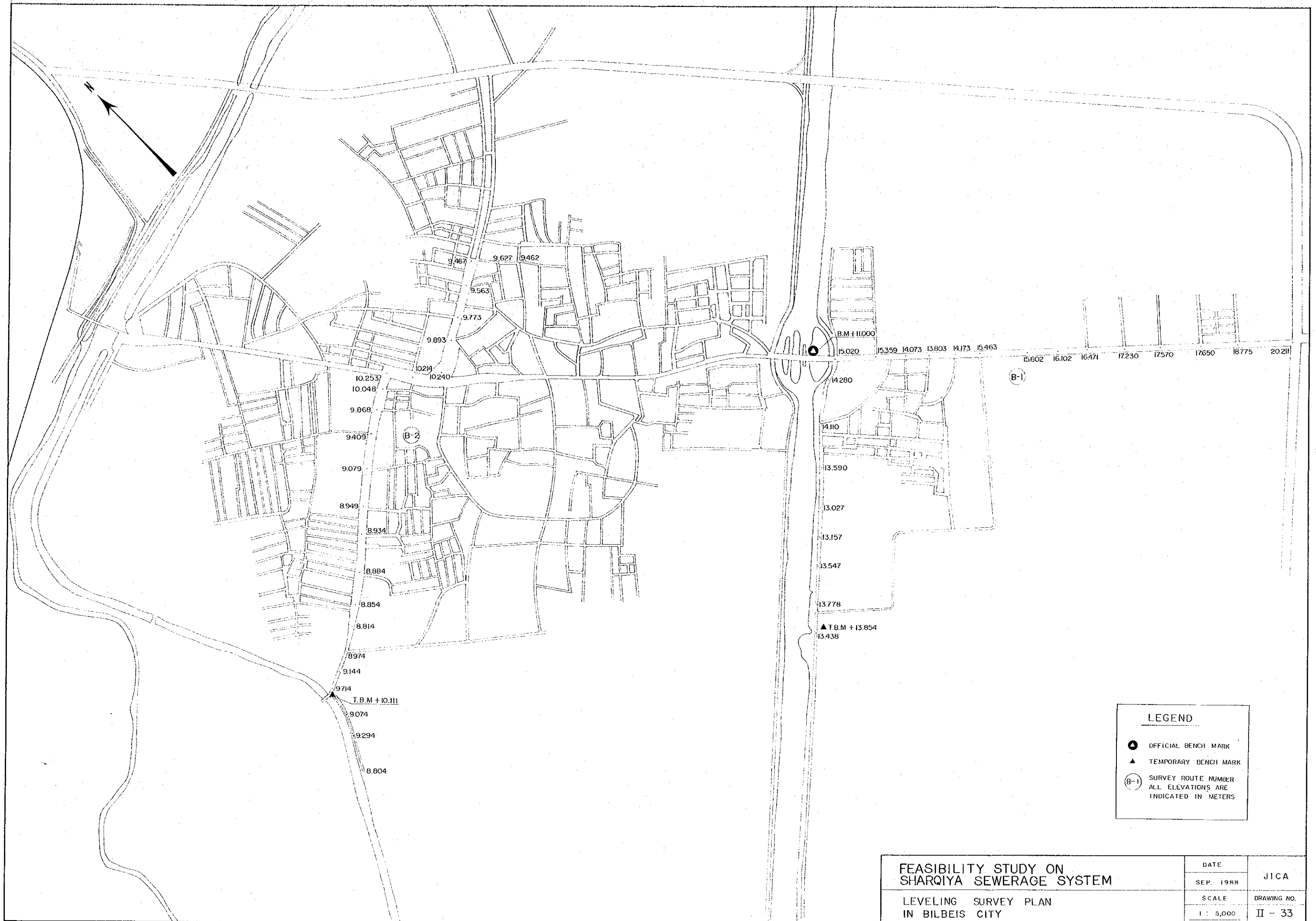
LEGEND

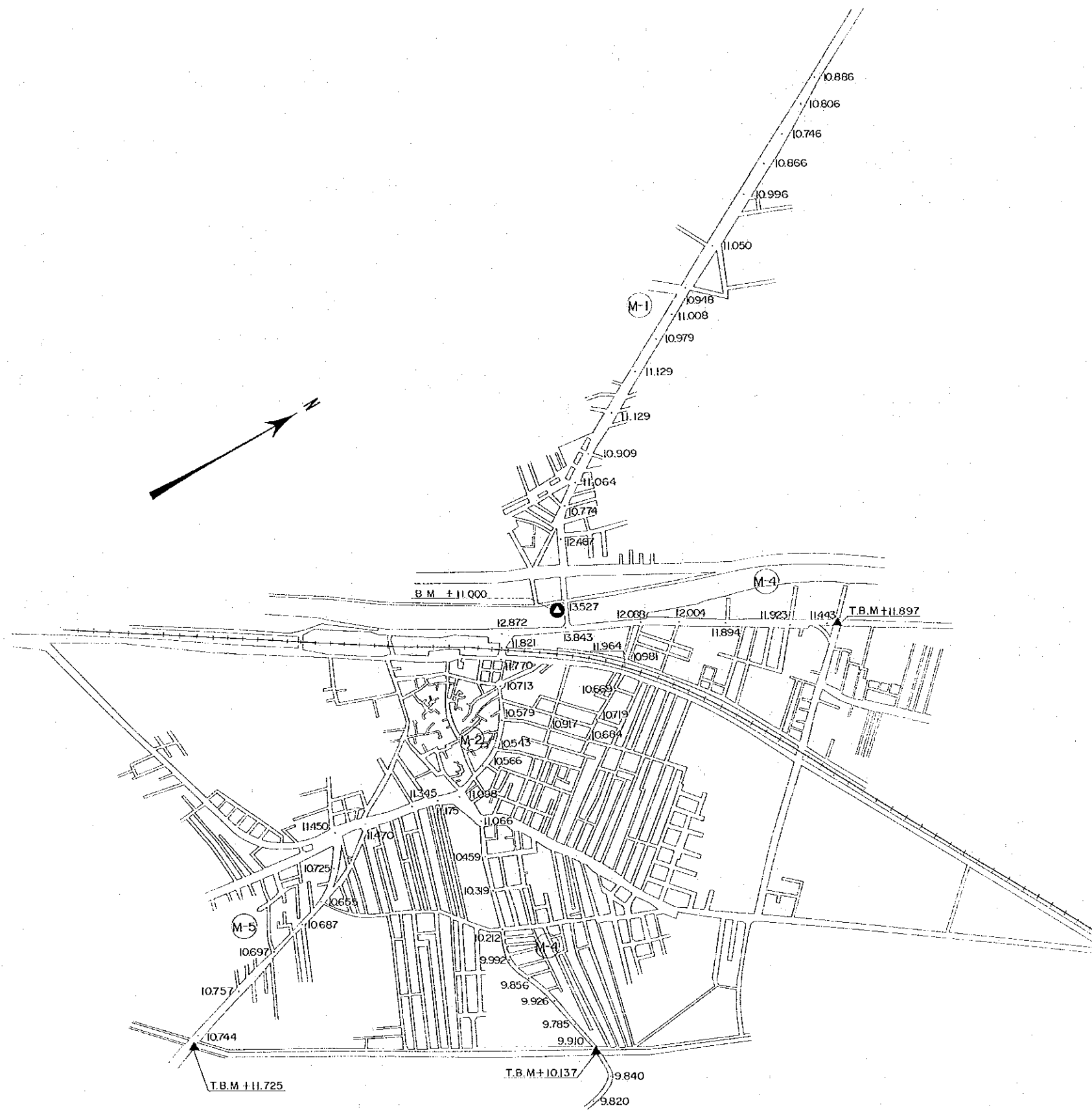
- OFFICIAL BENCH MARK
- ▲ TEMPORARY BENCH MARK
- (Z-1) SURVEY ROUTE NUMBER
ALL ELEVATIONS ARE
INDICATED IN METERS



LEGEND	
●	OFFICIAL BENCH MARK
▲	TEMPORARY BENCH MARK
(F-1)	SURVEY ROUTE NUMBER ALL ELEVATIONS ARE INDICATED IN METERS

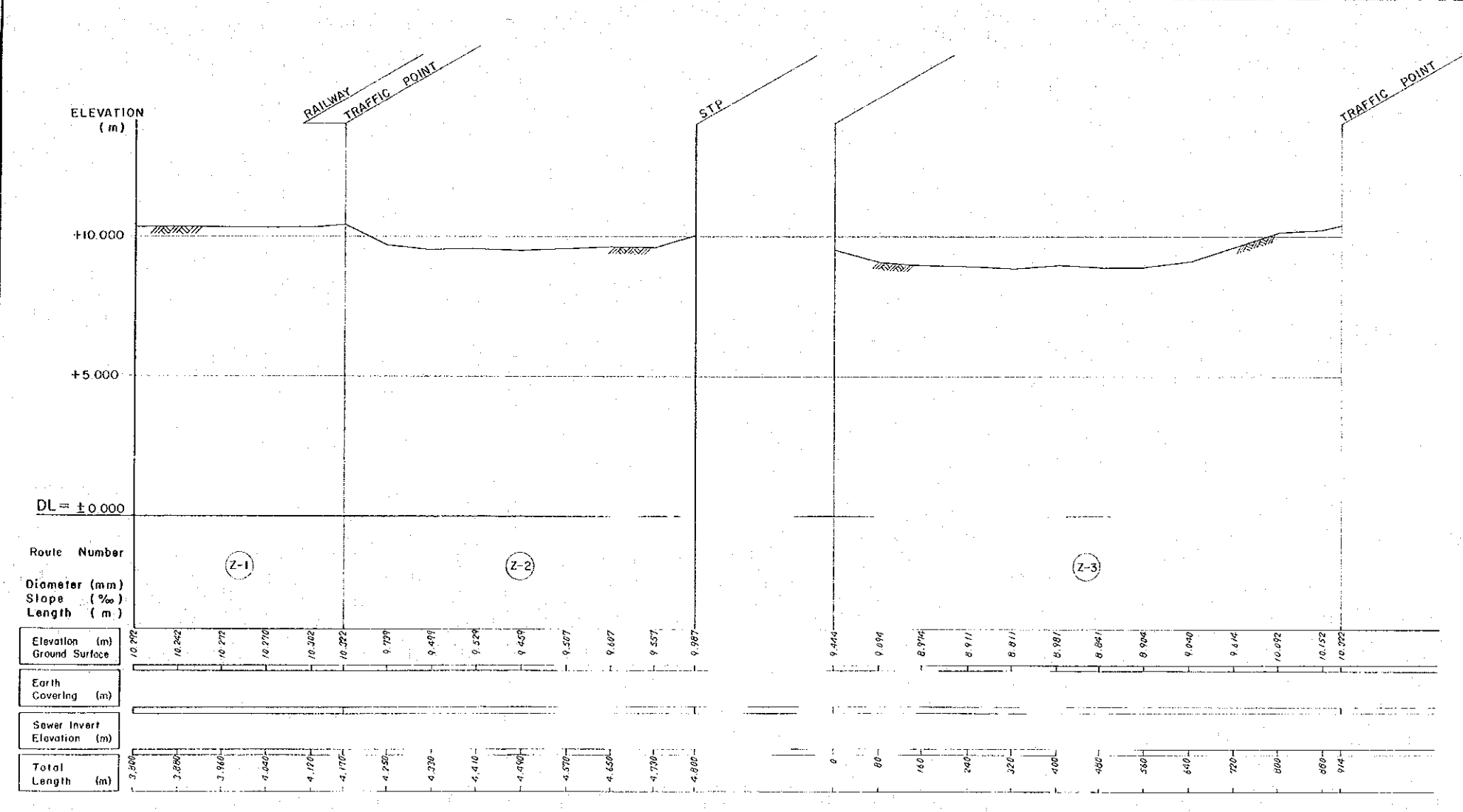
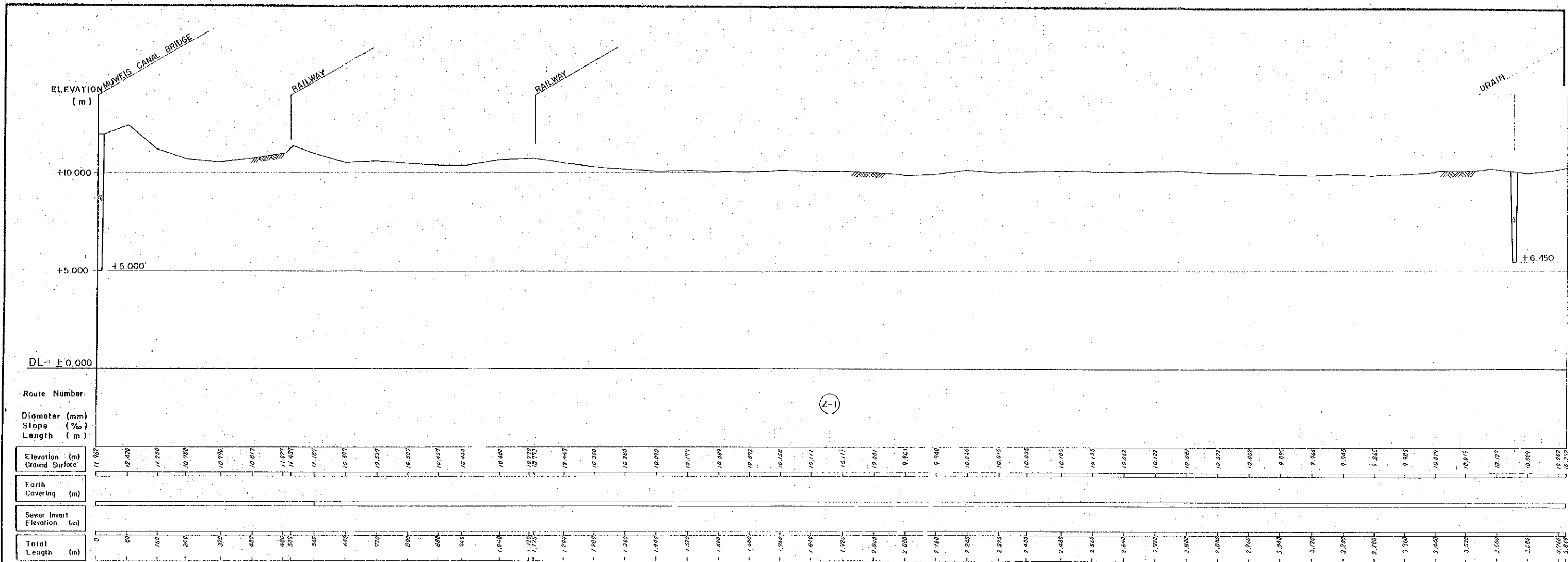
FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM	DATE	JICA
	SEP. 1988	
LEVELING SURVEY PLAN IN FAQUS CITY	SCALE	DRAWING NO.
	1 : 7,000	II - 32





LEGEND	
●	OFFICIAL BENCH MARK
▲	TEMPORARY BENCH MARK
Ⓜ-1	SURVEY ROUTE NUMBER ALL ELEVATIONS ARE INDICATED IN METERS

FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM LEVELING SURVEY PLAN IN MINYET EL QAMH CITY	DATE	JICA
	SEP. 1988	
	SCALE	DRAWING NO.
	1 : 5,000	II - 34



FEASIBILITY STUDY ON
 SHAH ALI SEWERAGE SYSTEM

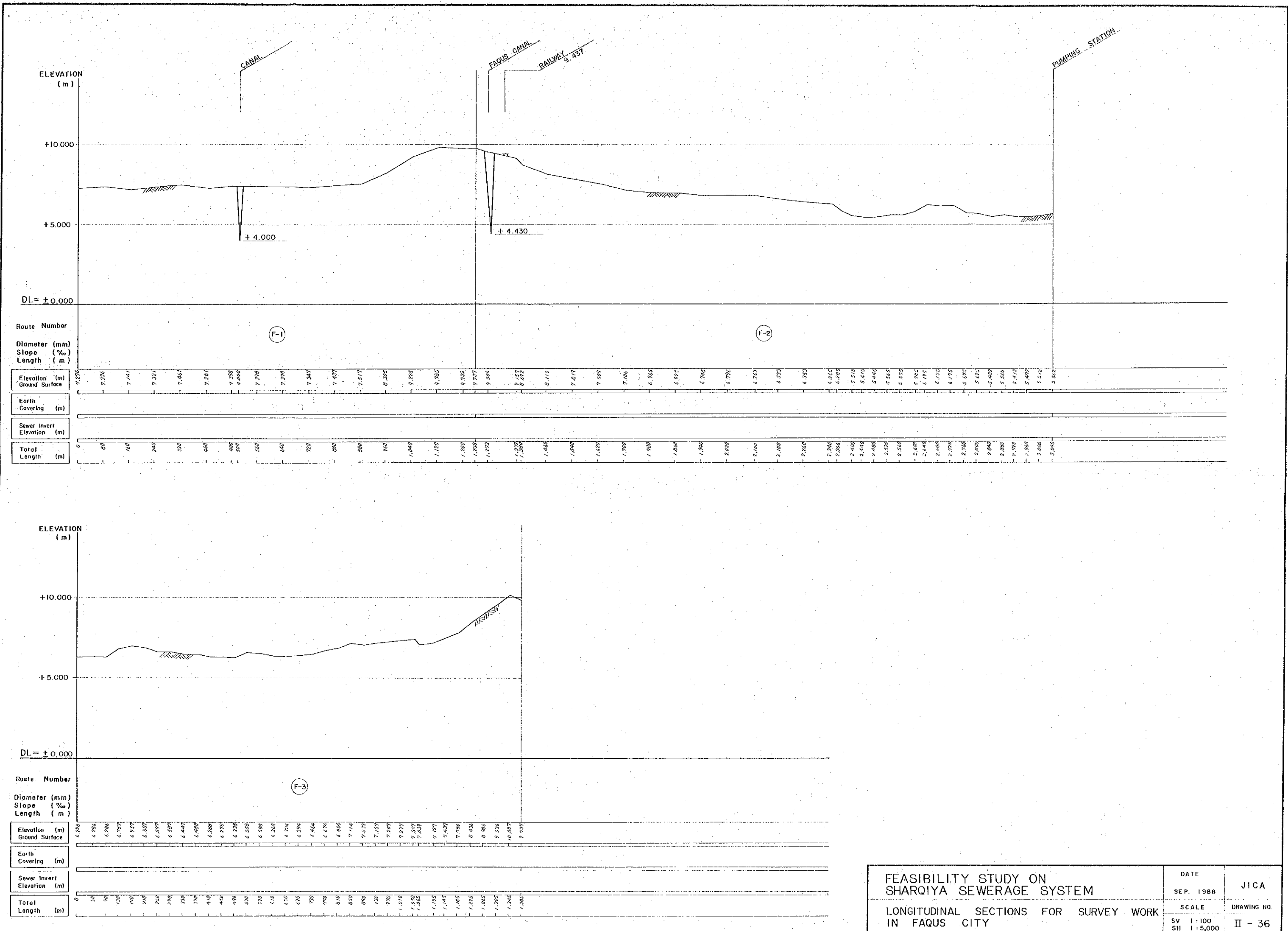
LONGITUDINAL SECTIONS FOR SURVEY WORK
 IN ZAGAZIG CITY

DATE
 SEP 1988

JICA

SCALE
 SV 1:100
 SH 1:5,000

DRAWING
 II - 35



ELEVATION (m)
 +10.000
 +5.000
 DL = ± 0.000

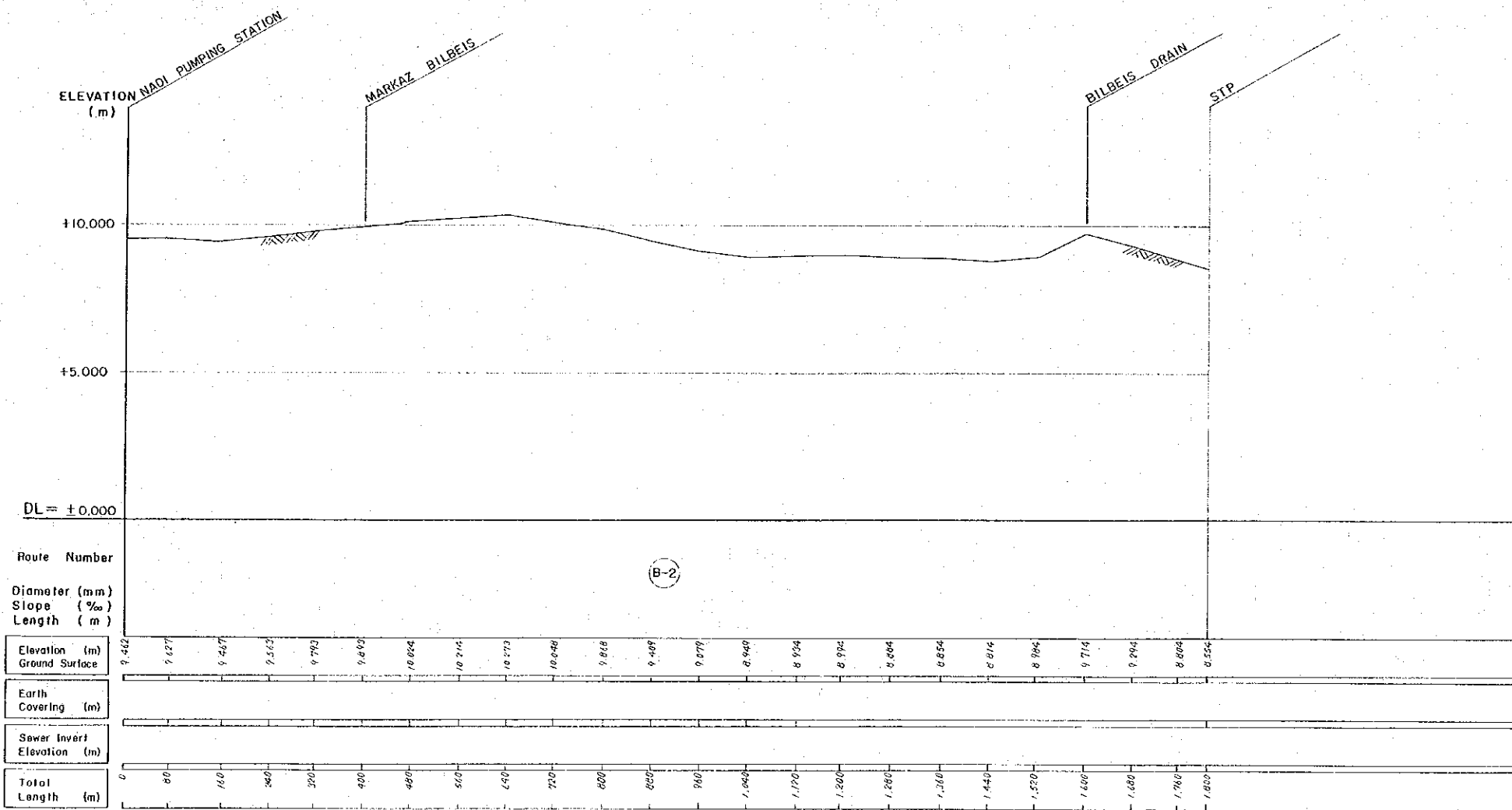
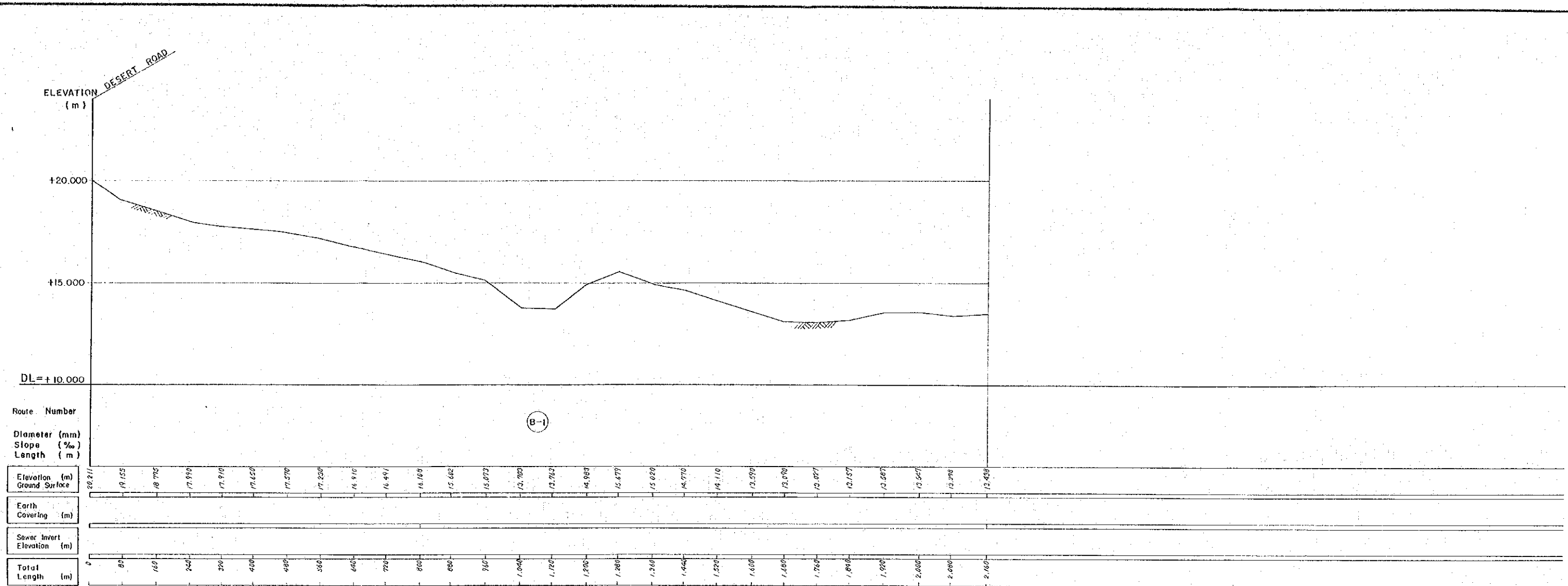
Route Number
 Diameter (mm)
 Slope (‰)
 Length (m)

Elevation Ground Surface (m)	Earth Covering (m)	Sewer Invert Elevation (m)	Total Length (m)
7.270			0
7.376			80
7.141			160
7.321			240
7.441			320
7.281			400
7.398			480
4.000			560
7.398			640
7.378			720
7.347			800
7.437			880
7.517			960
8.305			1040
9.225			1120
9.705			1200
9.732			1280
9.727			1360
9.589			1440
8.157			1520
8.453			1600
8.112			1680
7.819			1760
7.589			1840
7.106			1920
6.965			2000
6.923			2080
6.745			2160
6.776			2240
6.717			2320
6.523			2400
6.353			2480
6.215			2560
6.284			2640
5.210			2720
6.410			2800
5.446			2880
5.585			2960
5.552			3040
5.785			3120
4.195			3200
6.120			3280
6.170			3360
5.670			3440
5.625			3520
5.429			3600
5.539			3680
5.412			3760
5.492			3840
4.512			3920
5.582			4000

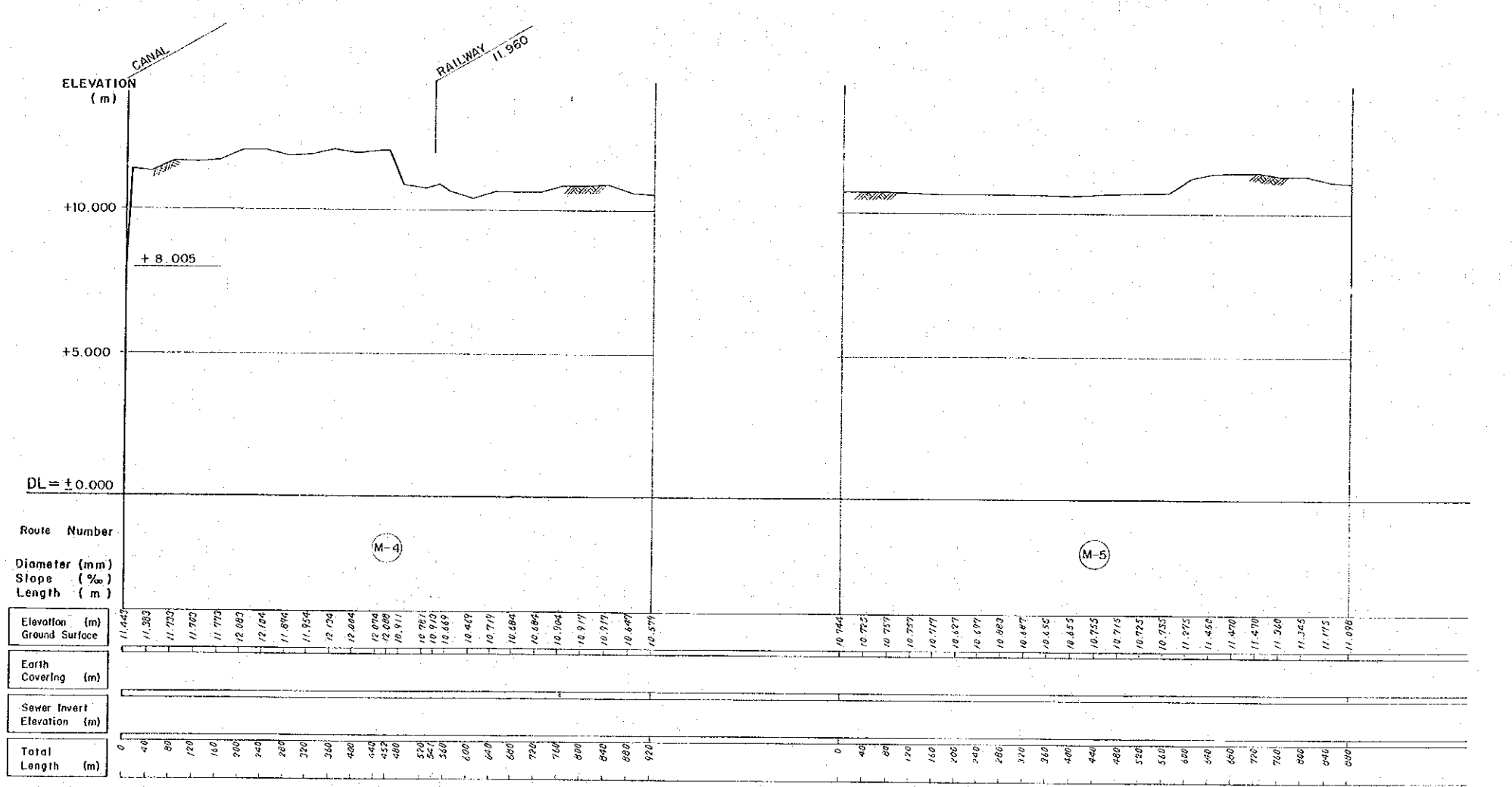
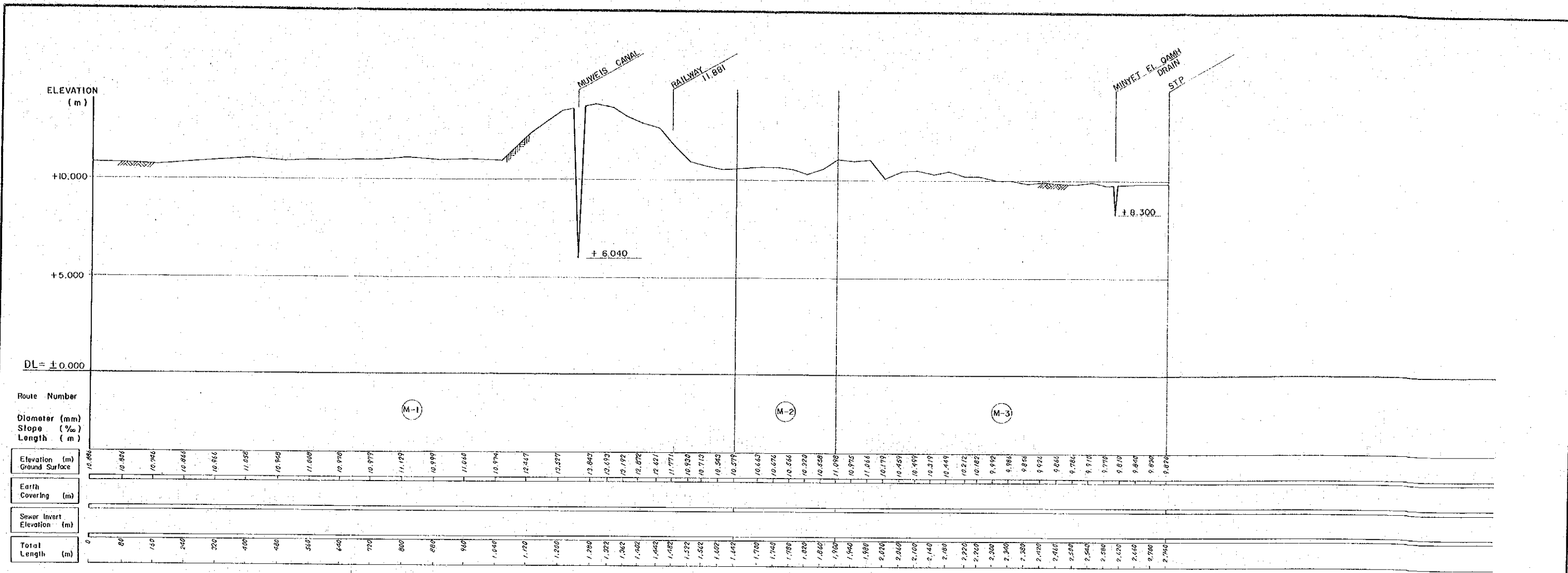
ELEVATION (m)
 +10.000
 +5.000
 DL = ± 0.000

Route Number
 Diameter (mm)
 Slope (‰)
 Length (m)

Elevation Ground Surface (m)	Earth Covering (m)	Sewer Invert Elevation (m)	Total Length (m)
6.223			0
6.784			80
6.286			160
6.707			240
6.557			320
6.507			400
6.507			480
6.447			560
6.488			640
6.268			720
6.770			800
6.225			880
6.528			960
6.508			1040
6.563			1120
6.374			1200
6.394			1280
6.544			1360
6.274			1440
6.866			1520
7.114			1600
7.023			1680
7.127			1760
7.287			1840
7.277			1920
7.317			2000
7.537			2080
7.127			2160
7.784			2240
8.148			2320
8.286			2400
9.534			2480
7.087			2560
7.927			2640



FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM LONGITUDINAL SECTIONS FOR SURVEY WORK IN BILBEIS CITY	DATE	JICA
	SEP. 1988	DRAWING NO.
	SCALE	II - 37
	SV 1:100	
	SH 1:5,000	



FEASIBILITY STUDY ON SHARQIYA SEWERAGE SYSTEM

LONGITUDINAL SECTIONS FOR SURVEY WORK IN MINYET EL QAMH CITY

DATE	JICA
SEP. 1988	DRAWING NO.
SCALE	II - 38
SV 1:100	
SH 1:5,000	

FEASIBILITY STUDY ON
SHARQIYA SEWERAGE SYSTEM IN
THE ARAB REPUBLIC OF EGYPT

FINAL REPORT

VOLUME FOUR DRAWINGS

SEP. 1988

JICA

