

ペルー国、ベンタニーリャ地区
生活用水供給計画
図面集

昭和56年3月

国際協力事業団

L709
61.8
SDS
LIBRARY

SDS
81-90

JICA LIBRARY



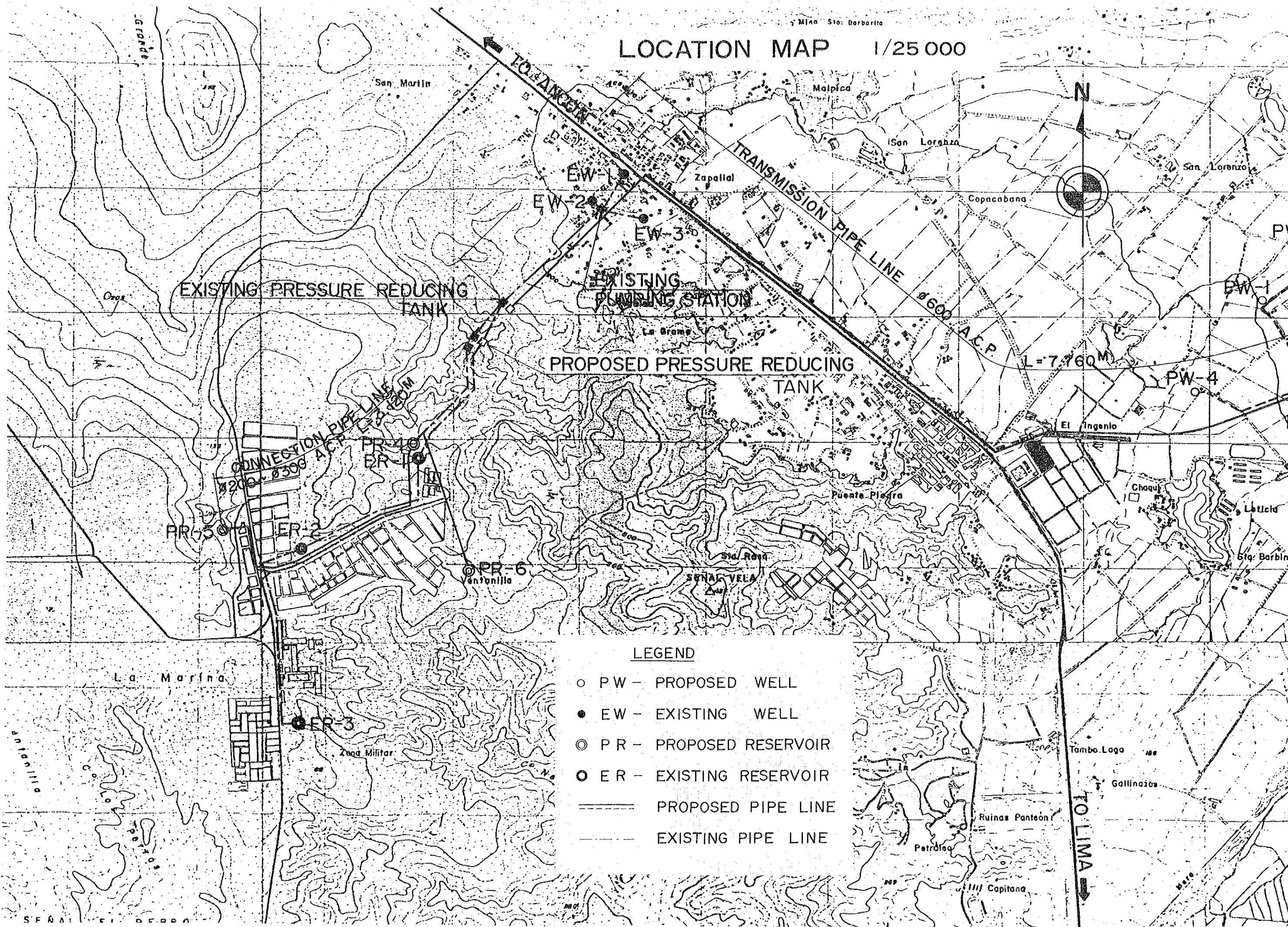
1035109E6J

国際協力事業団	
受入 月日 84.8.29	L7690
登録No. 14441	'61.8 SDS

DRAWING SCHEDULE

TITLE	SHEET No.
LOCATION MAP	1
HYDRULIC PROFILE	2
No.1 ROW WATER PIPE LINE ①~③ PLAN & PROFILE	3~5
No.2 " ①~⑤ "	6~10
No.3 " ①~⑥ "	11~16
No.4 " ①~② "	17~18
TRANSMISSION PIPE LINE ①~⑪ PLAN & PROFILE	19~29
CONNECTION PIPE LINE ϕ 300 ①~④ PLAN & PROFILE	30~33
" ϕ 200 ①~② "	34~35
PUMPING STATION SITE PLAN	36
" GENERAL LAYOUT PLAN	37
" DETAIL OF PUMP WELLS	38
" DETAIL OF PUMP ROOM	39
DETAIL OF DEEP WELL PUMP ROOM	
PRESSURE REDUCING TANK	40
STONAGE RESERVOIR	41
DETAIL OF DEEP WELL	42
DRILLING MACHINE	43

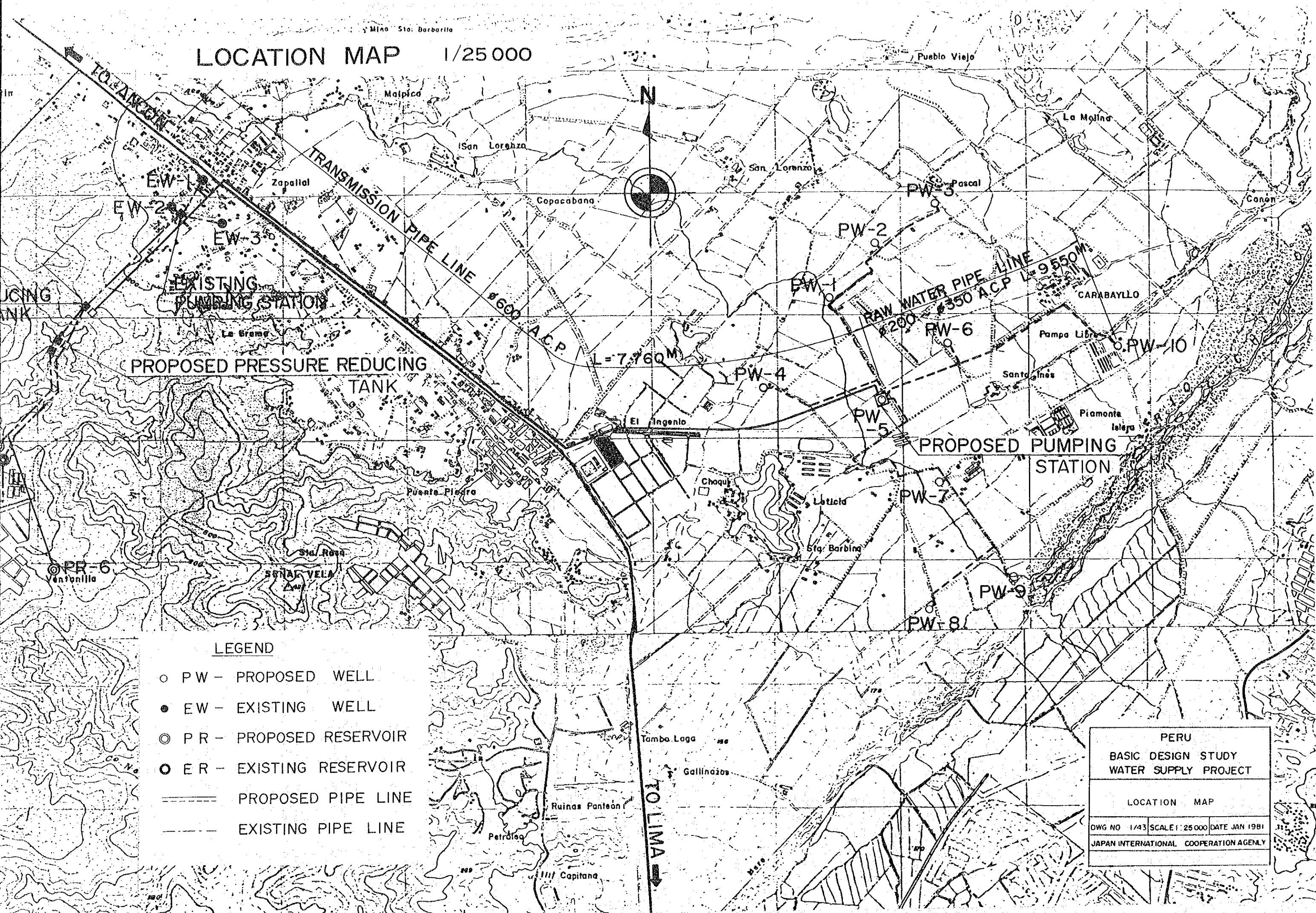
LOCATION MAP 1/25 000



LEGEND

- P W - PROPOSED WELL
- E W - EXISTING WELL
- ⊙ P R - PROPOSED RESERVOIR
- ⊙ E R - EXISTING RESERVOIR
- ==== PROPOSED PIPE LINE
- EXISTING PIPE LINE

LOCATION MAP 1/25 000

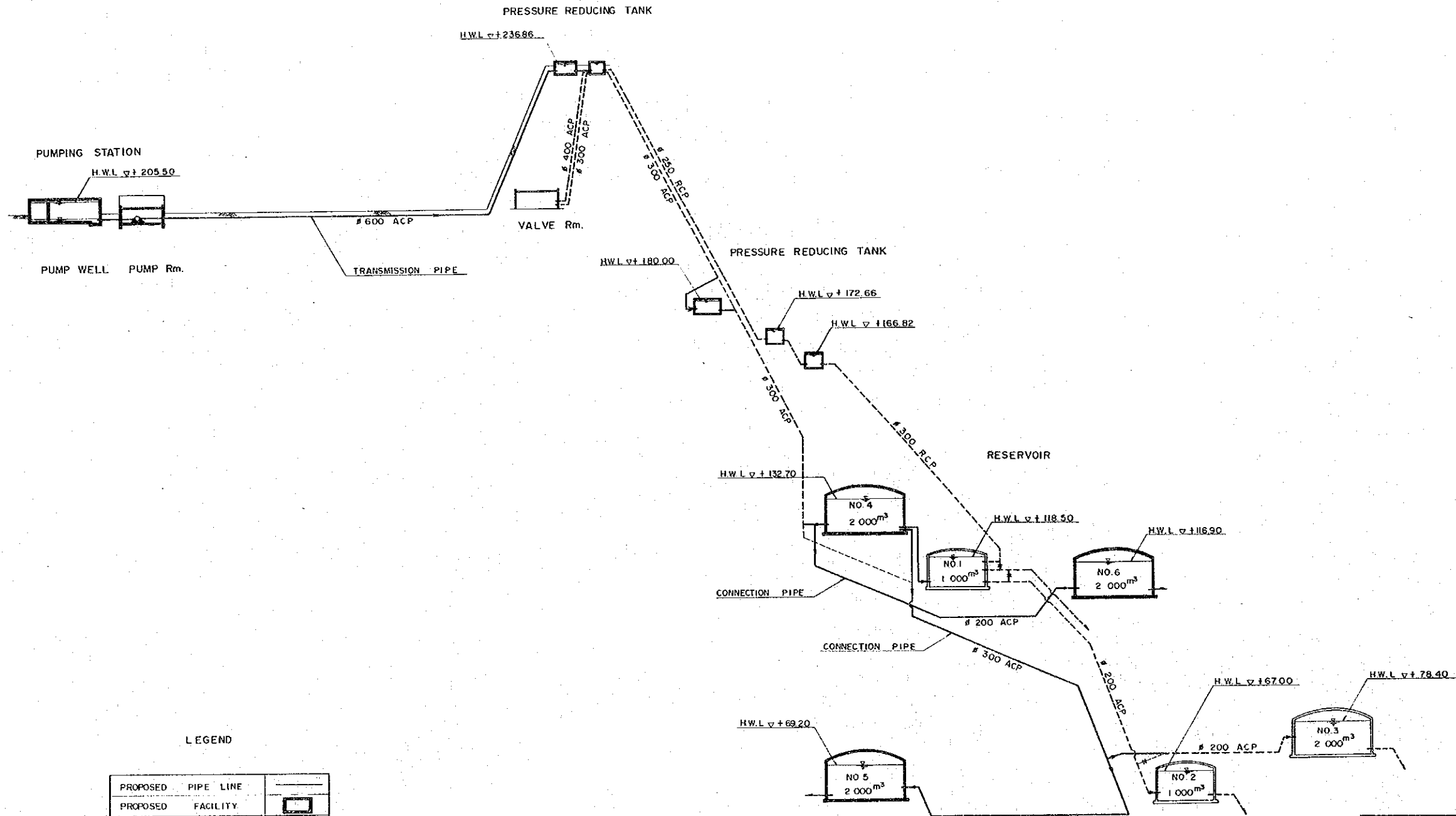


LEGEND

- PW - PROPOSED WELL
- EW - EXISTING WELL
- ⊙ PR - PROPOSED RESERVOIR
- ⊗ ER - EXISTING RESERVOIR
- ==== PROPOSED PIPE LINE
- EXISTING PIPE LINE

PERU		
BASIC DESIGN STUDY		
WATER SUPPLY PROJECT		
LOCATION MAP		
DWG NO 1/43	SCALE 1:25 000	DATE JAN 1981
JAPAN INTERNATIONAL COOPERATION AGENCY		

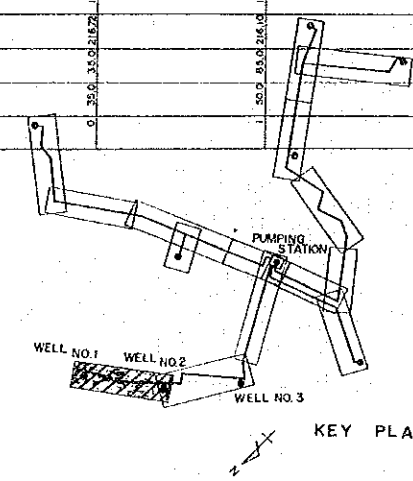
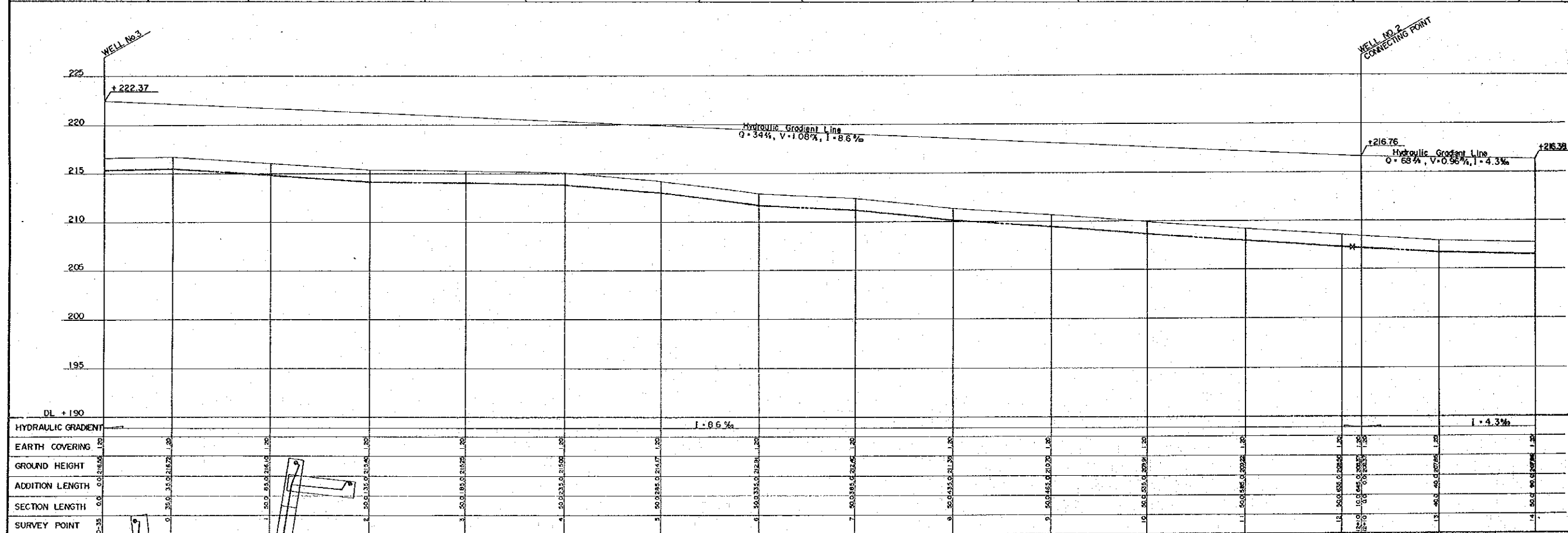
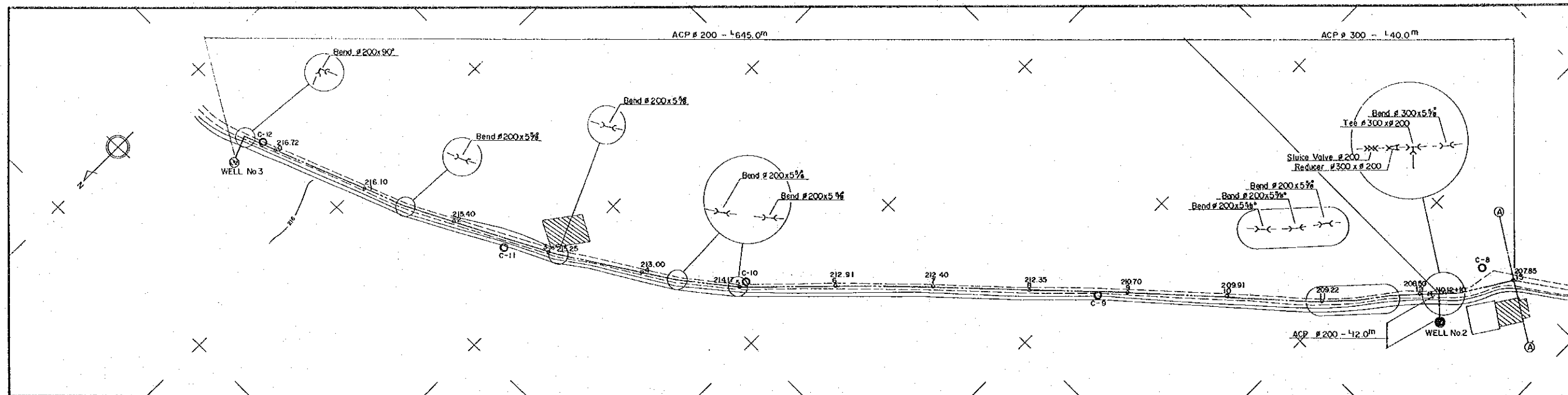
HYDRAULIC PROFILE NON SCALE



LEGEND

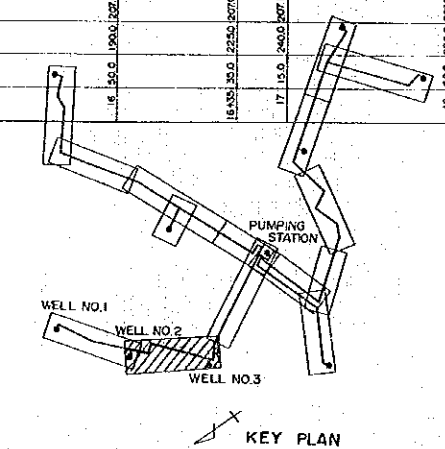
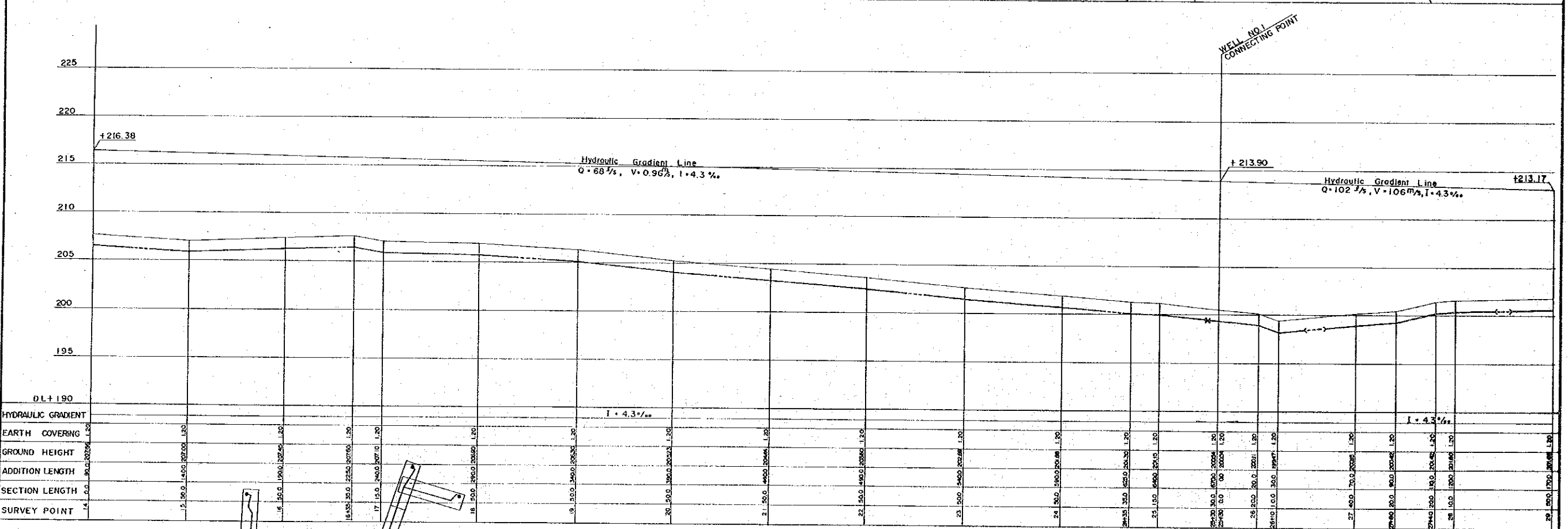
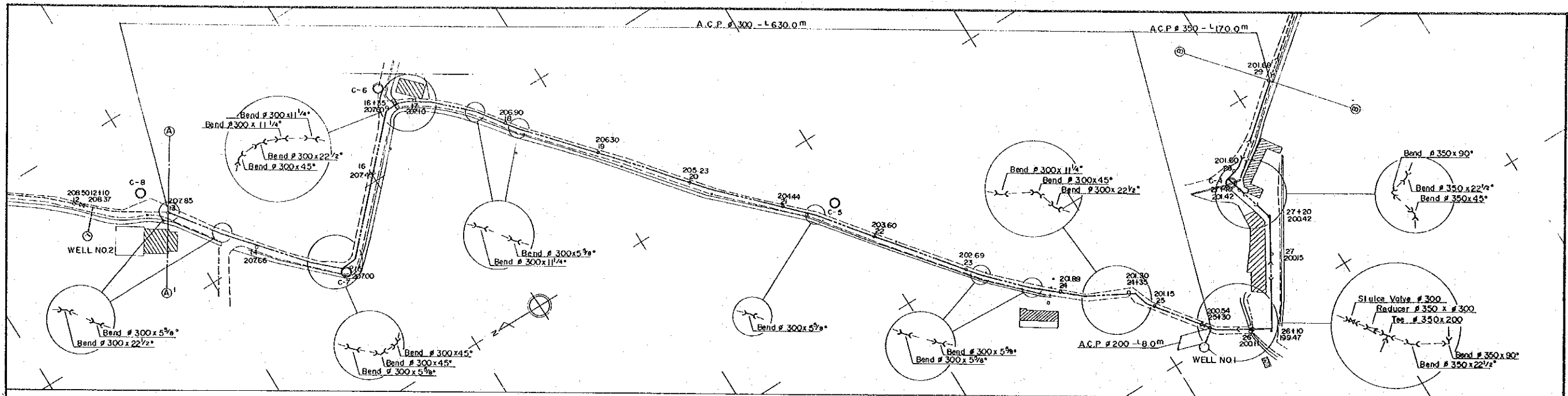
PROPOSED PIPE LINE	
PROPOSED FACILITY	
EXISTING PIPE LINE	
EXISTING FACILITY	
ASBESTOS CEMENT PIPE	ACP
REINFORCED CONCRETE PIPE	RCP
HIGH WATER LEVEL	H.W.L.

PERU		
BASIC DESIGN STUDY		
WATER SUPPLY PROJECT		
HYDRAULIC PROFILE		
DWG NO. 2/43	SCALE: NON SCALE	DATE: JAN. 1981
JAPAN INTERNATIONAL COOPERATION AGENCY		



No. ① RAW WATER PIPE LINE ①

PERU BASIC DESIGN STUDY WATER SUPPLY PROJECT	
No.1 RAW WATER PIPE LINE ① PLAN & PROFILE	
DWG. NO. 3/43	SCALE: 1:200 (DATE: JAN.1981)
JAPAN INTERNATIONAL COOPERATION AGENCY	



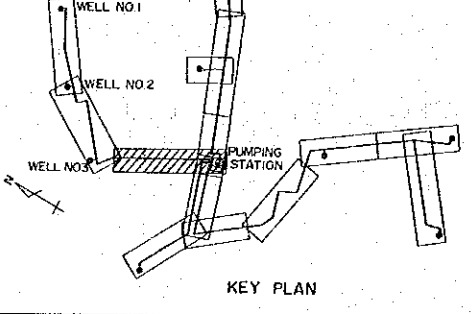
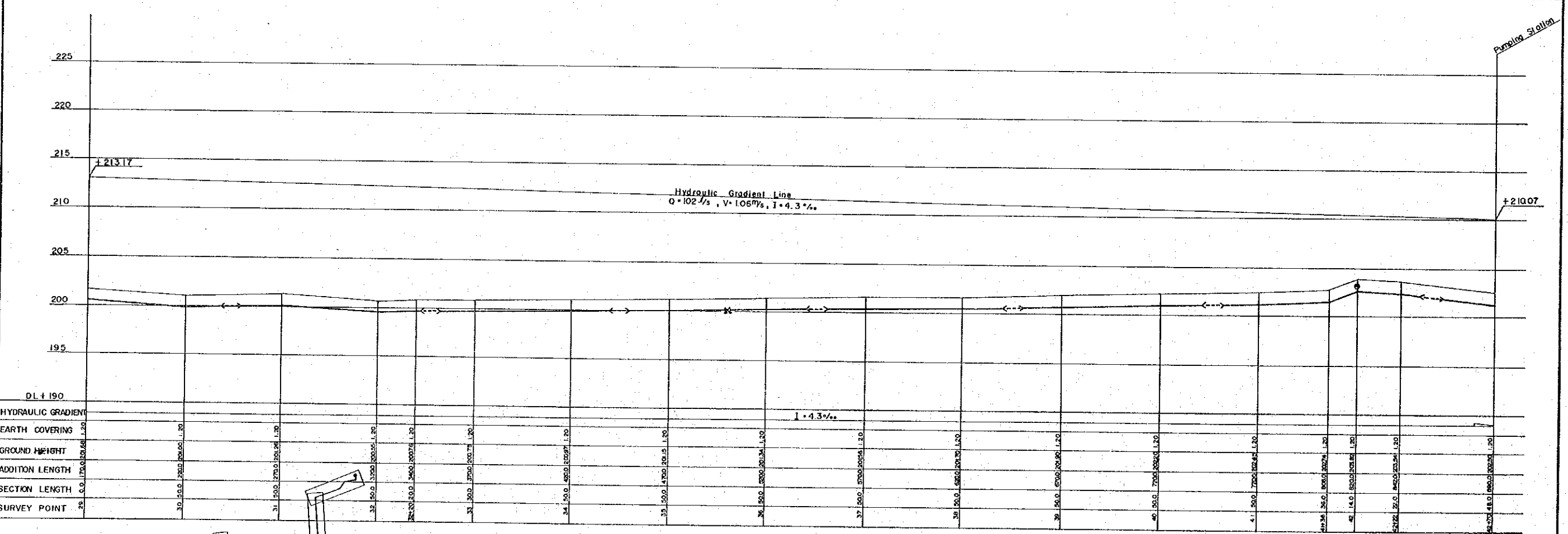
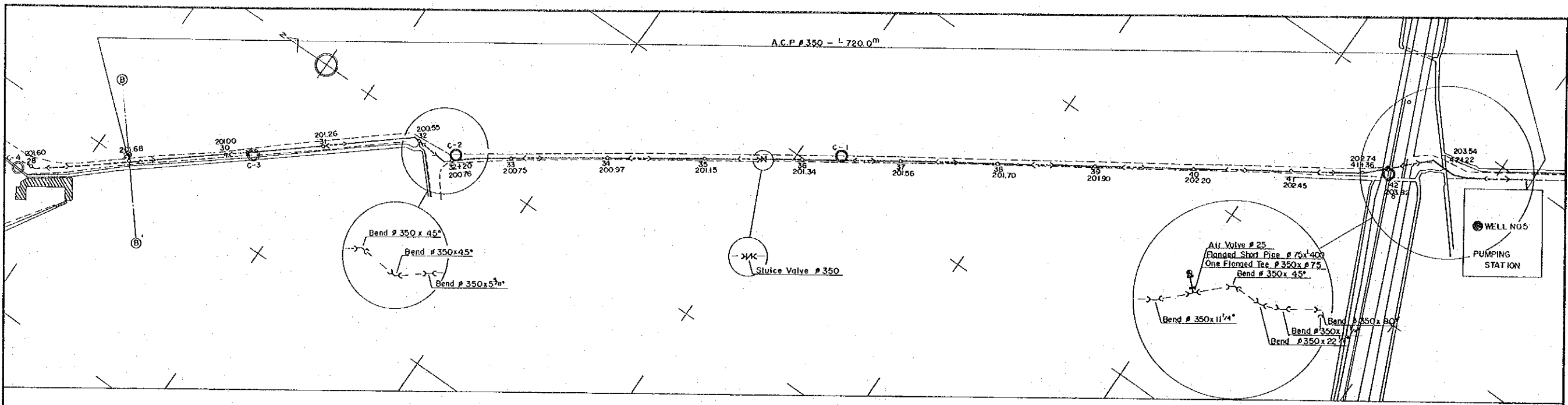
No. ① RAW WATER PIPE LINE ②

PERU
BASIC DESIGN STUDY
WATER SUPPLY PROJECT

NO. 1 RAW WATER PIPE LINE ②
PLAN & PROFILE

DWG. NO. 4/43 SCALE: 1:1000 DATE: JAN. 1981

JAPAN INTERNATIONAL COOPERATION AGENCY



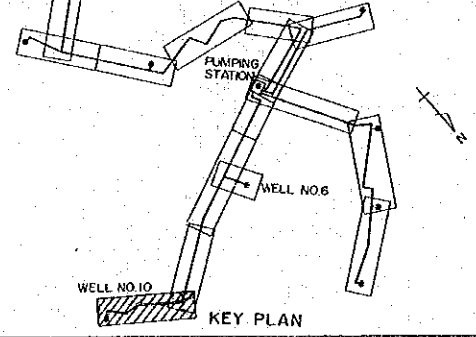
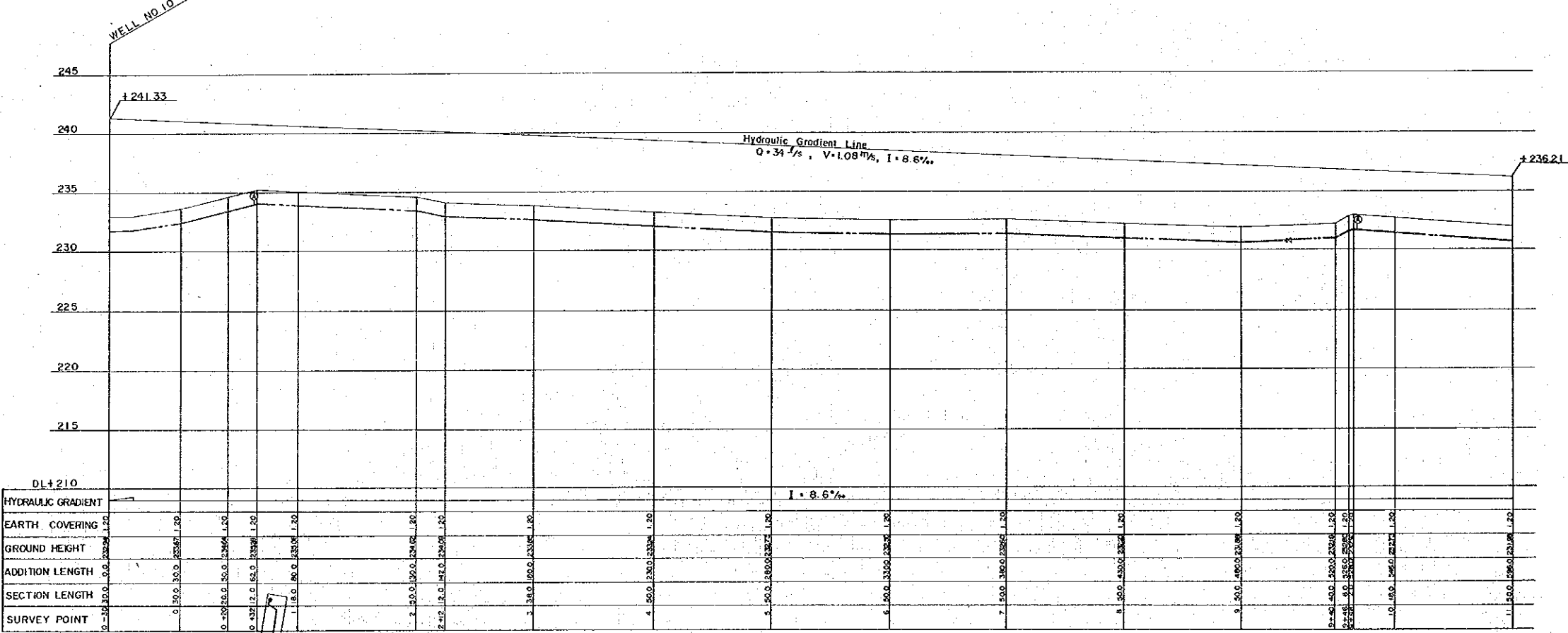
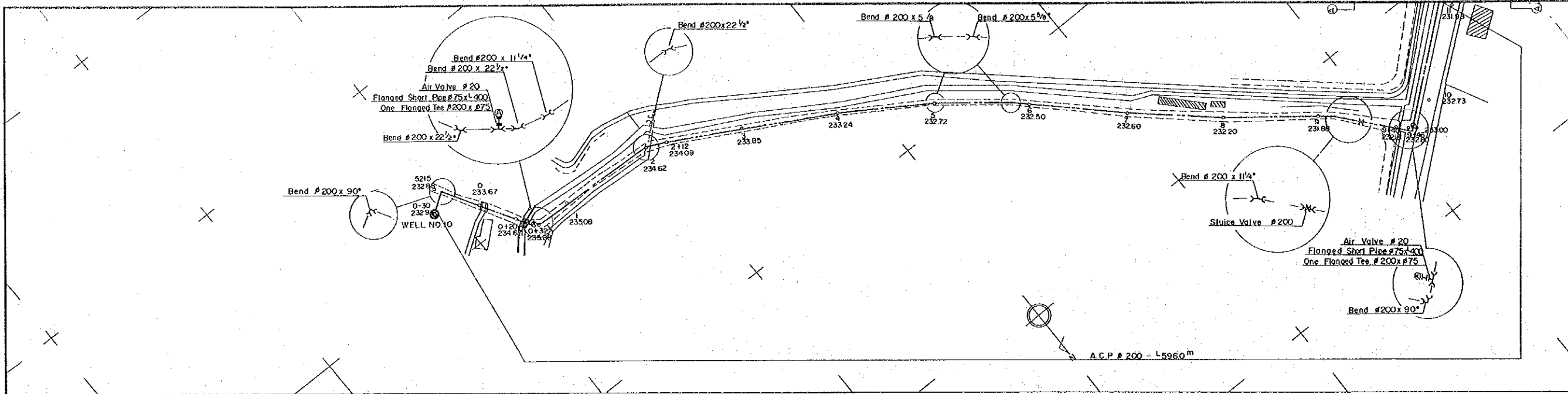
No. ① RAW WATER PIPE LINE ③

PERU
 BASIC DESIGN STUDY
 WATER SUPPLY PROJECT

NO.1 RAW WATER PIPE LINE ③
 PLAN & PROFILE

DWG NO 5/43 SCALE: 1:1000 DATE JAN 1981

JAPAN INTERNATIONAL COOPERATION AGENCY

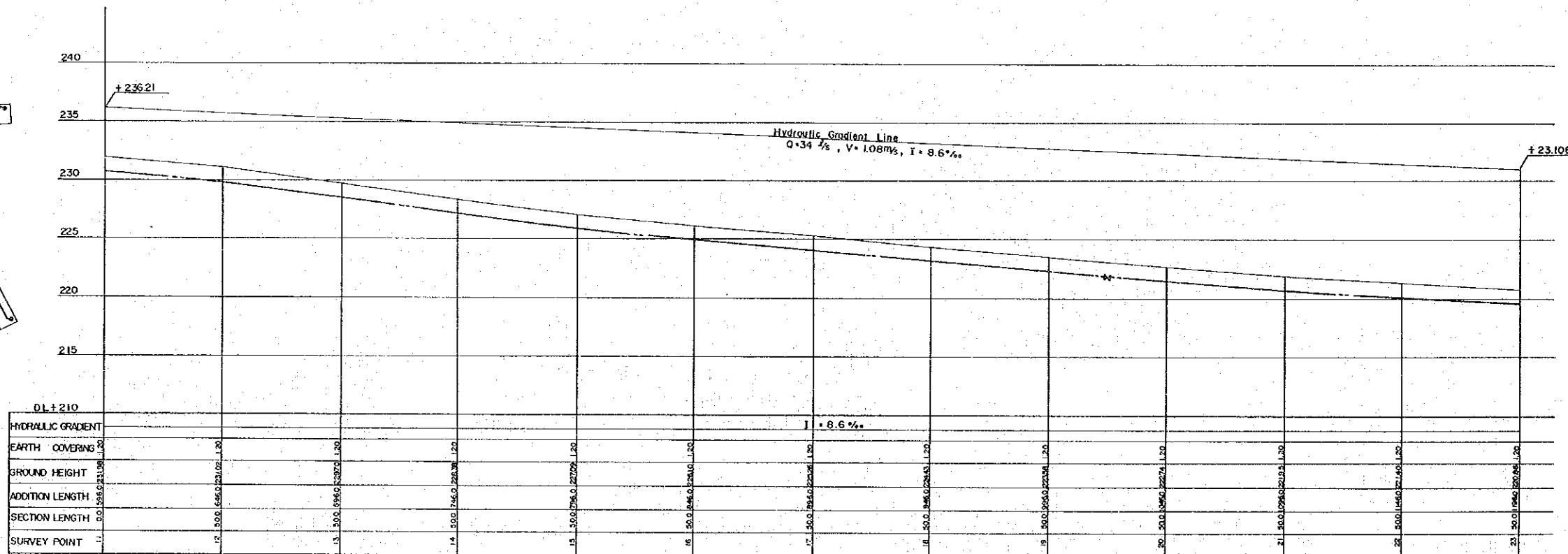
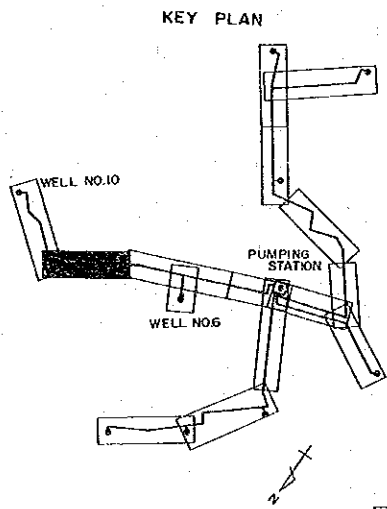
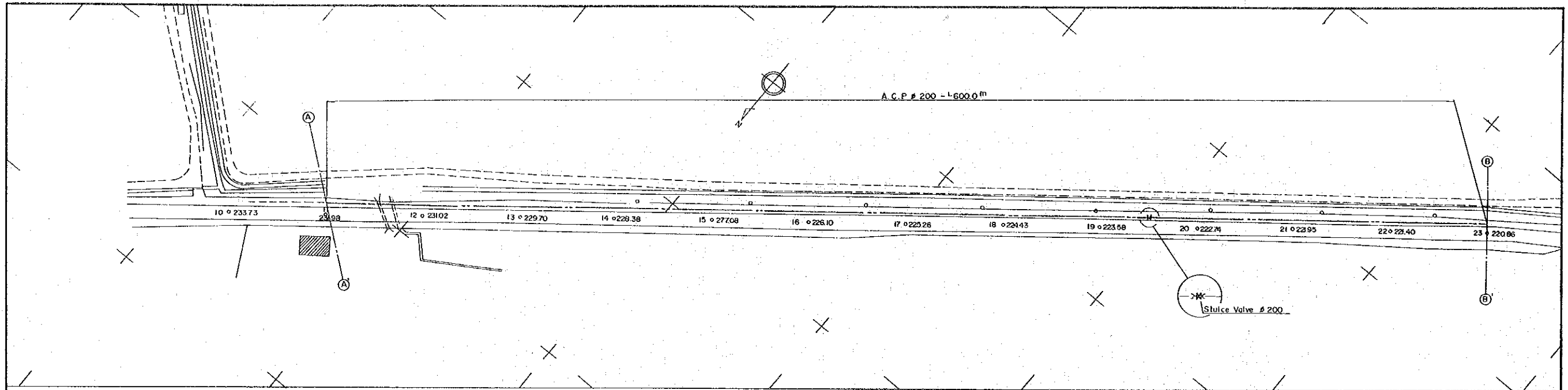


No. ② RAW WATER LINE ①

PERU
BASIC DESIGN STUDY
WATER SUPPLY PROJECT

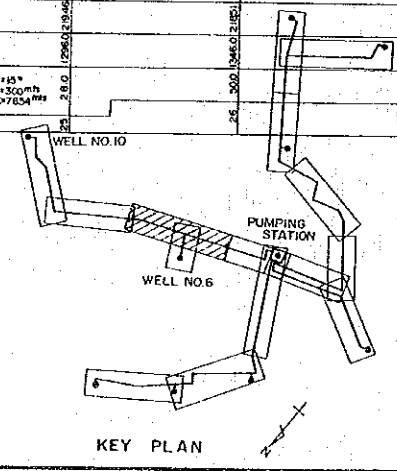
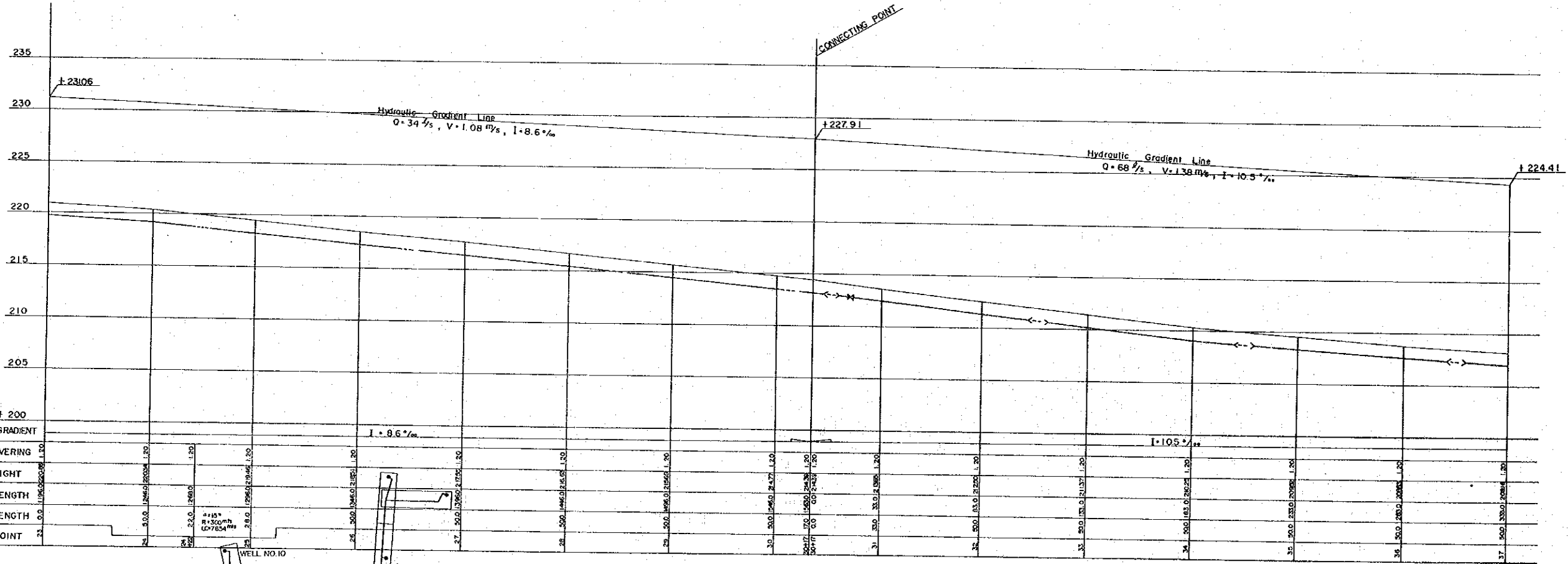
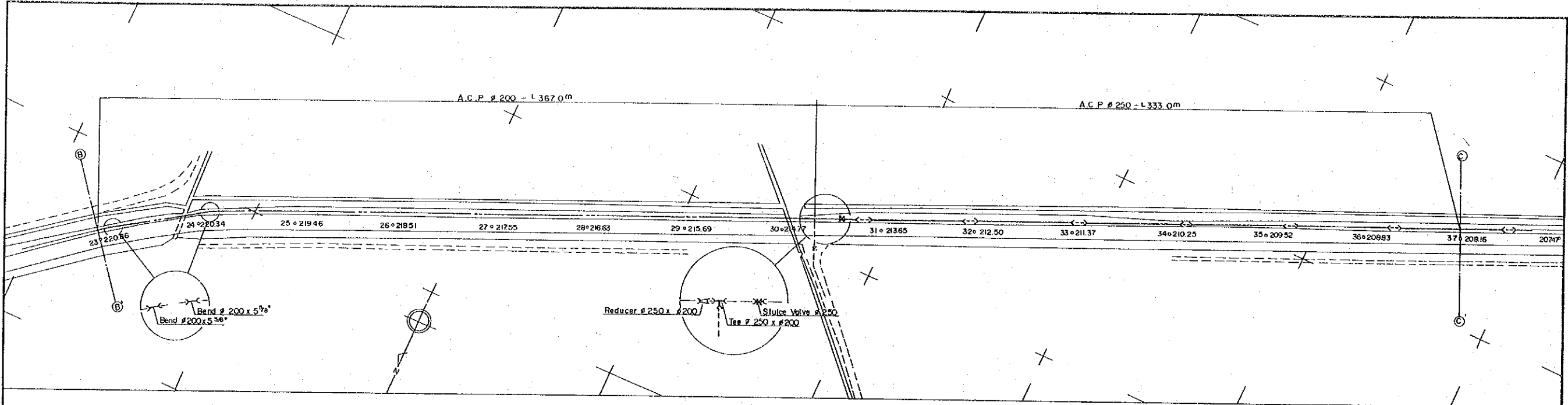
NO.2 RAW WATER PIPE LINE ①
PLAN & PROFILE

DWG. NO 6/43 | I: 200 | SCALE: 1:1000 | DATE: JAN. 1981
JAPAN INTERNATIONAL COOPERATION AGENCY



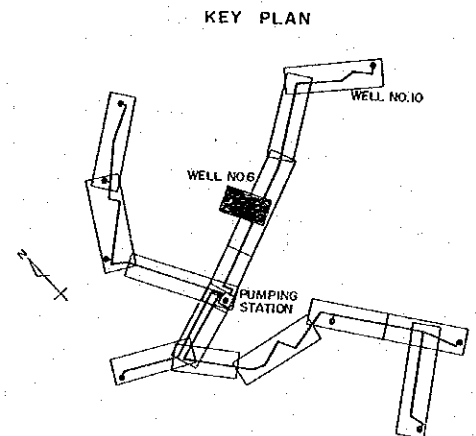
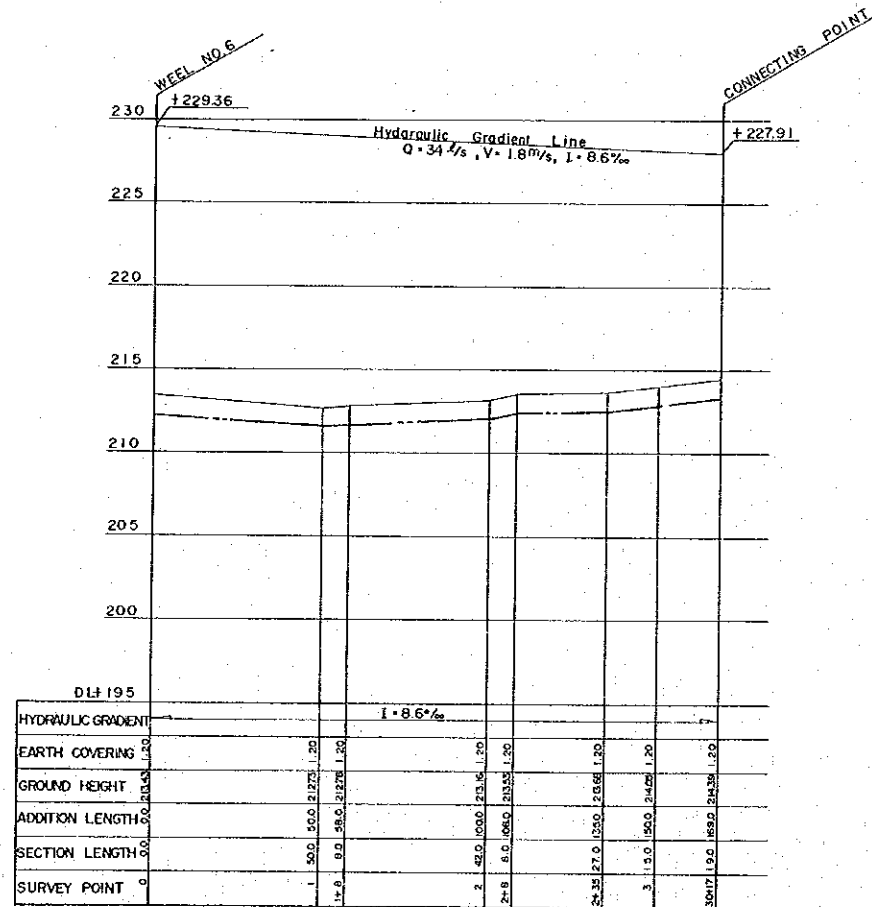
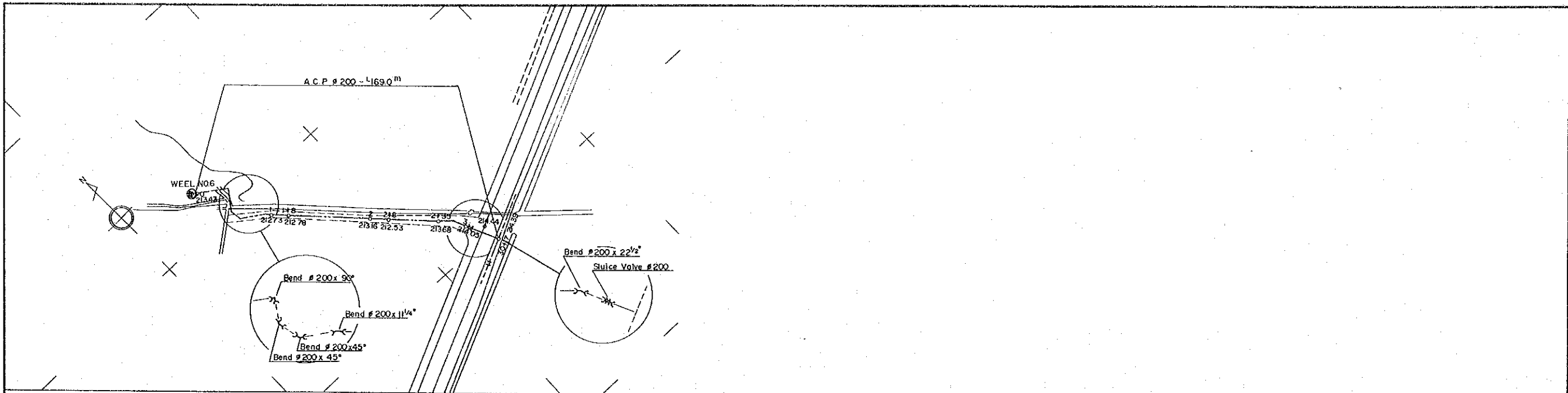
No. ② RAW WATER PIPE LINE ②

PERU	
BASIC DESIGN STUDY	
WATER SUPPLY PROJECT	
NO.2 RAW WATER PIPE LINE ②	
PLAN & PROFILE	
DWG. NO. 7/43	SCALE: 1:1000
DATE: JAN. 1981	
JAPAN INTERNATIONAL COOPERATION AGENCY	



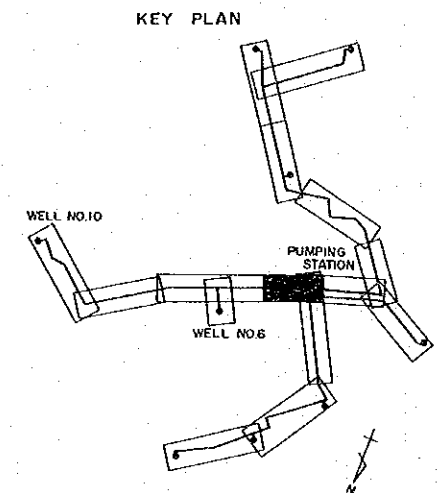
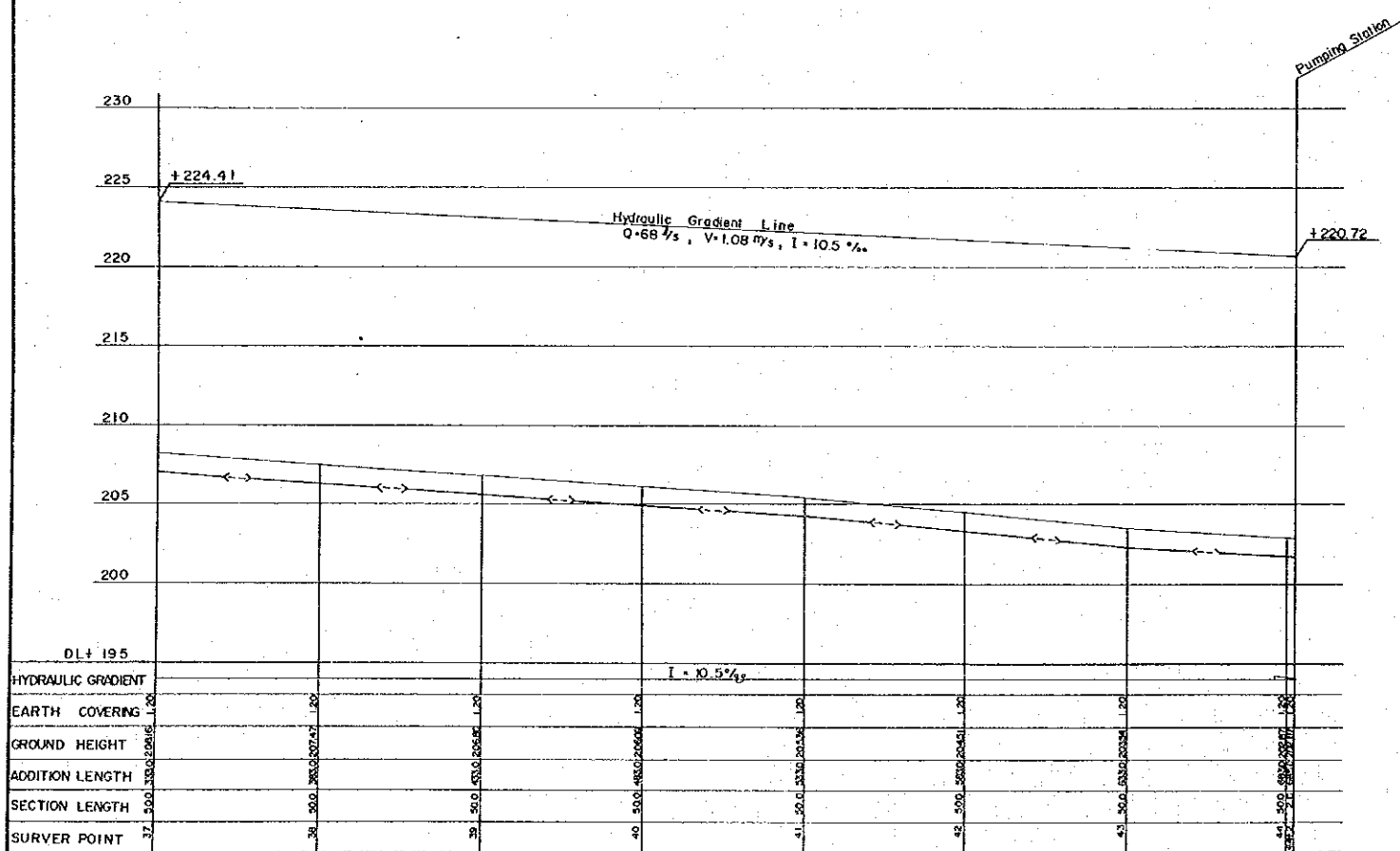
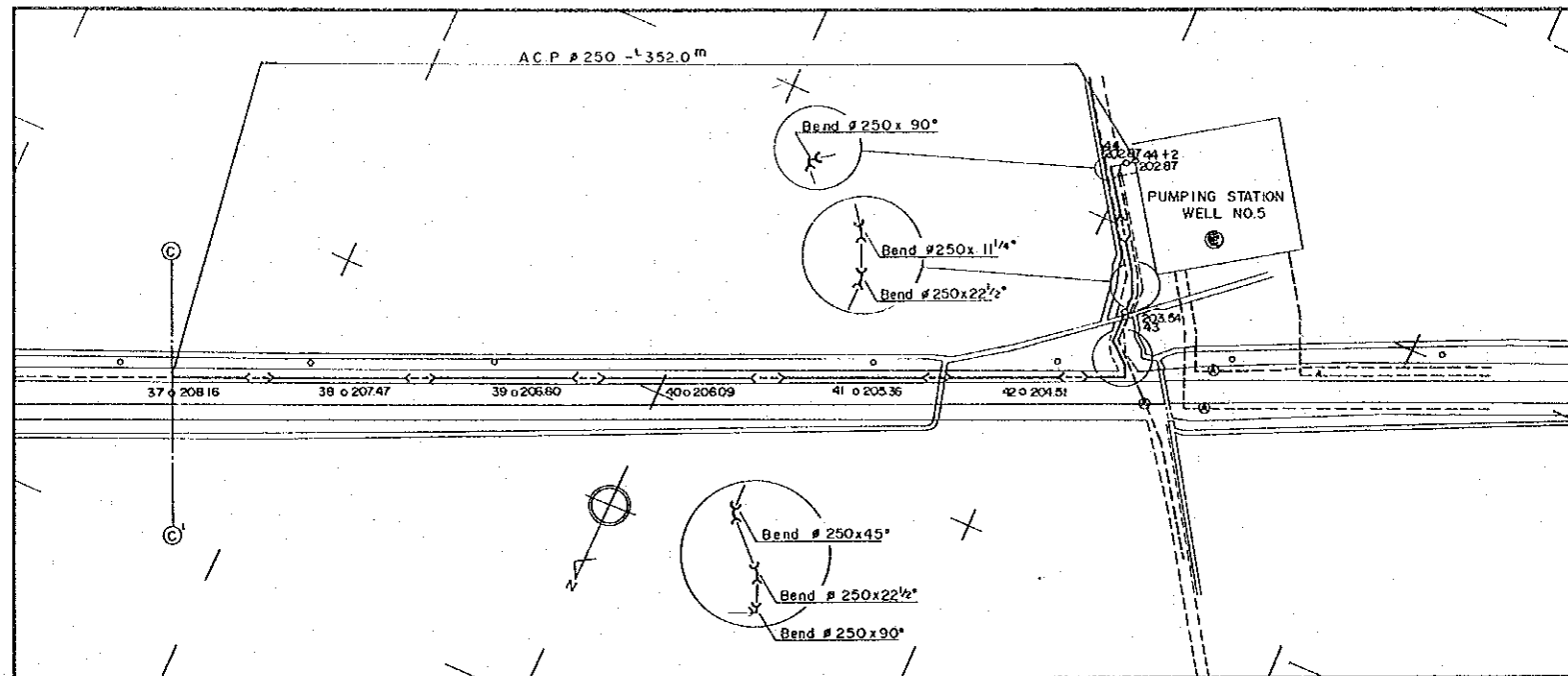
No. ② RAW WATER PIPE LINE ③

PERU
 BASIC DESIGN STUDY
 WATER SUPPLY PROJECT
 NO.2 RAW WATER PIPE LINE ③
 PLAN & PROFILE
 DWG NO. 8/43 SCALE 1:200 DATE: JAN. 1981
 JAPAN INTERNATIONAL COOPERATION AGENCY



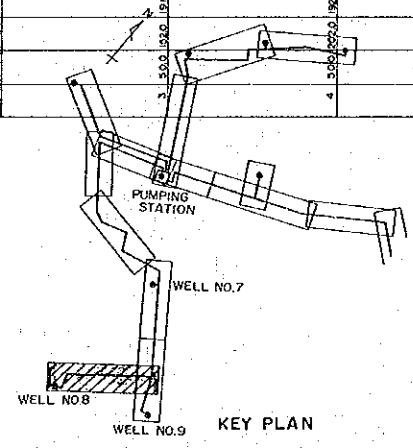
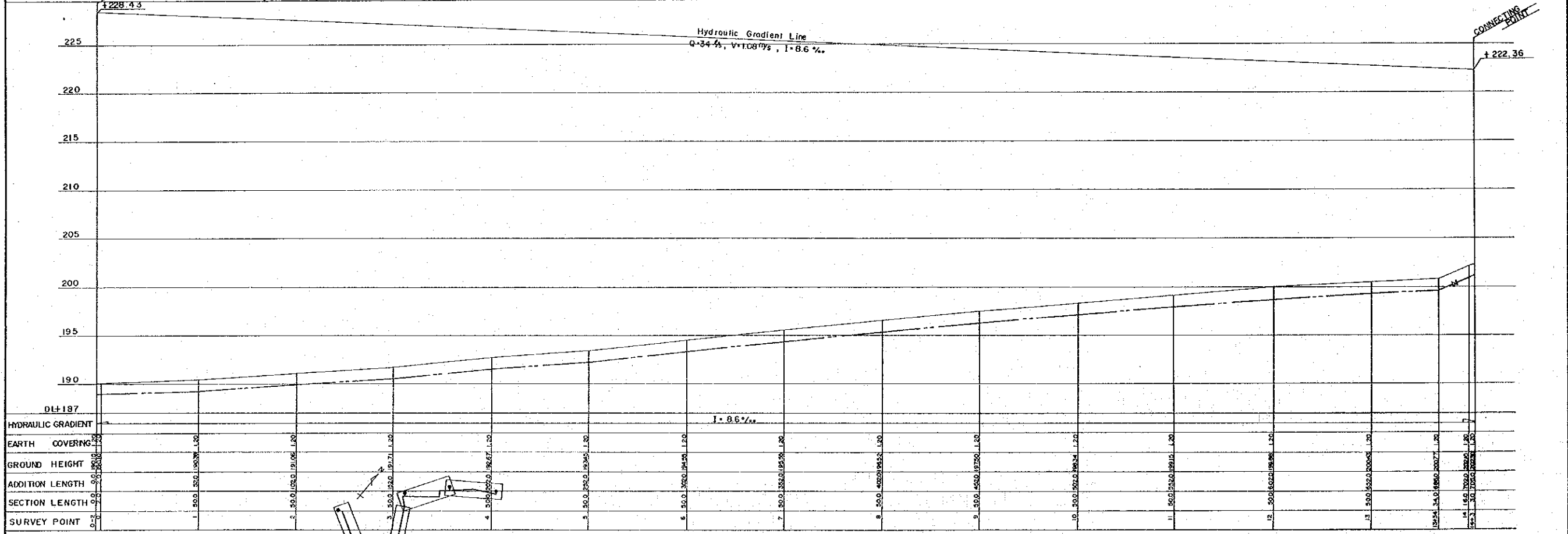
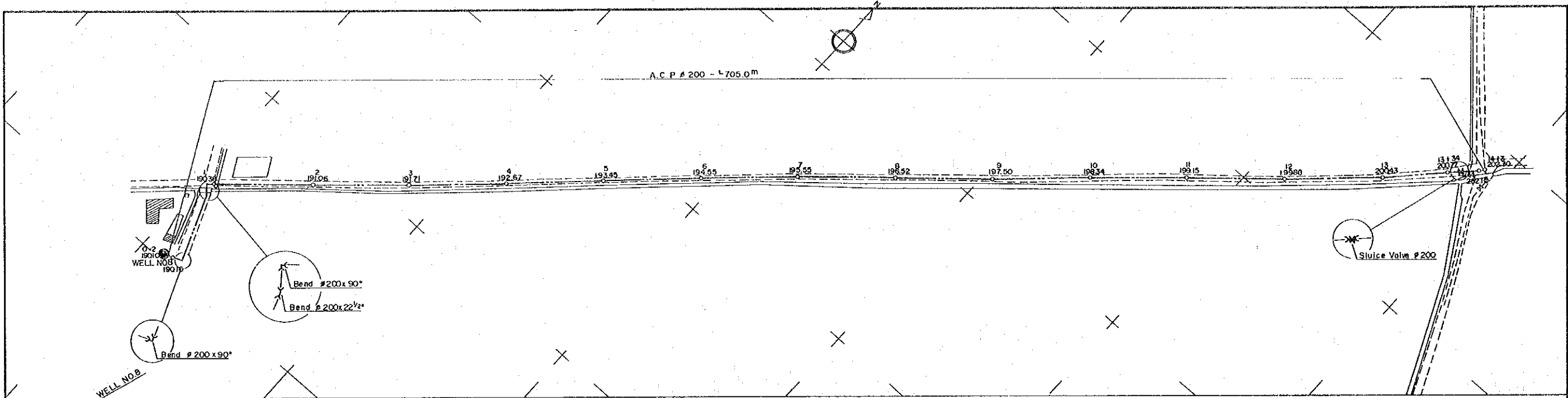
No. ② RAW WATER PIPE LINE ④

PERU BASIC DESIGN STUDY WATER SUPPLY PROJECT		
NO.2 RAW WATER PIPE LINE ④ PLAN & PROFILE		
DWG. NO. 9/43	SCALE: 1:1000	DATE JAN. 1981
JAPAN INTERNATIONAL COOPERATION AGENCY		



No. ② RAW WATER PIPE LINE ⑤

PERU	
BASIC DESIGN STUDY	
WATER SUPPLY PROJECT	
NO. 2 RAW WATER PIPE LINE ⑤	
PLAN & PROFILE	
DWG. NO. 10/43	SCALE: 1:1000 DATE: JAN. 1981
JAPAN INTERNATIONAL COOPERATION AGENCY	



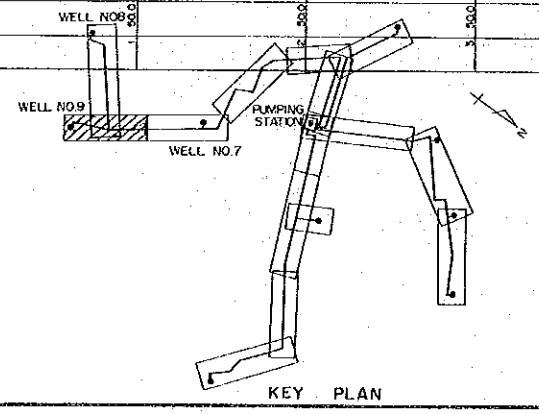
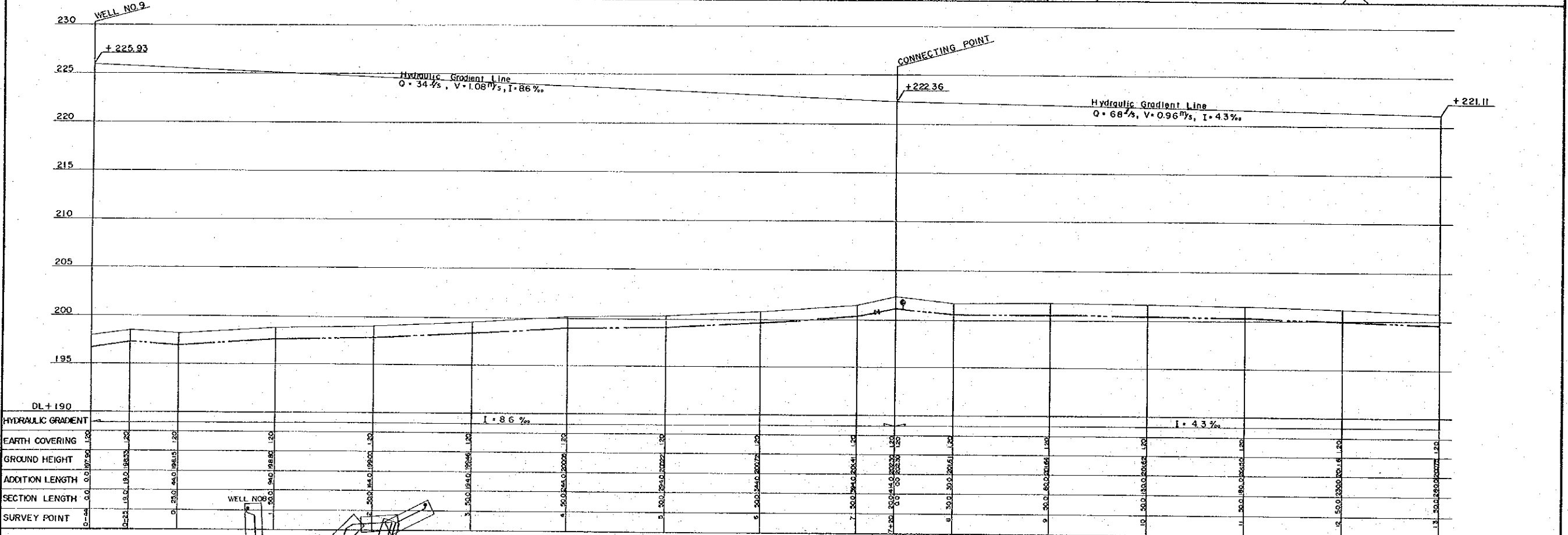
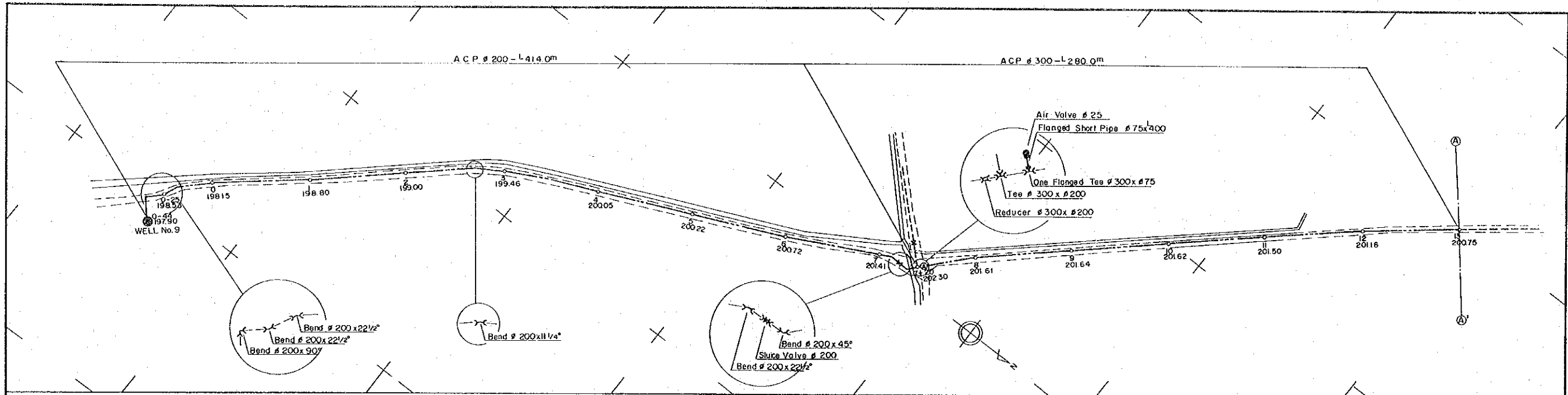
No. ③ RAW WATER PIPE LINE ①

PERU
 BASIC DESIGN STUDY
 WATER SUPPLY PROJECT

NO.3 RAW WATER PIPE LINE ①
 PLAN & PROFILE

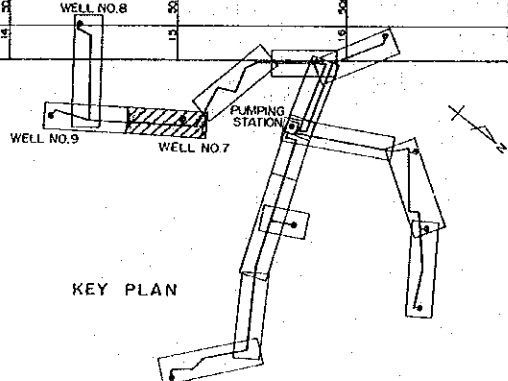
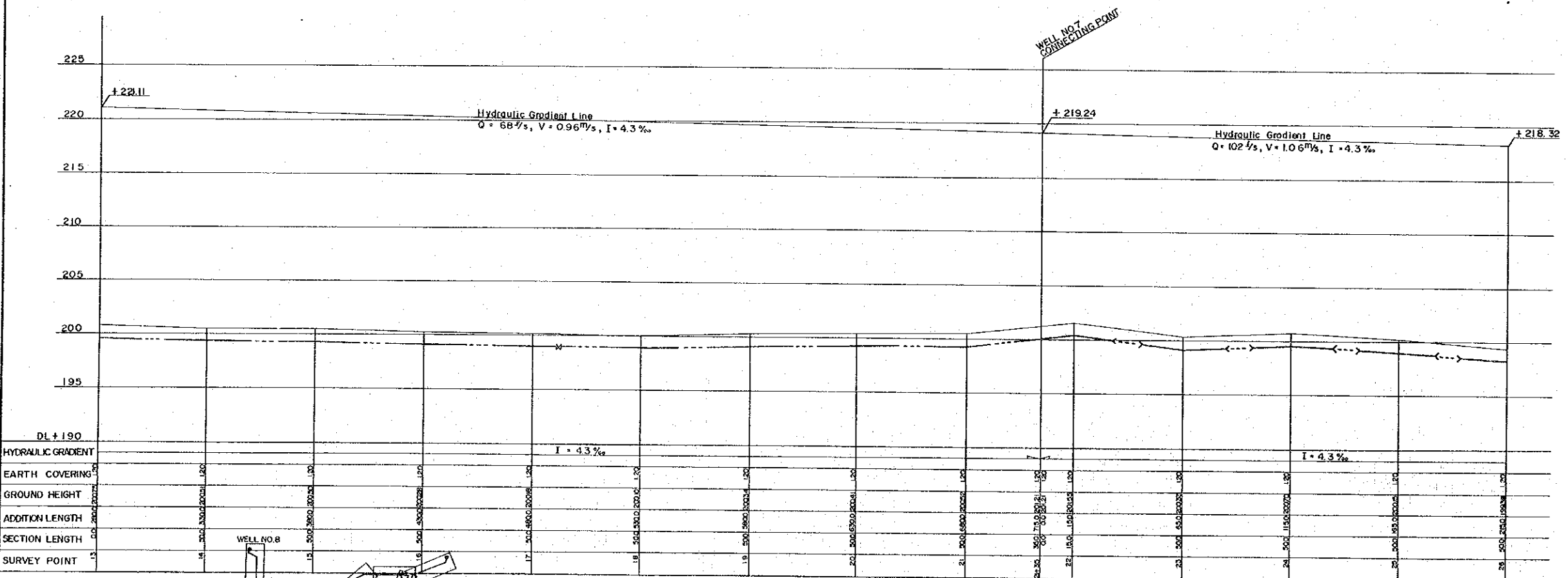
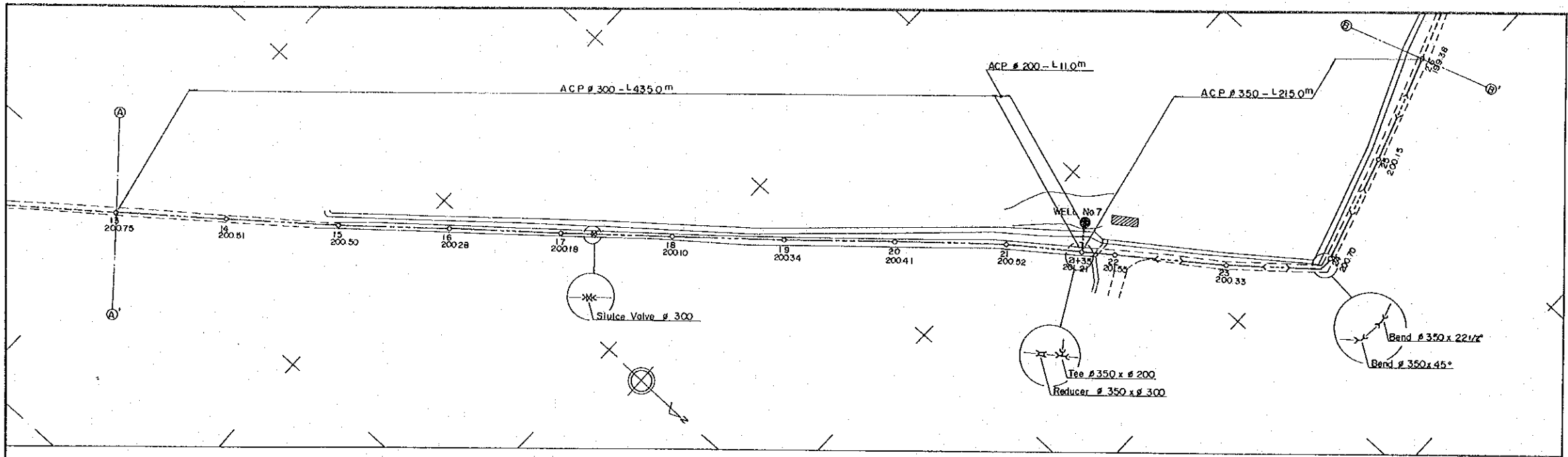
1: 200
 DWG NO. II/43 SCALE: 1:1000 DATE: JAN.1981

JAPAN INTERNATIONAL COOPERATION AGENCY



NO. ③ RAW WATER PIPE LINE ②

PERU
 BASIC DESIGN STUDY
 WATER SUPPLY PROJECT
 NO.3 RAW WATER PIPE LINE ②
 PLAN & PROFILE
 DWG. NO. 12/43 SCALE: 1:200 DATE: JAN. 1981
 JAPAN INTERNATIONAL COOPERATION AGENCY

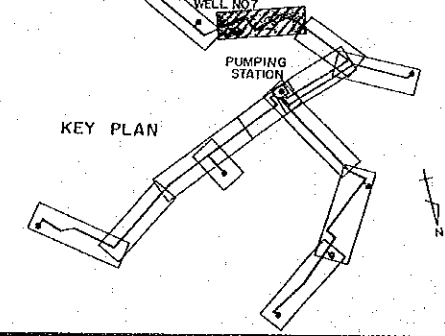
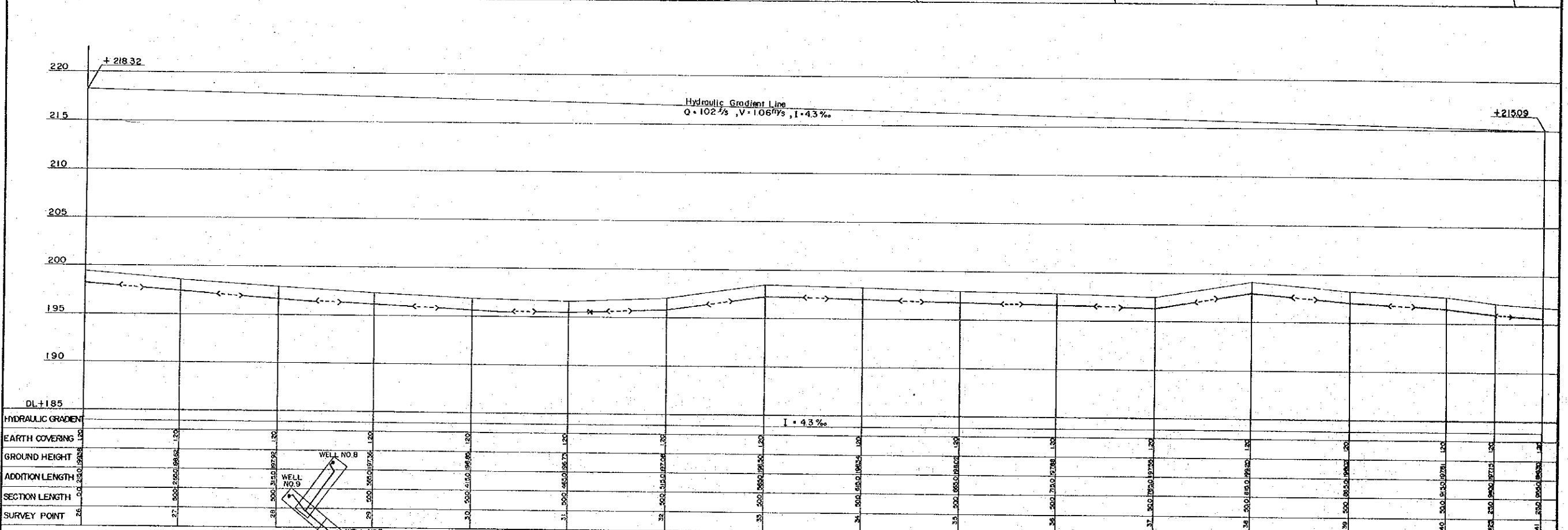
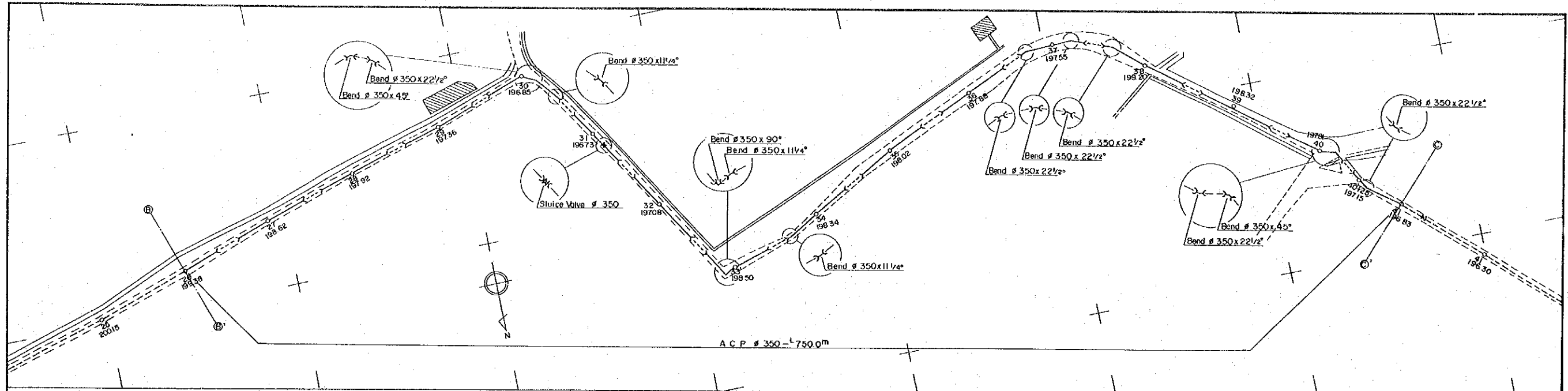


NO. ③ RAW WATER PIPE LINE ③

PERU
 BASIC DESIGN STUDY
 WATER SUPPLY PROJECT

NO.3 RAW WATER PIPE LINE ③
 PLAN & PROFILE

DWG. NO. 13/43 | SCALE: 1:200 | DATE: JAN. 1981
 JAPAN INTERNATIONAL COOPERATION AGENCY

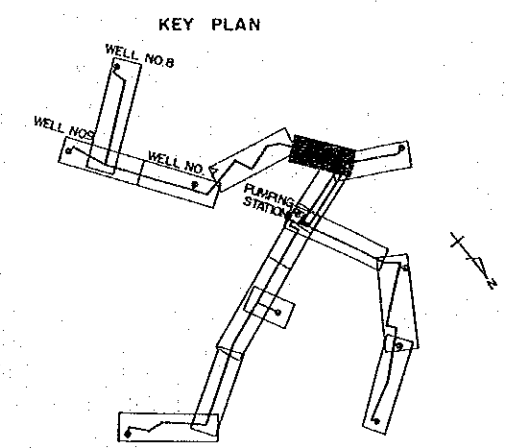
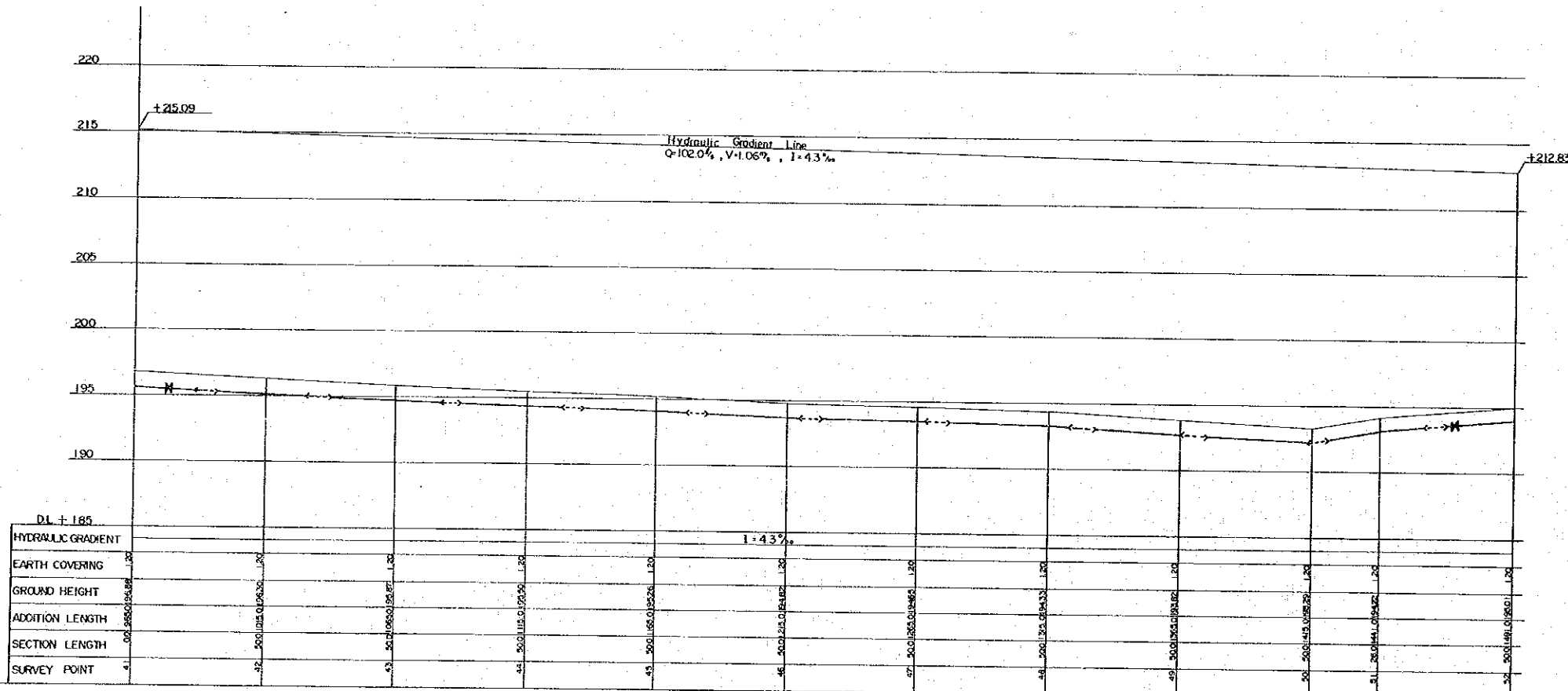
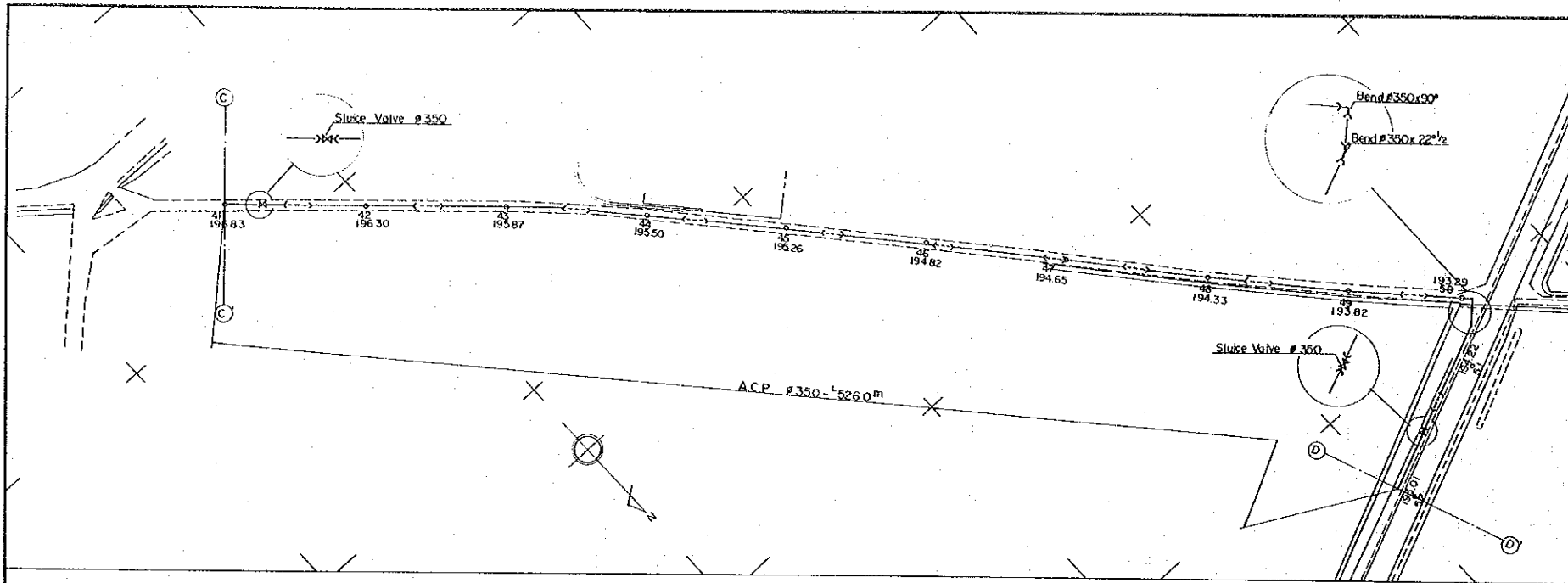


NO. ③ RAW WATER PIPE LINE ④

PERU
BASIC DESIGN STUDY
WATER SUPPLY PROJECT

NO.3 RAW WATER PIPE LINE ④
PLAN & PROFILE

DWG NO. 14/43 SCALE: 1:1000 DATE: JAN. 1981
JAPAN INTERNATIONAL COOPERATION AGENCY

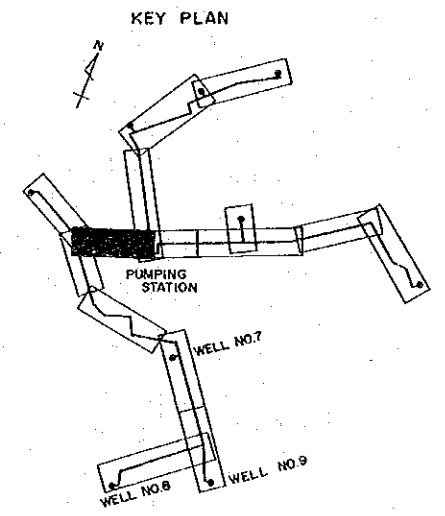
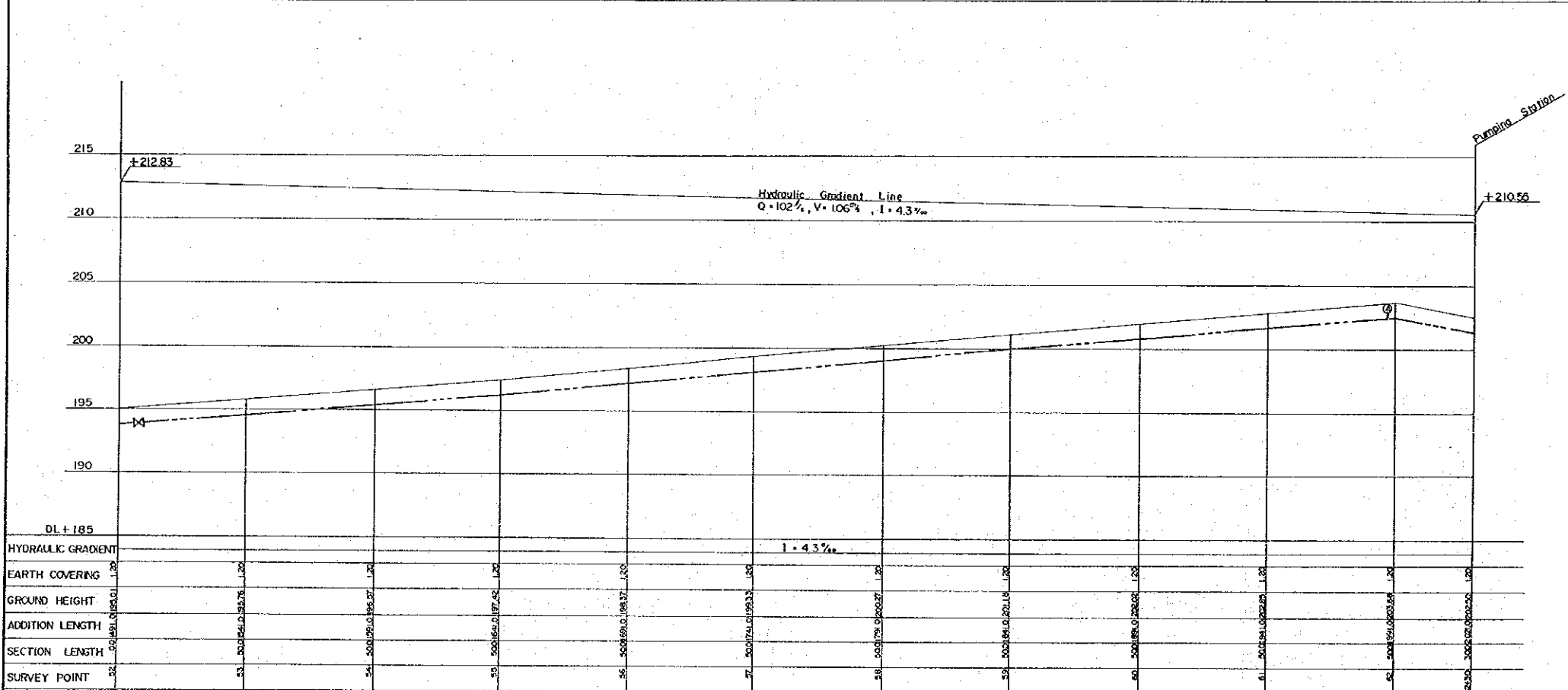
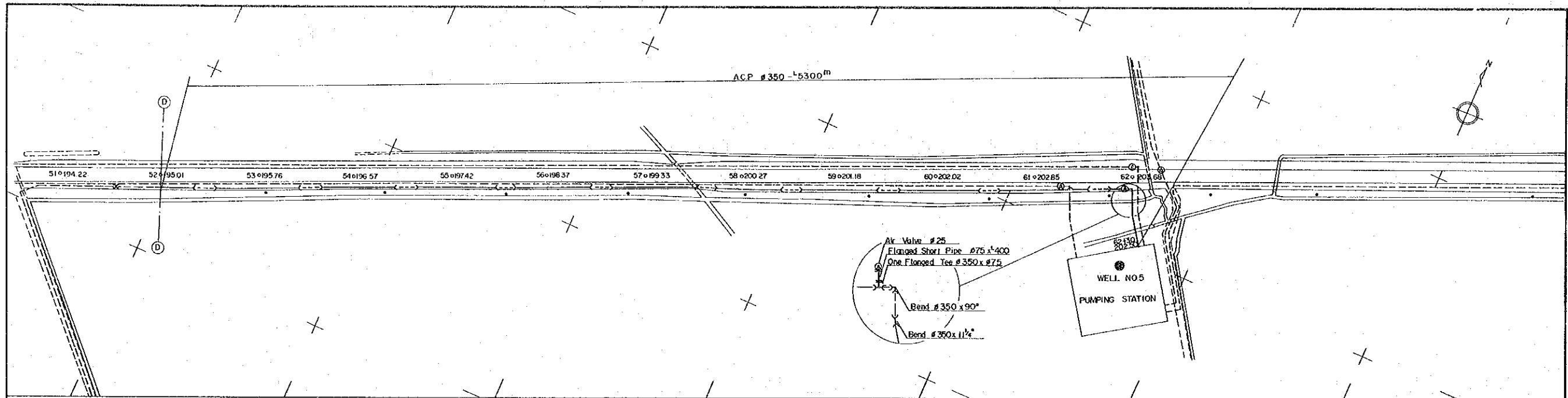


No. ③ RAW WATER PIPE LINE ⑤

PERU
 BASIC DESIGN STUDY
 WATER SUPPLY PROJECT

NO.3 RAW WATER PIPE LINE ⑤
 PLAN & PROFILE

DWG. NO. 15/43 SCALE: 1:200 DATE: JAN. 1981
 JAPAN INTERNATIONAL COOPERATION AGENCY



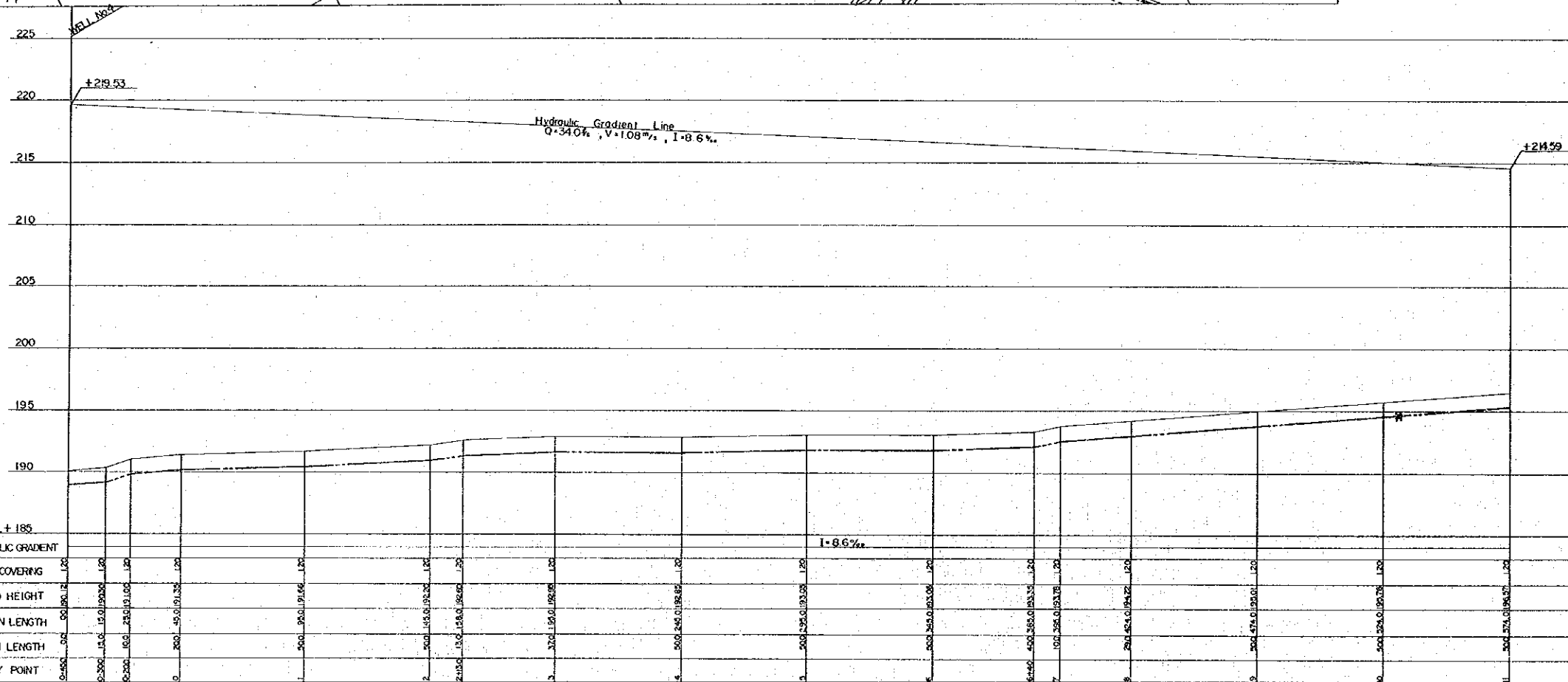
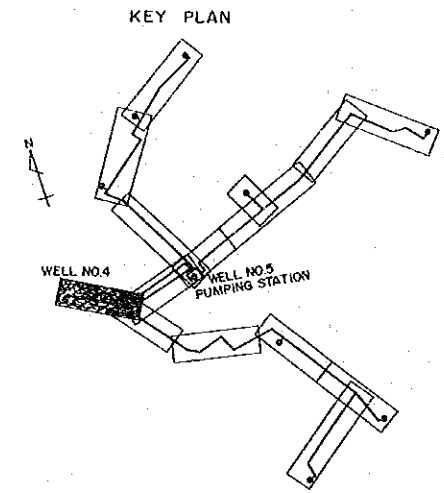
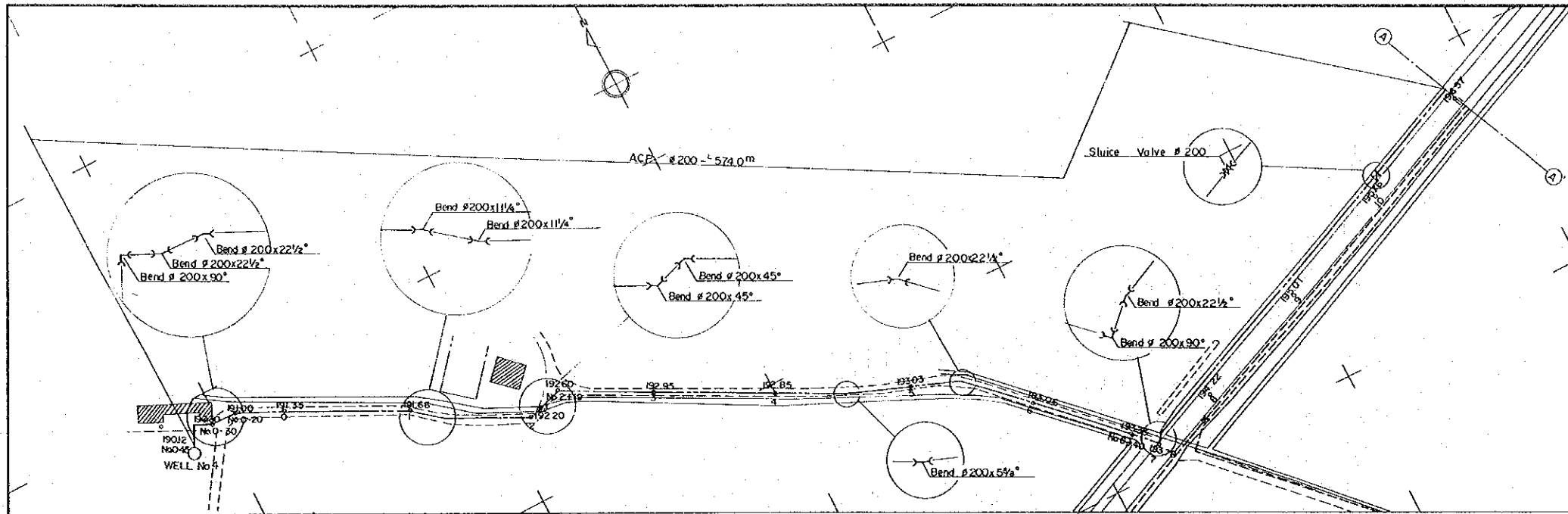
No. ③ RAW WATER PIPE LINE ⑥

PERU
 BASIC DESIGN STUDY
 WATER SUPPLY PROJECT

NO.3 RAW WATER PIPE LINE ⑥
 PLAN & PROFILE

DWG NO 16/43 | SCALE: 1:1000 | DATE: JAN. 1981

JAPAN INTERNATIONAL COOPERATION AGENCY

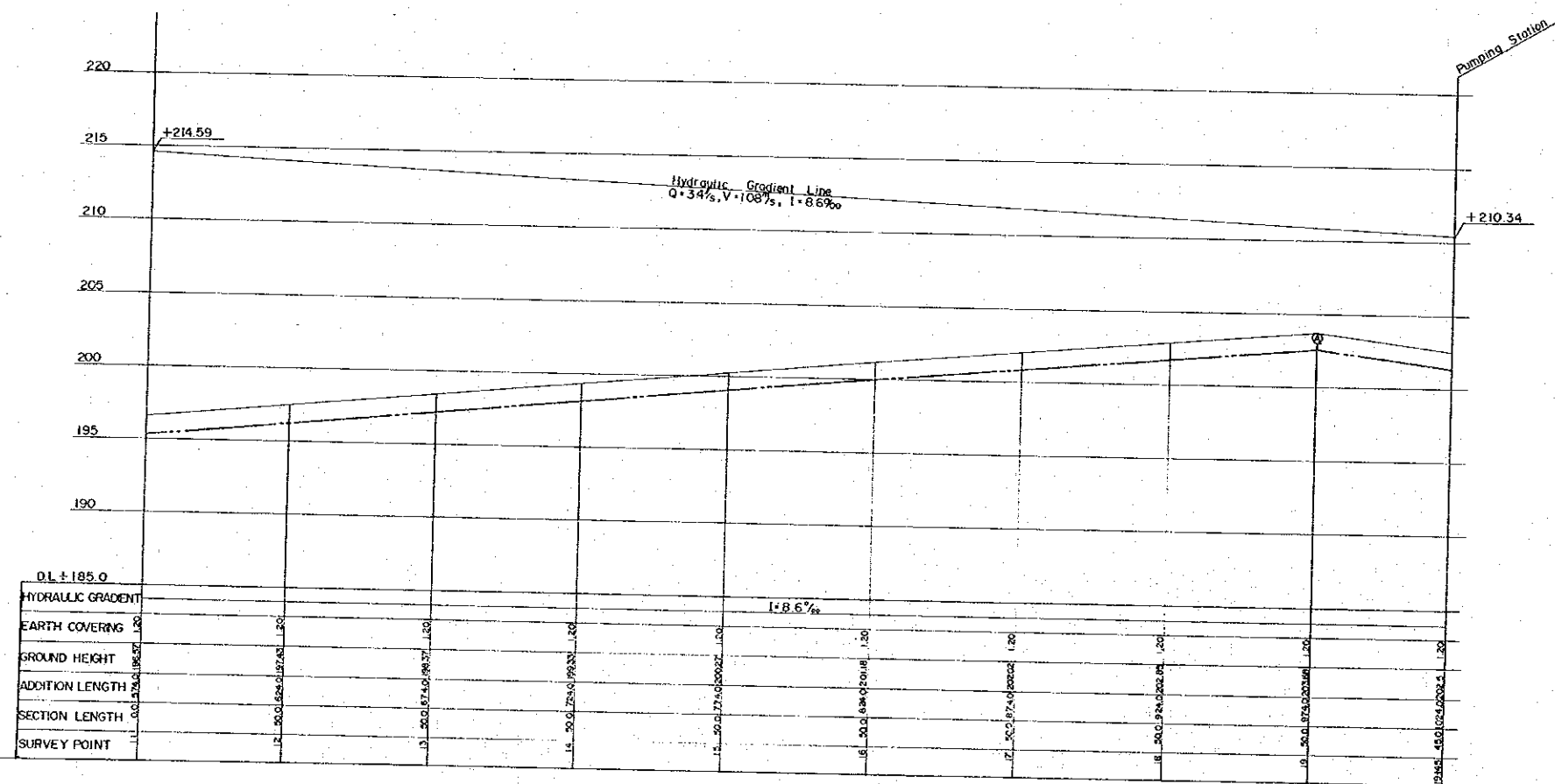
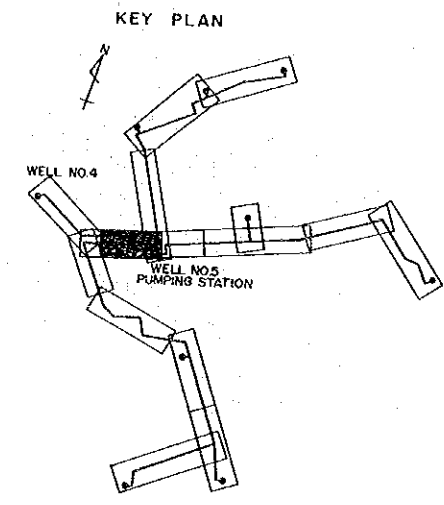
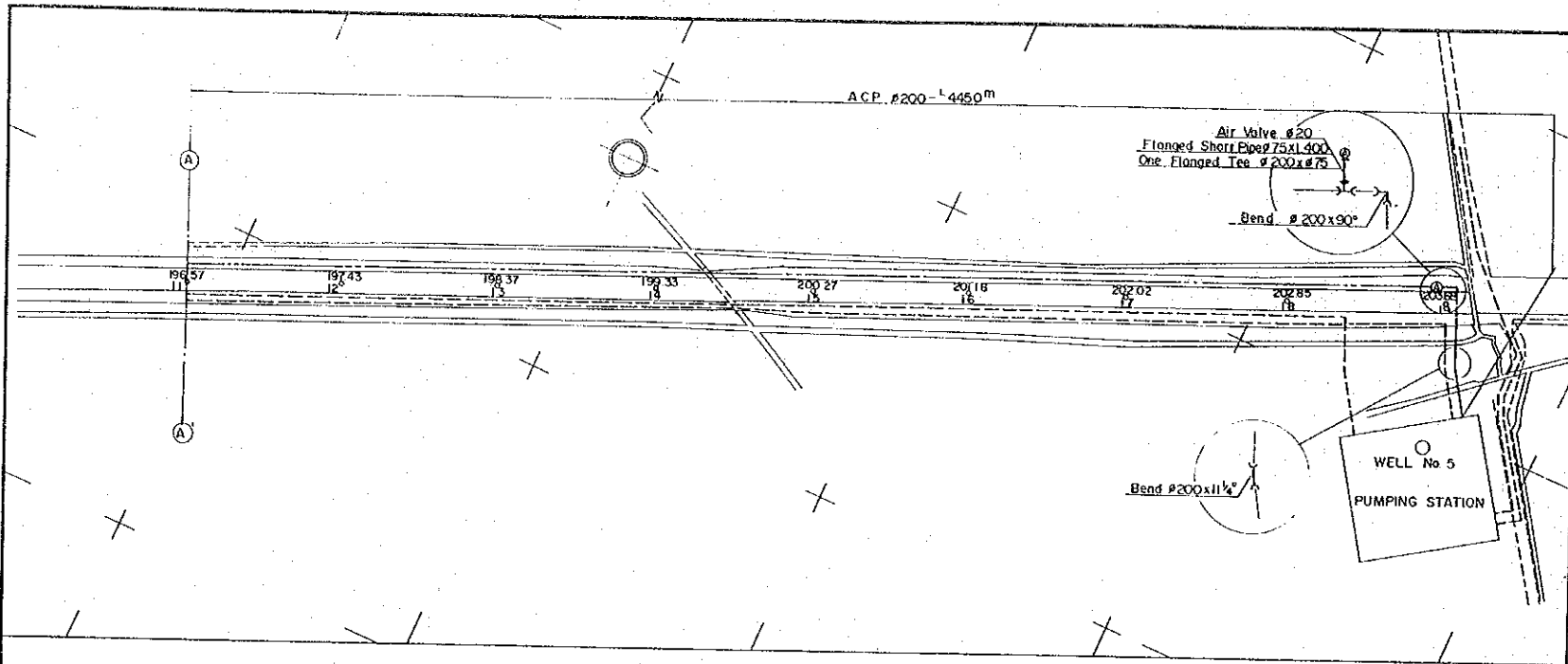


No. ④ RAW WATER PIPE LINE ①

PERU
 BASIC DESIGN STUDY
 WATER SUPPLY PROJECT

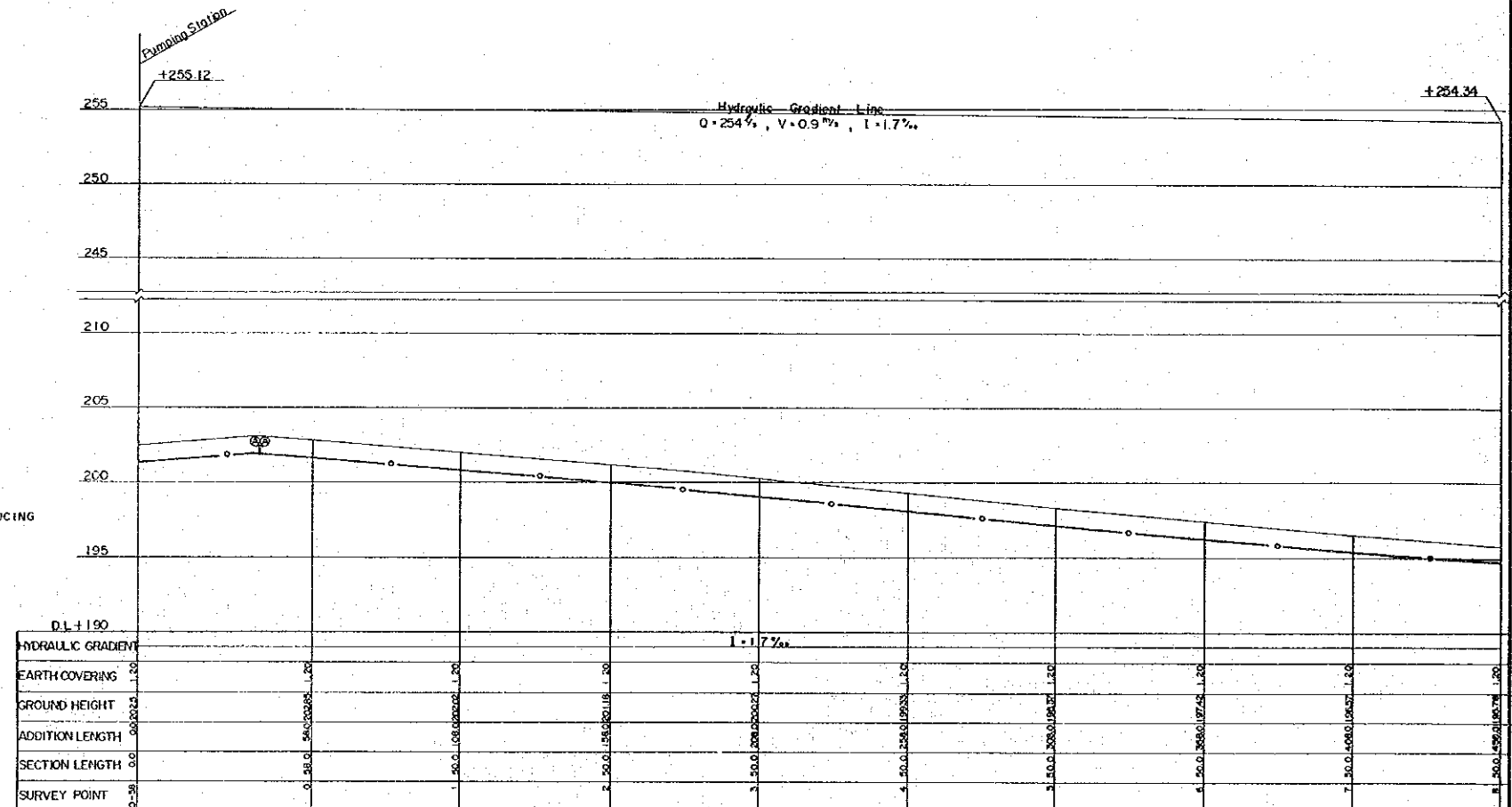
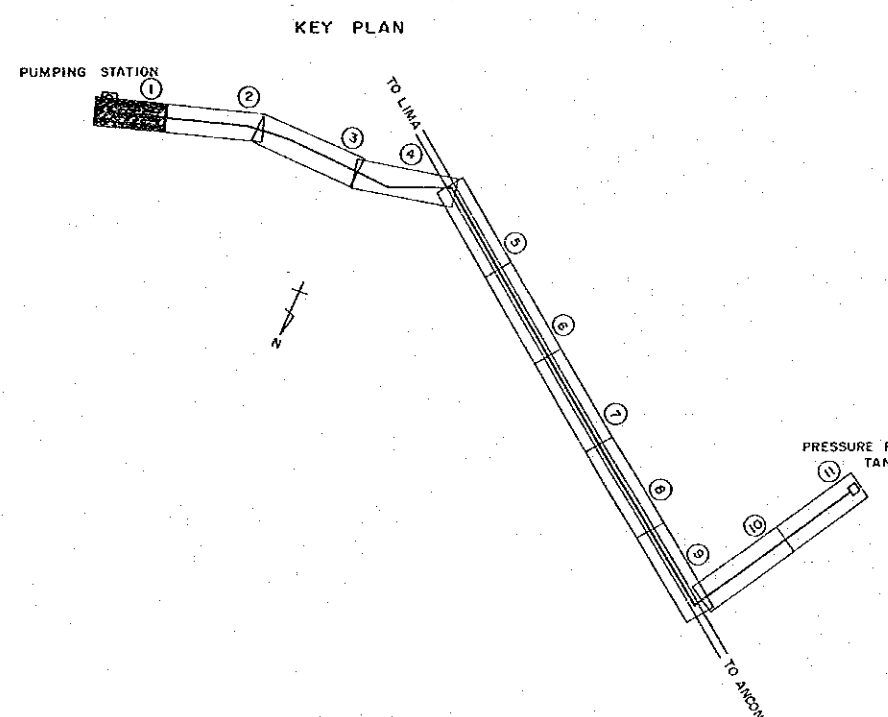
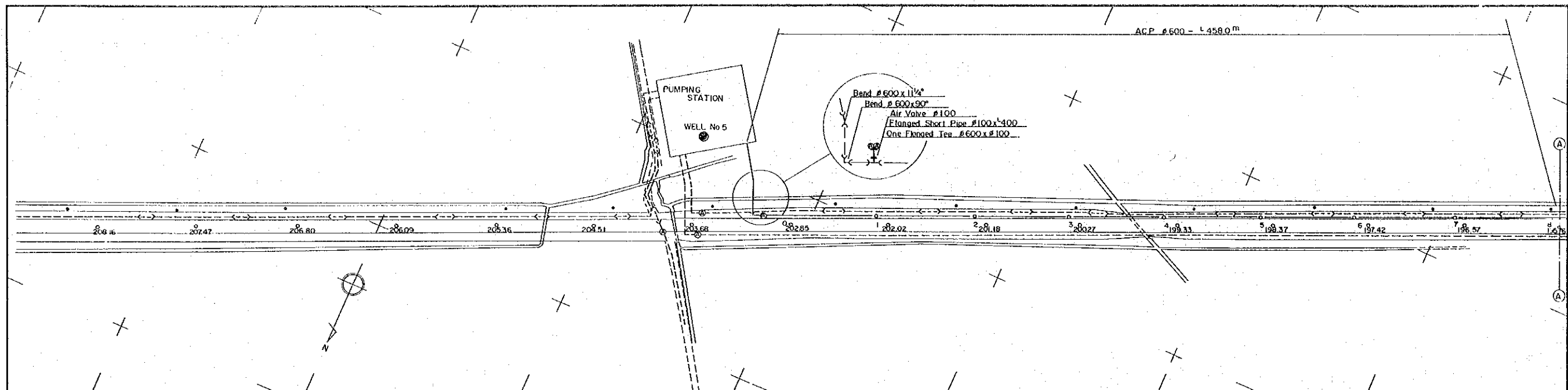
NO.4 RAW WATER PIPE LINE ①
 PLAN & PROFILE

DWG. NO. 17/43 SCALE: 1:1000 DATE: JAN. 1981
 JAPAN INTERNATIONAL COOPERATION AGENCY



No. ④ RAW WATER PIPE LINE ②

PERU BASIC DESIGN STUDY WATER SUPPLY PROJECT		
NO.4 RAW WATER PIPE LINE ② PLAN & PROFILE		
DWG. NO. 18/43	SCALE: 1:200	DATE: JAN. 1981
JAPAN INTERNATIONAL COOPERATION AGENCY		

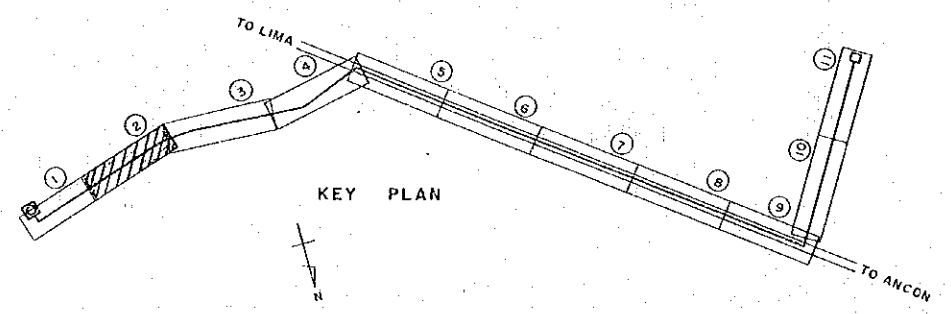
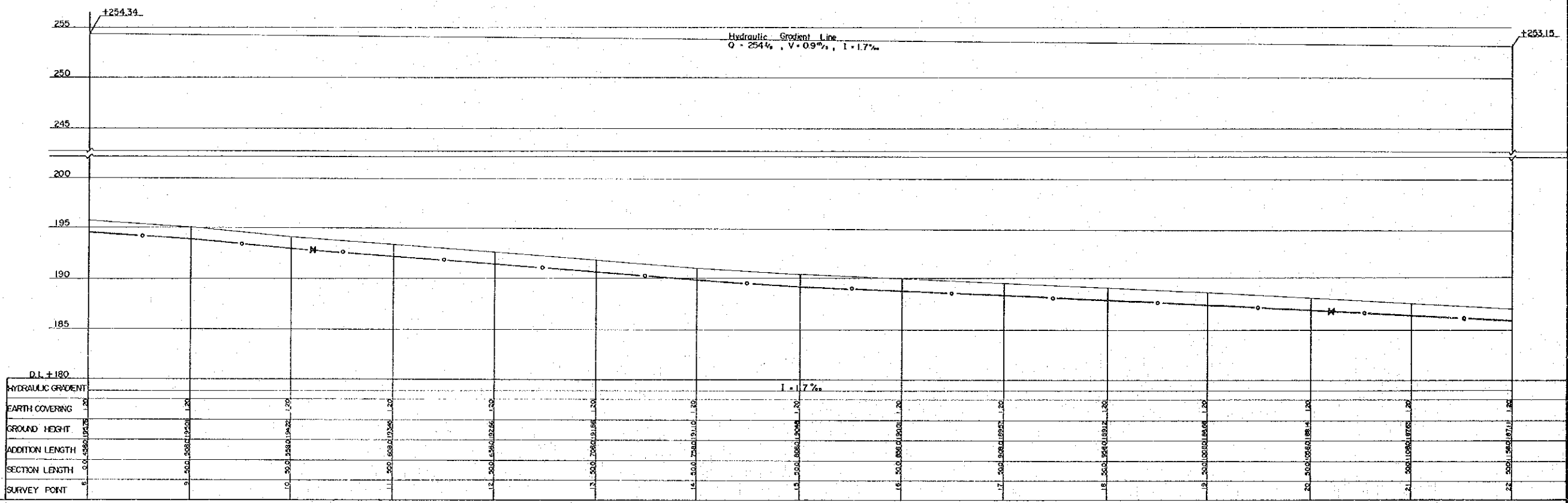
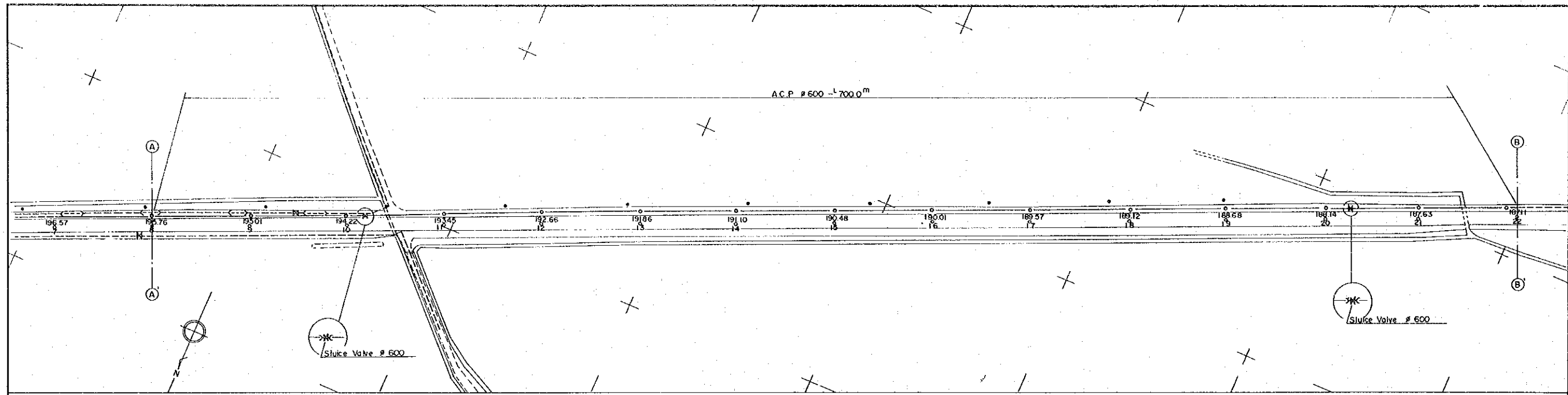


TRANSMISSION PIPE LINE ①

PERU
 BASIC DESIGN STUDY
 WATER SUPPLY PROJECT

TRANSMISSION PIPE LINE ①
 PLAN & PROFILE

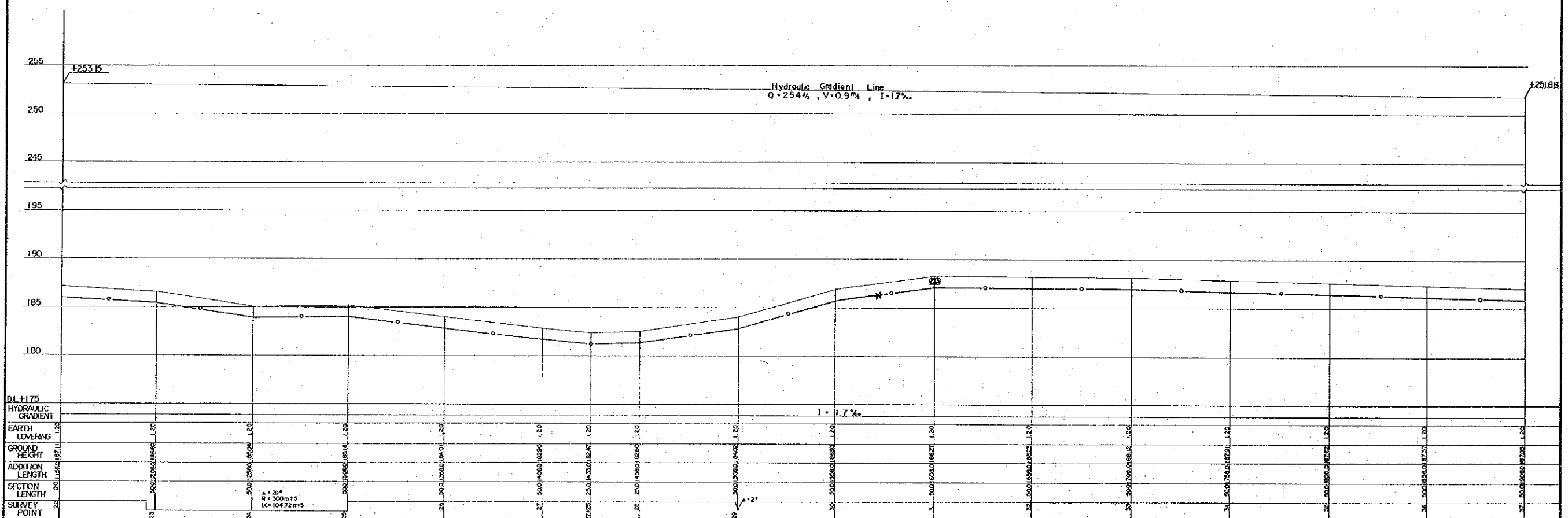
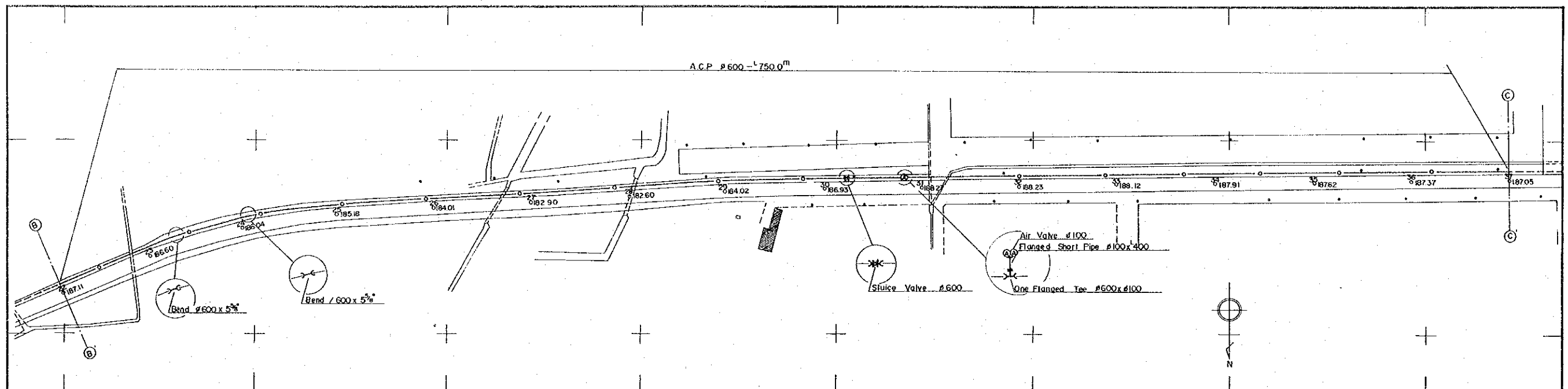
DWG. NO 19/43 SCALE: 1:200 DATE: JAN 1981
 JAPAN INTERNATIONAL COOPERATION AGENCY



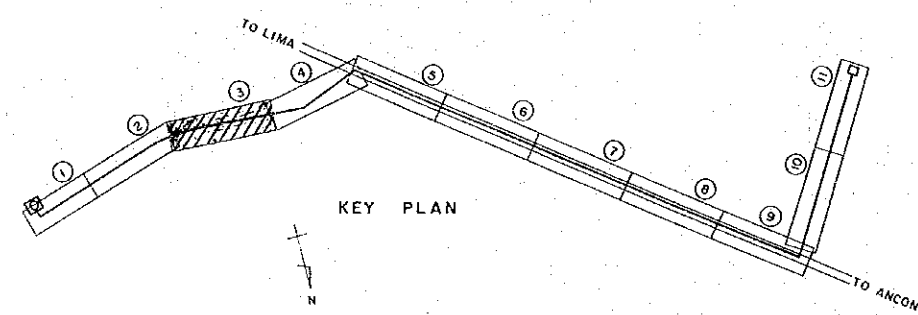
TRANSMISSION PIPE LINE ②

PERU
 BASIC DESIGN STUDY
 WATER SUPPLY PROJECT
 TRANSMISSION PIPE LINE ②
 PLAN & PROFILE

DWG. NO. 20/43 SCALE: 1:200 DATE: JAN 1981
 SCALE: 1:1000
 JAPAN INTERNATIONAL COOPERATION AGENCY

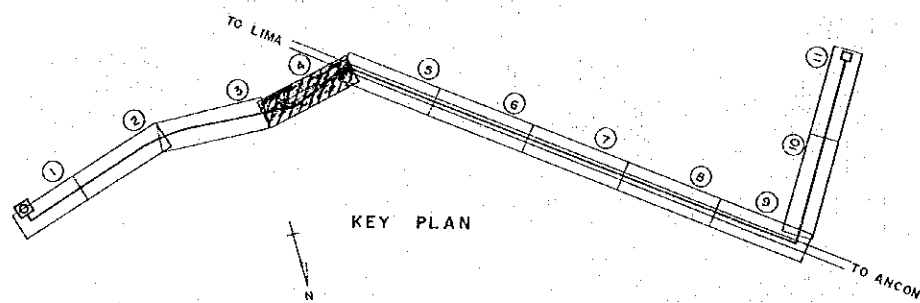
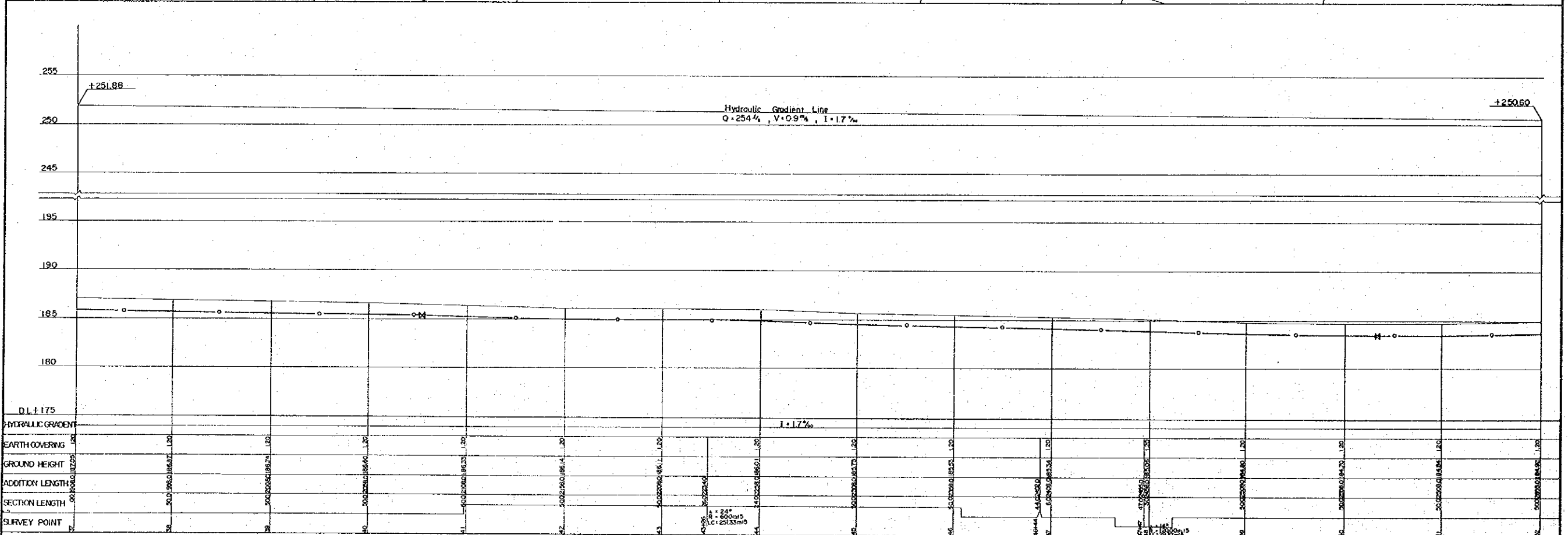
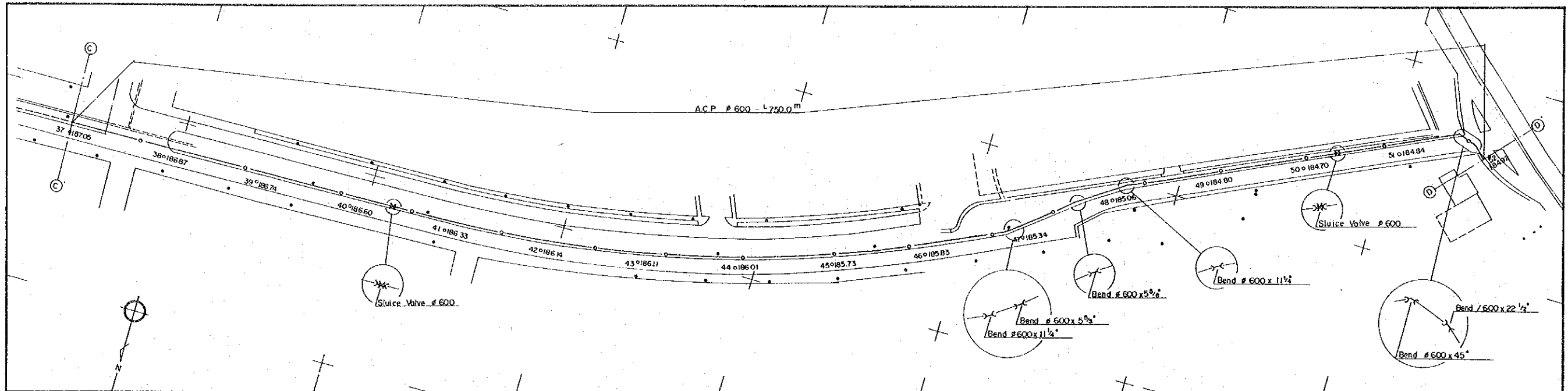


DL+1.75	HYDRAULIC GRADIENT	EARTH COVERING	GROUND HEIGHT	ADDITION LENGTH	SECTION LENGTH	SURVEY POINT
2+00	186.5	0.0	186.5	0.0	0.0	2+00
2+25	185.5	0.0	185.5	0.0	25.0	2+25
2+50	184.5	0.0	184.5	0.0	50.0	2+50
2+75	183.5	0.0	183.5	0.0	75.0	2+75
3+00	182.5	0.0	182.5	0.0	100.0	3+00
3+25	181.5	0.0	181.5	0.0	125.0	3+25
3+50	180.5	0.0	180.5	0.0	150.0	3+50
3+75	180.0	0.0	180.0	0.0	175.0	3+75



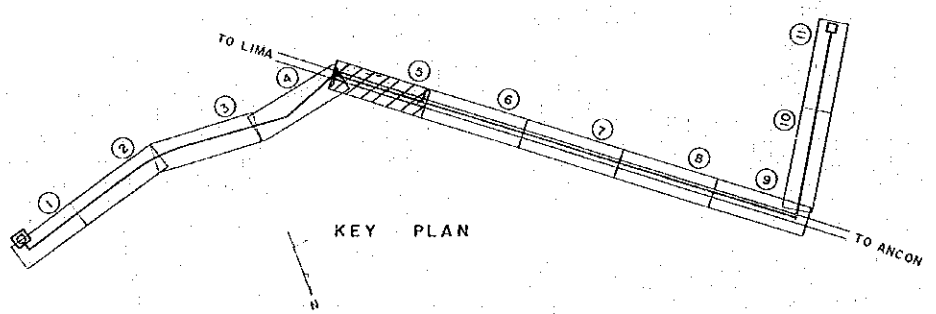
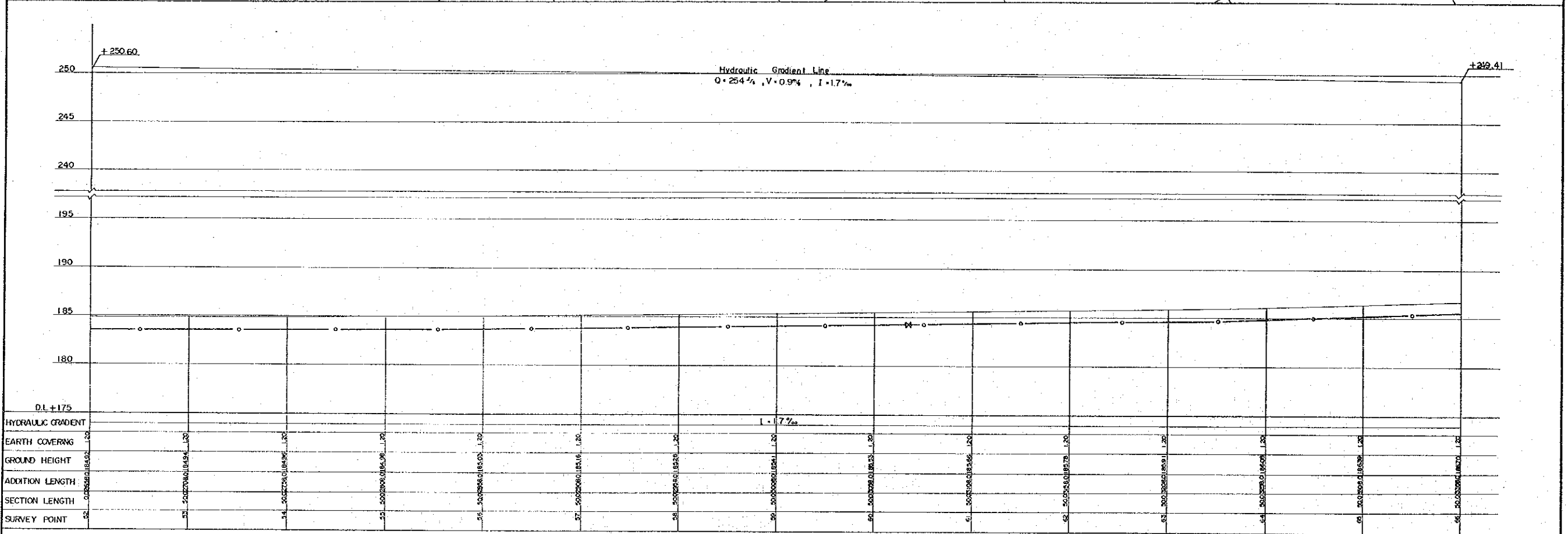
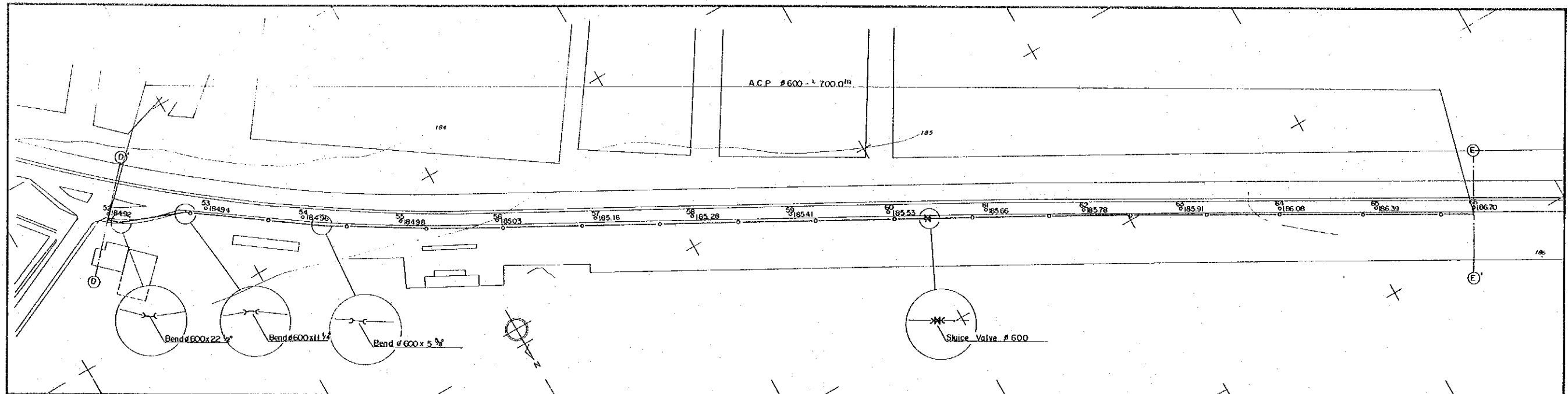
TRANSMISSION PIPE LINE ③

PERU BASIC DESIGN STUDY WATER SUPPLY PROJECT		
TRANSMISSION PIPE LINE ③ PLAN & PROFILE		
DWG NO. 21/43	SCALE: 1:1000	DATE: JAN. 1981
JAPAN INTERNATIONAL COOPERATION AGENCY		



TRANSMISSION PIPE LINE ④

PERU	
BASIC DESIGN STUDY	
WATER SUPPLY PROJECT	
TRANSMISSION PIPE LINE ④	
PLAN & PROFILE	
DWG. NO. 22/43	SCALE: 1:1000
DATE: JAN. 1981	
JAPAN INTERNATIONAL COOPERATION AGENCY	

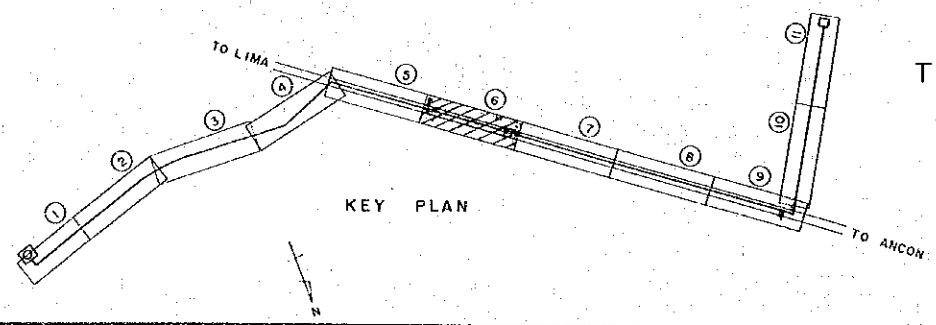
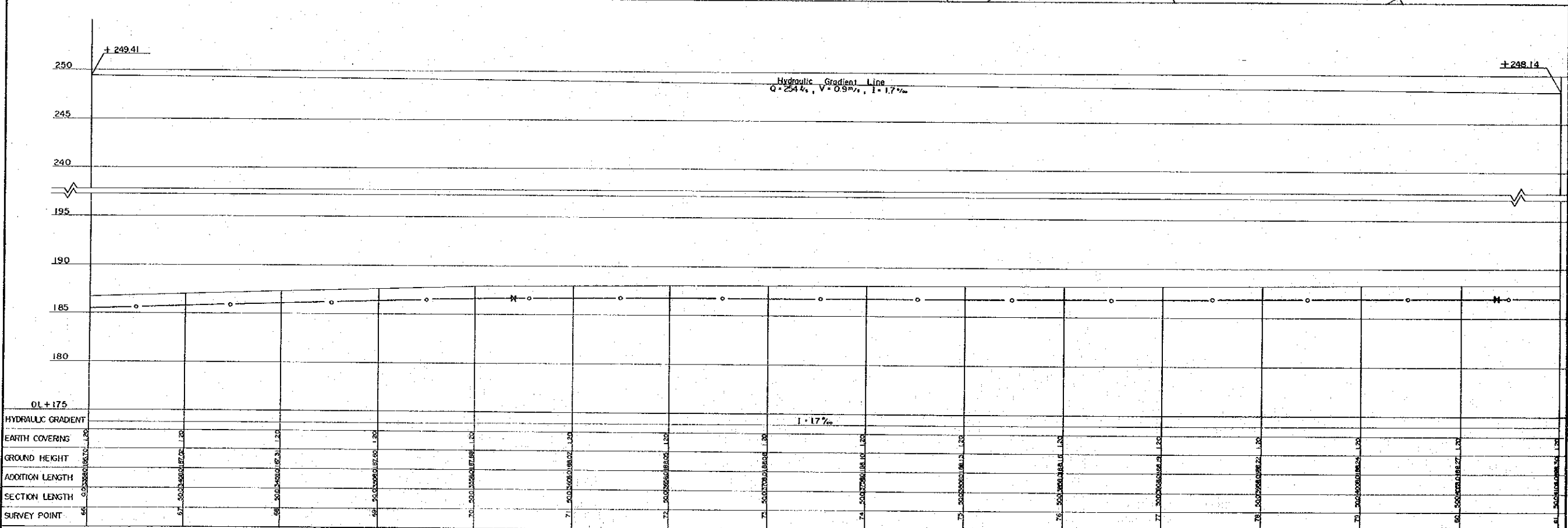
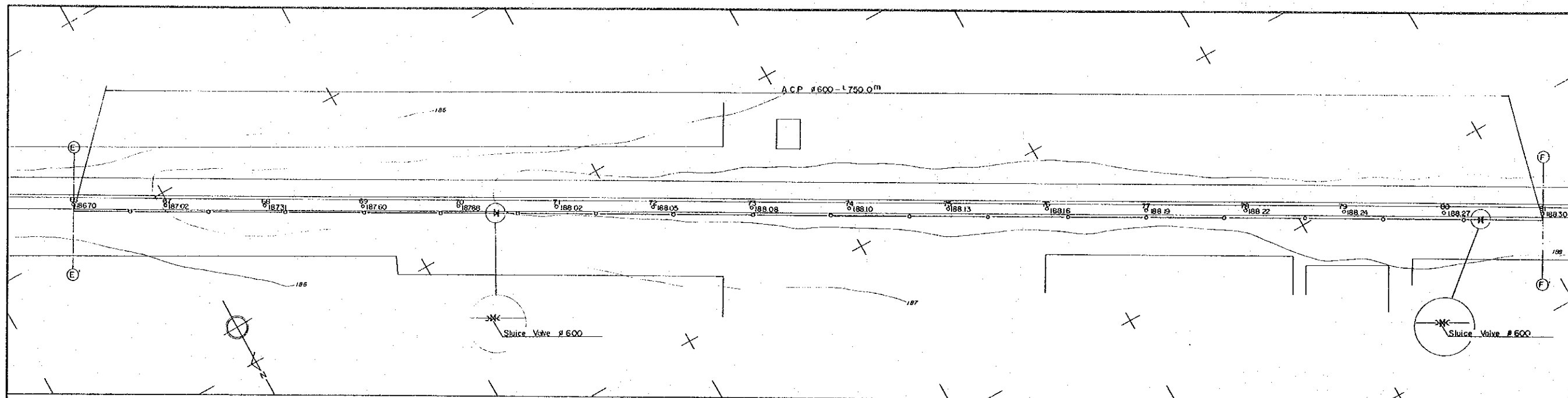


TRANSMISSION PIPE LINE ⑤

PERU
 BASIC DESIGN STUDY
 WATER SUPPLY PROJECT

TRANSMISSION PIPE LINE ⑤
 PLAN & PROFILE

DWG. NO. 23/43 SCALE: 1:1000 DATE: JAN. 1981
 JAPAN INTERNATIONAL COOPERATION AGENCY



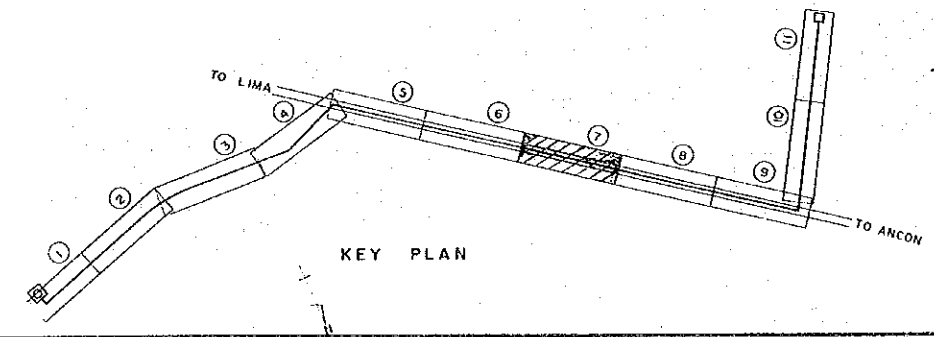
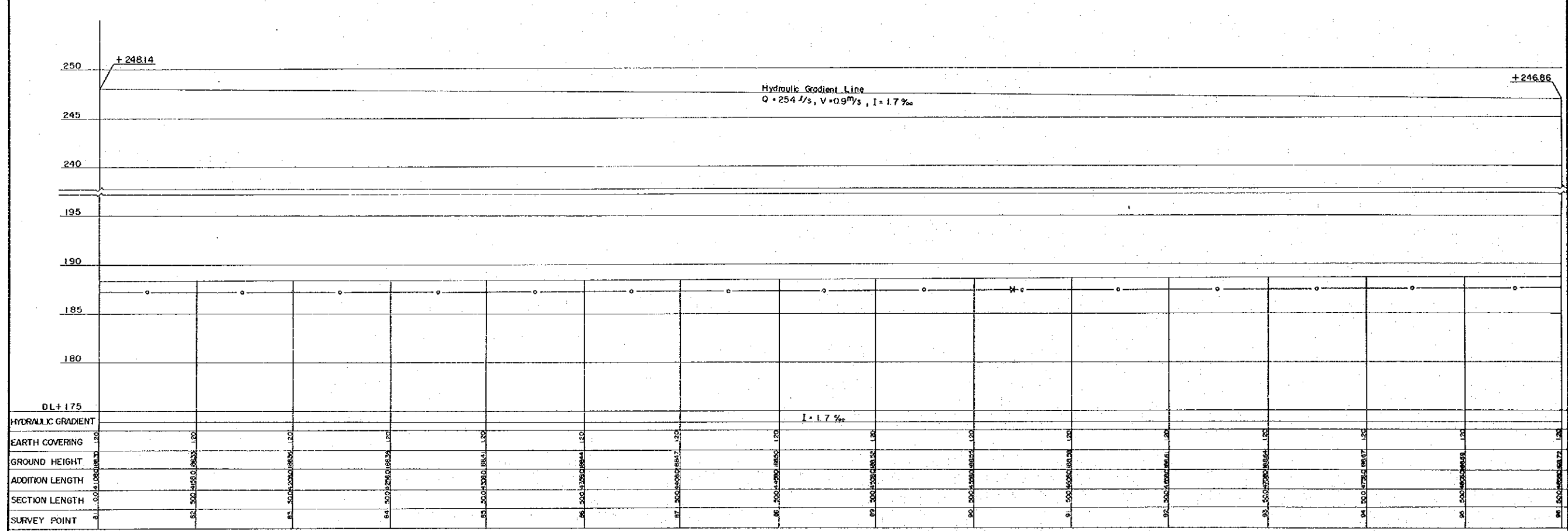
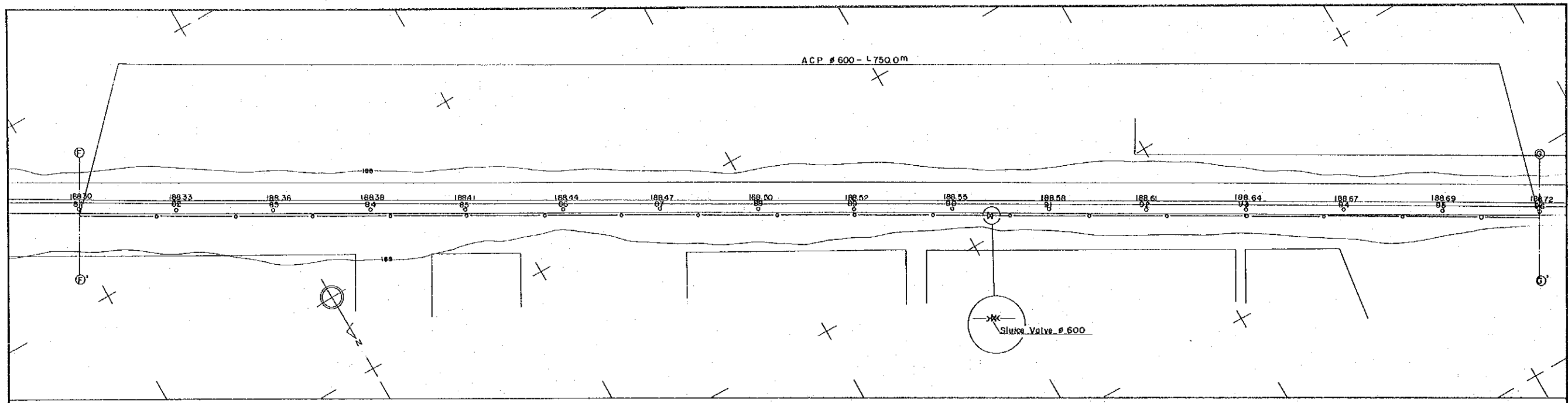
TRANSMISSION PIPE LINE ⑥

PERU
BASIC DESIGN STUDY
WATER SUPPLY PROJECT

TRANSMISSION PIPE LINE ⑥
PLAN & PROFILE

DWG. NO. 24/43 SCALE: 1:1000 DATE: JAN. 1981

JAPAN INTERNATIONAL COOPERATION AGENCY

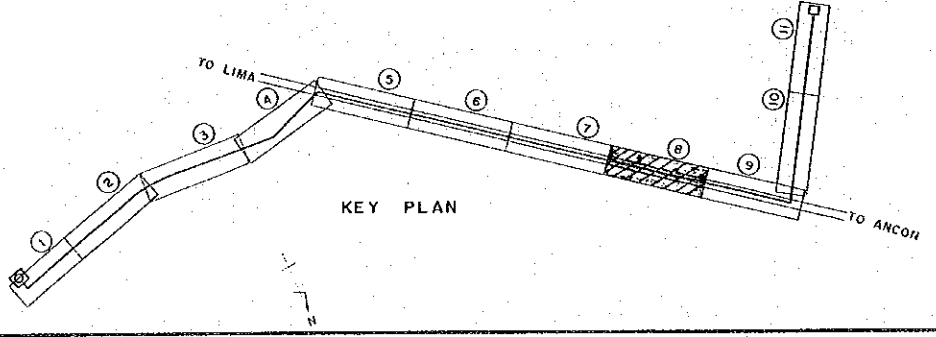
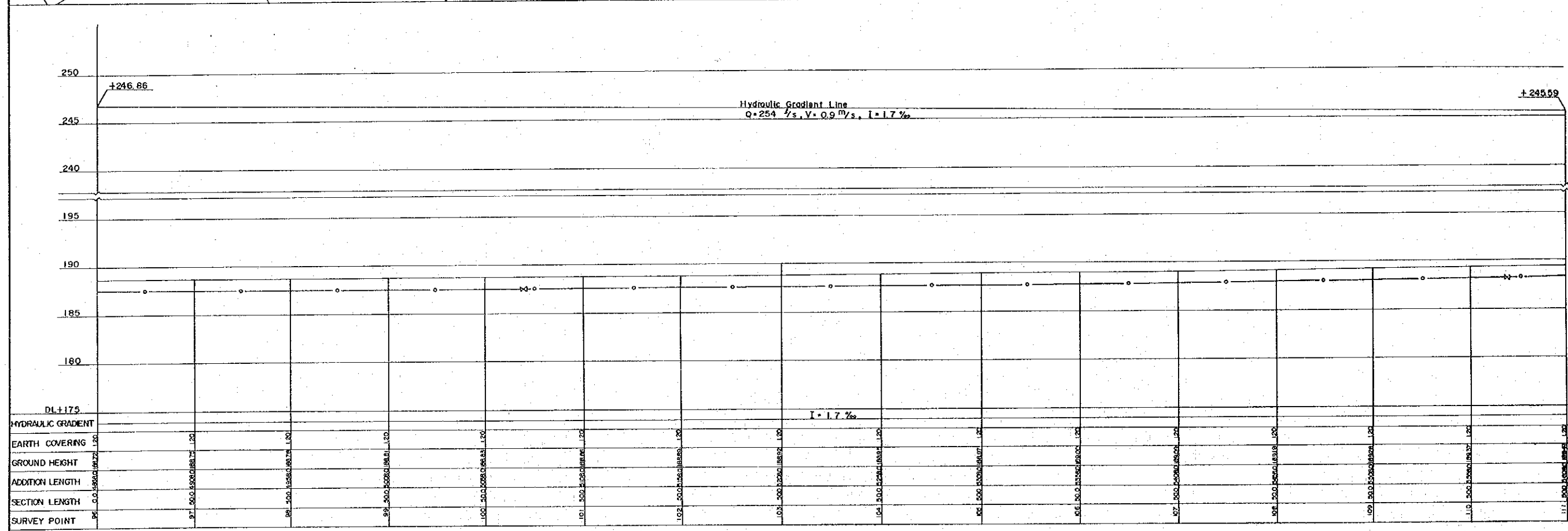
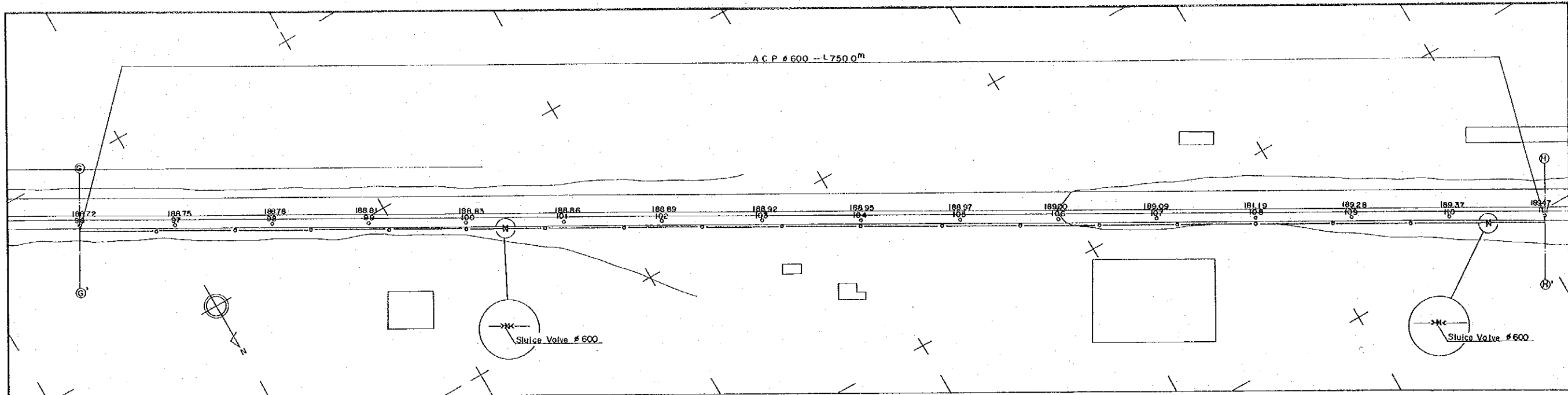


TRANSMISSION PIPE LINE ⑦

PERU
 BASIC DESIGN STUDY
 WATER SUPPLY PROJECT

TRANSMISSION PIPE LINE ⑦
 PLAN & PROFILE

DWG. NO. 25/43 SCALE: 1:1000 DATE: JAN 1981
 JAPAN INTERNATIONAL COOPERATION AGENCY

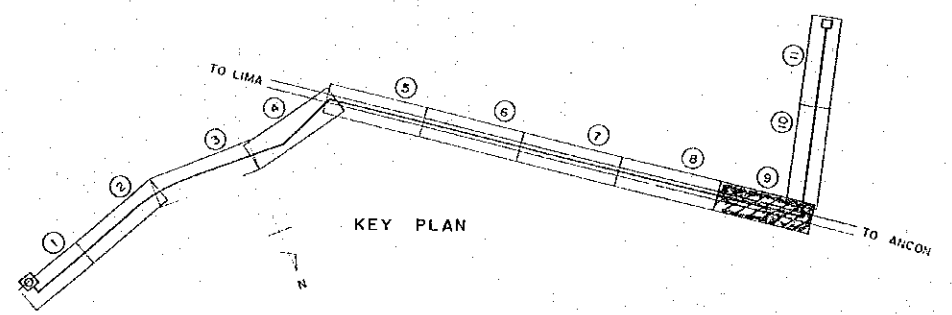
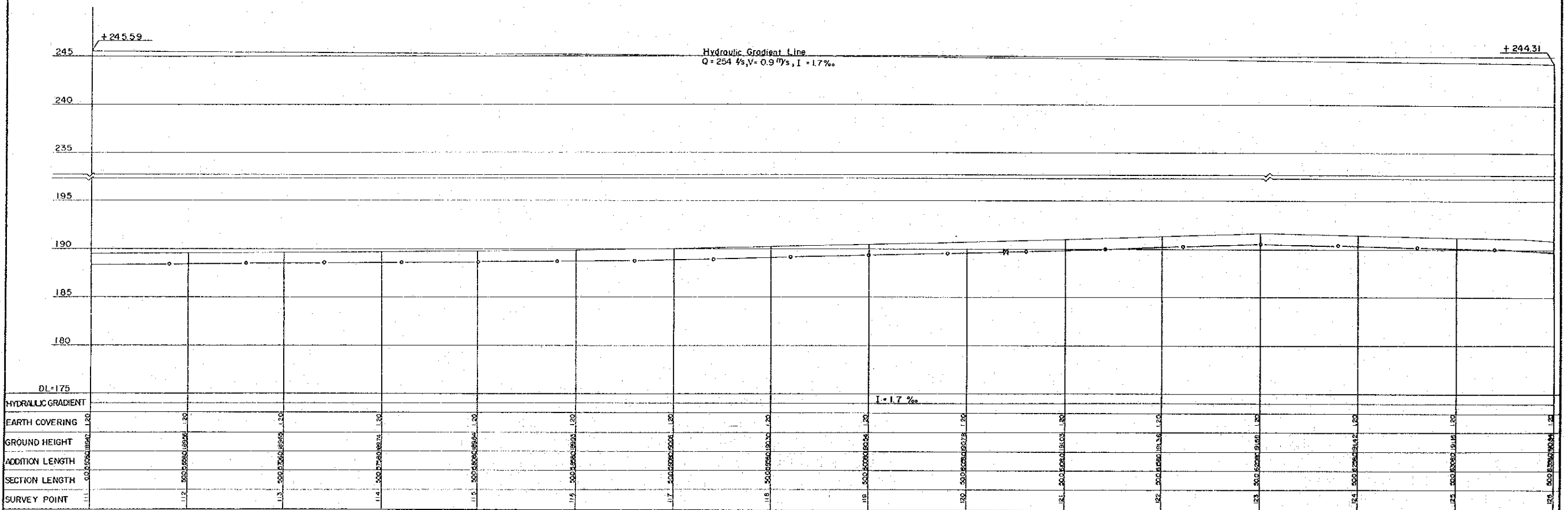
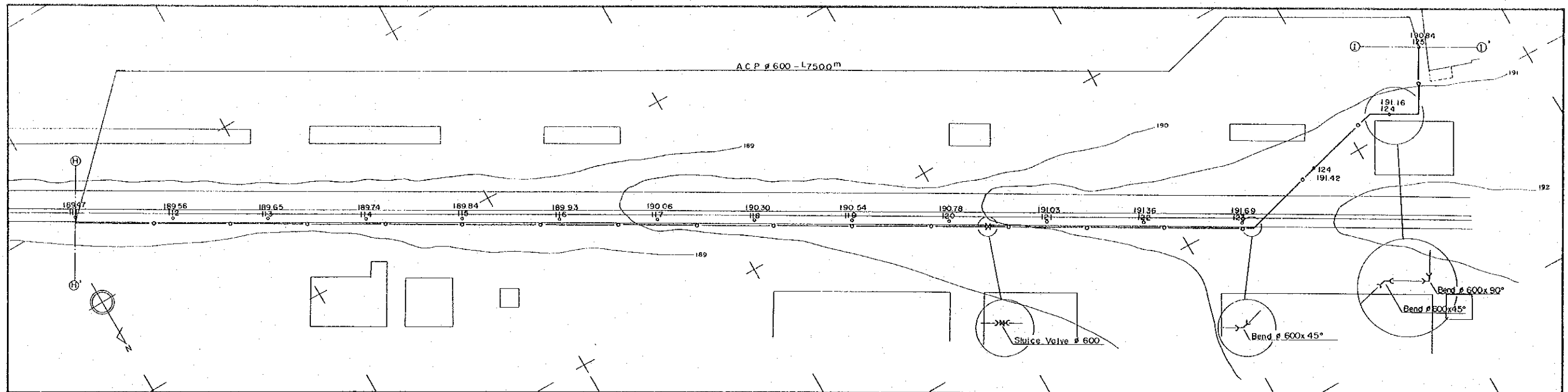


TRANSMISSION PIPE LINE ⑧

PERU
 BASIC DESIGN STUDY
 WATER SUPPLY PROJECT

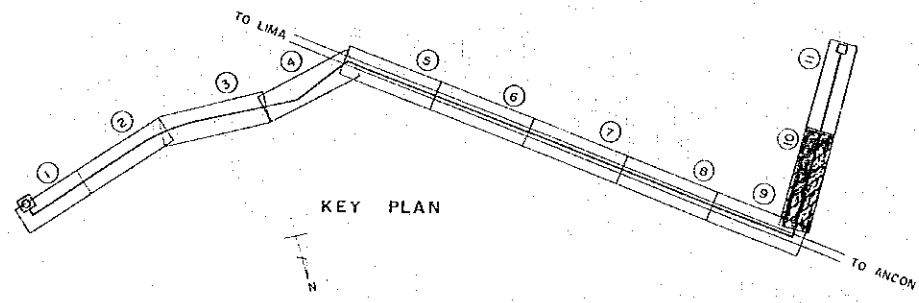
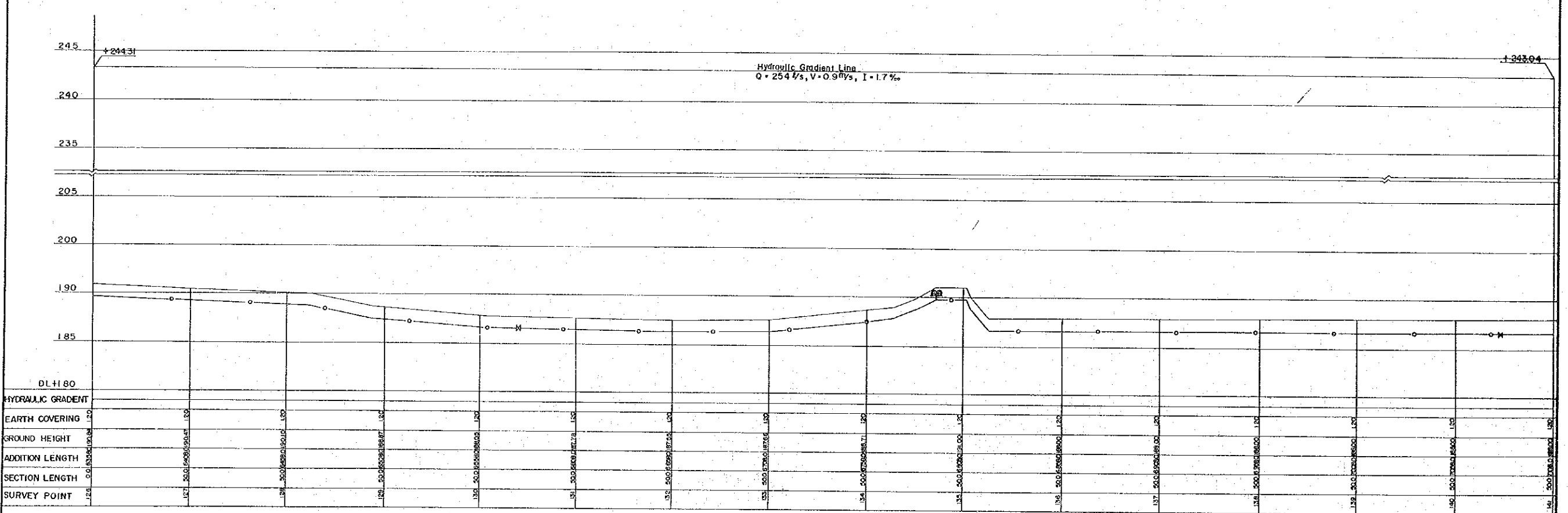
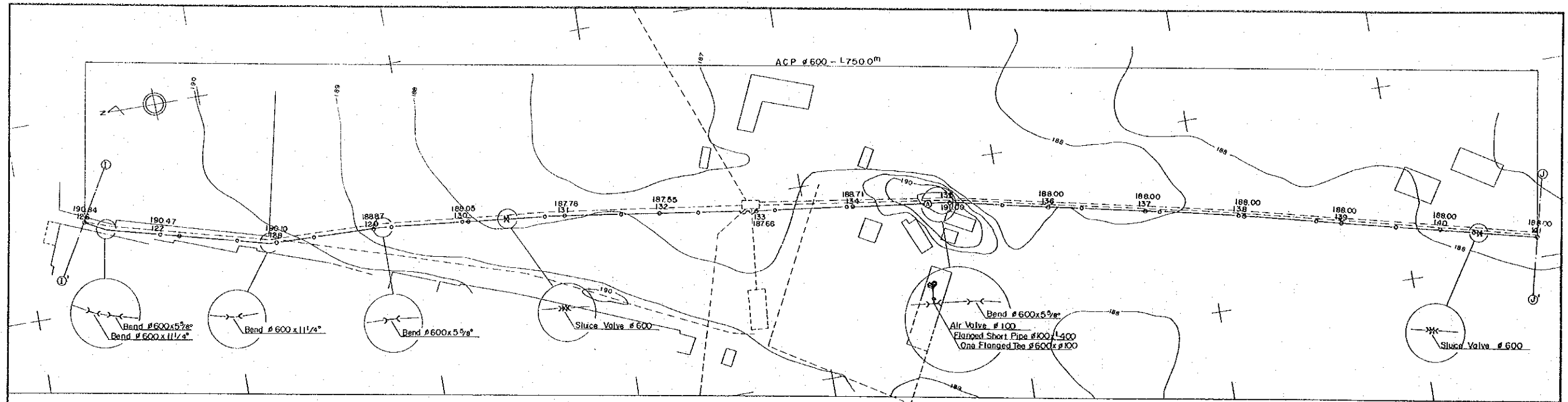
TRANSMISSION PIPE LINE ⑧
 PLAN & PROFILE

DWG. NO. 26/43 SCALE: 1:200 DATE JAN 1981
 SCALE: 1:1000
 JAPAN INTERNATIONAL COOPERATION AGENCY



TRANSMISSION PIPE LINE (9)

PERU	
BASIC DESIGN STUDY	
WATER SUPPLY PROJECT	
TRANSMISSION PIPE LINE (9)	
PLAN & PROFILE	
DWG NO. 27/43	SCALE: 1:1000
DATE: JAN 1991	
JAPAN INTERNATIONAL COOPERATION AGENCY	

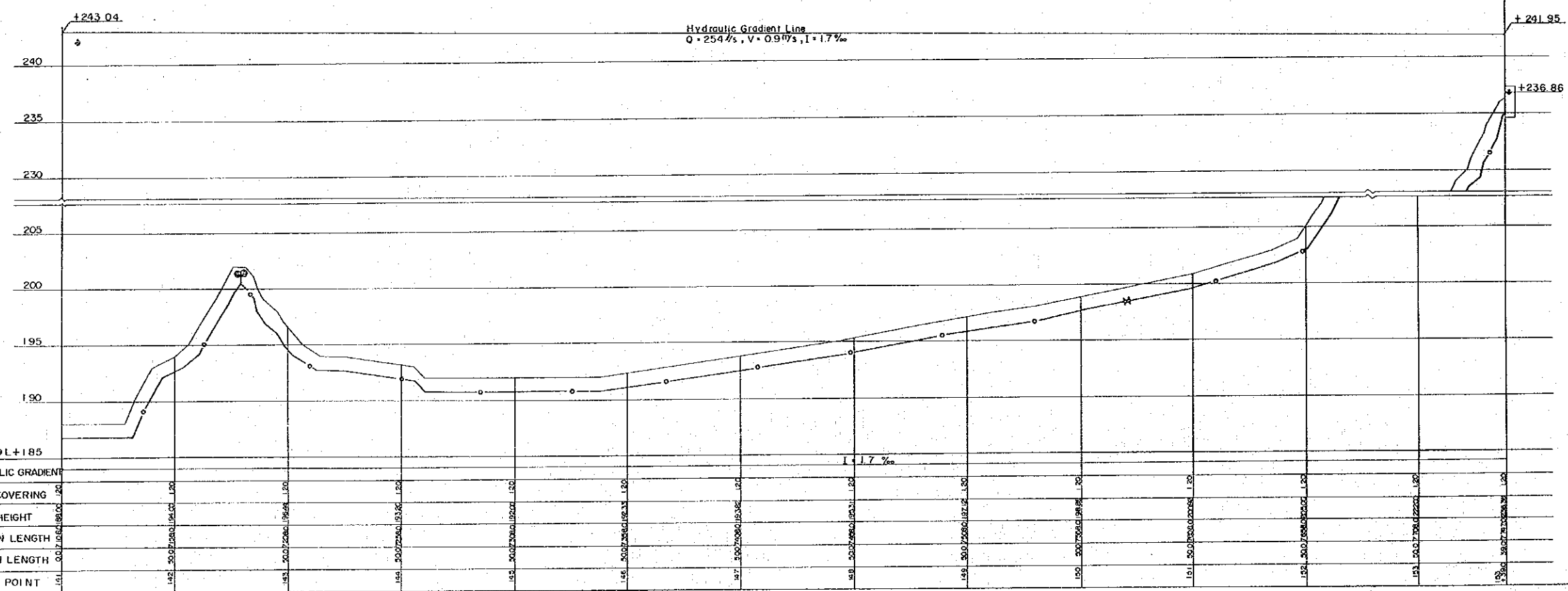
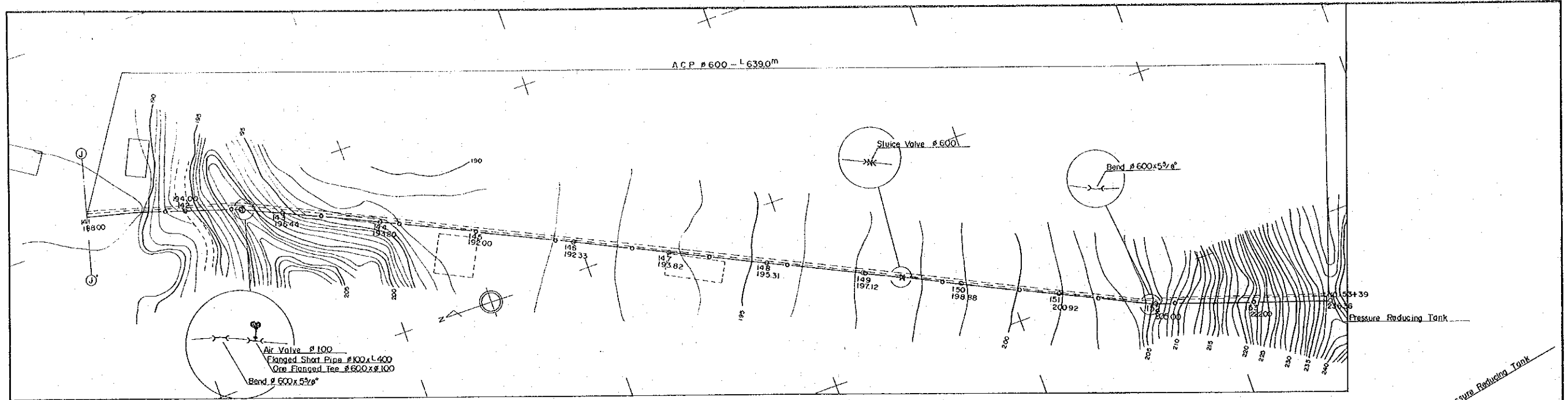


TRANSMISSION PIPE LINE ⑩

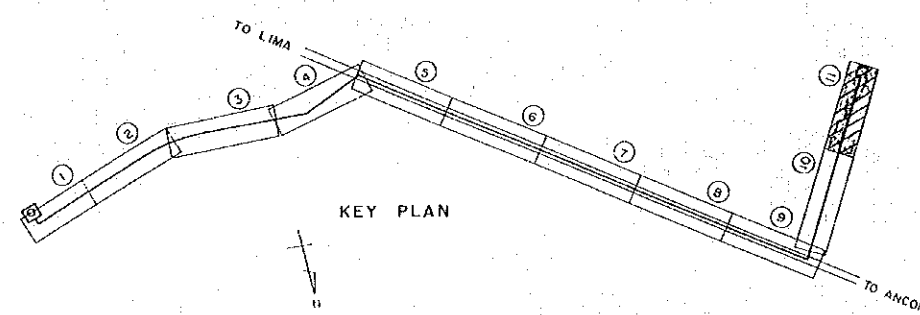
PERU
 BASIC DESIGN STUDY
 WATER SUPPLY PROJECT

TRANSMISSION PIPE LINE ⑩
 PLAN & PROFILE

DWG. NO. 28/43 SCALE: 1:1000 DATE: JAN 1981
 JAPAN INTERNATIONAL COOPERATION AGENCY



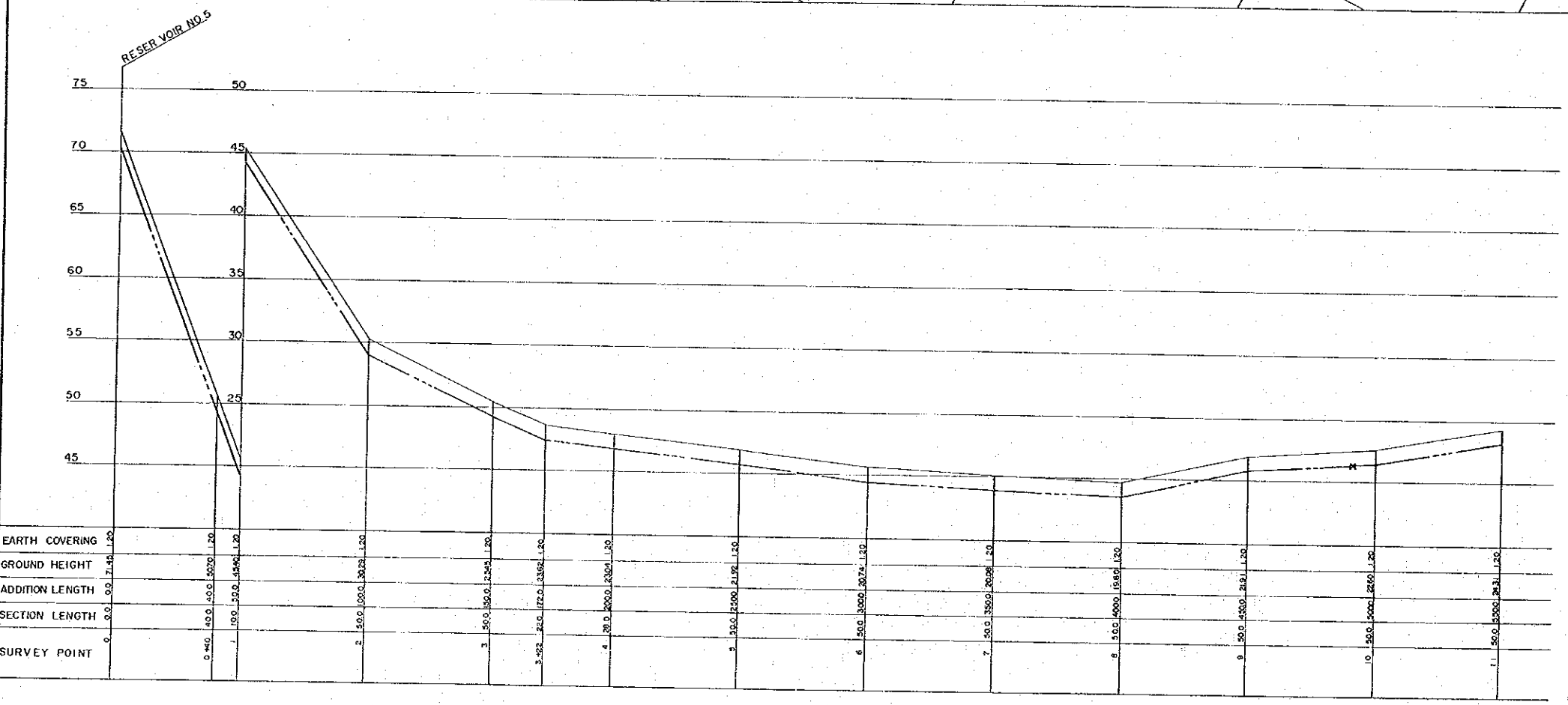
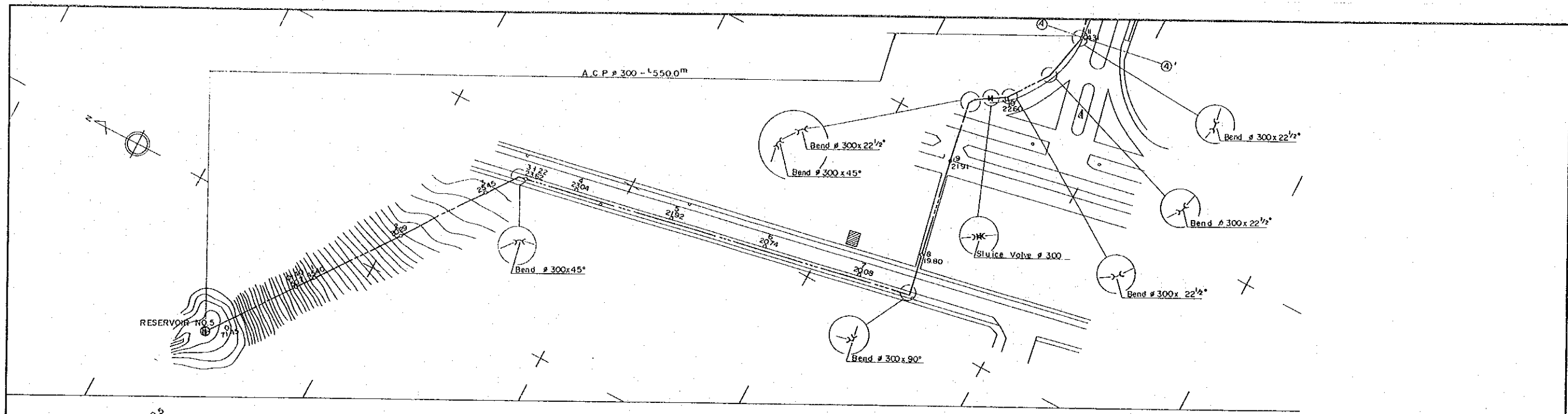
DL+185	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155
HYDRAULIC GRADIENT	188.00	193.44	201.00	193.33	193.82	195.31	197.12	198.88	200.92	203.00	204.00	205.00	206.00	207.00	208.00
EARTH COVERING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GROUND HEIGHT	188.00	193.44	201.00	193.33	193.82	195.31	197.12	198.88	200.92	203.00	204.00	205.00	206.00	207.00	208.00
ADDITION LENGTH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SECTION LENGTH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SURVEY POINT	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155



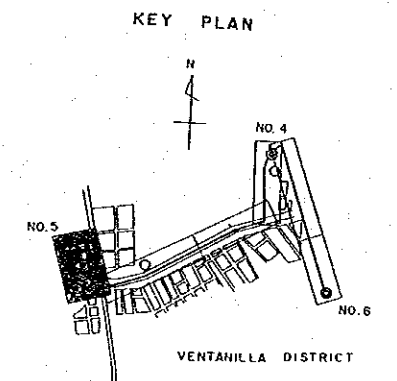
TRANSMISSION PIPE LINE ①

PERU
 BASIC DESIGN STUDY
 WATER SUPPLY PROJECT
 TRANSMISSION PIPE LINE ①
 PLAN & PROFILE

1 : 200
 DWG. NO. 29/43 SCALE: 1 : 1000 DATE: JAN 1981
 JAPAN INTERNATIONAL COOPERATION AGENCY



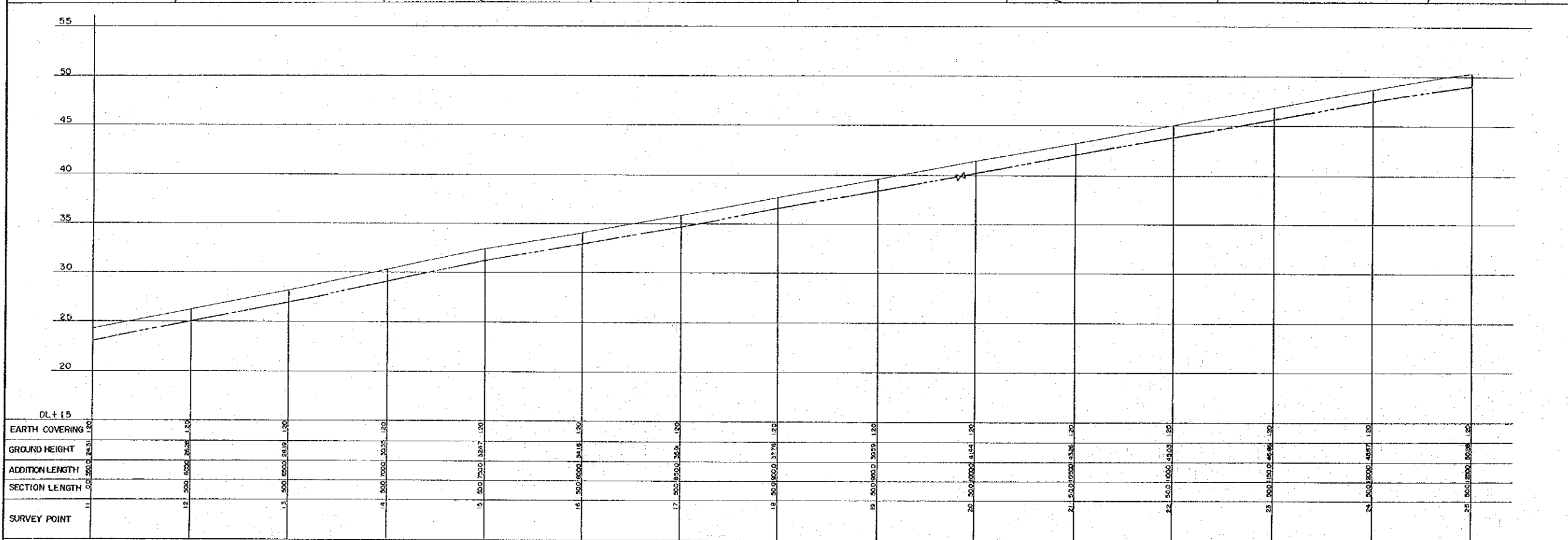
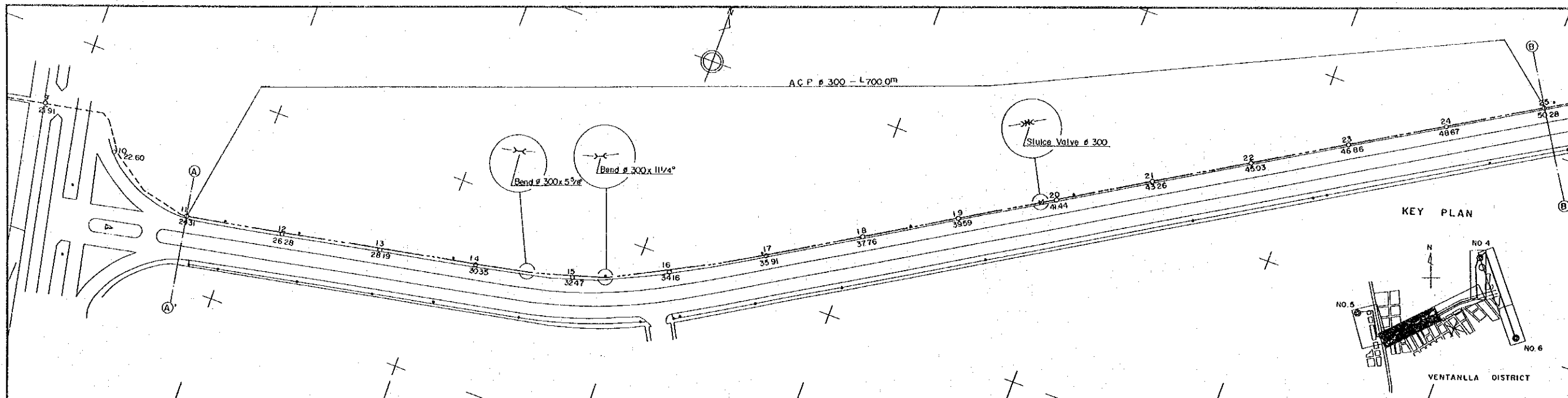
CONNECTION PIPE LINE ϕ 300 (I)
 (from No.5 Reservoir to No.4 Reservoir)



PERU
 BASIC DESIGN STUDY
 WATER SUPPLY PROJECT

CONNECTION PIPE LINE ϕ 300 (I)
 PLAN & PROFILE

DWG NO. 30/43 SCALE: 1:1000 DATE: JAN 1981
 JAPAN INTERNATIONAL COOPERATION AGENCY



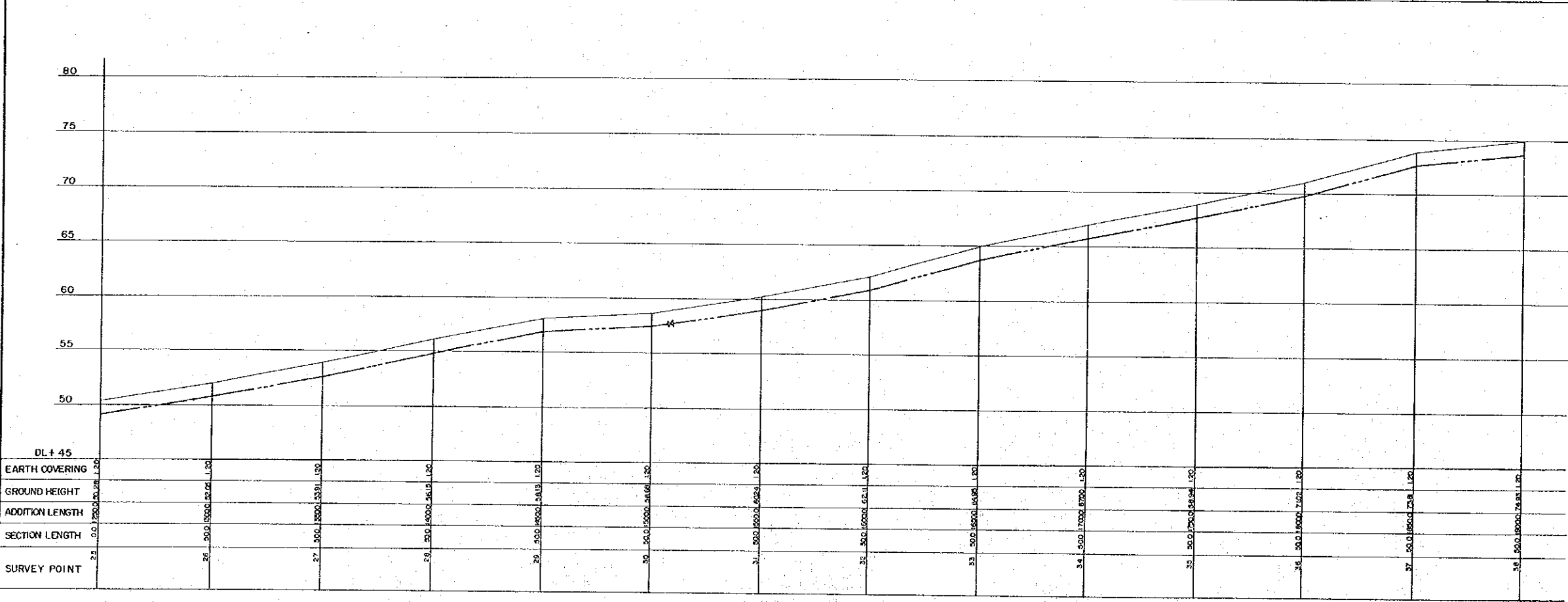
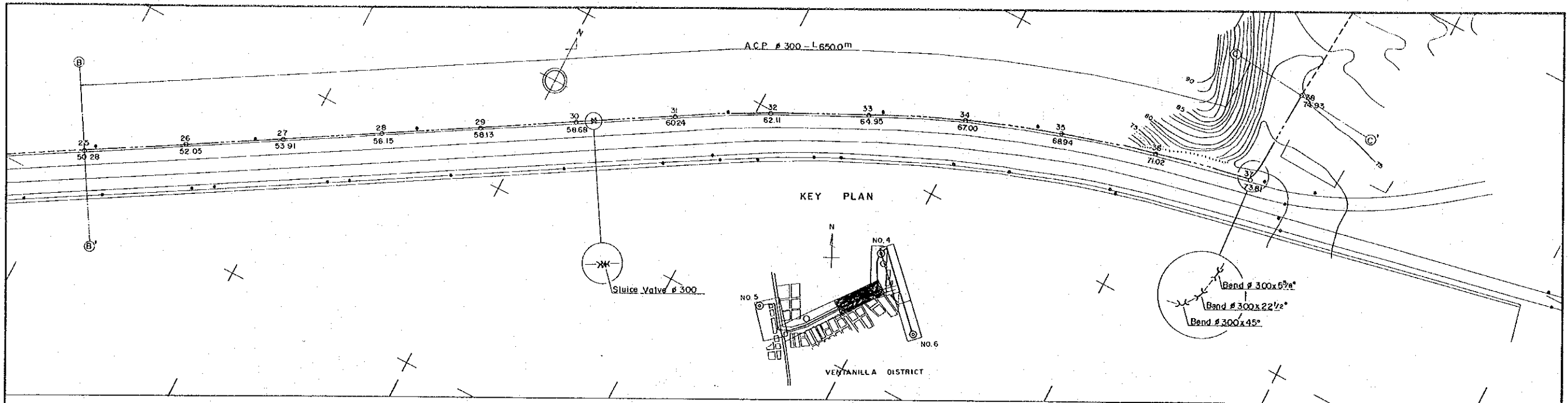
CONNECTION PIPE LINE ϕ 300 - ②
(from No. 5 Reservoir to No. 4 Reservoir)

PERU
BASIC DESIGN STUDY
WATER SUPPLY PROJECT

CONNECTION PIPE LINE ϕ 300 ②
PLAN & PROFILE

DWG. NO. 31/43 SCALE: 1:1000 DATE: JAN 1981

JAPAN INTERNATIONAL COOPERATION AGENCY



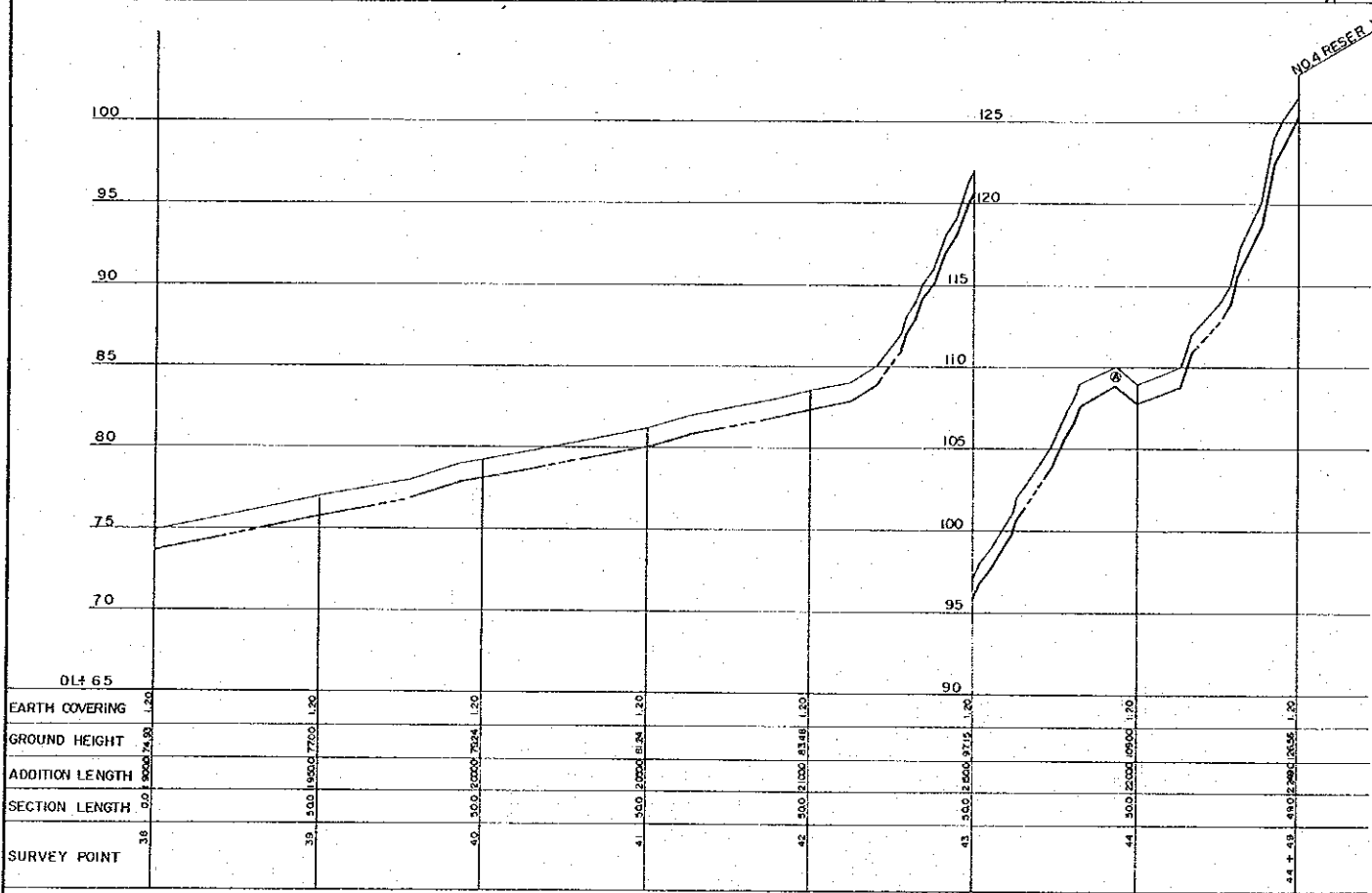
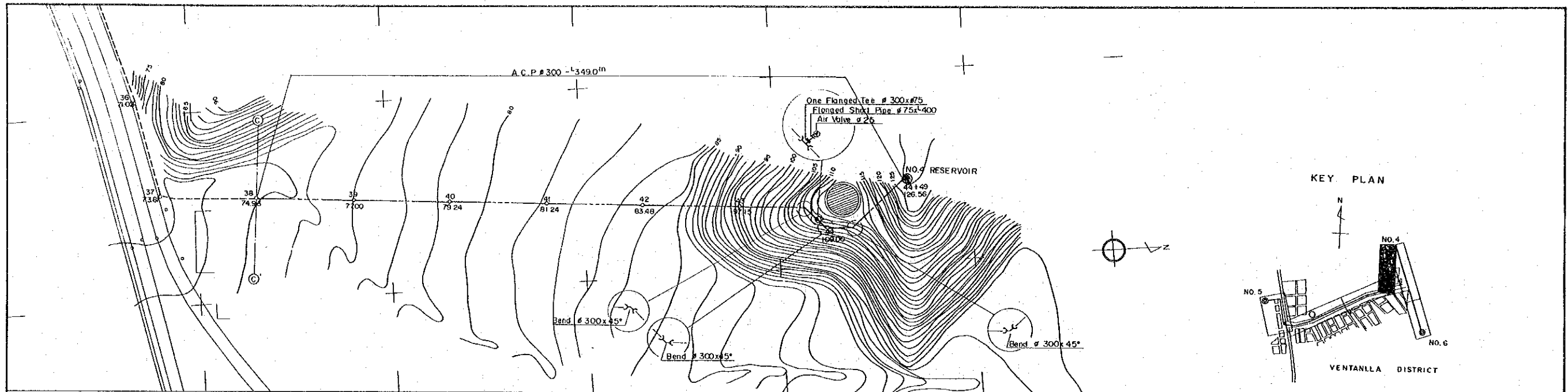
CONNECTION PIPE LINE # 300 - ③
(from No. 5 Reservoir to No. 4 Reservoir)

PERU
BASIC DESIGN STUDY
WATER SUPPLY PROJECT

CONNECTION PIPE LINE # 300 ③
PLAN & PROFILE

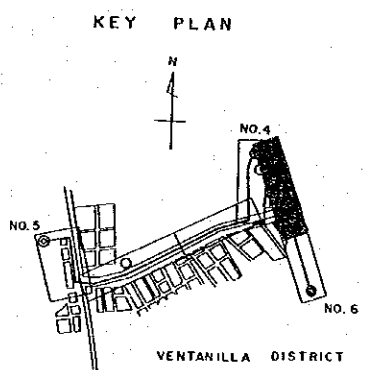
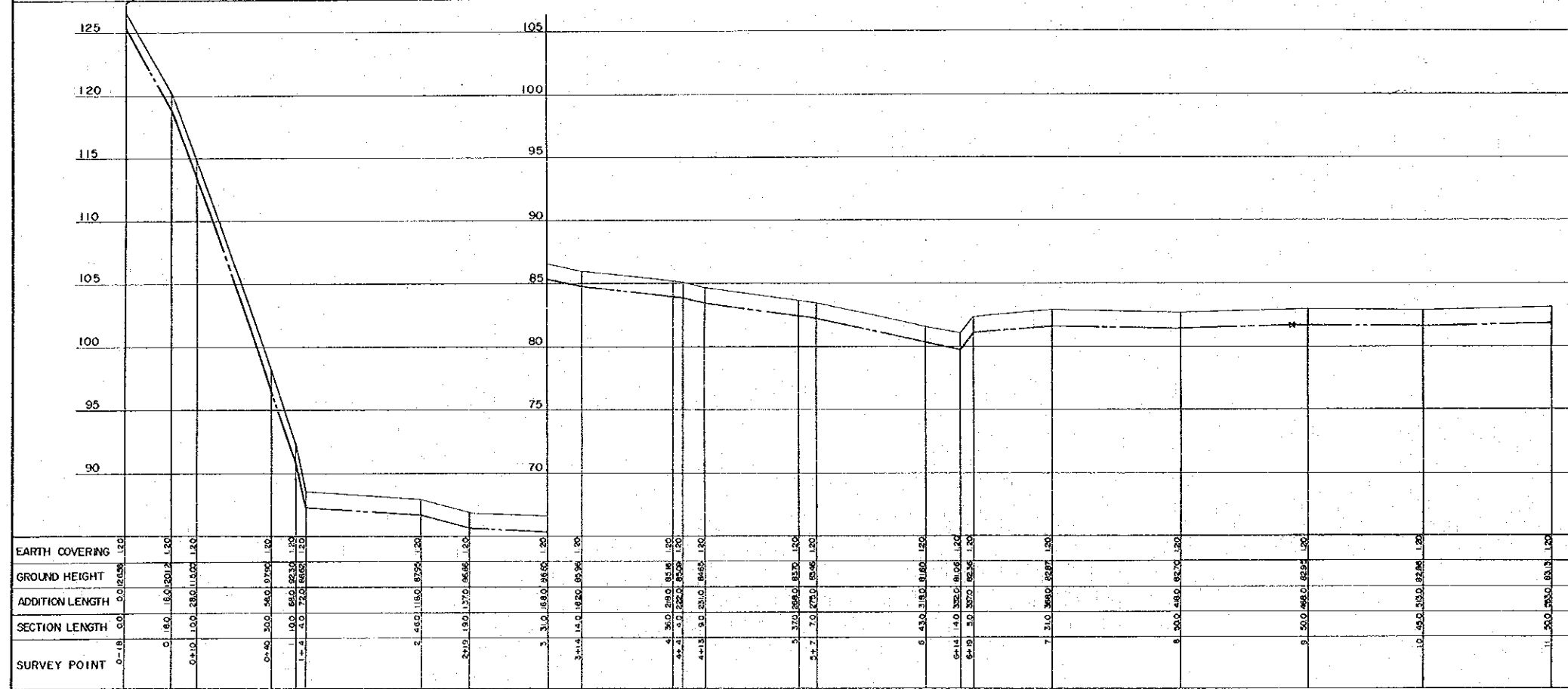
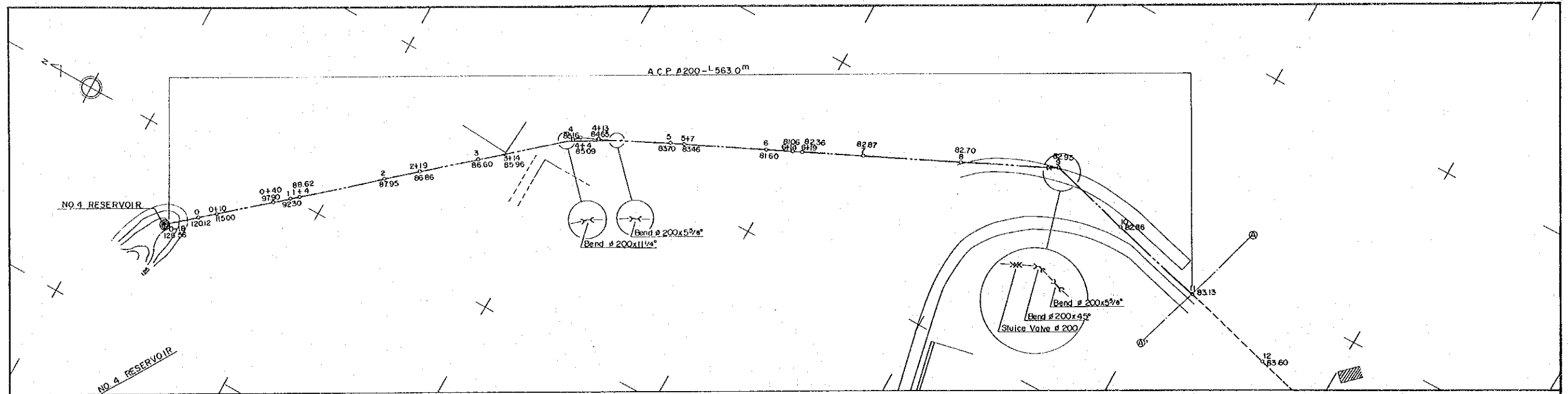
1: 200
DWG. NO. 32/43 SCALE 1: 1000 DATE: JAN. 1981

JAPAN INTERNATIONAL COOPERATION AGENCY



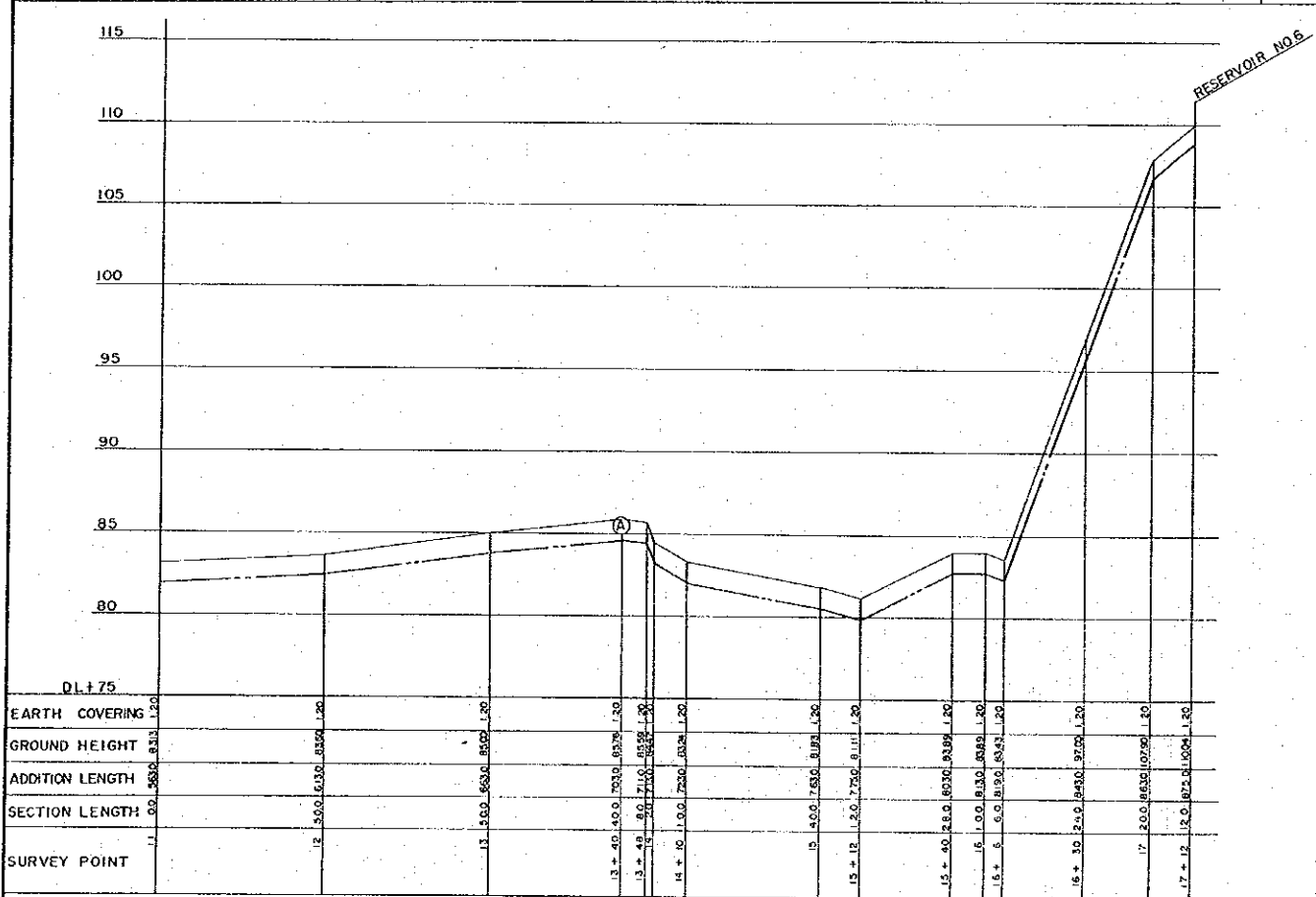
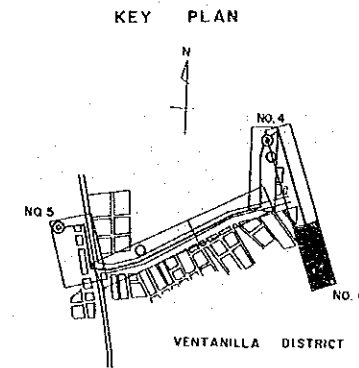
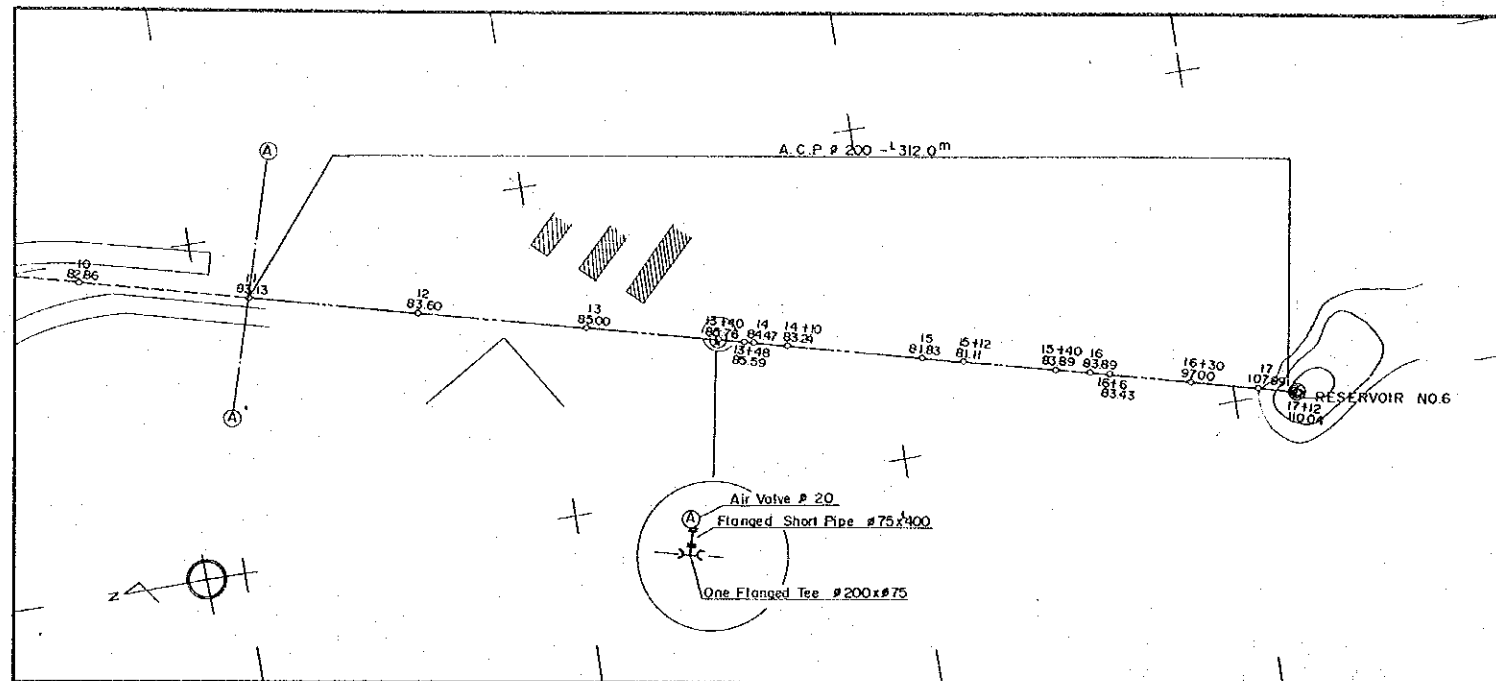
CONNECTION PIPE LINE ϕ 300 - ④
(from No.5 Reservoir to No.4 Reservoir)

PERU
BASIC DESIGN STUDY
WATER SUPPLY PROJECT
CONNECTION PIPE LINE ϕ 300 ④
PLAN & PROFILE
1:200
DWG. NO. 33/43 SCALE: 1:1000 DATE: JAN 1981
JAPAN INTERNATIONAL COOPERATION AGENCY



CONNECTION PIPE LINE ϕ 200 - ①
(from No.4 Reservoir to No.6 Reservoir)

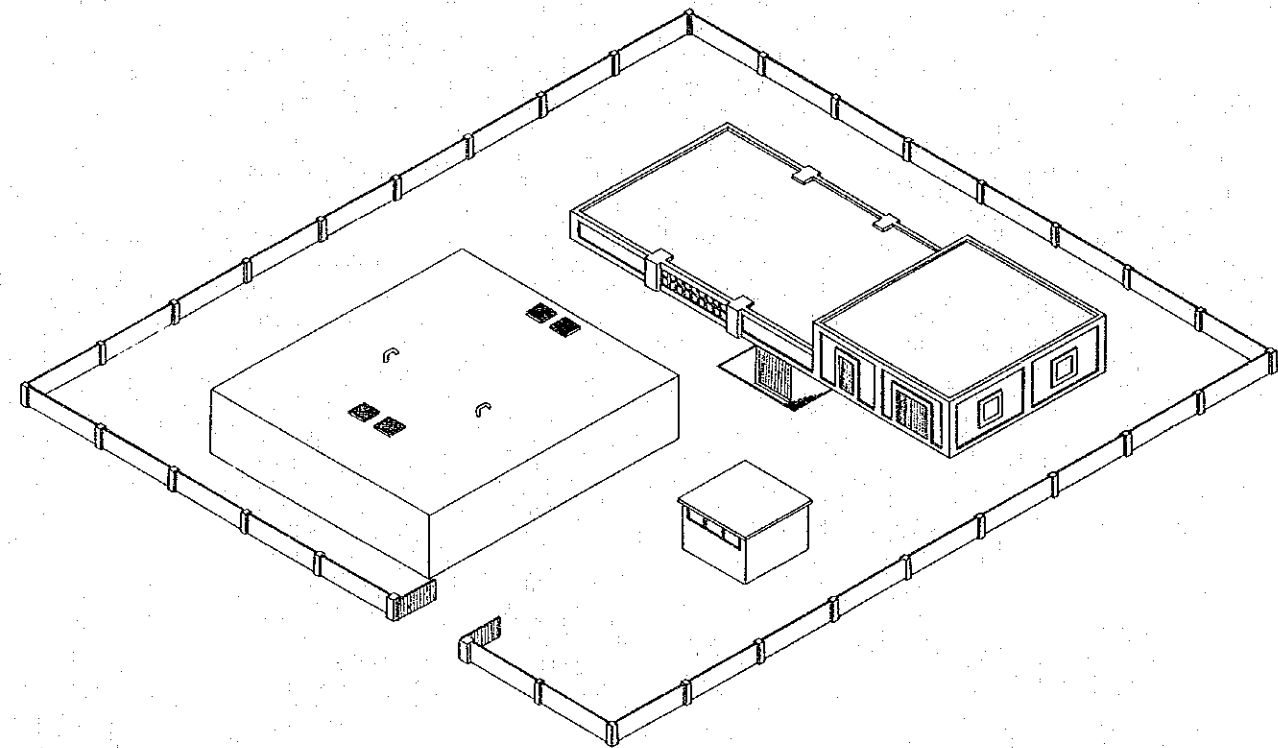
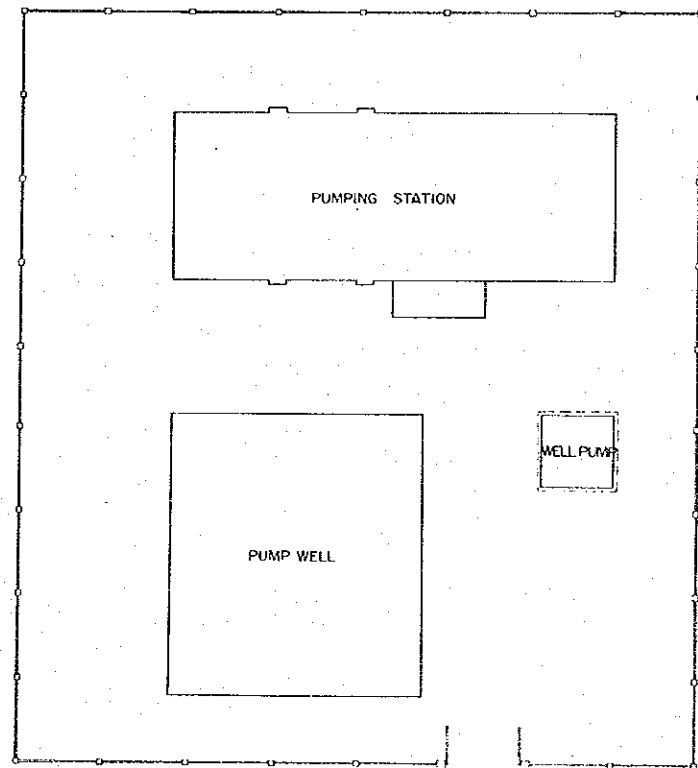
PERU	
BASIC DESIGN STUDY	
WATER SUPPLY PROJECT	
CONNECTION PIPE LINE # 200 ①	
PLAN & PROFILE	
DWG. NO. 34/43	SCALE: 1: 200
DATE: JAN. 1981	SCALE: 1: 1000
JAPAN INTERNATIONAL COOPERATION AGENCY	



CONNECTION PIPE LINE $\phi 200 - ②$
(from No.4 Reservoir No.6 Reservoir.)

PERU		
BASIC DESIGN STUDY		
WATER SUPPLY PROJECT		
CONNECTION PIPE LINE $\phi 200 - ②$		
PLAN & PROFILE		
DWG. NO. 35/43	SCALE: 1:1000	DATE: JAN 1981
JAPAN INTERNATIONAL COOPERATION AGENCY		

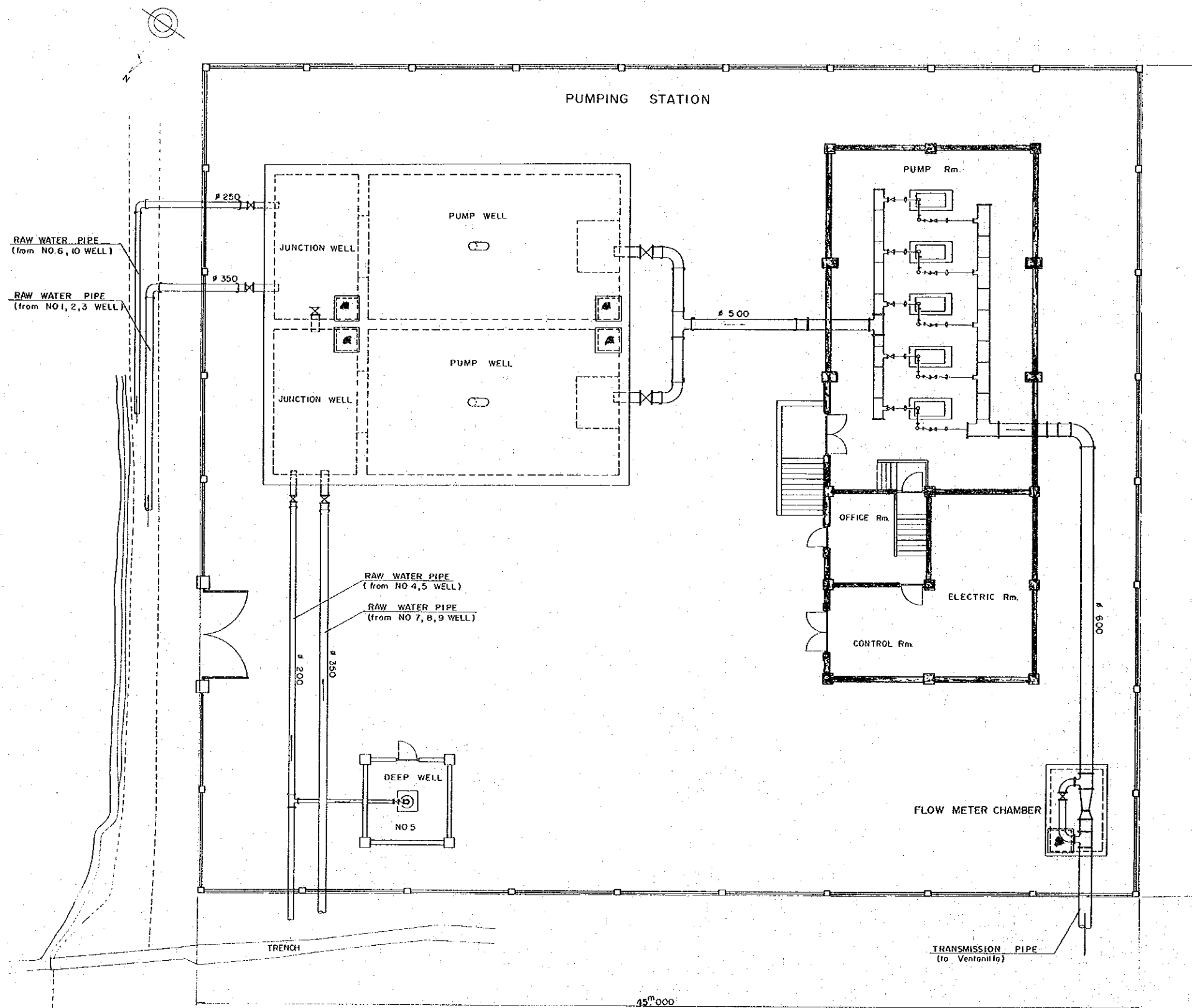
SITE PLAN



PERU		
BASIC DESIGN STUDY		
WATER SUPPLY PROJECT		
PUMPING STATION		
SITE PLAN		
DWG. NO. 36.43	SCALE NON SCALE	DATE: JAN 1981
JAPAN INTERNATIONAL COOPERATION AGENCY		

GENERAL LAYOUT PLAN

SCALE 1 : 100

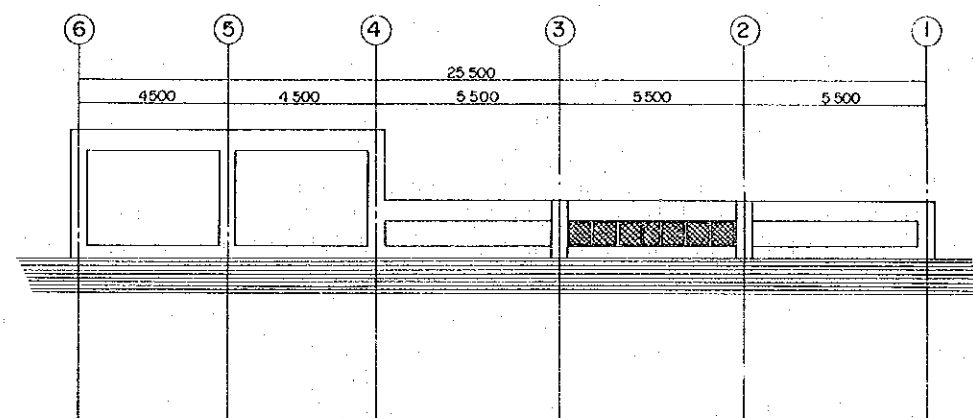
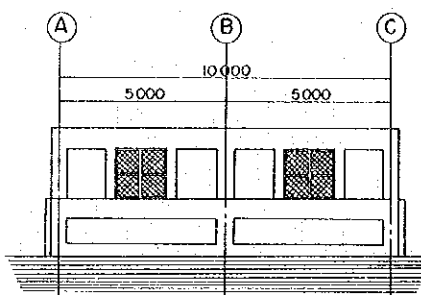
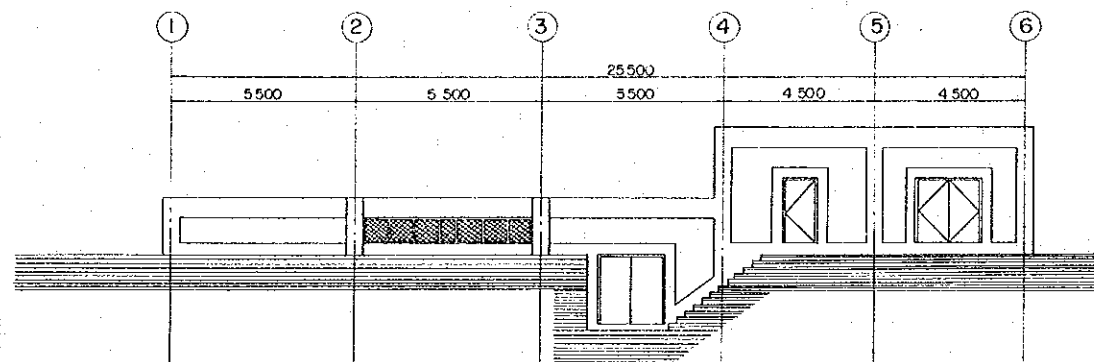


PERU		
BASIC DESIGN STUDY		
WATER SUPPLY PROJECT		
PUMPING STATION		
GENERAL LAYOUT PLAN		
DWG. NO. 37/43	SCALE: 1:100	DATE: JAN. 1981
JAPAN INTERNATIONAL COOPERATION AGENCY		

FRONT ELEVATION

SIDE ELEVATION

REAR ELEVATION

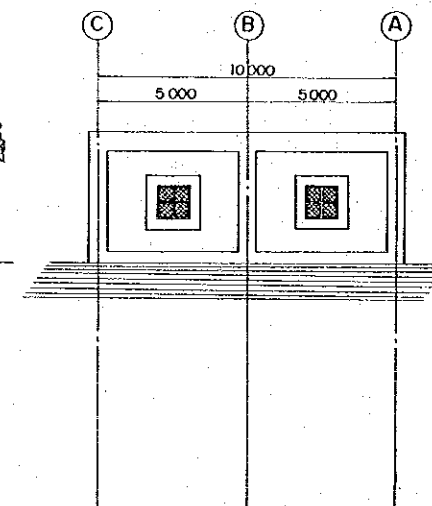
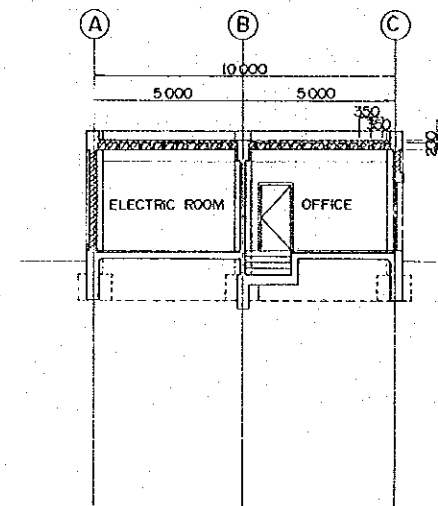
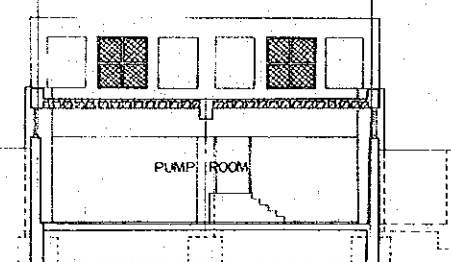
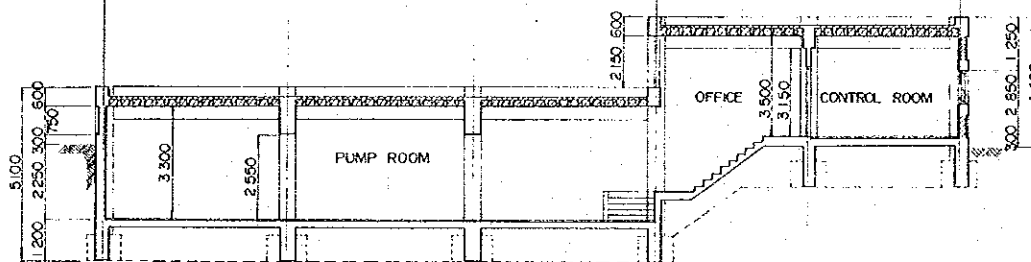


SECTION XX

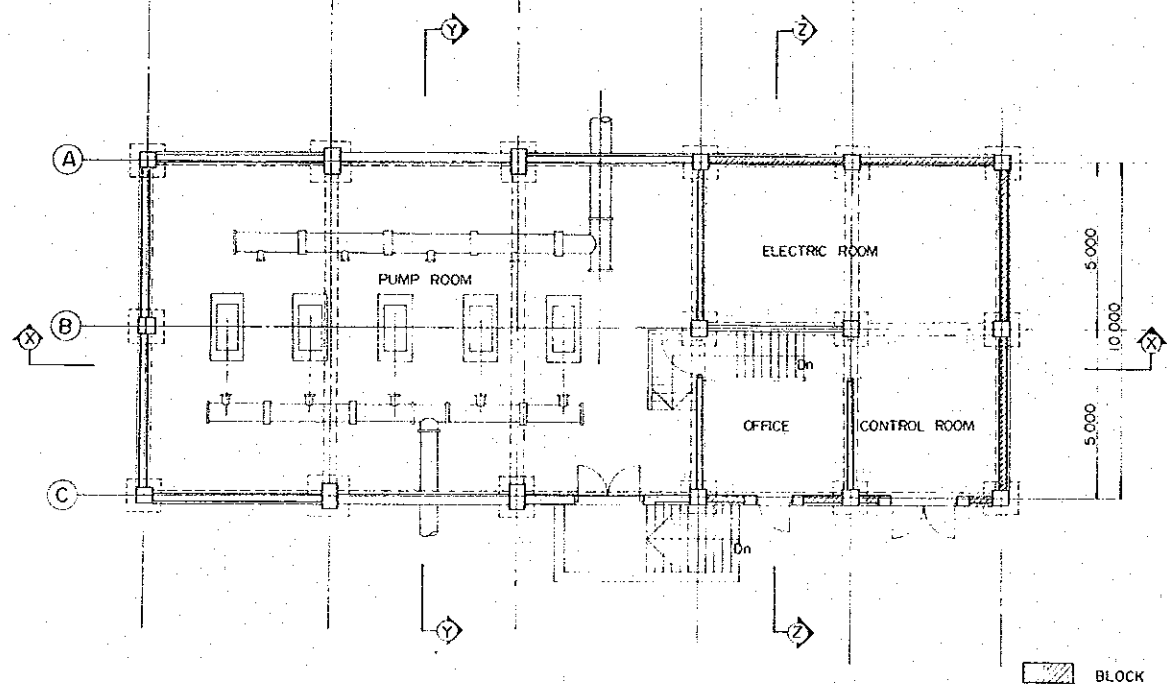
SECTION YY

SECTION ZZ

SIDE ELEVATION



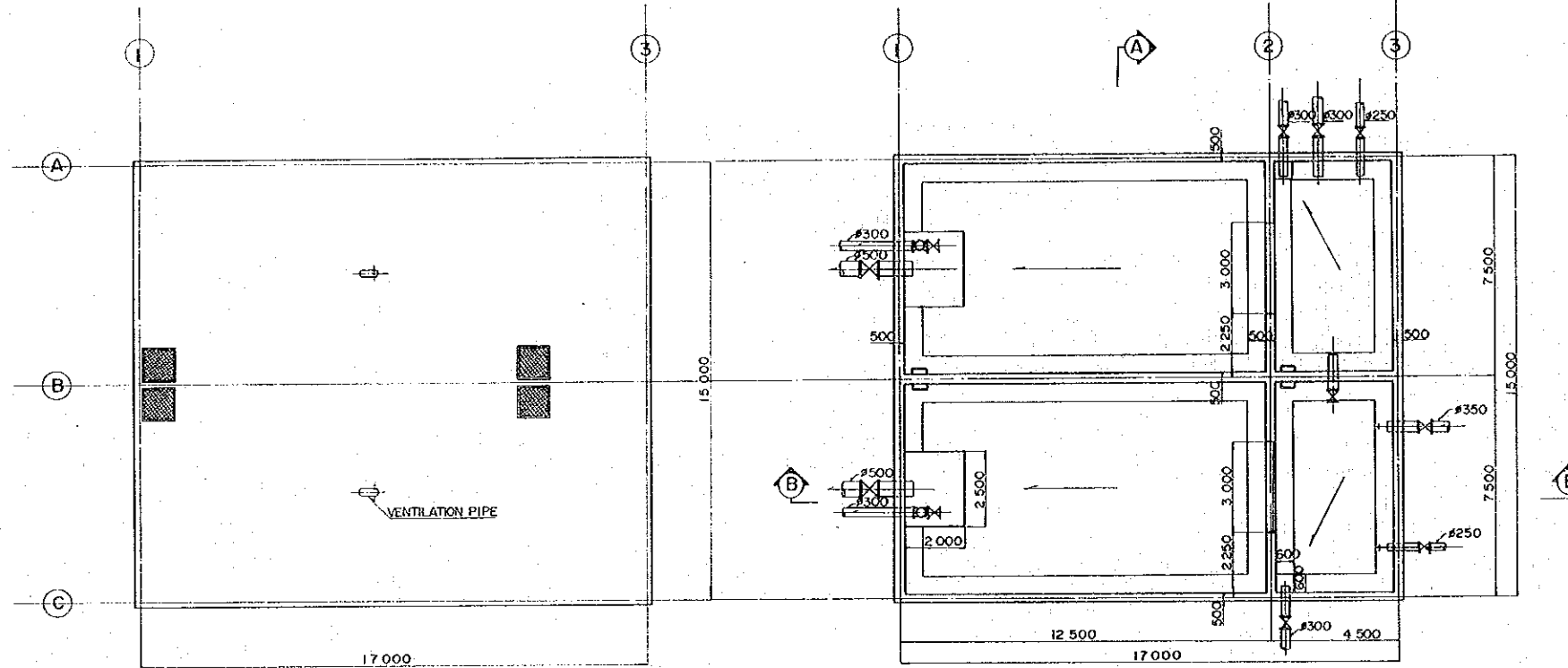
PLAN



PERU		
BASIC DESIGN STUDY		
WATER SUPPLY PROJECT		
PUMPING STATION		
DETAIL OF PUMP WELLS		
DWG. NO. 38/43	SCALE: 1 : 100	DATE: JAN 1981
JAPAN INTERNATIONAL COOPERATION AGENCY		

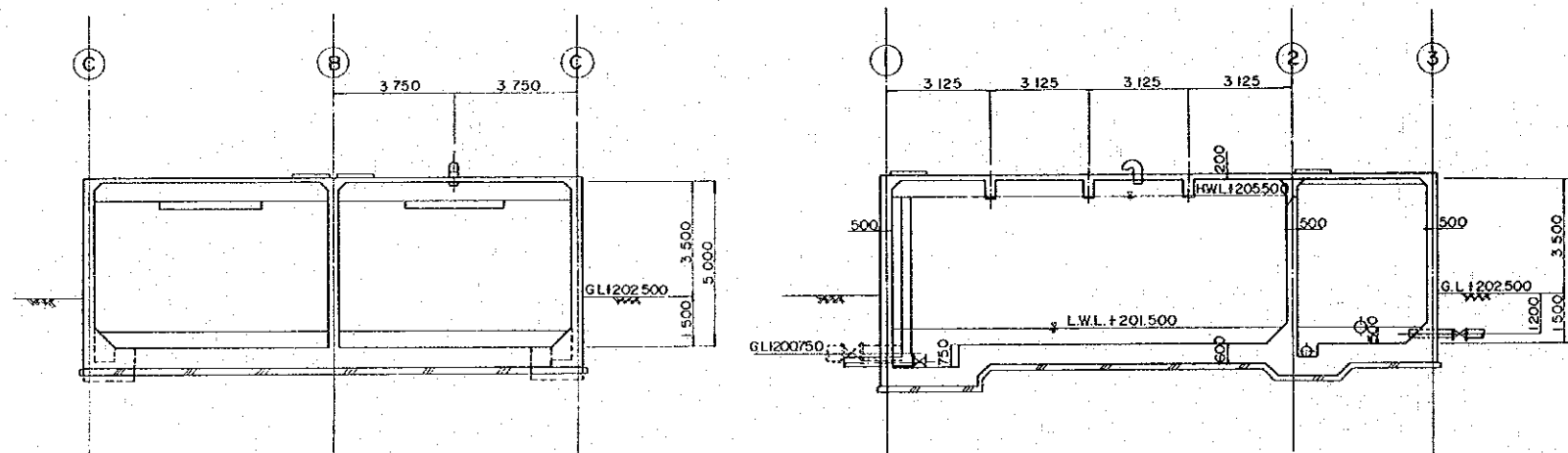
SECTION A - A

SECTION B - B



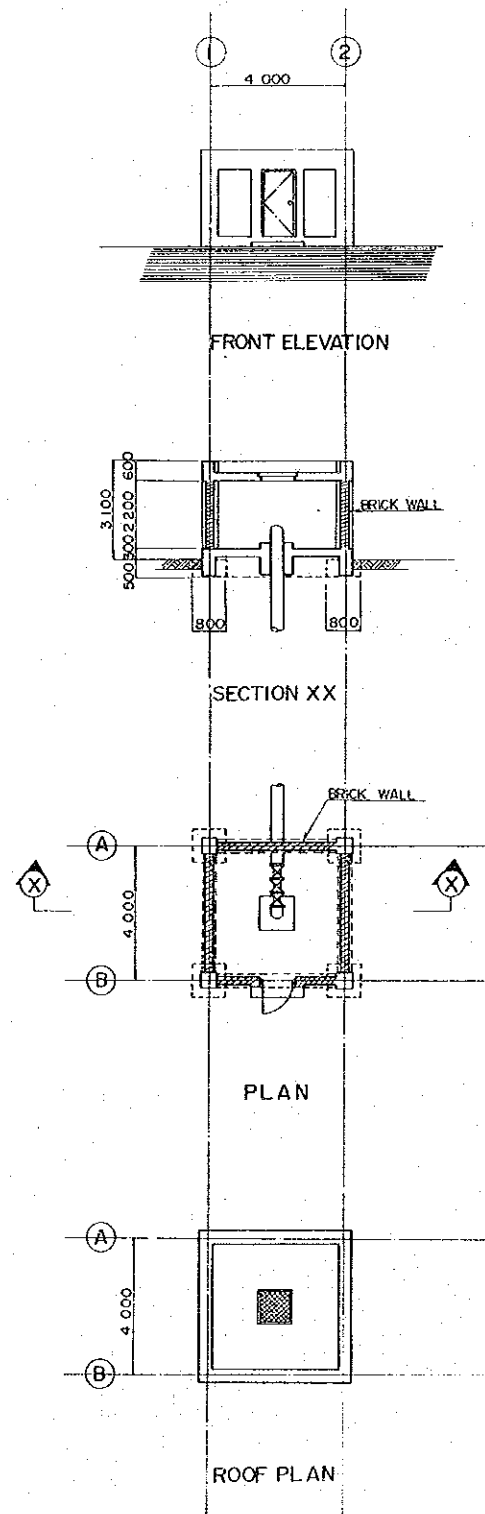
ROOF PLAN

PLAN

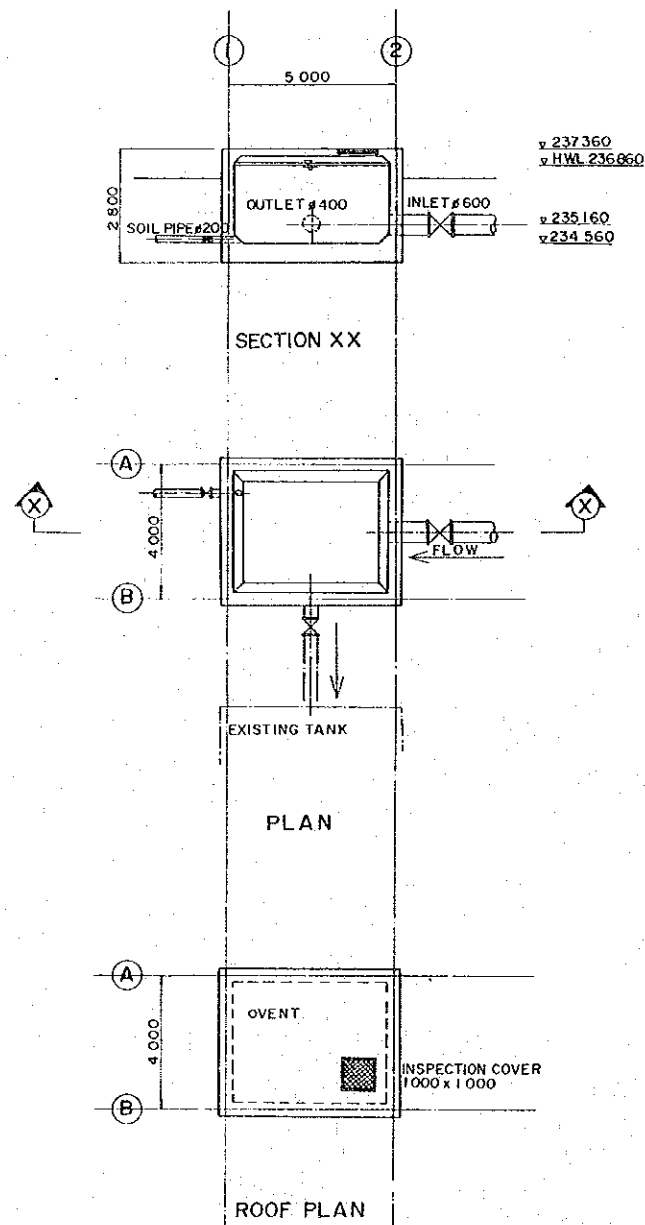


PERU BASIC DESIGN STUDY WATER SUPPLY PROJECT		
PUMPING STATION DETAIL OF PUMP ROOM		
DWG NO. 39/43	SCALE: 1:100	DATE: JAN 1981
JAPAN INTERNATIONAL COOPERATION AGENCY		

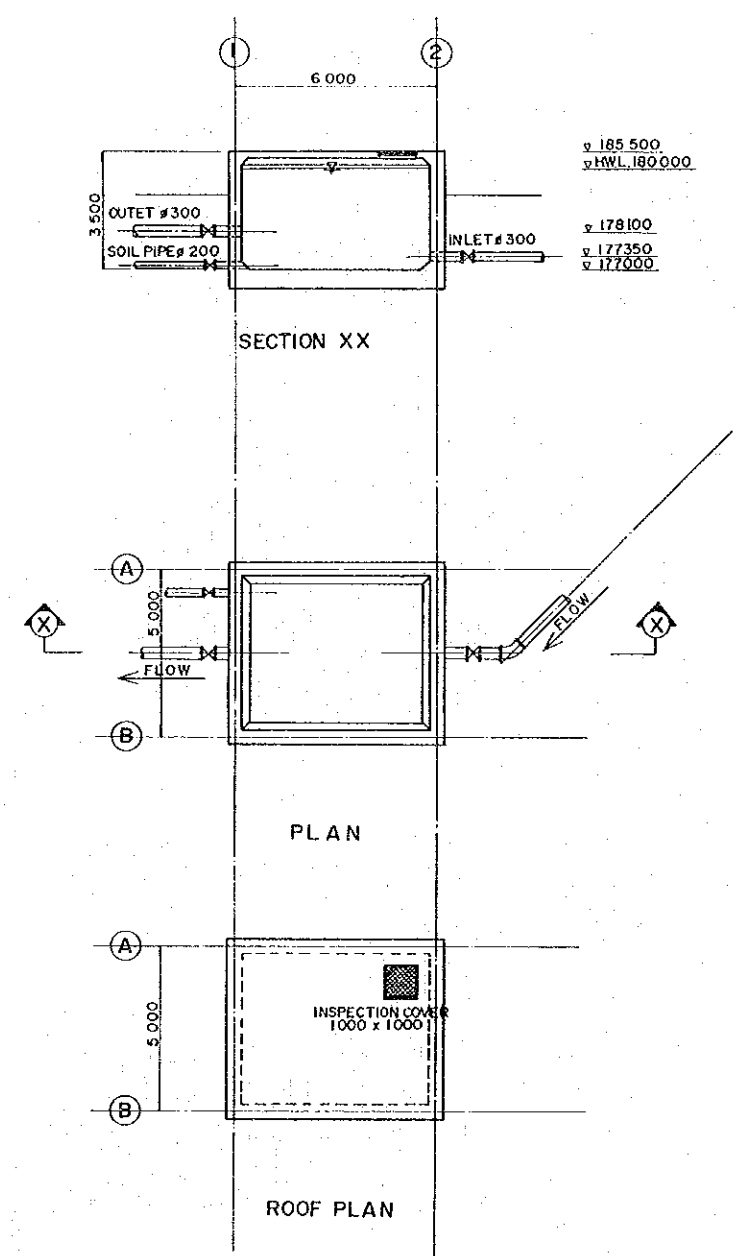
DEEP WELL PUMP ROOM



PRESSURE REDUCING TANK NO 1



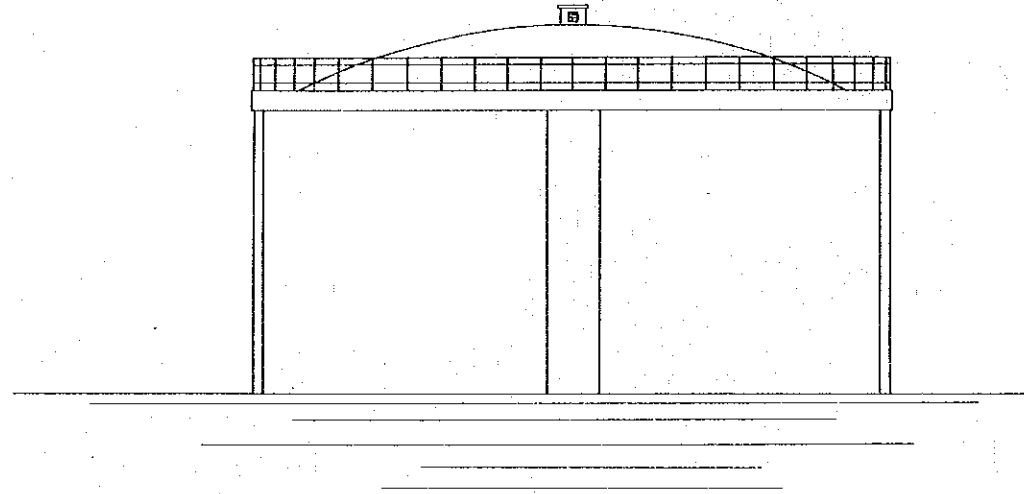
PRESSURE REDUCING TANK NO 2



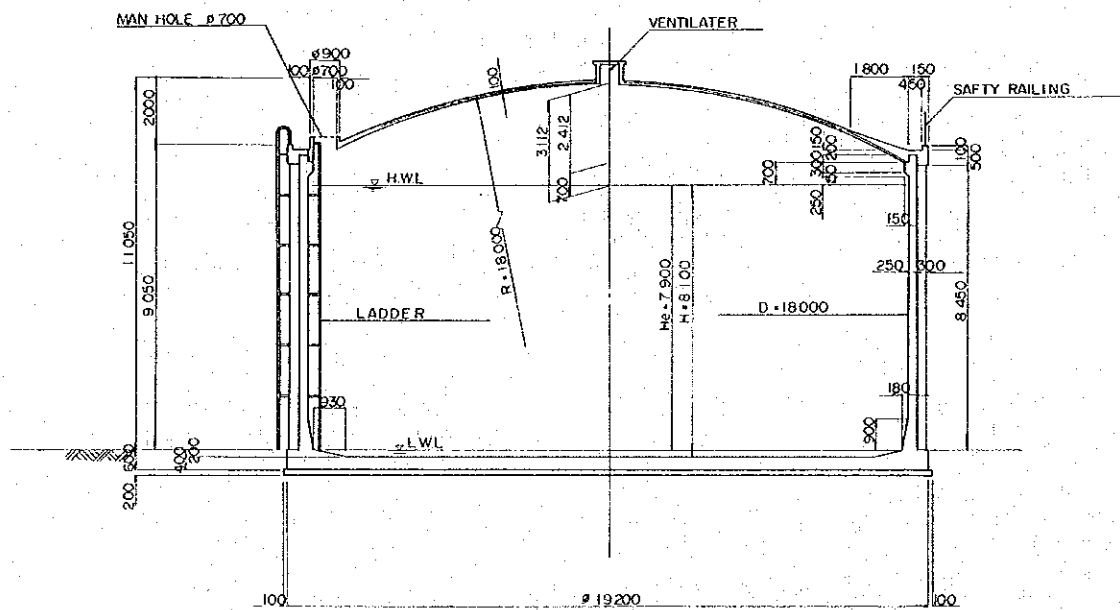
PERU		
BASIC DESIGN STUDY		
WATER SUPPLY PROJECT		
DETAIL OF DEEP WELL PUMPROOM		
PRESSURE REDUCING TANK		
DWG. NO. 40/43	SCALE: 1:100	DATE: JAN 1981
JAPAN INTERNATIONAL COOPERATION AGENCY		

STORAGE RESERVOIR (2000^{m³} P.C TANK)

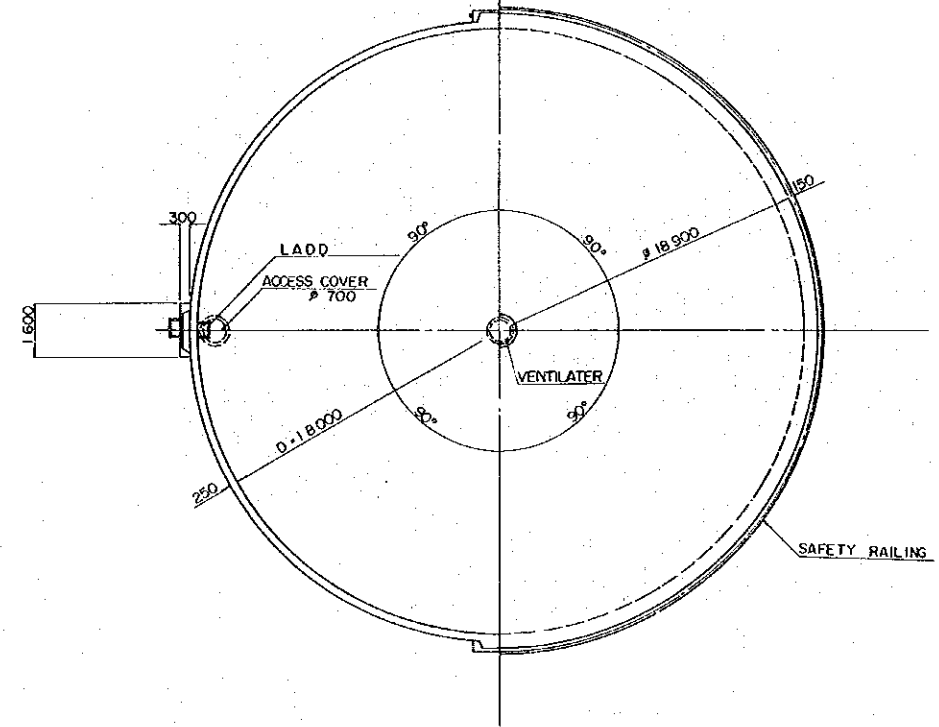
ELEVATION



SECTION



PLAN



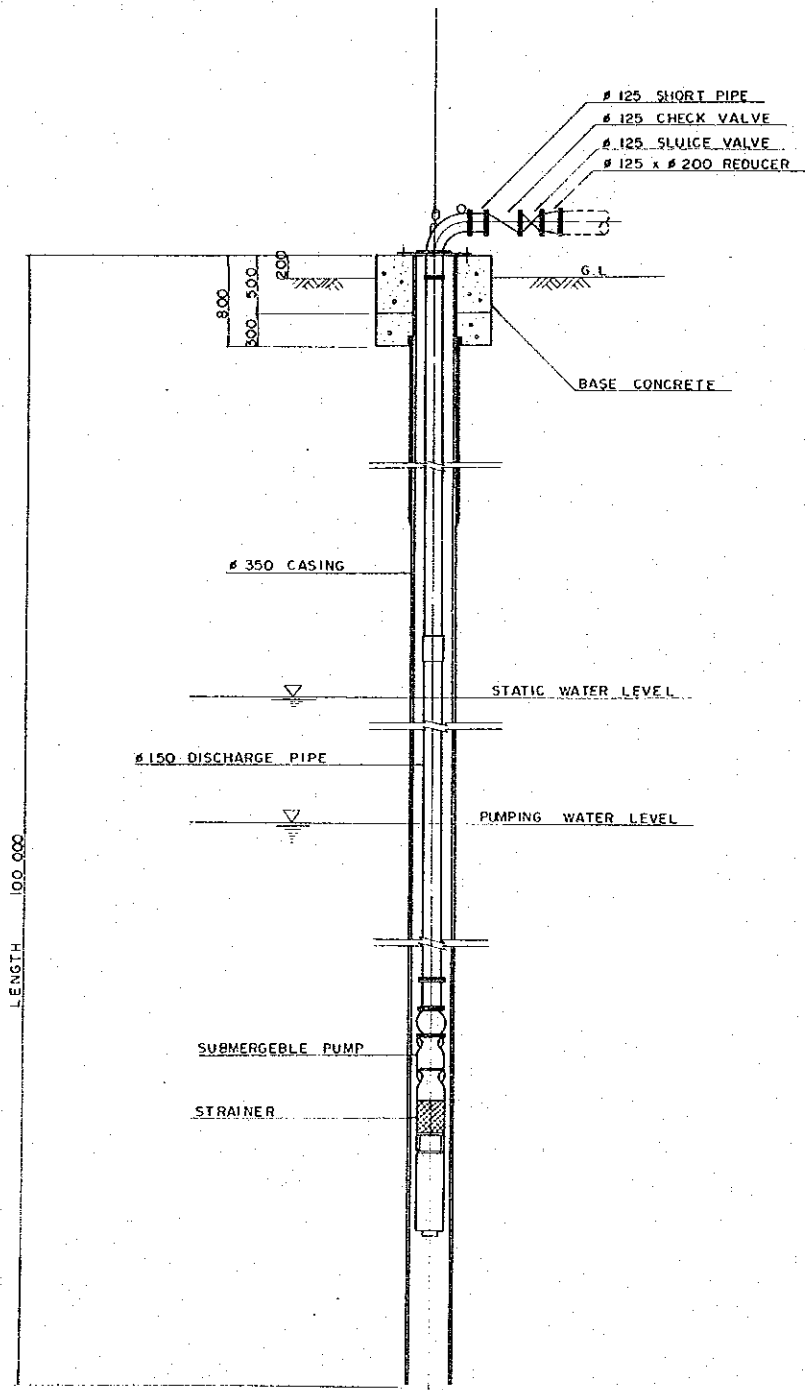
NOTE :	TYPE	CYLINDRICAL P.C STRUCTURE
	INTERNAL DIA.	18.0 ^M
	EFFECTIVE WATER DEPTH	7.9 ^{M³}
	EFFECTIVE CAPACITY	2000 ^{M³}
	NUMBER OFF	3 (NO.4 ~ NO.6)
	CONTINUOUS STRUCTURE	FIX TYPE
	FOUNDATION TYPE	DIRECT FOUNDATION

PERU
BASIC DESIGN STUDY
WATER SUPPLY PROJECT

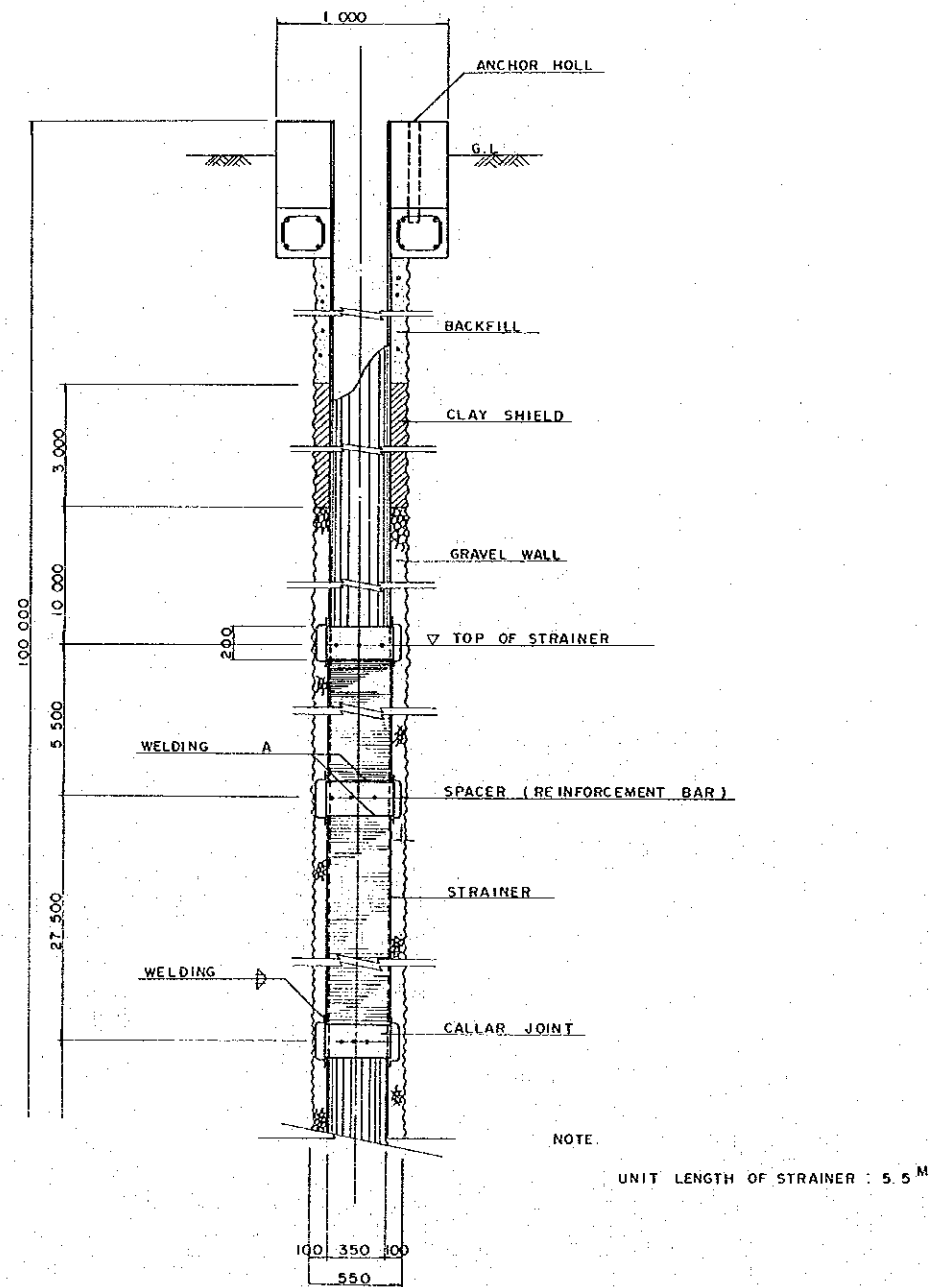
STORAGE RESERVOIR

DWG. NO. 41/43 SCALE: 1:100 DATE: JAN 1981
JAPAN INTERNATIONAL COOPERATION AGENCY

DETAIL OF PUMP SETTING NON SCALE



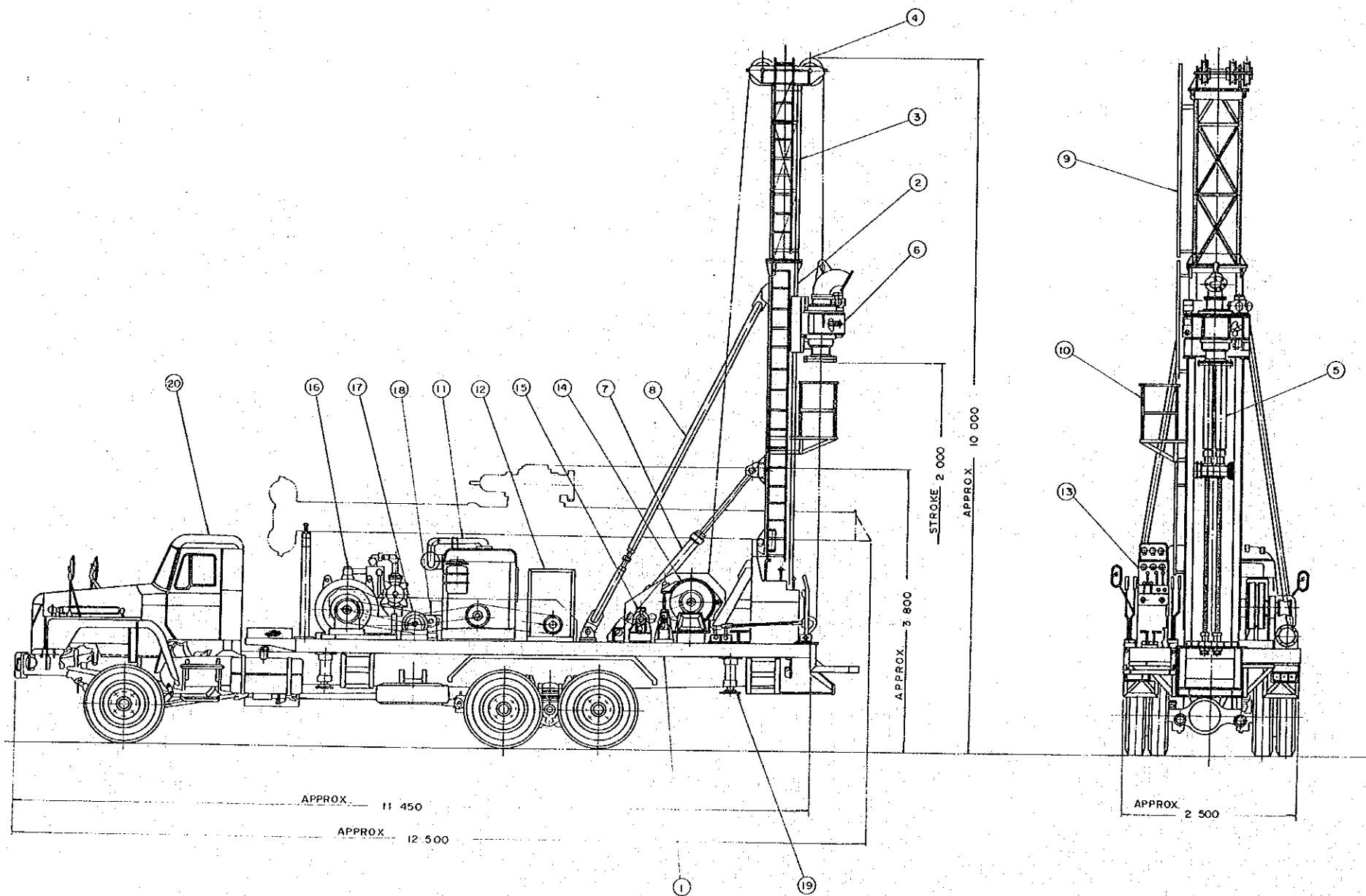
DETAIL OF WELL SCALE 1 : 20



PERU
 BASIC DESIGN STUDY
 WATER SUPPLY PROJECT

DETAIL OF DEEP WELL

DWG. NO. 42/43 SCALE: 1:20 DATE: JAN 1981
 JAPAN INTERNATIONAL COOPERATION AGENCY



DRAWING KEY

20	1 SET	TRUCK
19	4 SET	LEVELING OIL PRESSURE JACK
18	1 SET	WATER PUMP
17	1 SET	COUNTER SHAFT
16	1 SET	SUCTION PUMP
15	1 SET	OIL MOTOR
14	1 SET	WINCH
13	1 SET	INSTRUMENT PANEL
12	1 SET	OIL PUMP UNIT
11	1 SET	POWER UNIT
10	1 SET	PLATFORM
9	1 SET	LADDER
8	2 SET	BACK STAY
7	1 SET	HYDRAULIC CYLINDER
6	1 SET	POWER SWIVEL
5	1 SET	PULL DOWN OIL PRESSURE CYLINDER
4	1 SET	HEAD
3	1 SET	MAST
2	1 SET	MAST
1	1 SET	BASE

PERU
BASIC DESIGN STUDY
WATER SUPPLY PROJECT

DRILLING MACHINE

DWG. NO. 43/43 SCALE NON SCALE DATE: JAN. 1981
JAPAN INTERNATIONAL COOPERATION AGENCY

JICA