

No. 17

THE HORTICULTURAL DEVELOPMENT PROJECT
IN
THE KINGDOM OF NEPAL

CONTRACT
FOR
THE CONSTRUCTION
OF
DEMONSTRATION FARM
IN
THE SINDHULI SUB-CENTER

VOLUME II

DRAWINGS

MARCH 1986

JAPAN INTERNATIONAL COOPERATION AGENCY

ADD

JR

86-24

556

THE HORTICULTURAL DEVELOPMENT PROJECT
IN
THE KINGDOM OF NEPAL

CONTRACT
FOR
THE CONSTRUCTION
OF
DEMONSTRATION FARM
IN
THE SINDHULI SUB-CENTER

VOLUME II

=====
DRAWINGS
=====

MARCH 1986

JAPAN INTERNATIONAL COOPERATION AGENCY

JICA LIBRARY

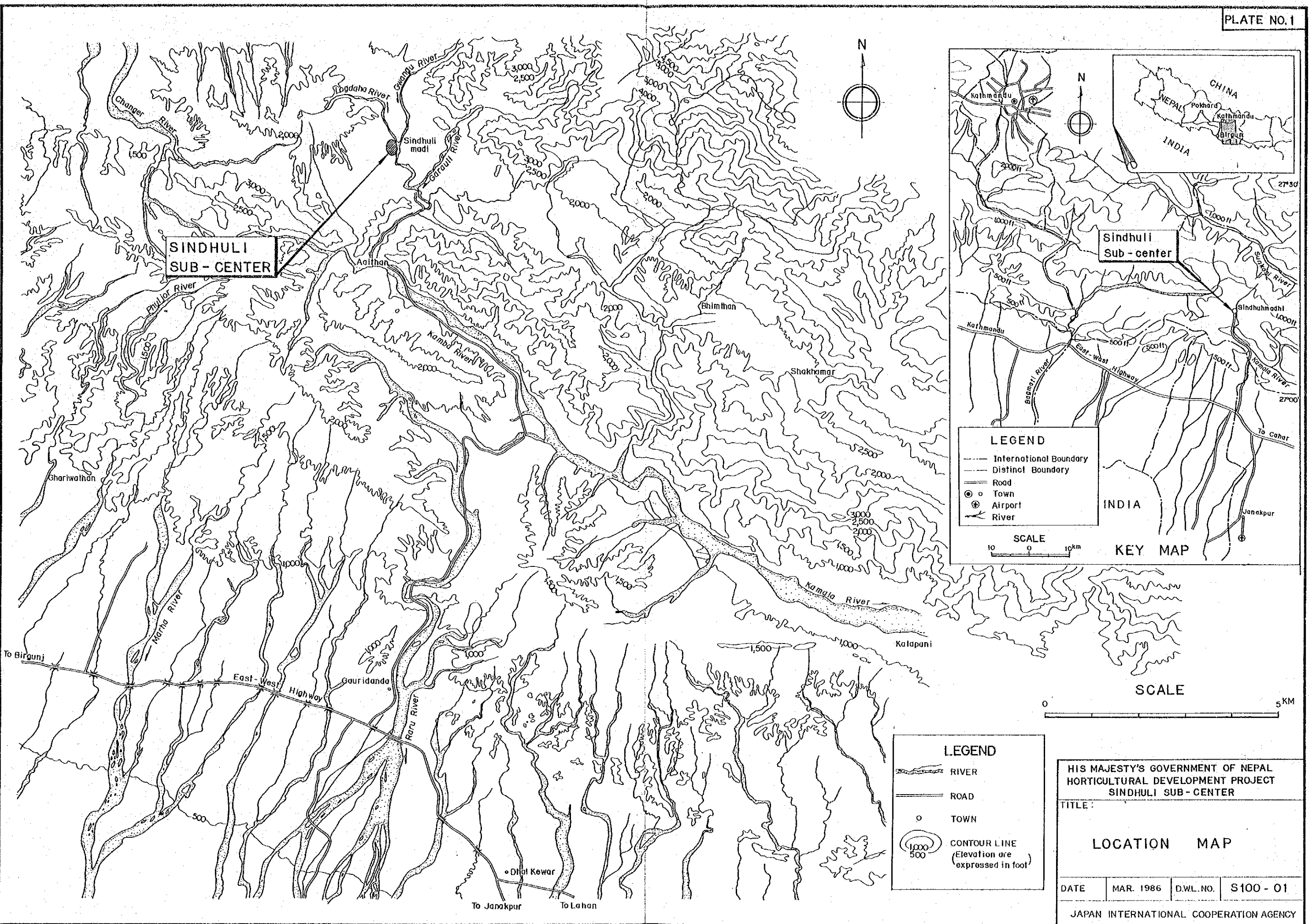


1060537163

CONTRACT
FOR
THE CONSTRUCTION
OF
DEMONSTRATION FARM
IN
THE SINDUHULI SUB - SENTER
VOLUME II
LIST OF DRAWINGS

PLATE NO	DRAWING NO.	TITLE
		GENERAL
1	S100-01	LOCATION MAP
2	S100-02	GENERAL LAYOUT
3	S100-03	COORDINATES OF CANALS AND PIPELINES
		IRRIGATION FACILITIES
4	S200-01	SHALLOW WELL AND PUMP ARRANGEMENT
5	S200-02	FARM POND
6	S200-03	PLAN OF PIPE ARRANGEMENT
7	S200-04	PROFILE (1/2), DISCHARGE PIPELINE, MIP
8	S200-05	PROFILE (2/2), BIP
9	S200-06	PIPE ARRANGEMENT OF PIPELINE IRRIGATION SYSTEM
		DRAINAGE FACILITIES
10	S300-01	PROFILE (1/2), MD-1, MD-2, MD-1-1, MD-1-2
11	S300-02	PROFILE (2/2), MD-2-1, MD-2-2, CD-1, CD-1-1, CD-1-2
12	S300-03	CHUTE ON CD-1 (1/2)
13	S300-04	CHUTE ON CD-1 (2/2), DROP
14	S300-05	DRAINAGE CULVERT, TYPICAL CROSS SECTION OF DRAINAGE CANAL
		ROADS
15	S400-01	APPROACH ROAD AND FARM ROAD
		BUILDINGS
16	S500-01	PUMP HOUSE
17	S500-02	GRAFTING HOUSE
		IMPROVEMENT OF EXISTING FENCE
18	S600-01	IMPROVEMENT OF EXISTING FENCE
		CONSTRUCTION TIME SCHEDULE
19	S700-01	CONSTRUCTION TIME SCHEDULE

国際協力事業団	
受入 月日 '86. 9. 24	116
登録No. 15440	85.5
	ADD



**SINDHULI
SUB-CENTER**

**Sindhuli
Sub-center**

LEGEND
 --- International Boundary
 --- District Boundary
 --- Road
 ● Town
 ✈ Airport
 ~ River

SCALE
 10 0 10km

KEY MAP

LEGEND
 ~ RIVER
 --- ROAD
 ○ TOWN
 (1000 / 500) CONTOUR LINE
 (Elevation are expressed in foot)

HIS MAJESTY'S GOVERNMENT OF NEPAL
 HORTICULTURAL DEVELOPMENT PROJECT
 SINDHULI SUB-CENTER

TITLE:

LOCATION MAP

DATE MAR. 1986 D.W.L.NO. S100 - 01

JAPAN INTERNATIONAL COOPERATION AGENCY

LIST OF IRRIGATION PIPELINE

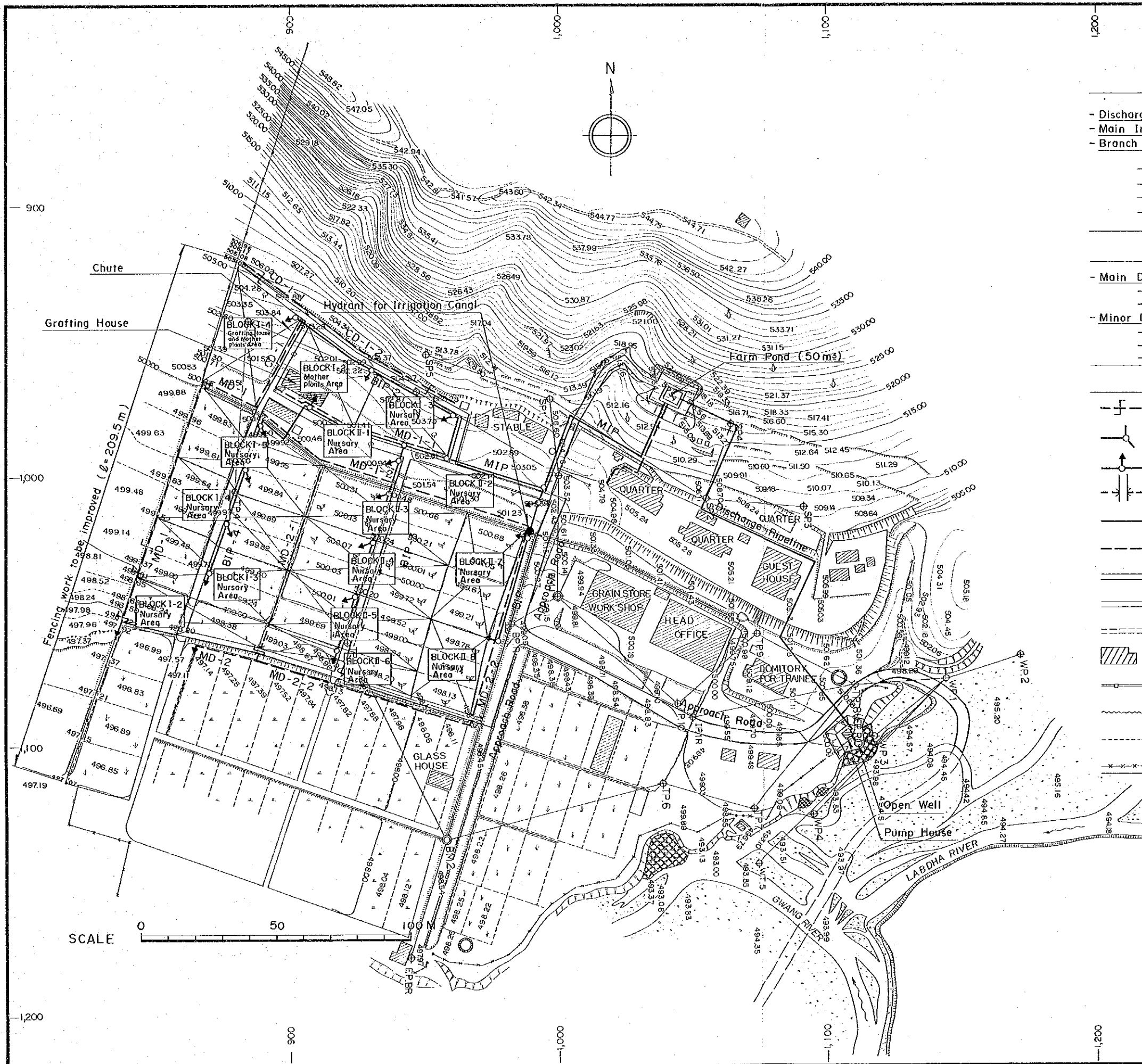
- Discharge Pipeline	185.72 m
- Main Irrigation Pipeline (MIP)	136.85 m
- Branch Irrigation Pipeline (BIP)	359.63 m
- BIP - 1	59.57 m
- BIP - 2	87.71 m
- BIP - 3	82.91 m
- BIP - 4	129.44 m

LIST OF DRAINAGE CANAL

- Main Drain (MD)	148.49 m	- MD-2-2	151.85 m
- MD - 1	121.37 m	Catch Drain	126.64 m
- MD - 2	27.12 m	- CD - 1	32.27 m
- Minor Drain (MD)	420.53 m	- CD - 1-1	29.72 m
- MD - 1-1	82.33 m	- CD - 1-2	64.65 m
- MD - 1-2	111.97 m		
- MD - 2-1	74.38 m		

LEGEND

	Drop
	Branch or Bend on Pipeline
	Hydrant
	Culvert
	Irrigation Pipeline
	Drainage Canal
	Farm Road and Approach Road
	Road
	Footpath
	Office & Quarters
	Irrigation Canal
	Ditch
	Border
	Fence
	Orchard (Mango, Litchi etc.)
	Pineapple
	Nursery of Junar etc.
	Dry Field
	Paddy Field
	Bush



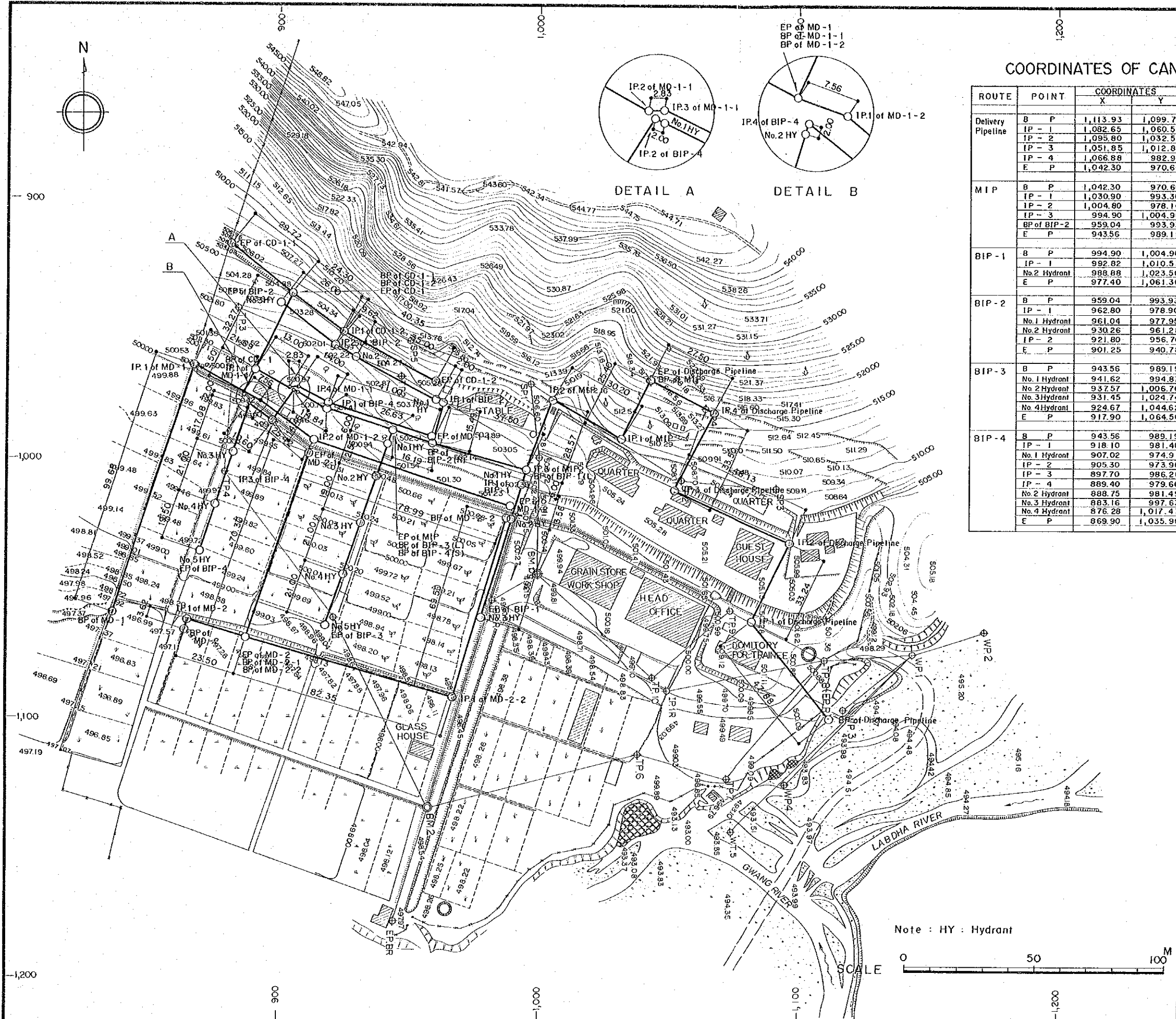
HIS MAJESTY'S GOVERNMENT OF NEPAL
 HORTICULTURAL DEVELOPMENT PROJECT
 SINDHULI SUB-CENTER

TITLE

GENERAL LAYOUT

DATE	MAR. 1986	D.W.G. NO.	S 100 - 02
------	-----------	------------	------------

JAPAN INTERNATIONAL COOPERATION AGENCY



COORDINATES OF CANALS AND PIPELINES

ROUTE	POINT	COORDINATES		ROUTE	POINT	COORDINATES		
		X	Y			X	Y	
Delivery Pipeline	B P	1,113.93	1,099.72	MD-1	B P	835.80	1,059.60	
	IP-1	1,082.65	1,060.58		IP-1	867.30	965.10	
	IP-2	1,095.80	1,032.50		E P	887.00	974.60	
	IP-3	1,051.85	1,012.88	MD-2	B P	863.60	1,065.90	
	IP-4	1,066.88	982.94		IP-1	865.10	1,062.60	
E P	1,042.30	970.60	E P		887.66	1,069.19		
MIP	B P	1,042.30	970.60	MD-1-1	B P	887.00	974.60	
	IP-1	1,030.90	993.30		IP-1	891.16	966.06	
	IP-2	1,004.80	978.10		IP-2	904.10	973.64	
	IP-3	994.90	1,004.90		IP-3	906.84	972.93	
	BP of BIP-2	959.04	993.93		IP-4	918.92	980.01	
E P	943.56	989.19	E P	958.13	992.01			
BIP-1	B P	994.90	1,004.90	MD-1-2	B P	887.00	974.60	
	IP-1	992.82	1,010.53		IP-1	893.80	977.91	
	No. 2 Hydrant	988.88	1,023.50		IP-2	913.51	993.97	
	E P	977.40	1,061.30	E P	988.65	1,018.34		
BIP-2	B P	959.04	993.93	MD-2-1	B P	887.66	1,069.19	
	IP-1	962.80	978.90		E P	911.40	998.70	
	No. 1 Hydrant	961.04	977.95		MD-2-2	B P	887.66	1,069.19
	No. 2 Hydrant	930.26	961.28	IP-1		966.70	1,092.30	
IP-2	921.80	956.70	E P	987.62		1,023.41		
E P	901.25	940.78	CD-1	B P	891.16	966.06		
BIP-3	B P	943.56		989.19	E P	905.29	937.05	
	No. 1 Hydrant	941.62		994.87	CD-1-1	B P	905.29	937.05
	No. 2 Hydrant	937.57		1,006.76		IP-1	924.50	951.93
	No. 3 Hydrant	931.45	1,024.74	E P		960.20	970.43	
No. 4 Hydrant	924.67	1,044.62	CD-1-2	B P	905.29	937.05		
E P	917.90	1,064.50		IP-1	924.50	951.93		
BIP-4	B P	943.56		989.19	E P	960.20	970.43	
	IP-1	918.10		981.40	CD-1-2	B P	905.29	937.05
	No. 1 Hydrant	907.02	974.91	IP-1		924.50	951.93	
	IP-2	905.30	973.90	E P		960.20	970.43	
IP-3	897.70	986.20	CD-1-2	B P		905.29	937.05	
IP-4	889.40	979.60		IP-1	924.50	951.93		
No. 2 Hydrant	888.75	981.49		E P	960.20	970.43		
No. 3 Hydrant	883.16	997.63		CD-1-2	B P	905.29	937.05	
No. 4 Hydrant	876.28	1,017.47	IP-1		924.50	951.93		
E P	869.90	1,035.90	E P		960.20	970.43		

TRAVERSING POINTS

POINTS	COORDINATES		ELEVATIONS	
	X	Y	Top	Ground
BM. 1	999.572	1,044.600	500.000	—
TP. 1	1,000.000	1,000.000	504.170	504.03
TP. 2	947.015	968.681	504.697	504.53
TP. 3	884.028	942.706	503.047	502.92
TP. 4	879.104	1,005.524	500.110	499.95
TP. 5	921.450	1,061.754	500.052	499.90
BM. 2	957.985	1,134.807	498.692	—
TP. 6	1,038.352	1,114.048	498.947	498.83
TP. 7	1,072.799	1,123.302	499.237	499.13
TP. 8	1,110.201	1,077.636	500.901	500.70
TP. 9	1,073.500	1,058.646	501.471	501.30
TP. 10	1,043.948	1,084.341	499.453	499.25
WP. 1	1,144.121	1,075.305	495.957	495.87
WP. 2	1,171.683	1,066.781	496.173	496.07
WP. 3	1,117.238	1,096.892	495.702	495.63
WP. 4	1,095.285	1,125.594	494.031	490.01
WP. 5	1,074.686	1,143.752	494.025	493.99
SP. 1	996.460	971.277	509.403	509.28
SP. 2	1,054.786	1,008.590	508.053	507.96
SP. 3	1,091.871	1,012.095	509.303	509.17
SP. 4	1,064.143	980.824	515.890	515.78
SP. 5	950.167	954.914	511.387	511.28
BP. R	982.345	1,054.994	499.302	499.21
TP. 1R	1,049.787	1,089.748	499.498	499.39
EP. BR	944.890	1,178.562	498.317	498.21

HIS MAJESTY'S GOVERNMENT OF NEPAL
HORTICULTURAL DEVELOPMENT PROJECT
SINDHULI SUB-CENTER

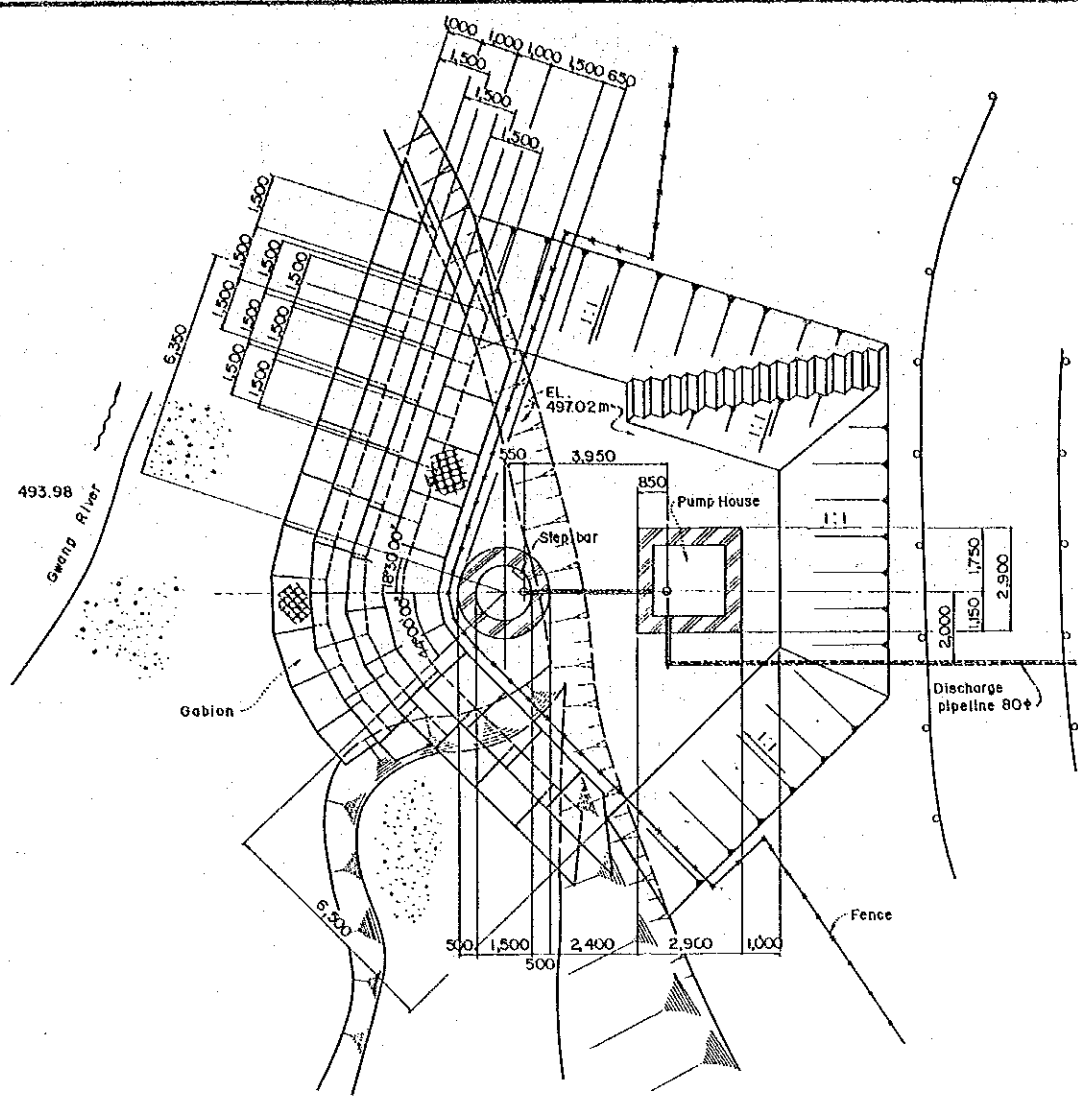
TITLE :

COORDINATES OF
CANALS AND PIPELINES

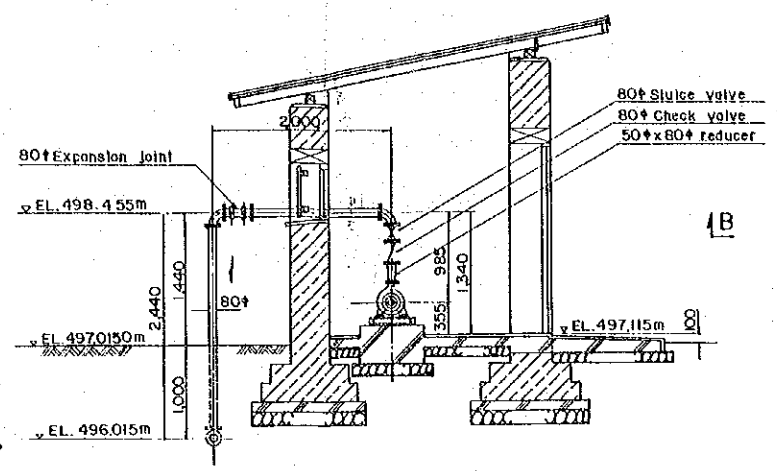
DATE : MAR. 1986 D.W.G. NO. : S100-03

JAPAN INTERNATIONAL COOPERATION AGENCY

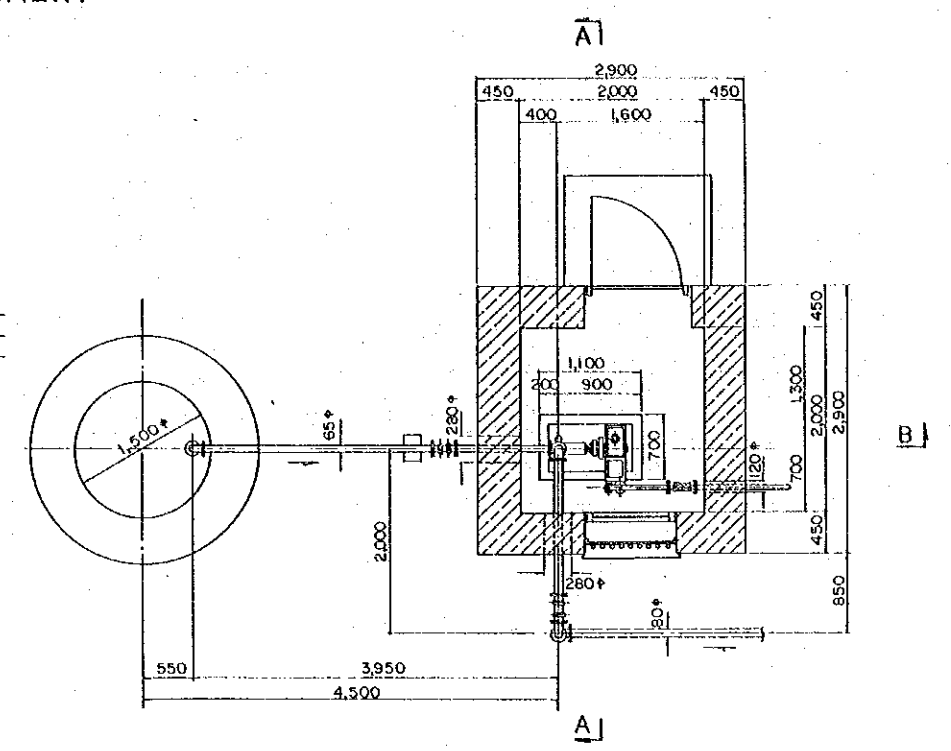
PUMP ARRANGEMENT



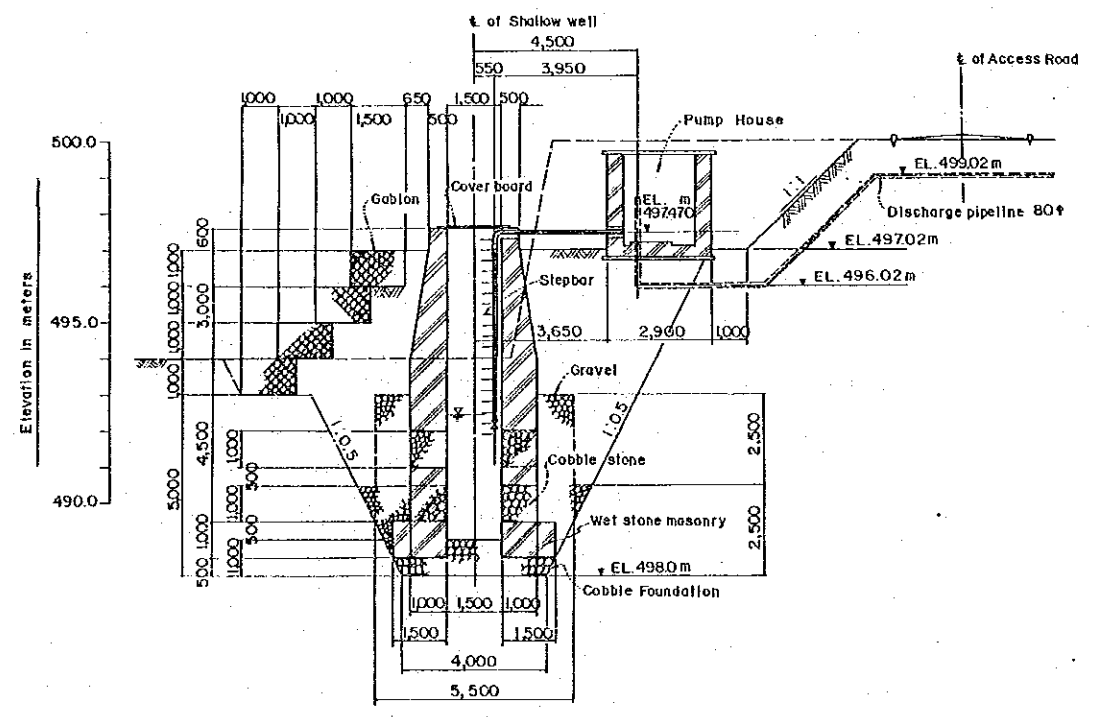
PLAN OF SHALLOW WELL SCALE-A



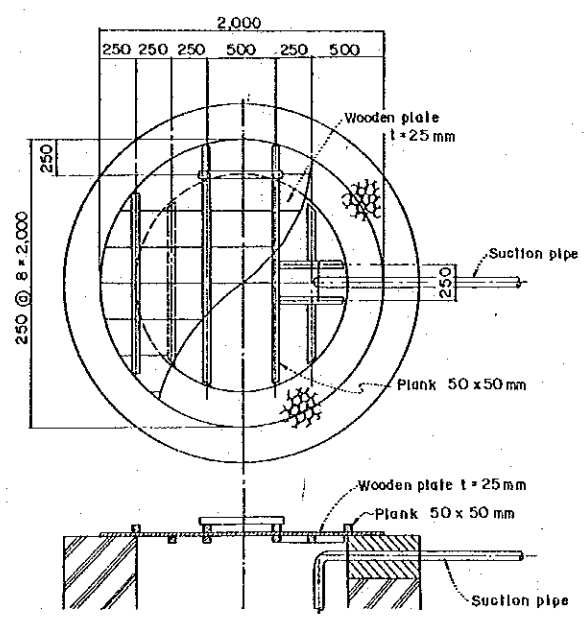
SECTION A-A
SCALE - B



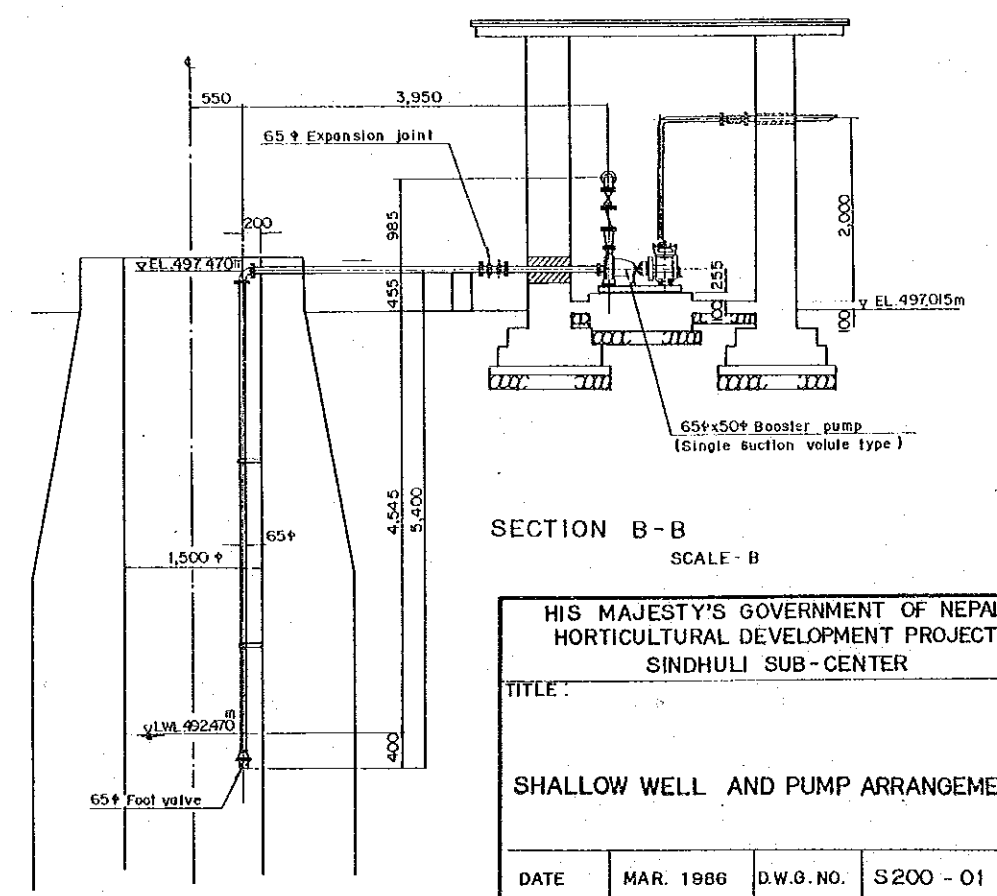
PLAN
SCALE - B



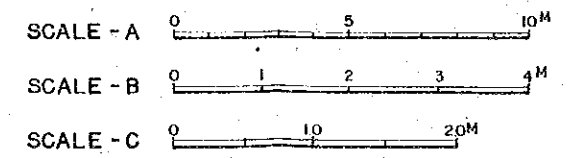
ELEVATION OF SHALLOW WELL
SCALE - A



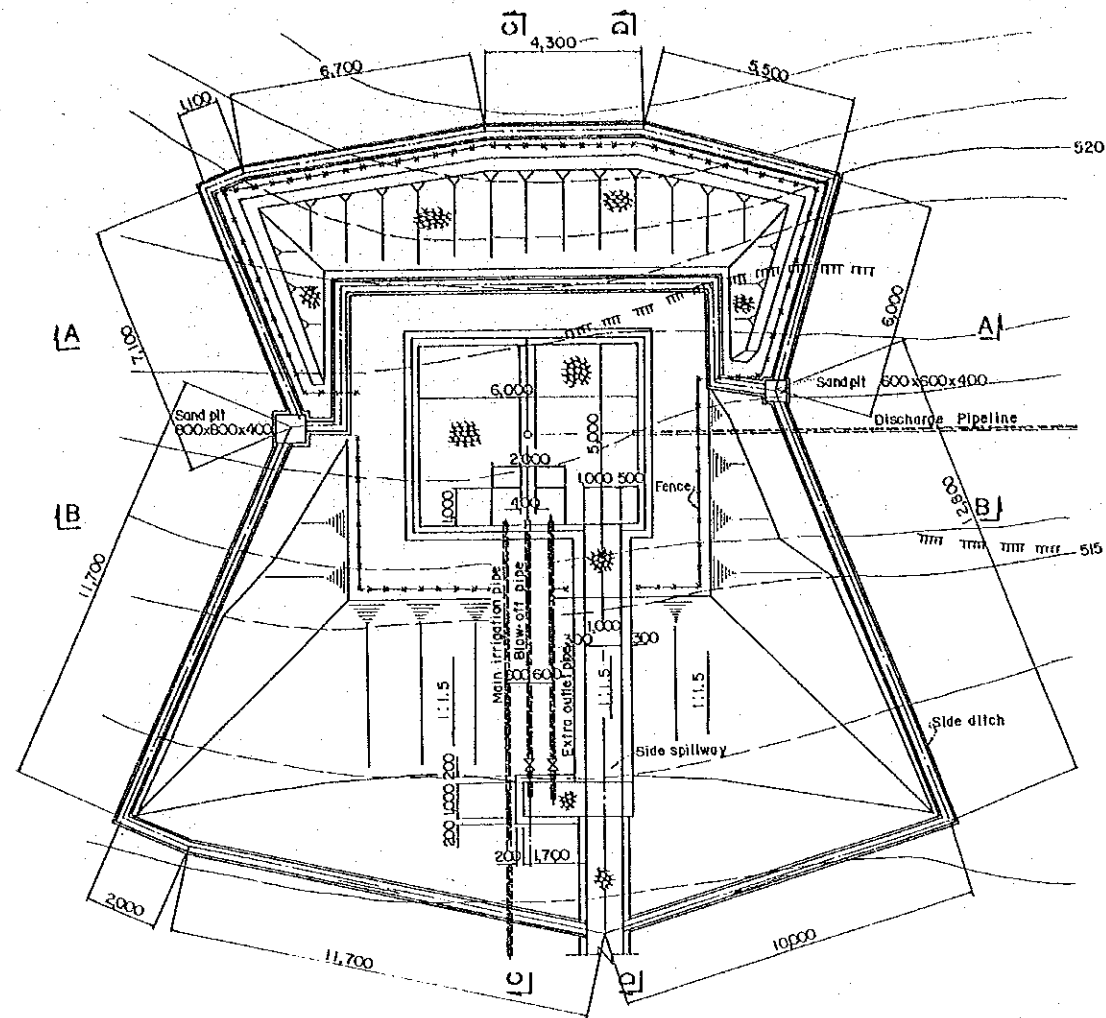
COVER BOARD
SCALE - C



SECTION B-B
SCALE - B

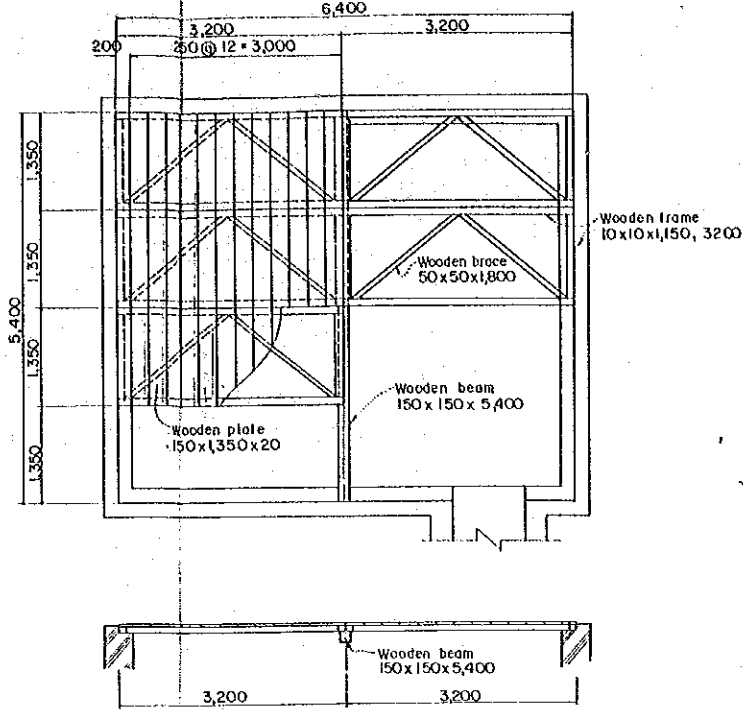


HIS MAJESTY'S GOVERNMENT OF NEPAL HORTICULTURAL DEVELOPMENT PROJECT SINDHULI SUB-CENTER			
TITLE:			
SHALLOW WELL AND PUMP ARRANGEMENT			
DATE	MAR. 1986	D.W.G. NO.	S200 - 01
JAPAN INTERNATIONAL COOPERATION AGENCY			

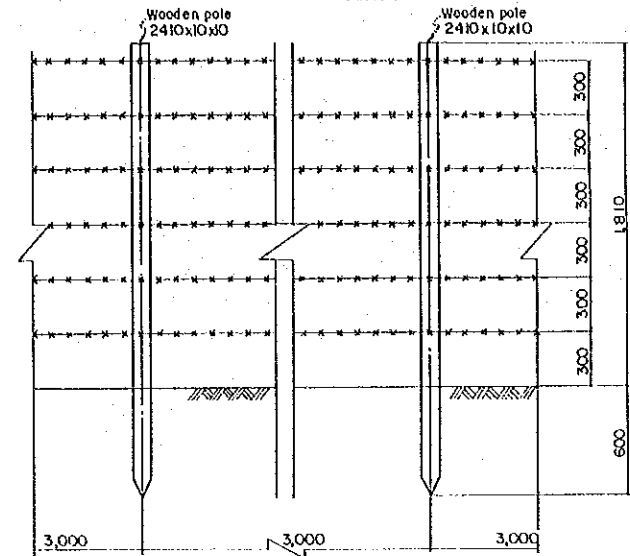


PLAN
SCALE - A

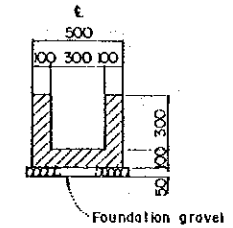
COVER BOARD
SCALE - B



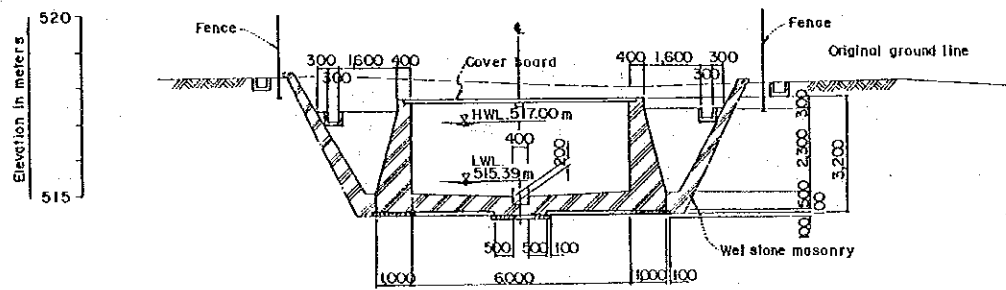
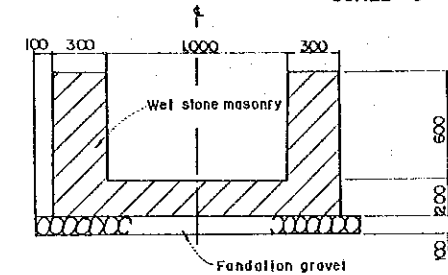
FENCE
SCALE - C



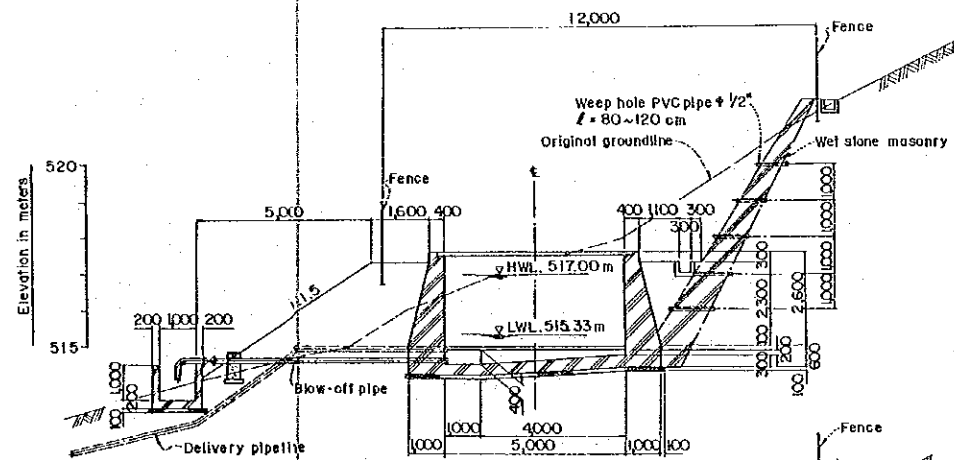
SIDE DITCH
SCALE - C



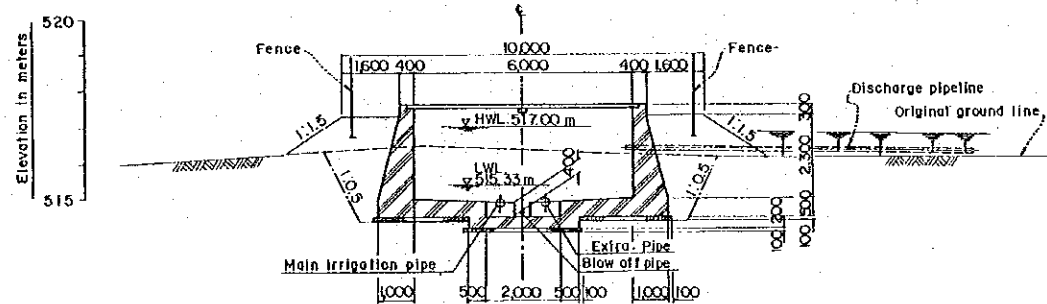
CROSS SECTION OF SPILLWAY
SCALE - C



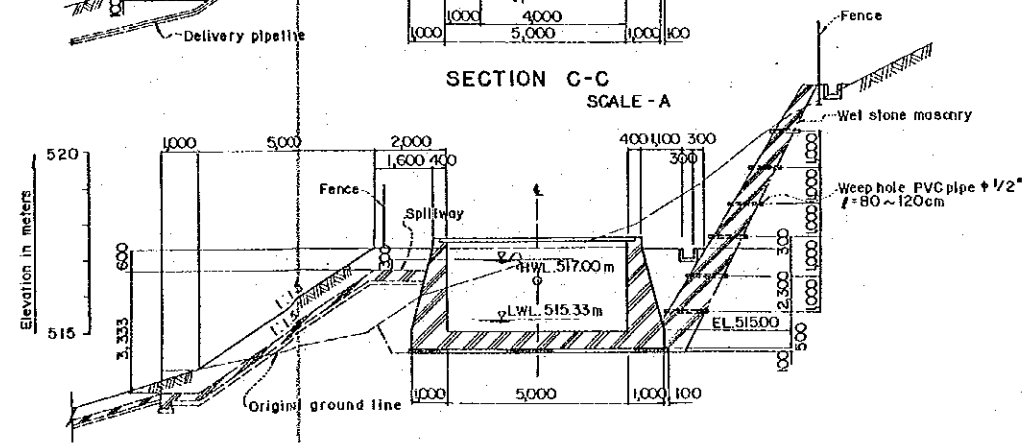
SECTION A-A
SCALE - A



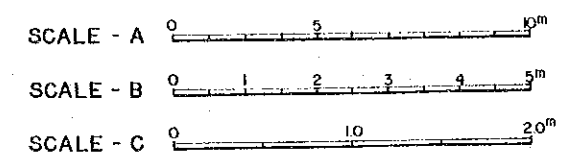
SECTION C-C
SCALE - A



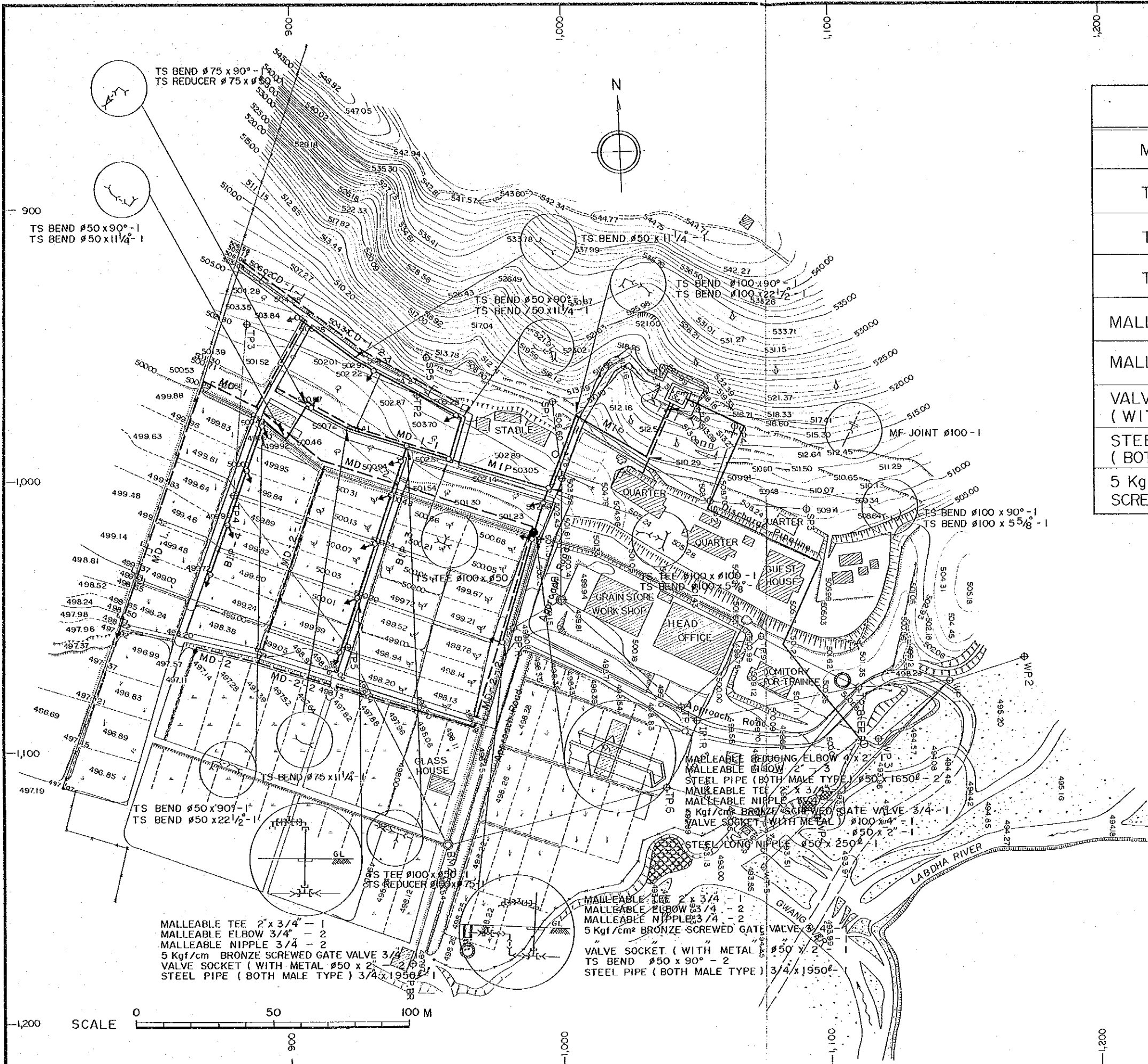
SECTION B-B
SCALE - A



SECTION D-D
SCALE - A



HIS MAJESTY'S GOVERNMENT OF NEPAL HORTICULTURAL DEVELOPMENT PROJECT SINDHULI SUB-CENTER			
TITLE: FARM POND			
DATE	MAR. 1986	D.W.G. NO.	S 200 - 02
JAPAN INTERNATIONAL COOPERATION AGENCY			



REMARKS

NAME	SYMBOL
MF JOINT	⌋
TS TEE	⌋
TS BEND	⌋
TS REDUCER	⌋
MALLEABLE TEE	⌋
MALLEABLE ELBOW	⌋
VALVE SOCKET (WITH METAL)	⌋
STEEL PIPE (BOTH MALE TYPE)	—
5 Kgf/cm² BRONZE SCREWED GATE VALVE	⌋

- MALLEABLE TEE 2" x 3/4" - 1
- MALLEABLE ELBOW 3/4" - 2
- MALLEABLE NIPPLE 3/4" - 2
- 5 Kgf/cm² BRONZE SCREWED GATE VALVE 3/4" - 1
- VALVE SOCKET (WITH METAL) 50 x 2" - 2
- STEEL PIPE (BOTH MALE TYPE) 3/4" x 1950 - 1

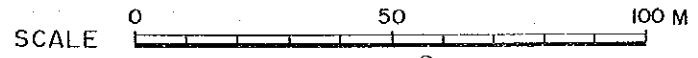
- MALLEABLE TEE 2" x 3/4" - 1
- MALLEABLE ELBOW 3/4" - 2
- MALLEABLE NIPPLE 3/4" - 2
- 5 Kgf/cm² BRONZE SCREWED GATE VALVE 3/4" - 1
- VALVE SOCKET (WITH METAL) 50 x 2" - 2
- TS BEND 50 x 90° - 2
- STEEL PIPE (BOTH MALE TYPE) 3/4" x 1950 - 1

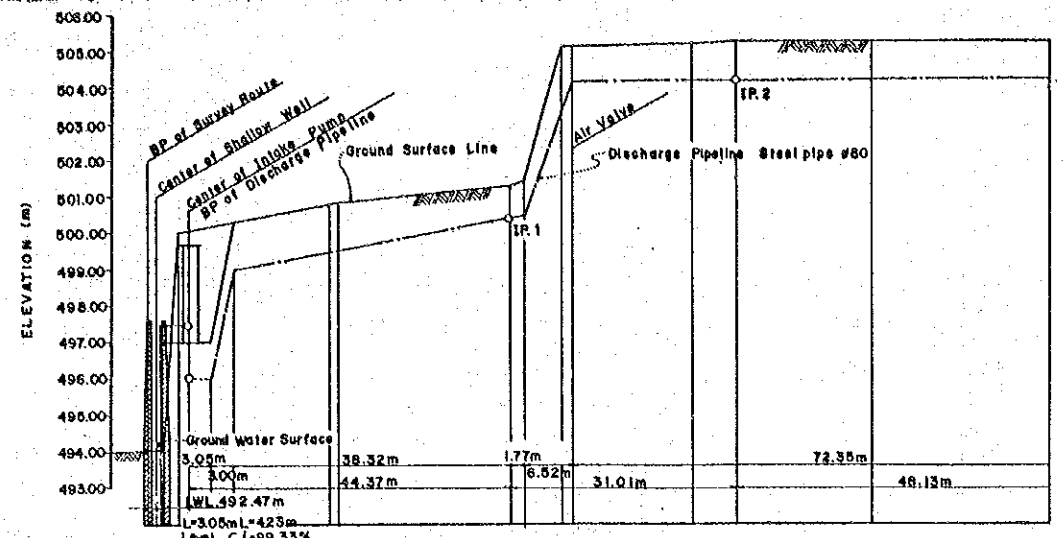
HIS MAJESTY'S GOVERNMENT OF NEPAL
 HORTICULTURAL DEVELOPMENT PROJECT
 SINDHULI SUB-CENTER

TITLE:
 PLAN OF PIPELINE
 ARRANGEMENT

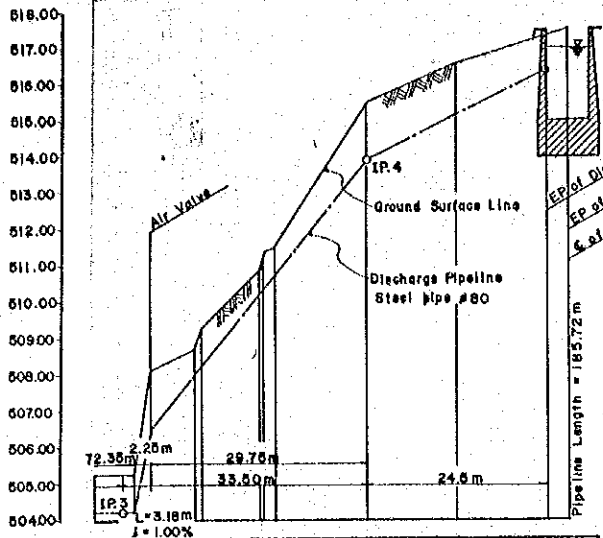
DATE: MAR. 1986 D.W.G. NO. S200 - 03

JAPAN INTERNATIONAL COOPERATION AGENCY



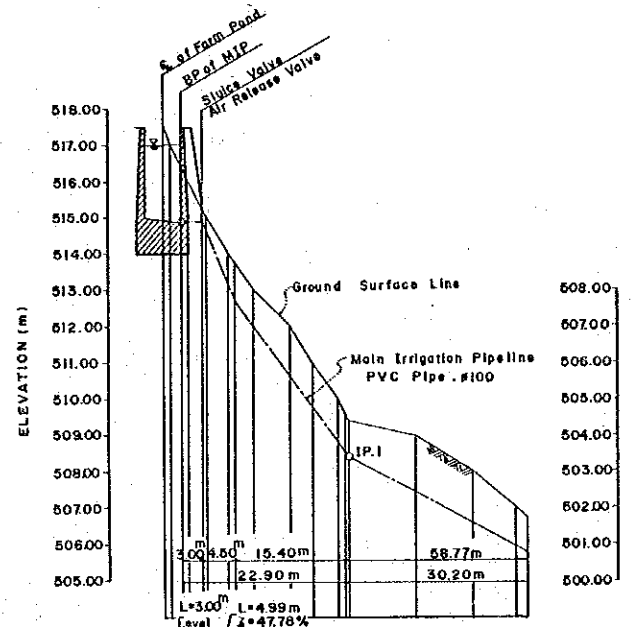
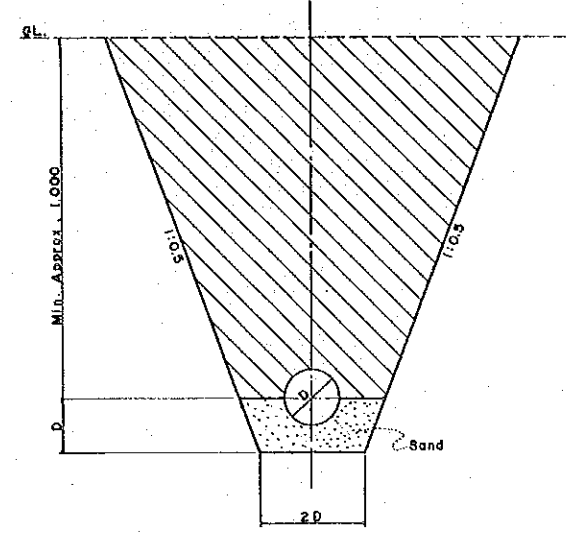


DISCHARGE PIPELINE	PIPELINE ELEVATION		REDUCED DISTANCE	DISTANCE	STATION	HORIZONTAL ANGLE
	Slope	L:Distance i:Gradient				
	493.00	493.00	0.00	0.00	BP +1.24	IA=16-15-31
	494.00	494.00	0.00	0.00	+5.74	
	496.00	496.00	0.00	0.00	+8.79	No. 1
	498.00	498.00	0.00	0.00	+11.79	
	500.00	500.00	0.00	0.00		No. 2
	501.00	501.00	0.00	0.00		
	502.00	502.00	0.00	0.00		No. 3
	503.00	503.00	0.00	0.00		
	504.00	504.00	0.00	0.00		IP-2
	505.00	505.00	0.00	0.00		
	506.00	506.00	0.00	0.00		No. 4
	507.00	507.00	0.00	0.00		
	508.00	508.00	0.00	0.00		No. 5

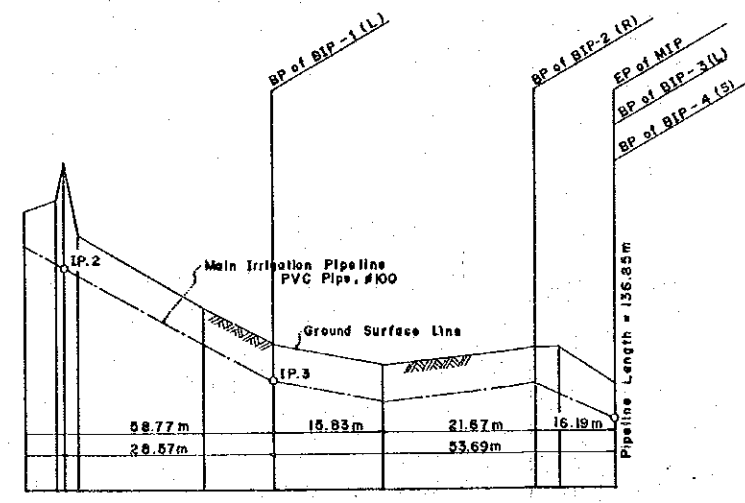


	504.00	504.00	0.00	0.00	IP-3	IA=87-33-27
	505.00	505.00	0.00	0.00		
	506.00	506.00	0.00	0.00		No. 5
	507.00	507.00	0.00	0.00		
	508.00	508.00	0.00	0.00		IP-3
	509.00	509.00	0.00	0.00		
	510.00	510.00	0.00	0.00		No. 6
	511.00	511.00	0.00	0.00		
	512.00	512.00	0.00	0.00		IP-4
	513.00	513.00	0.00	0.00		
	514.00	514.00	0.00	0.00		No. 7
	515.00	515.00	0.00	0.00		
	516.00	516.00	0.00	0.00		EP
	517.00	517.00	0.00	0.00		
	518.00	518.00	0.00	0.00		

TYPICAL SECTION OF PIPELINE

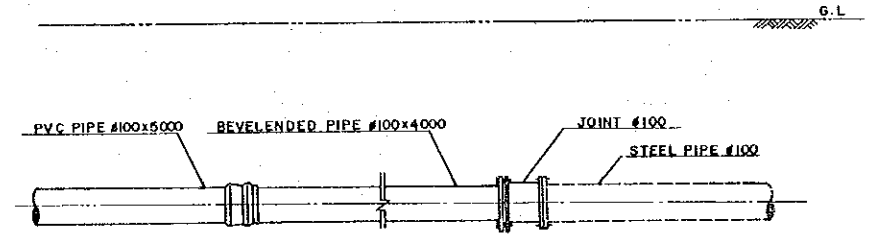


MAIN IRRIGATION PIPELINE	PIPELINE ELEVATION		REDUCED DISTANCE	DISTANCE	STATION	HORIZONTAL ANGLE
	Slope	L:Distance i:Gradient				
	505.00	505.00	0.00	0.00	BP +2.80	IA=86-27-01
	506.00	506.00	0.00	0.00	+5.50	
	507.00	507.00	0.00	0.00	+10.00	No. 1
	508.00	508.00	0.00	0.00		
	509.00	509.00	0.00	0.00		IP-1
	510.00	510.00	0.00	0.00		
	511.00	511.00	0.00	0.00		No. 2
	512.00	512.00	0.00	0.00		
	513.00	513.00	0.00	0.00		
	514.00	514.00	0.00	0.00		
	515.00	515.00	0.00	0.00		
	516.00	516.00	0.00	0.00		
	517.00	517.00	0.00	0.00		
	518.00	518.00	0.00	0.00		



	500.00	500.00	0.00	0.00	IP-2	IA=80-03-32
	501.00	501.00	0.00	0.00		
	502.00	502.00	0.00	0.00		No. 3
	503.00	503.00	0.00	0.00		
	504.00	504.00	0.00	0.00		IP-3
	505.00	505.00	0.00	0.00		
	506.00	506.00	0.00	0.00		No. 4
	507.00	507.00	0.00	0.00		
	508.00	508.00	0.00	0.00		EP
	509.00	509.00	0.00	0.00		

CONNECTION OF STEEL PIPE AND PVC PIPE



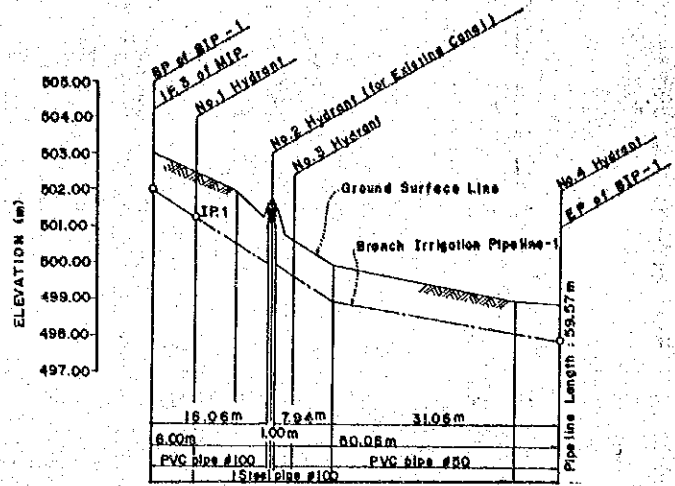
Note: Pipes, Valves and Fitting shall be Provided by the Client

HIS MAJESTY'S GOVERNMENT OF NEPAL
 HORTICULTURAL DEVELOPMENT PROJECT
 SINDHULI SUB-CENTER

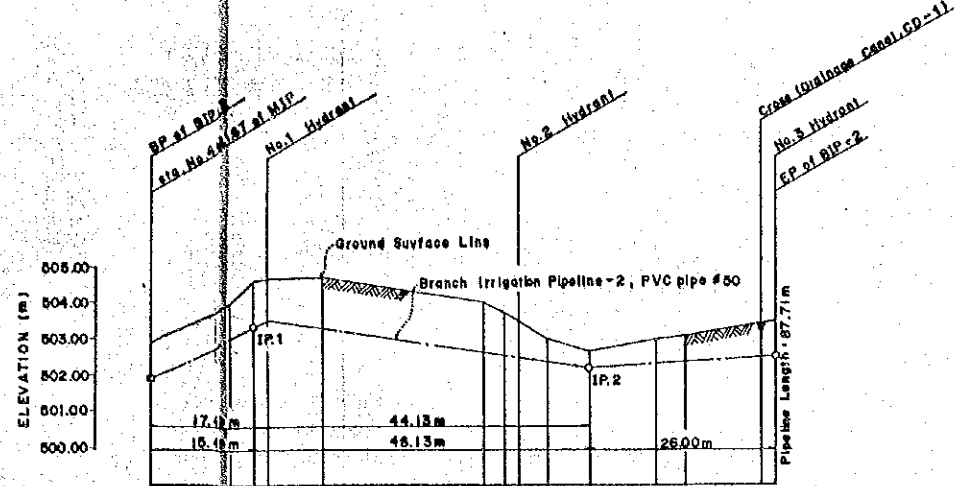
TITLE:
**PROFILE (1/2)
 DISCHARGE PIPELINE, MIP**

DATE	MAR. 1986	D.W.G. NO.	N 200 - 04
------	-----------	------------	------------

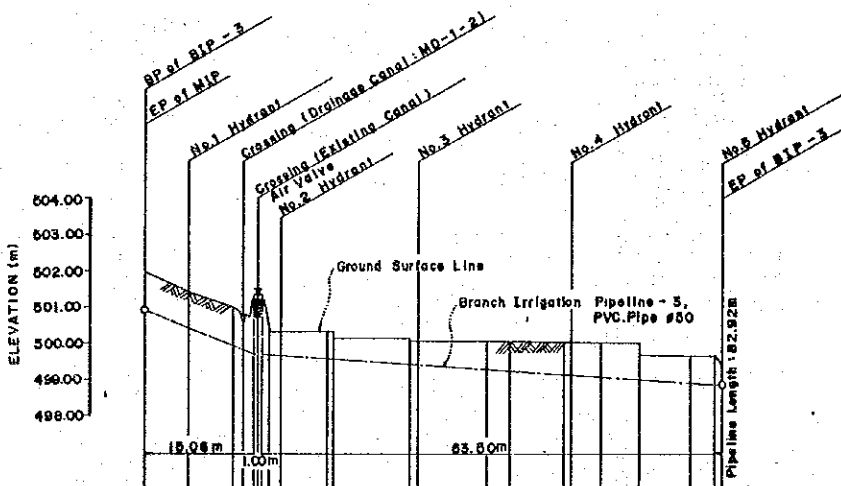
JAPAN INTERNATIONAL COOPERATION AGENCY



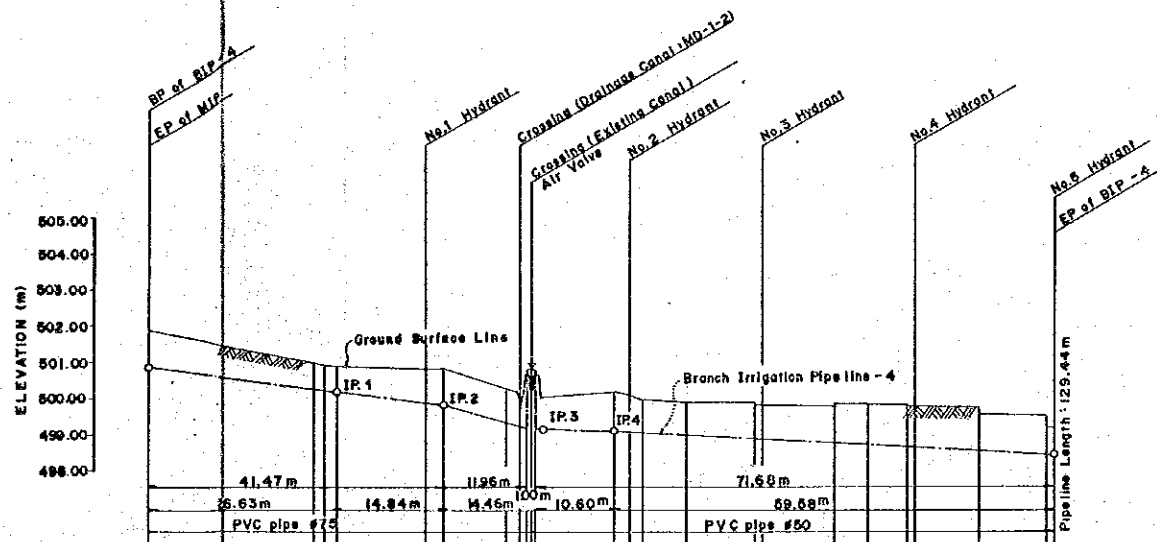
BRANCH IRRIGATION PIPELINE - 1	PIPELINE ELEVATION	Slope L:Distance i:Gradient				
	GROUND SURFACE ELEVATION	503.00	502.48	502.00	501.70	499.00
	REDUCED DISTANCE	0.00	6.00	11.50	19.44	50.00
	DISTANCE	0.00	6.00	5.90	3.00	25.00
	STATION	BP	IP-1	No. 1	No. 2	EP
	HORIZONTAL ANGLE	IA=176-37-13				



BRANCH IRRIGATION PIPELINE - 2	PIPELINE ELEVATION	Slope L:Distance i:Gradient				
	GROUND SURFACE ELEVATION	503.00	504.00	504.70	503.50	503.50
	REDUCED DISTANCE	0.00	12.50	56.62	61.62	85.29
	DISTANCE	0.00	11.50	2.99	2.00	10.59
	STATION	BP	IP-1	No. 1	No. 2	EP
	HORIZONTAL ANGLE	IA=104-23-19				



BRANCH IRRIGATION PIPELINE - 3	PIPELINE ELEVATION	Slope L:Distance i:Gradient				
	GROUND SURFACE ELEVATION	501.90	501.43	501.00	500.13	498.50
	REDUCED DISTANCE	0.00	6.00	12.00	20.00	75.50
	DISTANCE	0.00	6.00	6.00	8.00	7.50
	STATION	BP	IP-1	No. 1	No. 2	EP
	HORIZONTAL ANGLE	IA=166-38-46				



BRANCH IRRIGATION PIPELINE - 4	PIPELINE ELEVATION	Slope L:Distance i:Gradient				
	GROUND SURFACE ELEVATION	501.90	501.00	500.87	500.20	499.95
	REDUCED DISTANCE	0.00	23.90	39.47	56.53	84.80
	DISTANCE	0.00	23.90	1.57	2.00	1.11
	STATION	BP	IP-1	IP-2	No. 3	EP
	HORIZONTAL ANGLE	IA=70-36-46				

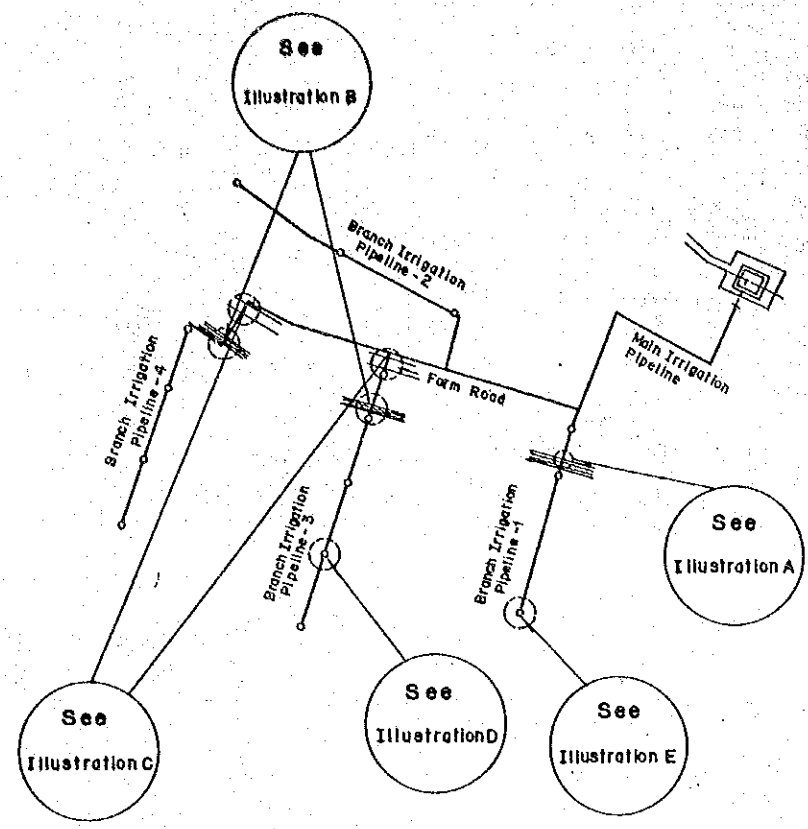
Note: Pipes, Valves and Fittings shall be Provided by the Client.

HIS MAJESTY'S GOVERNMENT OF NEPAL
 HORTICULTURAL DEVELOPMENT PROJECT
 SINDHULI SUB-CENTER

TITLE:
 PROFILE (2/2)
 BIP

DATE: MAR. 1986 D.W.G. NO. N200-05

JAPAN INTERNATIONAL COOPERATION AGENCY



SCHEMA OF PIPELINE SYSTEM

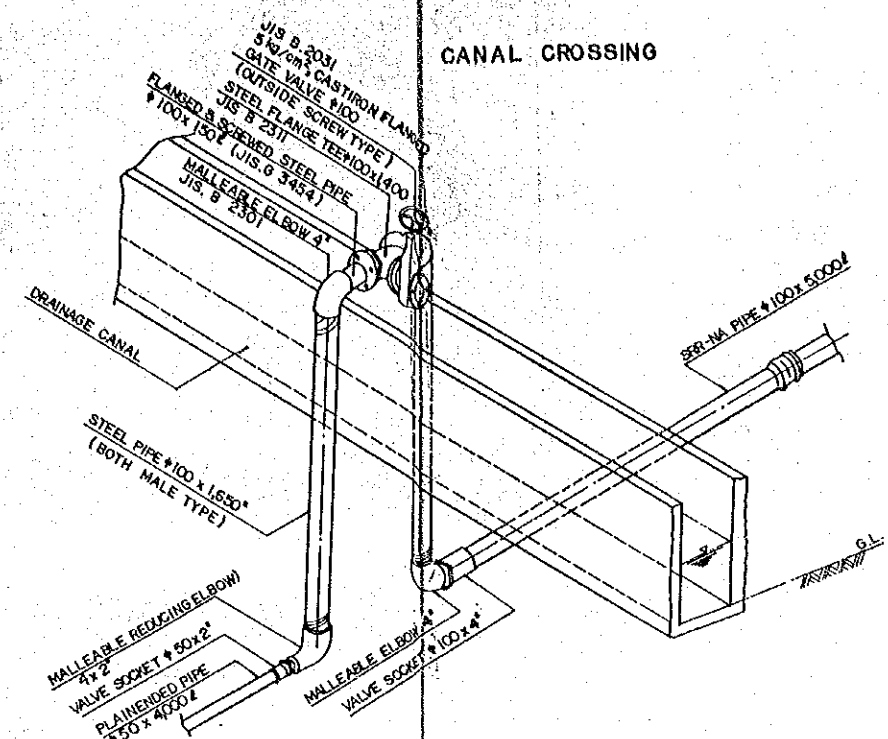


ILLUSTRATION A

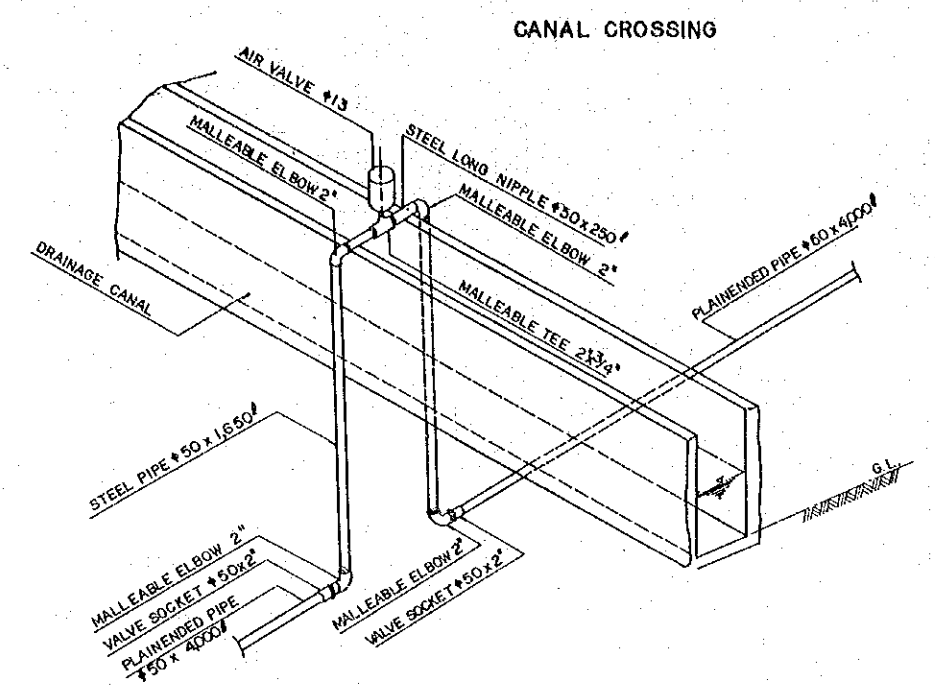


ILLUSTRATION B

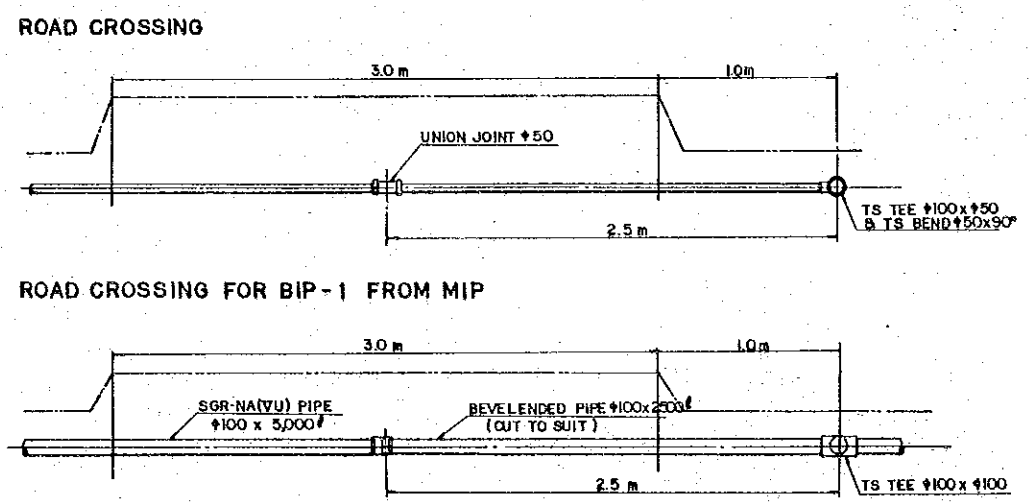


ILLUSTRATION C

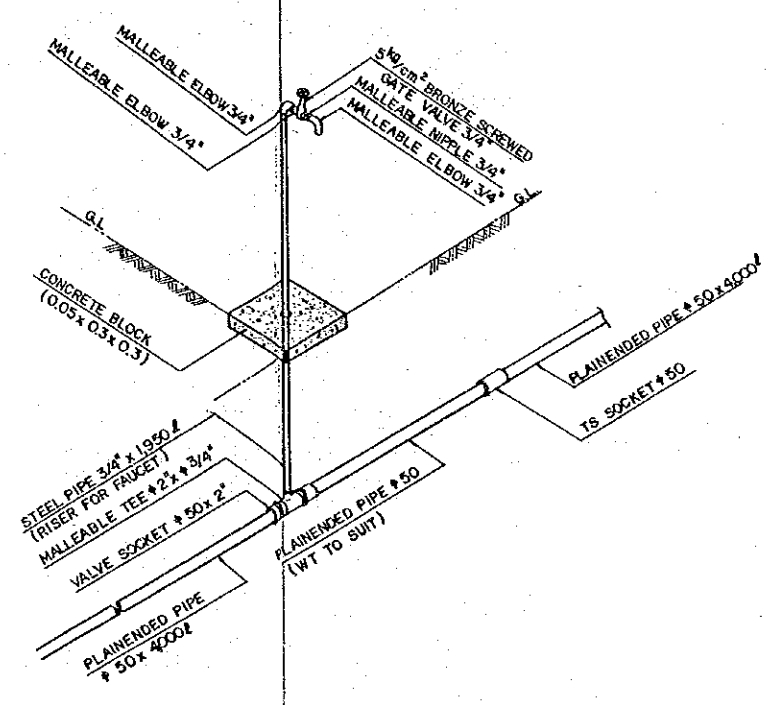


ILLUSTRATION D

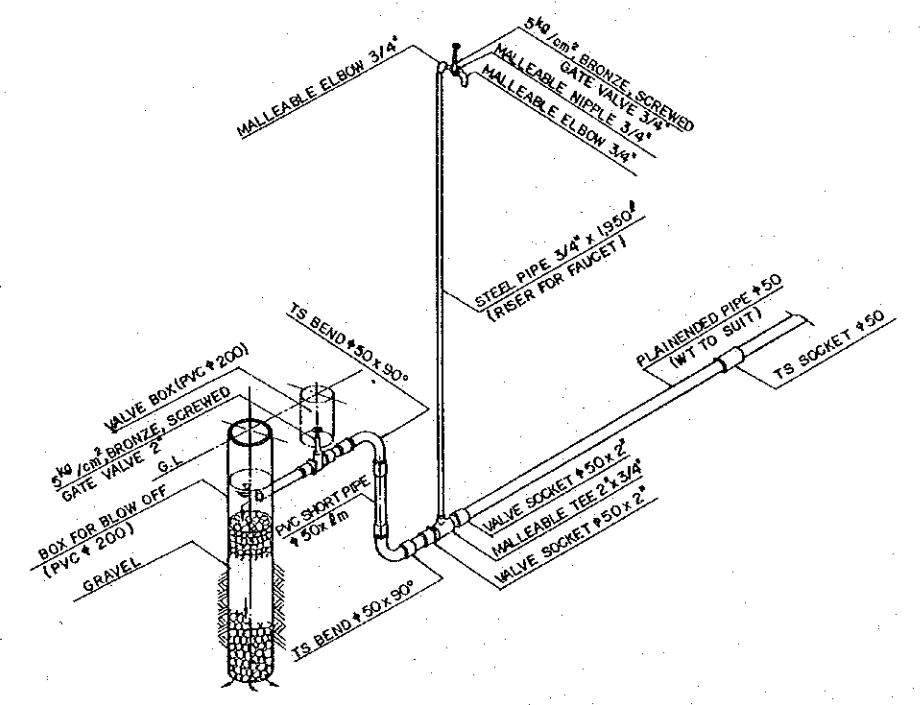
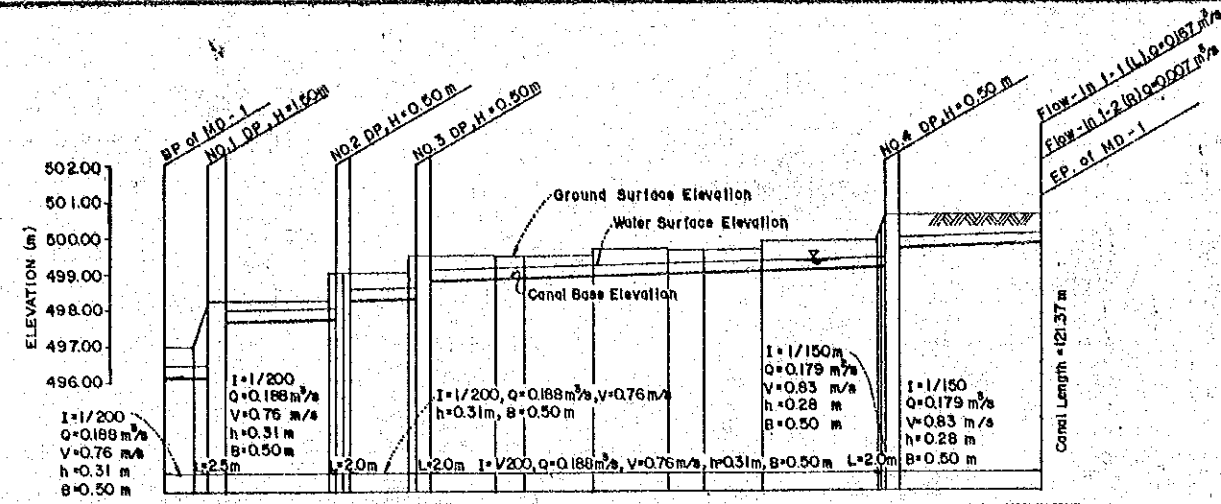


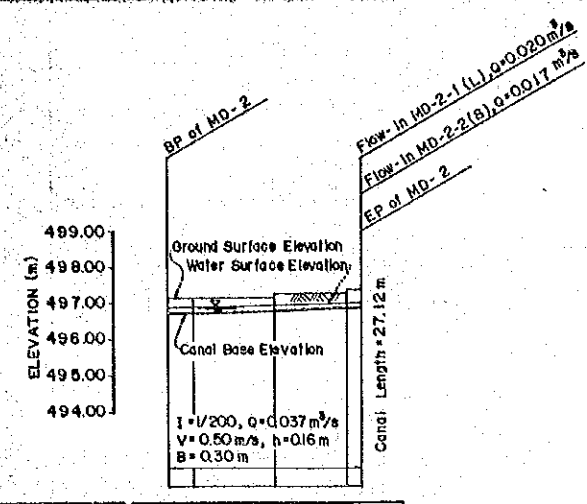
ILLUSTRATION E

Note: Pipes, Valves and Fillings shall be provided by the Client.

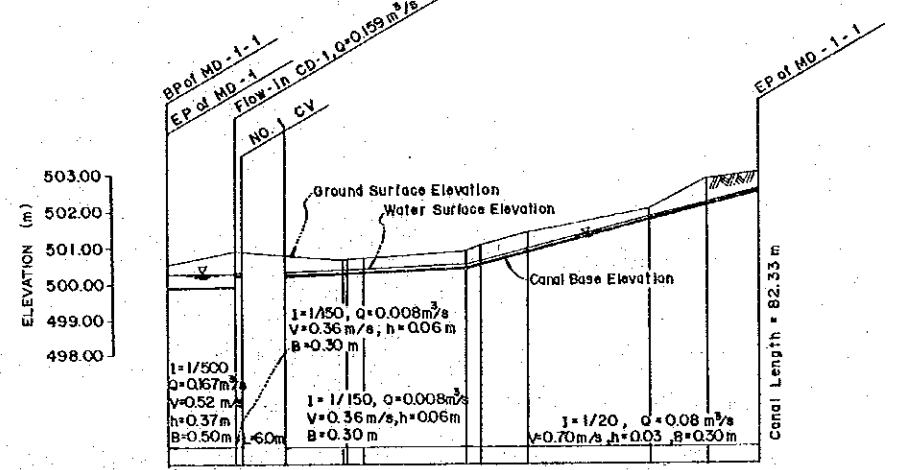
HIS MAJESTY'S GOVERNMENT OF NEPAL HORTICULTURAL DEVELOPMENT PROJECT SINDHULI SUB-CENTER			
TITLE: PIPE ARRANGEMENT OF PIPELINE IRRIGATION SYSTEM			
DATE	MAR. 1986	D.W.G. NO.	S 200 - 06
JAPAN INTERNATIONAL COOPERATION AGENCY			



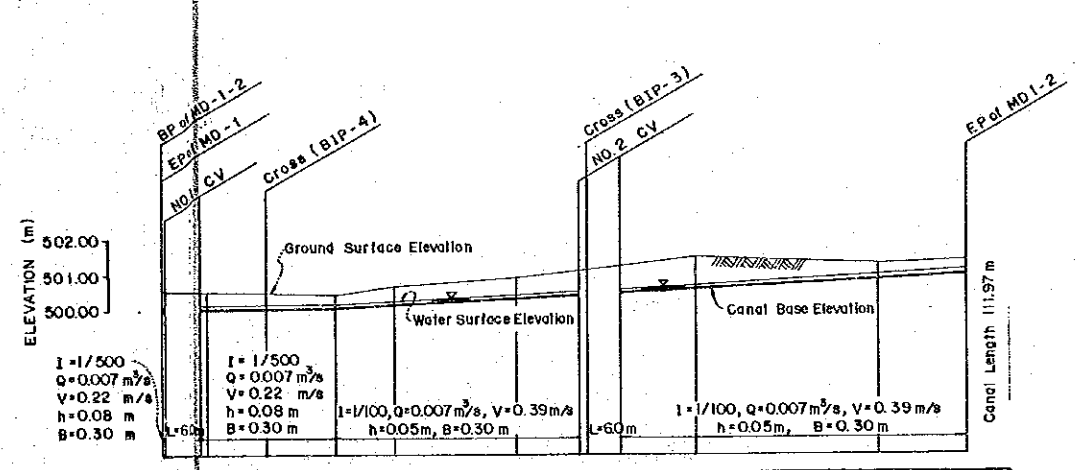
MAIN DRAIN - 1	CANAL BASE ELEVATION		WATER SURFACE ELEVATION		GROUND SURFACE ELEVATION		REDUCED DISTANCE		DISTANCE		STATION		CURVE
	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	
	496.13	496.44	496.44	496.44	496.99	496.44	0.00	0.00	0.00	0.00	BP	499.75	IA-82-34-D
	496.15	496.46	496.46	496.46	496.99	496.46	4.00	4.00	4.00	+4.00	499.75		
	496.16	496.47	496.47	496.47	496.99	496.47	6.00	6.00	6.00	+6.00	499.75		
	496.24	496.55	496.55	496.55	498.24	496.55	8.50	8.50	8.50	+8.50	499.75		
	497.73	498.04	498.04	498.04	498.24	498.04	14.50	14.50	14.50	+14.50	499.75		
	498.24	498.55	498.55	498.55	498.24	498.55	23.00	23.00	23.00	+23.00	499.75		
	498.24	498.55	498.55	498.55	498.24	498.55	26.00	26.00	26.00	+26.00	499.75		
	498.24	498.55	498.55	498.55	498.24	498.55	32.00	32.00	32.00	+32.00	499.75		
	498.24	498.55	498.55	498.55	498.24	498.55	37.00	37.00	37.00	+37.00	499.75		
	498.84	499.15	499.15	499.15	498.84	499.15	46.00	46.00	46.00	+46.00	499.75		
	498.84	499.15	499.15	499.15	498.84	499.15	50.00	50.00	50.00	+50.00	499.75		
	498.84	499.15	499.15	499.15	498.84	499.15	59.50	59.50	59.50	+59.50	499.75		
	498.96	499.27	499.27	499.27	498.96	499.27	70.00	70.00	70.00	+70.00	499.75		
	498.96	499.27	499.27	499.27	498.96	499.27	75.00	75.00	75.00	+75.00	499.75		
	499.02	499.33	499.33	499.33	499.02	499.33	83.00	83.00	83.00	+83.00	499.75		
	499.02	499.33	499.33	499.33	499.02	499.33	99.00	99.00	99.00	+99.00	499.75		
	499.02	499.33	499.33	499.33	499.02	499.33	106.00	106.00	106.00	+106.00	499.75		
	499.02	499.33	499.33	499.33	499.02	499.33	102.00	102.00	102.00	+102.00	499.75		
	499.02	499.33	499.33	499.33	499.02	499.33	121.37	121.37	121.37	+121.37	499.75		



MAIN DRAIN - 2	CANAL BASE ELEVATION		WATER SURFACE ELEVATION		GROUND SURFACE ELEVATION		REDUCED DISTANCE		DISTANCE		STATION		CURVE
	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	
	496.74	496.74	496.74	496.74	497.14	496.74	0.00	0.00	0.00	0.00	BP	496.88	IA-98-08-57
	496.75	496.75	496.75	496.75	497.14	496.75	3.62	3.62	3.62	IP.1	496.88		
	496.82	496.82	496.82	496.82	497.28	496.82	15.00	15.00	15.00	+15.00	496.88		
	496.87	496.87	496.87	496.87	497.28	496.87	25.00	25.00	25.00	+25.00	496.88		
	496.88	496.88	496.88	496.88	497.28	496.88	27.12	27.12	27.12	+27.12	496.88		



MINOR DRAIN - 1-1	CANAL BASE ELEVATION		WATER SURFACE ELEVATION		GROUND SURFACE ELEVATION		REDUCED DISTANCE		DISTANCE		STATION		CURVE
	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	
	499.86	499.86	500.25	499.86	500.51	499.86	0.00	0.00	0.00	0.00	BP.0	502.48	IA-85-36-25, IA-135-00-00, IA-166-38-46
	499.90	499.90	500.25	499.90	500.51	499.90	9.50	9.50	9.50	IP.1	502.48		
	499.90	499.90	500.25	499.90	500.51	499.90	10.50	10.50	10.50	+10.50	502.48		
	500.22	500.22	500.31	500.22	500.51	500.22	16.50	16.50	16.50	+16.50	502.48		
	500.25	500.25	500.31	500.25	500.51	500.25	24.50	24.50	24.50	+24.50	502.48		
	500.30	500.30	500.31	500.30	500.51	500.30	27.50	27.50	27.50	+27.50	502.48		
	500.32	500.32	500.31	500.32	500.51	500.32	41.33	41.33	41.33	+41.33	502.48		
	500.42	500.42	500.31	500.42	500.51	500.42	43.33	43.33	43.33	+43.33	502.48		
	500.53	500.53	500.31	500.53	500.51	500.53	50.00	50.00	50.00	+50.00	502.48		
	500.86	500.86	500.85	500.86	501.36	500.86	67.00	67.00	67.00	+67.00	502.48		
	501.71	501.71	501.74	501.71	502.00	501.71	75.00	75.00	75.00	+75.00	502.48		
	502.11	502.11	502.14	502.11	502.80	502.11	82.33	82.33	82.33	+82.33	502.48		
	502.48	502.48	502.51	502.48	503.00	502.48					EP		



MINOR DRAIN - 1-2	CANAL BASE ELEVATION		WATER SURFACE ELEVATION		GROUND SURFACE ELEVATION		REDUCED DISTANCE		DISTANCE		STATION		CURVE
	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	
	500.02	500.02	500.18	500.02	500.38	500.02	0.00	0.00	0.00	0.00	BP.0	500.95	IA-66-48-13, IA-158-48-13
	500.03	500.03	500.18	500.03	500.38	500.03	1.06	1.06	1.06	IP.1	500.95		
	500.07	500.07	500.15	500.07	500.47	500.07	7.74	7.74	7.74	+7.74	500.95		
	500.09	500.09	500.17	500.09	500.45	500.09	25.00	25.00	25.00	+25.00	500.95		
	500.11	500.11	500.16	500.11	500.45	500.11	32.98	32.98	32.98	+32.98	500.95		
	500.19	500.19	500.24	500.19	500.68	500.19	50.00	50.00	50.00	+50.00	500.95		
	500.36	500.36	500.41	500.36	500.90	500.36	58.73	58.73	58.73	+58.73	500.95		
	500.45	500.45	500.50	500.45	501.09	500.45	64.73	64.73	64.73	+64.73	500.95		
	500.48	500.48	500.53	500.48	501.22	500.48	75.00	75.00	75.00	+75.00	500.95		
	500.55	500.55	500.63	500.55	501.45	500.55	100.00	100.00	100.00	+100.00	500.95		
	500.83	500.83	500.88	500.83	501.22	500.83	111.97	111.97	111.97	+111.97	500.95		
	500.95	500.95	501.00	500.95	501.30	500.95					EP		

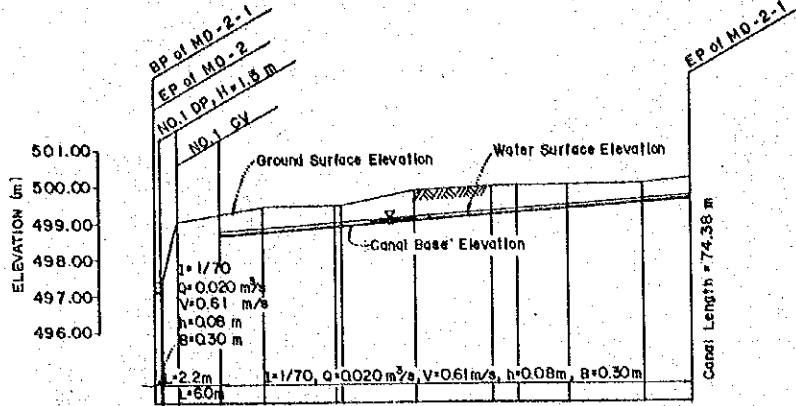
DP : Drainage Drop
CV : Drainage Culvert

HIS MAJESTY'S GOVERNMENT OF NEPAL
HORTICULTURAL DEVELOPMENT PROJECT
SINDHULI SUB-CENTER

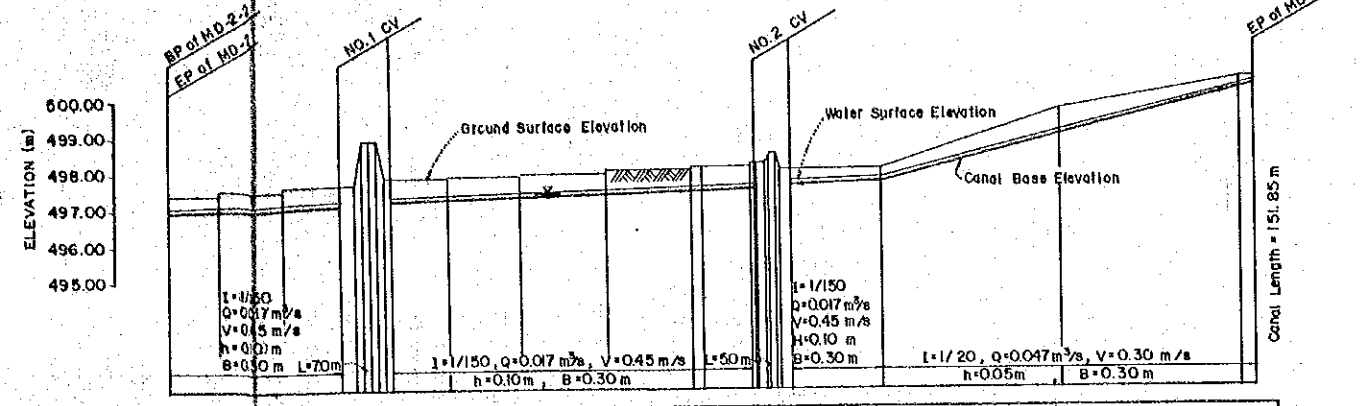
TITLE:
PROFILE (1/2)
MD - 1 , MD - 2
MD - 1-1, MD - 1-2

DATE	MAR. 1986	D.W.G. NO.	S 300 - 01
------	-----------	------------	------------

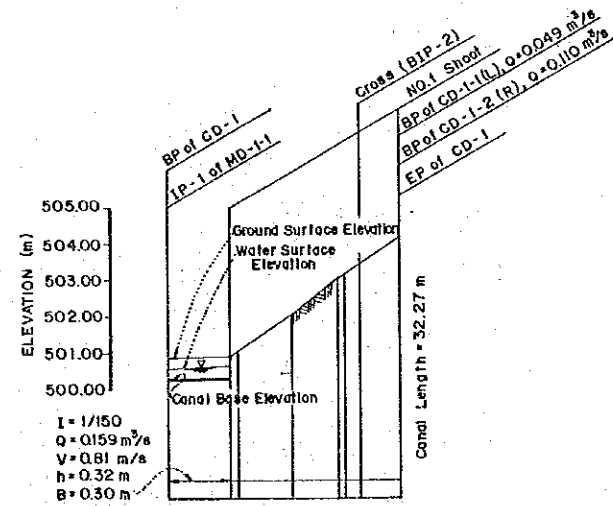
JAPAN INTERNATIONAL COOPERATION AGENCY



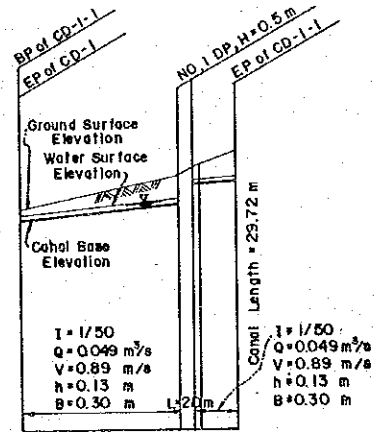
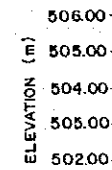
MINOR DRAIN - 2 - 1	CANAL BASE ELEVATION	497.13	498.63	498.86	498.74	498.83	498.74	498.85	498.69	498.50	499.05	499.20	499.28	499.20	499.25	499.35	499.43	499.50	499.59	
	WATER SURFACE ELEVATION	497.21	498.71	498.86	498.74	498.83	498.74	498.85	498.69	498.50	499.05	499.20	499.28	499.20	499.25	499.35	499.43	499.50	499.59	
	GROUND SURFACE ELEVATION	497.39	498.89	499.00	499.20	499.40	499.40	499.47	499.47	499.47	499.51	499.58	499.65	499.72	499.75	499.80	499.85	499.90	499.95	
	REDUCED DISTANCE	0.00	3.00	6.00	9.00	15.00	25.00	26.00	36.00	46.50	50.00	57.00	67.50	74.38						
	DISTANCE	0.00	3.00	6.00	9.00	15.00	25.00	26.00	36.00	46.50	50.00	57.00	67.50	74.38						
	STATION	BP	+3.00	+6.00	+9.00	+15.00	NO. 1	+1.00	+1.00	+1.00	+1.00	+1.00	+1.50	EP						
	CURVE	-----																		



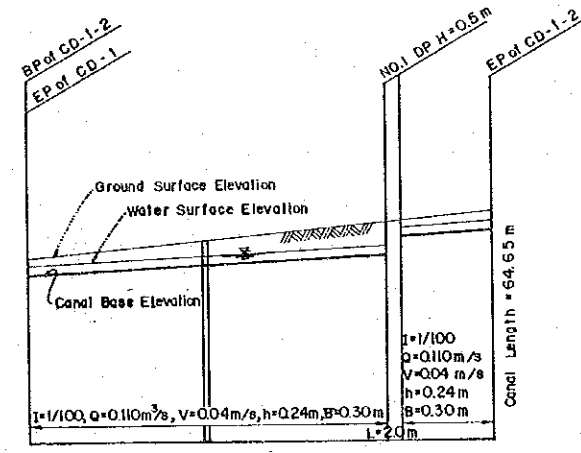
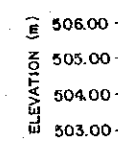
MINOR DRAIN - 2 - 2	CANAL BASE ELEVATION	497.05	497.10	497.17	497.22	497.25	497.30	497.36	497.44	497.52	497.53	497.58	497.61	497.70	497.72	498.04	498.97	500.31		
	WATER SURFACE ELEVATION	497.15	497.20	497.27	497.32	497.35	497.40	497.46	497.54	497.62	497.63	497.68	497.71	497.80	497.82	498.14	499.07	500.41		
	GROUND SURFACE ELEVATION	497.59	497.52	497.52	497.53	497.53	497.58	497.58	497.56	497.56	497.56	497.56	497.56	497.56	497.56	498.04	499.07	500.41		
	REDUCED DISTANCE	0.00	7.00	17.00	22.00	25.00	40.00	50.00	62.00	73.50	75.00	80.00	81.50	100.00	125.00	150.00	151.85			
	DISTANCE	0.00	7.00	17.00	22.00	25.00	40.00	50.00	62.00	73.50	75.00	80.00	81.50	100.00	125.00	150.00	151.85			
	STATION	BP	+7.00	+17.00	+22.00	+25.00	+45.00	NO. 2	+2.00	+12.00	+25.00	NO. 3	+1.50	NO. 4	+1.85	NO. 5	NO. 6	EP		
	CURVE	----- IA=90-36-00																		



CATCH DRAIN - 1	CANAL BASE ELEVATION	500.24	500.30	503.30
	WATER SURFACE ELEVATION	500.56	500.62	503.65
	GROUND SURFACE ELEVATION	500.88	501.30	504.10
	REDUCED DISTANCE	0.00	8.80	32.27
	DISTANCE	0.00	8.80	32.27
	STATION	BP	+8.80	+7.27
	CURVE	-----		



CATCH DRAIN - 1 - 1	CANAL BASE ELEVATION	503.77	504.21	504.75
	WATER SURFACE ELEVATION	503.90	504.34	504.88
	GROUND SURFACE ELEVATION	504.10	505.30	505.66
	REDUCED DISTANCE	0.00	22.00	29.72
	DISTANCE	0.00	22.00	29.72
	STATION	BP	+22.00	+4.72
	CURVE	-----		



CATCH DRAIN - 1 - 2	CANAL BASE ELEVATION	503.66	503.90	504.14	504.16	504.66
	WATER SURFACE ELEVATION	503.90	504.14	504.15	504.40	504.66
	GROUND SURFACE ELEVATION	504.10	504.55	504.56	505.03	505.30
	REDUCED DISTANCE	0.00	24.30	25.00	50.00	64.65
	DISTANCE	0.00	24.30	25.00	50.00	64.65
	STATION	BP	+24.30	+2.70	NO. 2	EP
	CURVE	----- IA=70-40-05				

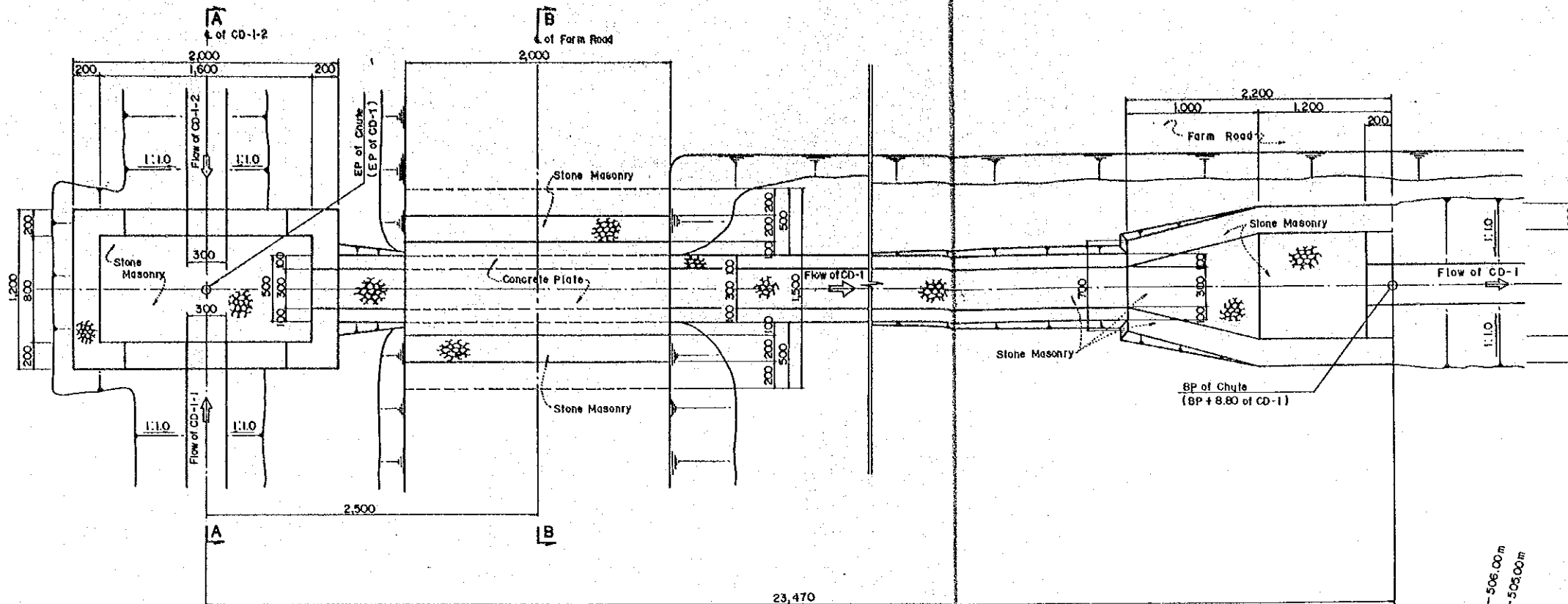
DP : Drainage Drop
CV : Drainage Culvert

HIS MAJESTY'S GOVERNMENT OF NEPAL
HORTICULTURAL DEVELOPMENT PROJECT
SINDHULI SUB-CENTER

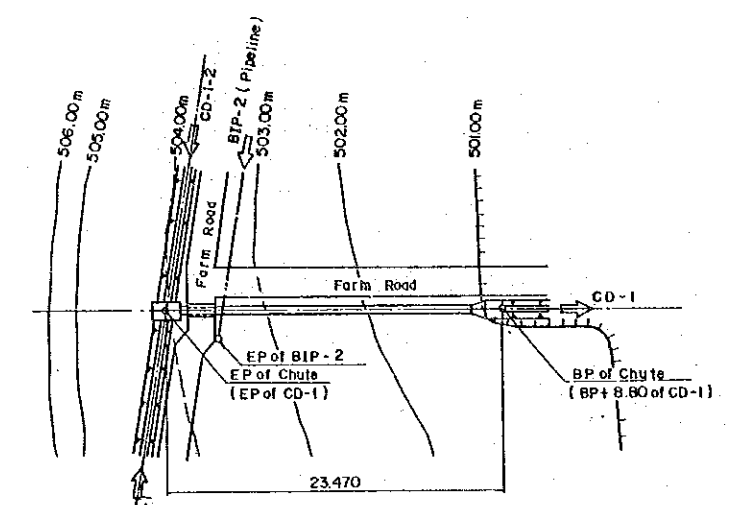
TITLE :
PROFILE (2/2)
MD-2-1, MD-2-2
CD-1, CD-1-1, CD-1-2

DATE	MAR. 1986	D.W.G. NO.	S 300 - 02
------	-----------	------------	------------

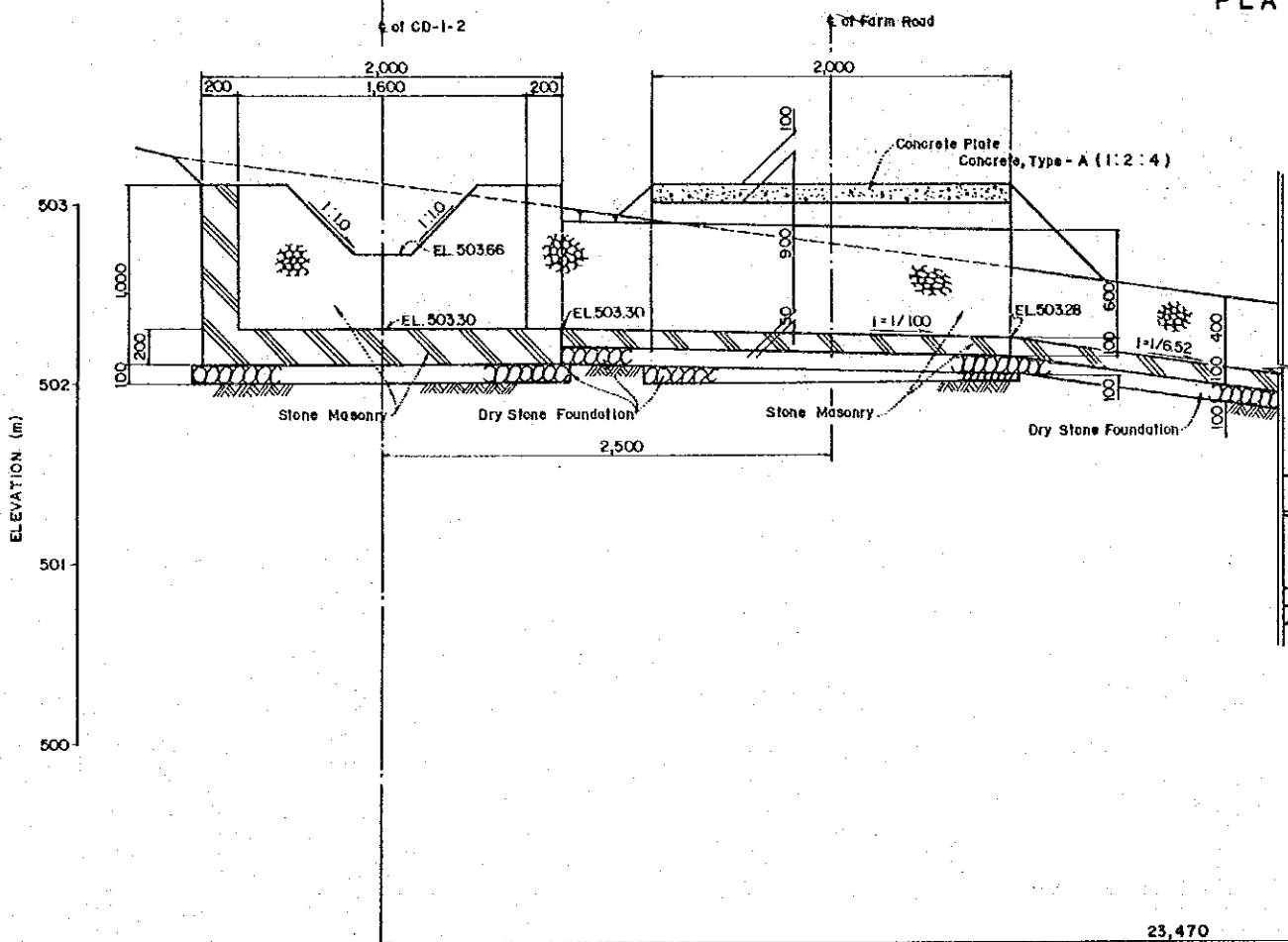
JAPAN INTERNATIONAL COOPERATION AGENCY



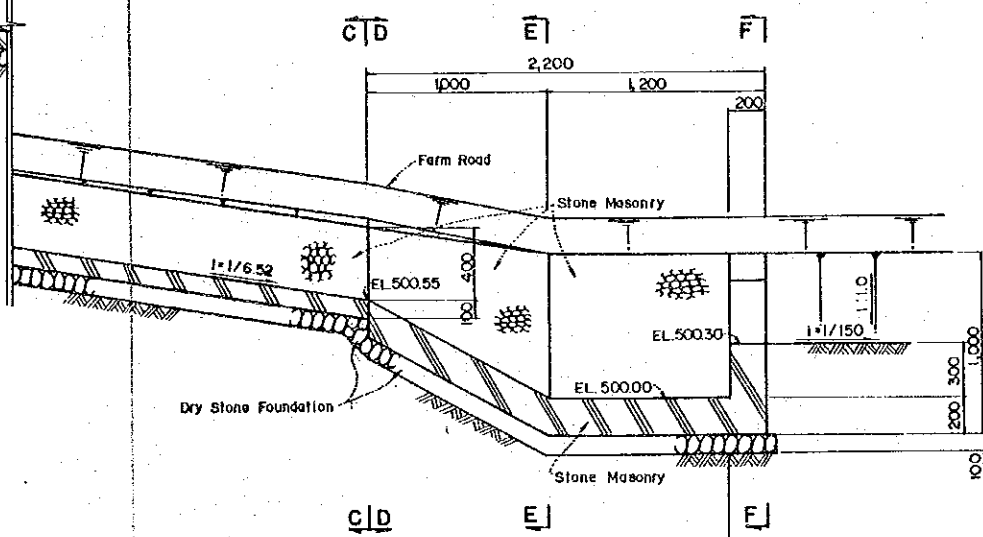
PLAN SCALE - A



KEY PLAN SCALE - B



PROFILE SCALE - A

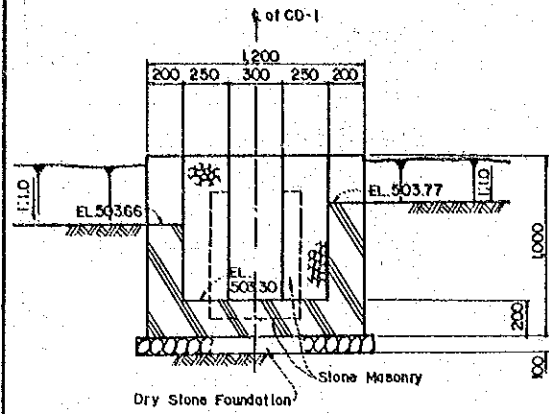


SCALE - A 0 1m

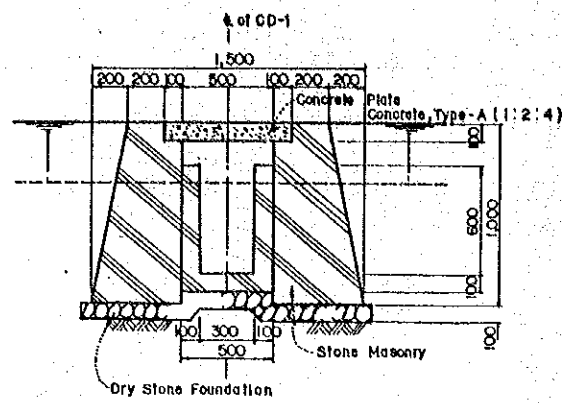
SCALE - B 0 10m

HIS MAJESTY'S GOVERNMENT OF NEPAL HORTICULTURAL DEVELOPMENT PROJECT SINDHULI SUB-CENTER			
TITLE: CHUTE ON CD - 1 (1/2)			
DATE	MAR. 1986	D.W.O. NO.	S 300 - 03
JAPAN INTERNATIONAL COOPERATION AGENCY			

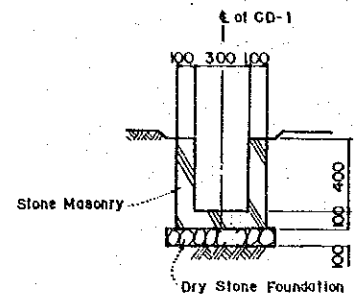
CHUTE ON CD-1 (2/2)



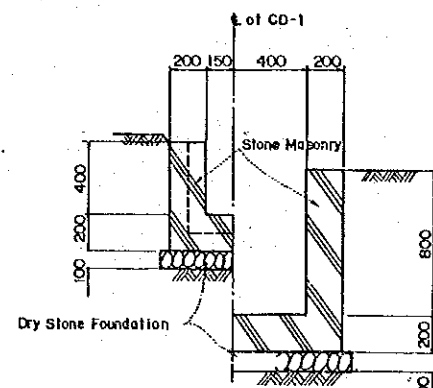
SECTION A-A
SCALE-A



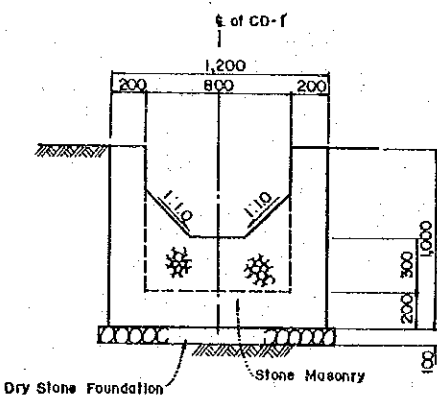
SECTION B-B
SCALE-A



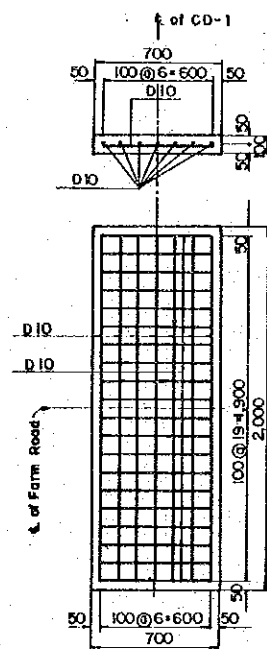
SECTION C-C
SCALE-A



SECTION D-E
SCALE-A

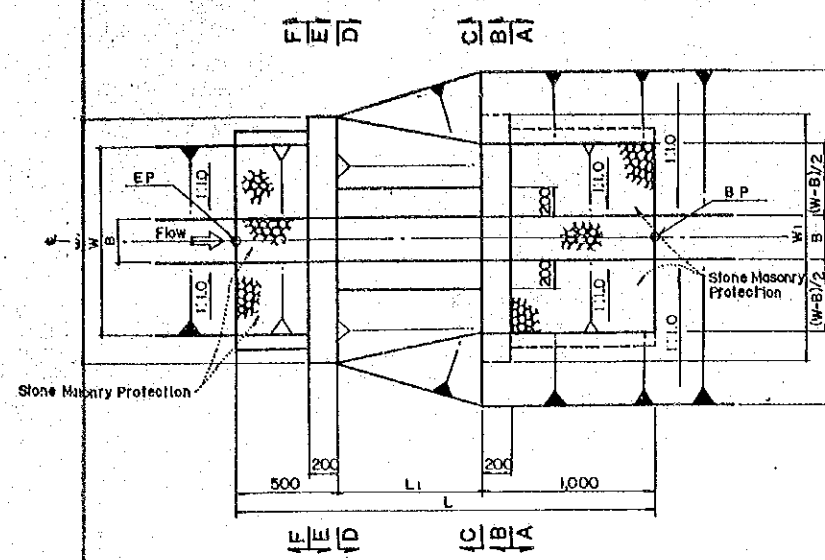


SECTION F-F
SCALE-A

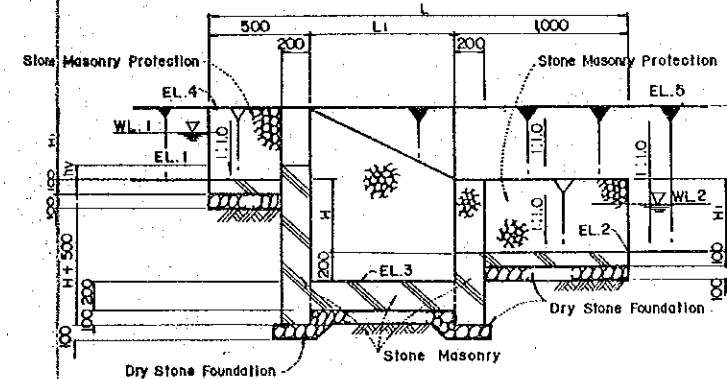


CONCRETE PIPE
SCALE-A

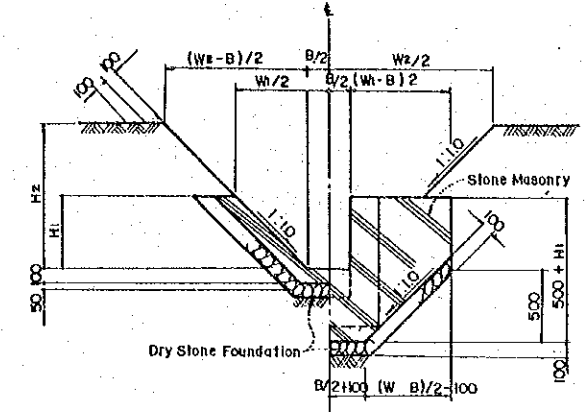
DROP



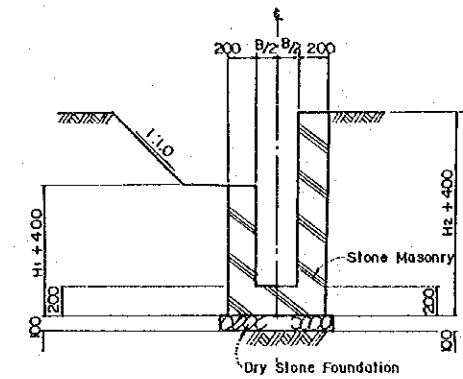
PLAN
SCALE-B



PROFILE
SCALE-B



SECTION A-B
SCALE-B

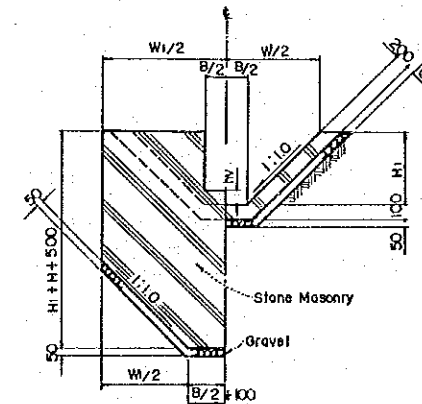


SECTION C-D
SCALE-B

DIMENSION TABLE OF DRAINAGE DROP

Canal	No.	Sta. BP	Sta. EP	(Unit : mm)															
				EL.1	EL.2	EL.3	EL.4	EL.5	WL.1	WL.2	B	W	W ₁	W ₂	L	L ₁	H	H ₁	H ₂
MD-1	NO. 1	BP + 600	BP + 850	497.66	496.16	495.96	498.24	496.24	497.97	496.47	500	1,660	2,060	4,660	2,500	1,000	1,500	580	2,080
	NO. 2	BP + 2400	NO.1 + 1.00	498.24	497.74	497.54	499.00	499.00	498.55	498.05	500	2,020	2,420	3,020	2,000	500	500	760	1,260
	NO. 3	NO.1 + 10.00	NO.1 + 12.00	498.79	498.29	498.09	499.48	499.48	499.10	498.60	500	1,880	2,280	2,880	2,000	500	500	690	1,190
	NO. 4	NO.4 + 000	NO.4 + 2.00	499.62	499.12	498.92	500.51	500.51	499.90	499.40	500	2,280	2,680	3,280	2,000	500	500	890	1,390
MD-2-1	NO. 1	BP + 080	BP + 3.00	497.13	496.93	497.39	497.39	497.39	497.21	497.21	300	1,380	1,780	820	2,500	1,000	1,500	540	260
GD-1-1	NO. 1	BP + 22.00	BP + 24.00	504.71	504.21	504.80	505.30	505.00	504.84	504.34	300	1,480	1,880	1,880	2,000	500	500	590	790
CD-1-2	NO. 1	NO.2 + 000	NO.2 + 2.00	504.66	504.16	493.96	505.07	505.03	504.90	504.40	300	1,120	1,520	2,040	2,000	500	500	410	870

Note: - The upstream protection of NO.1 Drop on MD-2-1 is not provided, because it is installed just downstream of NO.1 Culvert without any canal portion.
- Elevation are expressed in meter.



SECTION E-F
SCALE-B



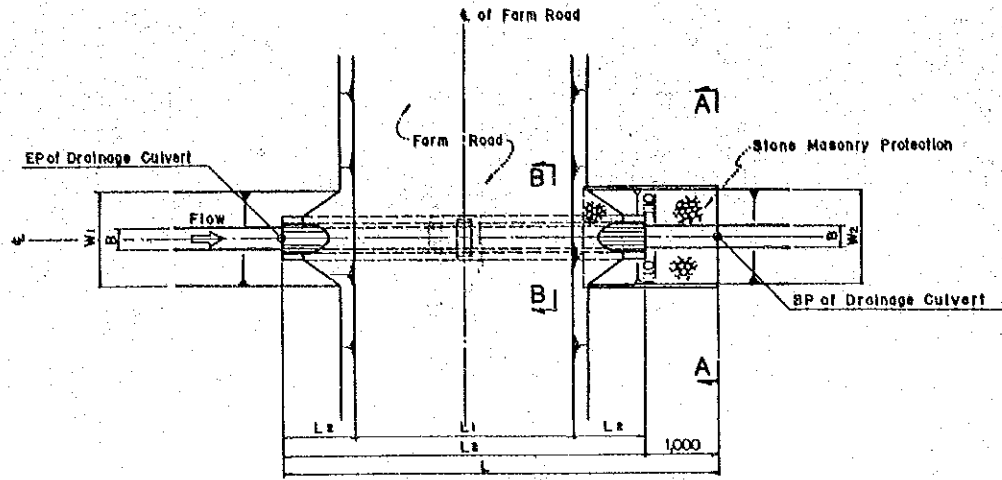
HIS MAJESTY'S GOVERNMENT OF NEPAL
HORTICULTURAL DEVELOPMENT PROJECT
SINDHULI SUB-CENTER

TITLE:
**CHUTE ON CD-1 (2/2)
DRAINAGE DROP**

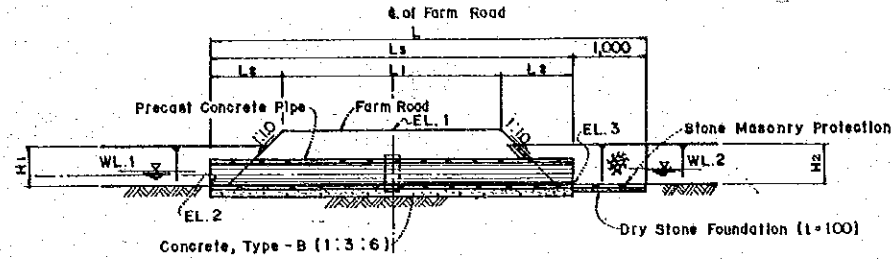
DATE: MAR. 1986 D.W.G. NO. S 300-04

JAPAN INTERNATIONAL COOPERATION AGENCY

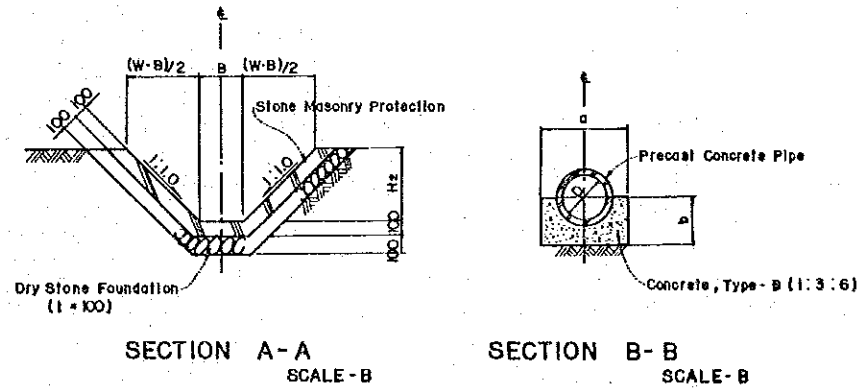
DRAINAGE CULVERT



PLAN SCALE-A



PROFILE SCALE-A



SECTION A-A SCALE-B

SECTION B-B SCALE-B

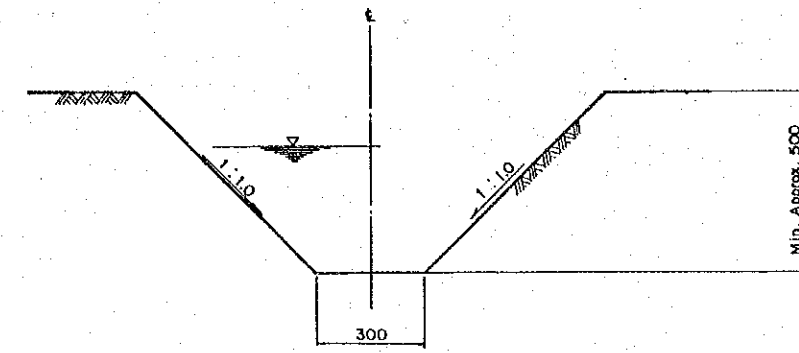
DIMENSION TABLE

(Unit : mm)

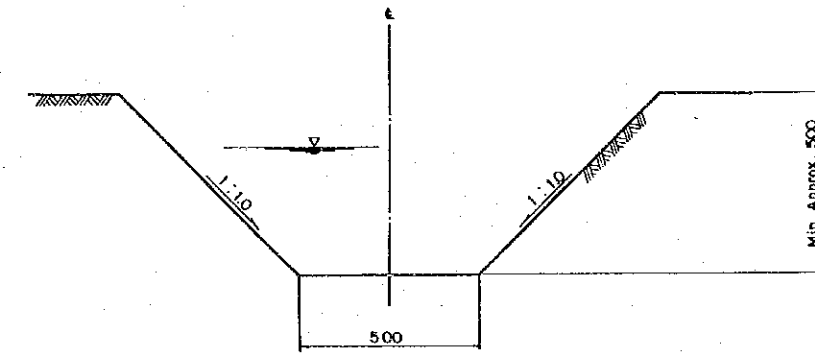
Canal	NO.	Sta. BP	Sta. EP	WL.1	WL.2	EL.1	EL.2	EL.3	L	L1	L2	L3	B	W1	W2	H1	H2	D	a	b
MD - 1-1	NO.1	BP +9.50	BP +15.50	500.31	500.28	501.05	500.25	500.21	6,000	3,000	1,000	5,000	300	1,320	1,460	560	580	300	600	300
MD - 1-2	NO.1	BP +0.50	BP +6.50	500.13	500.10	500.70	500.05	500.02	6,000	3,000	1,000	5,000	300	1,180	1,280	440	490	300	600	300
	NO.2	NO.1 +8.73	NO.1 +14.73	500.53	500.50	501.37	500.48	500.45	6,000	3,000	1,000	5,000	300	1,780	1,580	740	640	300	600	300
MD - 2-1	NO.1	BP +3.00	BP +9.00	498.74	498.71	499.14	498.66	498.63	5,000	2,000	1,500	5,000	300	1,380	1,040	540	370	300	600	300
MD - 2-2	NO.1	NO.1 +0.00	NO.1 +7.00	497.35	497.32	498.90	497.25	497.22	7,000	2,000	2,000	6,000	300	1,440	1,140	570	470	300	600	300
	NO.2	NO.3 +6.85	NO.3 +11.85	497.71	497.68	498.48	497.61	497.58	5,000	2,000	1,000	4,000	300	1,140	1,560	420	630	300	600	300

Note : - The downstream protection of No.1 Culvert on MD - 2-1 is not provided, because it is installed just upstream of No.1 Drop without any canal portion.
- Elevations are expressed in meter.

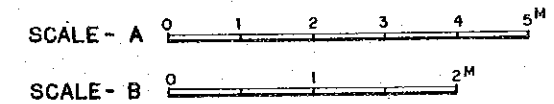
TYPICAL CROSS SECTION OF DRAINAGE CANALS



BASE WIDTH = 0.3 M



BASE WIDTH = 0.5 M

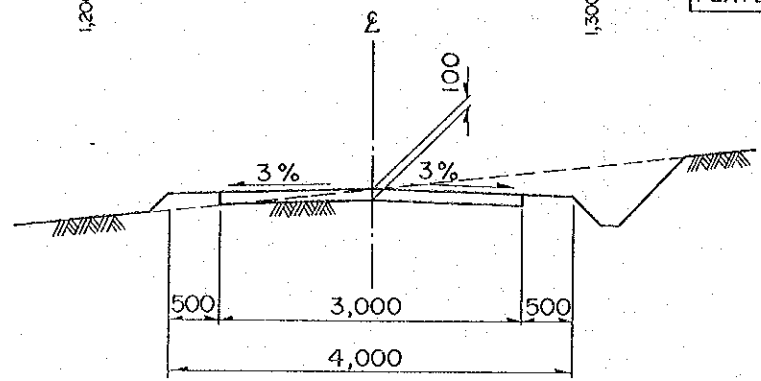


HIS MAJESTY'S GOVERNMENT OF NEPAL
HORTICULTURAL DEVELOPMENT PROJECT
SINDHULI SUB-CENTER

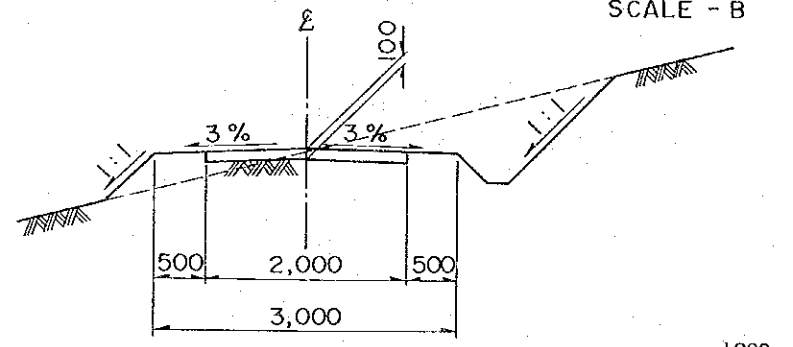
TITLE :
DRAINAGE CULVERT
TYPICAL CROSS SECTION
OF DRAINAGE CANAL

DATE : MAR. 1986 D.W.G. NO. : S 300 - 05

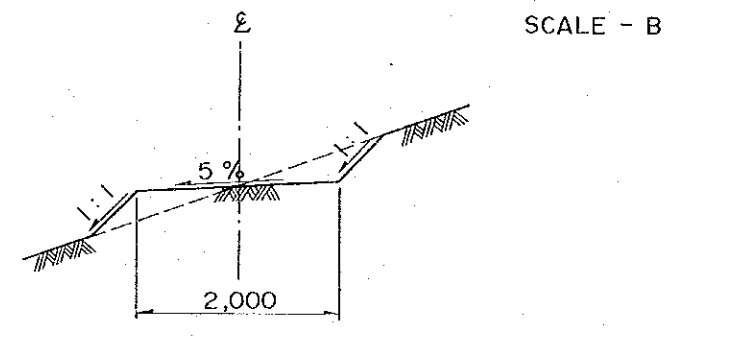
JAPAN INTERNATIONAL COOPERATION AGENCY



TYPICAL CROSS SECTION OF APPROACH ROAD
SCALE - B

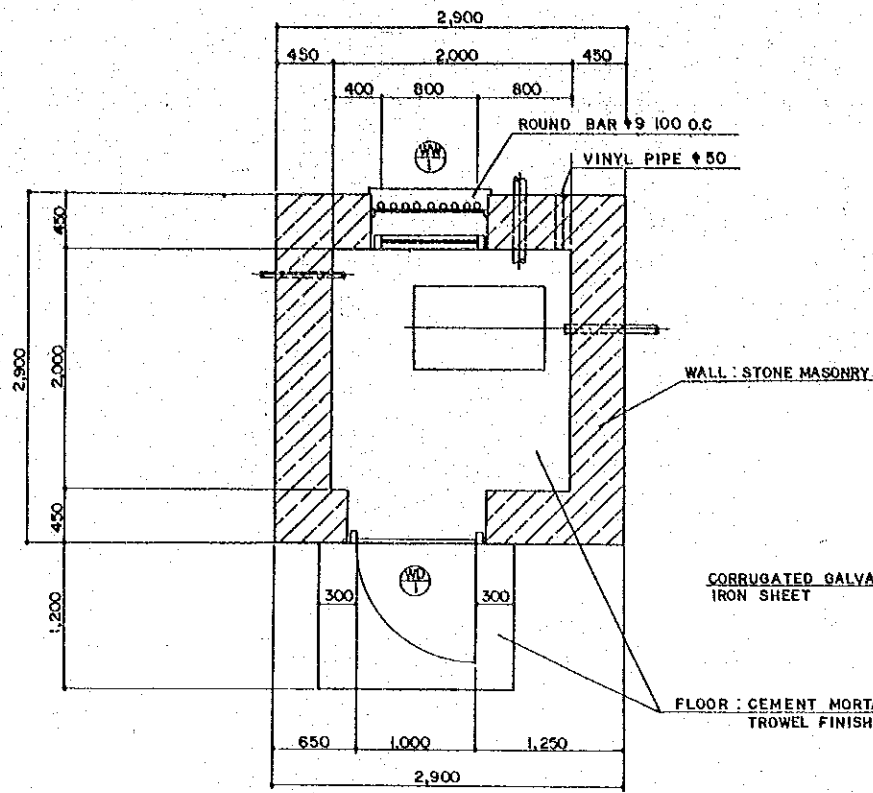


TYPICAL CROSS SECTION OF MAIN FARM ROAD
SCALE - B

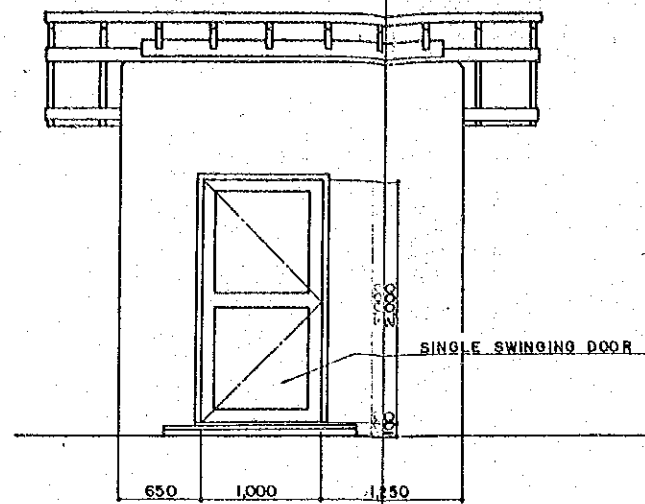


TYPICAL CROSS SECTION OF SECONDARY FARM ROAD
SCALE - B

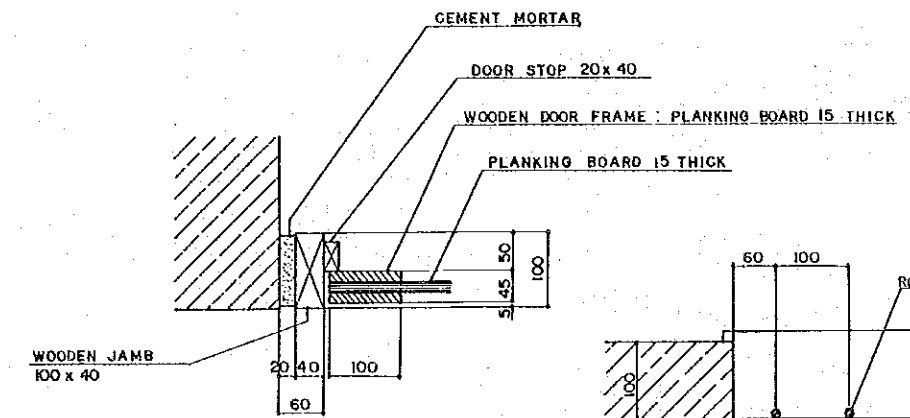
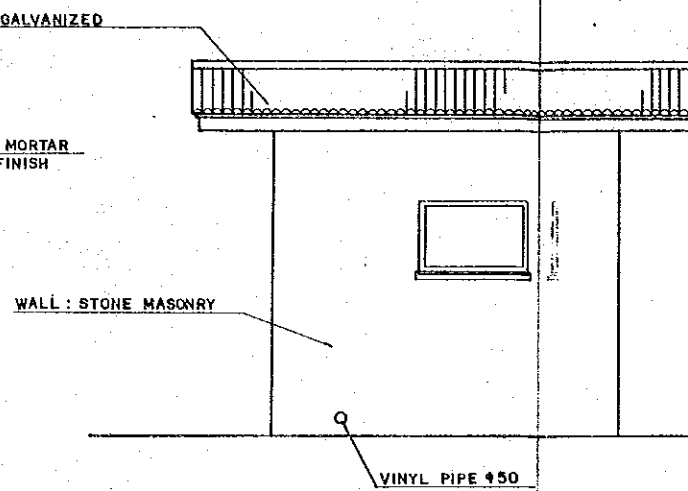
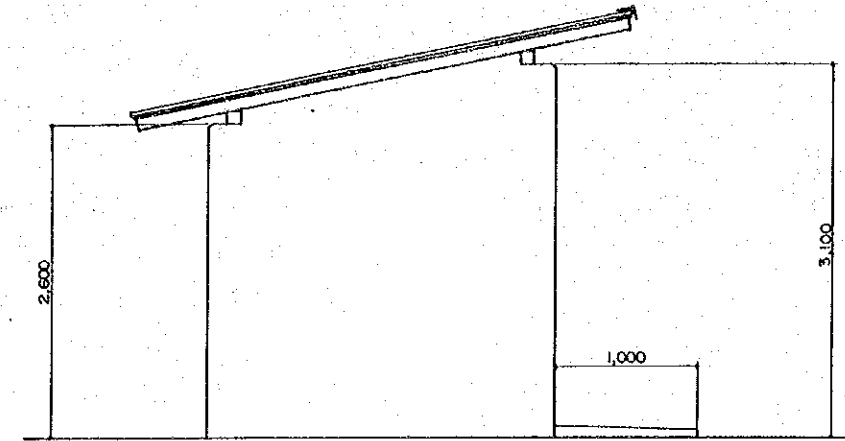
HIS MAJESTY'S GOVERNMENT OF NEPAL HORTICULTURAL DEVELOPMENT PROJECT SINDHULI SUB-CENTER			
TITLE APPROACH ROAD AND FARM ROAD			
DATE	MAR. 1986	D.W.G. NO.	S 400-01
JAPAN INTERNATIONAL COOPERATION AGENCY			



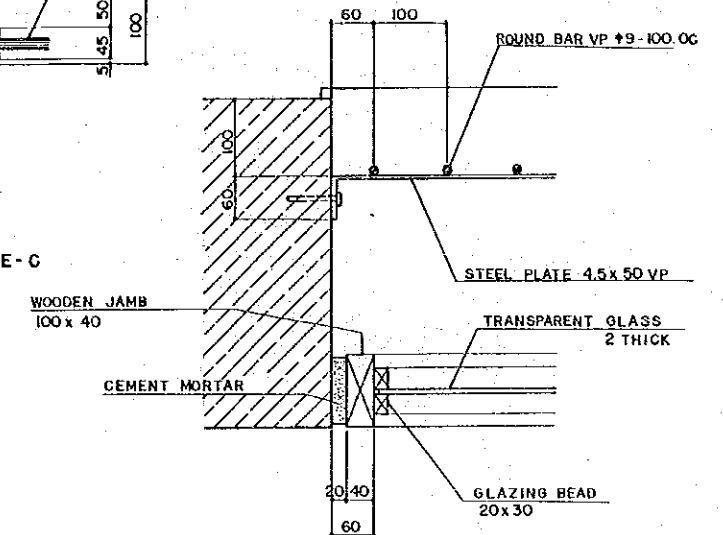
FLOOR PLAN
SCALE - B



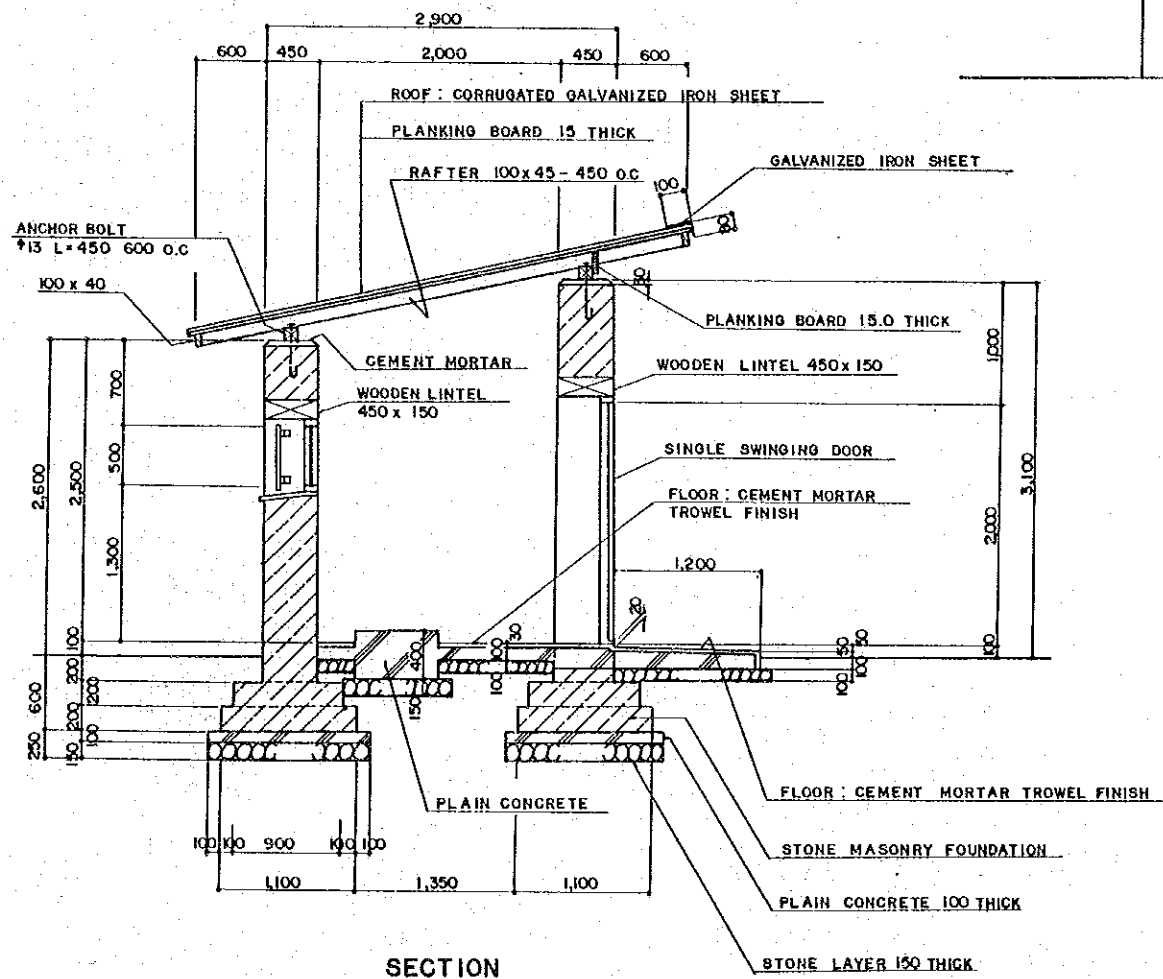
ELEVATION
SCALE - B





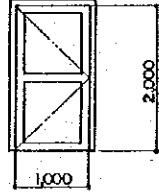
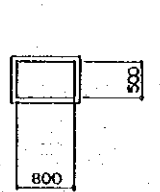
DOOR DETAIL
SCALE - C

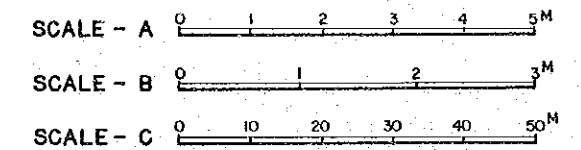


FIXED WINDOW DETAIL
SCALE - C



SECTION
SCALE - B

DOOR AND WINDOWS SCHEDULE		SCALE - A	
SYMBOL	 SINGLE SWINGING DOOR	 FIXED WINDOW	
PROFILE			
ROOM	PUMP ROOM	PUMP ROOM	
DEPTH	QUANTITY	1	1
FINISH	PLANKING BOARD		
GLASS	TRANSPARENT GLASS 2 MM		
HARDWARE	CYLINDER LOCKSET MORTISE HINGES FLUSH BOLT		
REMARKS	HINGE 100MM 3 NOS		



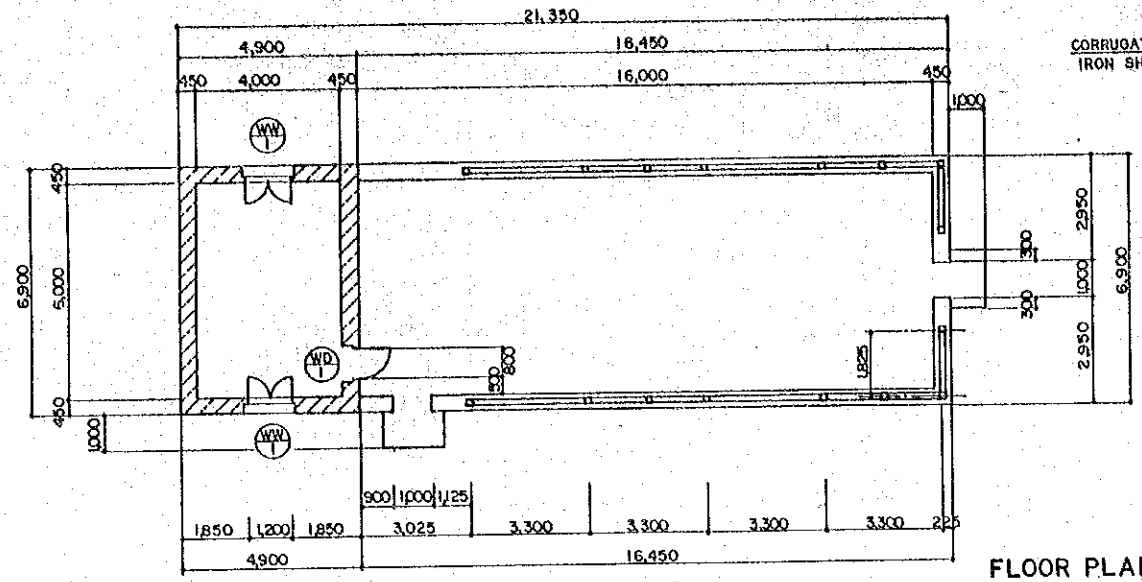
HIS MAJESTY'S GOVERNMENT OF NEPAL
HORTICULTURAL DEVELOPMENT PROJECT
SINDHULI SUB-CENTER

TITLE :

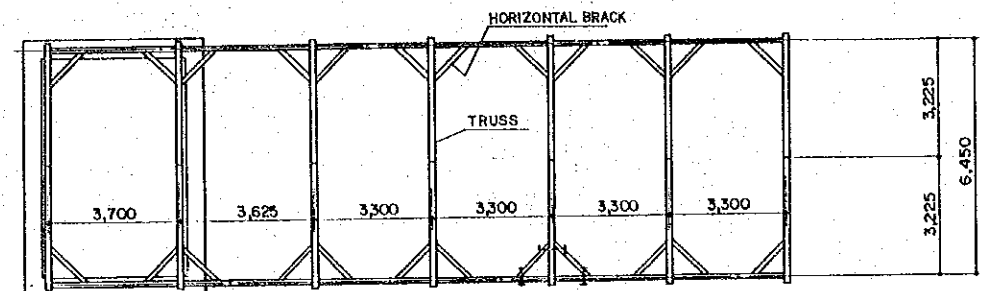
PUMP HOUSE

DATE MAR. 1986 D.W.G. NO. S500 - 01

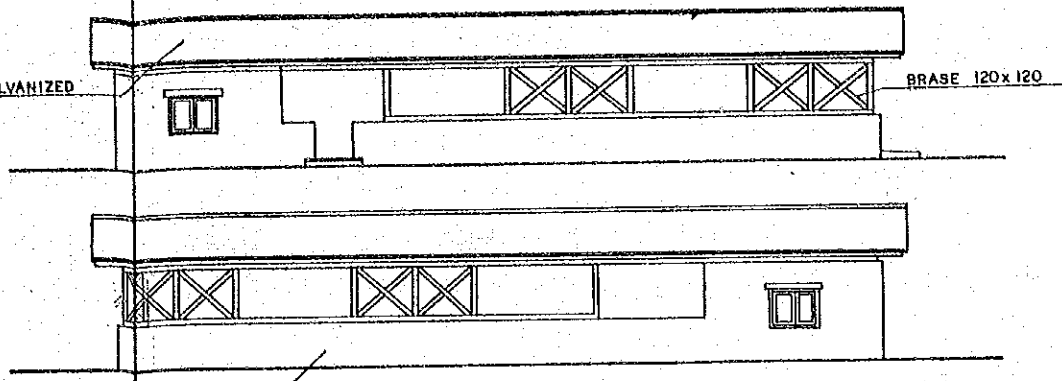
JAPAN INTERNATIONAL COOPERATION AGENCY



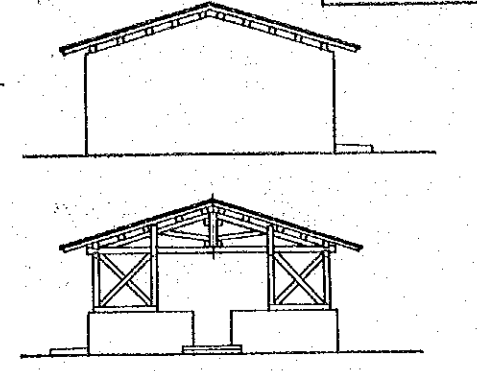
FLOOR PLAN SCALE - A



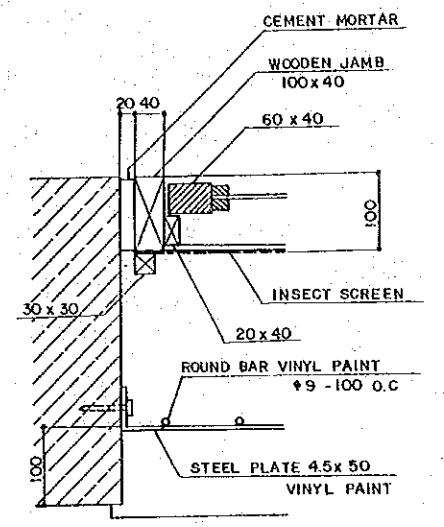
ROOF STRUCTURE PLAN SCALE - A



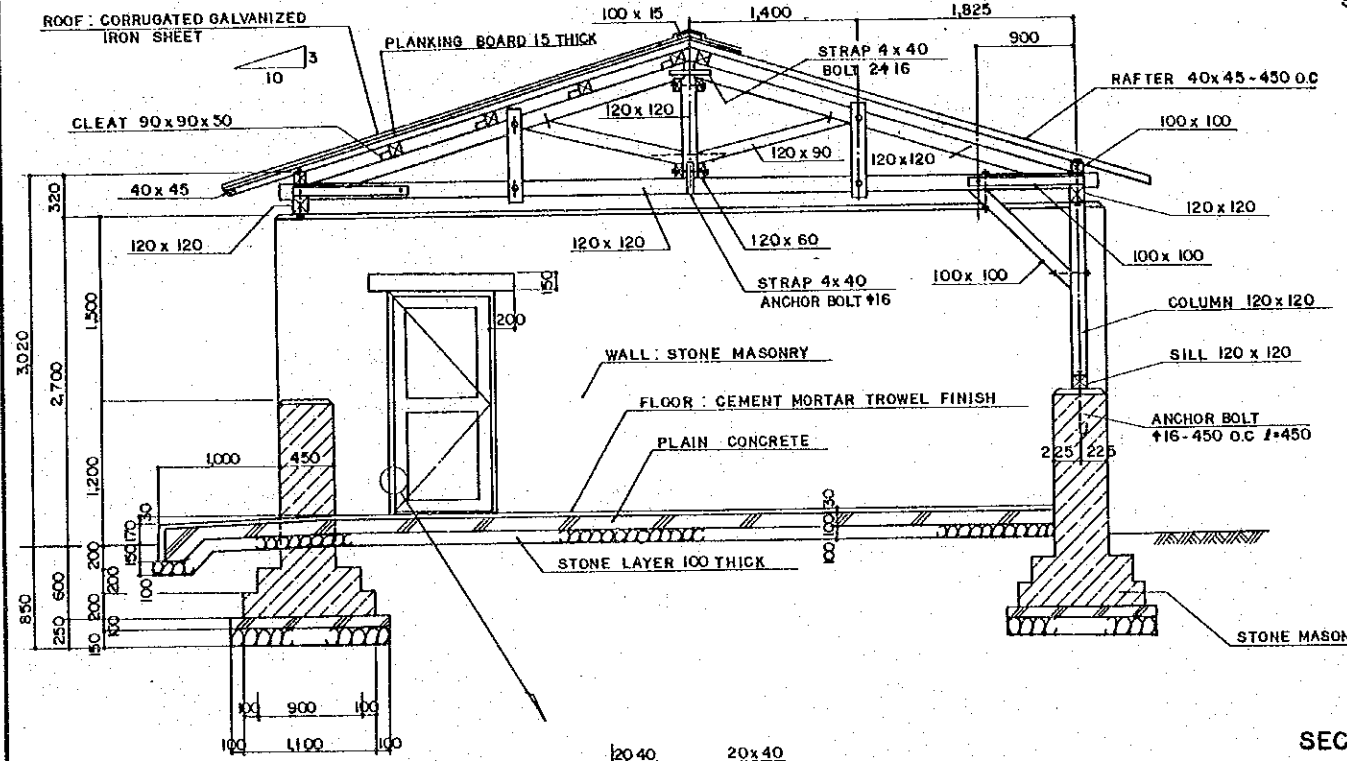
ELEVATION SCALE - A



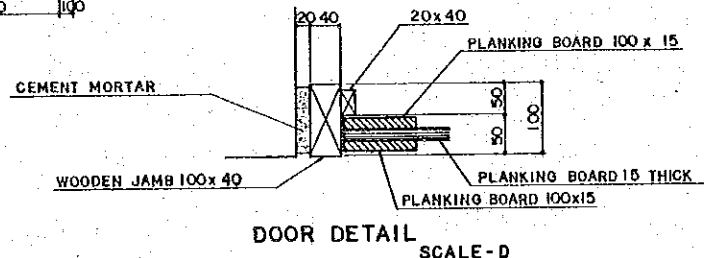
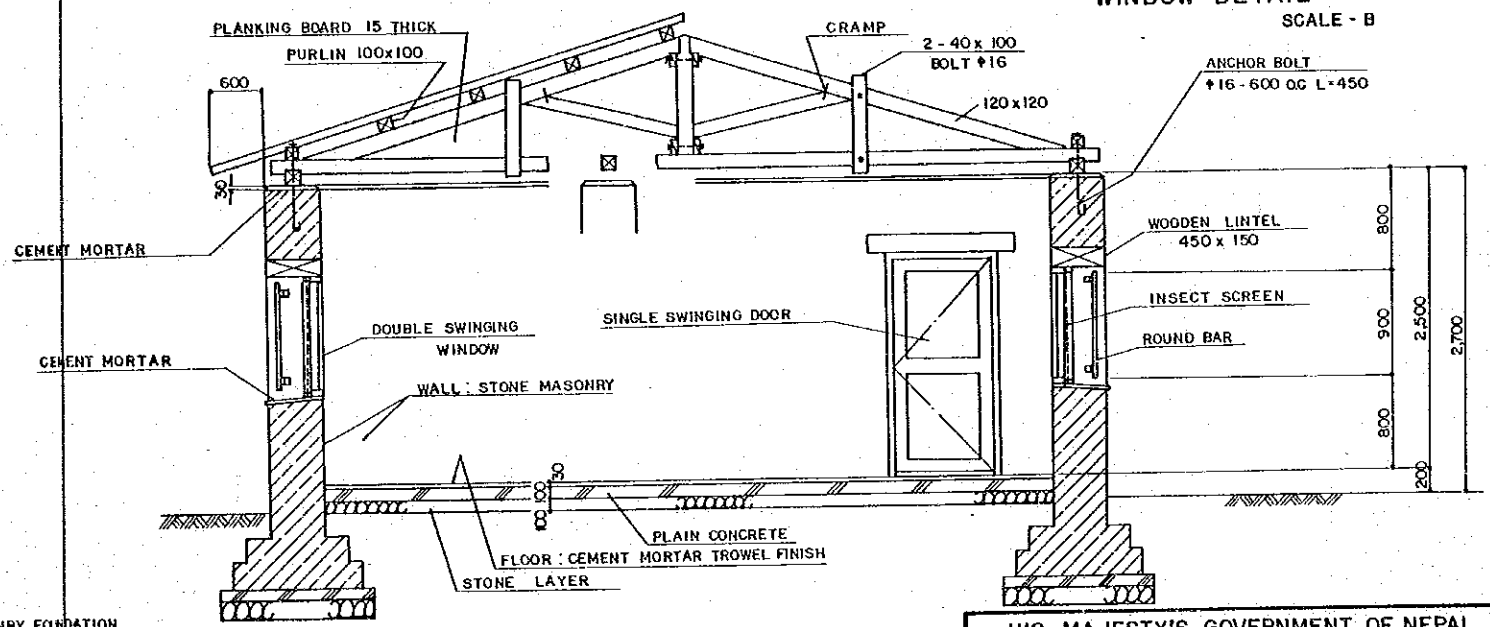
SYMBOL	⊕ SINGLE SWINGING DOOR	⊕ DOUBLE SWINGING WINDOWS
PROFILE		
ROOM		
DEPTH	QUANTITY	1
FINISH	PLANKING BOARD	TRANSPARENT GLASS 2 MM
HARDWARE	CYLINDER LOCKSET MORTISE HINGES	FASTENERS MORTISE HINGES
REMARKS	HINGE 100MM 3 NOS	HINGE 50MM 4 NOS



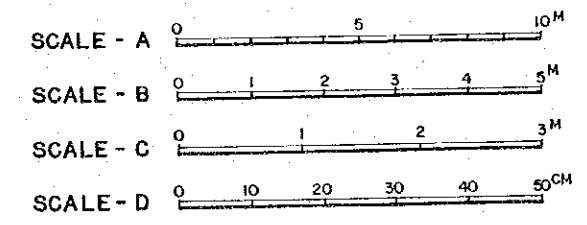
WINDOW DETAIL SCALE - B



SECTION SCALE - C



DOOR DETAIL SCALE - D

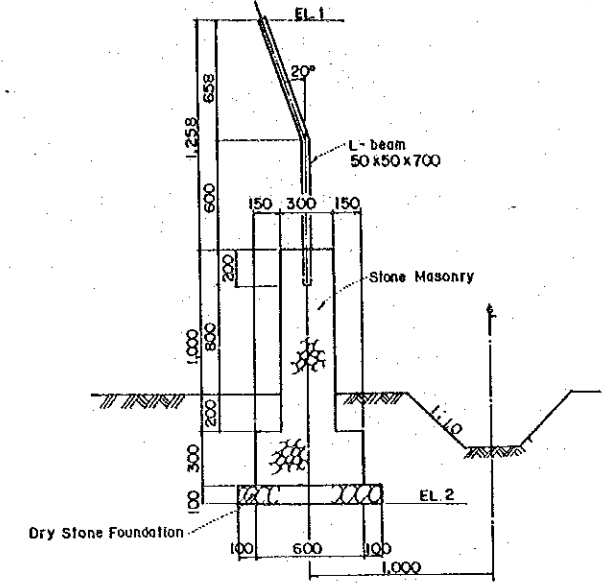
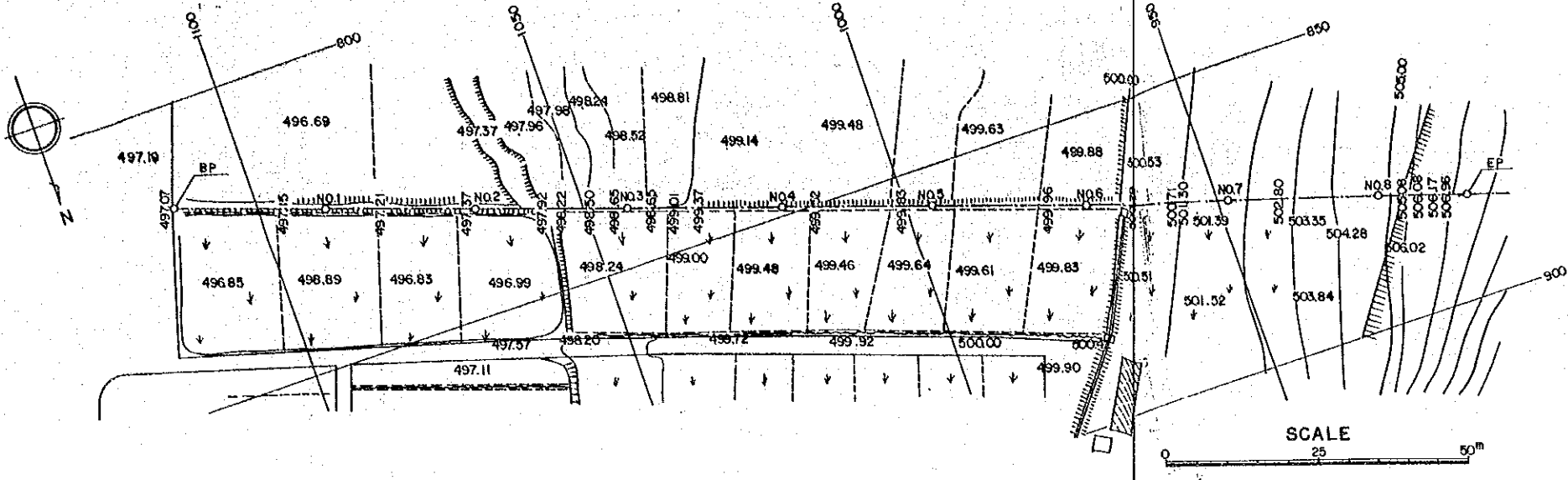


HIS MAJESTY'S GOVERNMENT OF NEPAL
HORTICULTURAL DEVELOPMENT PROJECT
SINDHULI SUB-CENTER

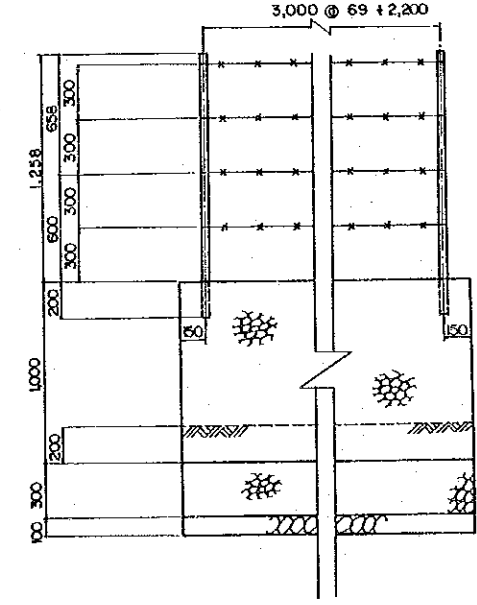
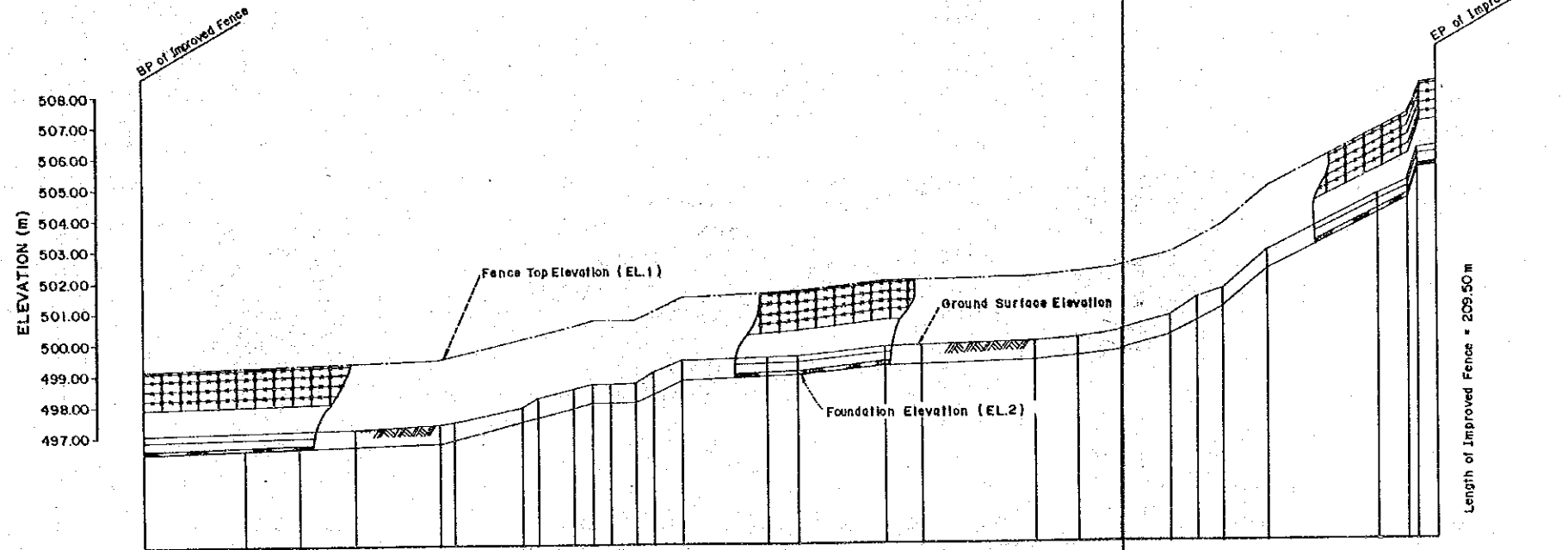
TITLE :
GRAFTING HOUSE

DATE MAR. 1986 D.W.G. NO. S500 - 02

JAPAN INTERNATIONAL COOPERATION AGENCY

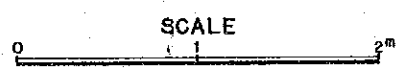


SECTION



ELEVATION

IMPROVED FENCE	FOUNDATION ELEVATION(EL.2)	FENCE TOP ELEVATION(EL.1)	GROUND SURFACE ELEVATION	REDUCED DISTANCE	DISTANCE	STATION	CURVE
	496.47	499.13	497.07	0.00	0.00	BP	-----
496.57	499.23	497.15	16.50	16.50	+ 16.50		
496.63	499.29	497.18	25.00	8.50	NO. 1	-----	
496.68	499.34	497.21	34.00	9.00	+ 9.00		
496.77	499.43	497.37	48.00	14.00	+ 23.00	-----	
496.88	499.54	497.45	50.00	2.00	NO. 2		
497.46	500.12	497.92	61.00	11.00	+ 11.00	-----	
497.60	500.26	498.22	63.50	2.50	+ 13.50		
497.92	500.58	498.50	69.50	6.00	+ 19.50	-----	
498.05	500.71	498.65	72.00	2.50	+ 22.00		
498.05	500.71	498.65	75.00	3.00	NO. 3	-----	
498.05	500.71	498.65	79.00	4.00	+ 4.00		
498.25	500.95	499.01	81.50	2.50	+ 6.50	-----	
498.77	501.43	499.37	86.50	5.00	+ 11.50		
498.88	501.54	499.48	100.00	13.50	NO. 4	-----	
498.92	501.58	499.52	105.00	5.00	+ 5.00		
499.23	501.89	499.83	119.00	14.00	+ 19.00	-----	
499.26	501.92	499.86	125.00	6.00	NO. 5		
499.36	502.02	499.96	143.00	18.00	+ 18.00	-----	
500.11	502.77	500.71	166.50	8.50	+ 16.50		
500.33	503.19	501.30	170.50	4.00	+ 20.50	-----	
501.00	503.66	501.60	175.00	4.50	NO. 7		
502.20	504.96	502.80	182.00	7.00	+ 7.00	-----	
503.98	506.84	504.61	200.00	20.00	NO. 8		
504.48	507.14	505.08	205.00	5.00	+ 5.00	-----	
505.48	508.14	506.08	207.00	2.00	+ 7.00		
505.57	508.23	506.17	209.50	2.50	+ 9.50		



HIS MAJESTY'S GOVERNMENT OF NEPAL
 HORTICULTURAL DEVELOPMENT PROJECT
 SINDHULI SUB-CENTER

TITLE:
IMPROVEMENT EXISTING FENCE

DATE: MAR. 1988 D.W.G. NO. S 600-01

JAPAN INTERNATIONAL COOPERATION AGENCY

CONSTRUCTION TIME SCHEDULE OF SINDHULI SUB - CENTER

WORK ITEM	1986				1987				REMARKS			
	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.		Mar.	Apr.	
I. TENDER												
Tender Announce	▾											
Tender Close	▾											
Tender Evaluation												
Award of Tender			▾									
Signing of Contract			▾									
Commencement			▾									
II. CONSTRUCTION												
1. Preparatory Works					▬							
2. Pump Station Facilities					▬							
3. Farm Pond					▬							
4. Irrigation Pipeline					▬							
5. Drainage Works					▬							
6. Road Works					▬							
7. Grafting House					▬							
8. Fencing Works					▬							
III. PROCUREMENT OF EQUIPMENT AND MATERIALS												
1. Pumping Equipments						○						
2. Steel Pipes, P.V.C. Pipes, Valves and Hydrants W/ Fitting						○						

HIS MAJESTY'S GOVERNMENT OF NEPAL
 HORTICULTURAL DEVELOPMENT PROJECT
 SINDHULI SUB-CENTER

TITLE :

CONSTRUCTION TIME SCHEDULE

DATE	MAR. 1986	DWG. NO.	S 700 - 01
------	-----------	----------	------------

JAPAN INTERNATIONAL COOPERATION AGENCY

JICA