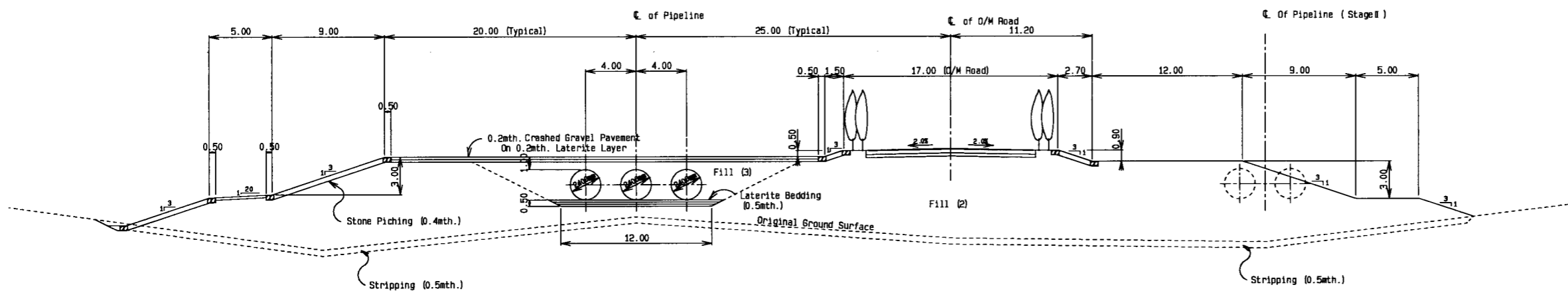


(IN CASE EXCAVATION)

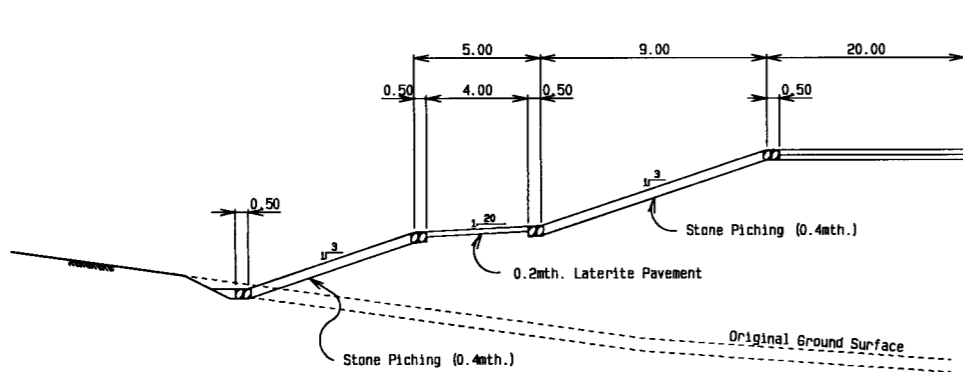
Parenthesis ( ) figures show dimensions between KM 106.985 and KM 109.15762 (IP.16')



(IN CASE EMBANKMENT)

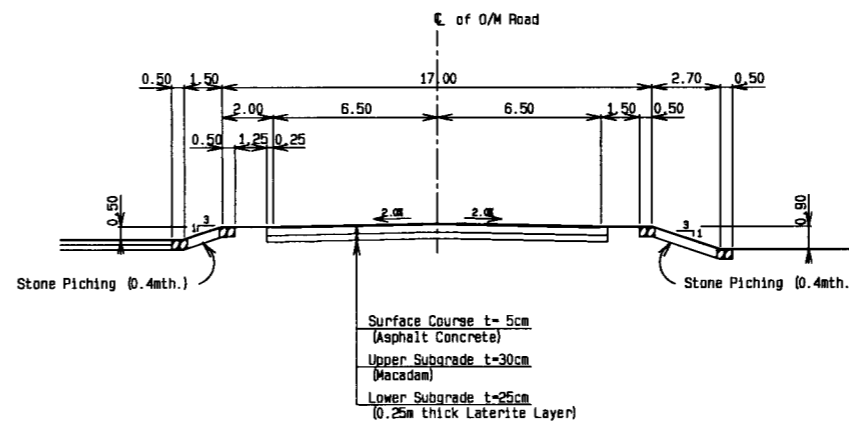
TYPICAL CROSS SECTION OF PIPELINE

SCALE 1: 400



TYPICAL CROSS SECTION OF STONE PITCHING

SCALE 1: 300

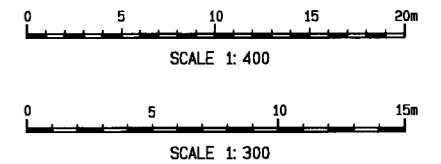


TYPICAL CROSS SECTION OF O/M ROAD

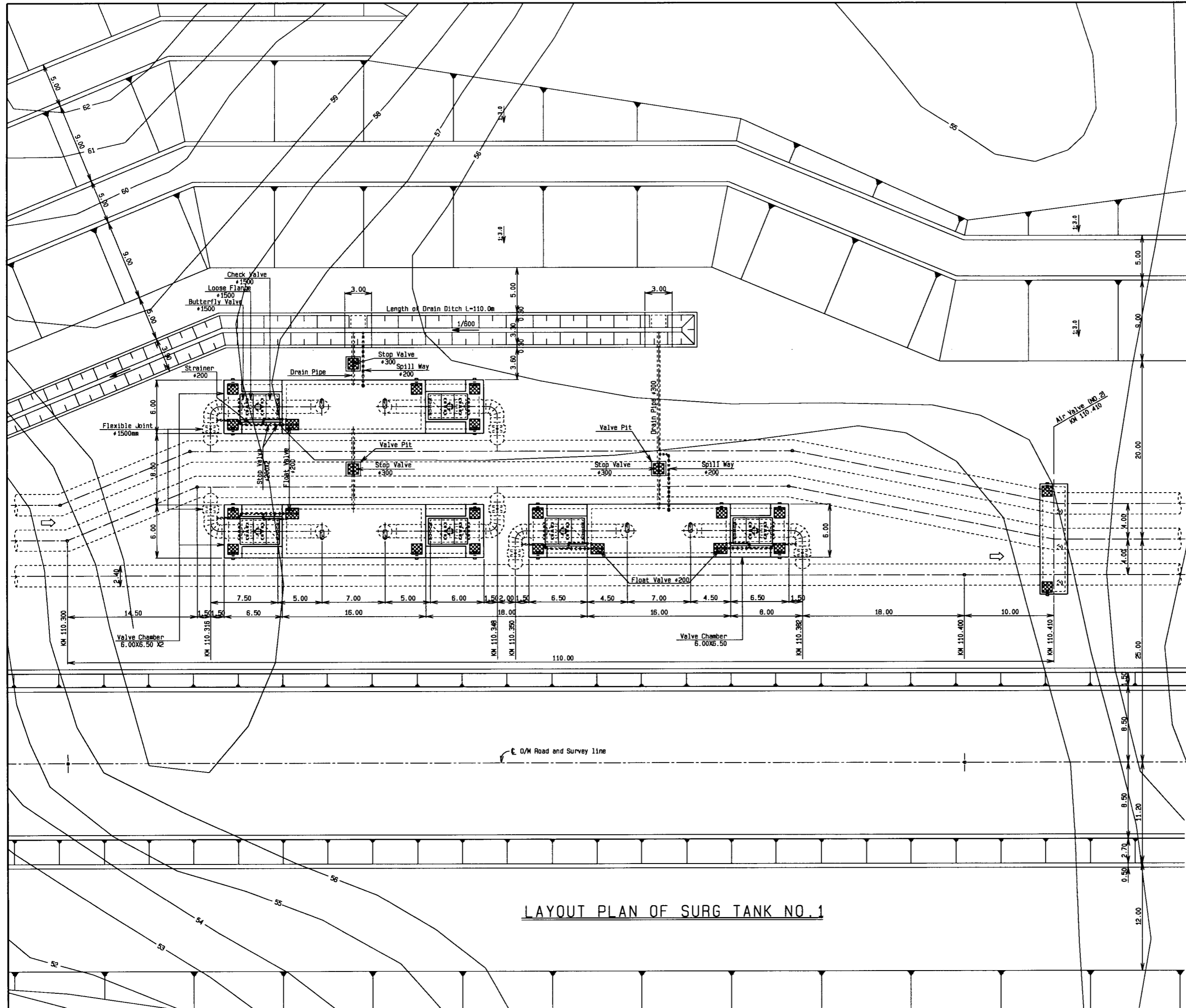
SCALE 1: 300

NOTES:

- (1) This drawing shows typical section of Pipeline included O/M Road and stone pitching.
- (2) Laterite bedding pipe foundation shall not be mixed with boulder except 40mm or larger of grain size.
- (3) Backfill and fill of pipe circumference shall be satisfactorily compacted by adequate machinery approved by the Engineers.
- (4) Right side of O/M Road is for pipe stock yard which is not required surface trimming.



THE ARAB REPUBLIC OF EGYPT MINISTRY OF WATER RESOURCES AND IRRIGATION NORTH SINAI DEVELOPMENT ORGANIZATION THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE III)	
CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBAN CANAL BETWEEN KM 106.466 AND KM118.560 EL SALAAM No.7 (BIR EL ABD) PUMPING STATION DELIVERY PRESSURED PIPELINE TYPICAL CROSS SECTION OF PIPELINE AND O/M ROAD	
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) SANYU CONSULTANTS INC, PACIFIC CONSULTANTS INTERNATIONAL	
DESIGNED	
TRACED	
CHECKED	
APPROVED	
DRAWING NO.	OPP-229



- NOTES:**
- (1) This drawing shows locations of Surge Tank NO.1 and Air Valve (NO.2).
  - (2) For detail of Air Valve, see Dwg NO. DPP-253.
  - (3) Location and route of drain ditch shall be instructed by the Engineers.

**LAYOUT PLAN OF SURG TANK NO. 1**

THE ARAB REPUBLIC OF EGYPT  
 MINISTRY OF WATER RESOURCES AND IRRIGATION  
 NORTH SINAI DEVELOPMENT ORGANIZATION  
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CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBABH CANAL BETWEEN KM 108.466 AND KM118.560  
 EL SALAAM No.7 (BIR EL ABD) PUMPING STATION  
 DELIVERY PRESSURED PIPELINE  
 LAYOUT PLAN OF SURGE TANK No.1

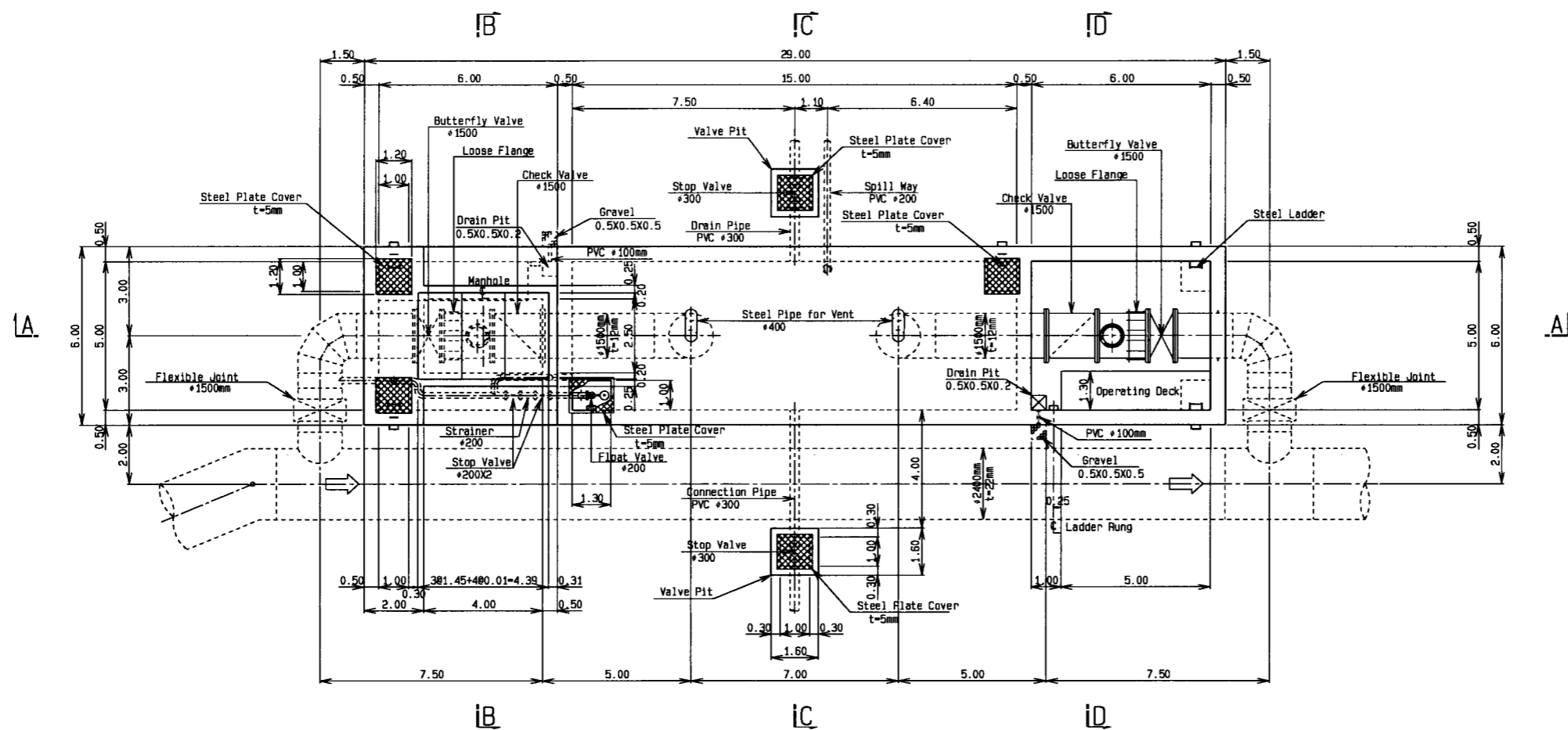
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
 SANYU CONSULTANTS INC, PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED	
TRACED	
CHECKED	
APPROVED	
DRAWING NO.	DPP-230

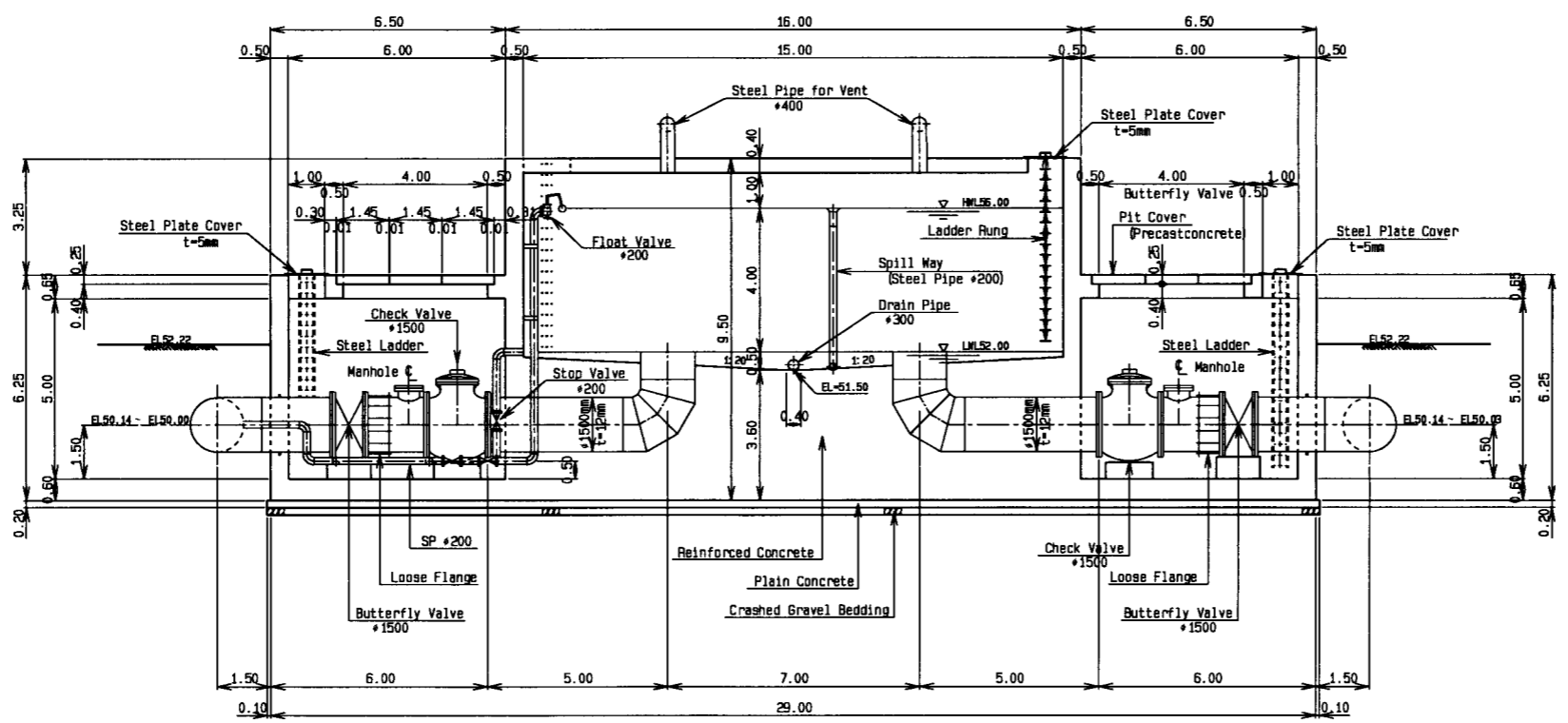
# SURGE TANK NO.1 (1/2)

**NOTES:**

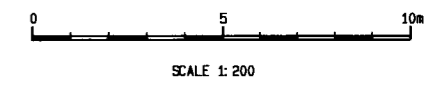
(1) Miscellaneous steel such as steel plate cover, steel ladder and ladder rung, see Dwg NO.DPP-243,



**PLAN**

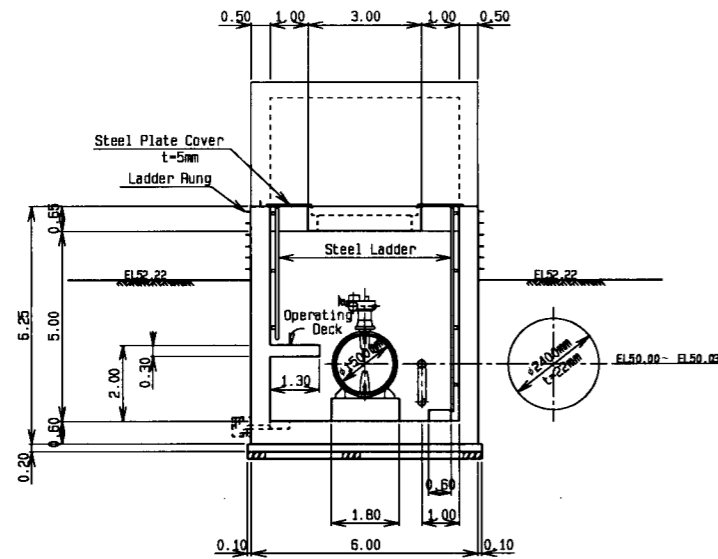


**SECTION A-A**

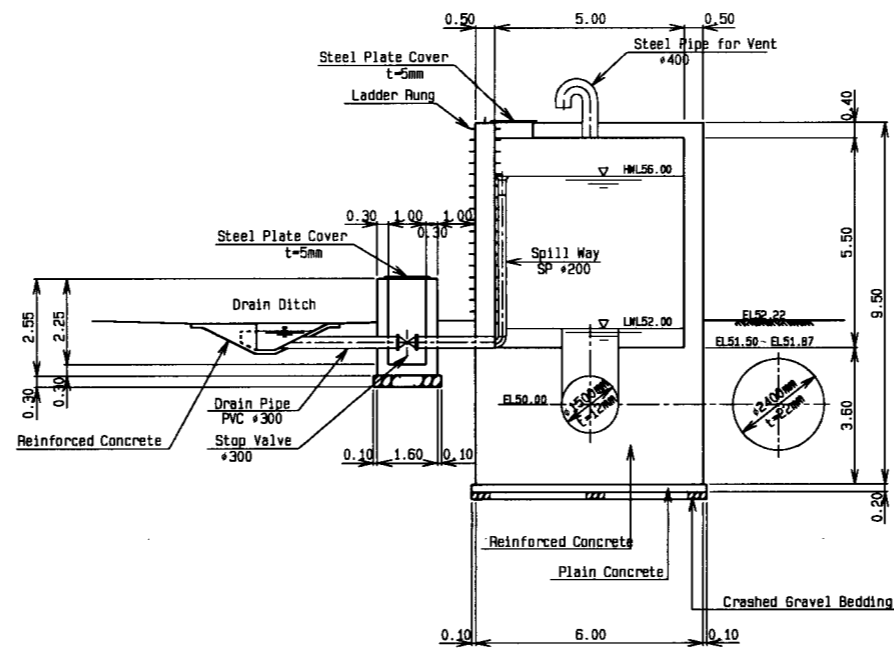


THE ARAB REPUBLIC OF EGYPT MINISTRY OF WATER RESOURCES AND IRRIGATION NORTH SINAI DEVELOPMENT ORGANIZATION THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE III)	
CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBABH CANAL BETWEEN KM 108.466 AND KM118.560 EL SALAAM No.7 (BIR EL ABD) PUMPING STATION DELIVERY PRESSURED PIPELINE PLAN AND SECTION OF SURGE TANK No.1	
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) SANYU CONSULTANTS INC, PACIFIC CONSULTANTS INTERNATIONAL	
DESIGNED	
TRACED	
CHECKED	
APPROVED	
DRAWING NO.	DPP-231

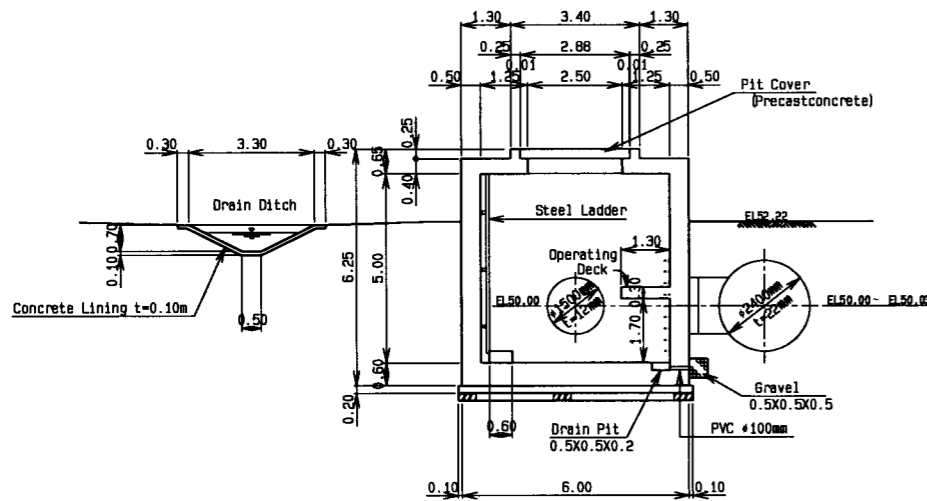
SURGE TANK NO.1 (2/2)



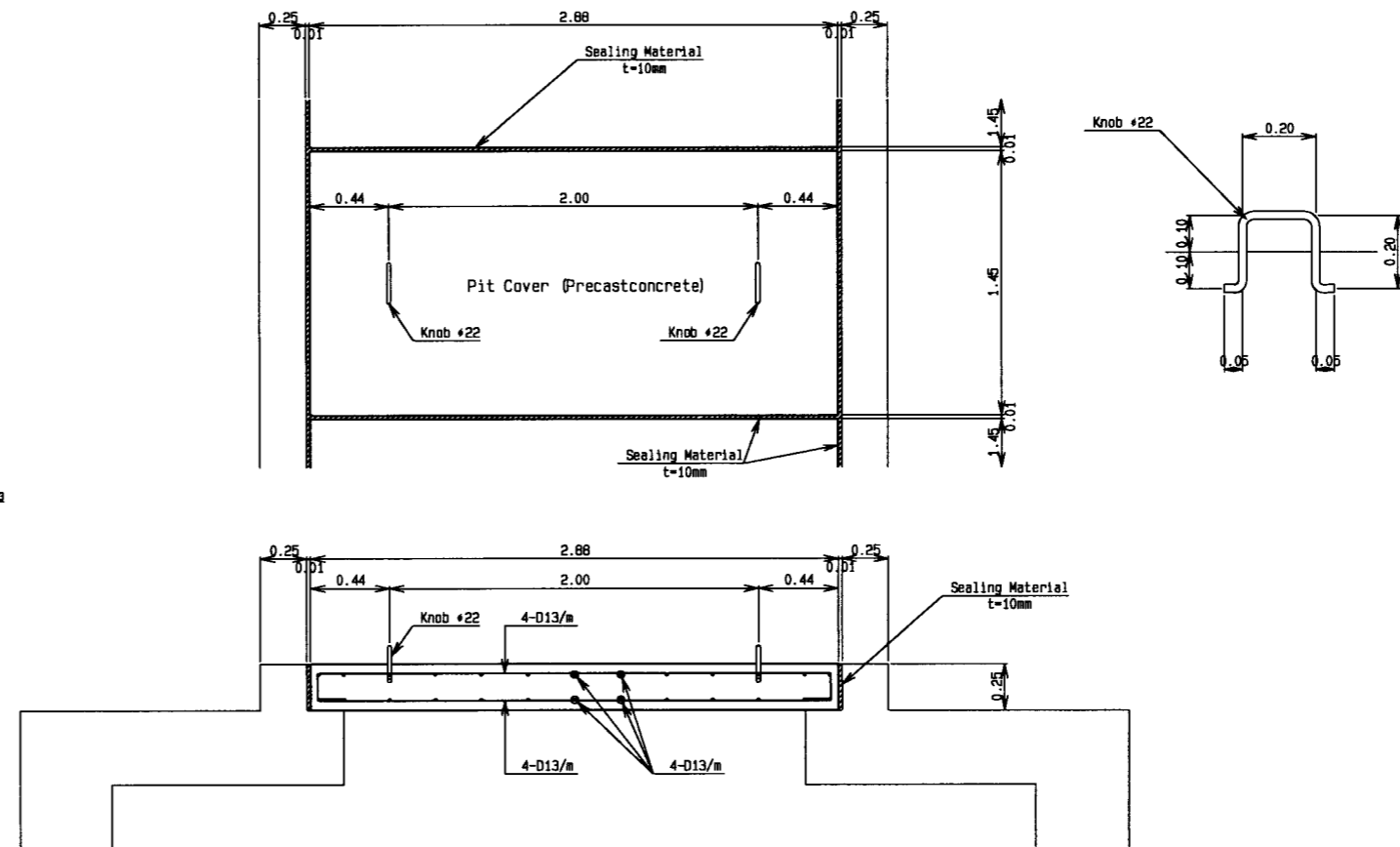
SECTION B-B  
SCALE 1:200



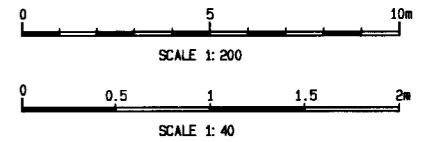
SECTION C-C  
SCALE 1:200



SECTION D-D  
SCALE 1:200



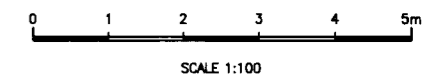
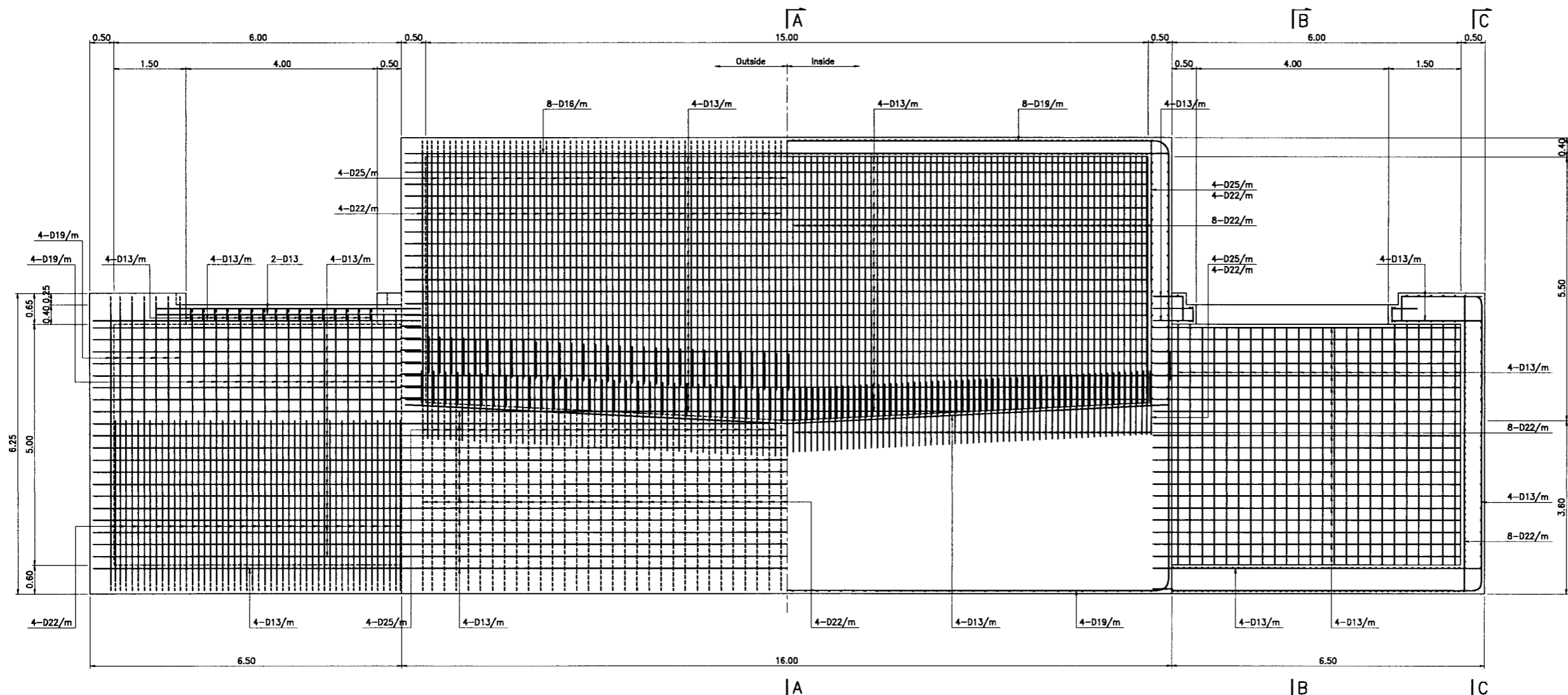
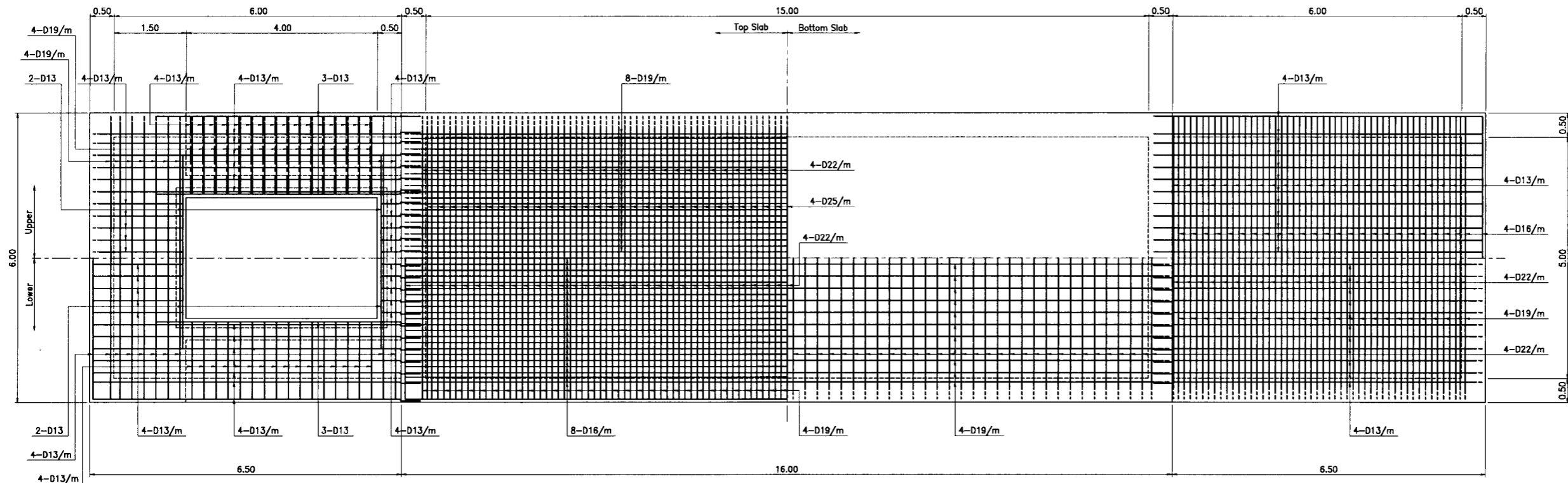
DETAIL FOR PIT COVER (PRECAST CONCRETE)  
SCALE 1:40



THE ARAB REPUBLIC OF EGYPT MINISTRY OF WATER RESOURCES AND IRRIGATION NORTH SINAI DEVELOPMENT ORGANIZATION THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE III)	
CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBABH CANAL BETWEEN KM 108.466 AND KM118.560 EL SALAAM No.7 (BIR EL ABD) PUMPING STATION DELIVERY PRESSURED PIPELINE SECTIONS AND DETAILS OF SURGE TANK No.1	
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) SANYU CONSULTANTS INC, PACIFIC CONSULTANTS INTERNATIONAL	
DESIGNED	
TRACED	
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APPROVED	
DRAWING NO.	DPP-232

SURGE TANK NO.1 WORKS (1/4)

SCALE 1:100



SCALE 1:100

THE ARAB REPUBLIC OF EGYPT  
 MINISTRY OF WATER RESOURCES AND IRRIGATION  
 NORTH SINAI DEVELOPMENT ORGANIZATION  
 THE NORTH SINAI INTEGRATED RURAL  
 DEVELOPMENT PROJECT (PHASE III)  
 CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBABH CANAL  
 BETWEEN KM 108.466 AND KM 118.560  
 EL SALAAM No.7 (BIR EL ABD) PUMPING STATION  
 DELIVERY PRESSURED PIPELINE  
 SURGE TANK No.1  
 REINFORCEMENTS (1/4)

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
 SANYU CONSULTANTS INC, PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED	
TRACED	
CHECKED	
APPROVED	
DRAWING NO.	DPP-233

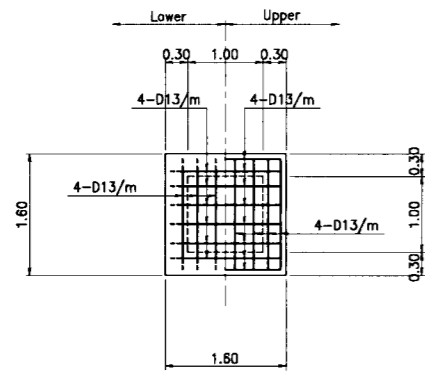




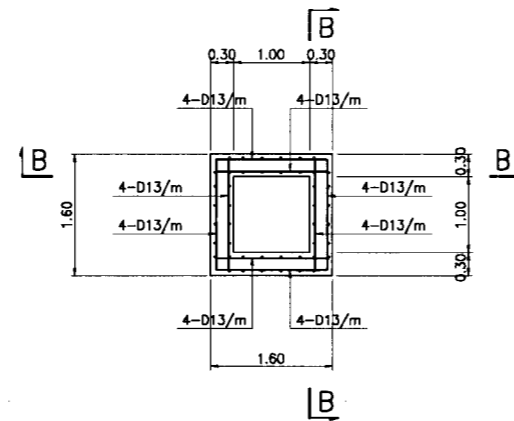
**SURGE TANK NO.1 WORKS (4/4)**  
SCALE 1:100

**NOTES:**

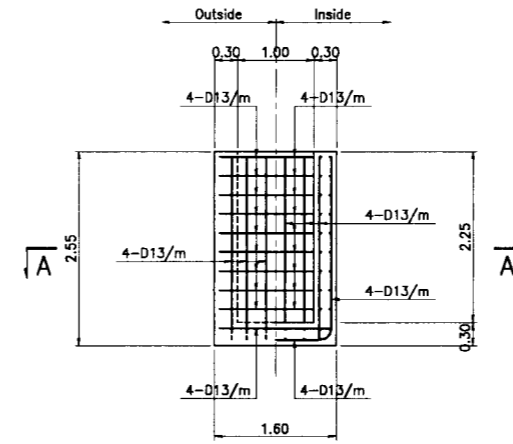
1. Lining concrete shall be made the contraction joint at each 3.00<sup>m</sup> longitudinal distance.



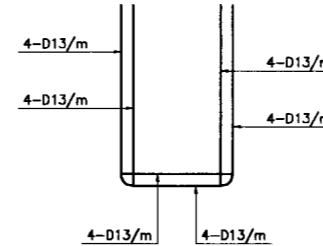
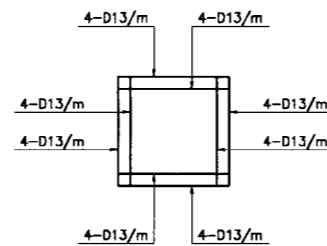
**BOTTOM SLAB**



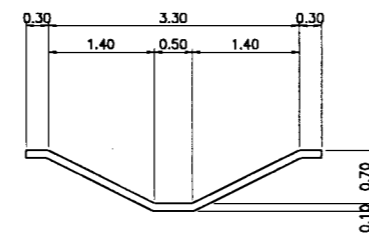
**SECTION A-A**



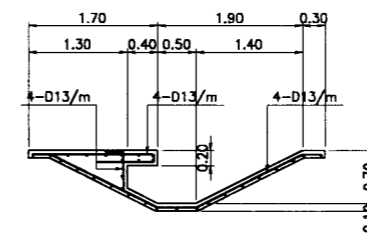
**SECTION B-B**



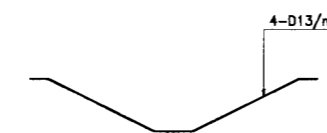
**DRAIN DITCH**



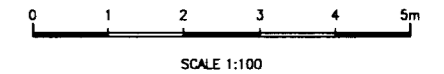
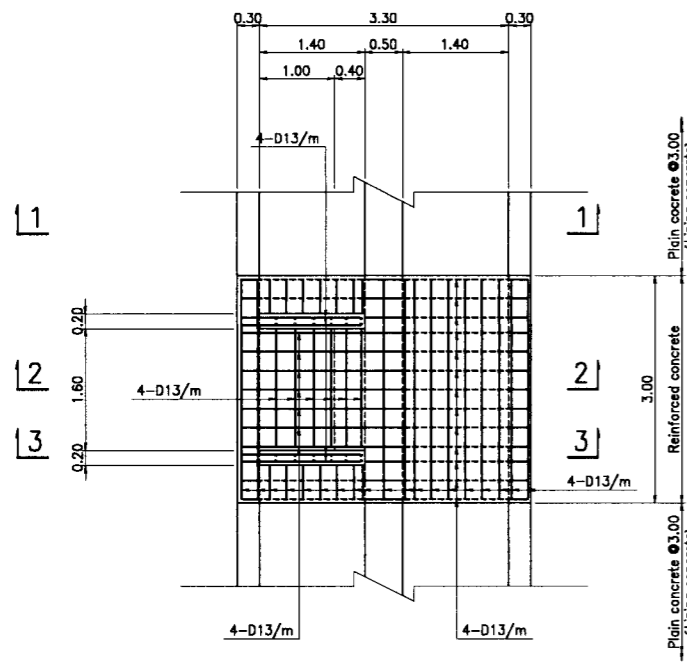
**SECTION 1-1**



**SECTION 2-2**



**SECTION 3-3**



SCALE 1:100

THE ARAB REPUBLIC OF EGYPT MINISTRY OF WATER RESOURCES AND IRRIGATION NORTH SINAI DEVELOPMENT ORGANIZATION THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE III) CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBABH CANAL BETWEEN KM 108.466 AND KM 118.560 EL SALAAM No.7 (BIR EL ABD) PUMPING STATION DELIVERY PRESSURED PIPELINE SURGE TANK No.1 REINFORCEMENTS (4/4)	
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) SANYU CONSULTANTS INC, PACIFIC CONSULTANTS INTERNATIONAL	
DESIGNED	
TRACED	
CHECKED	
APPROVED	
DRAWING NO.	DPP-236



KM 110.31750 (-)

0/M Road and Survey Line

KM 110.34650 (-)

0/M Road and Survey Line

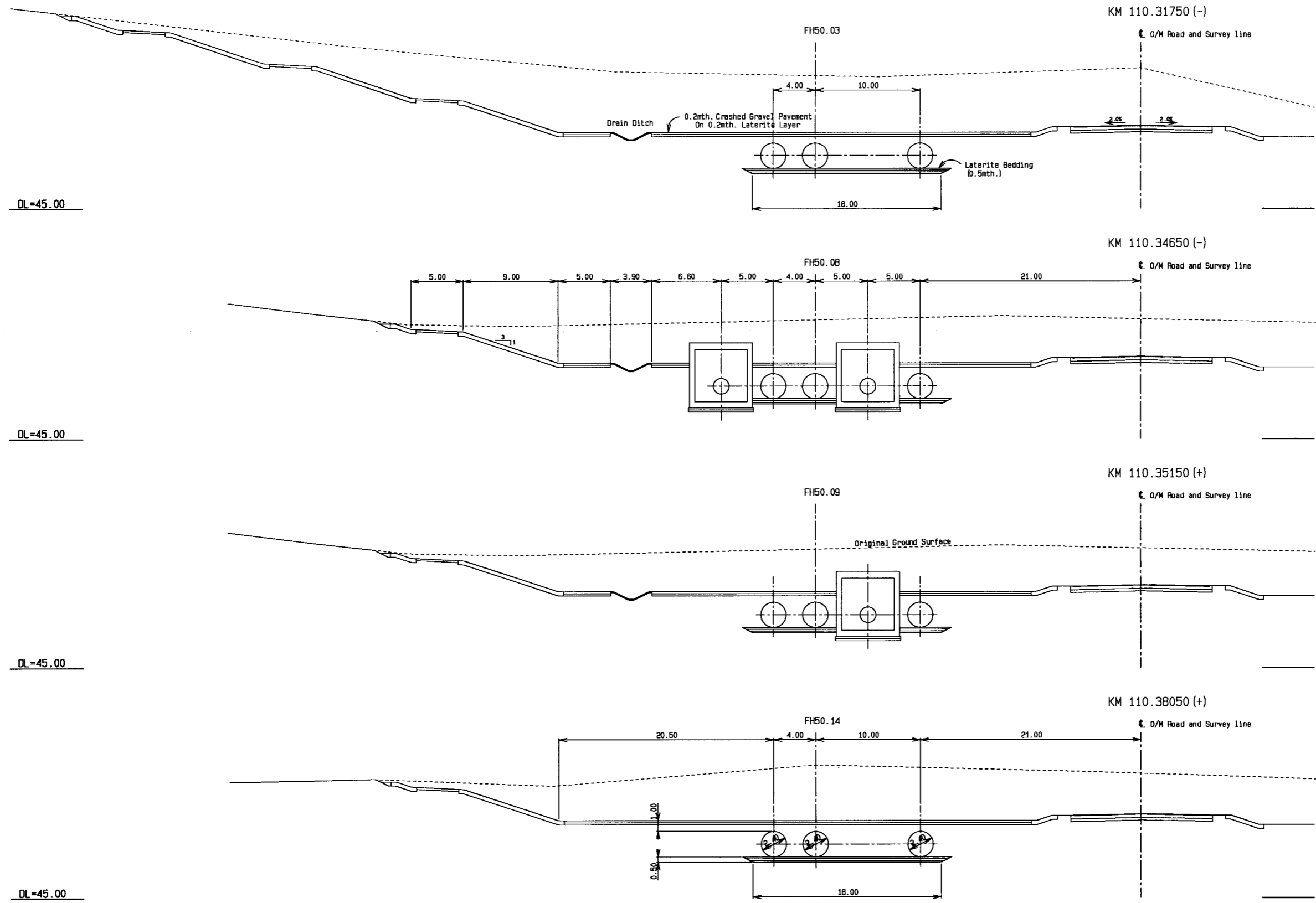
KM 110.35150 (+)

0/M Road and Survey Line

KM 110.38050 (+)

0/M Road and Survey Line

NOTES:

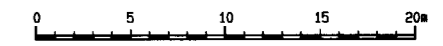


DL=45.00

DL=45.00

DL=45.00

DL=45.00



SCALE 1:400

CROSS SECTIONS OF SURGE TANK NO.1

THE ARAB REPUBLIC OF EGYPT  
 MINISTRY OF WATER RESOURCES AND IRRIGATION  
 NORTH SINAI DEVELOPMENT ORGANIZATION  
 THE NORTH SINAI INTEGRATED RURAL  
 DEVELOPMENT PROJECT (PHASE III)

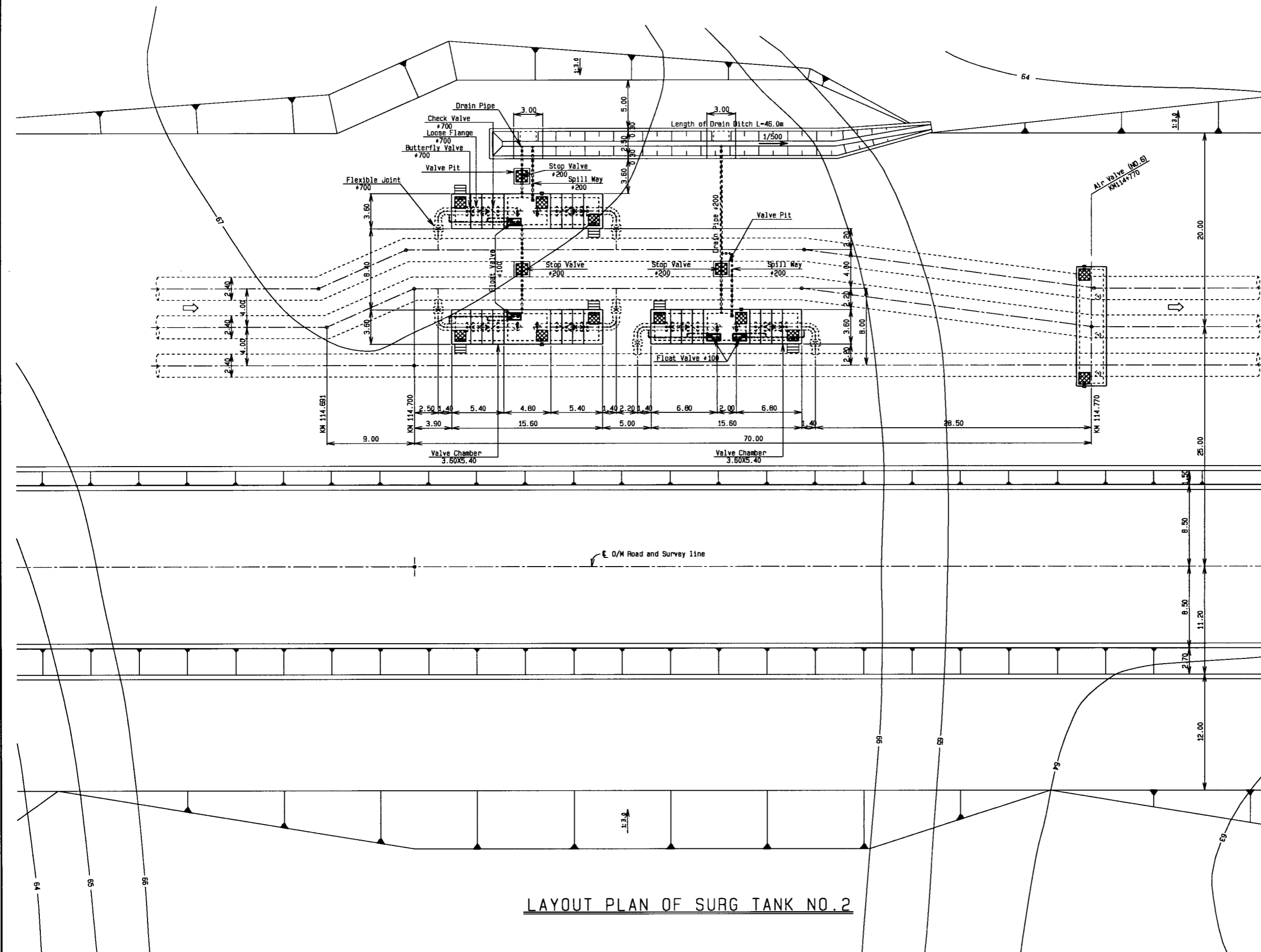
CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBABH CANAL  
 BETWEEN KM 108.465 AND KM118.560  
 EL SALAAM No.7 (BIR EL ABD) PUMPING STATION  
 DELIVERY PRESSURED PIPELINE  
 CROSS SECTIONS OF SURGE TANK N o.1

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
 SANYU CONSULTANTS INC, PACIFIC CONSULTANTS INTERNATIONAL

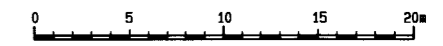
DESIGNED	
TRACED	
CHECKED	
APPROVED	
DRAWING NO.	DPP-237

**NOTES:**

- (1) This drawing shows locations of Surge Tank NO.2 and Air Valve (NO.6).
- (2) For detail of Air Valve, see Dwg NO.DPP-253.
- (3) Location and route of drain ditch shall be instructed by the Engineers.



**LAYOUT PLAN OF SURG TANK NO.2**



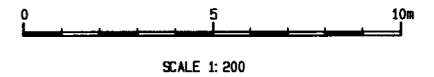
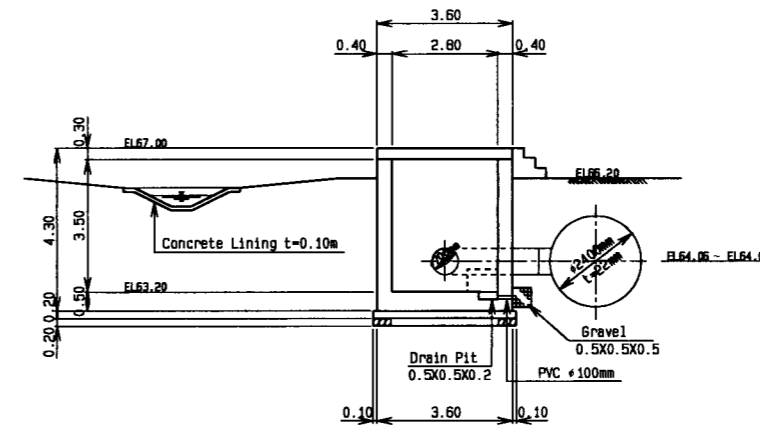
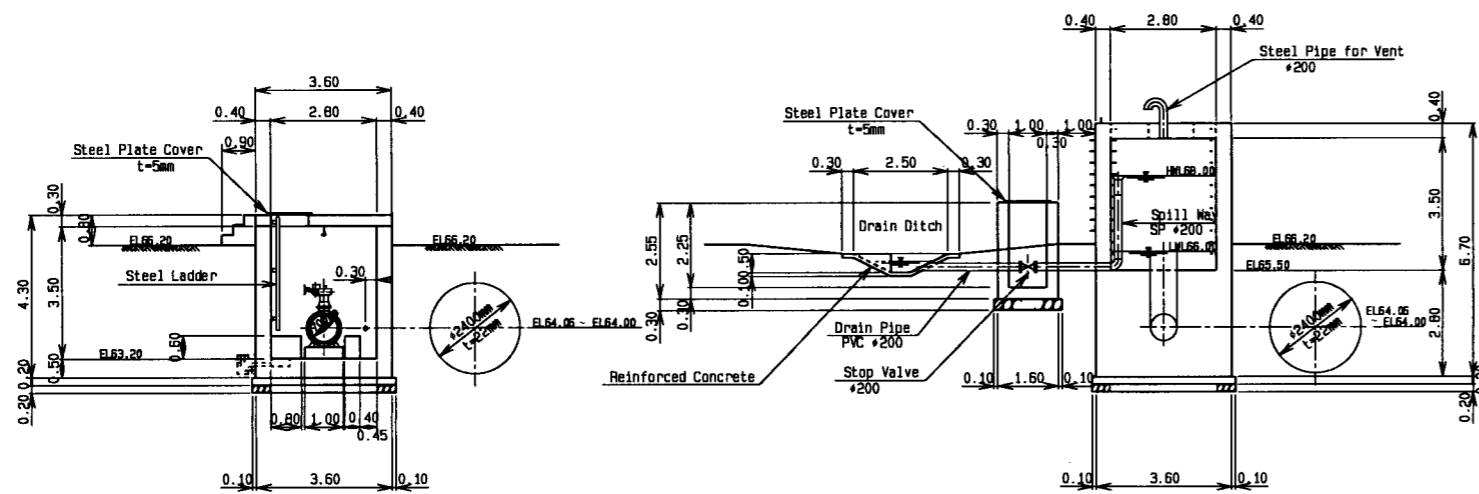
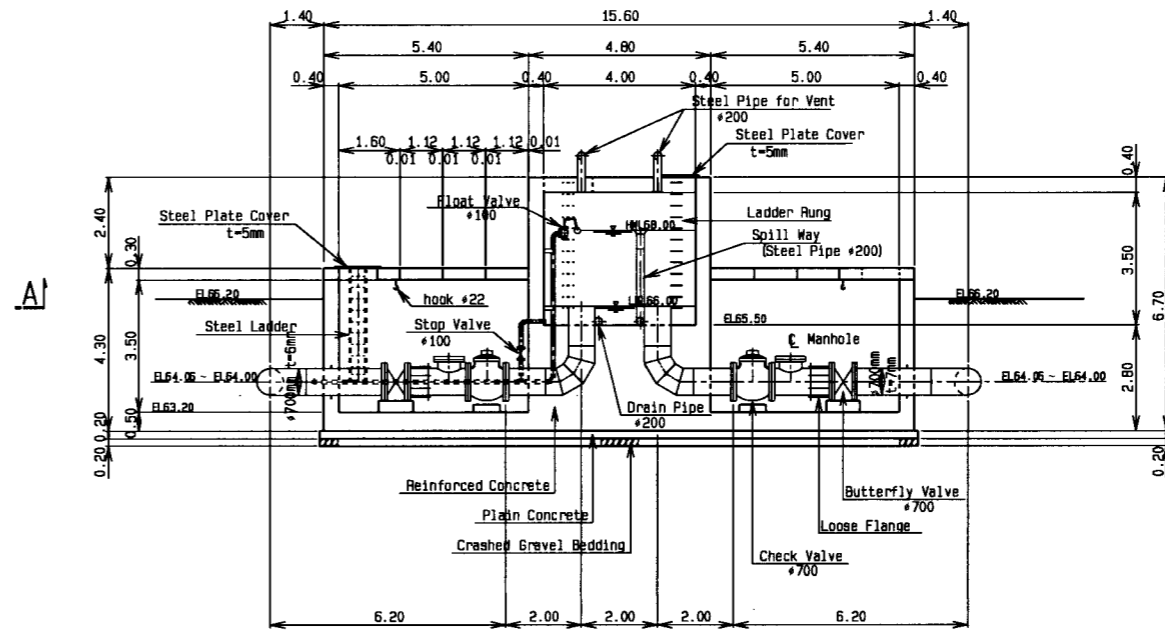
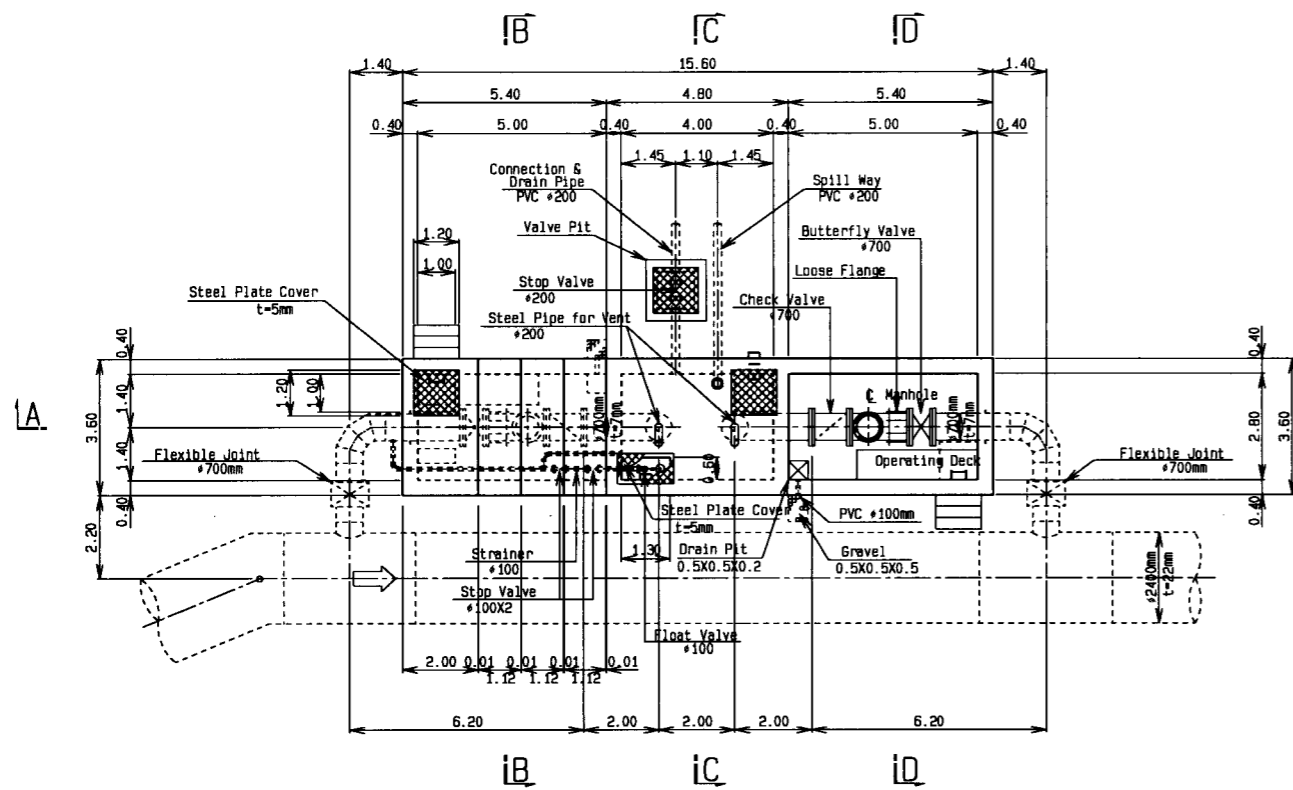
SCALE 1: 400

THE ARAB REPUBLIC OF EGYPT MINISTRY OF WATER RESOURCES AND IRRIGATION NORTH SINAI DEVELOPMENT ORGANIZATION THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE III) CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBABH CANAL BETWEEN KM 108.466 AND KM118.560 EL SALAAM No.7 (BIR EL ABD) PUMPING STATION DELIVERY PRESSURED PIPELINE LAYOUT PLAN OF SURGE TANK No.2	
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) SANYU CONSULTANTS INC, PACIFIC CONSULTANTS INTERNATIONAL	
DESIGNED	
TRACED	
CHECKED	
APPROVED	
DRAWING NO.	DPP-238

# SURGE TANK NO.2

**NOTES:**

(1) Miscellaneous steel such as steel plate cover, steel ladder and ladder rung, see Dwg NO. DPP-243,



THE ARAB REPUBLIC OF EGYPT MINISTRY OF WATER RESOURCES AND IRRIGATION NORTH SINAI DEVELOPMENT ORGANIZATION THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE III)	
CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBABH CANAL BETWEEN KM 108.466 AND KM118.560 EL SALAAM No.7 (BIR EL ABD) PUMPING STATION DELIVERY PRESSURED PIPELINE PLAN AND SECTIONS OF SURGE TANK No.2	
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) SANYU CONSULTANTS INC, PACIFIC CONSULTANTS INTERNATIONAL	
DESIGNED	
TRACED	
CHECKED	
APPROVED	
DRAWING NO.	DPP-239