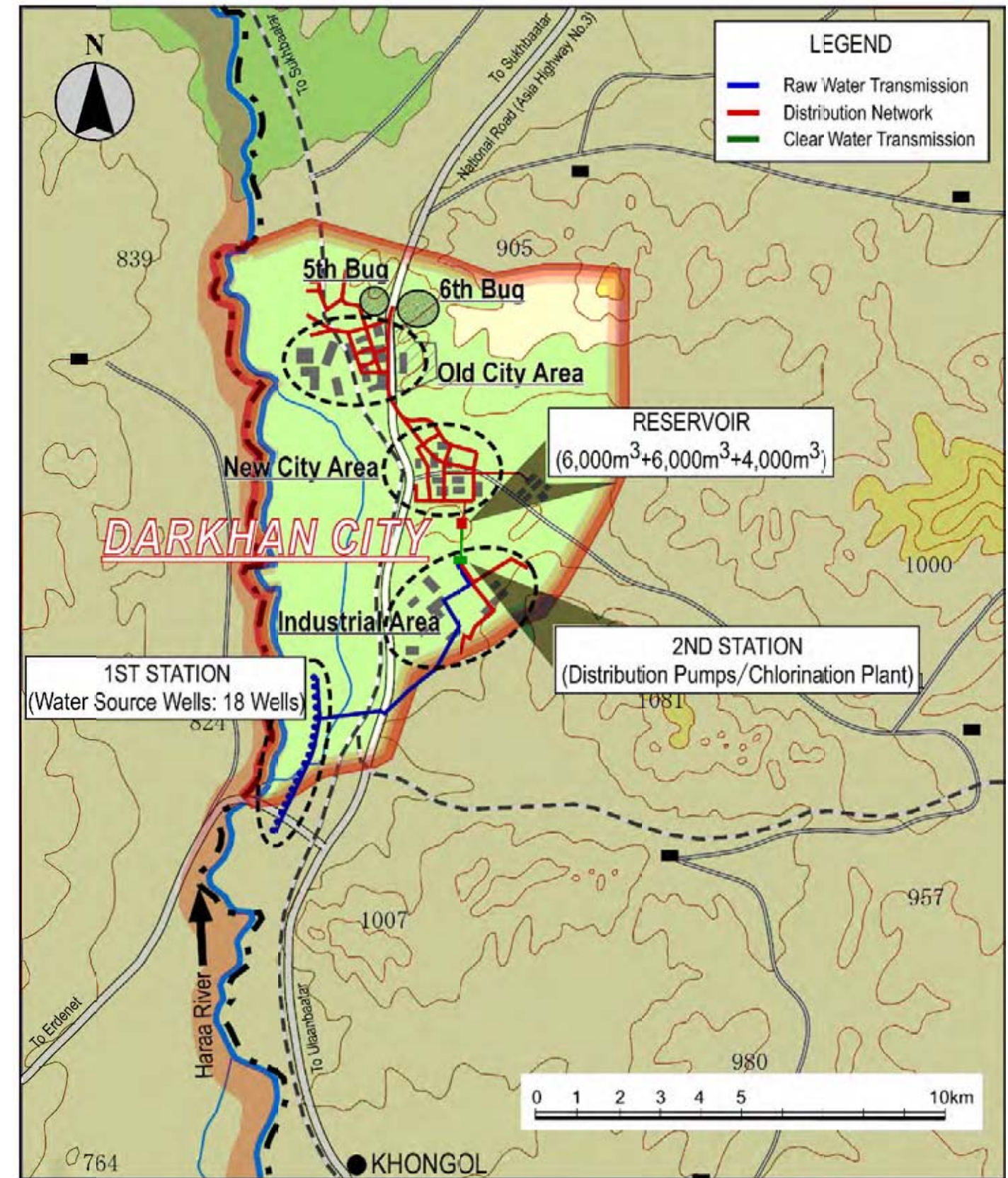


Appendix-5 Basic Design Drawings

List of Basic Design Drawings

No.	Facility	Title
1.1		Project Location Map
2.1	1st Station	Rehabilitation of Existing Pump House (1/2), Nos. 1, 3, 7, and 11 Wells
2.2		Rehabilitation of Existing Pump House (2/2), Nos. 12, 13, 14, 16, 17 and 18 Wells
2.3		Installation Plan of Flow Meters for Raw Water Transmission
2.4	1st & 2nd Stations	Single Line Diagram
3.1	2nd Station	Layout of Existing Facilities
3.2		Rehabilitation Plan of Pump House
3.3		Location of Water Level Gauges for Reservoirs and Ultrasonic Flow Meters for Distribution Pipelines
4.1	Chlorination Facilities	Flow Chart of Chlorination System in 2nd Station
4.2		Layout Plan
5.1	Remote Control System	Instrument Diagram
6.1	Water Supply Facilities for Ger Area	Layout Plan (1/2), 5th Bag
6.2		Layout Plan (2/2), 6th Bag
6.3		Structure of Water Kiosk (1/2), Type A
6.4		Structure of Water Kiosk (2/2), Type B
6.5		Structure of Chamber (1/2), Type A
6.6		Structure of Chamber (2/2), Type B
6.7		Kiosk Connection
6.8		Typical Cross Section of Pipeline Trench



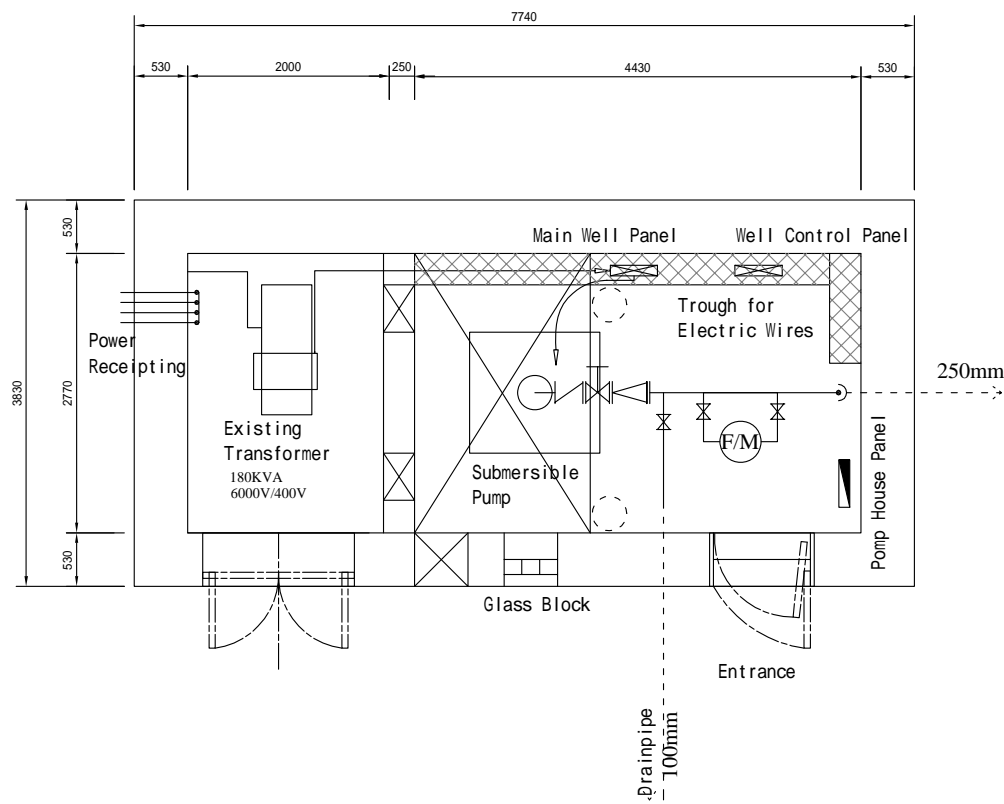
No.	Date	Approved	Revised

The Basic Design on the Project for Improvement of Water Supply Facilities at Darkhan City in Mongolia
 Монгол Улс Дархан хотын ГХС-ийн гүйцэтгэх ажлын үндсэн зураг
 Water Supply and Sewerage System Co. of Darkhan City

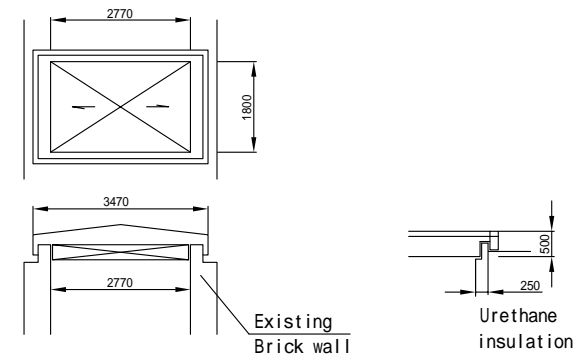
JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
TEC TOKYO ENGINEERING CONSULTANTS CO.,LTD, JAPAN

Title : Project Location Map
 プロジェクト位置図

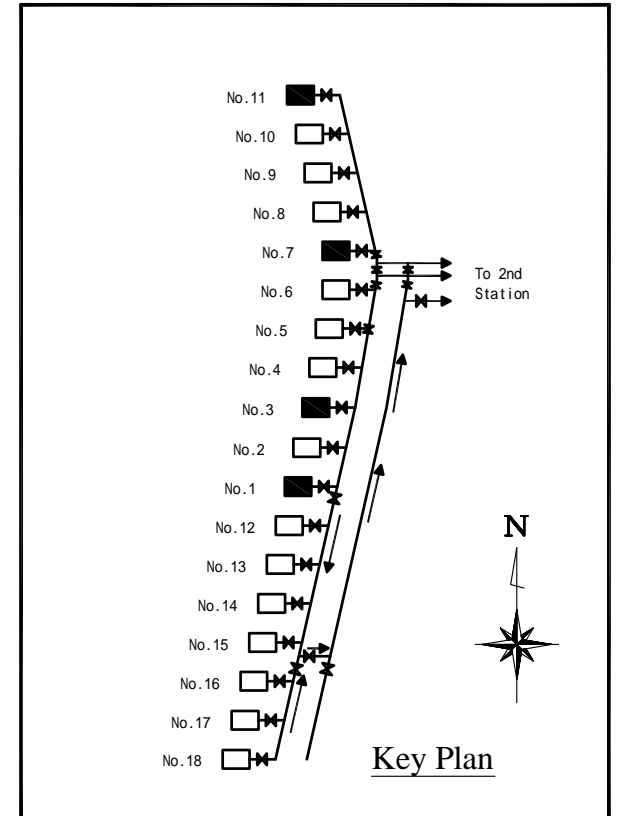
Date : September . 08	Approved by :
Scale : Nonscale	Prepared by :
No. 1 - 1	REV



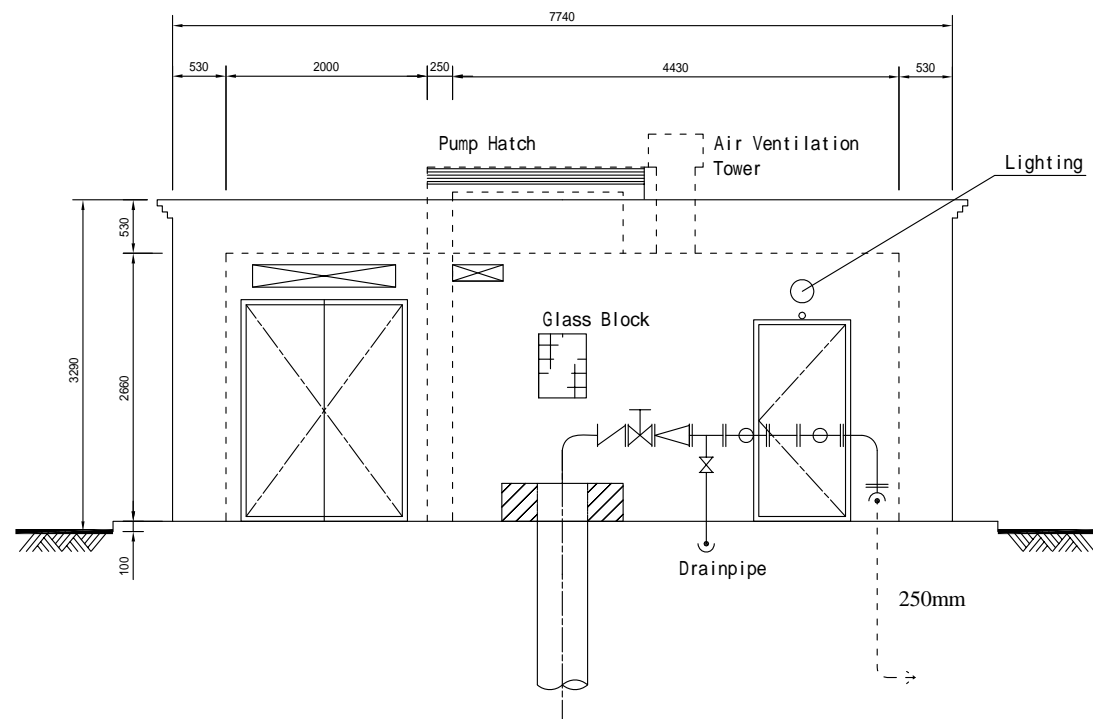
PLAN



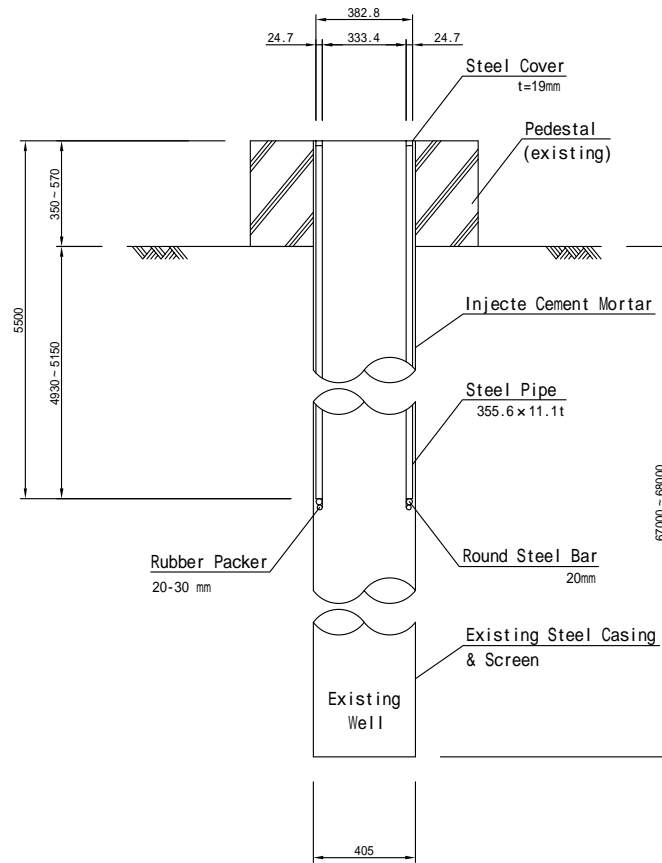
Detail of Pump Hatch



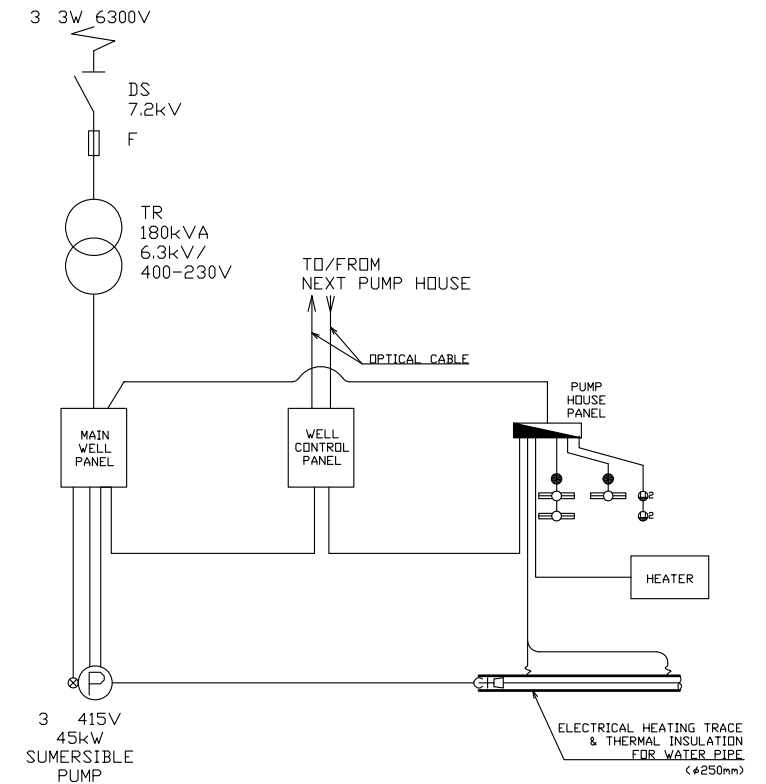
Key Plan



ELEVATION



Rehabilitation of Existing Tubewell
(Nos. 1, 3, 7 & 11 Pumps)



SCHEMATIC DIAGRAM

No.	Date	Approved	Revised

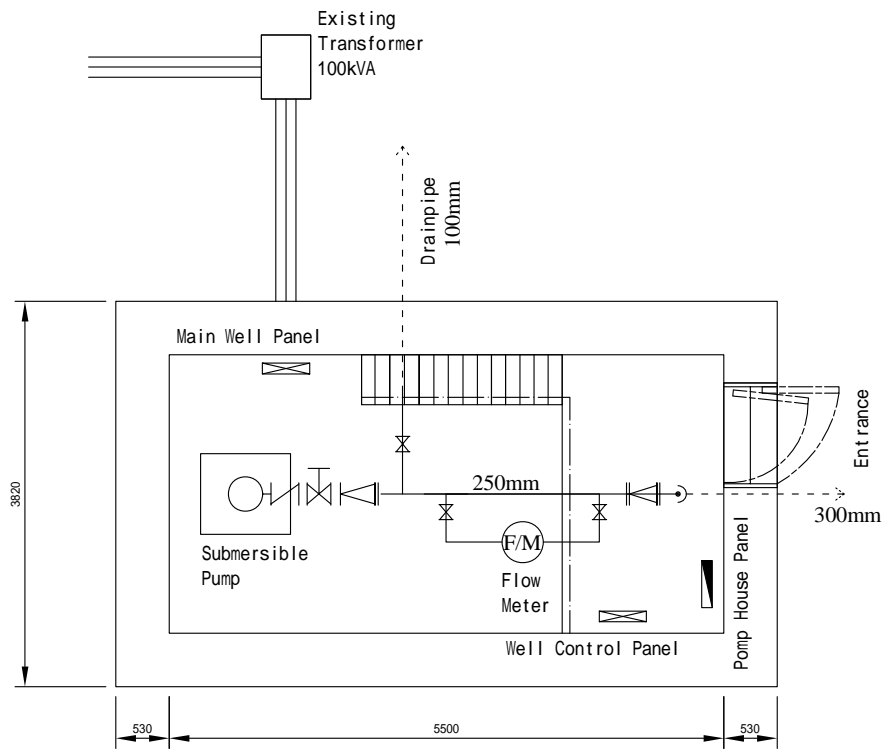
The Basic Design on the Project for Improvement of Water Supply Facilities at Darkhan City in Mongolia
 Монгол Улс Гэрлэнгийн Шувууны Системийн Дээд Сурталчилсан Төслийн Үндсэн Дүр
 Water Supply and Sewerage System Co. of Darkhan City



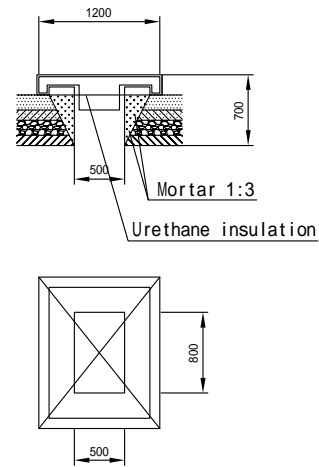
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 TOKYO ENGINEERING CONSULTANTS CO., LTD. JAPAN

Title: 1st Station, Rehabilitation of Existing Pump House (1/2), Nos. 1, 3, 7 & 11 Wells
 第1ステーション、既存ポンプ場改修図(1/2)、井戸1、3、7、及び11

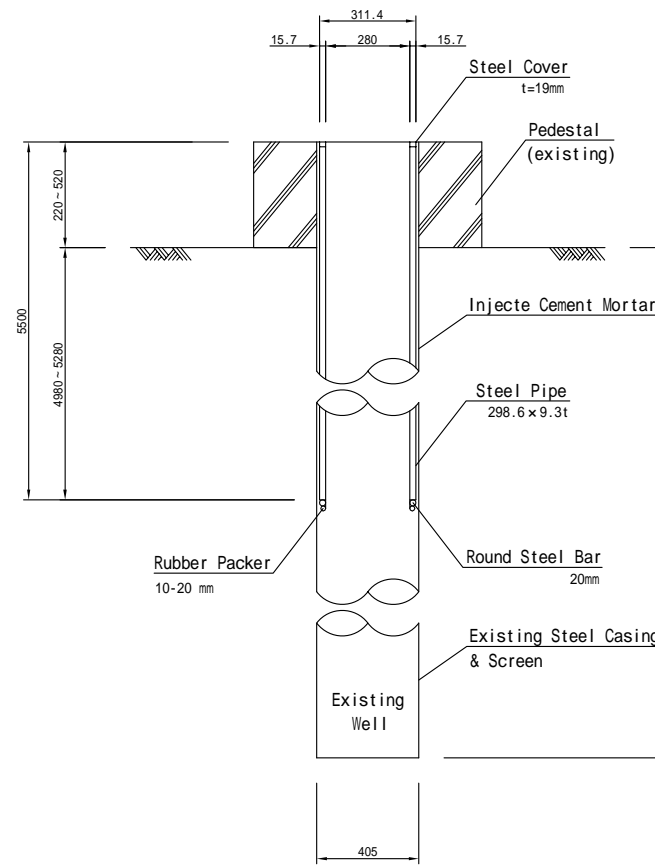
Date:	September. 08	Approved by:	
Scale:	Nonscale	Prepared by:	
No. 2 - 1		REV	



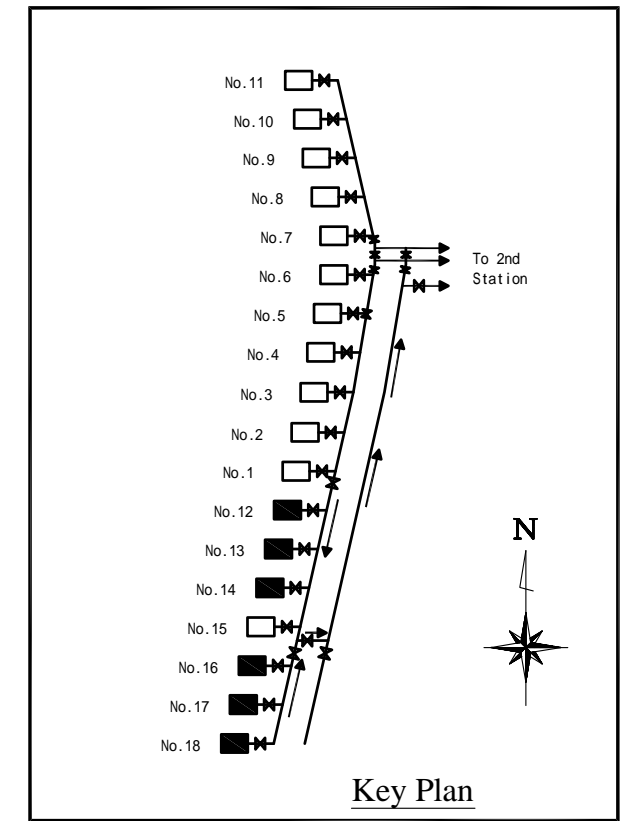
PLAN



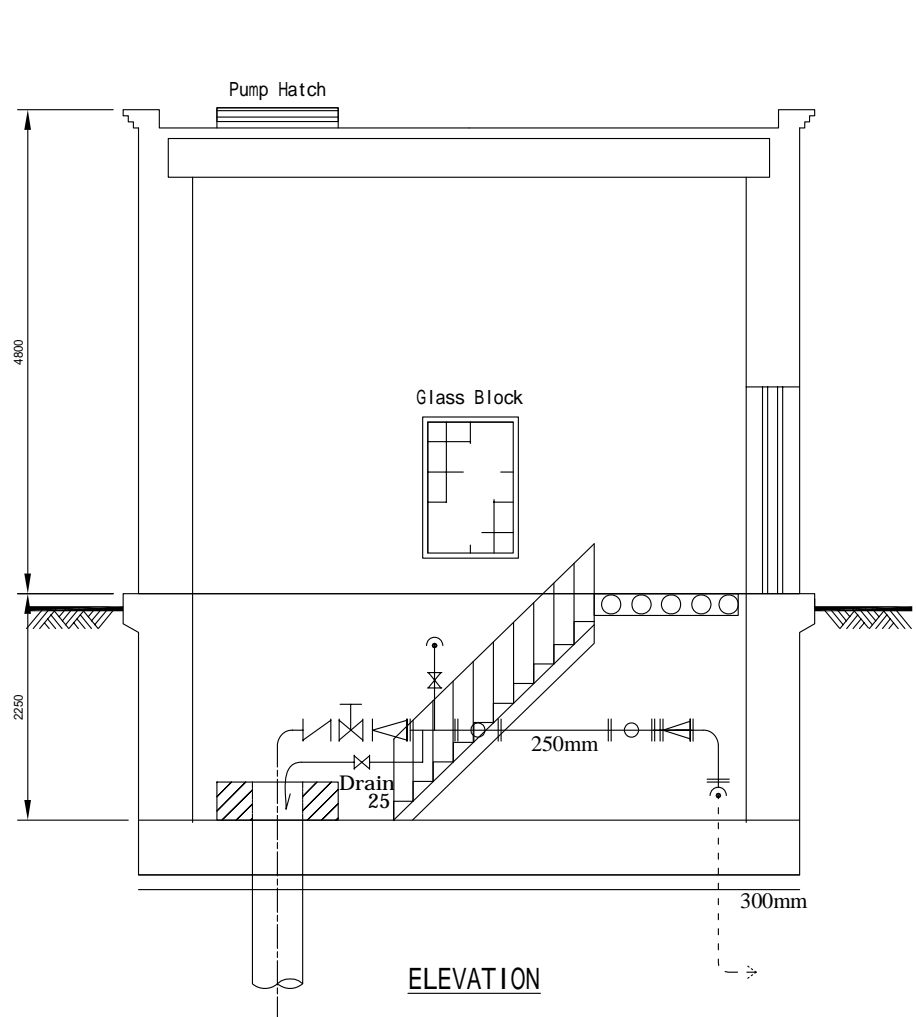
Detail of Pump Hatch



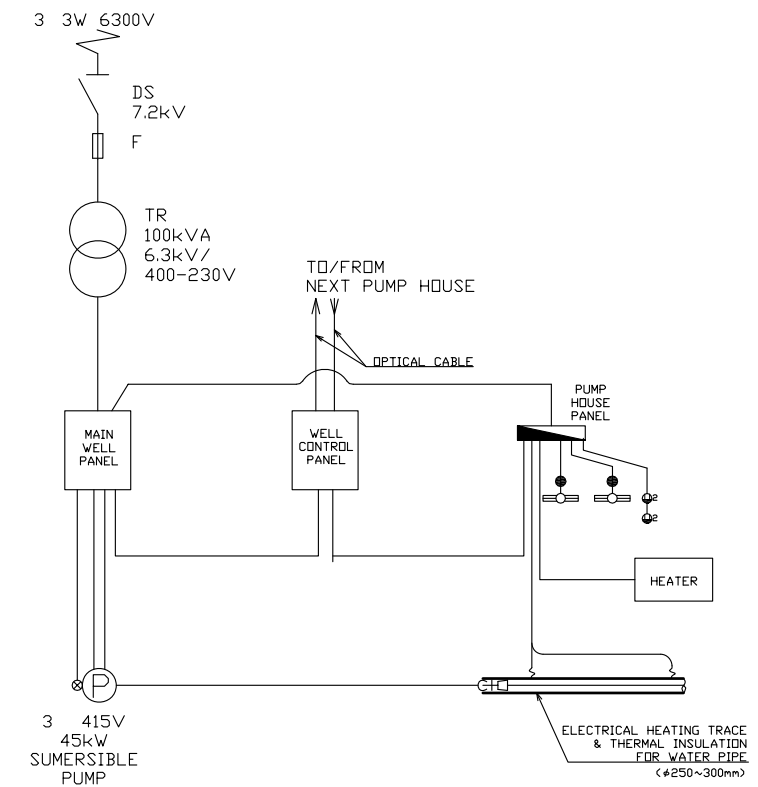
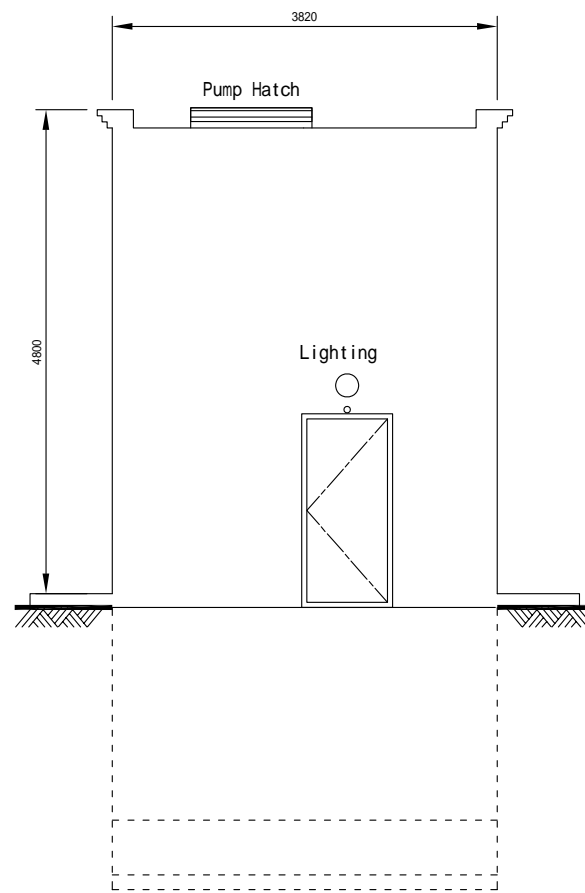
Rehabilitation of Existing Tubewell
(Nos. 16 & 18 Pumps)



Key Plan



ELEVATION



SCHEMATIC DIAGRAM

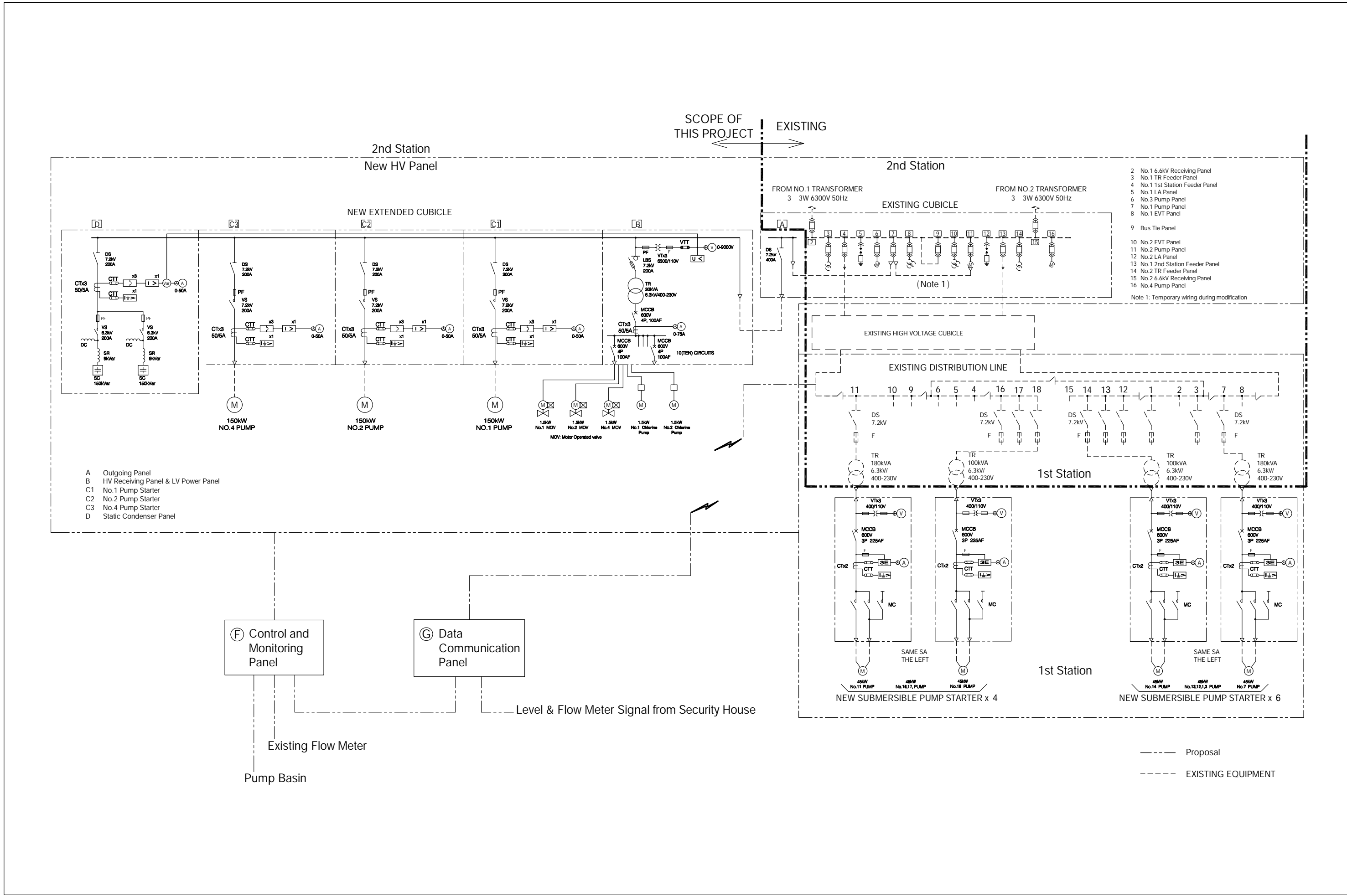
No	Date	Approved	Revised

The Basic Design on the Project for Improvement of Water Supply
Facilities at Darkhan City in Mongolia
モンゴル国ダラハン市給水施設改善計画基本設計調査
Water Supply and Sewerage System Co. of Darkhan City

JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
TEC TOKYO ENGINEERING CONSULTANTS CO.,LTD, JAPAN

Title: 1st Station, Rehabilitation of Existing Pump House (2/2), Nos. 12, 13, 14, 16, 17 & 18 Wells
第1ステーション、既存ポンプ場改修図(2/2)、井戸12、13、14、16、17及び18

Date: September. 08
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Approved by: [Signature]
Prepared by: [Signature]
No. 2 - 2
REV



- 2 No.1 6.6kV Receiving Panel
 - 3 No.1 TR Feeder Panel
 - 4 No.1 1st Station Feeder Panel
 - 5 No.1 LA Panel
 - 6 No.3 Pump Panel
 - 7 No.1 Pump Panel
 - 8 No.1 EVT Panel
 - 9 Bus Tie Panel
 - 10 No.2 EVT Panel
 - 11 No.2 Pump Panel
 - 12 No.2 LA Panel
 - 13 No.1 2nd Station Feeder Panel
 - 14 No.2 TR Feeder Panel
 - 15 No.2 6.6kV Receiving Panel
 - 16 No.4 Pump Panel
- Note 1: Temporary wiring during modification

- A Outgoing Panel
- B HV Receiving Panel & LV Power Panel
- C1 No.1 Pump Starter
- C2 No.2 Pump Starter
- C3 No.4 Pump Starter
- D Static Condenser Panel

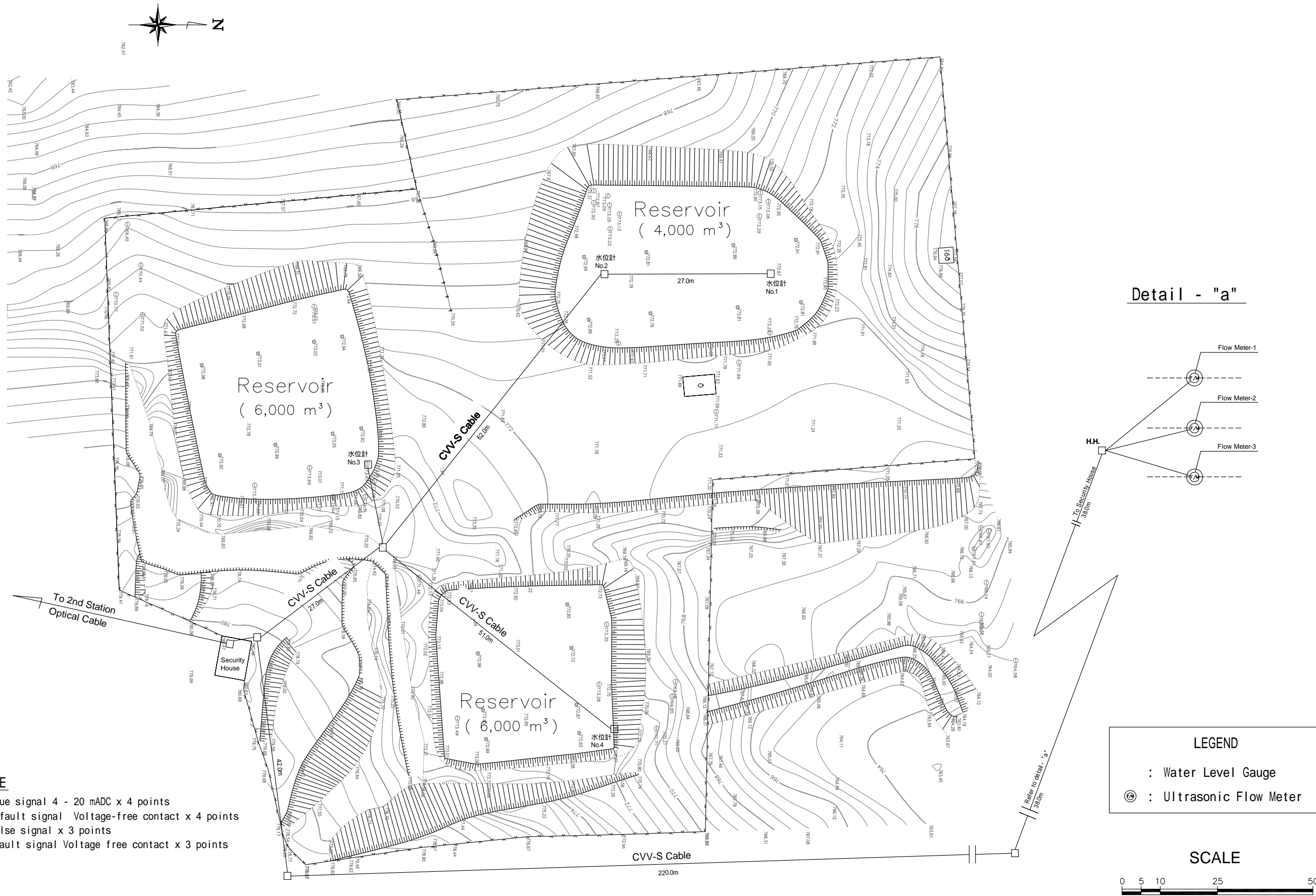
No.	Date	Approved	Revised

The Basic Design on the Project for Improvement of Water Supply Facilities at Darkhan City in Mongolia
 Монгол Улс Дархан хотын ус хангамжийн гүйцэтгэл зориулсан төслийн үндсэн төлөвлөгөө
 Water Supply and Sewerage System Co. of Darkhan City

JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
TEC TOKYO ENGINEERING CONSULTANTS CO.,LTD, JAPAN

Title : 1st & 2nd Stations, Single Line Diagram
 第1・第2ステーション、単線結線図

Date : September . 08
 Approved by :
 Prepared by :
 Scale : Nonscale
 No. 2 - 4
 REV



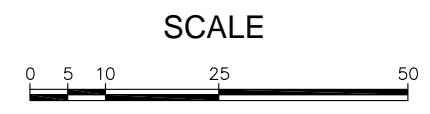
OPTICAL CABLE

- (1) Level analogue signal 4 - 20 mADC x 4 points
- (2) Level meter fault signal Voltage-free contact x 4 points
- (3) Flow rate pulse signal x 3 points
- (4) Flow meter fault signal Voltage free contact x 3 points

LEGEND

○ : Water Level Gauge

⊗ : Ultrasonic Flow Meter



No	Date	Approved	Revised

The Basic Design on the Project for Improvement of Water Supply Facilities at Darkhan City in Mongolia
 Монгол国ダールハン市給水施設改善計画基本設計調査
 Water Supply and Sewerage System Co. of Darkhan City

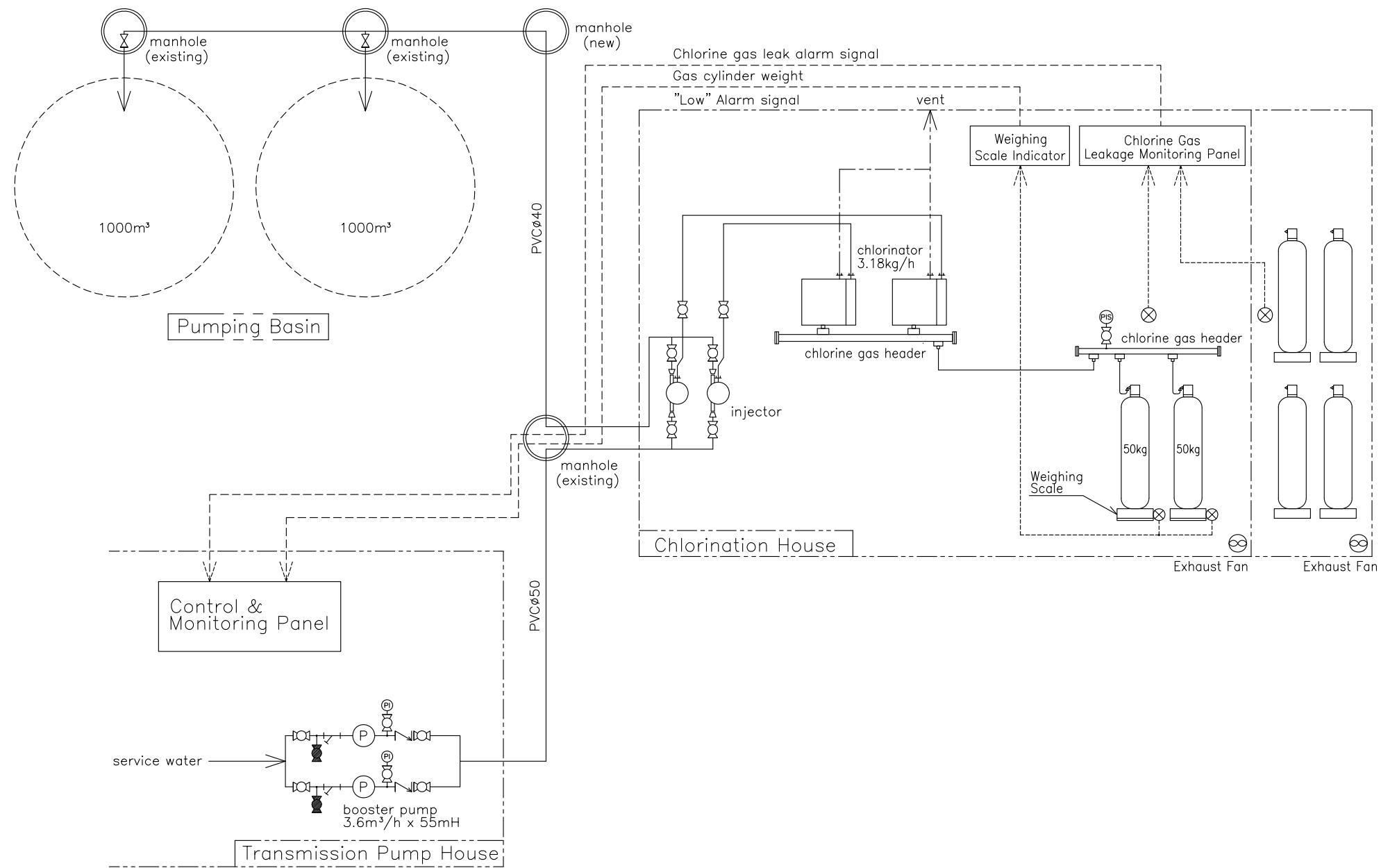
JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

TEC TOKYO ENGINEERING CONSULTANTS CO.,LTD, JAPAN

Title: 2nd Station, Location of Water Level Gauges for Reservoirs and Ultrasonic Flow Meters for Distribution Pipelines
 第2ステーション、配水池水位計及び配水管路流量計設置計画図

Date : September . 08	Approved by : Prepared by :
Scale : 1/400	No. 3 - 3

REV ◊



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No.	Date	Approved	Revised

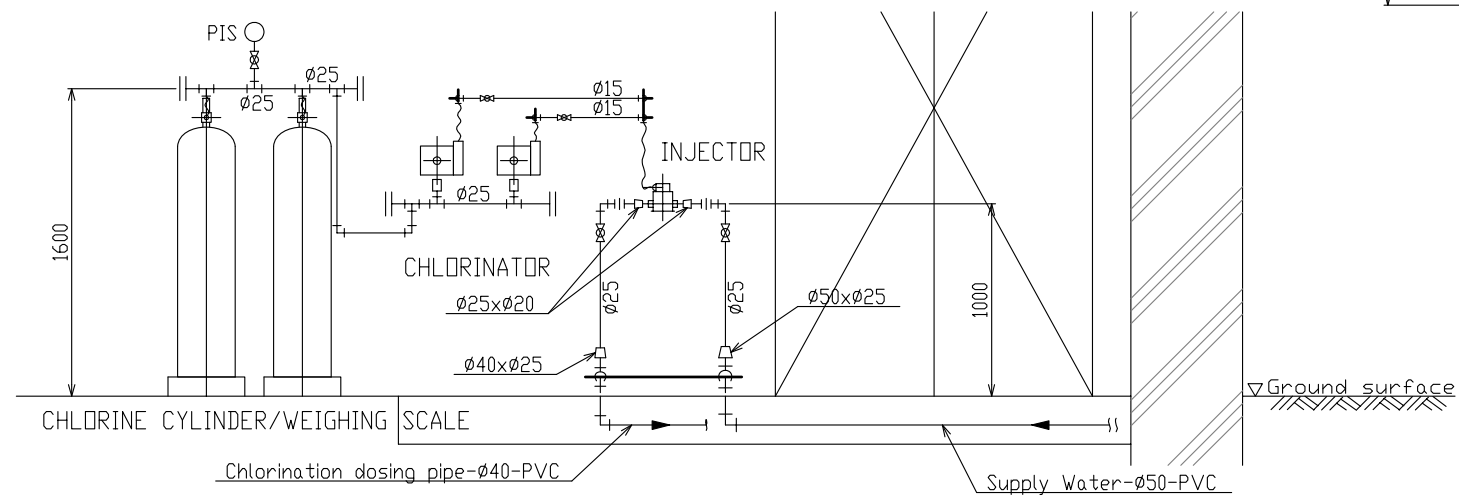
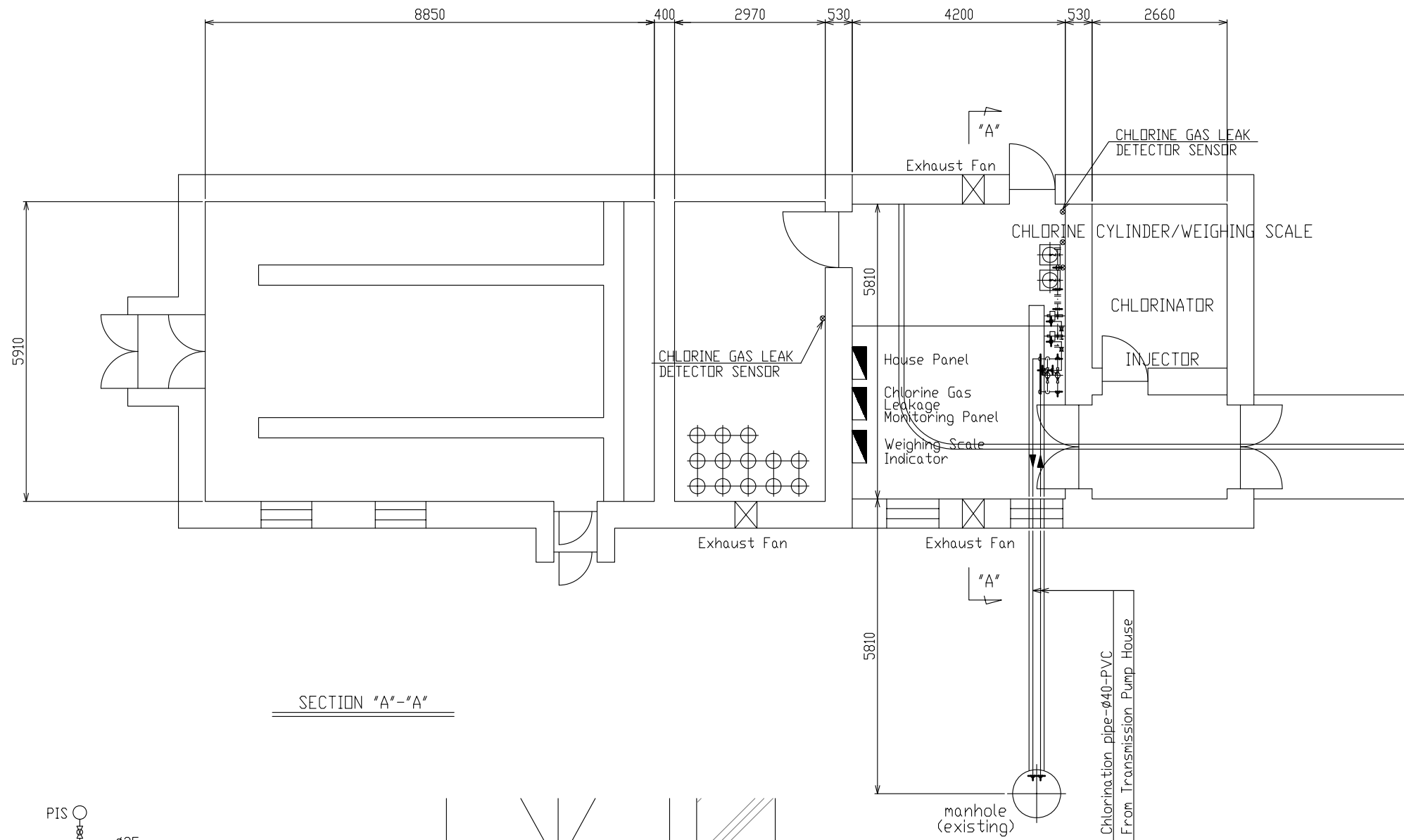
The Basic Design on the Project for Improvement of Water Supply
 Facilities at Darkhan City in Mongolia
 モンゴル国ダラハン市給水施設改善計画基本設計調査
 Water Supply and Sewerage System Co. of Darkhan City

JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
TEC TOKYO ENGINEERING CONSULTANTS CO.,LTD, JAPAN

Title: Chlorination Facilities, Flow Chart of Chlorination System in 2nd Station
 塩素消毒設備、フロー図

Date : September . 08	Approved by : Prepared by :
Scale : Nonscale	No. 4 - 1 REV

Chlorination House



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◇			
◇			
No	Date	Approved	Revised

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 Монгол Улс Дархан Шигшээ Нийслэл Үедний Гэрээний Шугамын Системийн Дээд Боловсролын Төслийн Үндсэн Дүрэм
 Water Supply and Sewerage System Co. of Darkhan City

JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
TEC TOKYO ENGINEERING CONSULTANTS CO.,LTD, JAPAN

Title: Chlorination Facilities, Layout Plan
 塩素消毒設備、設置図

Date: September . 08
 Scale: Nonscale
 Approved by:
 Prepared by:
 No. 4 - 2

REV

