

- NOTES:**
1. ALL DIMENSIONS & LEVELS ARE IN METERS
- LEGEND:-**
- 1. PROPOSED
 - 2. EXISTING FACILITY NEEDING UPGRADATION / MODIFICATION
 - 3. EXISTING EQUIPMENT / STRUCTURE NOT REQUIRING ANY CHANGE

REFERENCE DRAWING:
REFER DRAWING NO. ALLAHPUR PUMPING STATION (ALD-PS-D-ALPS-2)

INST.					
ELEC.					
MECH.					
STRU.					
CIVIL					
REV NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED
CHECKED BY:	D SARKAR	APPROVED BY:	AG SIRCAR
DRAWN	S.K.BENIWAL	CHECK	APPROVE
DESIGNED	S SEN	SCALE	1:200
SURVEYED	S.Sharma	DATE	18-01-2005

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

CONSULTANTS:

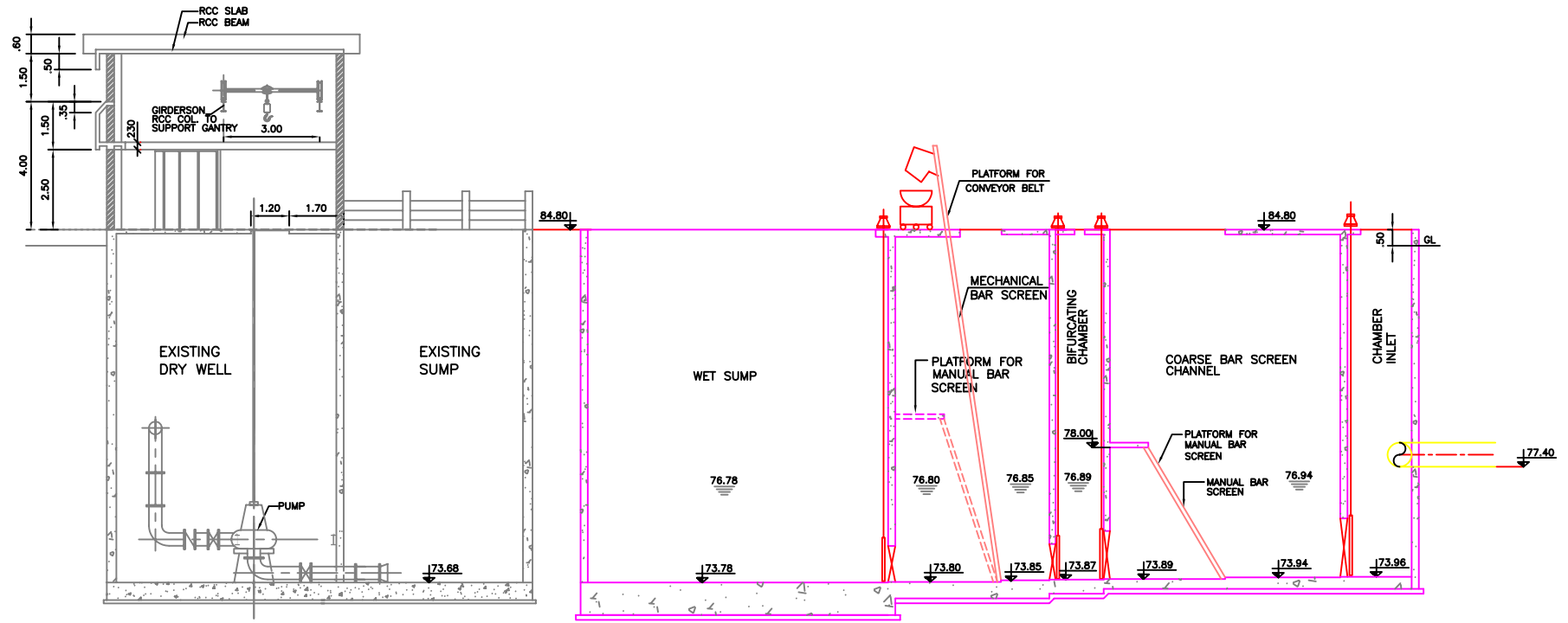
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 CTI ENGINEERING INTERNATIONAL CO., LTD.
 STUP CONSULTANTS LTD.

PROJECT:
THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA
FEASIBILITY STUDY FOR ALLAHABAD CITY

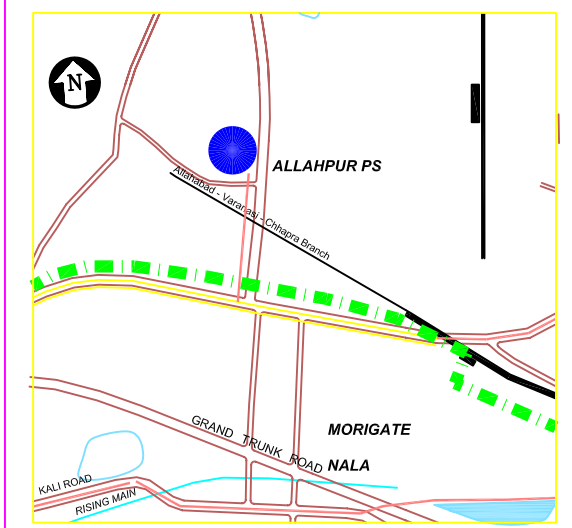
CORRIDOR: District : D
ALLAHAPUR PUMPING STATION (EXISTING) (1/3)

SHEET CONTENTS:
LAYOUT & GENERAL ARRANGEMENT OF EXISTING PUMPING STATION & PROPOSED AUGMENTATION

DRAWING NO.	ALD-PS-D-ALPS-1	SHT. NO.	141
--------------------	-----------------	-----------------	-----



SECTION A-B
(HYDRAULIC FLOW DIAGRAM FOR PROPOSED AUGMENTATION)



KEY PLAN(N.T.S.)

- NOTES:**
1. ALL DIMENSIONS & LEVELS ARE IN METERS
- LEGEND:-**
1. PROPOSED
 2. EXISTING FACILITY NEEDING UPGRADATION / MODIFICATION
 3. EXISTING EQUIPMENT / STRUCTURE NOT REQUIRING ANY CHANGE

REFERENCE DRAWING:
REFER DRAWING NO. ALLAHPUR PUMPING STATION (ALD-PS-D-ALPS-1)

INST.					
ELEC.					
MECH.					
STRU.					
CIVIL					
REV NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

CHECKED BY: D SARKAR		APPROVED BY: AG SIRCAR	
	CHECK		APPROVE
DRAWN	S.K.BENIWAL	SCALE	1:200
DESIGNED	S SEN	DATE	18-01-2005
SURVEYED	S.Sharma		

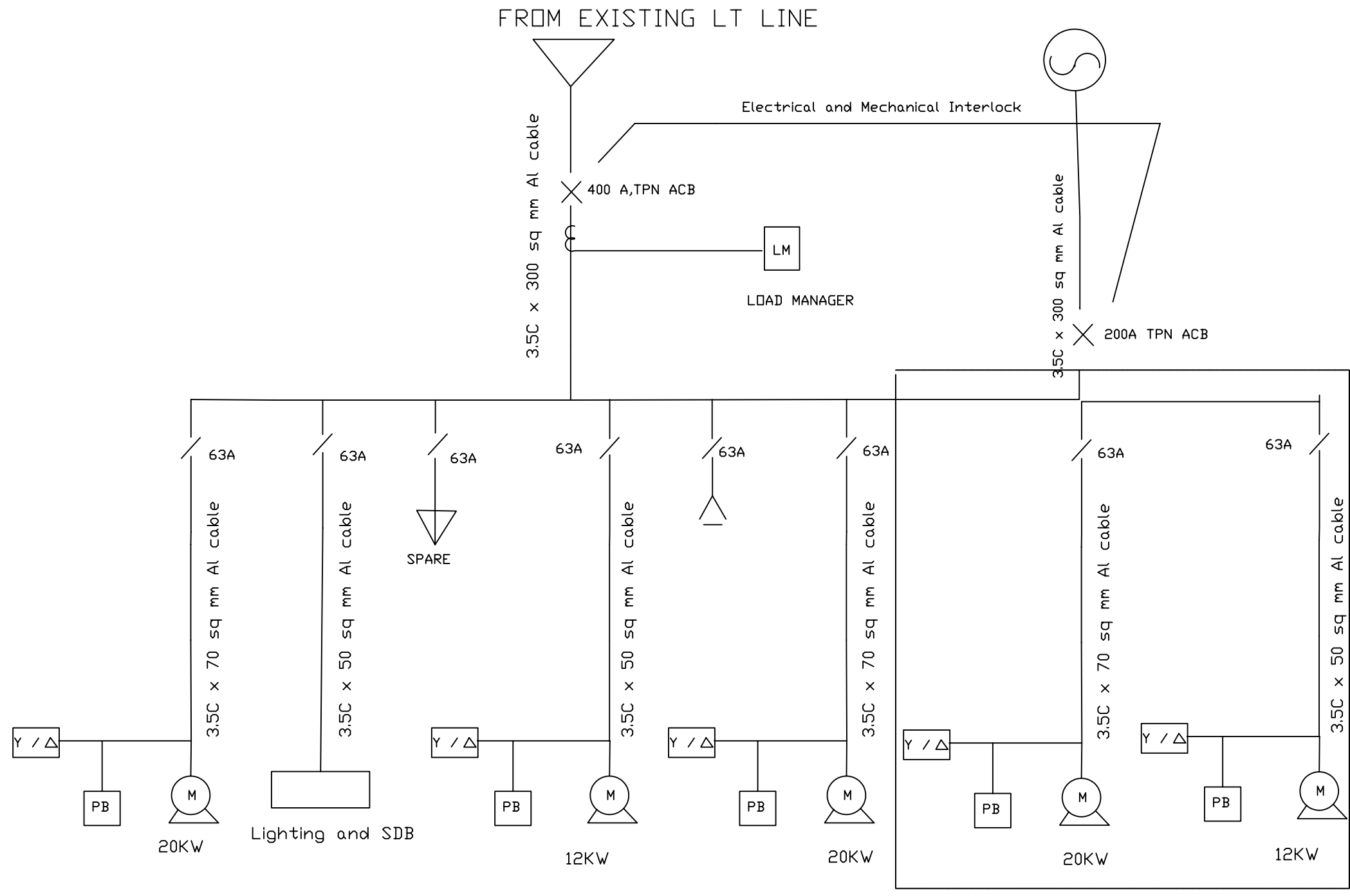
JICA JAPAN INTERNATIONAL COOPERATION AGENCY
CONSULTANTS:
TOKYO ENGINEERING CONSULTANTS CO., LTD.
CTI ENGINEERING INTERNATIONAL CO., LTD.
STUP CONSULTANTS LTD.

PROJECT:
THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA
FEASIBILITY STUDY FOR ALLAHABAD CITY

CORRIDOR: District : D
ALLAHAPUR PUMPING STATION (EXISTING) (2/3)

SHEET CONTENTS:
HYDRAULIC FLOW DIAGRAM

DRAWING NO.	SHT. NO
ALD-PS-D-ALPS-2	142



SINGLE LINE DIAGRAM FOR ALLAHPUR EXISTING PUMP HOUSE

PROPOSED PUMPS

- LEGEND**
- △ Capacitor Bank
 - ⊗ Protective Relay
 - A Ammeter
 - ASS Ammeter Selector Switch
 - V Voltmeter
 - VSS Voltmeter Selector Switch
 - C Current Transformer
 - ⋈ Potential Transformer
 - ⊕ DG set 63 KVA, 3Ph 415 V, 50 HZ
 - M TEFC Squirrel Cage Motor 415 V, 3 PH, 50 HZ
 - Y / Δ Star Delta Motor Starter
 - / TPN MCCB
 - PB Remote Push Button
- NOTES**

INST.					
ELEC.					
MECH.					
STRU.					
CIVIL					
REV. NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED
CHECKED BY:	RKA	CHECK	APPROVED BY: D.Sarkar
DRAWN	S.Mitra	SCALE	APPROVE
DESIGNED	S.Sen	SCALE	
SURVEYED		DATE	

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

CONSULTANTS:

- TOKYO ENGINEERING CONSULTANTS CO., LTD.
- CTI ENGINEERING INTERNATIONAL CO., LTD.
- STUP CONSULTANTS LTD.

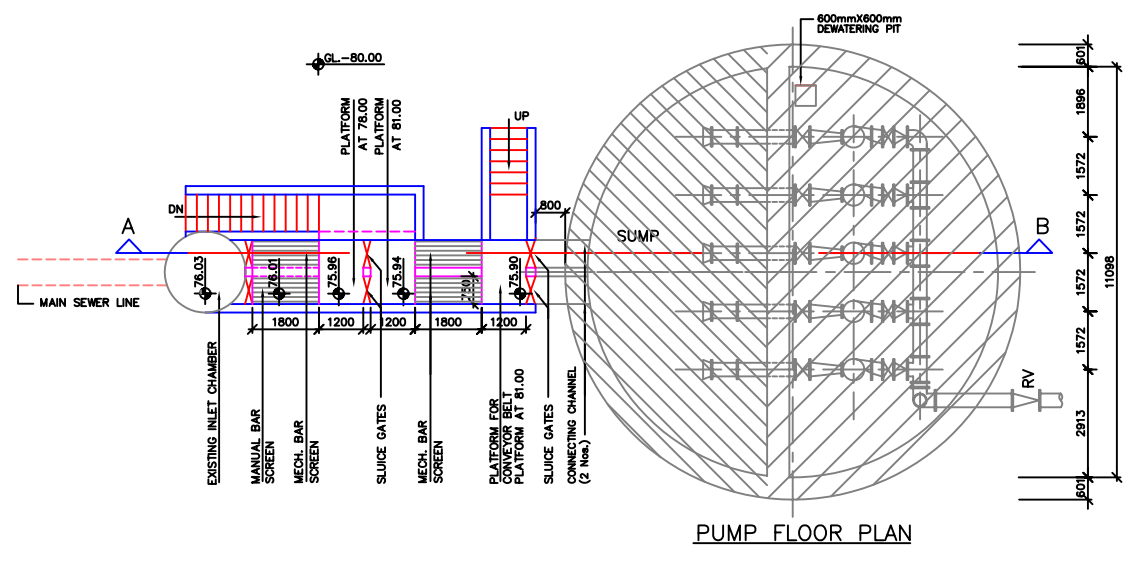
PROJECT:
 THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA
 FEASIBILITY STUDY FOR ALLAHABAD CITY

CORRIDOR: District - D

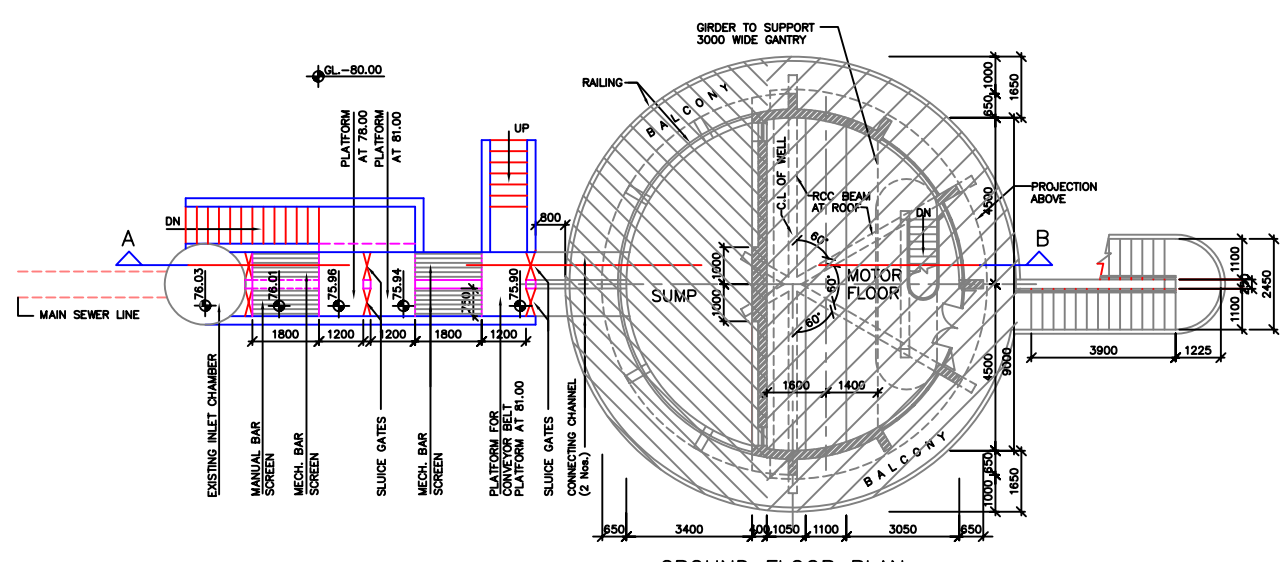
SHEET CONTENTS:
 SINGLE LINE DIAGRAM ALLAHPUR PUMPING STATION (3/3) (Existing)

DRAWING NO.	SHT. NO.
ALD-PS-D-ALPS-3	143

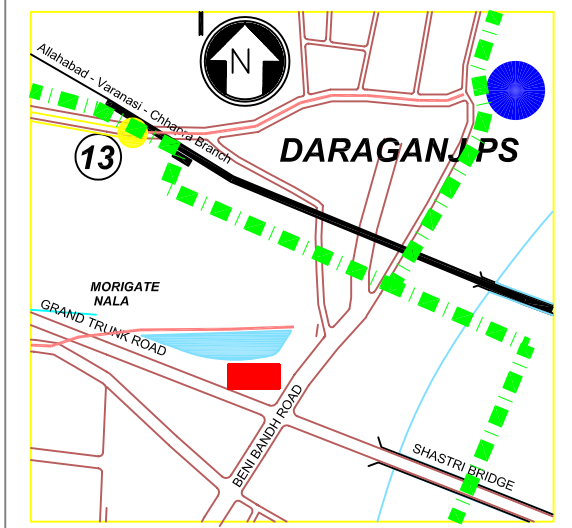
H
G
F
E
D
C
B
A



PUMP FLOOR PLAN



GROUND FLOOR PLAN (EXISTING PUMP HOUSE)



KEY PLAN (N.T.S.)

NOTES:
1. ALL DIMENSIONS & LEVELS ARE IN METERS
1. ALL DIMENSIONS & LEVELS ARE IN METERS

LEGEND: -
1. PROPOSED
2. EXISTING FACILITY NEEDING UPGRADATION / MODIFICATION
3. EXISTING EQUIPMENT / STRUCTURE NOT REQUIRING ANY CHANGE

REFERENCE DRAWING:
REFER DRAWING NO. DARA GANJ PUMPING STATION (ALD-PS-D-DGPS-2)

INST.					
ELEC.					
MECH.					
STRU.					
CIVIL					
REV NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED
CHECKED BY:	D SARKAR	APPROVED BY:	AG SIRCAR
DRAWN	S.K.BENIWAL	CHECK	APPROVE
DESIGNED	S SEN	SCALE	1:200
SURVEYED	S.Sharma	DATE	18-01-2005

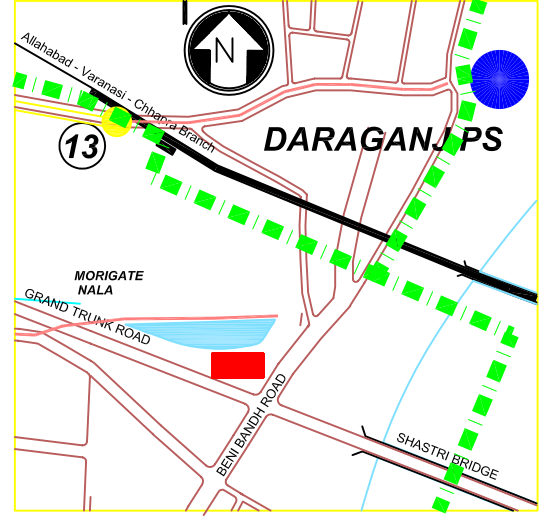
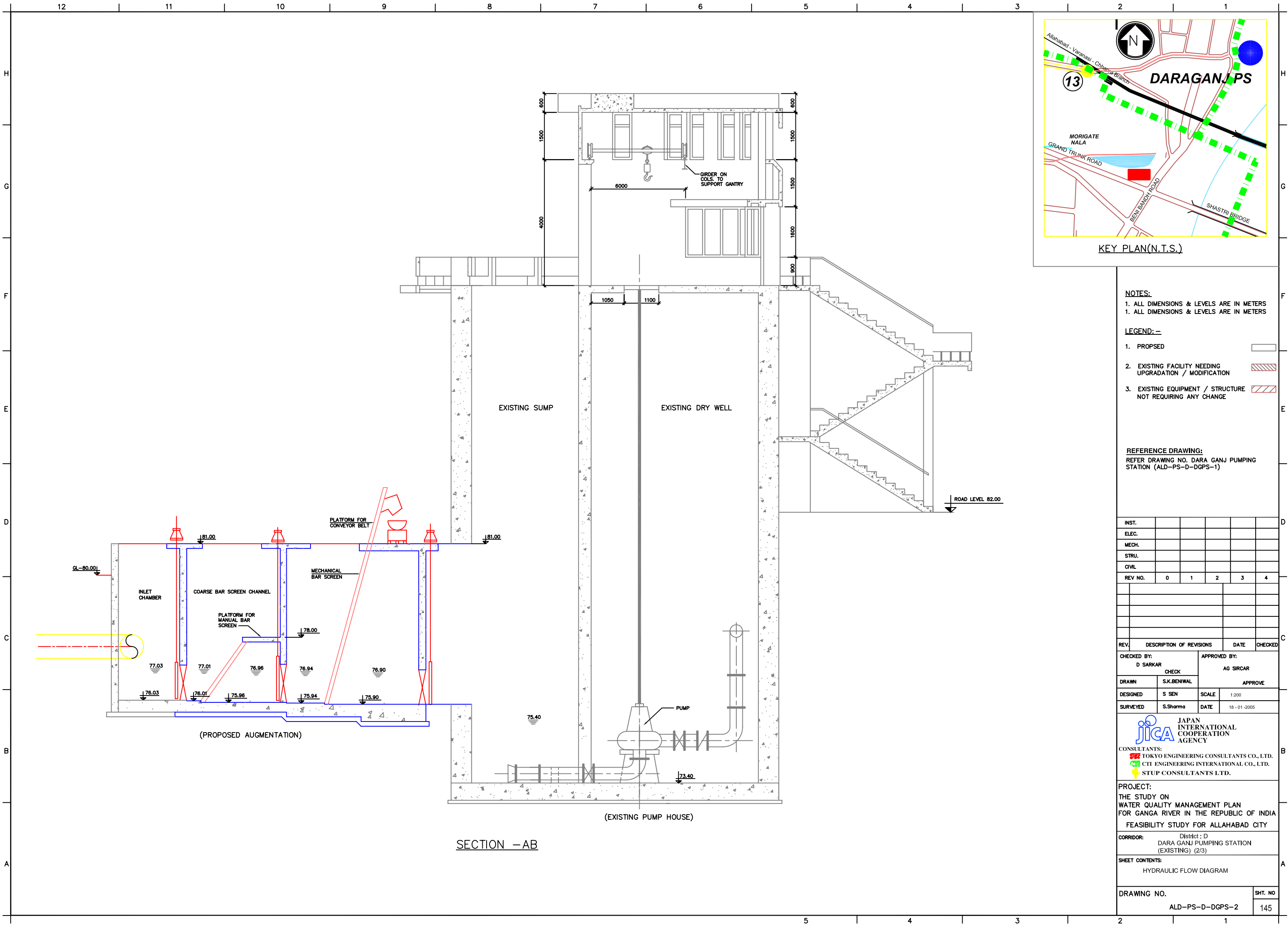
JICA JAPAN INTERNATIONAL COOPERATION AGENCY
CONSULTANTS:
TOKYO ENGINEERING CONSULTANTS CO., LTD.
CTI ENGINEERING INTERNATIONAL CO., LTD.
STUP CONSULTANTS LTD.

PROJECT:
THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA
FEASIBILITY STUDY FOR ALLAHABAD CITY

CORRIDOR: District : D
DARA GANJ PUMPING STATION (EXISTING) (1/3)

SHEET CONTENTS:
LAYOUT & GENERAL ARRANGEMENT OF EXISTING PUMPING STATION & PROPOSED AUGMENTATION

DRAWING NO. ALD-PS-D-DGPS-1 **SHT. NO.** 144



KEY PLAN(N.T.S.)

NOTES:
 1. ALL DIMENSIONS & LEVELS ARE IN METERS
 1. ALL DIMENSIONS & LEVELS ARE IN METERS

LEGEND: -

- 1. PROPOSED
- 2. EXISTING FACILITY NEEDING UPGRADATION / MODIFICATION
- 3. EXISTING EQUIPMENT / STRUCTURE NOT REQUIRING ANY CHANGE

REFERENCE DRAWING:
 REFER DRAWING NO. DARA GANJ PUMPING STATION (ALD-PS-D-DGPS-1)

INST.					
ELEC.					
MECH.					
STRU.					
CIVIL					
REV NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

CHECKED BY: D SARKAR		APPROVED BY: AG SIRCAR	
DRAWN S.K.BENIWAL		APPROVE	
DESIGNED S.SEN	SCALE 1:200	DATE 18-01-2005	
SURVEYED S.Sharma		DATE 18-01-2005	

JICA JAPAN INTERNATIONAL COOPERATION AGENCY
 CONSULTANTS:
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 CTI ENGINEERING INTERNATIONAL CO., LTD.
 STUP CONSULTANTS LTD.

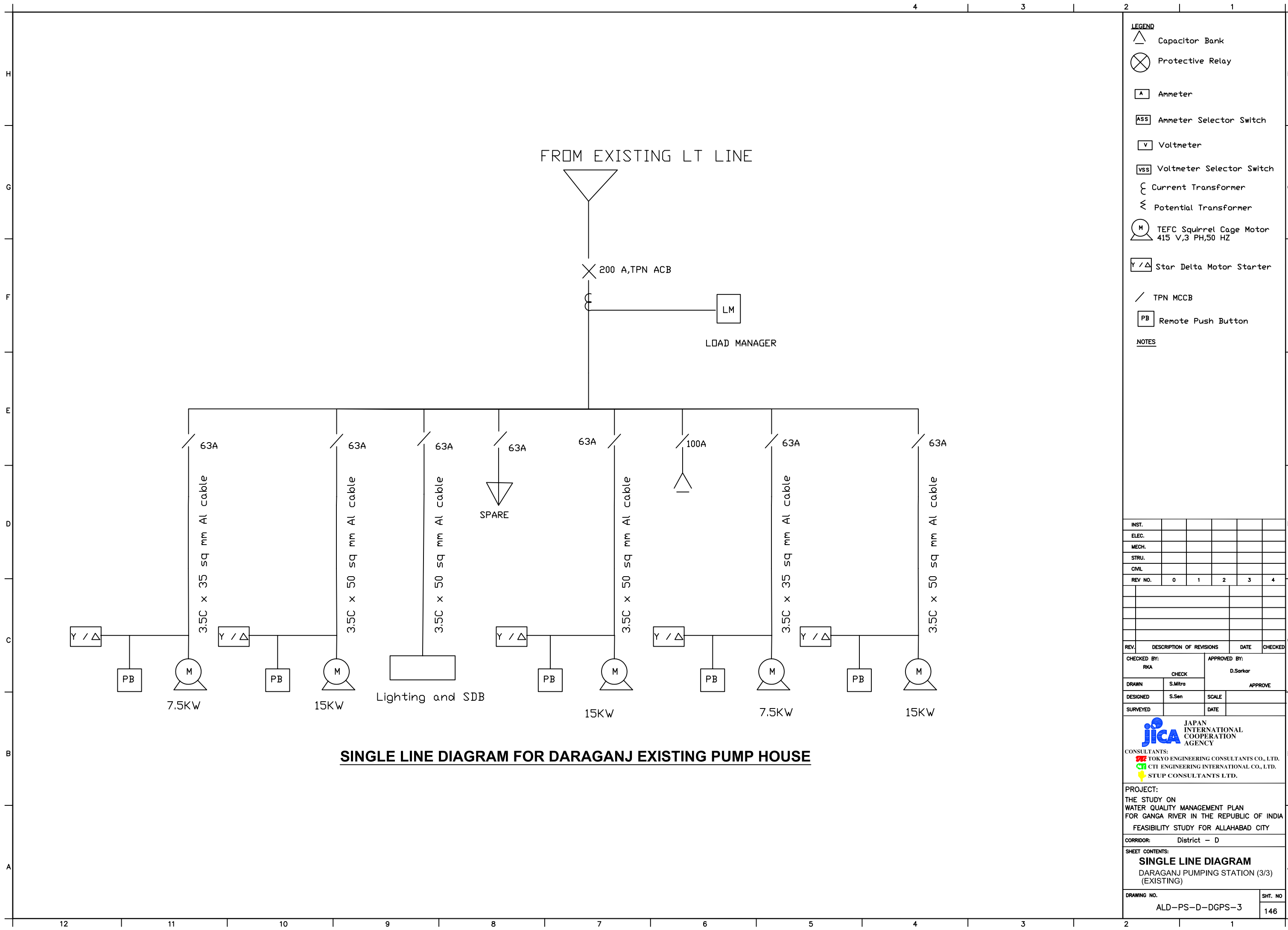
PROJECT:
 THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA
 FEASIBILITY STUDY FOR ALLAHABAD CITY

CORRIDOR: District : D
 DARA GANJ PUMPING STATION (EXISTING) (2/3)

SHEET CONTENTS:
 HYDRAULIC FLOW DIAGRAM

DRAWING NO. ALD-PS-D-DGPS-2	SHT. NO. 145
--------------------------------	-----------------

SECTION - AB



SINGLE LINE DIAGRAM FOR DARAGANJ EXISTING PUMP HOUSE

- LEGEND**
- Capacitor Bank
 - Protective Relay
 - Ammeter
 - Ammeter Selector Switch
 - Voltmeter
 - Voltmeter Selector Switch
 - Current Transformer
 - Potential Transformer
 - TEFC Squirrel Cage Motor
415 V, 3 PH, 50 HZ
 - Star Delta Motor Starter
 - TPN MCCB
 - Remote Push Button

NOTES

INST.					
ELEC.					
MECH.					
STRU.					
CIVIL					
REV. NO.	0	1	2	3	4

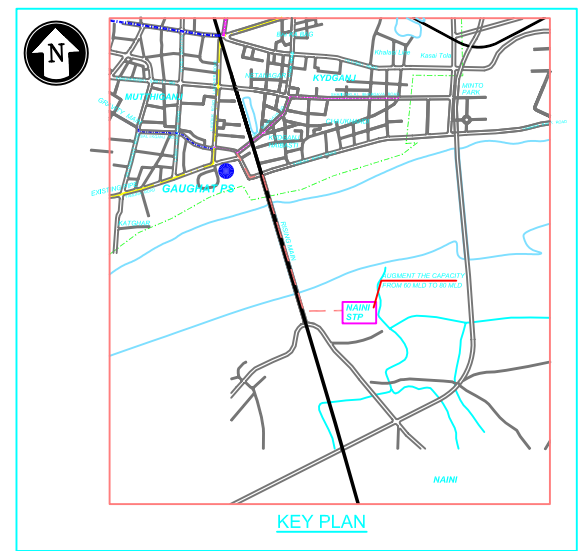
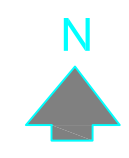
REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED
CHECKED BY:	RKA	CHECK	APPROVED BY: D.Sarkar
DRAWN	S.Mitra	SCALE	APPROVE
DESIGNED	S.Sen	SCALE	
SURVEYED		DATE	

JICA JAPAN INTERNATIONAL COOPERATION AGENCY
 CONSULTANTS:
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 CTI ENGINEERING INTERNATIONAL CO., LTD.
 STUP CONSULTANTS LTD.

PROJECT:
 THE STUDY ON
 WATER QUALITY MANAGEMENT PLAN
 FOR GANGA RIVER IN THE REPUBLIC OF INDIA
 FEASIBILITY STUDY FOR ALLAHABAD CITY
 CORRIDOR: District - D

SHEET CONTENTS:
SINGLE LINE DIAGRAM
 DARAGANJ PUMPING STATION (3/3)
 (EXISTING)

DRAWING NO.	SHT. NO.
ALD-PS-D-DGPS-3	146



LIST OF UNITS (EXISTING)		EXISTING		PROPOSED		TOTAL NO.
M.M. NO.	DISCRIPTION	SIZE (IN M)	NO.	SIZE (IN M)	NO.	
1	COLLECTION CHAMBER	4.5x8.0x4.1	1	-	-	1
2abcd	GRIT CHAMBER	4.65x4.65x3.2	3	-	1	4
3	PARSHAL FLUME	-	1	-	-	1
4	DISTRIBUTION CHAMBER-I	-	1	-	-	1
5abcd	PRIMARY SETTLING TANK	31.0m Diax3.2 swd	3	27.0 Dia	1	4
6abcd	AERATION TANK	17.8x50.0x3.5 swd	3	12.20x50.0x3.5 swd	1	4
7	DISTRIBUTION CHAMBER-II	-	1	-	-	1
8abcd	FINAL SETTLING TANK	34m Diax3.2 swd	3	34m Diax3.2m swd	1	4
9	EFFLUENT SUMP & PUMP HOUSE/A	-	1	-	-	1
10	RETURN SLUDGE SUMP & P. HOUSE	-	1	-	-	1
11	ADMINISTRATIVE BLDG. CUM LAB.	-	1	-	-	1
12ab	SLUDGE THICKENER	19.75m Diax1.5 swd	2	-	-	2
13	THICKEN SLUDGE SUMP & P. HOUSE	-	1	-	-	1
14abc	SLUDGE DIGESTER	27m Dia	3	19m Dia.	1 No	4
15	SLUDGE DRYING BED	24.6x24.6	22	24.6x24.6	6 No	28
16	FILTRATE PUMP HOUSE	-	1	-	-	1
17ab	GAS HOLDER	-	2	-	-	2
18	DUAL FUEL ENGINE ROOM	-	1	-	-	1
19ab	GAS BURNER	-	2	-	-	2
20	AERATION TANK CONTROL ROOM	-	1	-	-	1
21	DIGSTER CONTROL ROOM	-	1	-	-	1
22	CONTROL ROOM	-	1	-	-	1
23	BLENDING TANK	-	1	-	-	1
24	H ₂ S SCRUBBER	-	1	-	-	1
25	BYE PASS	-	1	-	-	1
26	SUB STATION	-	1	-	-	1

NOTES
ALL LEVELS & DIMENSIONS ARE IN METER

LEGEND
PROPOSED STRUCTURES
EXISTING STRUCTURES

INST.					
ELEC.					
MECH.					
STRU.					
CIVIL					
REV. NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED
CHECKED BY:	A BHATNAGAR	APPROVED BY:	D SARKAR
DRAWN	SUNITA	SCALE	APPROVE
DESIGNED	R MITTAL	SCALE	
SURVEYED	S.Sharma	DATE	26-12-2004

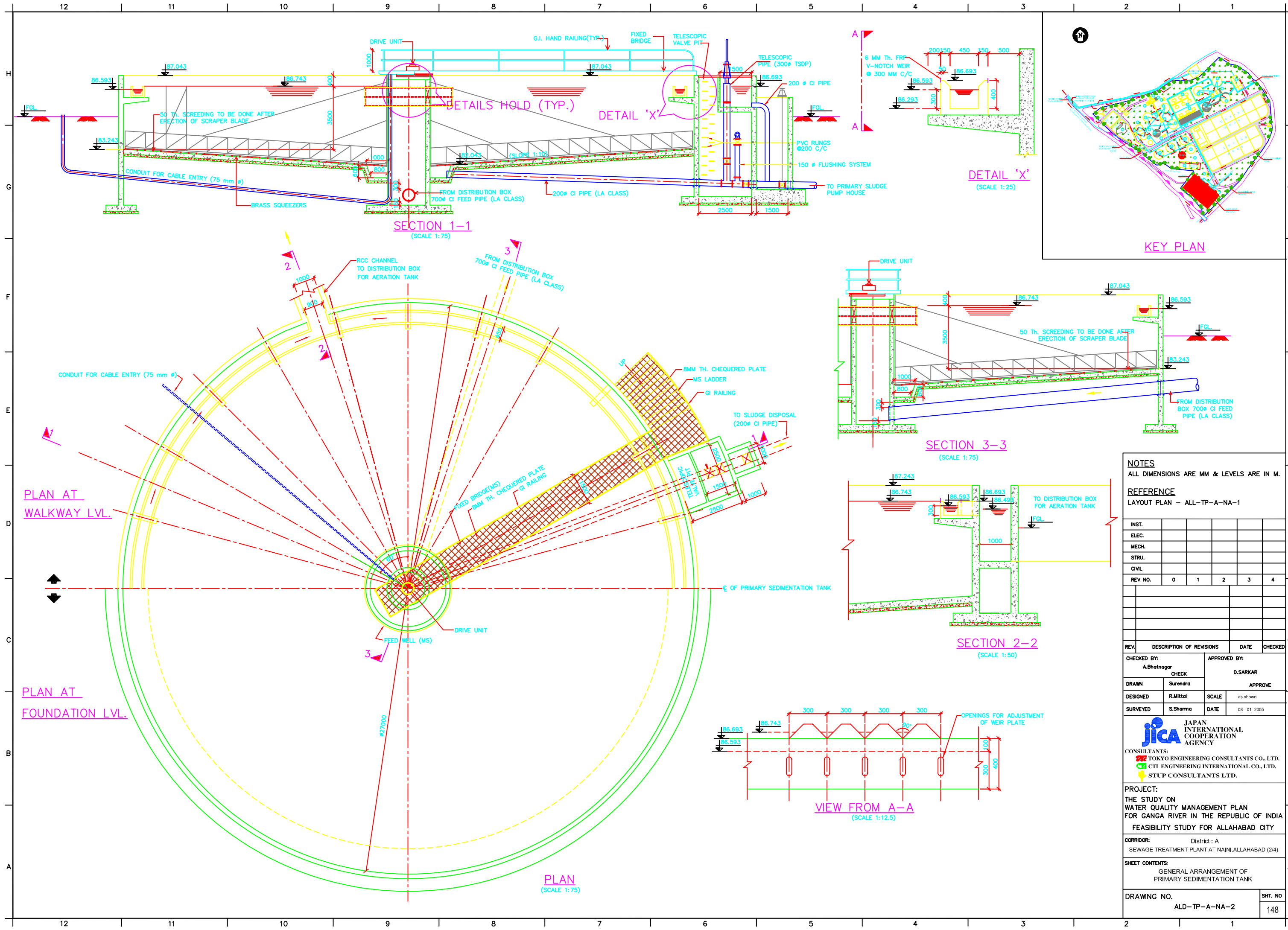
CONSULTANTS:
 JAPAN INTERNATIONAL COOPERATION AGENCY
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 CTI ENGINEERING INTERNATIONAL CO., LTD.
 STUP CONSULTANTS LTD.

PROJECT:
THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA
FEASIBILITY STUDY FOR ALLAHABAD CITY

CORRIDOR: Dist "A"
SEWAGE TREATMENT PLANT (NAINI) 1/4

SHEET CONTENTS:
GENERAL LAYOUT OF EXISTING FACILITIES & PROPOSED AUGMENTATION

DRAWING NO. ALD-TP-A-NA-1 **SHT. NO.** 147



NOTES
ALL DIMENSIONS ARE MM & LEVELS ARE IN M.

REFERENCE
LAYOUT PLAN - ALL-TP-A-NA-1

INST.	ELEC.	MECH.	STRU.	CIVIL	
REV. NO.	0	1	2	3	4
REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED		

CHECKED BY: A.Bhatnagar		APPROVED BY: D.SARKAR	
CHECK		APPROVE	
DRAWN: Surendra		SCALE: as shown	
DESIGNED: R.Mittal		DATE: 08-01-2005	
SURVEYED: S.Sharma			

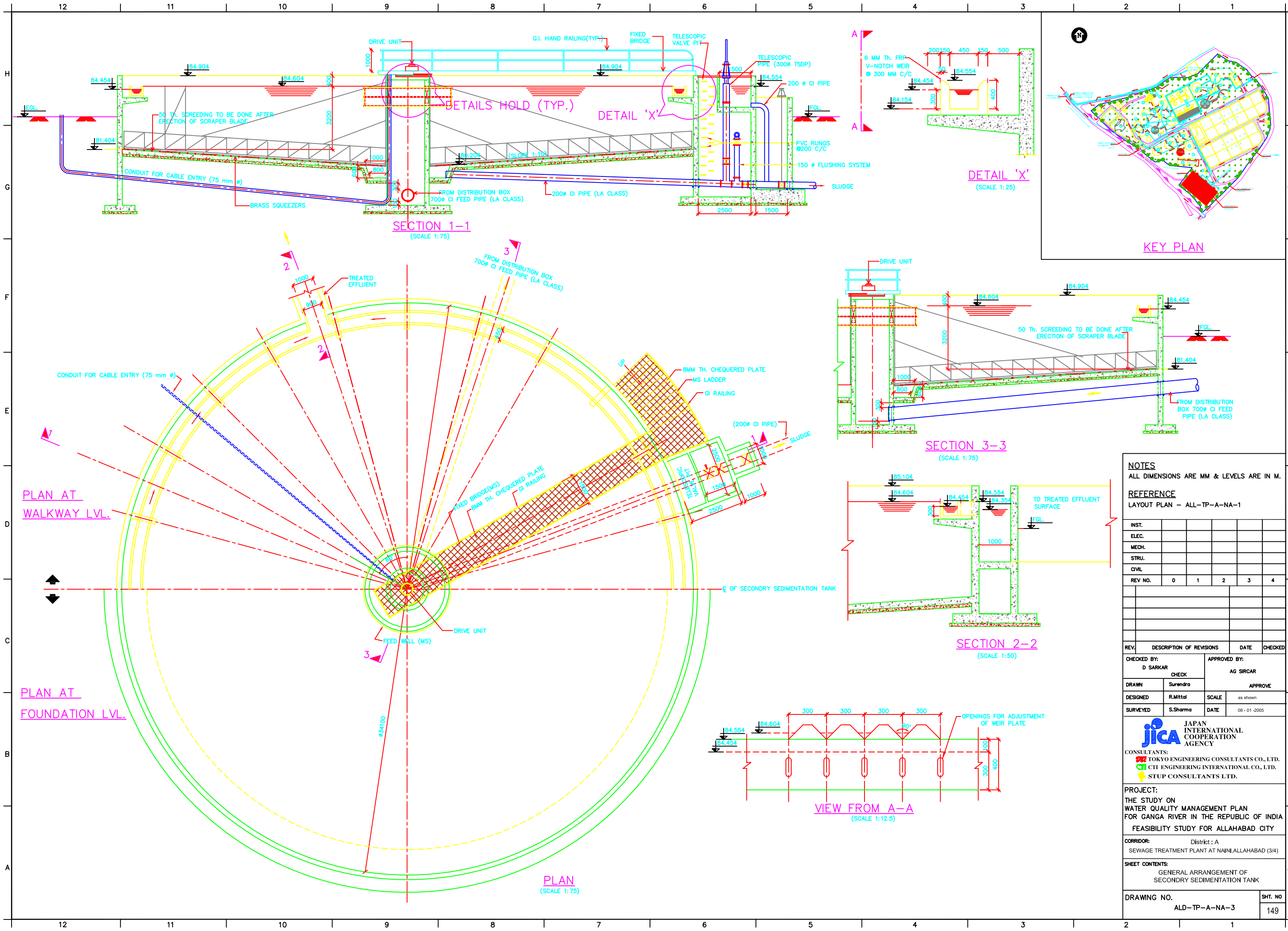
JICA JAPAN INTERNATIONAL COOPERATION AGENCY
CONSULTANTS:
TOKYO ENGINEERING CONSULTANTS CO., LTD.
CITI ENGINEERING INTERNATIONAL CO., LTD.
STUP CONSULTANTS LTD.

PROJECT:
THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA
FEASIBILITY STUDY FOR ALLAHABAD CITY

CORRIDOR: District: A
SEWAGE TREATMENT PLANT AT NAINI, ALLAHABAD (2/4)

SHEET CONTENTS:
GENERAL ARRANGEMENT OF PRIMARY SEDIMENTATION TANK

DRAWING NO. ALD-TP-A-NA-2
SHT. NO. 148



NOTES
ALL DIMENSIONS ARE MM & LEVELS ARE IN M.

REFERENCE
LAYOUT PLAN - ALL-TP-A-NA-1

INST.	ELEC.	MECH.	STRU.	CIVIL	
REV. NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

CHECKED BY: D SARKAR		APPROVED BY: AG SIRCAR	
CHECK		APPROVE	
DRAWN Surenra		DESIGNED R.Mittal	SCALE as shown
SURVEYED S.Sharma	DATE	08-01-2005	

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

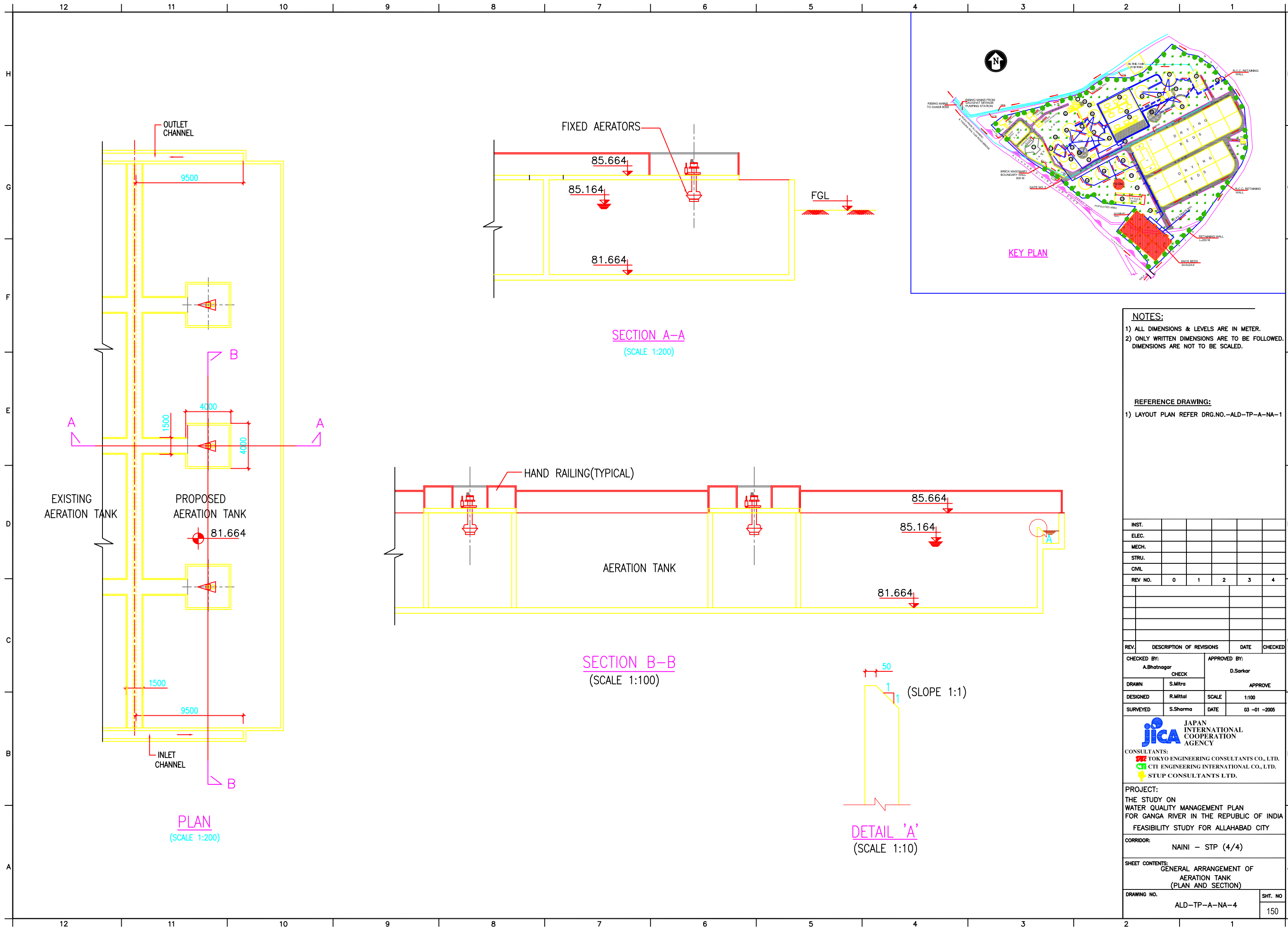
CONSULTANTS:

PROJECT:
THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA
FEASIBILITY STUDY FOR ALLAHABAD CITY

CORRIDOR: District : A
SEWAGE TREATMENT PLANT AT NAINI, ALLAHABAD (3/4)

SHEET CONTENTS:
GENERAL ARRANGEMENT OF SECONDARY SEDIMENTATION TANK

DRAWING NO. ALD-TP-A-NA-3	SHT. NO. 149
------------------------------	-----------------



NOTES:
 1) ALL DIMENSIONS & LEVELS ARE IN METER.
 2) ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED. DIMENSIONS ARE NOT TO BE SCALED.

REFERENCE DRAWING:
 1) LAYOUT PLAN REFER DRG.NO.-ALD-TP-A-NA-1

INST.					
ELEC.					
MECH.					
STRU.					
CIVIL					
REV NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

CHECKED BY: A.Bhatnagar		APPROVED BY: D.Sarkar	
	CHECK		APPROVE
DRAWN	S.Mitra	DESIGNED	R.Mittal
SURVEYED	S.Sharma	DATE	03 -01 -2005

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

CONSULTANTS:
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 CTI ENGINEERING INTERNATIONAL CO., LTD.
 STUP CONSULTANTS LTD.

PROJECT:
 THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA
 FEASIBILITY STUDY FOR ALLAHABAD CITY

CORRIDOR:
 NAINI - STP (4/4)

SHEET CONTENTS:
 GENERAL ARRANGEMENT OF AERATION TANK (PLAN AND SECTION)

DRAWING NO. ALD-TP-A-NA-4 SHT. NO. 150