



NOTE:
 1) PERMANENT BENCH MARK TAKEN FROM PANKI RAILWAY STATION AND R.L IS 126.770 M.
 2) ALL THE LEVELS ARE IN METERS.

LEGEND

TRENCHLESS PROPOSED SEWER LINE	---
RISING MAIN ROAD	---
RAILWAY LINE	
BORE HOLE	○
ELECTRICAL POLE	⊥
PLOT BOUNDARY	---
BUILDING	▭
TEMPLE	⊕
BRIDGE / CULVERT	⌒
ROAD DIVIDER	---
WISOLE	⊕
SPOT LEVEL	115.00
NALLA	---
TEMPORARY BENCH MARK	TBM-117.700 M.
ORDINARY MANHOLE	MH
SCRAPER MANHOLE	SMH
VENT SHAFT	VS

REFERENCE DRAWING :
 1) BASE MAP WITH SEWERAGE ZONES KAN-BASE MAP-1
 2) BASE MAP WITH WARD BOUNDARIES & PROPOSED PRIORITY PROJECTS KAN-BASE MAP-2
 3) KEY PLAN KAN-KEY-1
 4) DATCHMENT AREA OF DISTRICT-II KAN-CA-03-1

INST.					
ELCD.					
MECH.					
STRA.					
CIVL.					
REV. NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

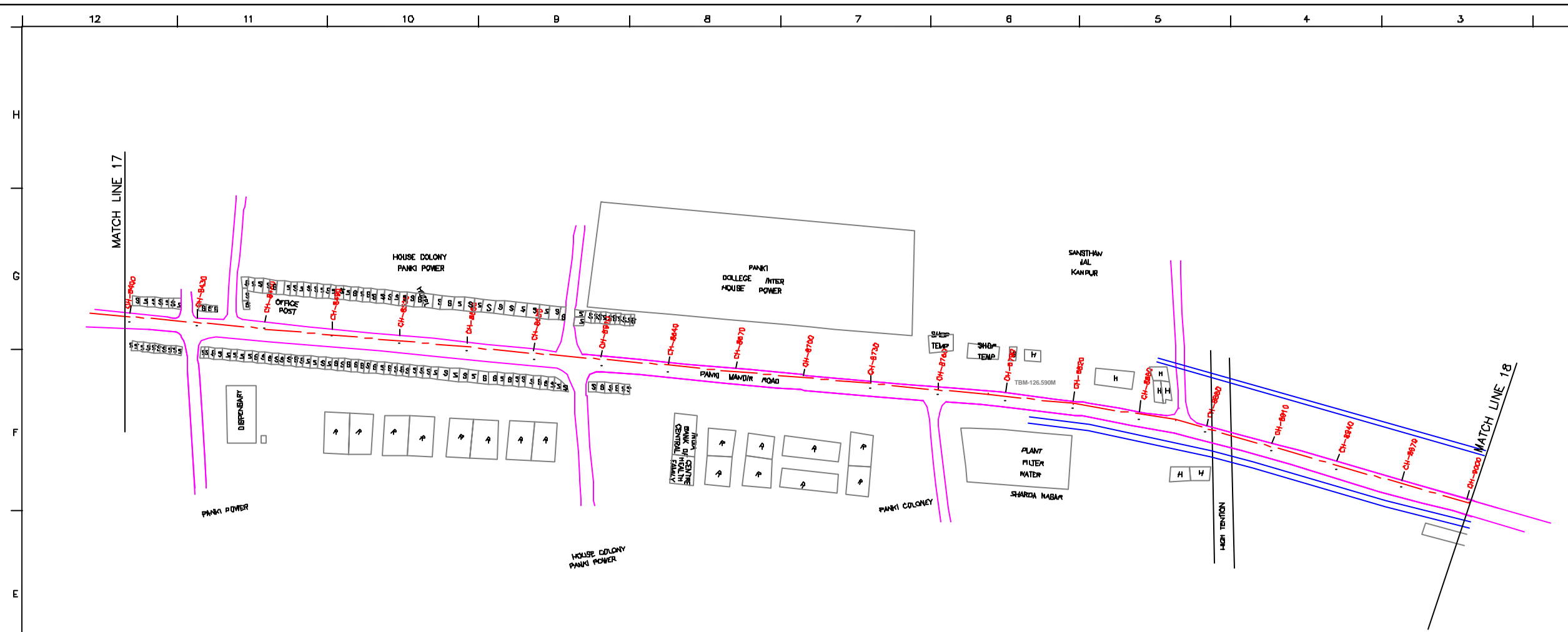
CHECKED BY:	APPROVED BY:
JOHNAED KHAN	V.N.SONTAKKE
DRAWN:	H.S.PANWAR
DESIGNED:	N.D.NAGVEKAR
BURVEYED:	KUMAR SURVEY
SCALE:	AS SHOWN
DATE:	28-12-2004

CONSULTANTS:
 JAPAN INTERNATIONAL COOPERATION AGENCY
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 CTE ENGINEERING INTERNATIONAL CO., LTD.
 SIVS SIVS PRAKASHI LIMITED

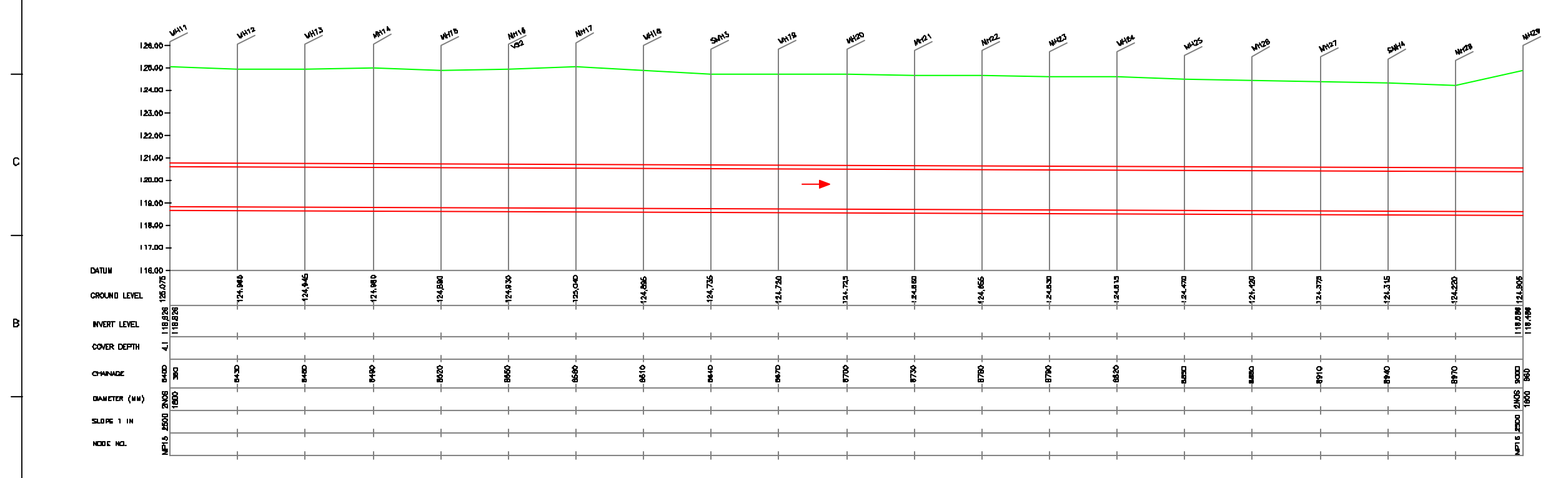
PROJECT:
 THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA
 FEASIBILITY STUDY FOR KANPUR CITY

SHEET CONTENTS:
 PLAN AND PROFILE FROM PANKI SPS TO PANKA MPS (SHEET 2/7)

DRAWING NO. KAN-PP-MP_PP-2 **SR. NO.** 150



PLAN
 SCALE- 1 : 1000



L-SECTION
 SCALE- HOR. 1 : 1000, VER. 1 : 100

12 11 10 9 8 7 6 5 4 3 2 1



NOTE:
 1) PERMANENT BENCH MARK TAKEN FROM PANKI RAILWAY STATION AND RL IS 126.770 M.
 2) ALL THE LEVELS ARE IN METERS.

LEGEND

TRENCHLESS PROPOSED SEWER LINE	---
RISING MAIN ROAD	---
RAILWAY LINE	
BORE HOLE	○ BH-18
ELECTRICAL POLE	⊕
PLOT BOUNDARY	□
BUILDING	▭
TEMPLE	⊕
BRIDGE / CULVERT	⊕
ROAD DIVIDER	---
MOSQUE	⊕
SPOT LEVEL	115.00
NALLA	---
TEMPORARY BENCH MARK	TBM-117.700 M.
ORDINARY MANHOLE	MH
SCRAPER MANHOLE	SMH
VENT SHAFT	VB

REFERENCE DRAWING :
 1) BASE MAP WITH SEWERAGE ZONES KAN-BASE MAP-1
 2) BASE MAP WITH WARD BOUNDARIES & PROPOSED PRIORITY PROJECTS KAN-BASE MAP-2
 3) KEY PLAN KAN-KP-1
 4) DATCHMENT AREA OF DISTRICT-II KAN-CA-D3-1

INST.					
ELEC.					
MECH.					
STRA.					
CIVL.					
REV. NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

CHECKED BY:	APPROVED BY:
JUNAED KHAN	V.N.SCHTAKKE
DRAWN: H.S.PANWAR	SCALE: AS SHOWN
DESIGNED: N.D.NAGVEKAR	DATE: 28-12-2004
SURVEYED: KUMAR SURVEY	

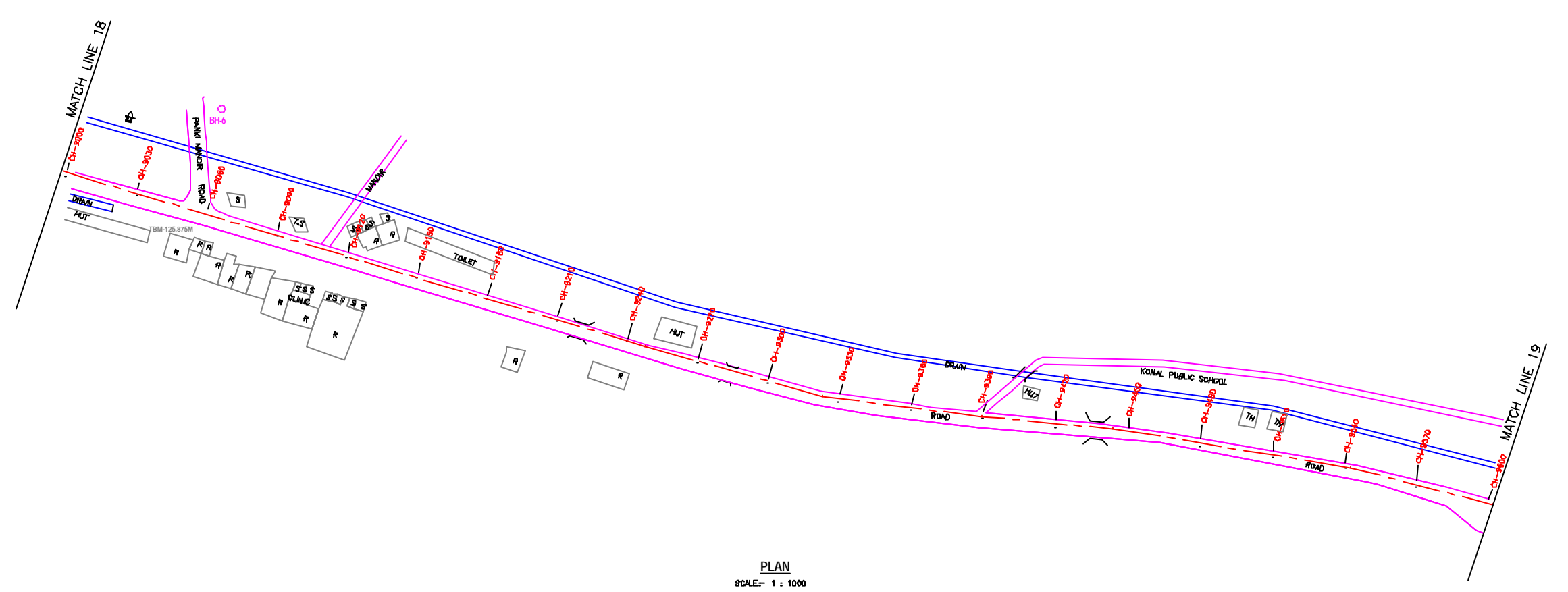
CONSULTANTS:

 JAPAN INTERNATIONAL COOPERATION AGENCY
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 CTE ENGINEERING INTERNATIONAL CO., LTD.
 SREE SHREE PRAKASH LIMITED

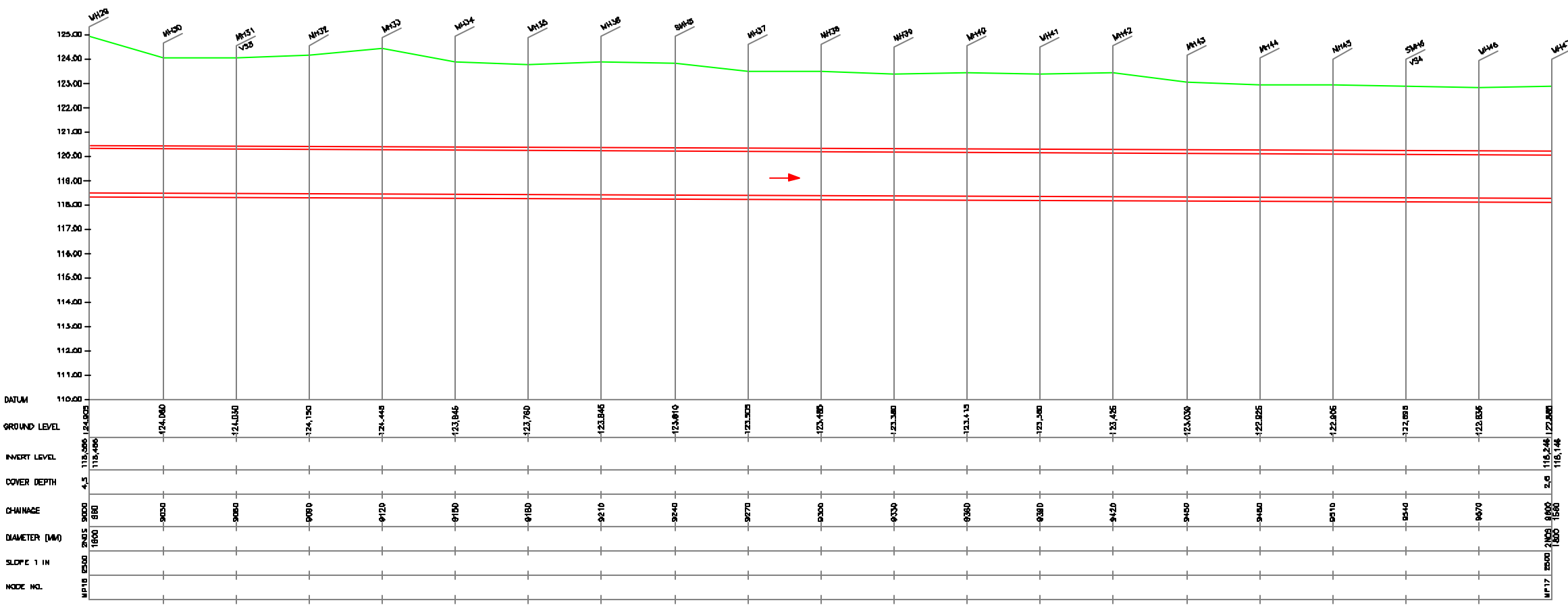
PROJECT:
 THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA
 FEASIBILITY STUDY FOR KANPUR CITY

SHEET CONTENTS:
 PLAN AND PROFILE FROM PANKI SPS TO PANKA MPS (SHEET 3/7)

DRAWING NO. KAN-PP-MP_PP-3
 SR. NO. 151

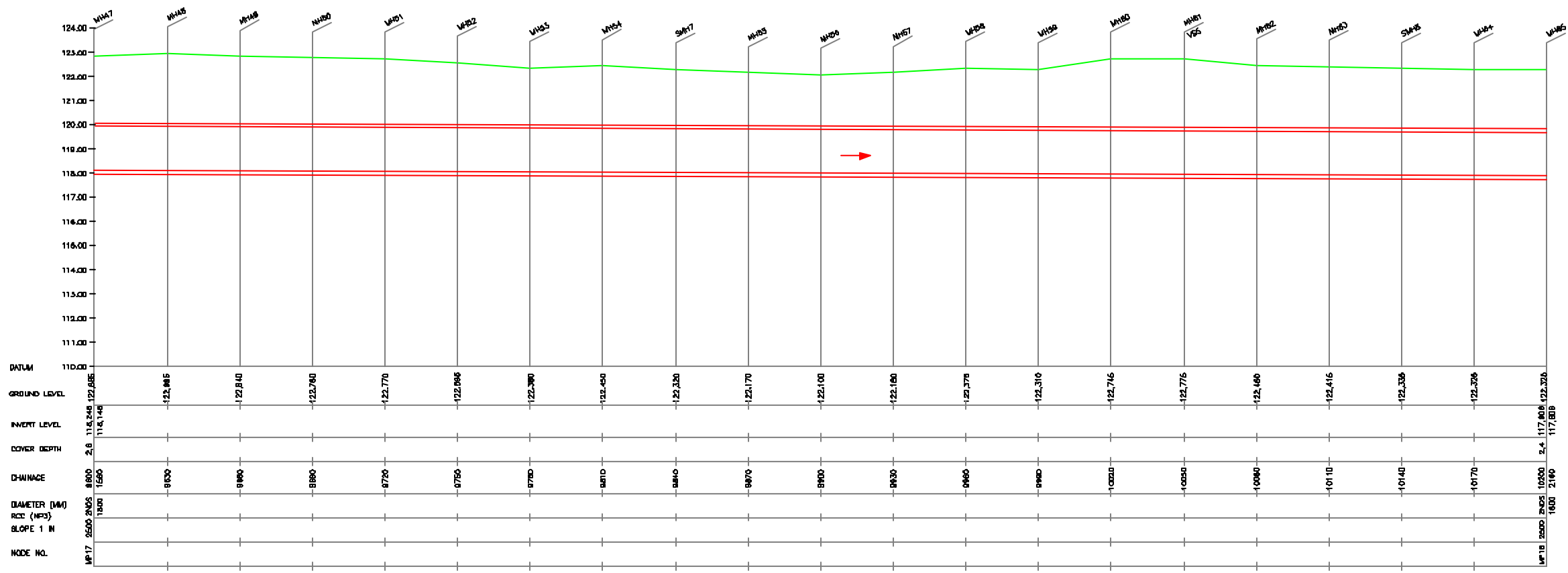
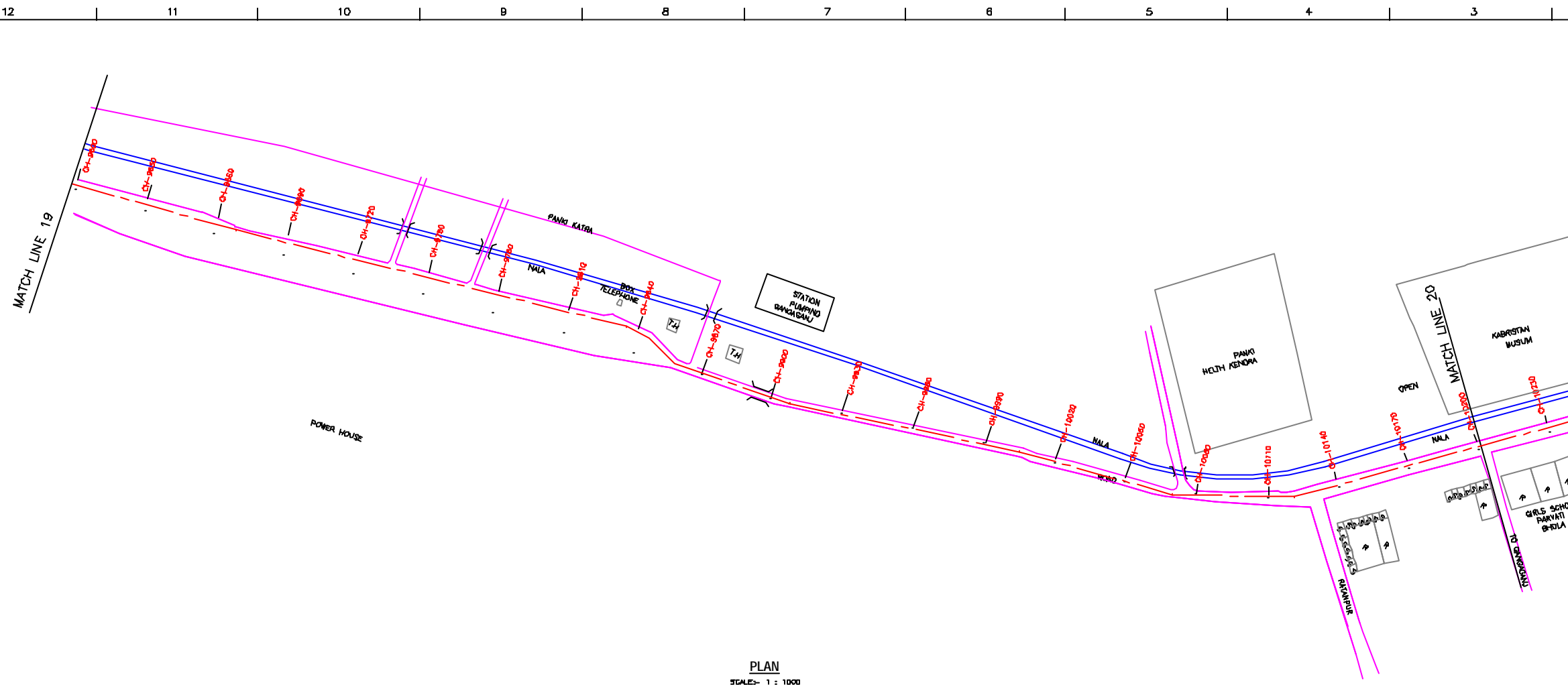


PLAN
 SCALE= 1 : 1000



L-SECTION
 SCALE= HOR. 1 : 1000, VER. 1 : 100

12 11 10 9 8 7 6 5 4 3 2 1



NOTE:
 1) PERMANENT BENCH MARK TAKEN FROM PANKI RAILWAY STATION AND RL IS 126.770 M.
 2) ALL THE LEVELS ARE IN METERS.

LEGEND

TRENCHLESS PROPOSED SEWER LINE	---
RISING MAIN	---
ROAD	---
RAILWAY LINE	+
BORE HOLE	○
ELECTRICAL POLE	□
PLOT BOUNDARY	---
BUILDING	▭
TEMPLE	⊕
BRIDGE / CULVERT	⌒
ROAD DIVIDER	---
MOSQUE	⊕
SPOT LEVEL	115.00
NALLA	---
TEMPORARY BENCH MARK	TBM-117.700 M.
ORDINARY MANHOLE	MH
SCRAPER MANHOLE	SMH
VENT SHAFT	VS

REFERENCE DRAWING :
 1) BASE MAP WITH SEWERAGE ZONES KAN-BASE MAP-1
 2) BASE MAP WITH WARD BOUNDARIES & PROPOSED PRIORITY PROJECTS KAN-BASE MAP-2
 3) KEY PLAN KAN-KP-1
 4) DATCHMENT AREA OF DISTRICT-II KAN-CA-D3-1

INST.					
ELEC.					
MECH.					
STRA.					
CIVL.					
REV. NO.	0	1	2	3	4

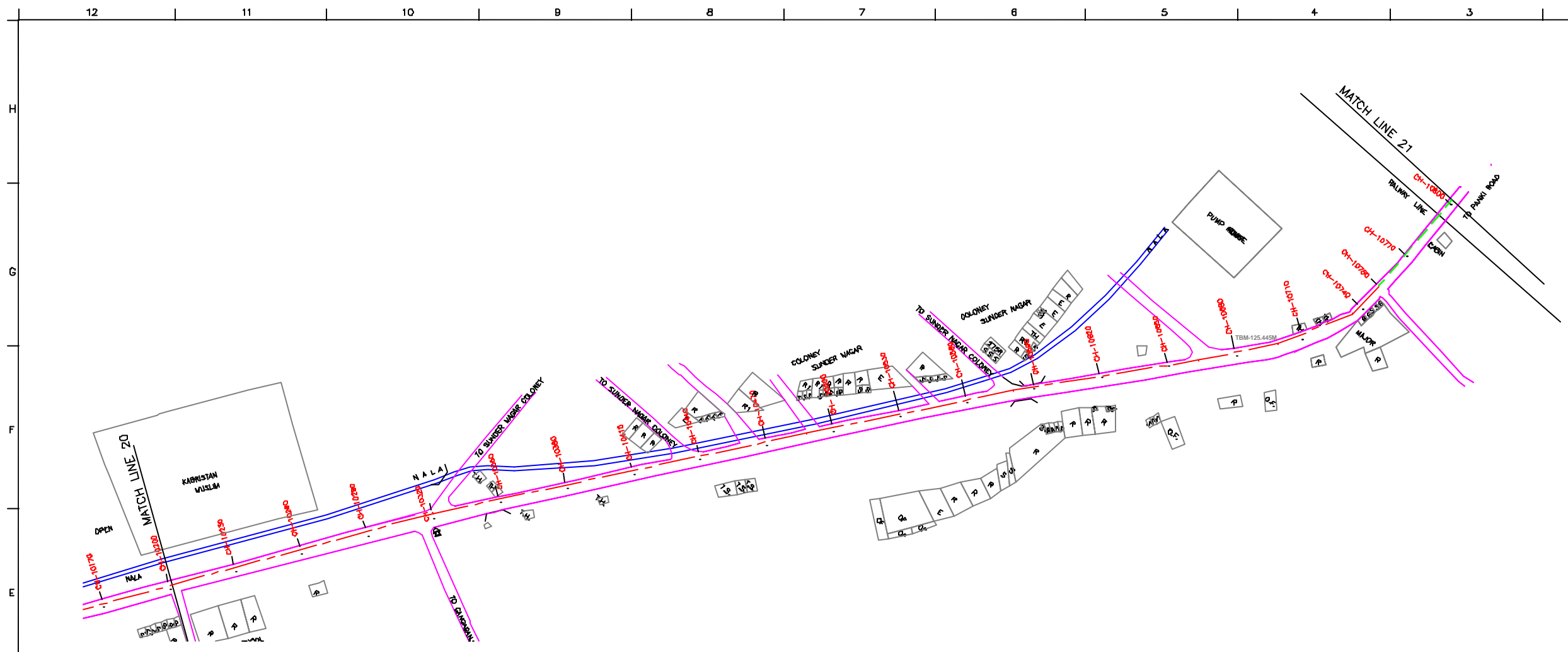
CHECKED BY: **JOHNAED KHAN**
 APPROVED BY: **V.N.SCHTAKKE**
 DRAWN: **H.S.PANWAR**
 DESIGNED: **M.D.NAGVEKAR** SCALE: **AS SHOWN**
 SURVEYED: **KUMAR SURVEY** DATE: **28-12-2004**

JICA JAPAN INTERNATIONAL COOPERATION AGENCY
CONSULTANTS:
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 CTE ENGINEERING INTERNATIONAL CO., LTD.
 SURESH PRAKASH LIMITED

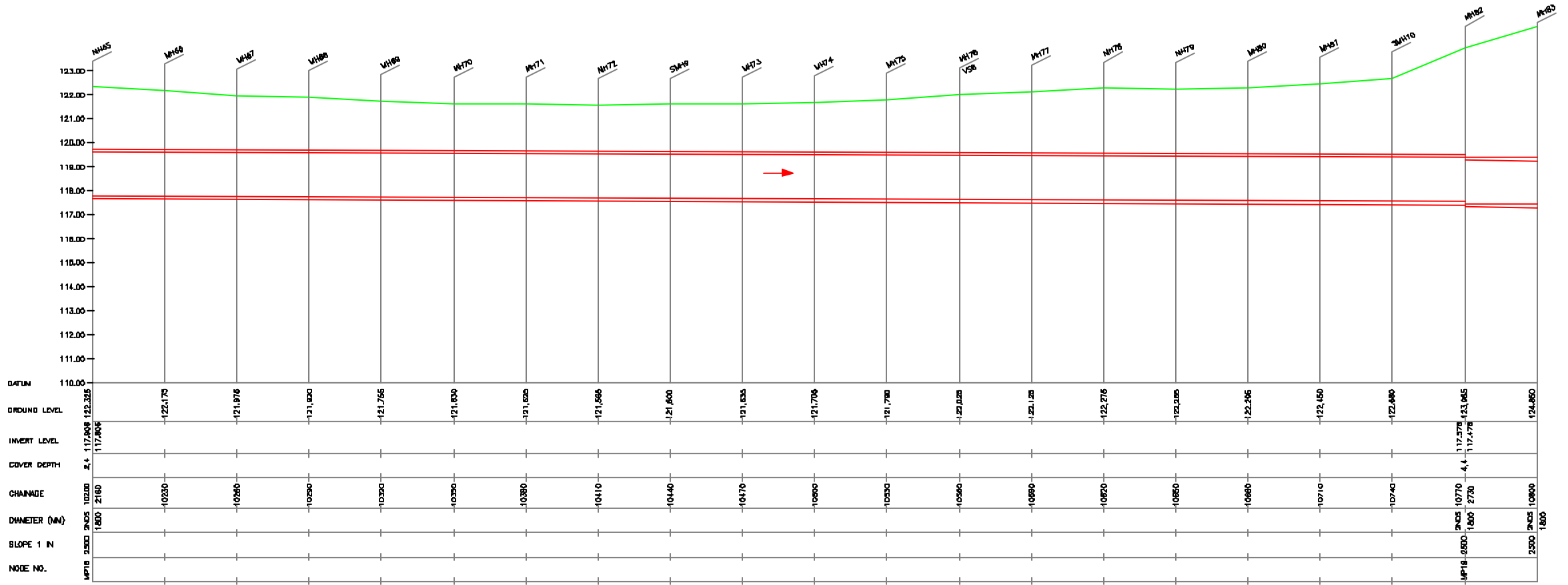
PROJECT:
 THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA
 FEASIBILITY STUDY FOR KANPUR CITY

SHEET CONTENTS:
 PLAN AND PROFILE FROM PANKI SPS TO PANKA MPS (SHEET 4/7)

DRAWING NO. **KAN-PP_MP_PP-4** SR. NO. **152**



PLAN
SCALE:- 1 : 1000



L-SECTION
SCALE:- HOR. 1 : 1000, VER. 1 : 100

NOTE:
1) PERMANENT BENCH MARK TAKEN FROM PANKI RAILWAY STATION AND RL IS 126.770 M.
2) ALL THE LEVELS ARE IN METERS.

LEGEND

TRENCHLESS PROPOSED SEWER LINE	---
RISING MAIN ROAD	---
RAILWAY LINE	+
BORE HOLE	○
ELECTRICAL POLE	⊕
PLOT BOUNDARY	□
BUILDING	▭
TEMPLE	⊕
BRIDGE / CULVERT	⊕
ROAD DIVIDER	---
MOSQUE	⊕
SPOT LEVEL	115.00
NALLA	---
TEMPORARY BENCH MARK	TBM-117.700 M.
ORDINARY MANHOLE	MH
SCRAPER MANHOLE	SMH
VENT SHAFT	VB

REFERENCE DRAWING :
1) BASE MAP WITH SEWERAGE ZONES KAN-BASE MAP-1
2) BASE MAP WITH WARD BOUNDARIES & PROPOSED PRIORITY PROJECTS KAN-BASE MAP-2
3) KEY PLAN KAN-KP-1
4) DATCHMENT AREA OF DISTRICT-II KAN-CA-D3-1

INST.					
ELCD.					
MECH.					
STRA.					
CIVL.					
REV. NO.	0	1	2	3	4

CHECKED BY:		APPROVED BY:	
JUNAED KHAN		V.N.SCHTAKKE	
DRAWN	H.S.PANWAR	SCALE	AS SHOWN
DESIGNED	M.D.NAGVEKAR	DATE	28-12-2004
BURVEYED	KUMAR SURVEY		



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

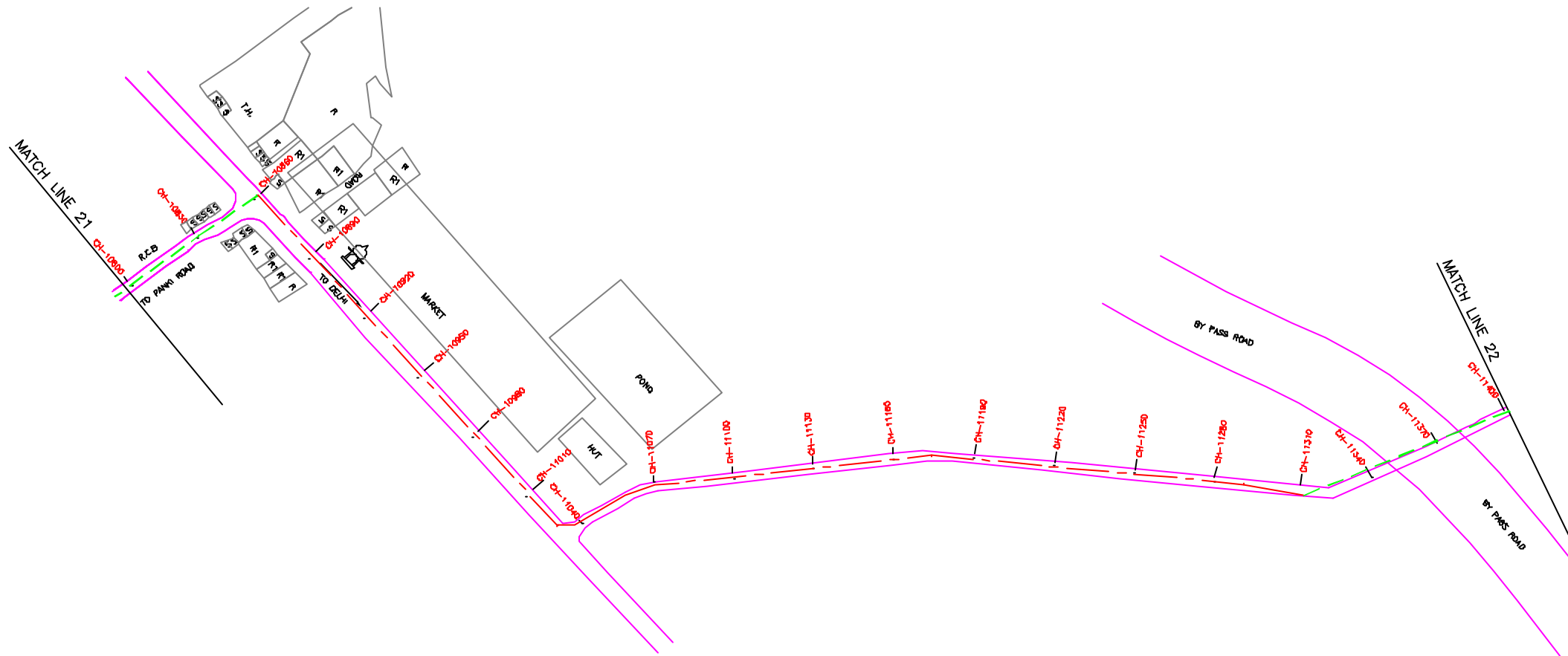
SHEET CONTENTS:
PLAN AND PROFILE FROM PANKI SPS TO PANKA MPS (SHEET 5/7)

DRAWING NO. KAN-PP_MP_PP-5
SR. NO. 153

12 11 10 9 8 7 6 5 4 3 2 1



NOTE:
 1) PERMANENT BENCH MARK TAKEN FROM PANKI RAILWAY STATION AND RL IS 126.770 M.
 2) ALL THE LEVELS ARE IN METERS.

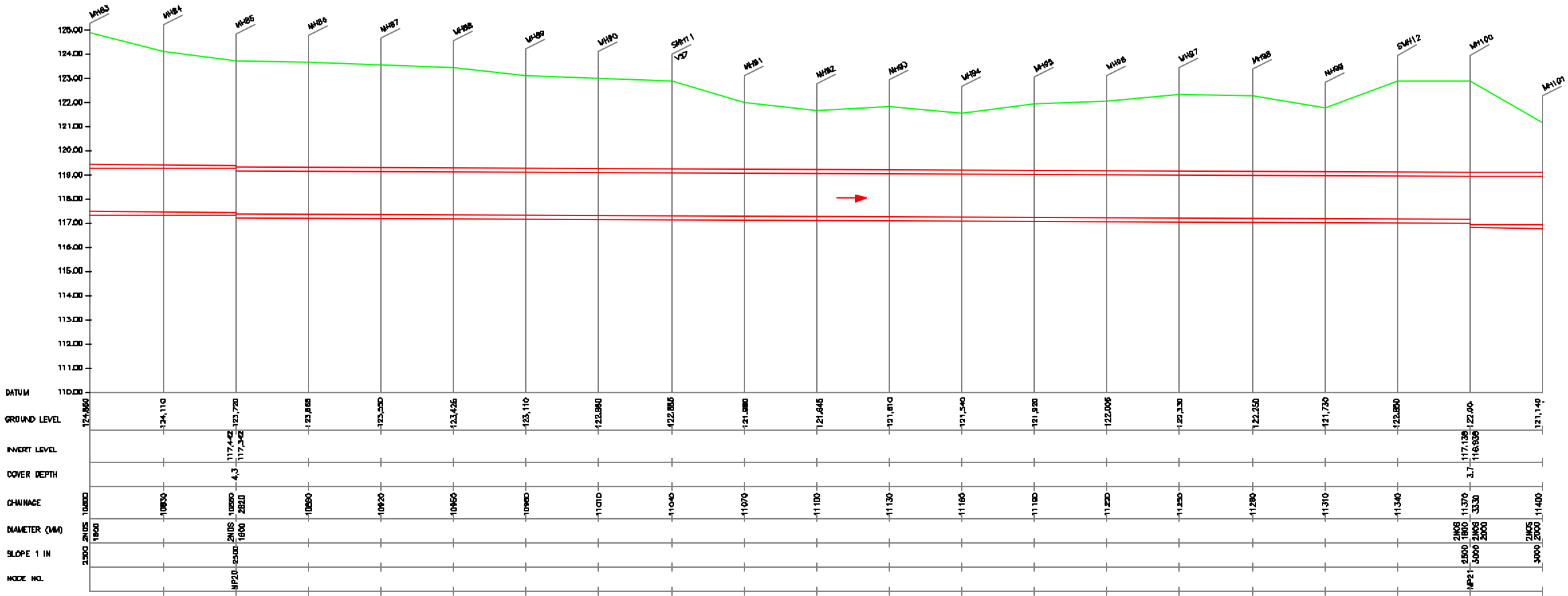


PLAN
 SCALE:- 1 : 1000

LEGEND

TRENCHLESS PROPOSED SEWER LINE	
RISING MAIN ROAD	
RAILWAY LINE	
BORE HOLE	
ELECTRICAL POLE	
PLOT BOUNDARY	
BUILDING	
TEMPLE	
BRIDGE / CULVERT	
ROAD DIVIDER	
WDSHOLE	
SPOT LEVEL	
WALLA	
TEMPORARY BENCH MARK	
ORDINARY MANHOLE	
SCRAPER MANHOLE	
VENT SHAFT	

REFERENCE DRAWING :
 1) BASE MAP WITH SEWERAGE ZONES KAN-BASE MAP-1
 2) BASE MAP WITH WARD BOUNDARIES & PROPOSED PROJECTS KAN-BASE MAP-2
 3) KEY PLAN KAN-KP-1
 4) DATCHMENT AREA OF DISTRICT-II KAN-CA-D3-1



L-SECTION
 SCALE:- HOR. 1 : 1000, VER. 1 : 100

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

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

CHECKED BY:		APPROVED BY:	
JUNAED KHAN		V.N. SONTAKKE	
DRAWN	H.S. PAMAR	SCALE	AS SHOWN
DESIGNED	M.D. NAGVEKAR	DATE	28-12-2004
BURVEYED	KUMAR SURVEY		

JICA JAPAN INTERNATIONAL COOPERATION AGENCY
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 C.T.I. ENGINEERING INTERNATIONAL CO., LTD.
 SANGHVI ENGINEERING PRIVATE LIMITED

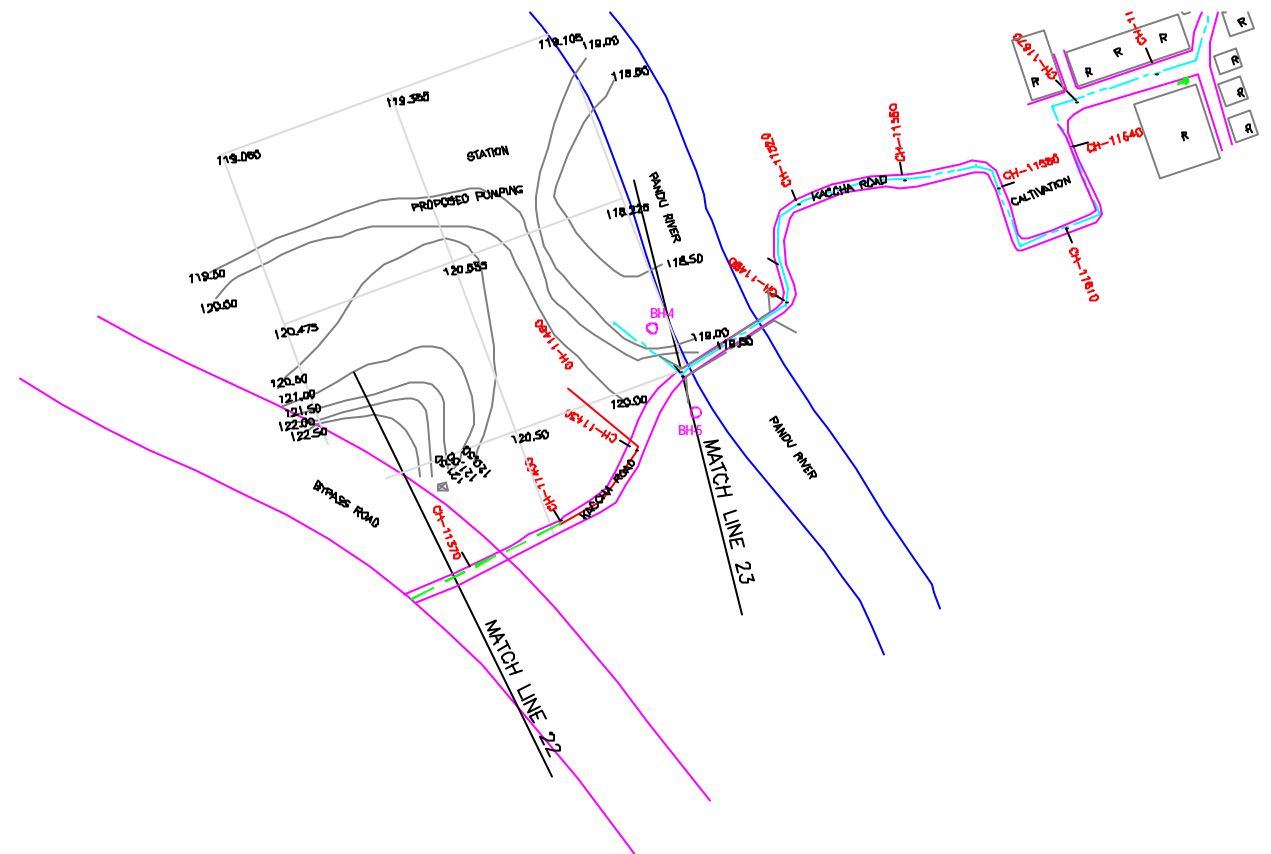
PROJECT:
 THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA
 FEASIBILITY STUDY FOR KANPUR CITY

SHEET CONTENTS:
 PLAN AND PROFILE FROM PANKI SPS TO PANKA MPS (SHEET 6/7)

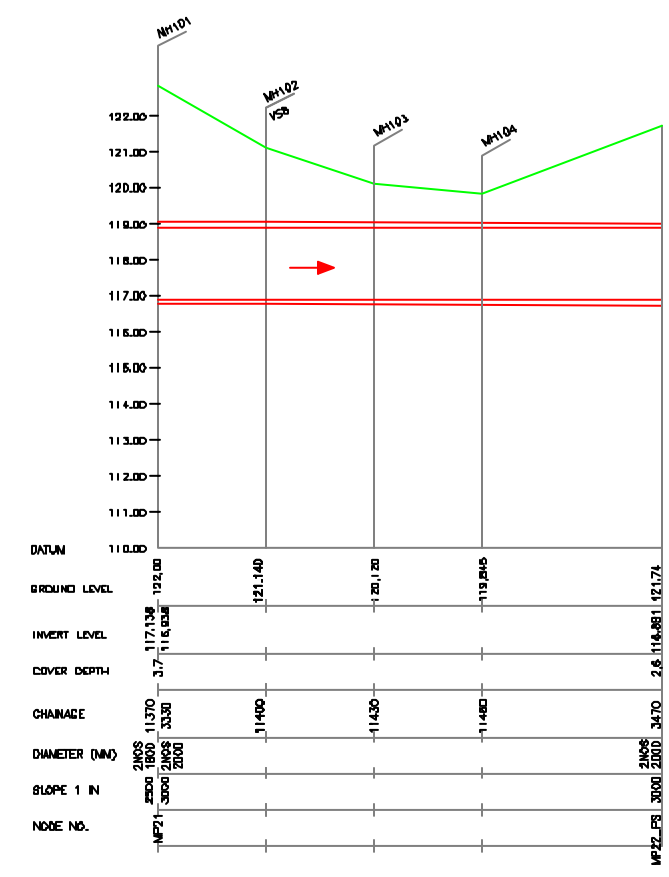
12 11 10 9 8 7 6 5 4 3 2 1



NOTE:
 1) PERMANENT BENCH MARK TAKEN FROM PANKI RAILWAY STATION AND RL IS 126.770 M.
 2) ALL THE LEVELS ARE IN METERS.



PLAN
 SCALE- 1 : 1000



L-SECTION
 SCALE- HOR. 1 : 1000, VER. 1 : 100

LEGEND

TRENCHLESS PROPOSED SEWER LINE	
RISING MAIN ROAD	
RAILWAY LINE	
BORE HOLE	
ELECTRICAL POLE	
PLOT BOUNDARY	
BUILDING	
TEMPLE	
BRIDGE / CULVERT	
ROAD DIVIDER	
MOSQUE	
SPOT LEVEL	115.00
NALLA	
TEMPORARY BENCH MARK	TBM-117.700 M.
ORDINARY MANHOLE	MH
SCRAPER MANHOLE	SMH
VENT SHAFT	VS

REFERENCE DRAWING :
 1) BASE MAP WITH SEWERAGE ZONES KAN-BASE MAP-1
 2) BASE MAP WITH WARD BOUNDARIES & PROPOSED PRIORITY PROJECTS KAN-BASE MAP-2
 3) KEY PLAN KAN-KP-1
 4) DATCHMENT AREA OF DISTRICT-II KAN-CA-D3-1

REV. NO.	0	1	2	3	4
INST.					
ELED.					
MECH.					
STRA.					
CIVL.					

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

CHECKED BY: JOHNAED KHAN		APPROVED BY: V.N.SCHTAKKE	
DRAWN: H.S.PANWAR	SCALE: AS SHOWN		
DESIGNED: M.D.NAGVEKAR	DATE: 28-12-2004		
SURVEYED: KUMAR SURVEY			

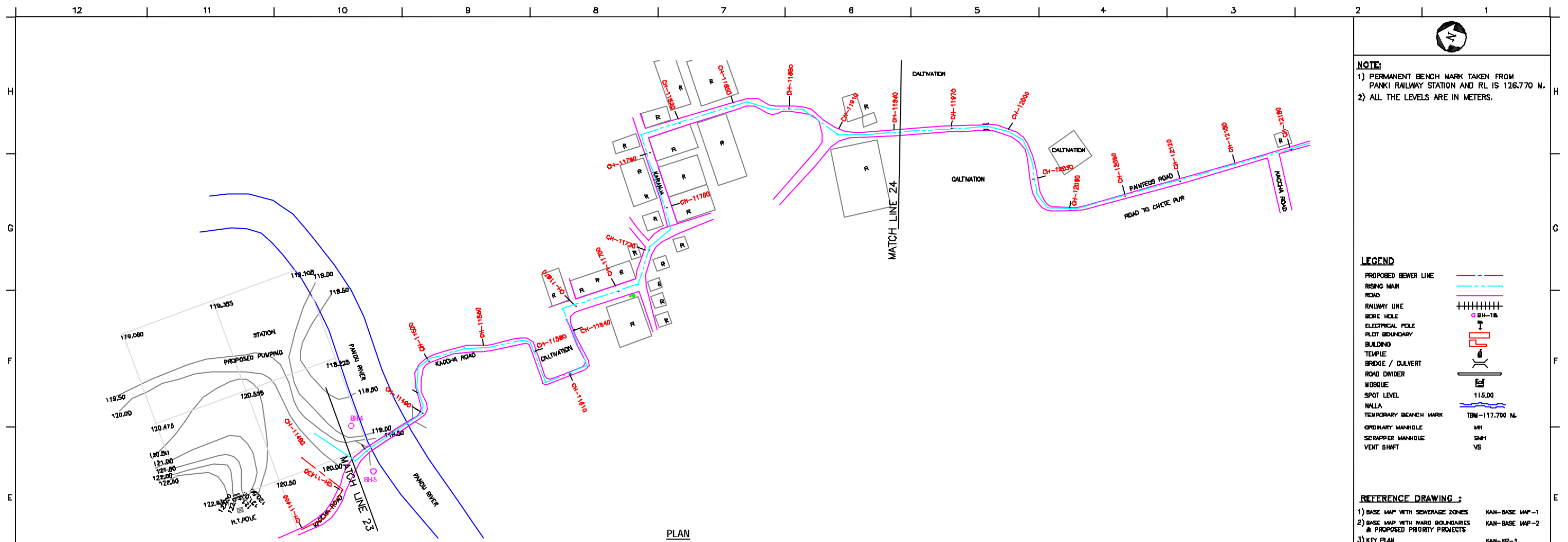
CONSULTANTS:

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO ENGINEERING CONSULTANTS CO., LTD.
C.T.I. ENGINEERING INTERNATIONAL CO., LTD.
JYOTI INFRA PRIVATE LIMITED

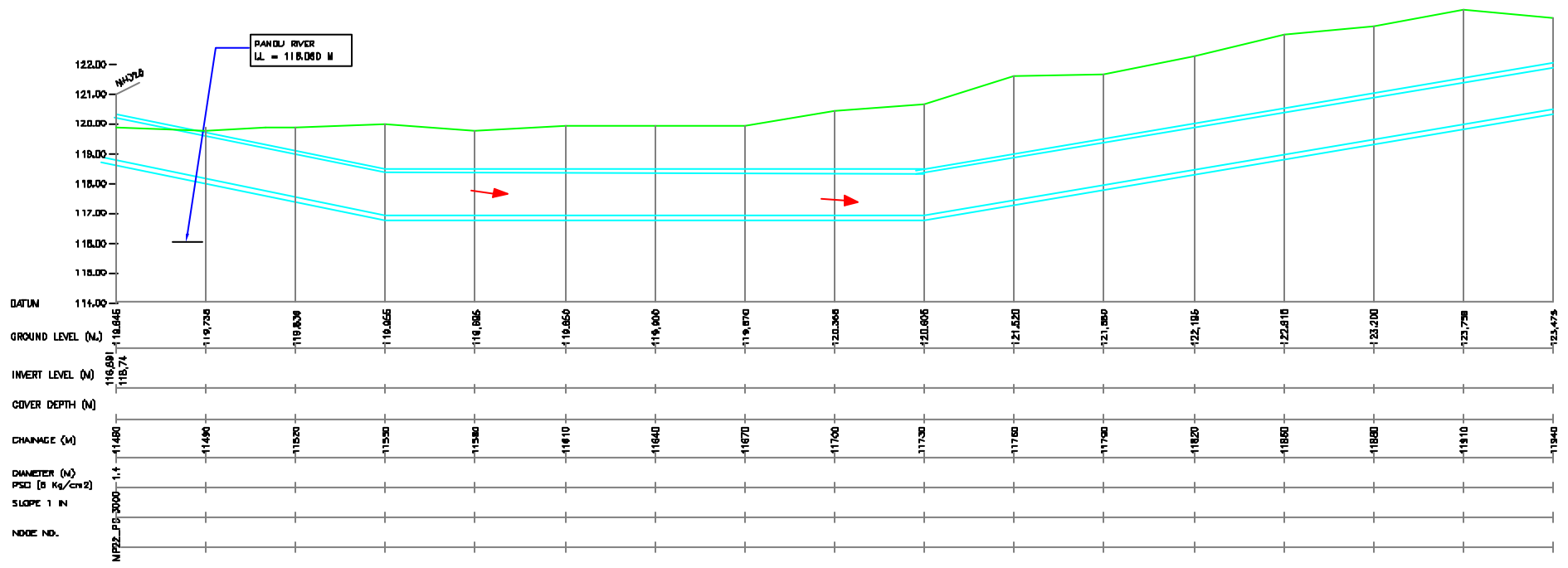
PROJECT:
 THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA
 FEASIBILITY STUDY FOR KANPUR CITY

SHEET CONTENTS:
 PLAN AND PROFILE FROM PANKI SPS TO PANKA MPS (SHEET 7/7)

DRAWING NO. **KAN-PP-MP_PP-7** SR. NO. **155**



PLAN
SCALE- 1 : 1000



L-SECTION
SCALE- HOR. 1 : 1000, VER. 1 : 100

NOTE:
1) PERMANENT BENCH MARK TAKEN FROM PANKI RAILWAY STATION AND RL IS 126.770 M.
2) ALL THE LEVELS ARE IN METERS.

LEGEND

PROPOSED SEWER LINE	---
RIISING MAIN ROAD	---
RAILWAY LINE	
BORE HOLE	○ BH-18
ELECTRICAL POLE	⊕
PLOT BOUNDARY	---
BUILDING	▭
TEMPLE	⊕
BRIDGE / CULVERT	⌒
ROAD DIVIDER	---
WISOLIE	⊕
SPOT LEVEL	115.00
NALLA	---
TEMPORARY BENCH MARK	TBM-117.700 M
ORDINARY MANHOLE	MH
SCRAPER MANHOLE	SMH
VENT SHAFT	VS

REFERENCE DRAWING :
1) BASE MAP WITH SEWERAGE ZONES KAN-BASE MAP-1
2) BASE MAP WITH WARD BOUNDARIES & PROPOSED PRIORITY PROJECTS KAN-BASE MAP-2
3) KEY PLAN KAN-KP-1
4) DATCHMENT AREA OF DISTRICT-II KAN-CA-03-1

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

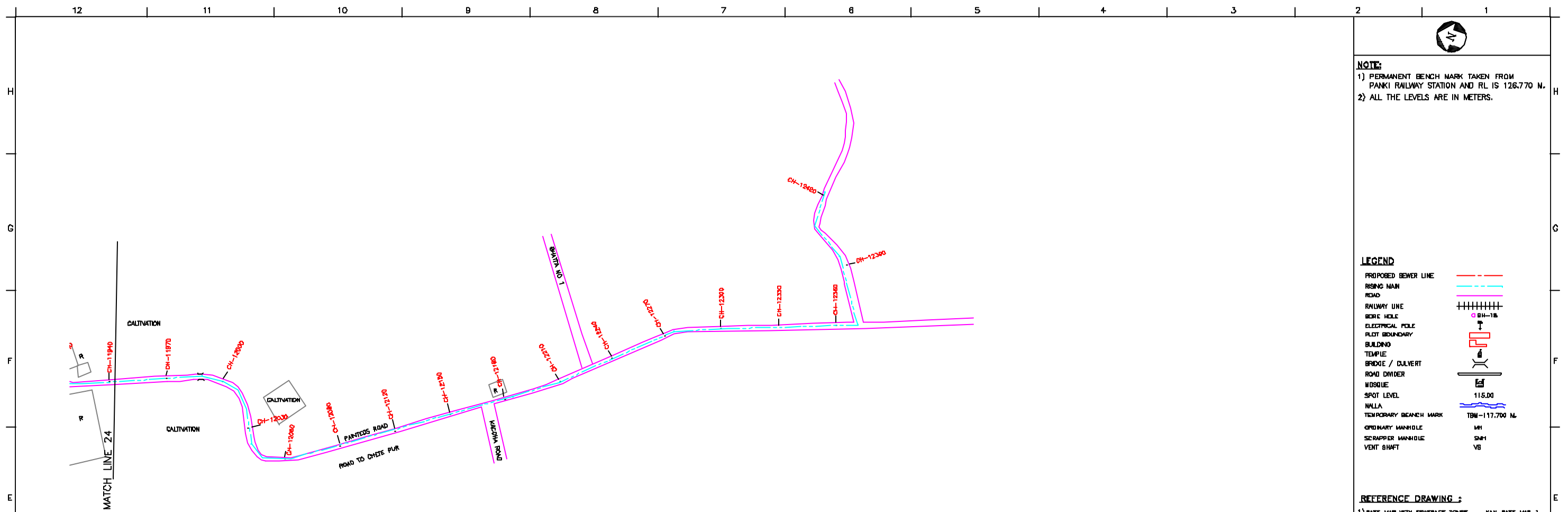
CHECKED BY: JONMED KHAN
APPROVED BY: V.N.SCHTAKKE
DRAWN: H.S.PANAR
DESIGNED: M.D.NAGVEKAR
SURVEYED: KUMAR SURVEY

JICA JAPAN INTERNATIONAL COOPERATION AGENCY
CONSULTANTS:
TOKYO ENGINEERING CONSULTANTS CO., LTD.
CTI ENGINEERING INTERNATIONAL CO., LTD.
SANGHVI ENGINEERING PRIVATE LIMITED

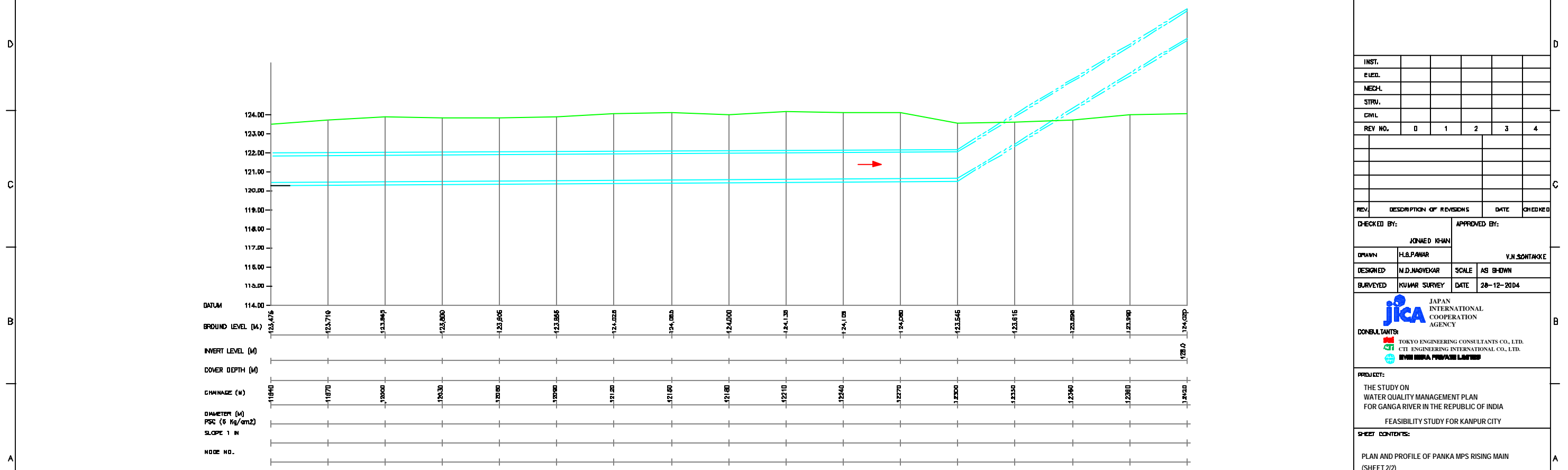
PROJECT:
THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA
FEASIBILITY STUDY FOR KANPUR CITY

SHEET CONTENTS:
PLAN AND PROFILE OF PANKA MPS RISING MAIN (SHEET 1/2)

DRAWING NO. KAN-PP-MR3-1
SR. NO. 156



PLAN
SCALE:- 1 : 1000



L-SECTION
SCALE:- HOR. 1 : 1000, VER. 1 : 100

NOTE:
1) PERMANENT BENCH MARK TAKEN FROM PANKI RAILWAY STATION AND RL IS 126.770 M.
2) ALL THE LEVELS ARE IN METERS.

LEGEND

PROPOSED SEWER LINE	---
RISING MAIN	---
ROAD	---
RAILWAY LINE	+
BORE HOLE	○
ELECTRICAL POLE	⊕
PLOT BOUNDARY	---
BUILDING	---
TEMPLE	---
BRIDGE / CULVERT	---
ROAD DIVIDER	---
MOSQUE	---
SPOT LEVEL	115.00
NALLA	---
TEMPORARY BENCH MARK	TBM-117.700 M.
ORDINARY MANHOLE	MH
SCRAPER MANHOLE	SMH
VENT SHAFT	VS

REFERENCE DRAWING :
1) BASE MAP WITH SEWERAGE ZONES KAN-BASE MAP-1
2) BASE MAP WITH WARD BOUNDARIES & PROPOSED PRIORITY PROJECTS KAN-BASE MAP-2
3) KEY PLAN KAN-KP-1
4) DATCHMENT AREA OF DISTRICT-II KAN-CA-D3-1

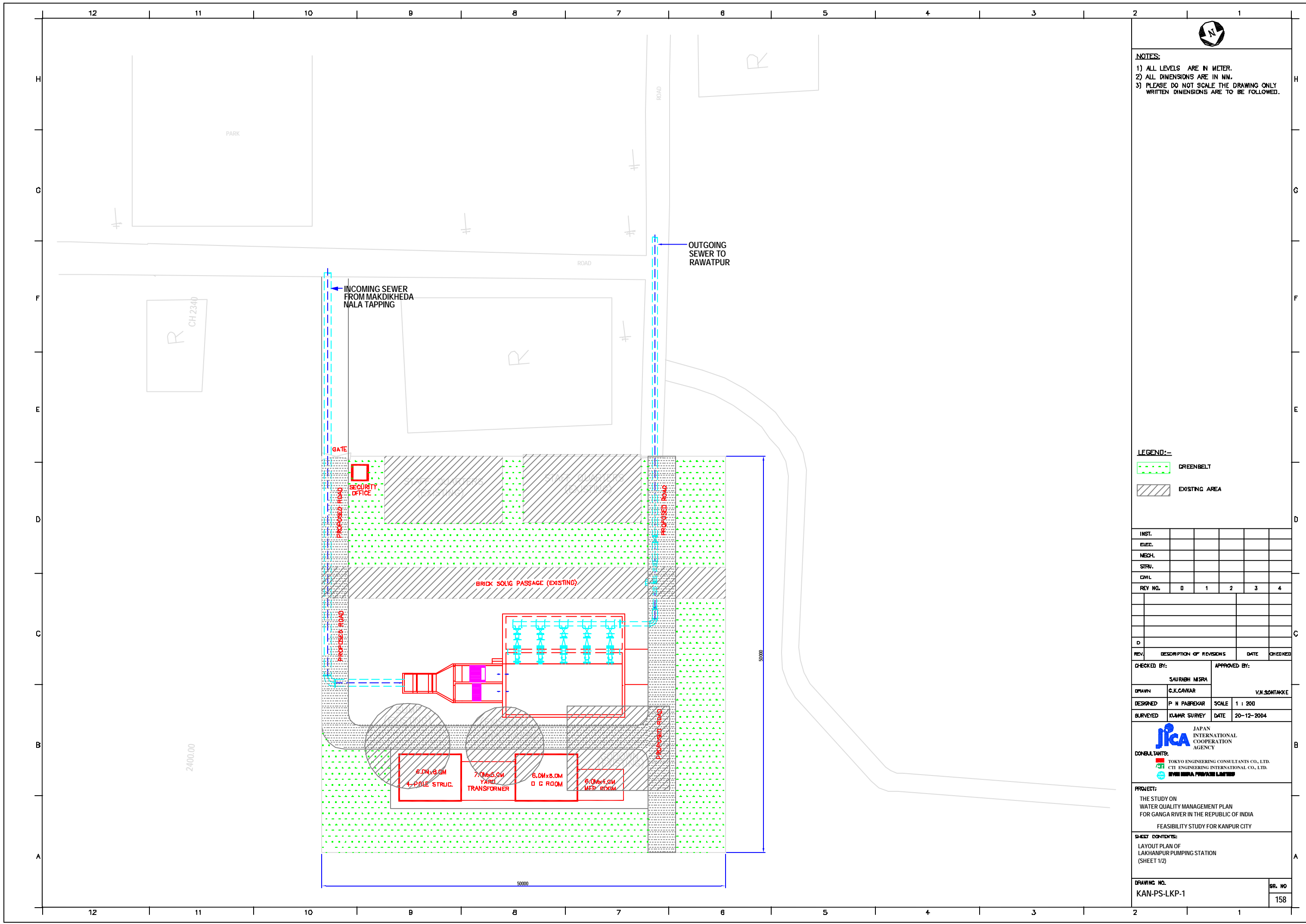
INST.					
ELEC.					
MECH.					
STRU.					
CIVIL					
REV. NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED
CHECKED BY:	JONMED KHAN		
APPROVED BY:	V.N.SCHTAKKE		
DRAWN	H.S.PANWAR	SCALE	AS SHOWN
DESIGNED	M.D.NAGVEKAR	DATE	28-12-2004
SURVEYED	KUMAR SURVEY		

JICA INTERNATIONAL COOPERATION AGENCY
CONSULTANTS:
TOKYO ENGINEERING CONSULTANTS CO., LTD.
CTI ENGINEERING INTERNATIONAL CO., LTD.
SHYAM SINGH PRAKASHI LIMITED

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

SHEET CONTENTS:
PLAN AND PROFILE OF PANKI MPS RISING MAIN (SHEET 2/2)



NOTES:
 1) ALL LEVELS ARE IN METER.
 2) ALL DIMENSIONS ARE IN MM.
 3) PLEASE DO NOT SCALE THE DRAWING ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.

LEGEND:-
 [Green dotted line] GREENBELT
 [Hatched area] EXISTING AREA

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

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

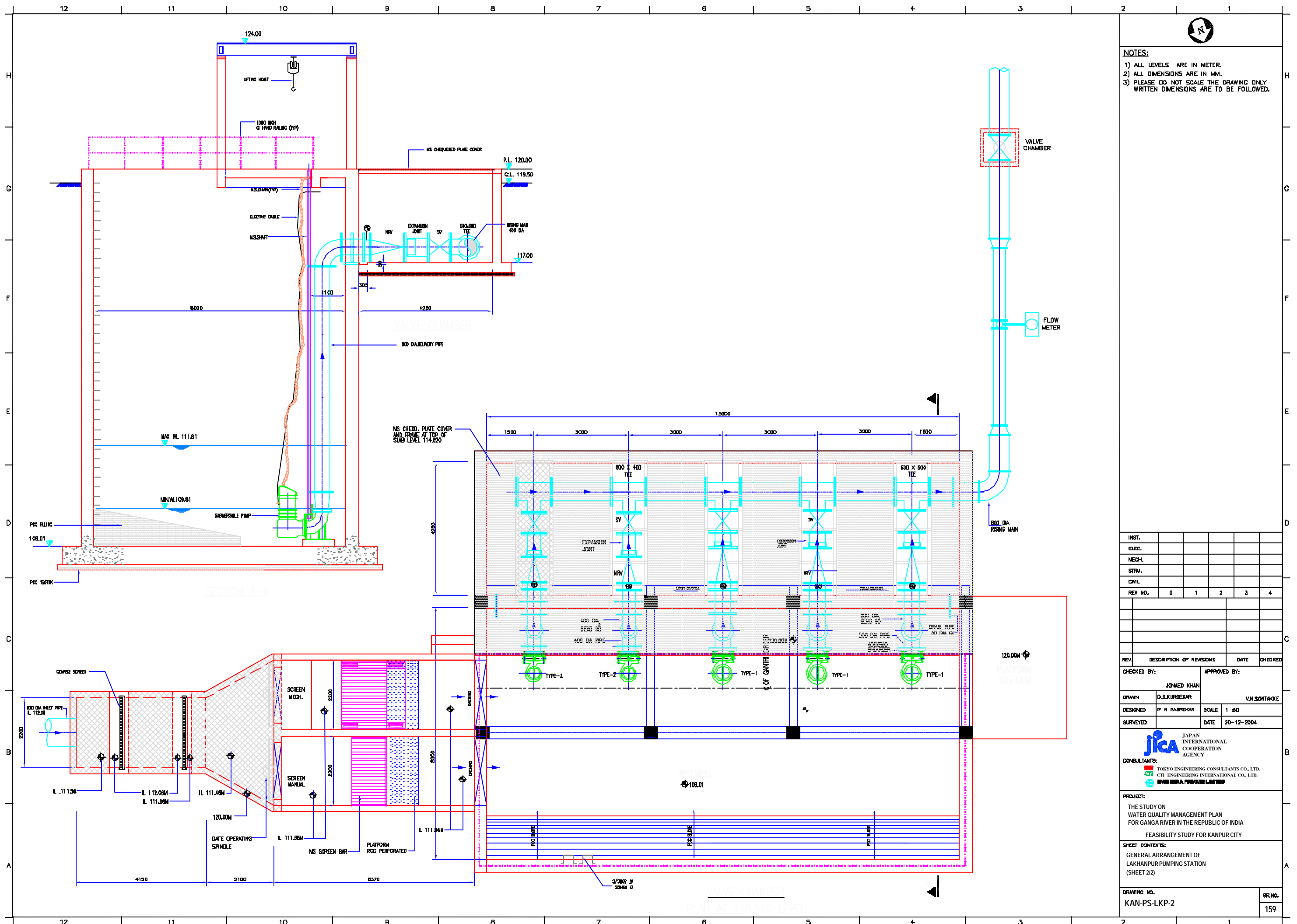
CHECKED BY:		APPROVED BY:	
SAURABH MISRA		V.N. SONTAKKE	
DRAWN	C.K. CAVAKAR	SCALE	1 : 200
DESIGNED	P. N. PABREKAR	DATE	20-12-2004

CONSULTANTS:
 JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 CTE ENGINEERING INTERNATIONAL CO., LTD.
 M/S SAURABH MISRA PRAKASHI LIAISON

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

SHEET CONTENTS:
 LAYOUT PLAN OF LAKHANPUR PUMPING STATION (SHEET 1/2)

DRAWING NO.	SR. NO.
KAN-PS-LKP-1	158



NOTES:
 1) ALL LEVELS ARE IN METER.
 2) ALL DIMENSIONS ARE IN MM.
 3) PLEASE DO NOT SCALE THE DRAWING ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.

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

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

CHECKED BY: **JOINED KHAN**
 APPROVED BY: **V.N. SONTAKKE**
 DRAWN: **D.B. KURDEKAR**
 DESIGNED: **P.N. PANDREKAR**
 SURVEYED: **DATE 20-12-2004**

JICA JAPAN INTERNATIONAL COOPERATION AGENCY
 CONSULTANTS:
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 C.T.I. ENGINEERING INTERNATIONAL CO., LTD.
 SIVSIRI ENGINEERING PRIVATE LIMITED

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

SHEET CONTENTS:
 GENERAL ARRANGEMENT OF LAKHANPUR PUMPING STATION (SHEET 2/2)

DRAWING NO. **KAN-PS-LKP-2** SER. NO. **159**

NOTES:-
 1) ALL LEVELS ARE IN METER.
 2) ALL DIMENSIONS ARE IN MM.
 3) PLEASE DO NOT SCALE THE DRAWING ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.

LEGEND:-
 GREENBELT

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

CHECKED BY:	APPROVED BY:
JUNAED KHAN	V.N. SONTAKKE
DRAWN:	SCALE:
G. K. GAVKAR	1 : 500
DESIGNED:	DATE:
KUMAR SURVEY	30-12-2004

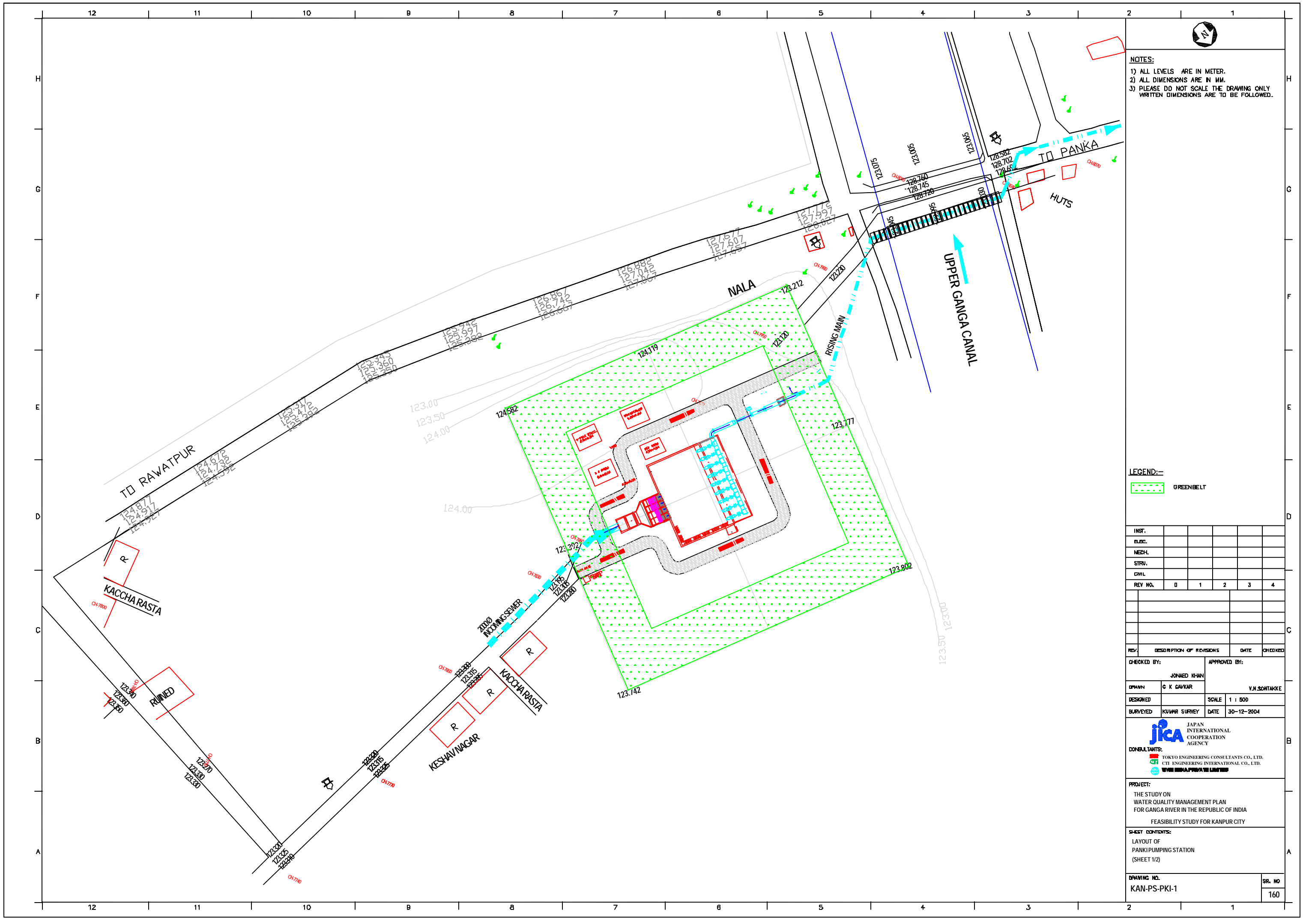
CONSULTANTS:

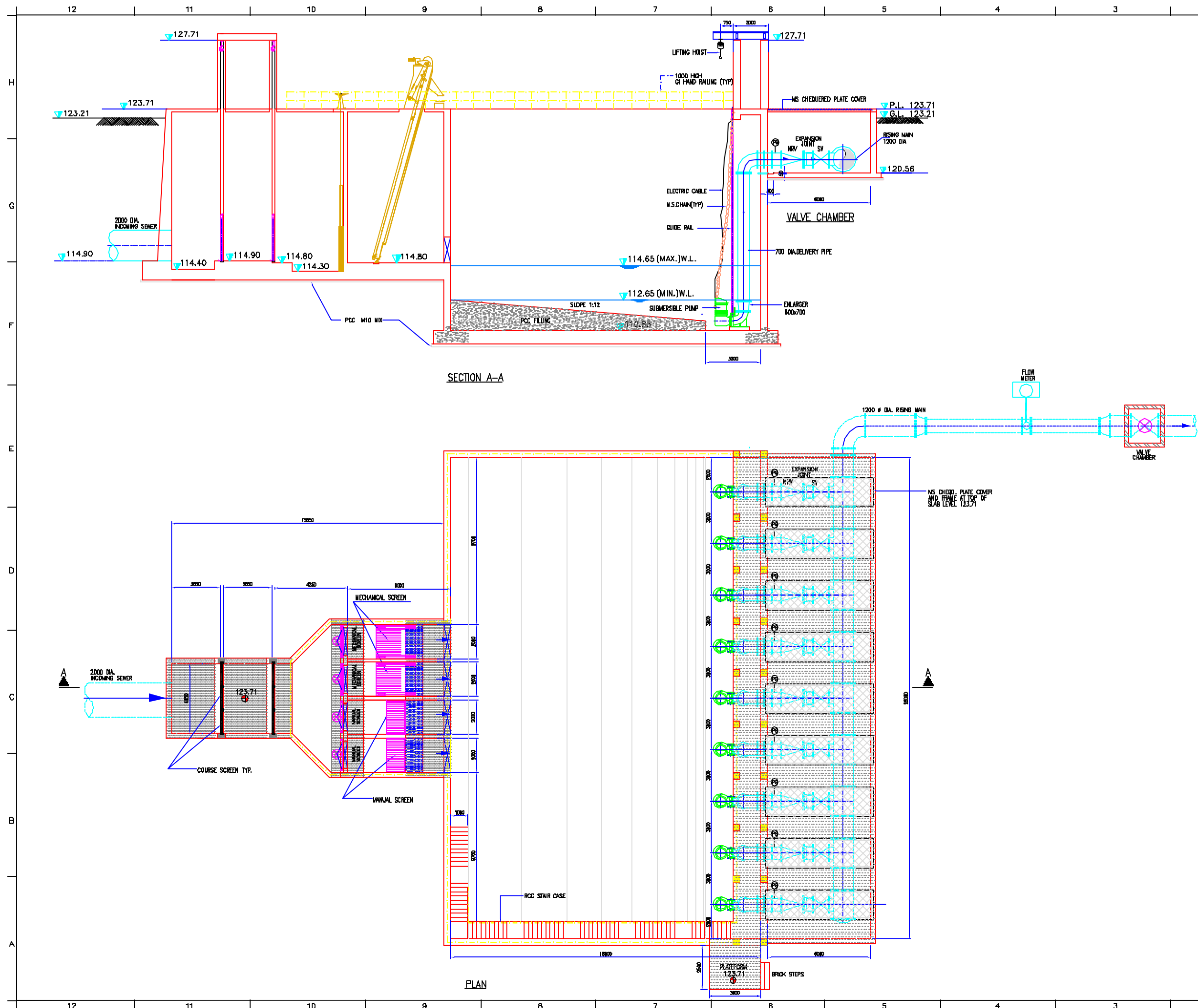


PROJECT:
 THE STUDY ON
 WATER QUALITY MANAGEMENT PLAN
 FOR GANGA RIVER IN THE REPUBLIC OF INDIA
 FEASIBILITY STUDY FOR KANPUR CITY

SHEET CONTENTS:
 LAYOUT OF
 PANKI PUMPING STATION
 (SHEET 1/2)

DRAWING NO.	SR. NO.
KAN-PS-PKI-1	160





NOTES:
 1) ALL LEVELS ARE IN METER.
 2) ALL DIMENSIONS ARE IN MM.
 3) PLEASE DO NOT SCALE THE DRAWING ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.

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

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

CHECKED BY: SAURABH MISRA
 APPROVED BY: V N SONTAKRE
 DRAWN: G K CAKRAVARTY
 DESIGNED: P N PABREKAR
 SURVEYED: DATE: 12-01-2005

JICA JAPAN INTERNATIONAL COOPERATION AGENCY
 CONSULTANTS:
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 CTE ENGINEERING INTERNATIONAL CO., LTD.
 MWH INDIA PRIVATE LIMITED

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

SHEET CONTENTS:
 GENERAL ARRANGEMENT OF PANKI PUMPING STATION (SHEET 2/2)

DRAWING NO. KAN-PS-PKI-2	SR. NO. 161
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NOTES:

- 1) ALL LEVELS ARE IN METER.
- 2) ALL DIMENSIONS ARE IN MM.
- 3) PLEASE DO NOT SCALE THE DRAWING ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.

LEGEND:-

GREENBELT

INST.					
DESD.					
MECH.					
STRV.					
CIVL.					
REV. NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

CHECKED BY:		APPROVED BY:	
JUNAED KHAN		V.N.SCHTAKKE	
DRAWN	C. K. SAWKAR	SCALE	1 : 500
DESIGNED	P. N. PABREKAR	DATE	30-12-2004
SURVEYED	KUMAR SURVEY		

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

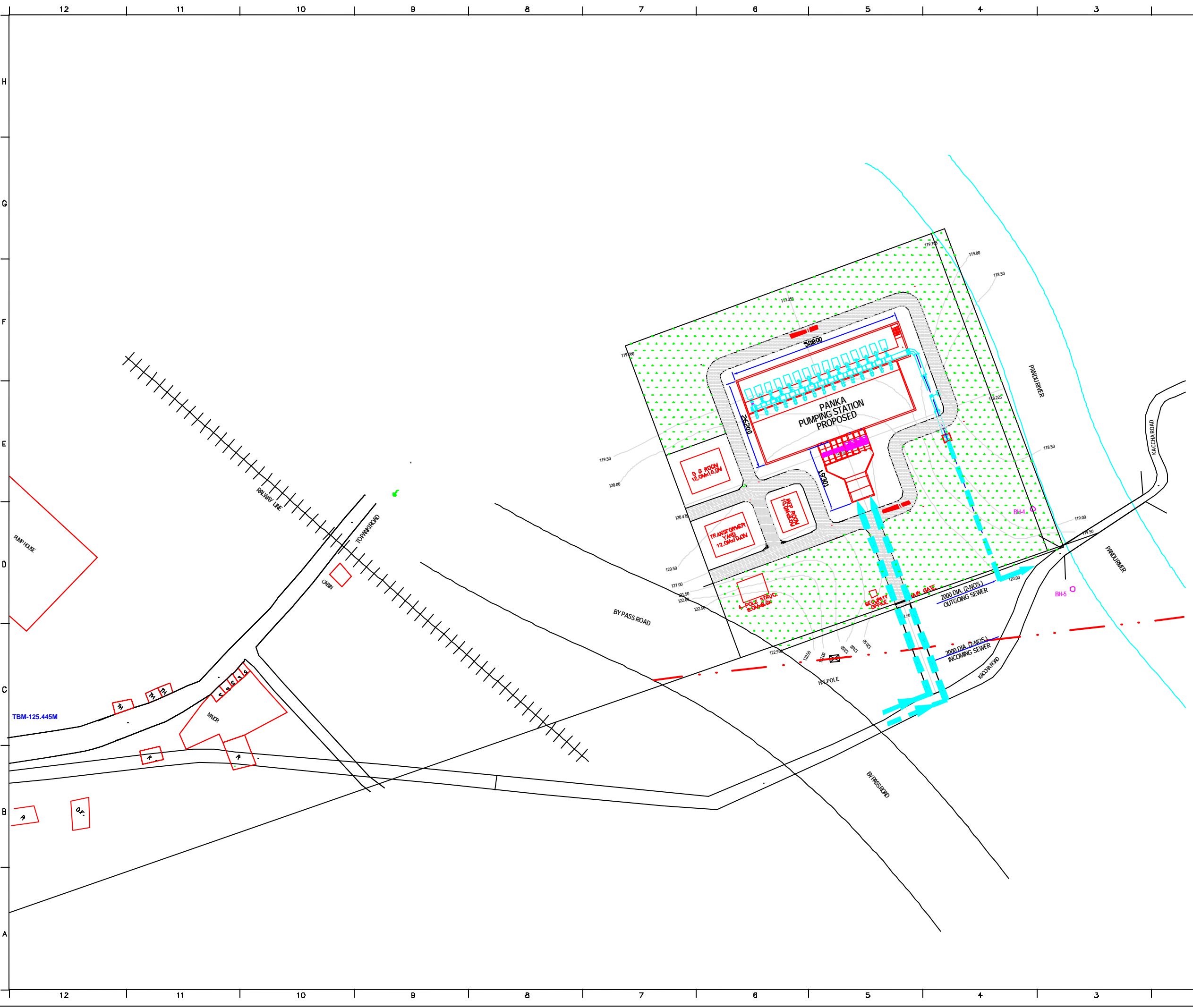
CONSULTANTS:

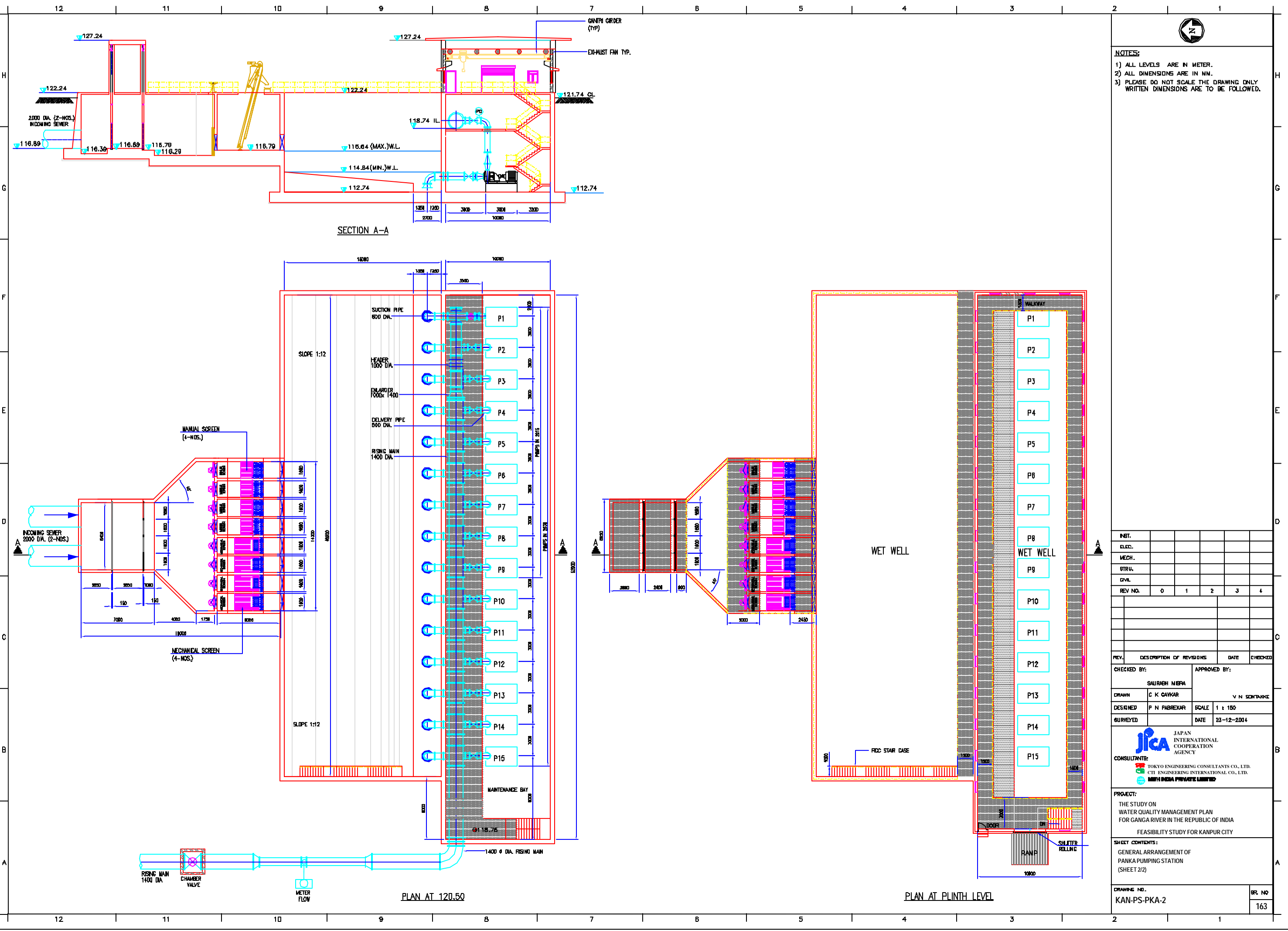
- TOKYO ENGINEERING CONSULTANTS CO., LTD.
- CEI ENGINEERING INTERNATIONAL CO., LTD.
- M/S. M/S. PUNJAB LAMBS

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

SHEET CONTENTS:
 LAYOUT OF PANKA PUMPING STATION (SHEET 1/2)

DRAWING NO.	SRNO
KAN-PS-PKA-1	162





NOTES:
 1) ALL LEVELS ARE IN METER.
 2) ALL DIMENSIONS ARE IN MM.
 3) PLEASE DO NOT SCALE THE DRAWING ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.

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

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED
CHECKED BY:	SAURABH NERPA		
APPROVED BY:	V N SONTAWKE		
DRAWN:	C K CAVKAR	SCALE:	1 : 150
DESIGNED:	P N FABREKAR	DATE:	23-12-2004
SURVEYED:			

CONSULTANTS:
JICA JAPAN INTERNATIONAL COOPERATION AGENCY
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 CTE ENGINEERING INTERNATIONAL CO., LTD.
 MWH INDIA PRIVATE LIMITED

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

SHEET CONTENTS:
 GENERAL ARRANGEMENT OF PANKA PUMPING STATION (SHEET 2/2)

DRAWING NO.: KAN-PS-PKA-2
SR. NO.: 163

LEGEND CHASE-K120.M10

SL. NO.	LINE	NO.	LENGTH	DEPTH	FREE BOARD
1	INLET CHANNEL	1	2.80	8.8	0.80
2	SCREEN CHANNEL	2+2	8.80	2.0	1.5
3	GPP CHANNEL	2	10.0 DL.	-	1.2
4	BASE PONDICION	18	28.08	22.80	0.80
5	INWASH BOX-1				
6	INWASH BOX-2				
7	DIFFUSION BOX-1				
8	INCLUSIVE JERKER LASSON	2	78.8	141.2	3.50
9	CHLORINE MIXING TANK	1	8.2	8.2	3.0
10	CHLORINE CONTACT TANK	1	44.7	88.4	3.00
11	ILLUMINE BRINE BED	80	26.7	16.2	1.2
12	GAS HOLDER	1	16.2	-	4.0
13	ILLUMINE PUMPING STATION	2	1.8	1.80	7.00
14	FETRIAC PUMPING STATION	1	1.2	2.80	7.00
15	REP ROOM	1	18.0	12.0	-
16	GENERATOR ROOM	1	8.8	10.0	-
17	TRANSFORMER YARD	1	18.0	12.0	-
18	ADMINISTRATIVE BLOCK	1	12.0	28.0	-
19	CHLORINE ROOM	1	4.0	18.0	-
20	BRINE FLUME	1			

ALL LINE SIZES ARE IN METERS

LEGEND CHASE-S100.M10

SL. NO.	LINE	NO.	LENGTH	DEPTH	FREE BOARD
1	INLET CHANNEL	1	2.80	8.4	0.80
2	SCREEN CHANNEL	2+2	8.80	2.0	1.5
3	GPP CHANNEL	2	11.2 DL.	-	1.2
4	BASE PONDICION	8	28.00	22.80	0.80
5	INWASH BOX-1				
6	INWASH BOX-2				
7	DIFFUSION BOX-1				
8	INCLUSIVE JERKER LASSON	2	87.8	118.2	3.50
9	CHLORINE MIXING TANK	1	8.7	8.7	3.0
10	CHLORINE CONTACT TANK	1	38.8	78.3	3.00
11	ILLUMINE BRINE BED	24	28.7	18.2	1.2
12	GAS HOLDER	1	8.8	-	4.0
13	ILLUMINE PUMPING STATION	2	1.2	1.80	7.00
14	FETRIAC PUMPING STATION	1	1.2	2.80	7.00
15	REP ROOM	1	10.0	12.8	-
16	GENERATOR ROOM	1	8.8	10.8	-
17	TRANSFORMER YARD	1	10.0	18.8	-
18	ADMINISTRATIVE BLOCK	1	12.8	28.0	-
19	CHLORINE ROOM	1	4.0	18.0	-
20	BRINE FLUME	1			

ALL LINE SIZES ARE IN METERS

NOTE:

- 1) PERMANENT BENCH MARK TAKEN FROM OLD RAILWAY STATION 127.810 M.
- 2) ALL THE LEVELS ARE IN METERS.

LEGEND

RAILWAY LINE	
WIRE ROPE	
ELECTRICAL PILE	
PLUT BOUNDARY	
BUILDING	
TEMPLE	
BRIDGE / GULLY	
ROAD CHANNEL	
MOSAIC	
SPUR LEVEL	
WALL	
TREATMENT PLANT	
RAILWAY	
PUBLIC WATER LINE	
DNS LINE	
BLUDGE LINE	
FLUENT LINE	

REFERENCE DRAWING :

- 1) LINE MAP WITH BOUNDARY ZONES KAN-BASE MAP-1
- 2) LINE MAP WITH BOUNDARY ZONES KAN-BASE MAP-2
- 3) REV PLAN KAN-10-1
- 4) BOUNDARY AREA FOR DISTRICT-1 KAN-01-01-1

INST.					
ELED.					
MEDL.					
STRJ.					
CIVL.					
REV NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED
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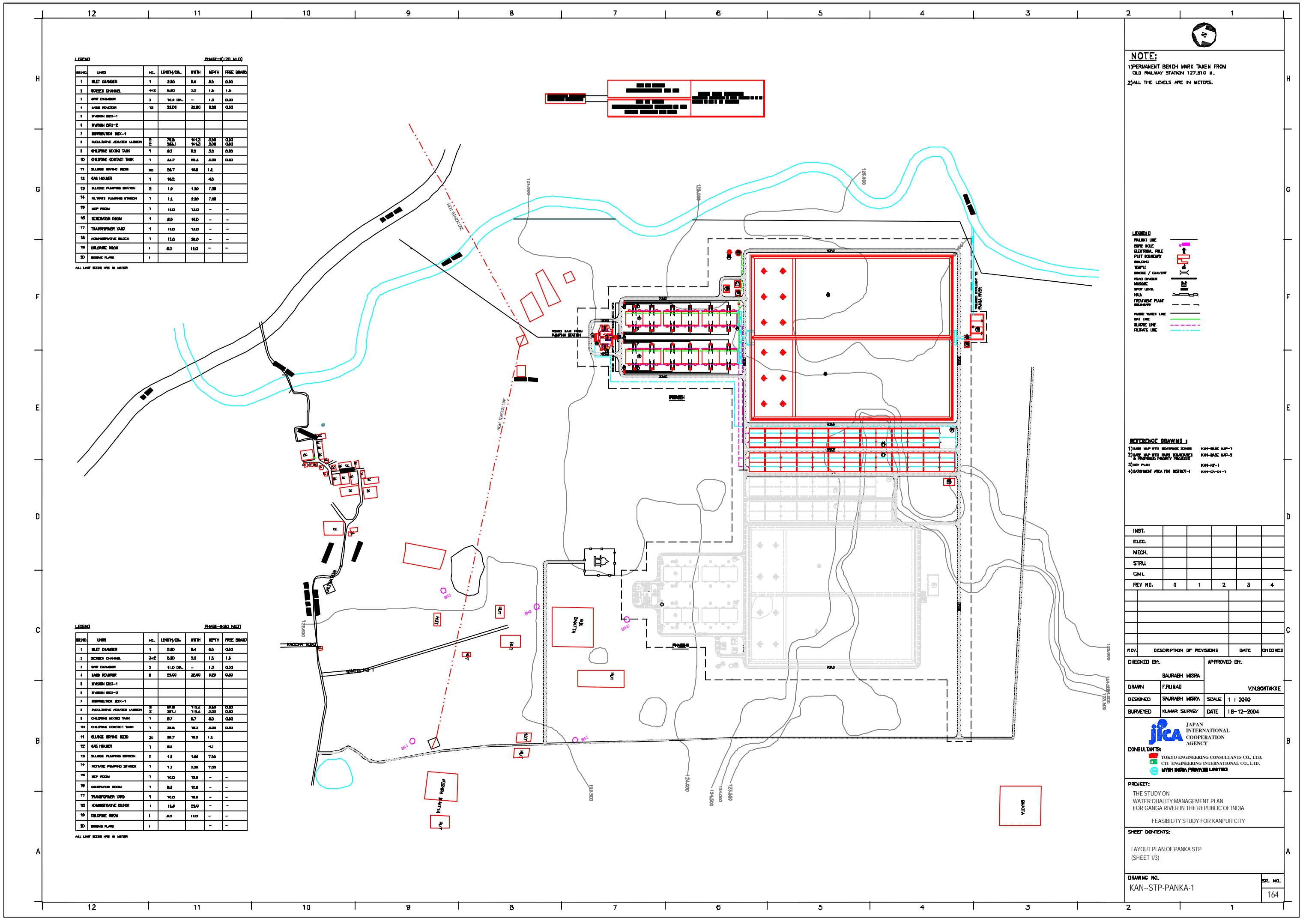
CHECKED BY:	APPROVED BY:
BALRABH MSRA	VJNSONTAKE
DRAWN	FRIJAD
DESIGNED	SALRABH MSRA
SURVEYED	KUMAR SURYU
SCALE	1 : 2000
DATE	18-12-2004

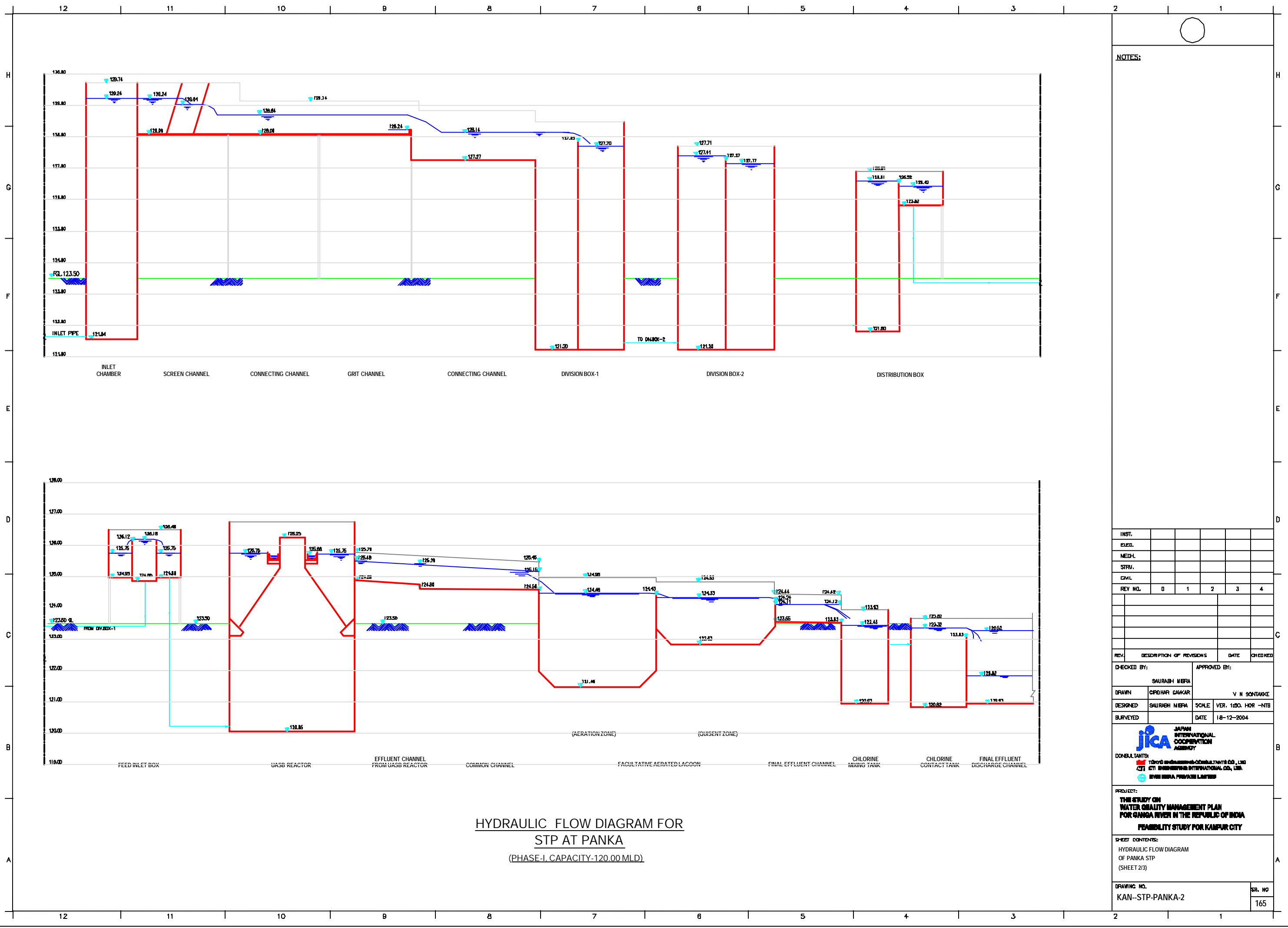
JICA JAPAN INTERNATIONAL COOPERATION AGENCY
CONSULTANTS:
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 CTE ENGINEERING INTERNATIONAL CO., LTD.
 MWH INDIA PRIVATE LIMITED

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

SHEET CONTENTS:
 LAYOUT PLAN OF PANKA STP (SHEET 1/3)

DRAWING NO.	SR. NO.
KAN--STP-PANKA-1	164





**HYDRAULIC FLOW DIAGRAM FOR
STP AT PANKA
(PHASE-I, CAPACITY-120.00 MLD)**

NOTES:

INST.					
DESD.					
MECH.					
STRV.					
CIVL.					
REV. NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

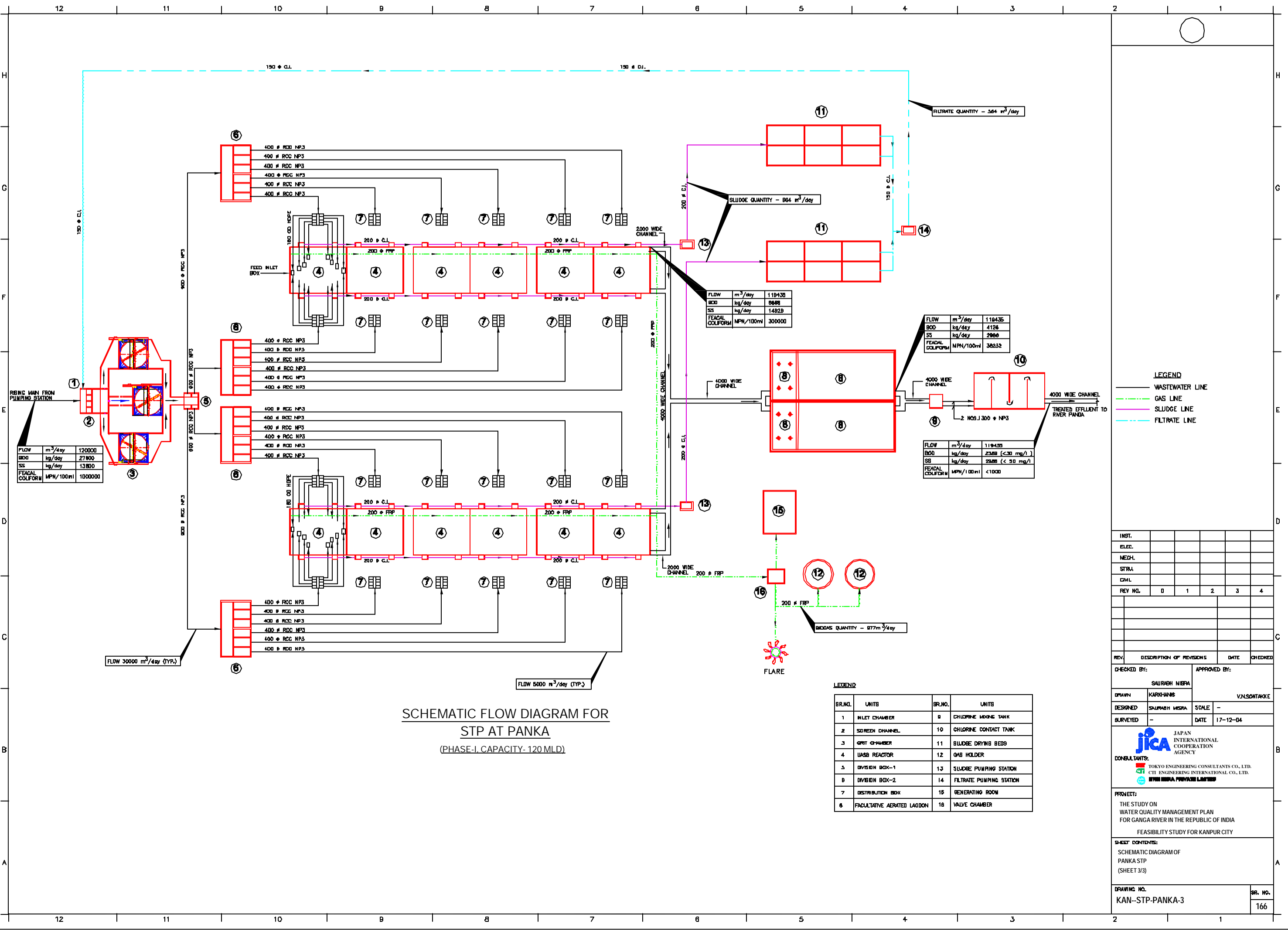
CHECKED BY: SAURABH NERFA
 APPROVED BY: V. H. SONTANKE
 DRAWN: GIRDHAR GAWKAR
 DESIGNED: SAURABH NERFA
 SURVEYED: DATE: 18-12-2004

JICA JAPAN INTERNATIONAL COOPERATION AGENCY
 CONSULTANTS: TIRUVO VEDANTHAR CONSULTANTS PVT. LTD.
 CCI INTERNATIONAL CO., LTD.
 NERFA PRAKASH LAMBERS

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

SHEET CONTENTS:
 HYDRAULIC FLOW DIAGRAM OF PANKA STP (SHEET 2/3)

DRAWING NO. KAN-STP-PANKA-2	SR. NO. 165
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**SCHEMATIC FLOW DIAGRAM FOR
STP AT PANKA
(PHASE-I, CAPACITY-120 MLD)**

FLOW	m ³ /day	120000
BOD	kg/day	27800
SS	kg/day	13800
FEACAL COLIFORM	MPN/100ml	1000000

FLOW	m ³ /day	119430
BOD	kg/day	8898
SS	kg/day	14829
FEACAL COLIFORM	MPN/100ml	300000

FLOW	m ³ /day	119435
BOD	kg/day	4126
SS	kg/day	2966
FEACAL COLIFORM	MPN/100ml	36252

FLOW	m ³ /day	119435
BOD	kg/day	2388 (<30 mg/l)
SS	kg/day	2988 (<30 mg/l)
FEACAL COLIFORM	MPN/100ml	<1000

LEGEND
 — WASTEWATER LINE
 - - - GAS LINE
 — SLUDGE LINE
 - - - FILTRATE LINE

INST.					
ELCC.					
MECH.					
STR.					
CIVL.					
REV. NO.	0	1	2	3	4

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED
CHECKED BY:	SAURABH MISHRA	APPROVED BY:	V.N.SANTAKKE
DRAWN:	KARSHAN	SCALE:	-
DESIGNED:	SAURABH MISHRA	DATE:	17-12-04
SURVEYED:	-		

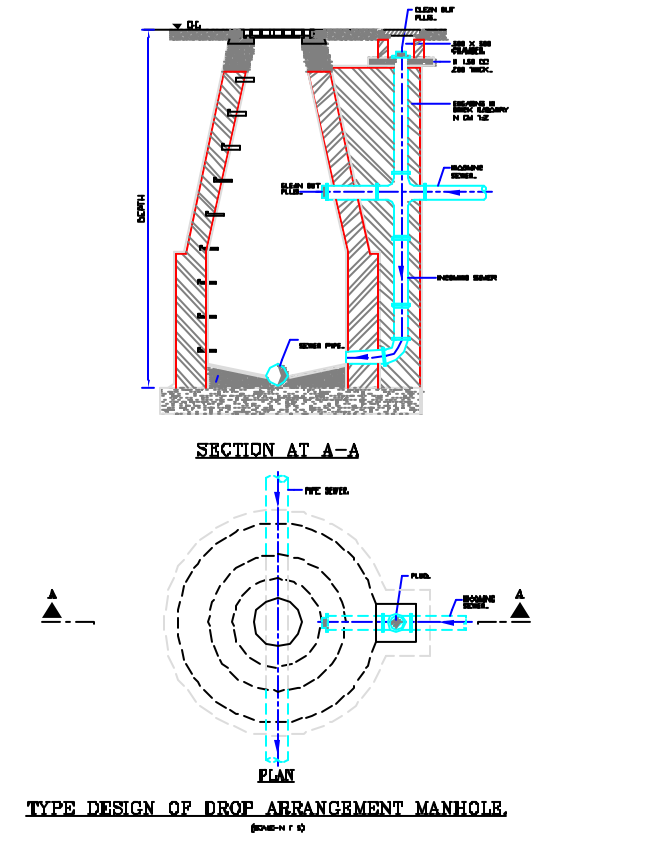
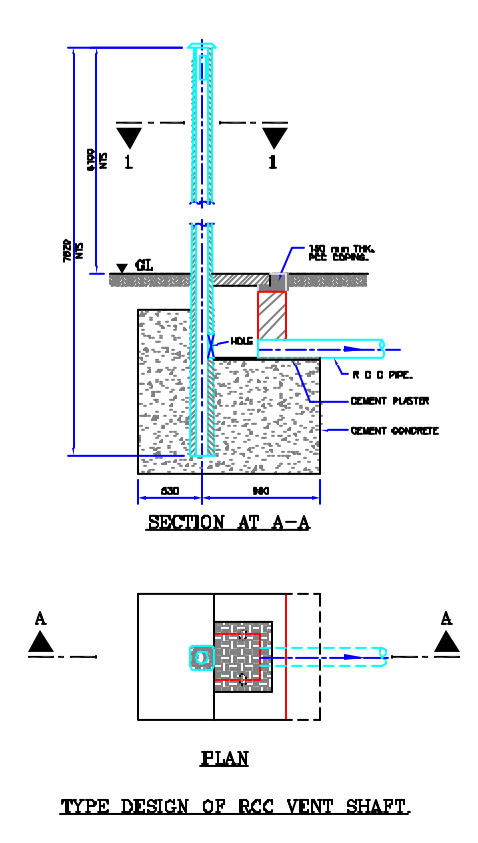
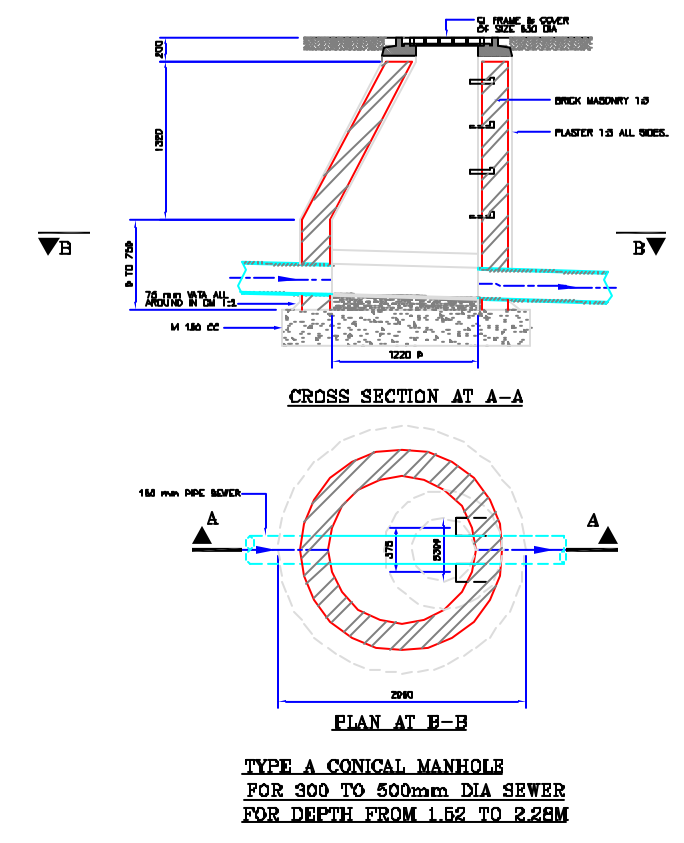
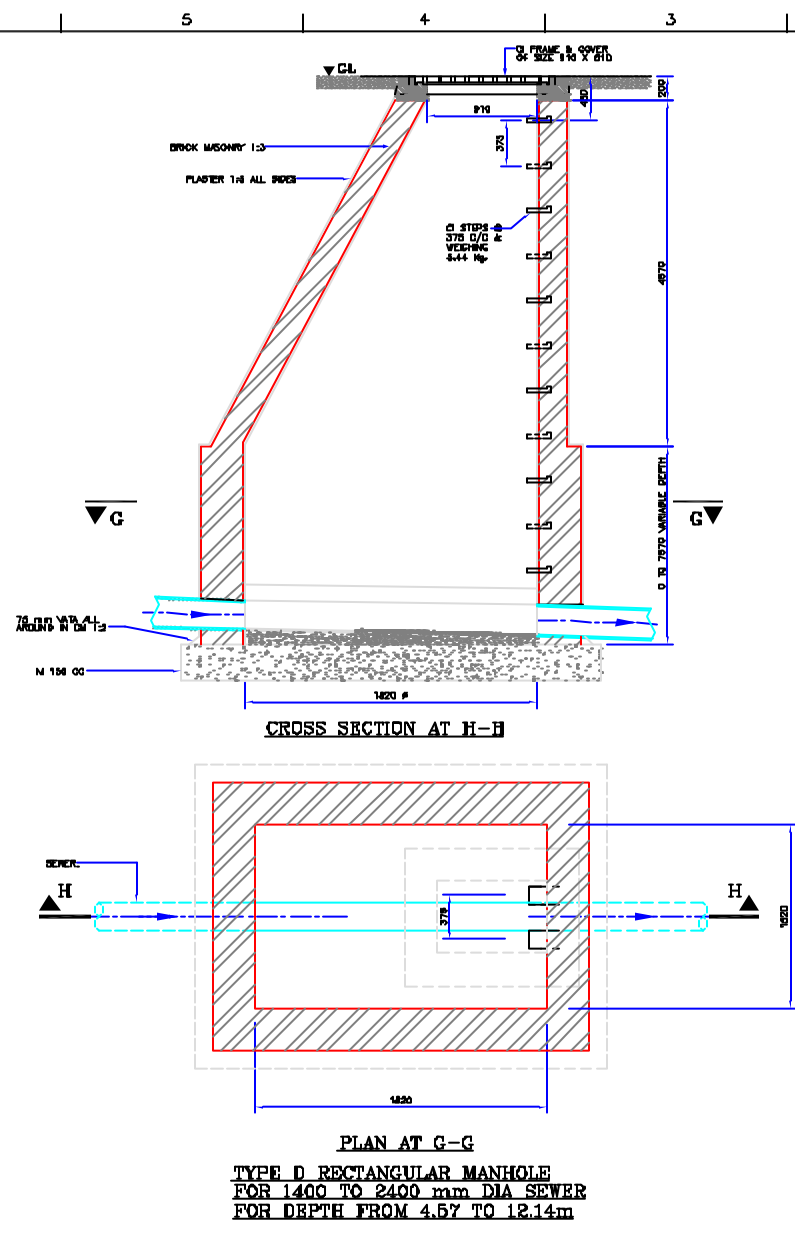
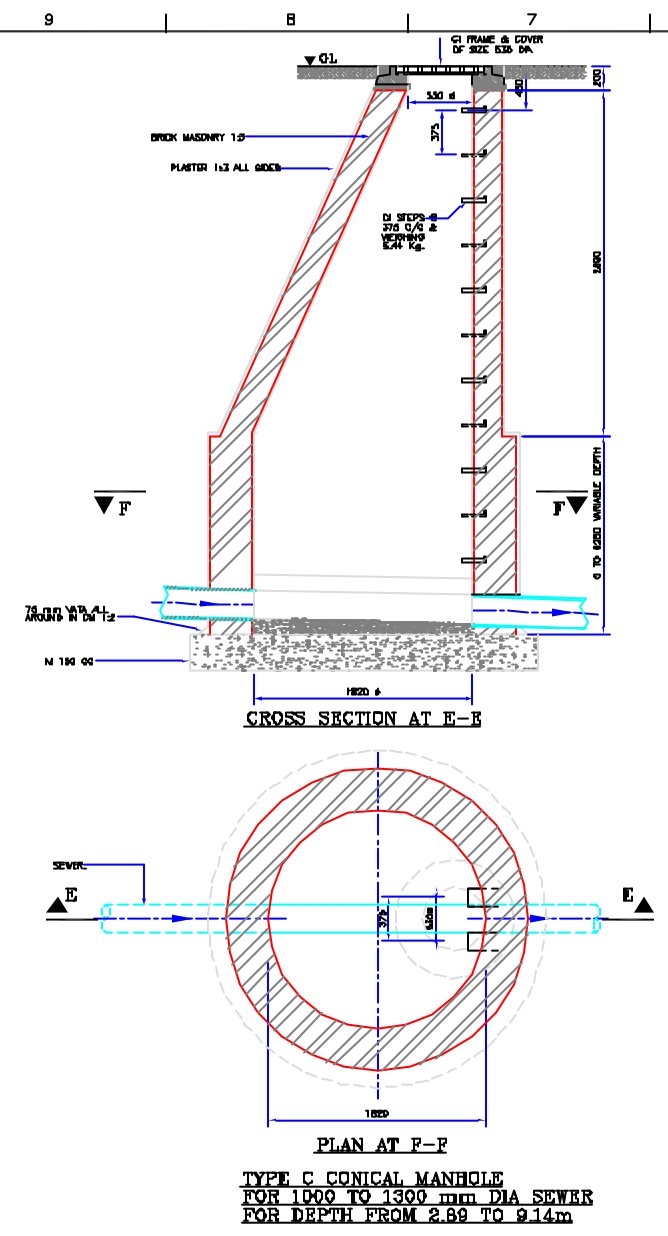
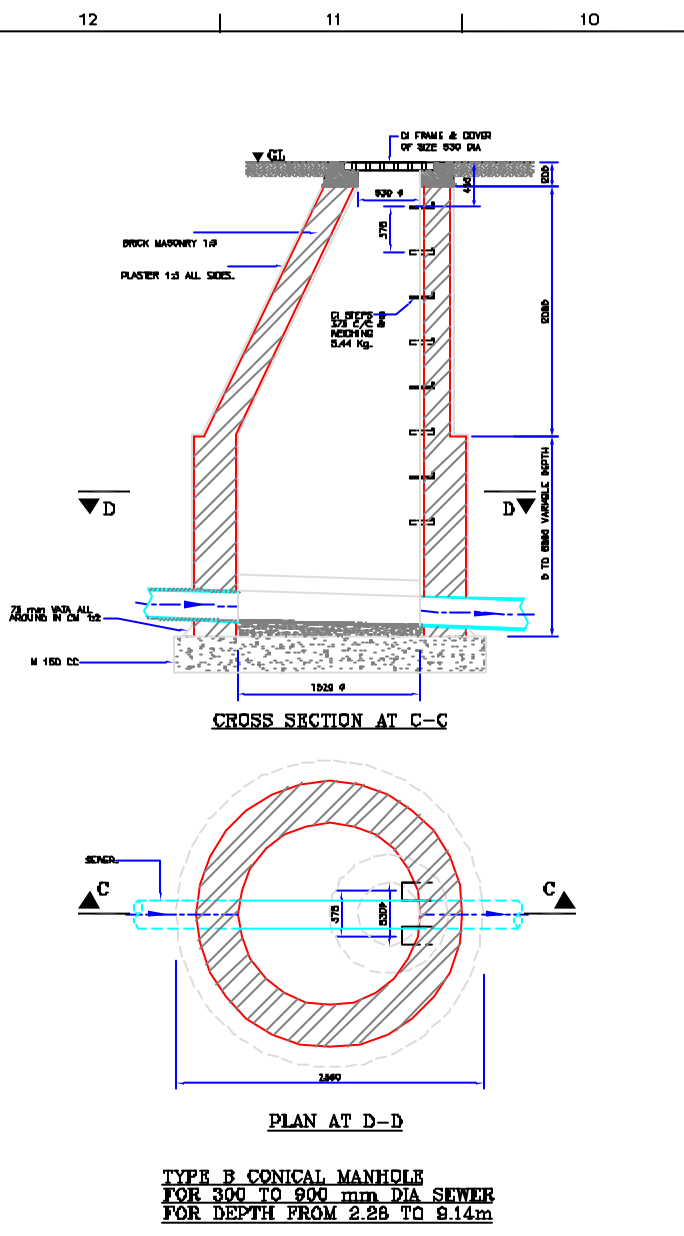
LEGEND

BR.NO.	UNITS	BR.NO.	UNITS
1	INLET CHAMBER	9	CHLORINE MIXING TANK
2	SCREEN CHANNEL	10	CHLORINE CONTACT TANK
3	GRIT CHAMBER	11	SLUDGE DRYING BEDS
4	UASB REACTOR	12	GAS HOLDER
5	DIVISION BOX-1	13	SLUDGE PUMPING STATION
6	DIVISION BOX-2	14	FILTRATE PUMPING STATION
7	DISTRIBUTION BOX	15	GENERATING ROOM
8	FACULTATIVE AERATED LAGOON	16	VALVE CHAMBER

JICA JAPAN INTERNATIONAL COOPERATION AGENCY
CONSULTANTS:
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 CTE ENGINEERING INTERNATIONAL CO., LTD.
 SHRI MISHRA PRAKASH LIMITED

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

SHEET CONTENTS:
 SCHEMATIC DIAGRAM OF PANKA STP (SHEET 3/3)



NOTES:
1) ALL LEVELS ARE IN METERS.
2) ALL DIMENSIONS ARE IN MILLIMETERS.

INST.					
ELEC.					
MECH.					
STRU.					
CIVIL					
REV. NO.	0	1	2	3	4
REV.	DESCRIPTION OF REVISIONS			DATE	CHECKED
CHECKED BY:	JUNAED KHAN			APPROVED BY:	
DRAWN:	H.S.PANAR			V.N.SCHTAKKE	
DESIGNED:	M.D.NAGBEKAR			SCALE:	1:30
SURVEYED:				DATE:	18-01-2004
 JICA JAPAN INTERNATIONAL COOPERATION AGENCY CONSULTANTS: WPCPD ENGINEERING CONSULTANTS PVT. LTD. CCI ENGINEERING INTERNATIONALS CO., LTD. SURESHRA PRIVATE LIMITED					
PROJECT: THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA FEASIBILITY STUDY FOR KANPUR CITY					
SHEET CONTENTS: TYPICAL DETAILS OF ORDINARY MANHOLE AND VENT SHAFT					
DRAWING NO. KAN-TYP-1					SR. NO. 167

12

11

10

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8

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6

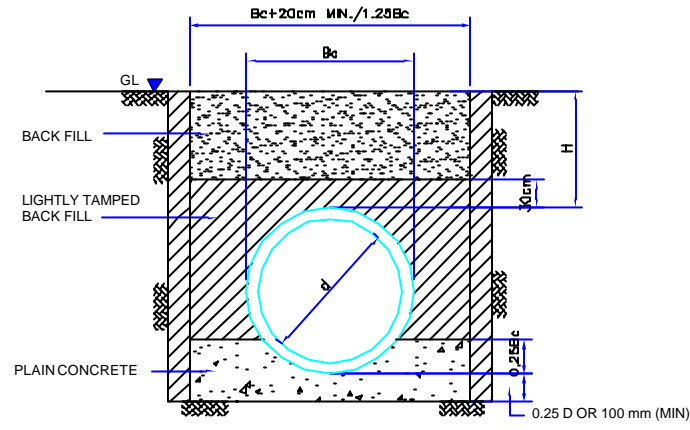
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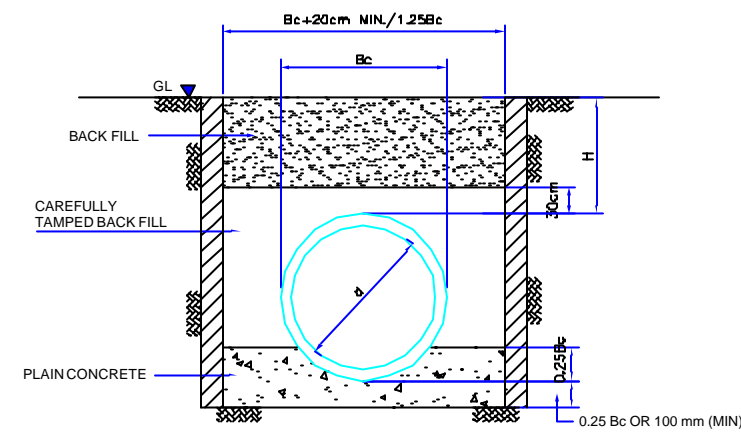
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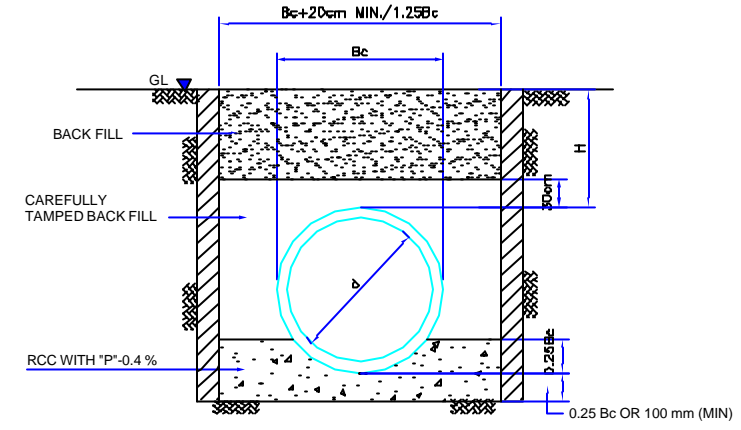
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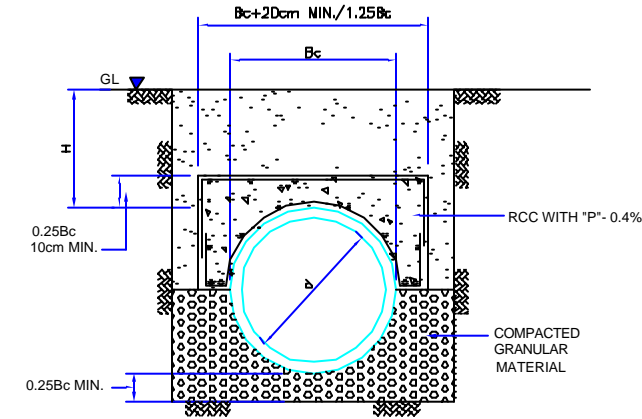
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CLASS-Aa



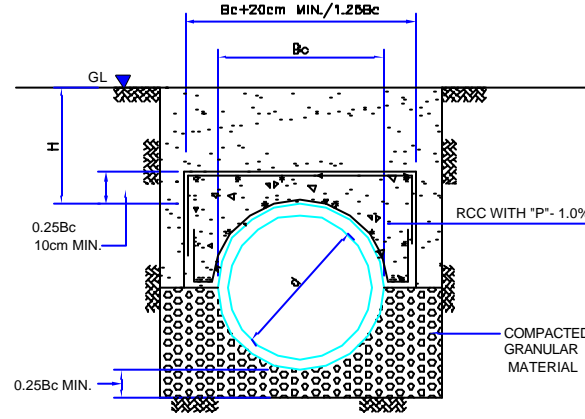
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CLASS-Ab



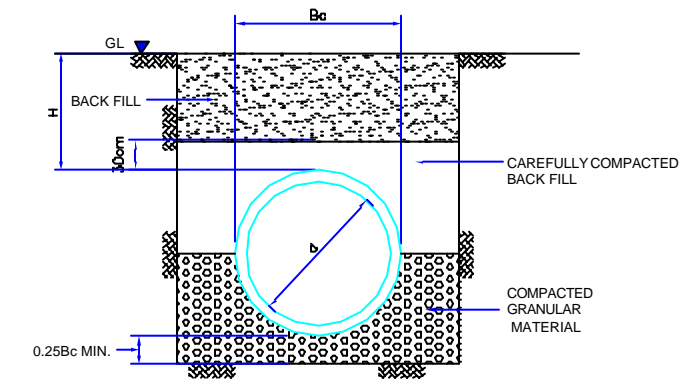
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CLASS-Ac



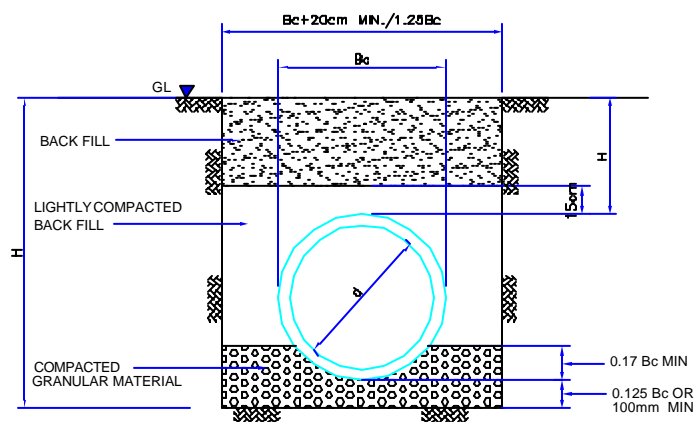
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CLASS-Ad (3.4)



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CLASS-Ad (4.8)



COMPACTED GRANULAR BEDDING
(LOAD FACTOR 1.9)
CLASS-B



GRANULAR BEDDING
(LOAD FACTOR 1.5)
CLASS-C

12

11

10

9

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7

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5

4

3

2

1

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

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

CHECKED BY:		APPROVED BY:	
JONAEED KHAN		V.N.SCHTAKKE	
DRAWN:	R.D.METRE	SCALE:	N.T.S.
DESIGNED:	SAURABH NERFA	DATE:	12-01-2006
SURVEYED:	-		

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

CONSULTANTS:

- TOKYO ENGINEERING CONSULTANTS CO., LTD.
- CTI ENGINEERING INTERNATIONAL CO., LTD.
- SHYAM NERFA PRIVATE LIMITED

PROJECT:

THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA

FEASIBILITY STUDY FOR KANPUR CITY

SHEET CONTENTS:

TYPICAL DETAILS OF SEWER BEDDING (SHEET NO.2/2)

DRAWING NO.	SR. NO.
KAN-TYP-2	168