

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
NATIONAL RIVER CONSERVATION DIRECTORATE (NRCD)  
MINISTRY OF ENVIRONMENT AND FORESTS

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

**FINAL REPORT**

**VOLUME IV FEASIBILITY STUDY FOR PROJECT CITIES**

**VOLUME VI-3 FEASIBILITY STUDY FOR ALLAHABAD CITY  
PART VII DRAWINGS**

**JULY 2005**

**TOKYO ENGINEERING CONSULTANTS CO., LTD.  
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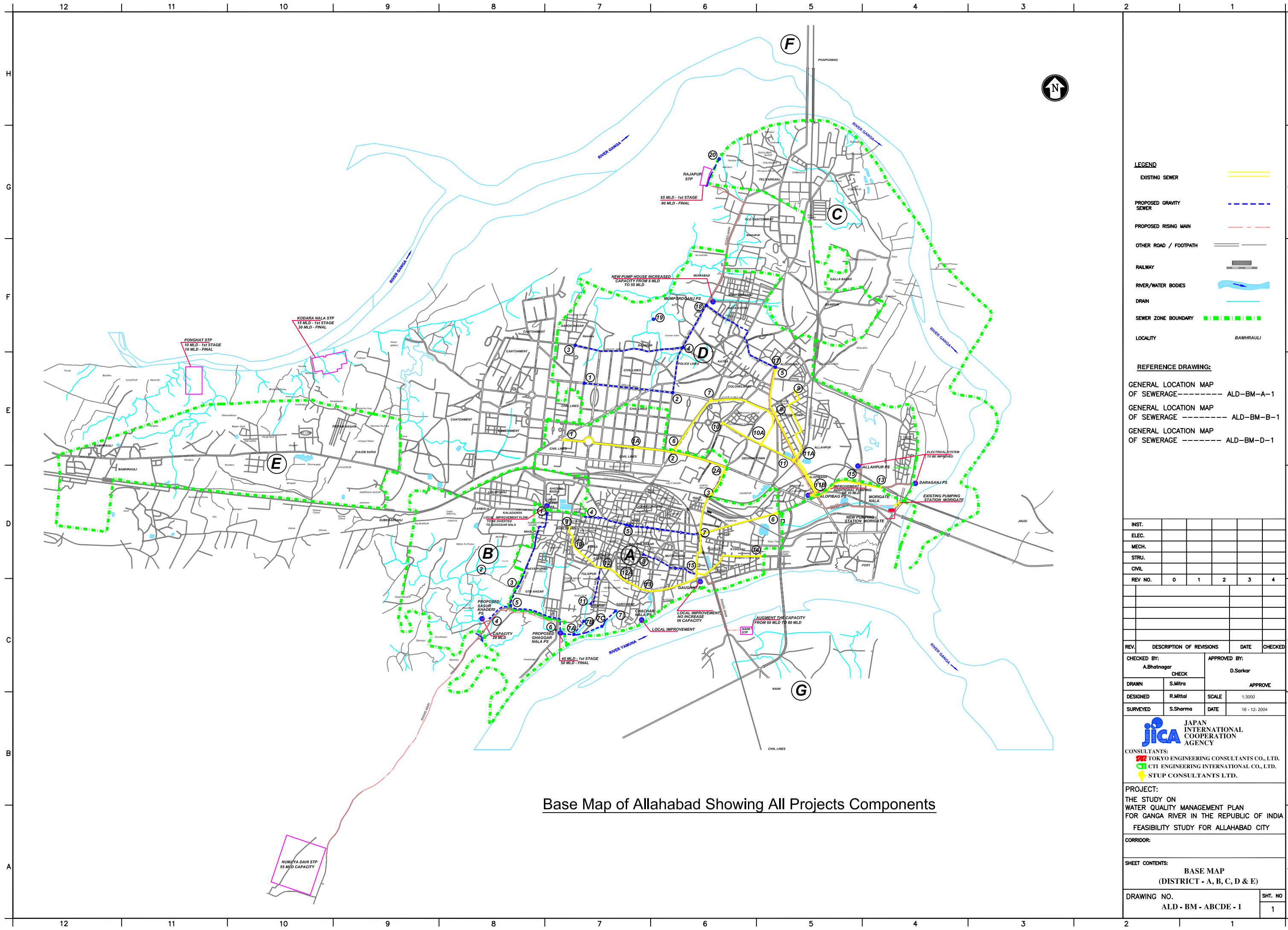
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141	ALD-PS-D-ALPS-1	Layout and General Arrangement of Existing Pumping Station and Proposed Augmentation	173	ALD-C-B-(ND-YR)-6	Plan and Profile (Propose Channel) (Ch. 1800-2400)
142	ALD-PS-D-ALPS-2	Hydraulic Flow Diagram	174	ALD-C-B-(ND-YR)-7	Plan and Profile (Propose Channel) (Ch. 2400-3000)
143	ALD-PS-D-ALPS-3	Single Line Diagram Allahpur Pumping Station (3/3) (Existing)	175	ALD-C-B-(ND-YR)-8	Plan and Profile (Propose Channel) (Ch. 3000-3330)
<b>Dara Ganj Pumping Station (Existing)</b>			176	ALD-C-B-(ND-YR)-9	Plan and Profile (Propose Channel) (Ch. 3330-3822.32)
144	ALD-PS-D-DGPS-1	Layout and General Arrangement of Existing Pumping Station and Proposed Augmentation	<b>Sewage Treatment Plant at Rajapur Nala</b>		
145	ALD-PS-D-DGPS-2	Hydraulic Flow Diagram	177	ALD-TP-D-RAJ-1	Site Plan
146	ALD-PS-D-DGPS-3	Single Line Diagram Daraganj Pumping Station (3/3) (Existing)	178	ALD-TP-D-RAJ-2	Layout Plan & Section
<b>Sewage Treatment Plants:</b>			179	ALD-TP-D-RAJ-3	Hydraulic Flow Diagram
<b>Sewage Treatment Plant at Naini</b>			180	ALD-TP-D-RAJ-4	General Arrangement of Aerated Lagoon
147	ALD-TP-A-NA-1	General Layout of Existing Facilities and Proposed Augmentation	181	ALD-TP-D-RAJ-5	General Arrangement of Chlorine Contact Tank
148	ALD-TP-A-NA-2	General Arrangement of Primary Sedimentation Tank	182	ALD-TP-D-RAJ-6	General Arrangement of UASB Reactor
149	ALD-TP-A-NA-3	General Arrangement of Secondary Sedimentation Tank	183	ALD-TP-D-RAJ-7	Layout Plan of Sludge Drying Beds
150	ALD-TP-A-NA-4	General Arrangement of Aeration Tank (Plan and Section)			
<b>Sewage Treatment Plant at Numaya Dahi</b>					
151	ALD-TP-B-ND-1	Site Plan			
152	ALD-TP-B-ND-2	Layout Plan and Sections			
153	ALD-TP-B-ND-3	Hydraulic Flow Diagram			
154	ALD-TP-B-ND-4	Preliminary Units (Plan and Sections)			



**LEGEND**

EXISTING SEWER

PROPOSED GRAVITY SEWER

PROPOSED RISING MAIN

OTHER ROAD / FOOTPATH

RAILWAY

RIVER/WATER BODIES

DRAIN

SEWER ZONE BOUNDARY

LOCALITY: BAMHRAULI

**REFERENCE DRAWING:**

GENERAL LOCATION MAP OF SEWERAGE ----- ALD-BM-A-1

GENERAL LOCATION MAP OF SEWERAGE ----- ALD-BM-B-1

GENERAL LOCATION MAP OF SEWERAGE ----- ALD-BM-D-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			
DRAWN	S.Mitra	APPROVE	
DESIGNED	R.Mittal	SCALE	1:3000
SURVEYED	S.Sharma	DATE	16-12-2004

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

CONSULTANTS:

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

**PROJECT:**

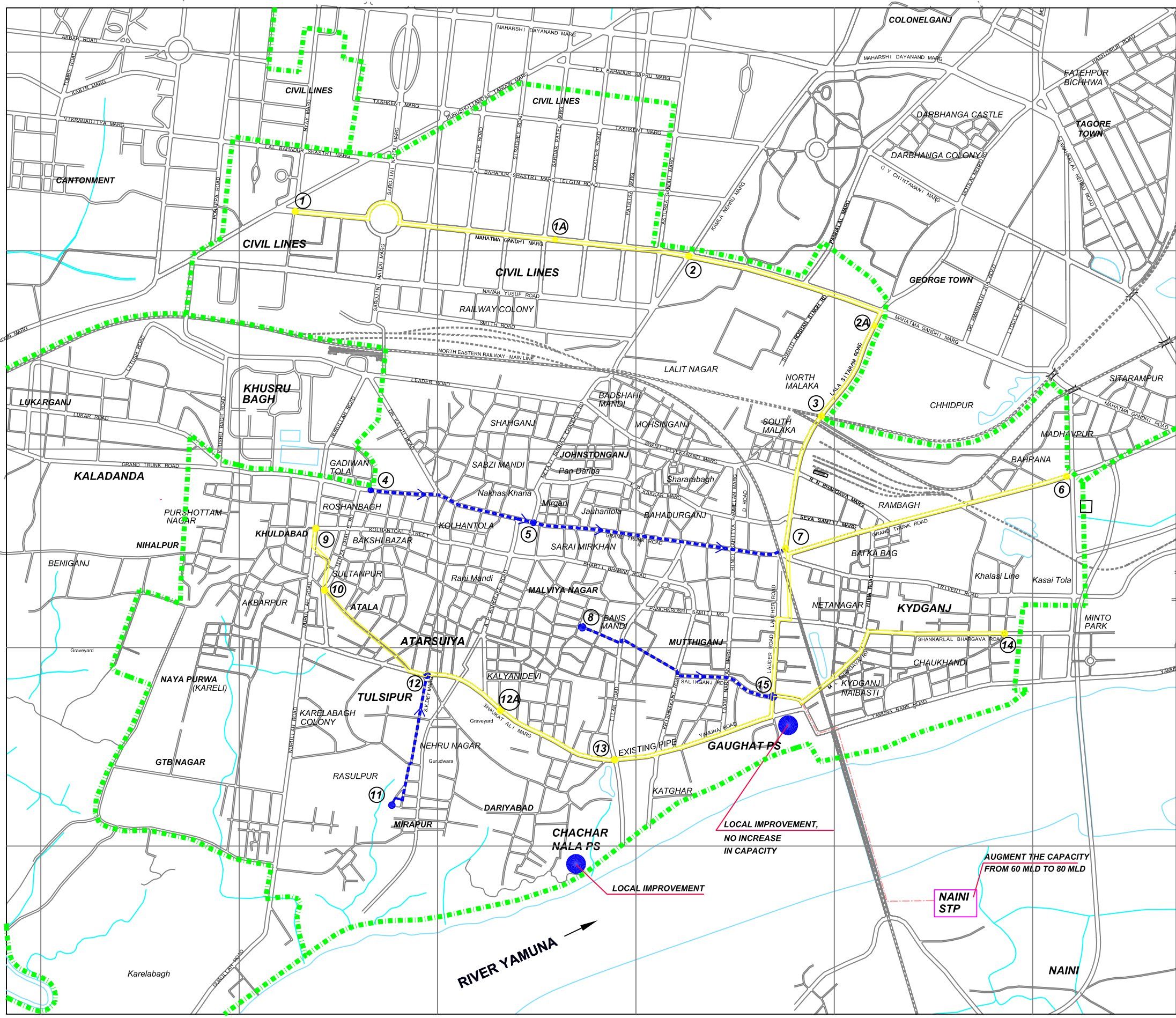
THE STUDY ON WATER QUALITY MANAGEMENT PLAN FOR GANGA RIVER IN THE REPUBLIC OF INDIA

FEASIBILITY STUDY FOR ALLAHABAD CITY

CORRIDOR:

SHEET CONTENTS: **BASE MAP (DISTRICT - A, B, C, D & E)**

DRAWING NO.	ALD - BM - ABCDE - 1	SHT. NO.	1
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**NOTES :-**  
FOR DETAILS OF PIPELINE ALIGNMENT REFER RESPECTIVE DRAWING.

**LEGEND**

EXISTING SEWERS	
PROPOSED GRAVITY SEWER	
PROPOSED RISING MAIN	
OTHER ROAD / FOOTPATH	
RAILWAY	
RIVER/WATER BODIES	
DRAIN	
SEWER ZONE BOUNDARY	
LOCALITY	BAMHRAULI

**REFERENCE DRAWING:**  
BASE MAP ----- ALD-BM-ABCD-1

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

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

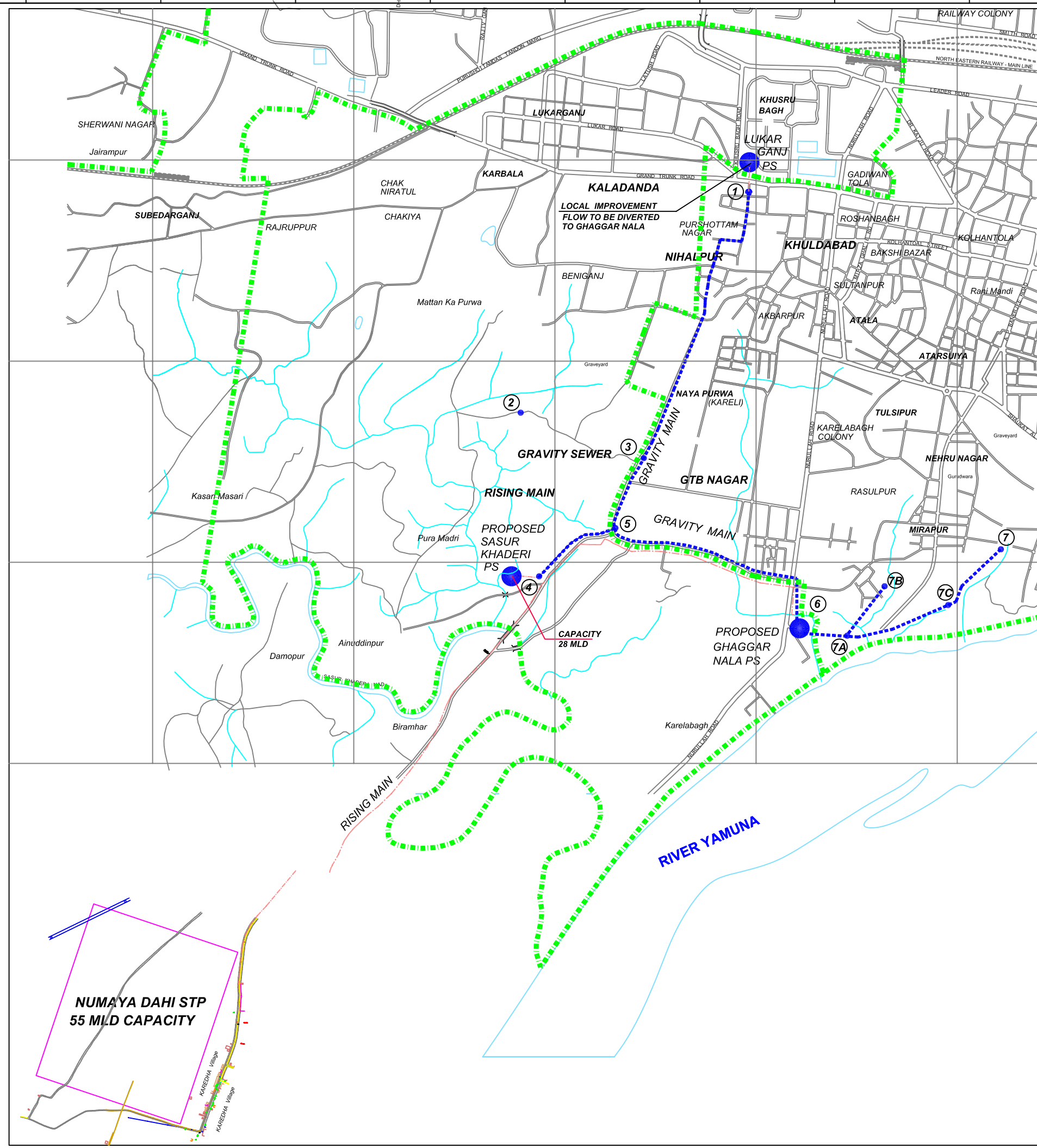
CHECKED BY: A.Bhatnagar CHECK		APPROVED BY: D.Sarkar APPROVE	
DRAWN	S.Mitra	DESIGNED	R.Mittal
SURVEYED	S.Sharma	SCALE	1:1000
		DATE	16-12-2004

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

**SHEET CONTENTS:**  
GENERAL LOCATION MAP OF  
SEWERAGE (DISTRICT-A)

DRAWING NO.	ALD - BM - A - 1	SHT. NO.	2
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**NOTES :-**  
FOR DETAILS OF PIPELINE ALIGNMENT REFER RESPECTIVE DRAWING.

**LEGEND**

EXISTING SEWERS	
PROPOSED GRAVITY SEWER	
PROPOSED RISING MAIN	
OTHER ROAD / FOOTPATH	
RAILWAY	
RIVER/WATER BODIES	
DRAIN	
SEWER ZONE BOUNDARY	
LOCALITY	BAMHRAULI

**REFERENCE DRAWING:**  
BASE MAP ----- ALD-BM-ABCD-1

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

CHECKED BY: A.Bhatnagar CHECK		APPROVED BY: D.Sarkar APPROVE	
DRAWN	S.Mitra	SCALE	1:1000
DESIGNED	R.Mittal	DATE	16-12-2004
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

**SHEET CONTENTS:**  
GENERAL LOCATION MAP OF SEWERAGE (DISTRICT-B)

DRAWING NO. ALD - BM - B - 1	SHT. NO. 3
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