

MWH INDIA PRIVATE LIMITED
 133, LUDYOG BHAVAN, SONAWALA ROAD
 GOREGAON (EAST), MUMBAI - 400 063
 INDIA
 PHONE : (91) 22 28717 165
 FAX : (91) 22 28717 133
 E-MAIL : mwhindia@vsnl.com

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- NOTES:
- 1) PERMANENT BENCH MARK TAKEN ON RAILWAY BRIDGE NEAR CHOUKA GHAT JUNCTION 79.705 M.
 - 2) ALL THE LEVELS ARE IN METERS.

LEGEND:
 REFERENCE POINT FOR L-SECTION b3

REFERENCE DRAWING:
 FOR LAYOUT DRAWING REFER BASE MAP WITH WARD BOUNDARIES PROPOSED SEWERAGE FACILITIES DRAWING NO. MWH/160/2003

FOR PLAN SHOWING INTERCEPTOR ALIGNMENT & SECONDARY SEWER FOR ASSI NALA DRAWING NO. MWH/160/4008

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

1	CHANGE IN DESIGN POPULATION AND INTERCEPTOR NAKKHA NALA ADDED	06/08/04	
REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

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

JOB:
 CONSULTANCY SERVICES FOR FEASIBILITY STUDY OF PRIORITY PROJECTS UNDER POLLUTION ABATEMENT OF RIVER GANGA IN VARANASI

DRAWING TITLE:
 L SECTION OF SEWER ALIGNMENT ALONG RIGHT BANK OF ASSI NALA (b2 to b4)

CHECKED BY:		APPROVED BY:	
SAURABH MISRA		V.N.SONTAKKE	
DRAWN	H.S.PAWAR	SCALE	H=1:2000 V=1:200
DESIGNED		DATE	25/06/2004
SURVEYED	KSA	DATE	25/06/2004

DRAWING NO.
 VNS-PP-IC-4


SHEET
 2 OF 5
 8

L-SECTION OF ASSI NALLA

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- NOTES:
- 1) PERMANENT BENCH MARK TAKEN ON RAILWAY BRIDGE NEAR CHOUKA GHAT JUNCTION 79.705 M.
 - 2) ALL THE LEVELS ARE IN METERS.

LEGEND:

REFERENCE POINT FOR L-SECTION  b5

REFERENCE DRAWING:
 FOR LAYOUT DRAWING REFER BASE MAP WITH WARD BOUNDARIES PROPOSED SEWERAGE FACILITIES DRAWING NO. MWH/160/2003
 FOR PLAN SHOWING INTERCEPTOR ALIGNMENT & SECONDARY SEWER FOR ASSI NALA DRAWING NO. MWH/160/4008

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

1	CHANGE IN DESIGN POPULATION AND INTERCEPTOR NAKKHA NALA ADDED	06/08/04	
REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

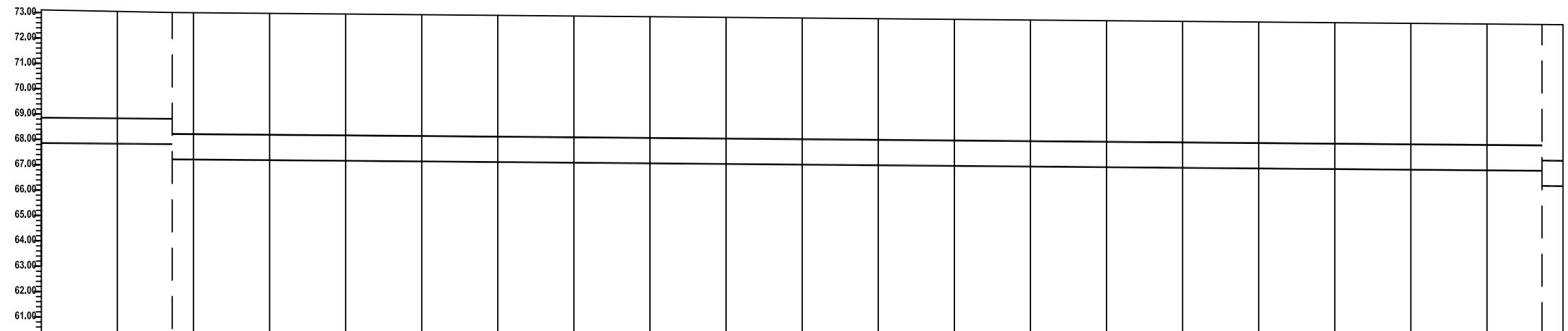
CLIENT:
 JAPAN INTERNATIONAL COOPERATION AGENCY
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 CTI ENGINEERING INTERNATIONAL CO., LTD.

JOB:
 CONSULTANCY SERVICES FOR FEASIBILITY STUDY OF PRIORITY PROJECTS UNDER POLLUTION ABATEMENT OF RIVER GANGA IN VARANASI

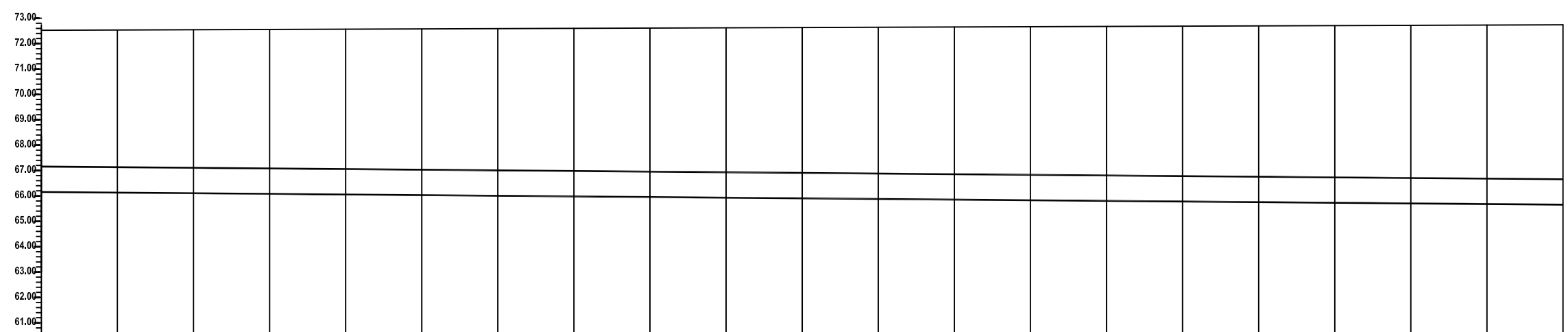
DRAWING TITLE:
 L SECTION OF SEWER ALIGNMENT ALONG RIGHT BANK OF ASSI NALA (b4 to b6)

CHECKED BY:		APPROVED BY:	
SAURABH MISRA		V.N.SONTAKKE	
DRAWN	H.S.PAWAR	SCALE	H=1:2000 V=1:200
DESIGNED		DATE	25/06/2004
SURVEYED	KSA		

DRAWING NO. VNS-PP-IC-5 SHEET 3 OF 5 9



DATUM 60.00	
GROUND LEVEL (M)	
UPSTREAM INVERT LEVEL (M)	
DOWNSTREAM INVERT LEVEL (M)	
PIPE DIA (mm)	1000
CHAINAGE	2400 2430 2460 2490 2520 2550 2580 2610 2640 2670 2700 2730 2760 2790 2820 2850 2880 2910 2940 2970 3000
PIPE MATERIAL	RCC
NODE NO	MAN ANT



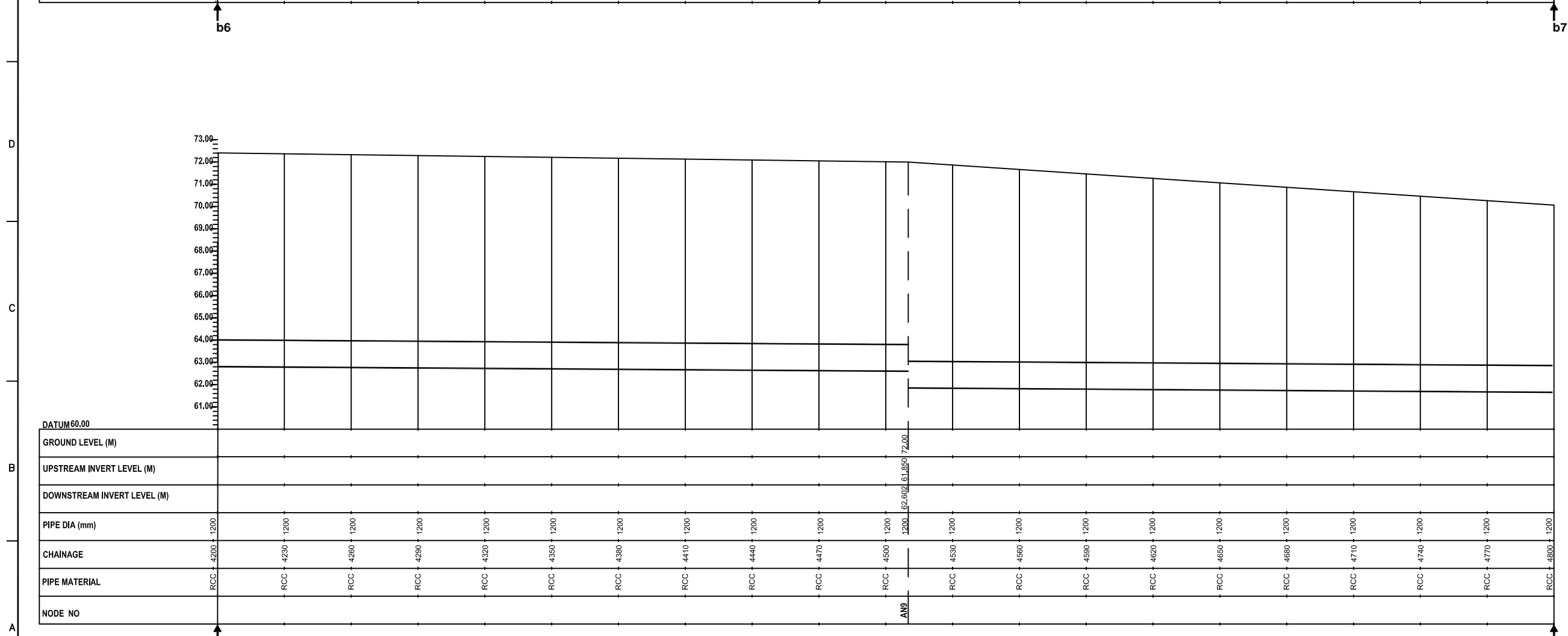
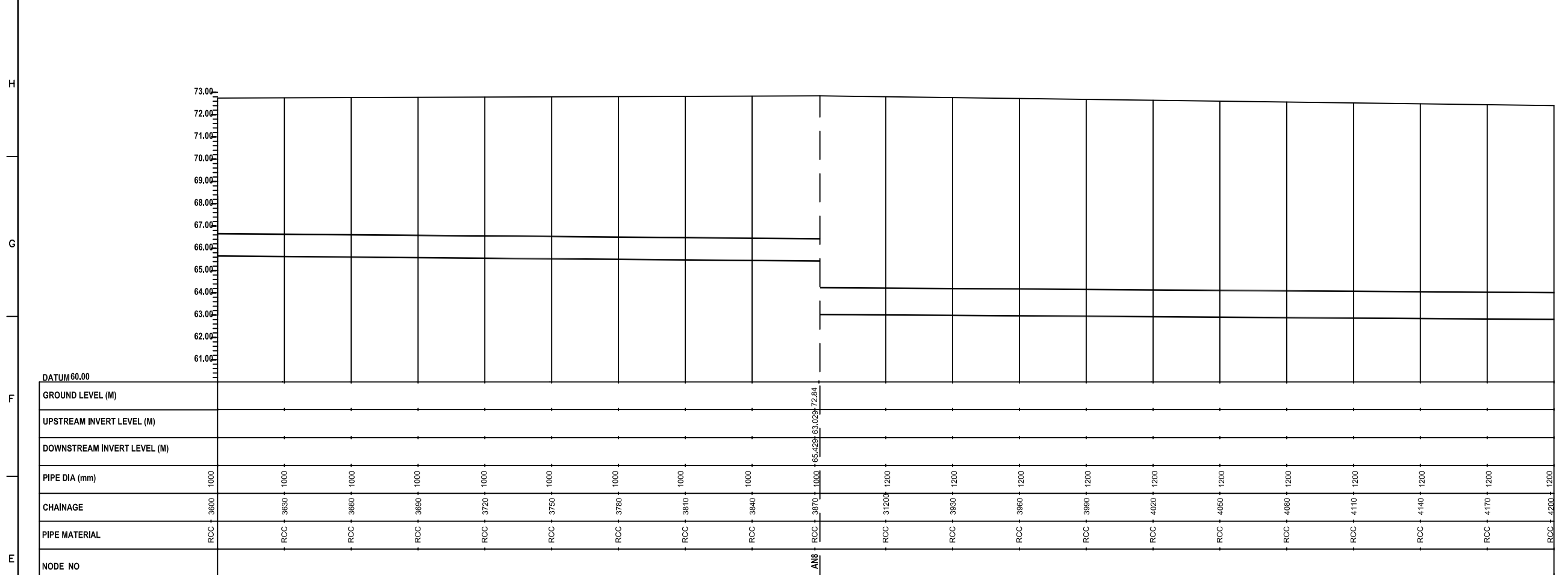
DATUM 60.00	
GROUND LEVEL (M)	
UPSTREAM INVERT LEVEL (M)	
DOWNSTREAM INVERT LEVEL (M)	
PIPE DIA (mm)	1000
CHAINAGE	3000 3030 3060 3090 3120 3150 3180 3210 3240 3270 3300 3330 3360 3390 3420 3450 3480 3510 3540 3570 3600
PIPE MATERIAL	RCC
NODE NO	

L-SECTION OF ASSI NALA

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NOTES:
 1) PERMANENT BENCH MARK TAKEN ON RAILWAY BRIDGE NEAR CHOUKA GHAT JUNCTION 79.705 M.
 2) ALL THE LEVELS ARE IN METERS.



L-SECTION OF ASSI NALLA

LEGEND:
 REFERENCE POINT FOR L-SECTION ↑ b7

REFERENCE DRAWING:
 FOR LAYOUT DRAWING REFER BASE MAP WITH WARD BOUNDARIES PROPOSED SEWERAGE FACILITIES DRAWING NO. MWH/160/2003
 FOR PLAN SHOWING INTERCEPTOR ALIGNMENT & SECONDARY SEWER FOR ASSI NALLA DRAWING NO. MWH/160/4008

INST.					
ELEC.					
MECH.					
STRU.					
CIVIL					
REV NO.	0	1	2	3	4
1	CHANGE IN DESIGN POPULATION AND INTERCEPTOR NAKKHA NALA ADDED	06/08/04			
REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED		

CLIENT:

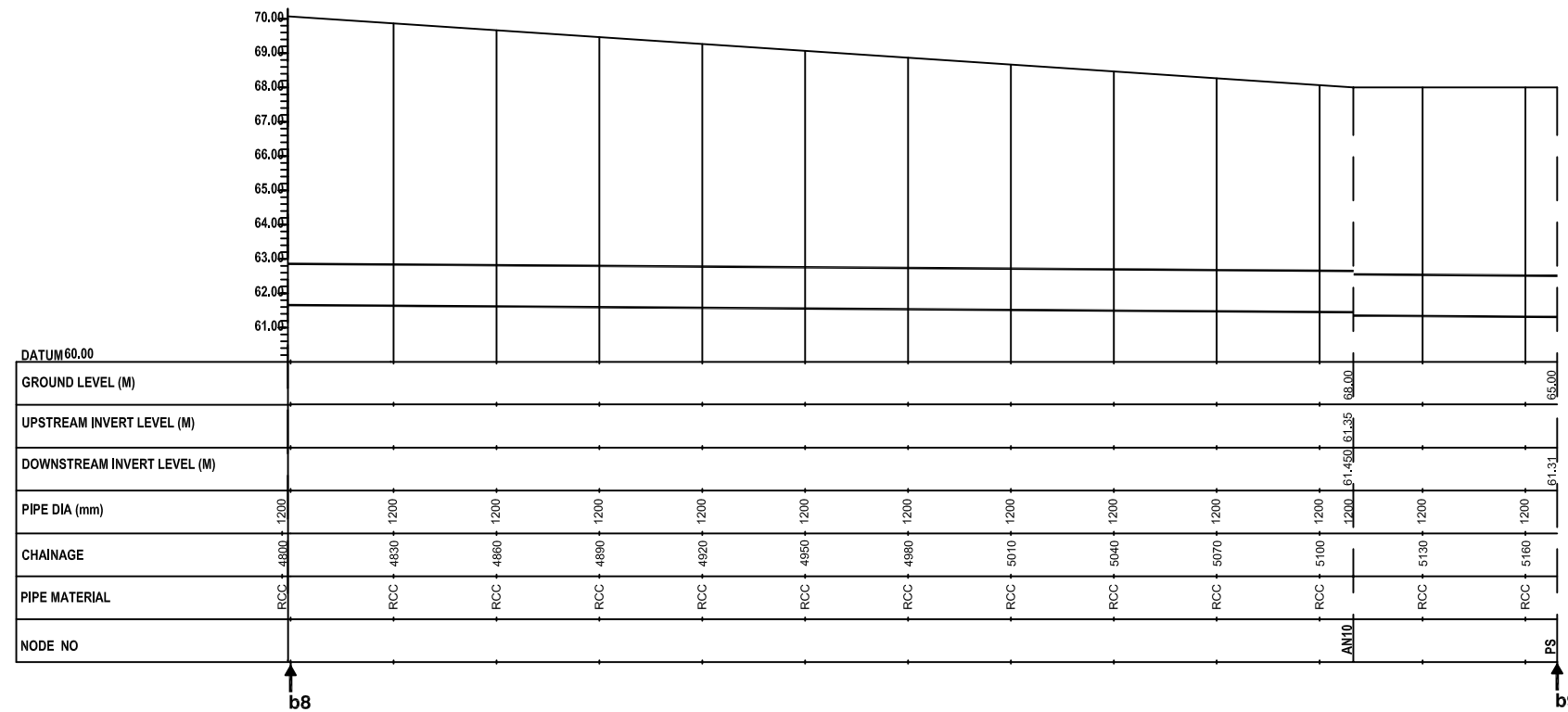
 JICA JAPAN INTERNATIONAL COOPERATION AGENCY
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 C.T.I. ENGINEERING INTERNATIONAL CO., LTD.

JOB:
 CONSULTANCY SERVICES FOR FEASIBILITY STUDY OF PRIORITY PROJECTS UNDER POLLUTION ABATEMENT OF RIVER GANGA IN VARANASI

DRAWING TITLE:
 L SECTION OF SEWER ALIGNMENT ALONG RIGHT BANK OF ASSI NALLA (b6 to b8)

CHECKED BY:	SAURABH MISRA	APPROVED BY:	V.N.SONTAKKE
DRAWN	H.S.PAWAR	SCALE	H=1:2000 V=1:200
DESIGNED		DATE	25/06/2004
SURVEYED	KSA		

DRAWING NO. VNS-PP-IC-6 SHEET 4 OF 5 10



L-SECTION OF ASSI NALLA

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NOTES:

- 1) PERMANENT BENCH MARK TAKEN ON RAILWAY BRIDGE NEAR CHOUKA GHAT JUNCTION 79.705 M.
- 2) ALL THE LEVELS ARE IN METERS.

LEGEND:

REFERENCE POINT FOR L-SECTION



REFERENCE DRAWING:

FOR LAYOUT DRAWING REFER BASE MAP WITH WARD BOUNDARIES PROPOSED SEWERAGE FACILITIES DRAWING NO. MWH/160/2003

FOR PLAN SHOWING INTERCEPTOR ALIGNMENT & SECONDARY SEWER FOR ASSI NALLA DRAWING NO. MWH/160/4008

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

1	CHANGE IN DESIGN POPULATION AND INTERCEPTOR NAKKHA NALLA ADDED	06/08/04	
REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

CLIENT:

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

JOB:
 CONSULTANCY SERVICES FOR FEASIBILITY STUDY OF PRIORITY PROJECTS UNDER POLLUTION ABATEMENT OF RIVER GANGA IN VARANASI

DRAWING TITLE:
 L SECTION OF SEWER ALIGNMENT ALONG RIGHT BANK OF ASSI NALLA (b8 to b9)

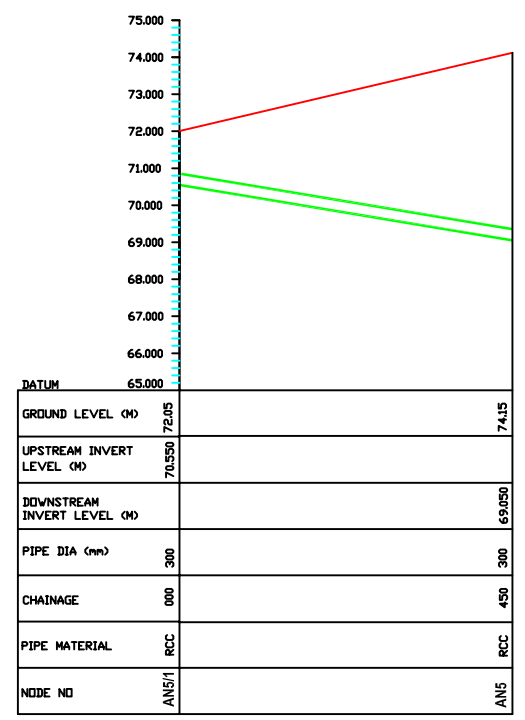
CHECKED BY: SAURABH MISRA
 APPROVED BY: V.N.SONTAKKE

DESIGNED: H.S.PAWAR
 SCALE: H=1:2000 V=1:200
 SURVEYED: KSA
 DATE: 25/06/2004

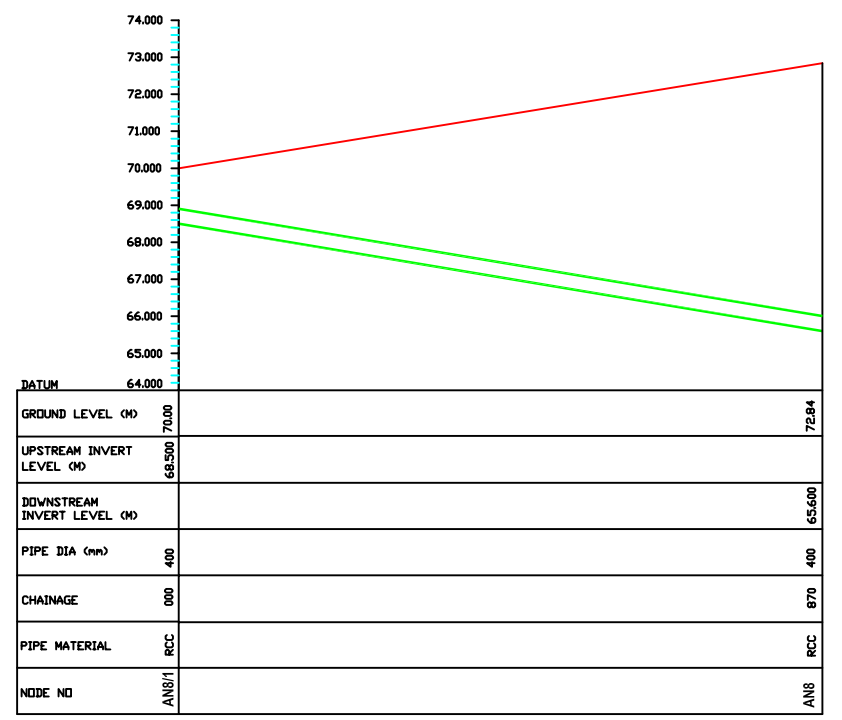
DRAWING NO. VNS-PP-IC-7
 SHEET 5 OF 5
 11

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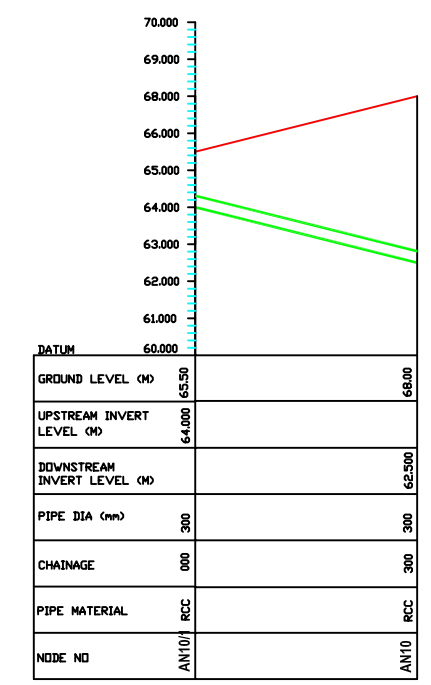
NOTES:
 1) PERMANENT BENCH MARK TAKEN ON RAILWAY BRIDGE NEAR CHOUKA GHAT JUNCTION 79.705 M.
 2) ALL THE LEVELS ARE IN METERS.



L_SECTION FOR SEWER FROM AN5/1 TO AN5



L_SECTION FOR SEWER FROM AN8/1 TO AN8



L_SECTION FOR SEWER FROM AN10/1 TO AN10

REFERENCE DRAWING:
 FOR LAYOUT DRAWING REFER BASE MAP WITH WARD BOUNDARIES PROPOSED SEWERAGE FACILITIES DRAWING NO. MWH/160/2003
 FOR PLAN SHOWING INTERCEPTOR ALIGNMENT AND SECONDARY SEWER FOR ASSI NALLA DRAWING NO. MWH/160/4008

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

CLIENT:

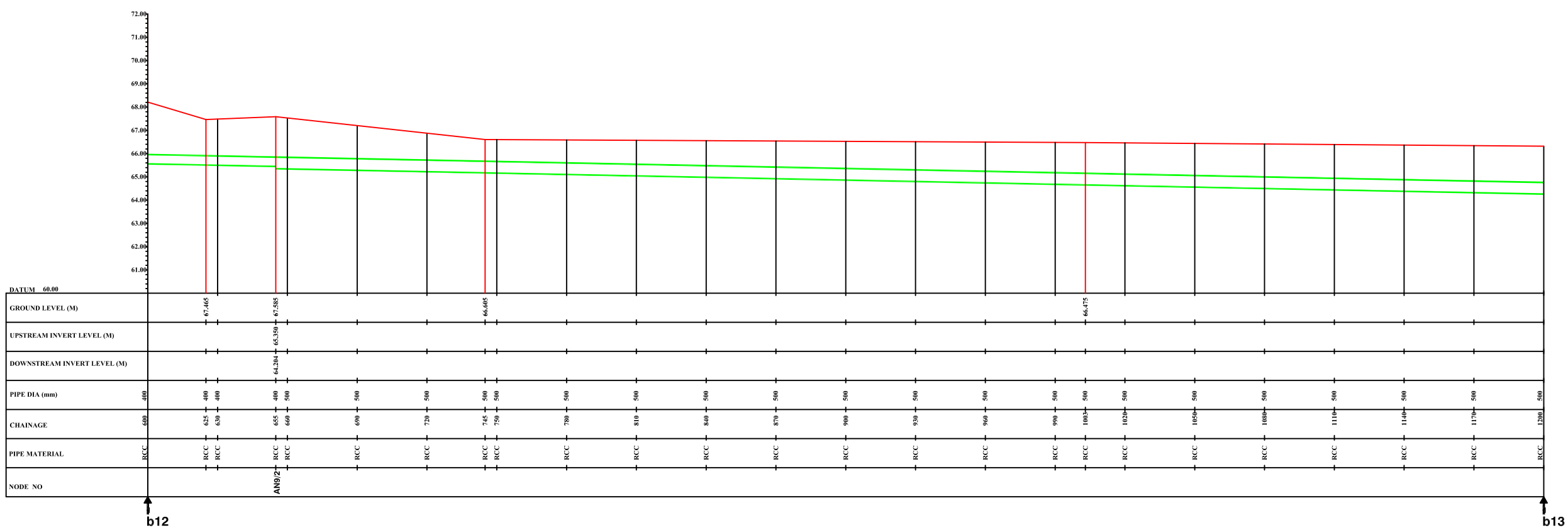
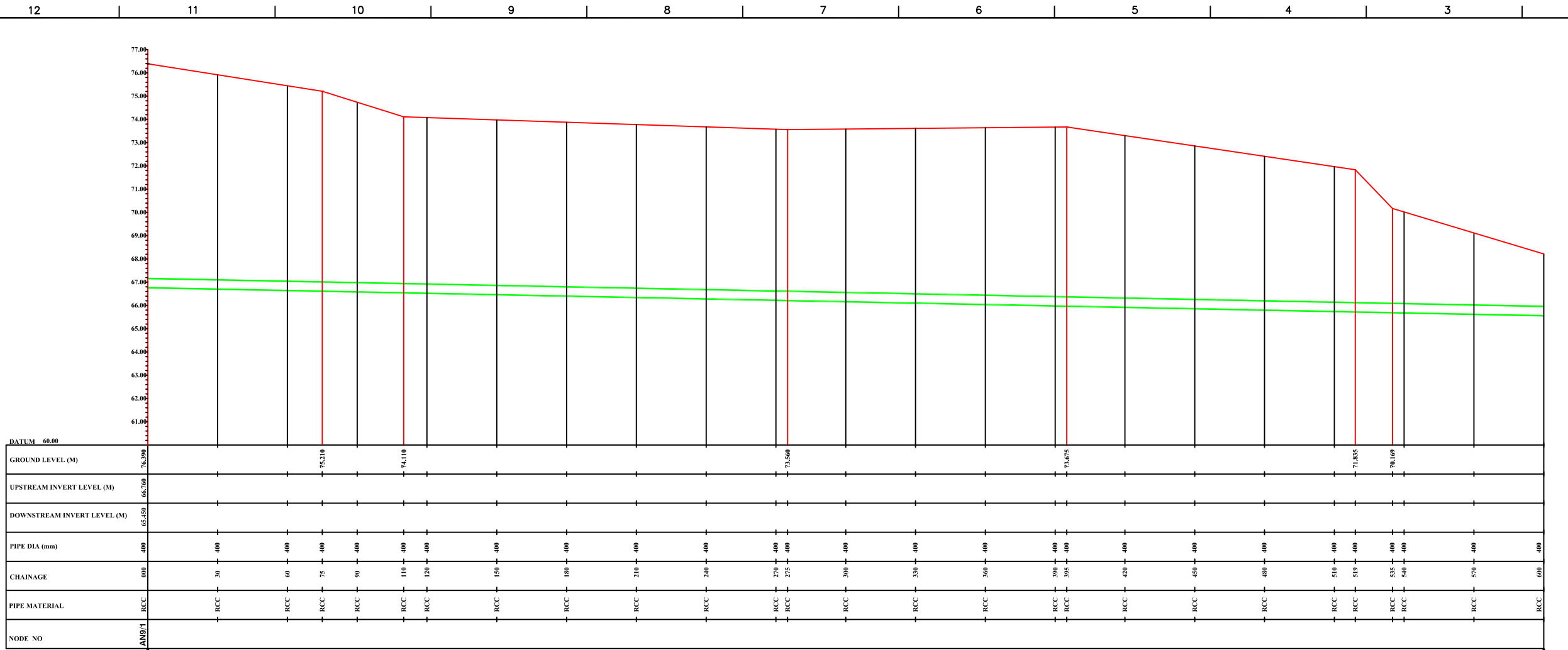
 JICA JAPAN INTERNATIONAL COOPERATION AGENCY
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 CTI ENGINEERING INTERNATIONAL CO., LTD.

JOB:
 CONSULTANCY SERVICES FOR FEASIBILITY STUDY OF PRIORITY PROJECTS UNDER POLLUTION ABATEMENT OF RIVER GANGA IN VARANASI

DRAWING TITLE:
 L SECTION OF SECONDARY SEWER ALIGNMENTS FOR ASSI NALLA INTERCEPTORS

CHECKED BY:	SAURABH MISRA	APPROVED BY:	V.N.SONTAKKE
DRAWN:	GAJKAR G.K.	SCALE:	H=1:10000 V=1:200
DESIGNED:		DATE:	24/06/2004
SURVEYED:	KSA		

DRAWING NO.
VNS-PP-IC-8
 Sr. 12



L-SECTION FROM NAKKHA NALA TO ASSI NALA INTERCEPTOR

MWH INDIA PRIVATE LIMITED
 133, LUDYOG BHAVAN, SONAWALA ROAD
 GOREGAON (EAST), MUMBAI - 400 063
 INDIA
 PHONE : (91) 22 28717 165
 FAX : (91) 22 28717 133
 E-MAIL : mwhindia@vsnl.com

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- NOTES:
- 1) PERMANENT BENCH MARK TAKEN ON RAILWAY BRIDGE NEAR CHOUKA GHAT JUNCTION 79.705 M.
 - 2) ALL THE LEVELS ARE IN METERS.

LEGEND:
 REFERENCE POINT FOR L-SECTION a12

REFERENCE DRAWING:
 FOR LAYOUT DRAWING REFER BASE MAP WITH WARD BOUNDARIES PROPOSED SEWERAGE FACILITIES DRAWING NO. MWH/160/2003
 FOR PLAN SHOWING INTERCEPTOR ALIGNMENT AND SECONDARY SEWERS FOR ASSI NALA DRAWING NO. MWH/160/4008

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

REV.	DESCRIPTION OF REVISIONS	DATE	CHECKED

CLIENT:
 JAPAN INTERNATIONAL COOPERATION AGENCY
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 CEI ENGINEERING INTERNATIONAL CO., LTD.

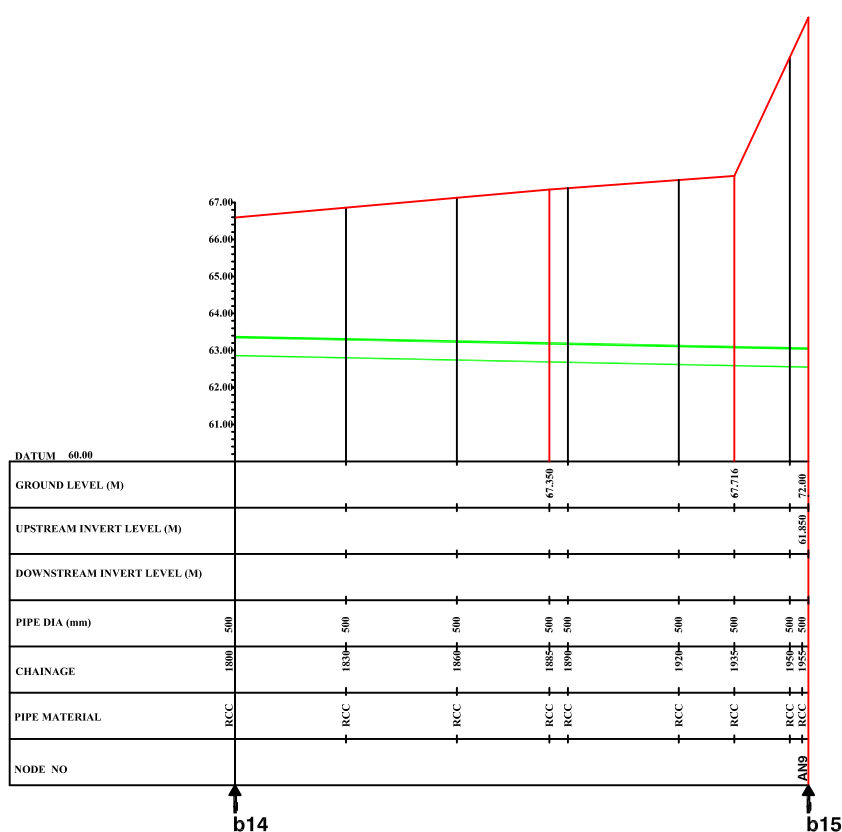
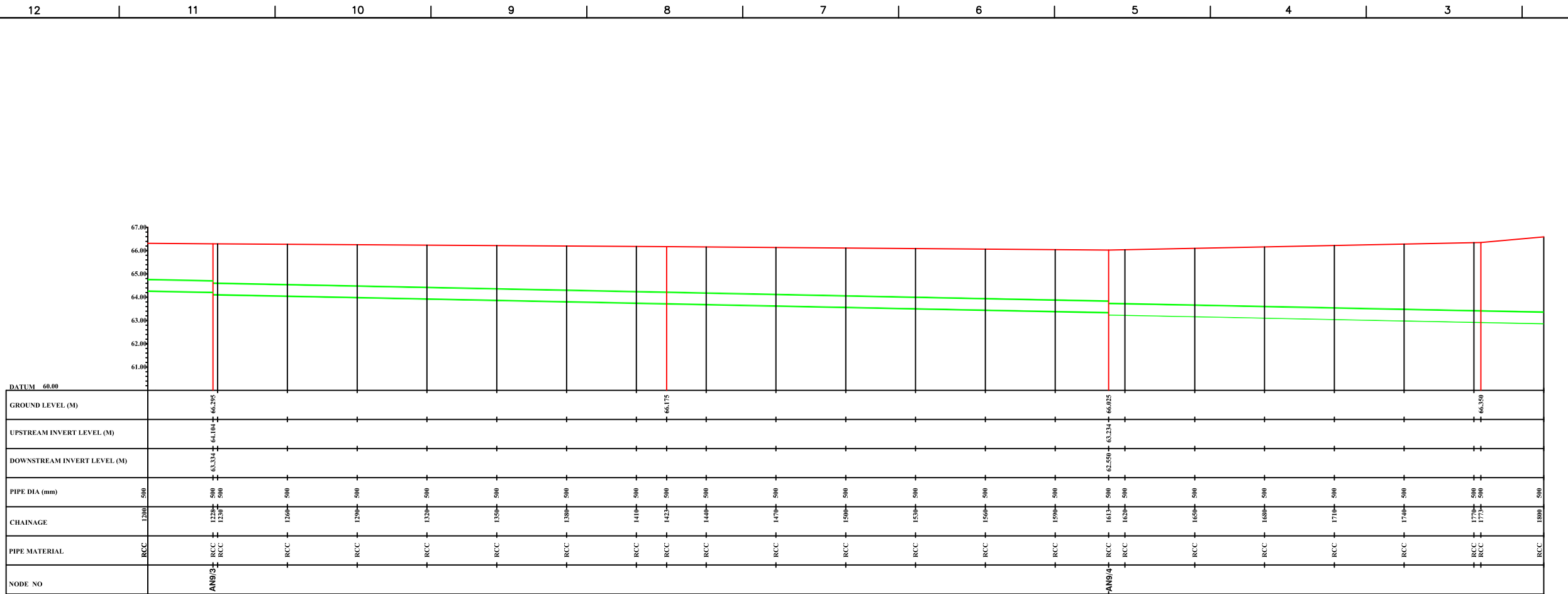
JOB:
 CONSULTANCY SERVICES FOR FEASIBILITY STUDY OF PRIORITY PROJECTS UNDER POLLUTION ABATEMENT OF RIVER GANGA IN VARANASI

DRAWING TITLE:
 L SECTION OF SEWER ALIGNMENT FROM NAKKHA NALA TO ASSI NALA INTERCEPTOR. (b11 to b13)
 (NAKKHA NALA INTERCEPTOR)

CHECKED BY: SAURABH MISRA
 APPROVED BY: V.N.SONTAKKE

DESIGNED: F.RUMAO
 SCALE: H=1:2000 V=1:200
 SURVEYED: KSA
 DATE: 06/08/2004

DRAWING NO. VNS-PP-IC-9
 SHEET 1 OF 2
 Sr. 13



L-SECTION FROM NAKKHA NALA TO ASSI NALA INTERCEPTOR

MWH INDIA PRIVATE LIMITED
 133, UDYOG BHAVAN, SONAWALA ROAD
 GOREGAON (EAST), MUMBAI - 400 063
 INDIA
 PHONE : (91) 22 28717 165
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NOTES:
 1) PERMANENT BENCH MARK TAKEN ON RAILWAY BRIDGE NEAR CHOUKA GHAT JUNCTION 79.705 M.
 2) ALL THE LEVELS ARE IN METERS.

LEGEND:
 REFERENCE POINT FOR L-SECTION a12

REFERENCE DRAWING:
 FOR LAYOUT DRAWING REFER BASE MAP WITH WARD BOUNDARIES PROPOSED SEWERAGE FACILITIES DRAWING NO. MWH/160/2003
 FOR PLAN SHOWING INTERCEPTOR ALIGNMENT AND SECONDARY SEWERS FOR ASSI NALA DRAWING NO. MWH/160/4008

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

CLIENT:
 JAPAN INTERNATIONAL COOPERATION AGENCY
 TOKYO ENGINEERING CONSULTANTS CO., LTD.
 CEI ENGINEERING INTERNATIONAL CO., LTD.

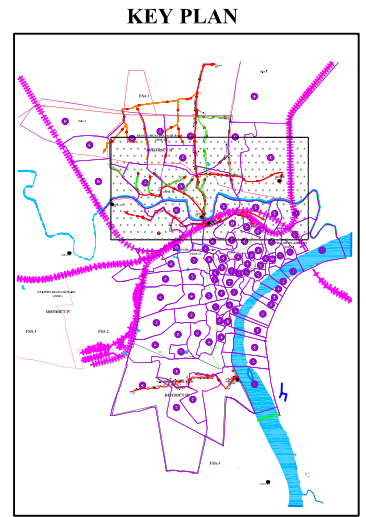
JOB:
 CONSULTANCY SERVICES FOR FEASIBILITY STUDY OF PRIORITY PROJECTS UNDER POLLUTION ABATEMENT OF RIVER GANGA IN VARANASI

DRAWING TITLE:
 L SECTION OF SEWER ALIGNMENT FROM NAKKHA NALA TO ASSI NALA INTERCEPTOR. (b13 to b15)
 (NAKKHA NALA INTERCEPTOR)

CHECKED BY: SAURABH MISRA
APPROVED BY: V.N.SONTAKKE

DESIGNED: F.RUMAO
SCALE: H=1:2000 V=1:200
SURVEYED: KSA
DATE: 06/08/2004

DRAWING NO.: VNS-PP-IC-10
SHEET: 2 OF 2
Sr.: 14



MWH INDIA PRIVATE LIMITED
 133, LUDYOG BHAVAN, SONAWALA ROAD
 GOREGAON (EAST), MUMBAI - 400 063
 INDIA
 PHONE : (91) 22 28717 165
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 E-MAIL : mwhindia@vsnl.com

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- NALA CROSSING INTERCEPTOR SEWER
- (A) PHULWARIA NALLAH
 - (B) DRAIN OF HOTELS /SADAR BAZAR NALLAH
 - (C) RAZA BAZAR NALLAH
 - (D) TELIA BAGH NALLAH
 - (E) NALLAH NEAR NAKHI GHAT
 - (F) CENTRAL JAIL NALLAH
 - (G) ORDERLY BAZAR NALLAH
 - (H) CHAMRAUTIA NALLAH
 - (I) NALLAH OF KHAJURL COLONY
 - (J) NALLAH OF NAI BASTI
 - (K) HUKULGANJ NALLAH
 - (L) BANARAS NALLAH
 - (M) NAROKHAR NALLAH

- NOTES:
- LEGEND**
- RAILWAY LINE
 - BRIDGE / CULVERT
 - ROAD DIVIDER
 - MOSQUE
 - SPOT LEVEL 74.00
 - NALLA
 - PS (PUMPING STATION)
 - GRAVITY MAIN
 - RISING MAIN
 - SECONDARY SEWER
 - ADDITIONAL SECONDARY SEWER
 - CATCHMENT AREA
 - LOCATION OF INTERCEPTOR
 - RIVER
 - WARD BOUNDARY
 - REFERENCE POINT FOR L-SECTION

REFERENCE DRAWING:

FOR LAYOUT DRAWING REFER BASE MAP WITH WARD BOUNDARIES PROPOSED SEWERAGE FACILITIES DRAWING NO. MWH/160/2003

FOR DETAILS OF SECTION DRAWINGS FOR NALLA INTERCEPTOR REFER THE DWG.NO. MWH/160/4009

INST.					
ELEC.					
MECH.					
STRU.					
CIVIL					
REV NO.	0	1	2	3	4
1	CHANGE OF DIA 2400 INSTEAD OF 2-1800		05/08/04		
REV.	DESCRIPTION OF REVISIONS		DATE		CHECKED

CLIENT:

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TEC TOKYO ENGINEERING CONSULTANTS CO., LTD.

CTI ENGINEERING INTERNATIONAL CO., LTD.

JOB:

CONSULTANCY SERVICES FOR FEASIBILITY STUDY OF PRIORITY PROJECTS UNDER POLLUTION ABATEMENT OF RIVER GANGA IN VARANASI

DRAWING TITLE:

PLAN SHOWING LOCATIONS OF A NALLA I & D ARRANGEMENTS ON VARUNA RIVER BANKS

CHECKED BY: SAURABH MISRA

APPROVED BY: V.N.SONTAKKE

DRAWN: R.D.PARAB

DESIGNED: M.D.NAGVEKAR

SURVEYED: KSA

SCALE: N.T.S.

DATE: 22/06/2004

DRAWING NO. VNS-PP-IC-11

Sr. 15

