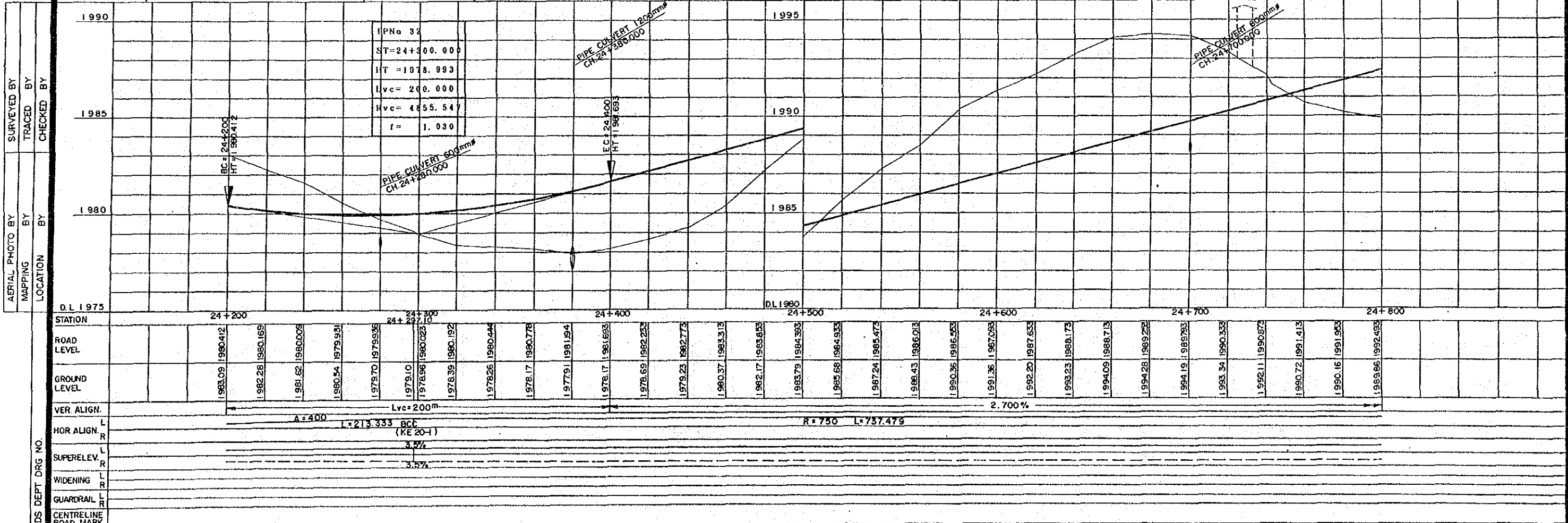
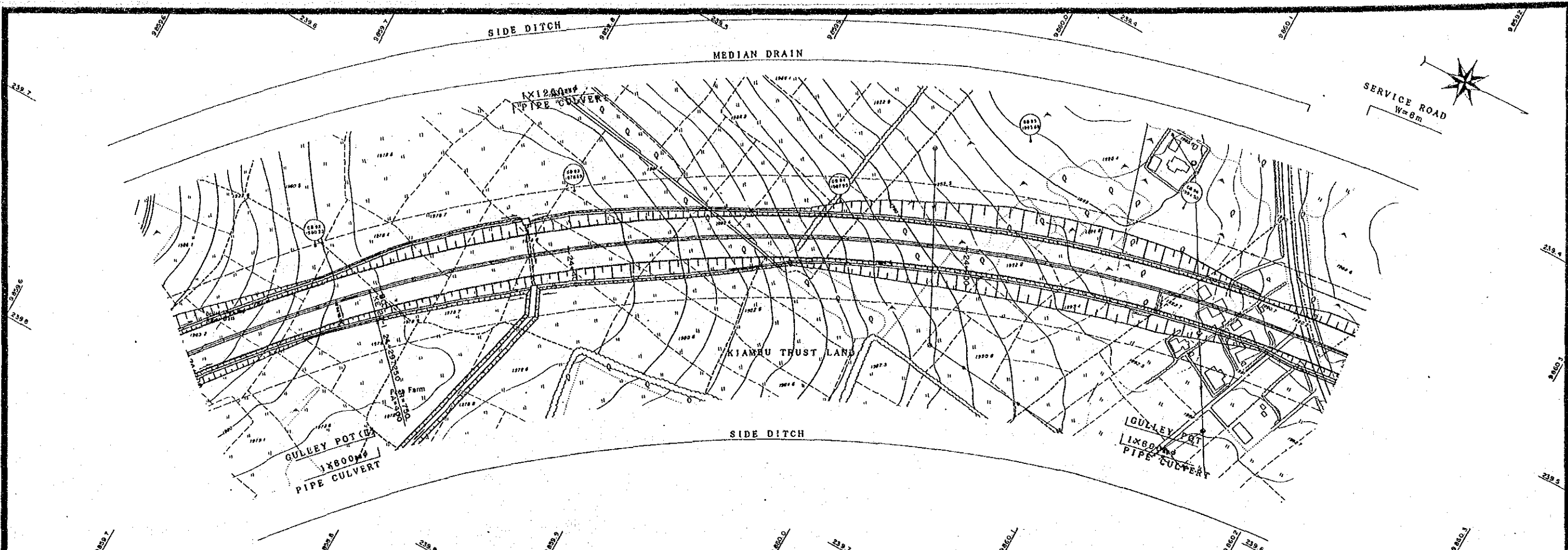
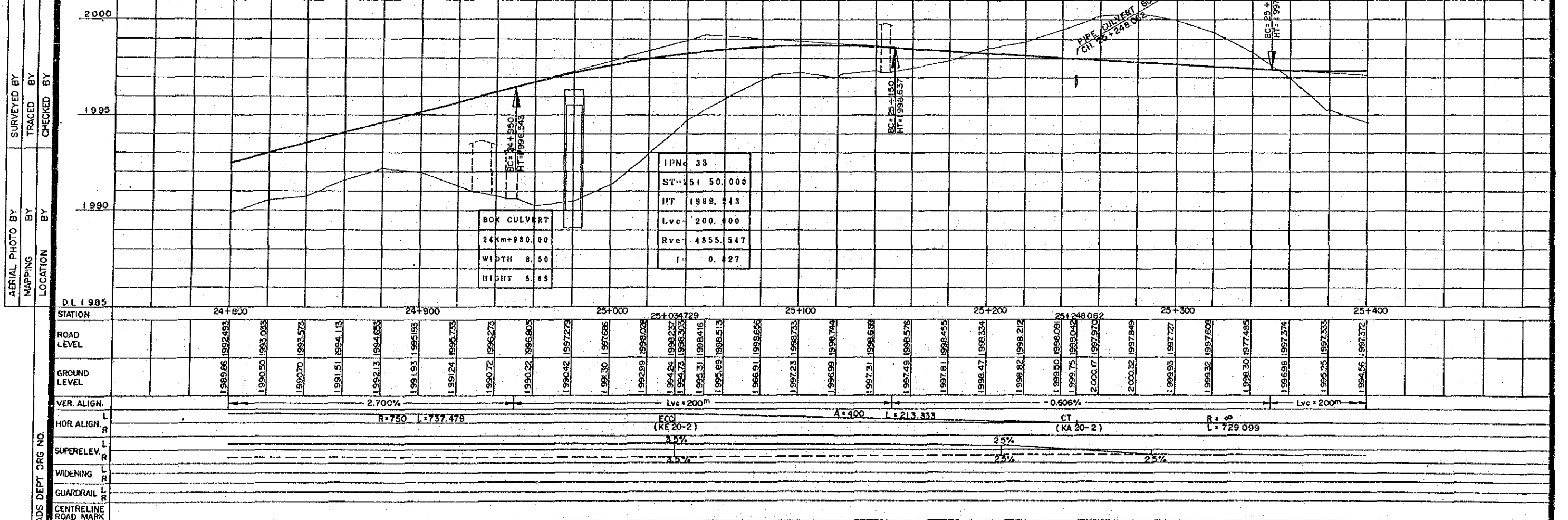
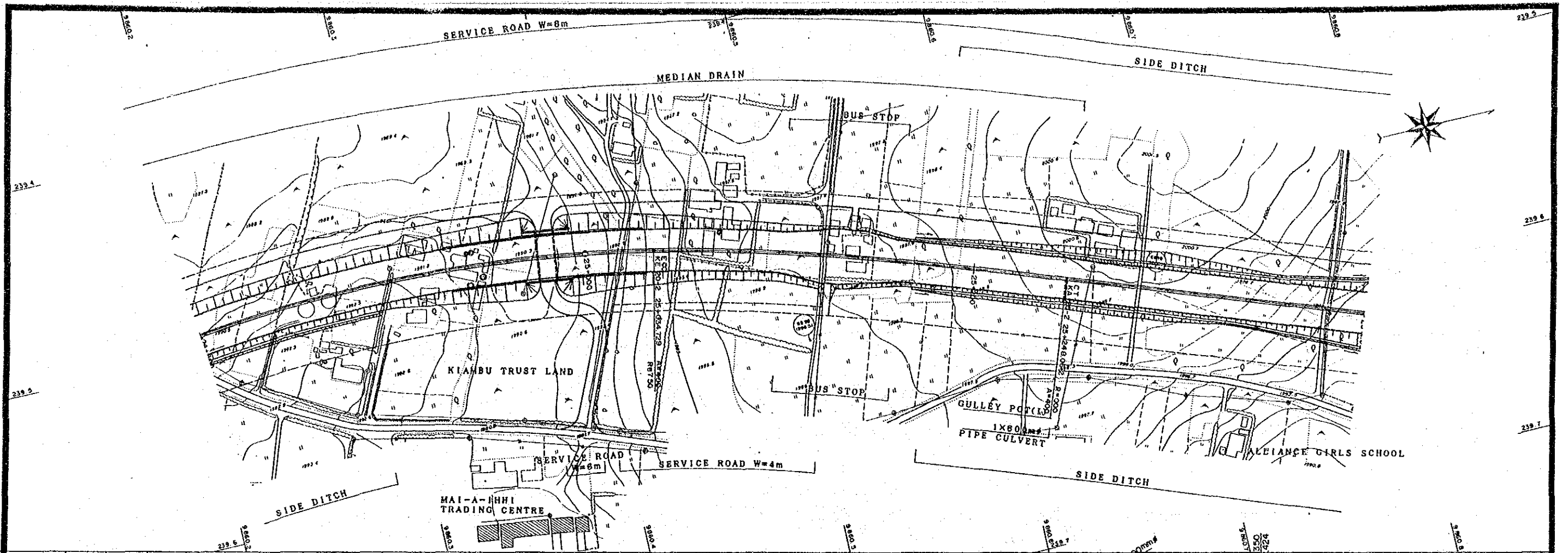


SURVEYED BY
 TRACED BY
 CHECKED BY
 AERIAL PHOTO BY
 MAPPING BY
 LOCATION BY

REVISIONS DESCRIPTION DATE		JAPAN INTERNATIONAL COOPERATION AGENCY	CHIEF ENGINEER (ROADS) CHIEF SUPT. ENG. (DESIGN)	SEN. SUPT. ENG. (DESIGN) SUPT. ENGINEER (DESIGN) PROJECT ENGINEER	SCALES HORIZONTAL 1:1000 VERTICAL 1:100	NAIROBI BYPASS PLAN AND PROFILE CH. 23 ^{km} +600 TO 24 ^{km} +200	C SHEET 41 OF 50
M.O.P.W. ROADS DEPT DRG NO.							



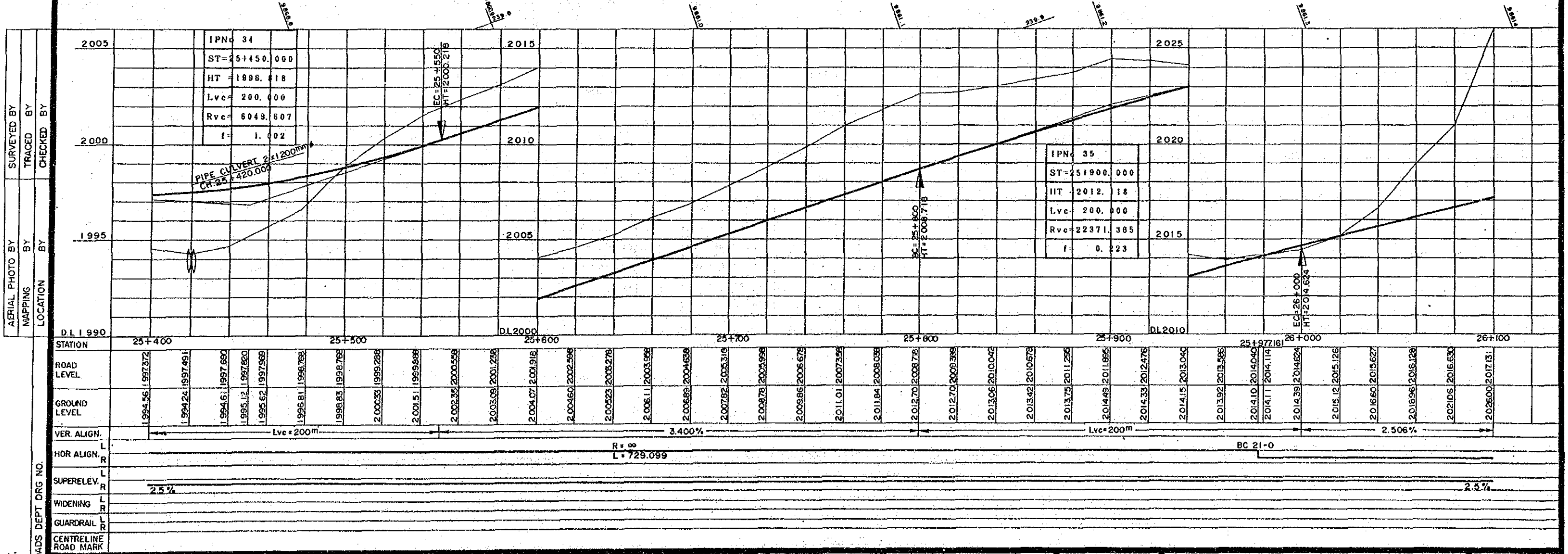
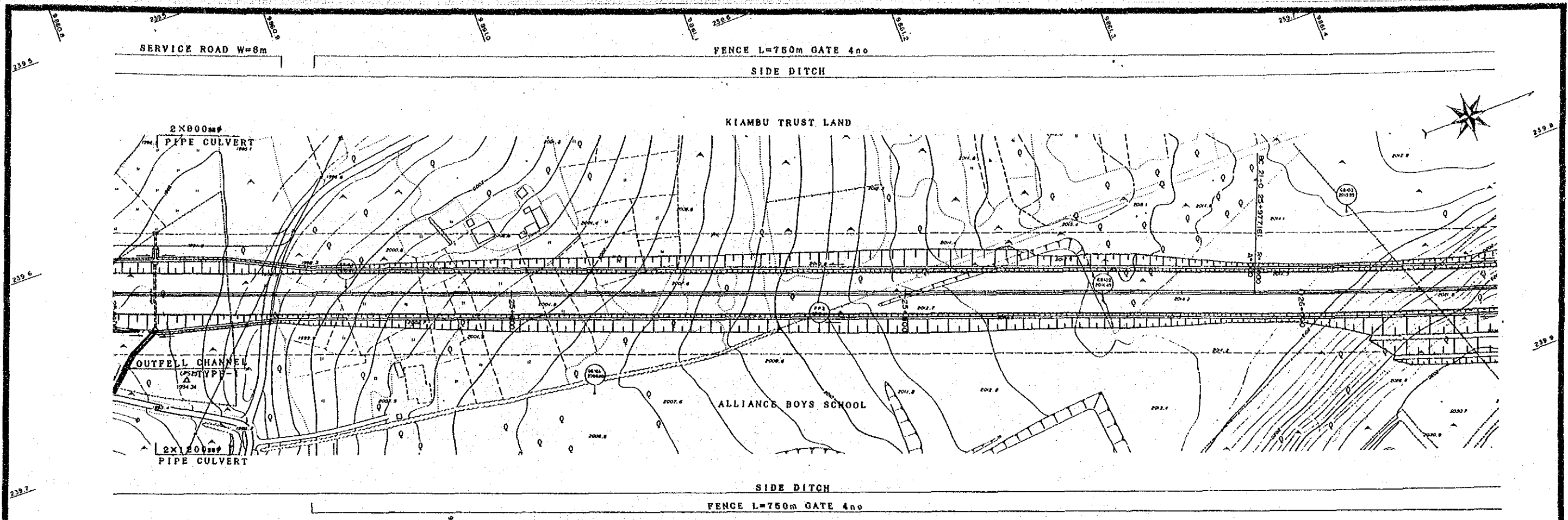
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	DESCRIPTION	DATE						
					PROJECT ENGINEER	VERTICAL 1:100		SHEET 42 OF 50



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 M.O.P.W. ROADS DEPT. DRG. NO.

REVISIONS	DESCRIPTION	DATE

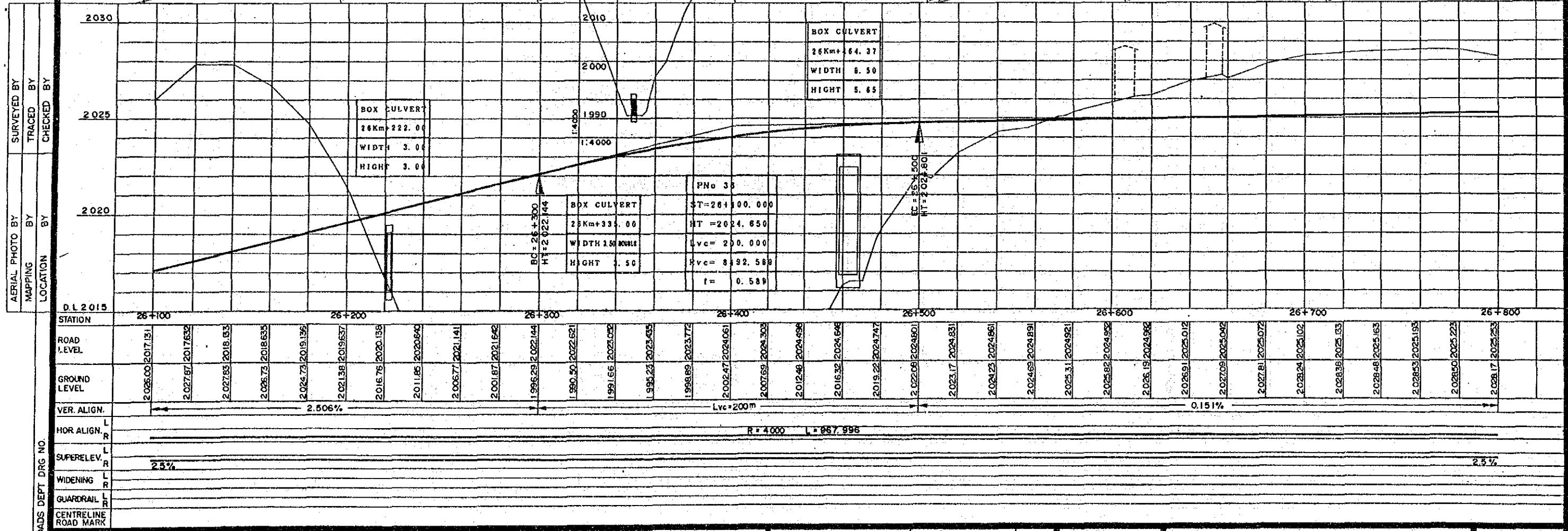
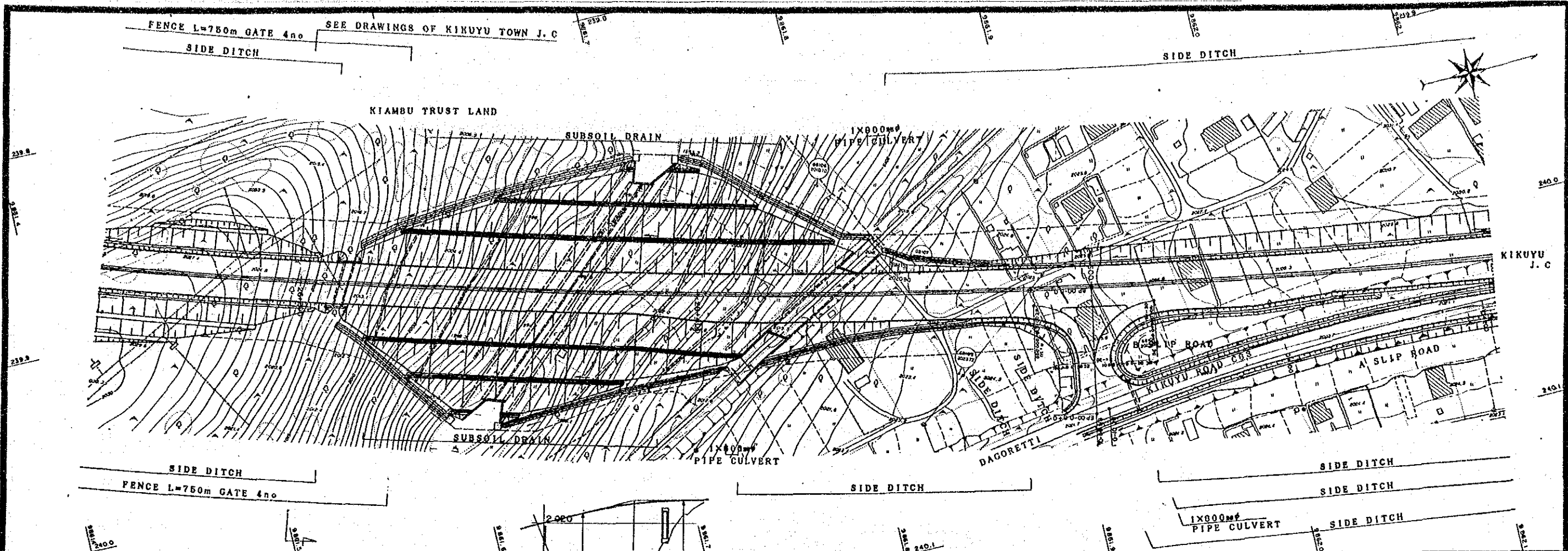
JAPAN INTERNATIONAL COOPERATION AGENCY CHIEF ENGINEER (ROADS) CHIEF Supt. Eng. (DESIGN)	SEN. Supt. Eng. (DESIGN) Supt. Engineer (DESIGN) PROJECT ENGINEER	SCALES HORIZONTAL 1:1000 VERTICAL 1:100	NAIROBI BYPASS PLAN AND PROFILE CH 24+800 TO 25+400 C SHEET 43 OF 50
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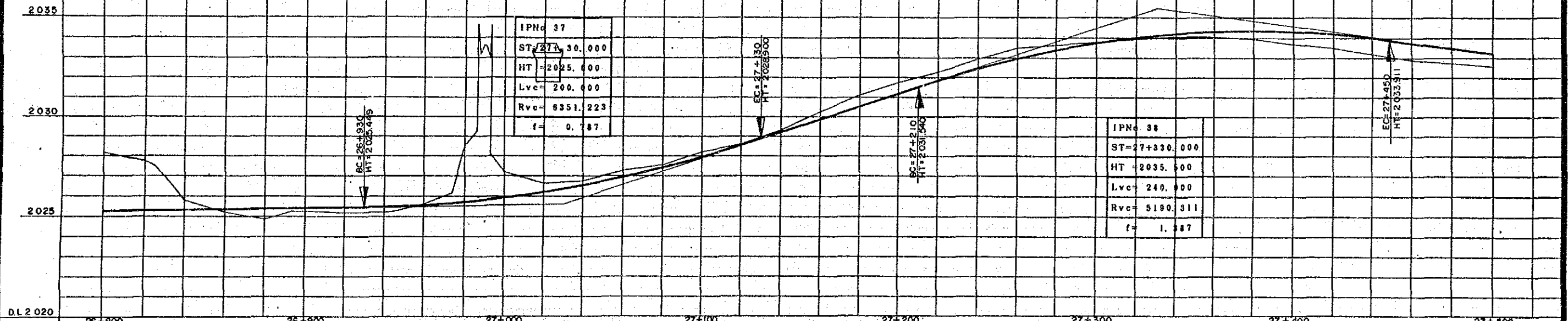
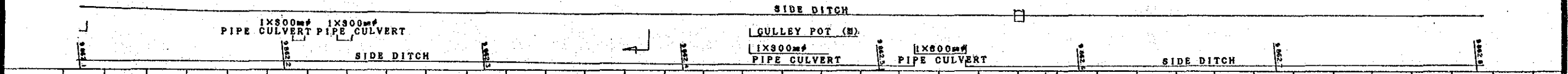
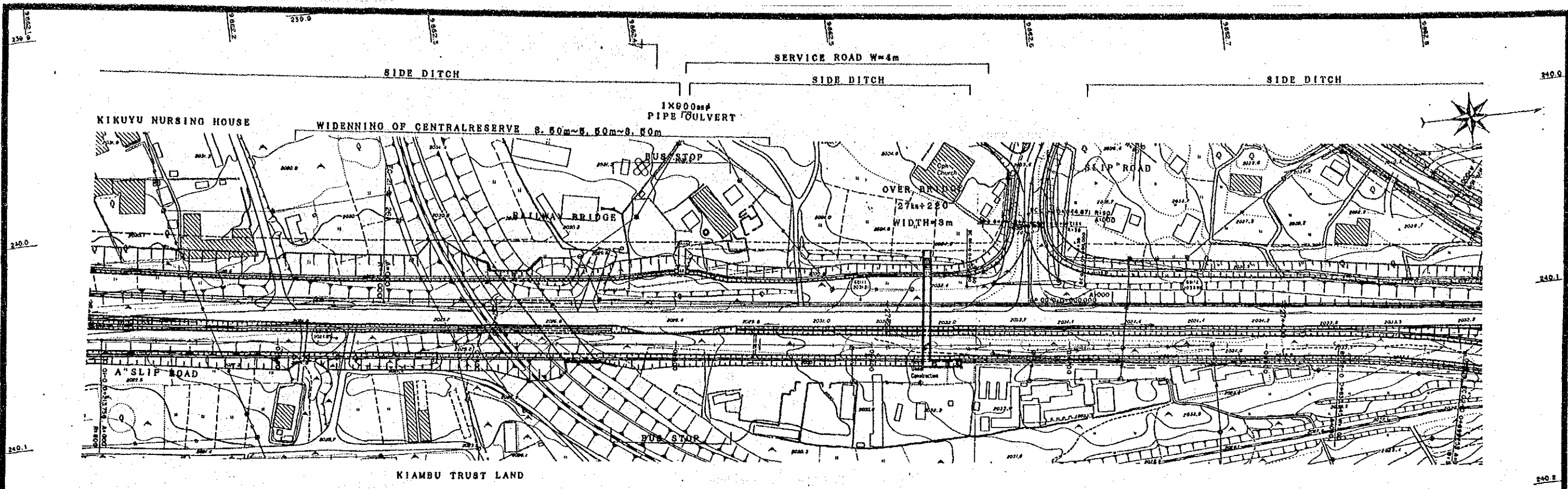
SURVEYED BY
 TRACED BY
 CHECKED BY
 AERIAL PHOTO BY
 MAPPING BY
 LOCATION BY

STATION	25+400	25+500	25+600	25+700	25+800	25+900	26+000	26+100
ROAD LEVEL	1994.56	1997.491	1997.600	1997.820	1997.969	1998.788	2000.33	2001.51
GROUND LEVEL	1994.56	1994.24	1997.600	1997.820	1997.969	1998.81	1998.788	1998.83
VER. ALIGN.	Lvc=200m		3.400%				Lvc=200m	
HOR. ALIGN.	R=∞ L=729.099							
SUPERELEV.	BC 21-0							
WIDENING	2.5%							
GUARDRAIL								
CENTRELINE ROAD MARK								

REVISIONS DESCRIPTION DATE		JAPAN INTERNATIONAL COOPERATION AGENCY	CHIEF ENGINEER (ROADS) CHIEF SUPT. ENG. (DESIGN)	SEN. SUPT. ENG. (DESIGN) SUPT. ENGINEER (DESIGN) PROJECT ENGINEER	SCALES HORIZONTAL 1:1000 VERTICAL 1:100	NAIROBI BYPASS PLAN AND PROFILE CH. 25 ^{km} +400 TO 26 ^{km} +100	C SHEET 44 OF 50
M.O.P.W. ROADS DEPT. DRG. NO.							

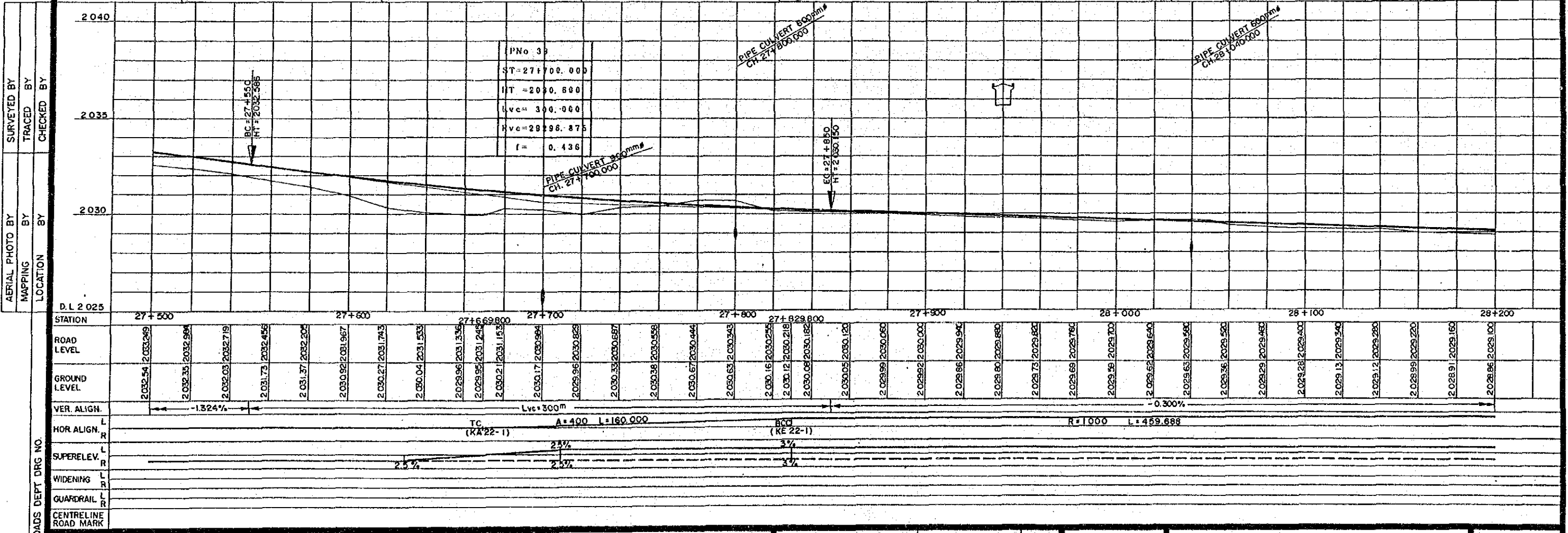
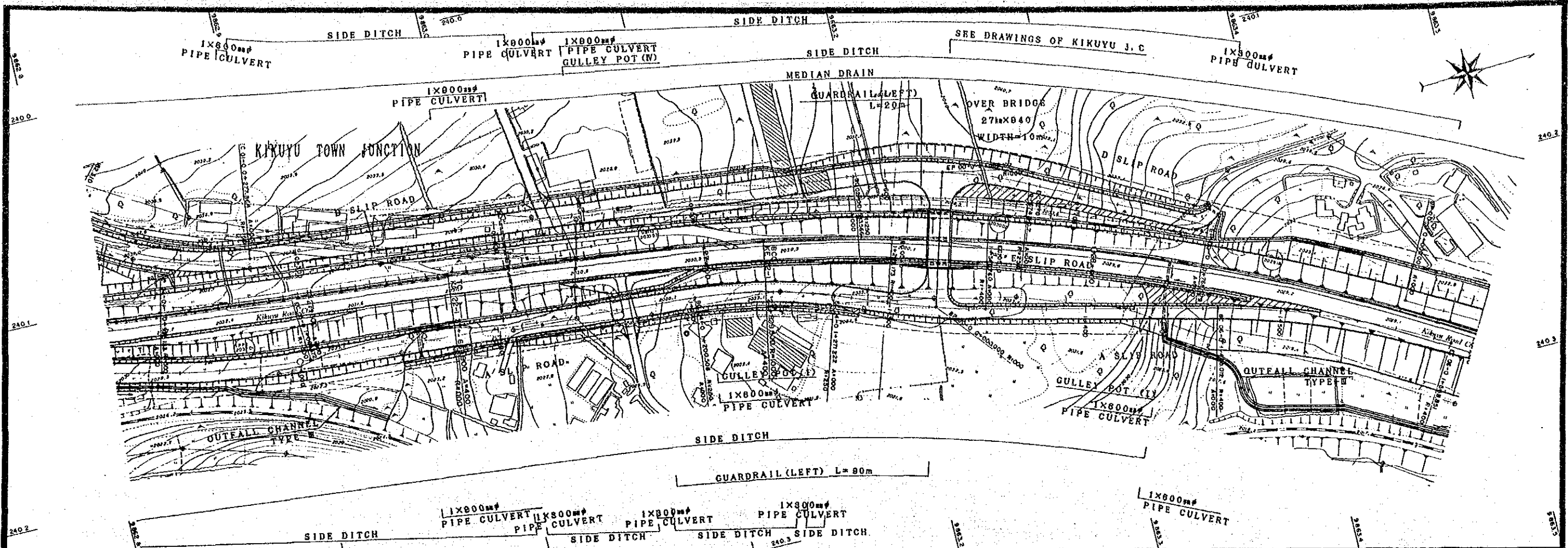


M.O.P.W. ROADS DEPT DRG NO.	REVISIONS		JAPAN INTERNATIONAL COOPERATION AGENCY	CHIEF ENGINEER (ROADS)	SEN. SUPT. ENG. (DESIGN)	SCALES	NAIROBI BYPASS	C
	DESCRIPTION	DATE						
					PROJECT ENGINEER	VERTICAL 1:100		



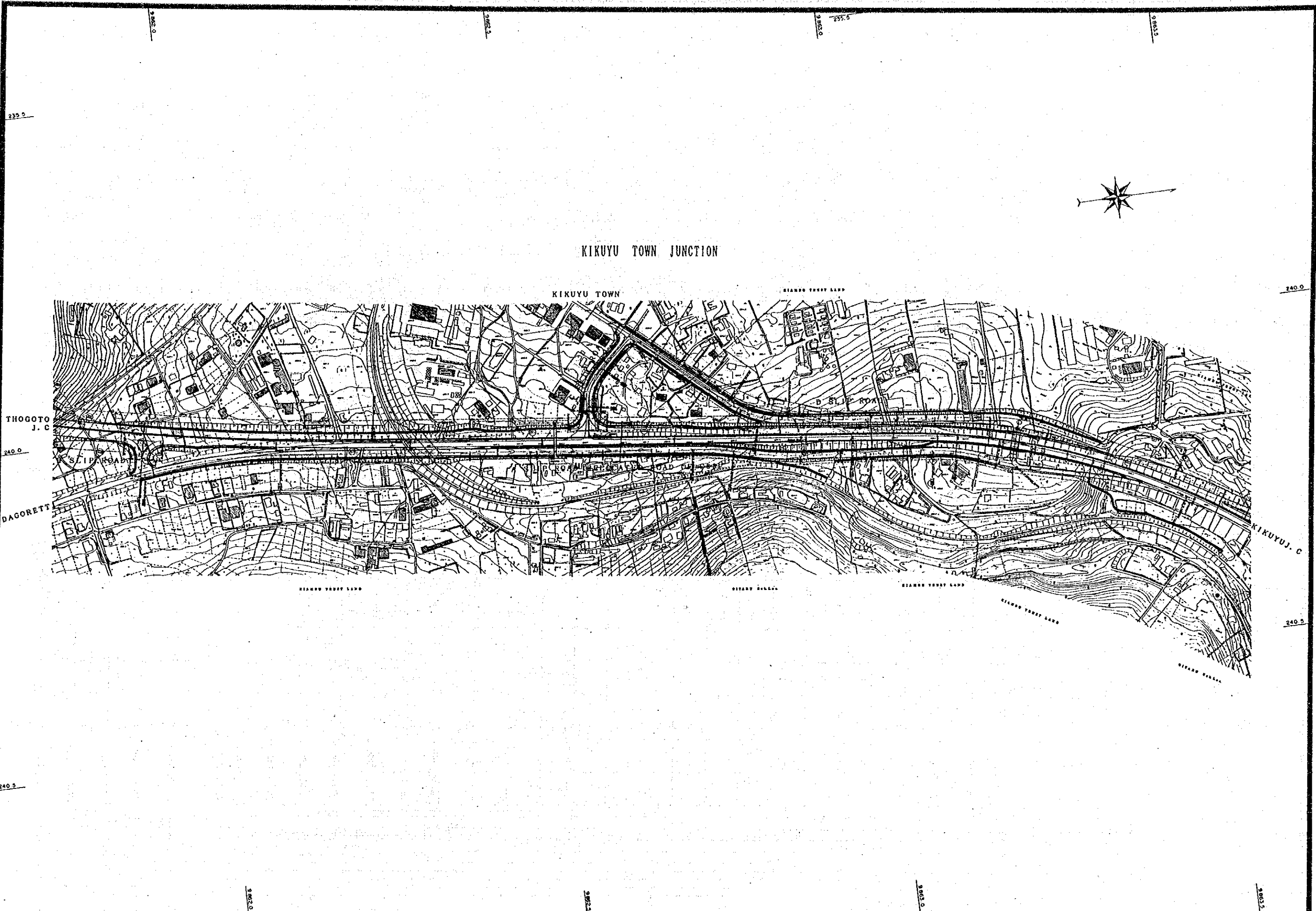
STATION	26+800	26+900	26+945.157	27+000	27+100	27+200	27+300	27+400	27+500
ROAD LEVEL	2028.17	2025.285	2025.313	2025.342	2025.372	2025.402	2025.432	2025.462	2025.492
GROUND LEVEL	2028.17	2027.77	2025.78	2025.19	2025.342	2024.97	2025.372	2025.24	2025.402
VER. ALIGN.	0.151%		Lvc=200m		3.300%		Lvc=240m		-1.324%
HOR. ALIGN.	EC 21-0		R=∞		L=724.643				
SUPERELEV.	25%								25%
WIDENING									
GUARDRAIL									
CENTRELINE ROAD MARK									

REVISIONS	DESCRIPTION	DATE	JAPAN INTERNATIONAL COOPERATION AGENCY	CHIEF ENGINEER (ROADS)	SEN. SUPT. ENG. (DESIGN)	SCALES	NAIROBI BYPASS	C
				CHIEF SUPT. ENG. (DESIGN)	SUPT. ENGINEER (DESIGN)	HORIZONTAL 1:1000	PLAN AND PROFILE CH. 26+800 TO 27+500	
					PROJECT ENGINEER	VERTICAL 1:100		SHEET 46 OF 50



STATION	ROAD LEVEL	GROUND LEVEL
27+500	2032.54	2032.249
27+510	2032.35	2032.984
27+520	2032.03	2032.719
27+530	2031.73	2032.455
27+540	2031.37	2032.205
27+550	2031.02	2031.967
27+560	2030.67	2031.743
27+570	2030.34	2031.533
27+580	2029.96	2031.336
27+590	2029.55	2031.153
27+600	2029.17	2030.984
27+610	2028.76	2030.825
27+620	2028.33	2030.687
27+630	2027.88	2030.558
27+640	2027.44	2030.444
27+650	2027.01	2030.343
27+660	2026.59	2030.254
27+670	2026.19	2030.178
27+680	2025.80	2030.115
27+690	2025.42	2030.064
27+700	2025.06	2030.025
27+710	2024.71	2029.996
27+720	2024.38	2029.977
27+730	2024.06	2029.967
27+740	2023.76	2029.966
27+750	2023.47	2029.973
27+760	2023.19	2029.987
27+770	2022.93	2029.998
27+780	2022.68	2029.999
27+790	2022.44	2029.999
27+800	2022.21	2029.999
27+810	2022.00	2029.999
27+820	2021.80	2029.999
27+830	2021.61	2029.999
27+840	2021.43	2029.999
27+850	2021.26	2029.999
27+860	2021.10	2029.999
27+870	2020.95	2029.999
27+880	2020.81	2029.999
27+890	2020.68	2029.999
27+900	2020.56	2029.999
27+910	2020.45	2029.999
27+920	2020.35	2029.999
27+930	2020.26	2029.999
27+940	2020.18	2029.999
27+950	2020.11	2029.999
27+960	2020.04	2029.999
27+970	2020.00	2029.999
27+980	2019.96	2029.999
27+990	2019.93	2029.999
28+000	2019.90	2029.999
28+010	2019.88	2029.999
28+020	2019.86	2029.999
28+030	2019.84	2029.999
28+040	2019.83	2029.999
28+050	2019.82	2029.999
28+060	2019.81	2029.999
28+070	2019.80	2029.999
28+080	2019.79	2029.999
28+090	2019.78	2029.999
28+100	2019.77	2029.999
28+110	2019.76	2029.999
28+120	2019.75	2029.999
28+130	2019.74	2029.999
28+140	2019.73	2029.999
28+150	2019.72	2029.999
28+160	2019.71	2029.999
28+170	2019.70	2029.999
28+180	2019.69	2029.999
28+190	2019.68	2029.999
28+200	2019.67	2029.999

REVISIONS DESCRIPTION DATE		JAPAN INTERNATIONAL COOPERATION AGENCY	CHIEF ENGINEER (ROADS) CHIEF SUPT. ENG. (DESIGN)	SEN. SUPT. ENG. (DESIGN) SUPT. ENGINEER (DESIGN) PROJECT ENGINEER	SCALES HORIZONTAL 1:1000 VERTICAL 1:100	NAIROBI BYPASS PLAN AND PROFILE CH. 27 ^{km} +500 TO 28 ^{km} +200	C SHEET 47 OF 50



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 AERIAL PHOTO BY
 MAPPING BY
 LOCATION BY

M.O.P.W. ROADS DEPT DRG NO.

REVISIONS	
DESCRIPTION	DATE

JAPAN INTERNATIONAL
COOPERATION AGENCY

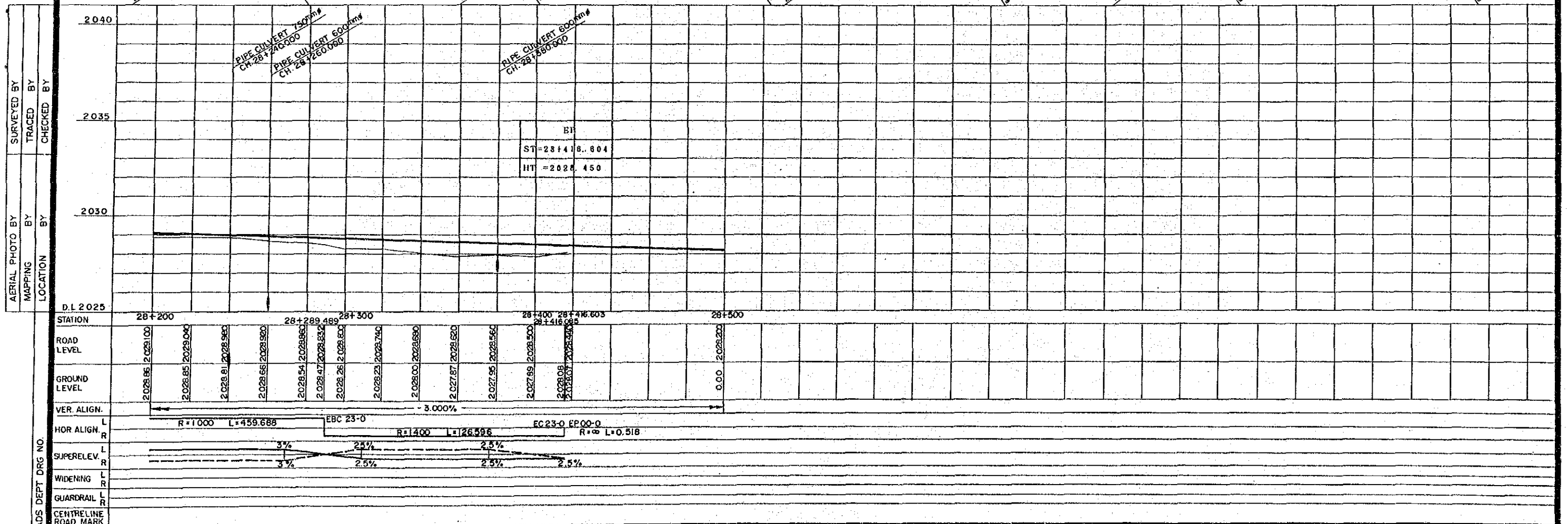
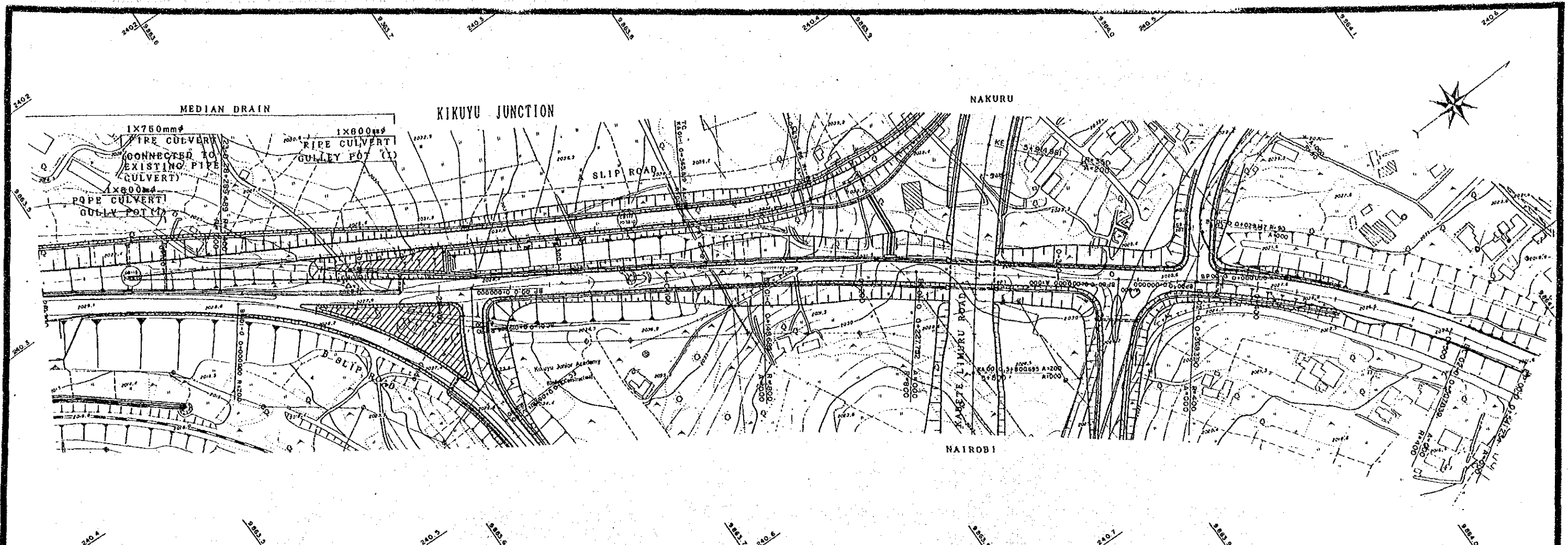
CHIEF ENGINEER (ROADS)
CHIEF SUPT. ENG. (DESIGN)

SEN. SUPT. ENG. (DESIGN)
SUPT. ENGINEER (DESIGN)
PROJECT ENGINEER

SCALES
1:2500

NAIROBI BYPASS
KIKUYU TOWN JUNCTION PLAN

C
SHEET 48 OF 50



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 TRACED BY
 CHECKED BY
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 MAPPING BY
 LOCATION BY
 MOPW ROADS DEPT. DRG. NO.

REVISIONS	
DESCRIPTION	DATE

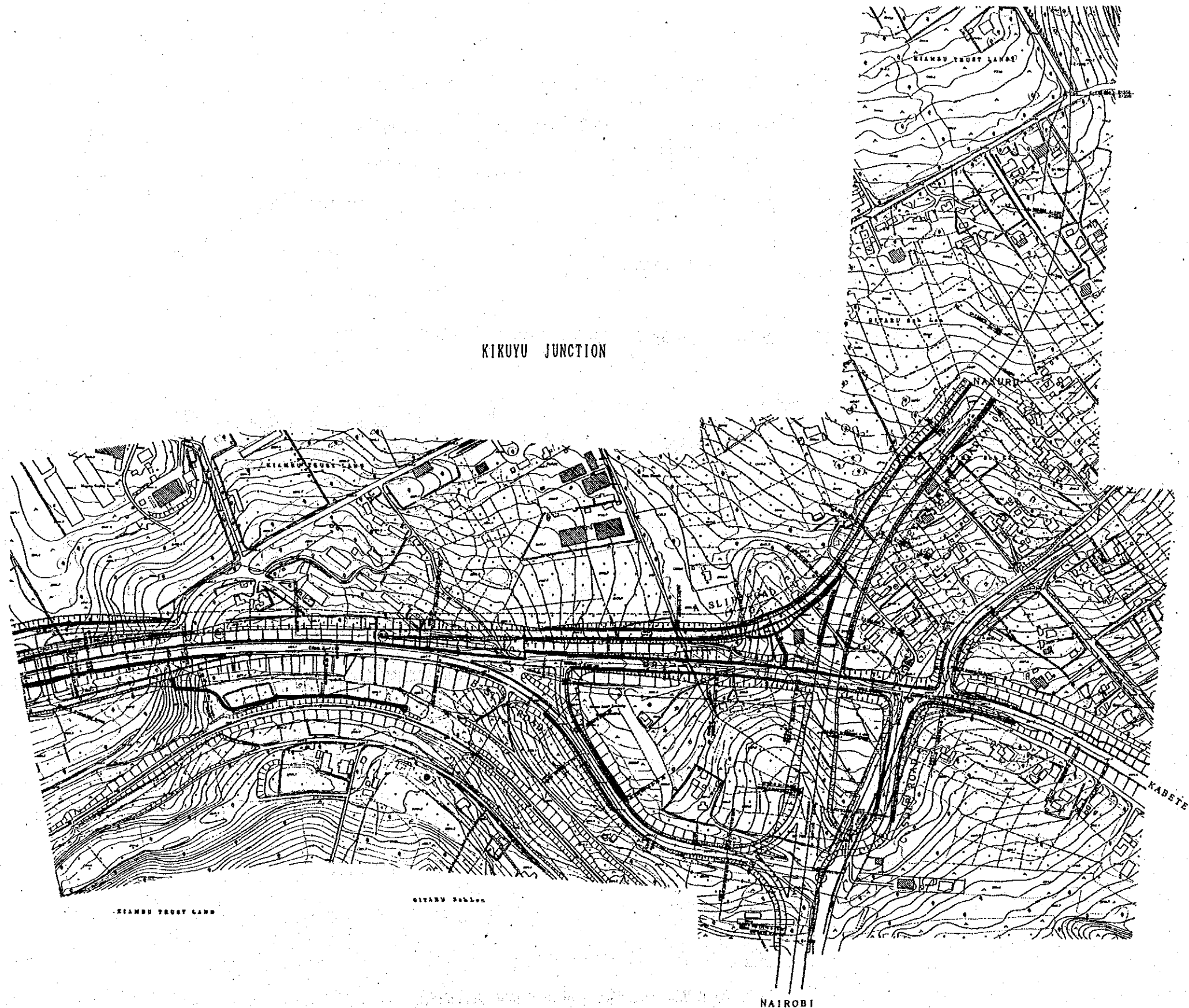
JAPAN INTERNATIONAL COOPERATION AGENCY
 CHIEF ENGINEER (ROADS)
 CHIEF Supt. Eng. (DESIGN)

SEN. Supt. Eng. (DESIGN)
 Supt. Engineer (DESIGN)
 PROJECT ENGINEER

SCALES
 HORIZONTAL 1:1000
 VERTICAL 1:100

NAIROBI BYPASS
 PLAN AND PROFILE CH. 28^{km}+200 TO 28^{km}+500

C
 SHEET 49 OF 50



AERIAL PHOTO BY	SURVEYED BY
MAPPING BY	TRACED BY
LOCATION BY	CHECKED BY

M.O.P.W. ROADS DEPT. DES. NO.

REVISIONS	
DESCRIPTION	DATE

JAPAN INTERNATIONAL
COOPERATION AGENCY

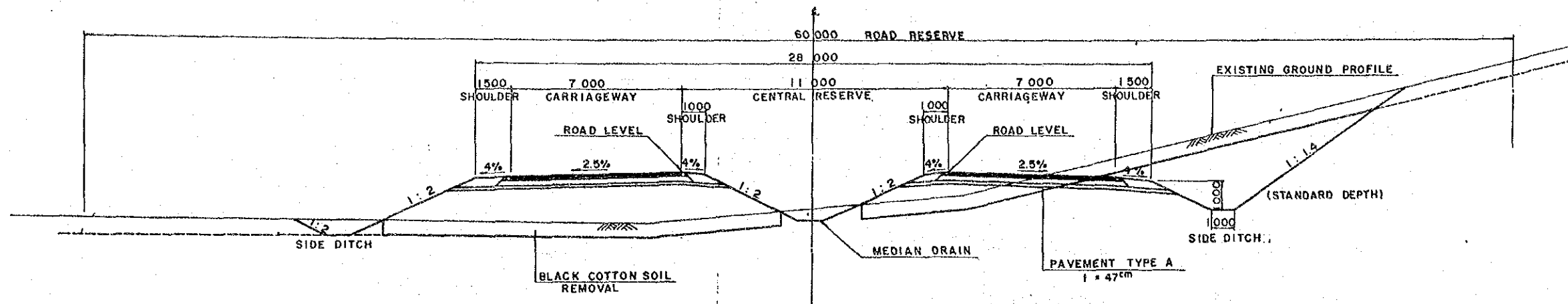
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CHIEF SUPT. ENG. (DESIGN)

SEN. SUPT. ENG. (DESIGN)
SUPT. ENGINEER (DESIGN)
PROJECT ENGINEER

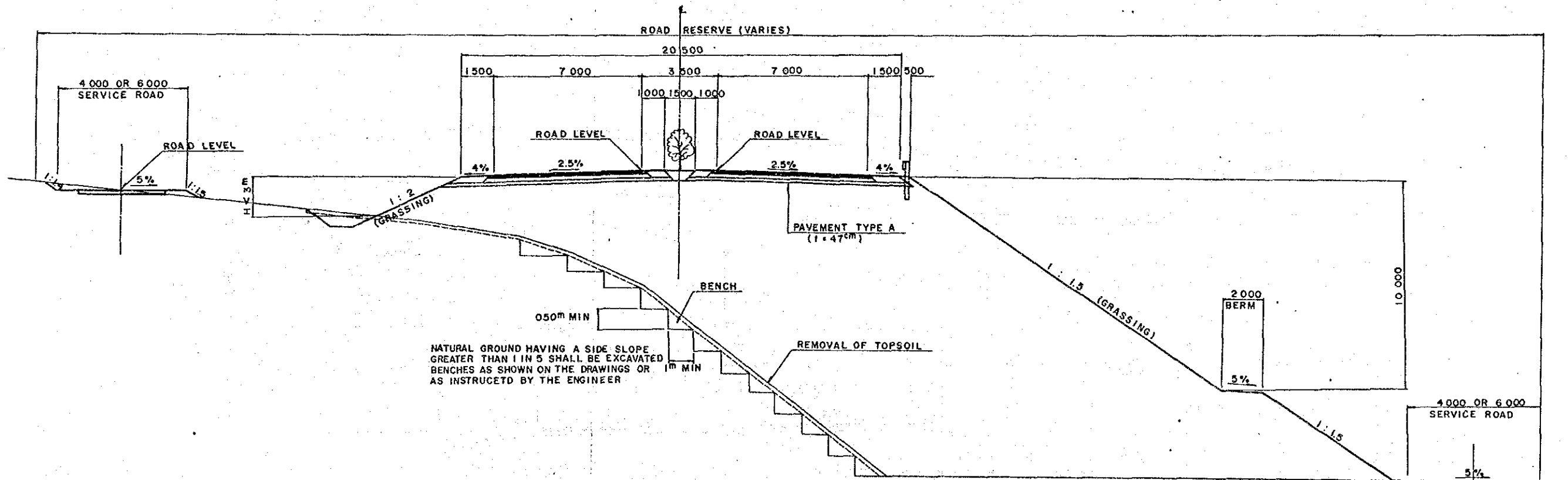
SCALES
1 : 2000

NAIROBI BYPASS
KIKUYU JUNCTION PLAN

C
SHEET 500F50



TYPICAL CROSS SECTION (MOMBASA ROAD J.C ~ UHURU MONUMENT J.C)



TYPICAL CROSS SECTION AT EMBANKMENT

SURVEYED BY
 MAPPING BY
 AERIAL PHOTO BY
 TRACED BY
 LOCATION BY
 CHECKED BY

M.O.P.W. ROADS DEPT. DRG. NO.

REVISIONS	
DESCRIPTION	DATE

JAPAN INTERNATIONAL COOPERATION AGENCY

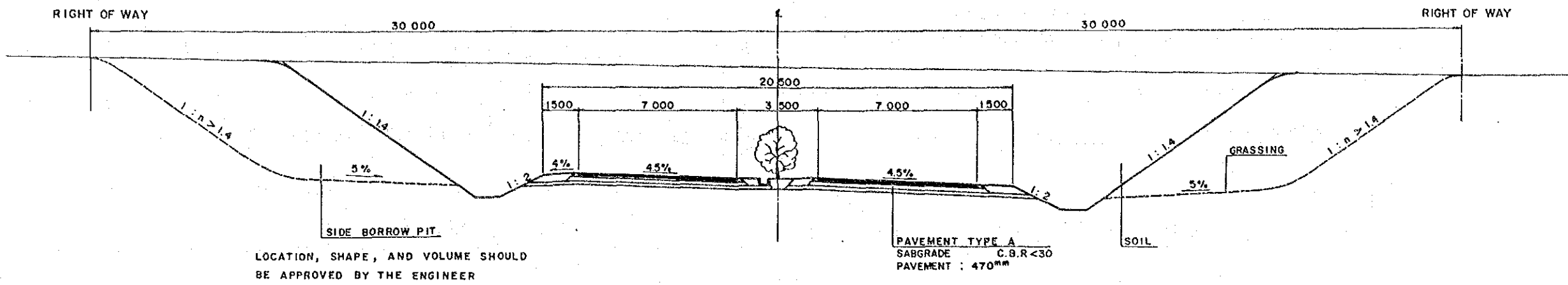
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CHIEF SUPT. ENG. (DESIGN)

SEN. SUPT. ENG. (DESIGN)
SUPT. ENGINEER (DESIGN)
PROJECT ENGINEER

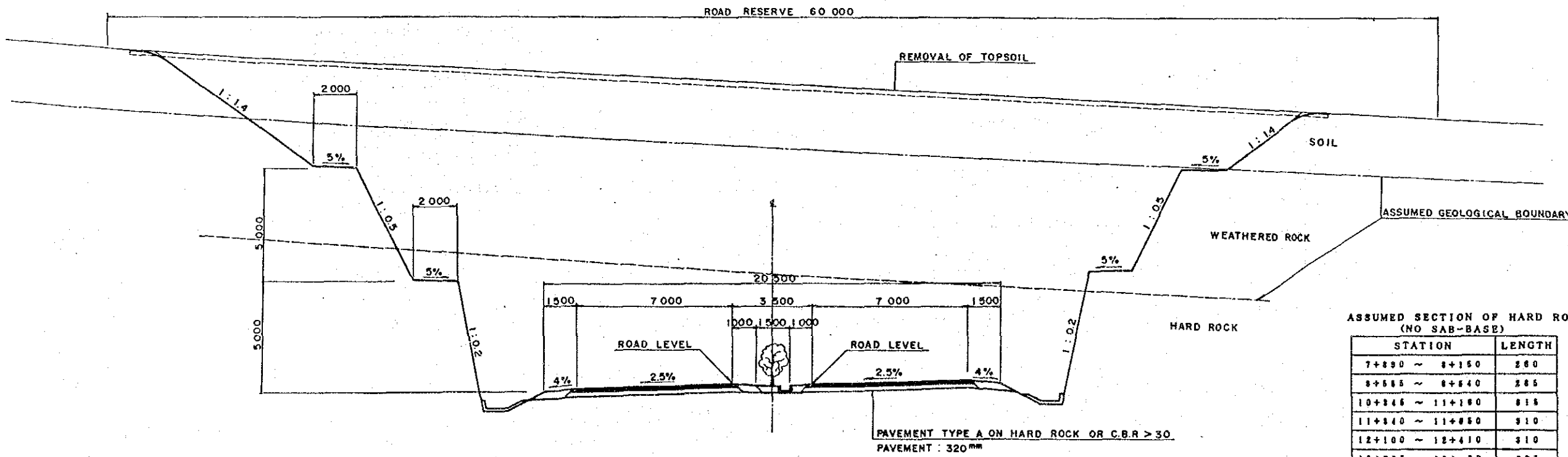
SCALES
1 : 100

NAIROBI BYPASS
TYPICAL CROSS SECTION (MAIN) 1

D
SHEET 1 OF 5



TYPICAL CROSS-SECTION AT CUTTING WITH SIDE BORROW SECTION



TYPICAL CROSS-SECTION AT CUTTING

ASSUMED SECTION OF HARD ROCK (NO SAB-BASE)

STATION	LENGTH
7+220 ~ 8+150	260
8+555 ~ 9+540	265
10+245 ~ 11+180	215
11+240 ~ 11+280	210
12+100 ~ 12+410	310
16+755 ~ 18+ 80	305
21+100 ~ 21+580	480
21+940 ~ 22+210	270

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 TRACED BY
 CHECKED BY
 AERIAL PHOTO BY
 MAPPING BY
 LOCATION BY
 MOPW ROADS DEPT DRG NO.

REVISIONS	
DESCRIPTION	DATE

JAPAN INTERNATIONAL COOPERATION AGENCY

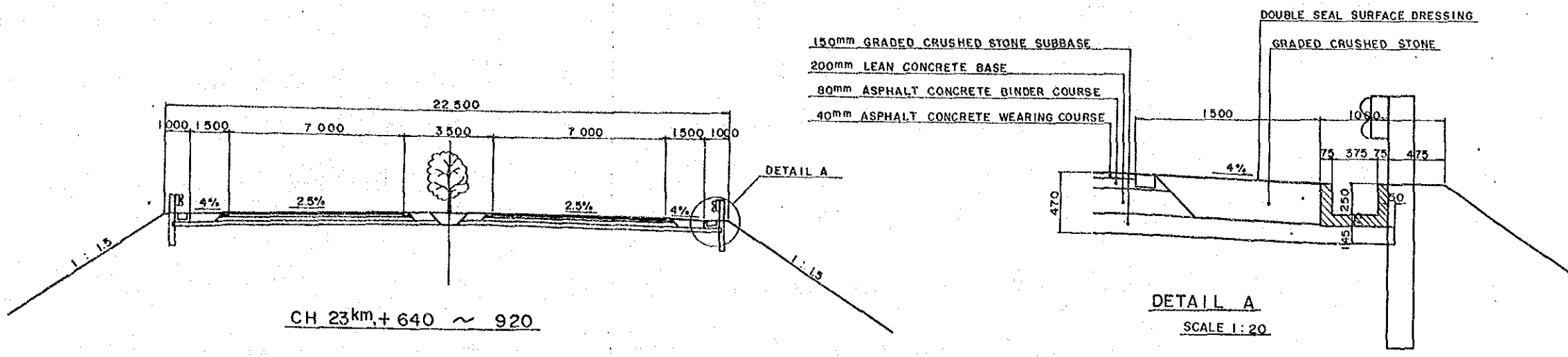
CHIEF ENGINEER (ROADS)
 CHIEF SUPT. ENG. (DESIGN)

SEN. SUPT. ENG. (DESIGN)
 SUPT. ENGINEER (DESIGN)
 PROJECT ENGINEER

SCALES
 1 : 100

NAIROBI BYPASS
 TYPICAL CROSS SECTION (MAIN) 2

D
 SHEET 2 OF 5

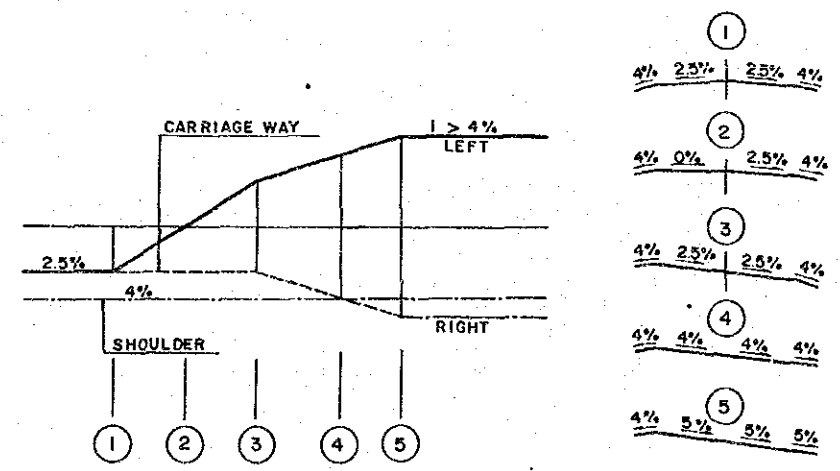


CH 23km, + 640 ~ 920

DETAIL A
SCALE 1:20

- (1) SLOPE OF FILL AND CUT
 EMBANKMENT SECTION
 HEIGHT ≤ 3m 1:2.0
 HEIGHT > 3m 1:1.5
 CUTTING SECTION
 SOIL 1:1.4
 WEATHERED ROCK 1:0.5
 HARD ROCK 1:0.2

- (2) WIDEN THE SHOULDER BY 0.50m WHERE GUARDRAIL IS REQUIRED. SECTIONS OF GUARDRAIL ARE SHOWN ON THE DRAWINGS.
 (3) THE SERVICE ROAD WILL BE LOCATED ON EITHER SIDE OF THE CARRIAGEWAY AT LOCATIONS INSTRUCTED BY THE ENGINEER OR SHOWN ON THE DRAWINGS.
 (4) THE LOCATION, SHAPE AND SIZE OF THE SIDE BORROW SHALL BE DECIDED UPON RECEIPT OF APPROVAL BY THE ENGINEER. THE SURFACE OF THE SIDE BORROW AREA WILL BE COVERED BY TOPSOIL (THICKNESS : 5cm to 20cm), FOLLOWED BY GRASSING AND PLANTING.
 (5) ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.

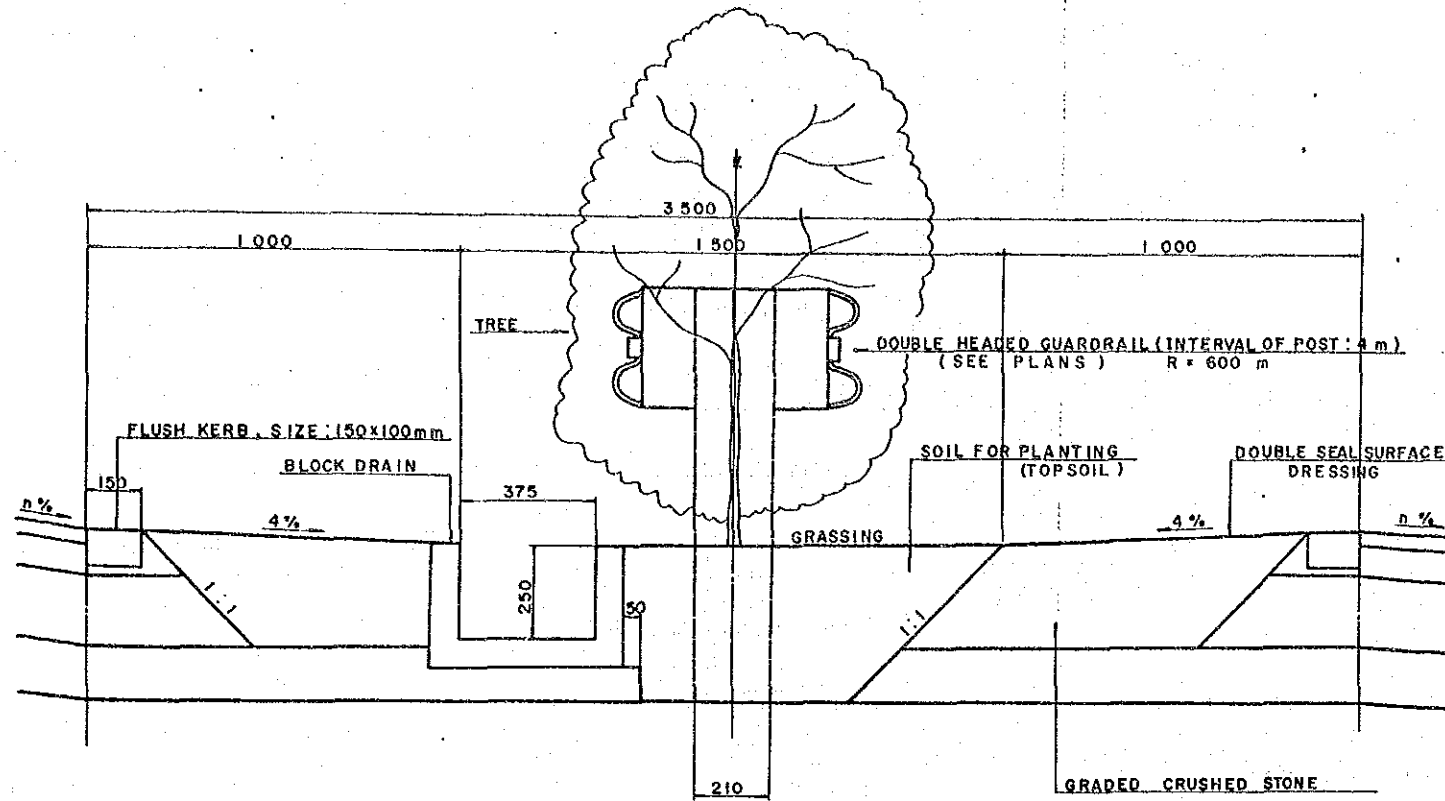


SUPERELEVATION OF SHOULDER

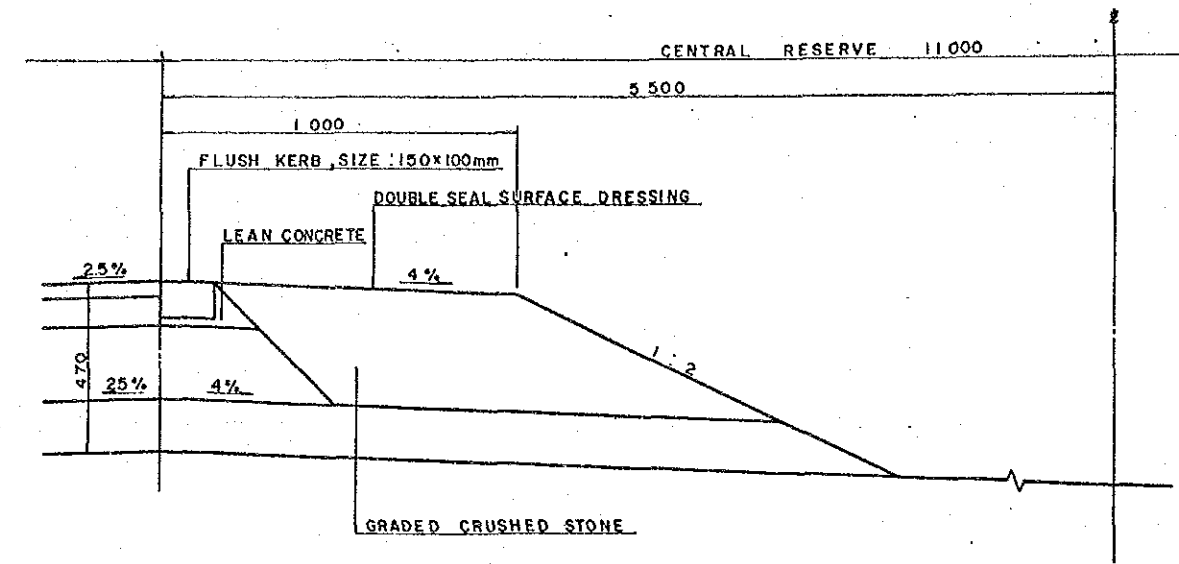
SURVEYED BY
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 TRACED BY
 LOCATION BY
 CHECKED BY

MOPW ROADS DEPT DRG NO.

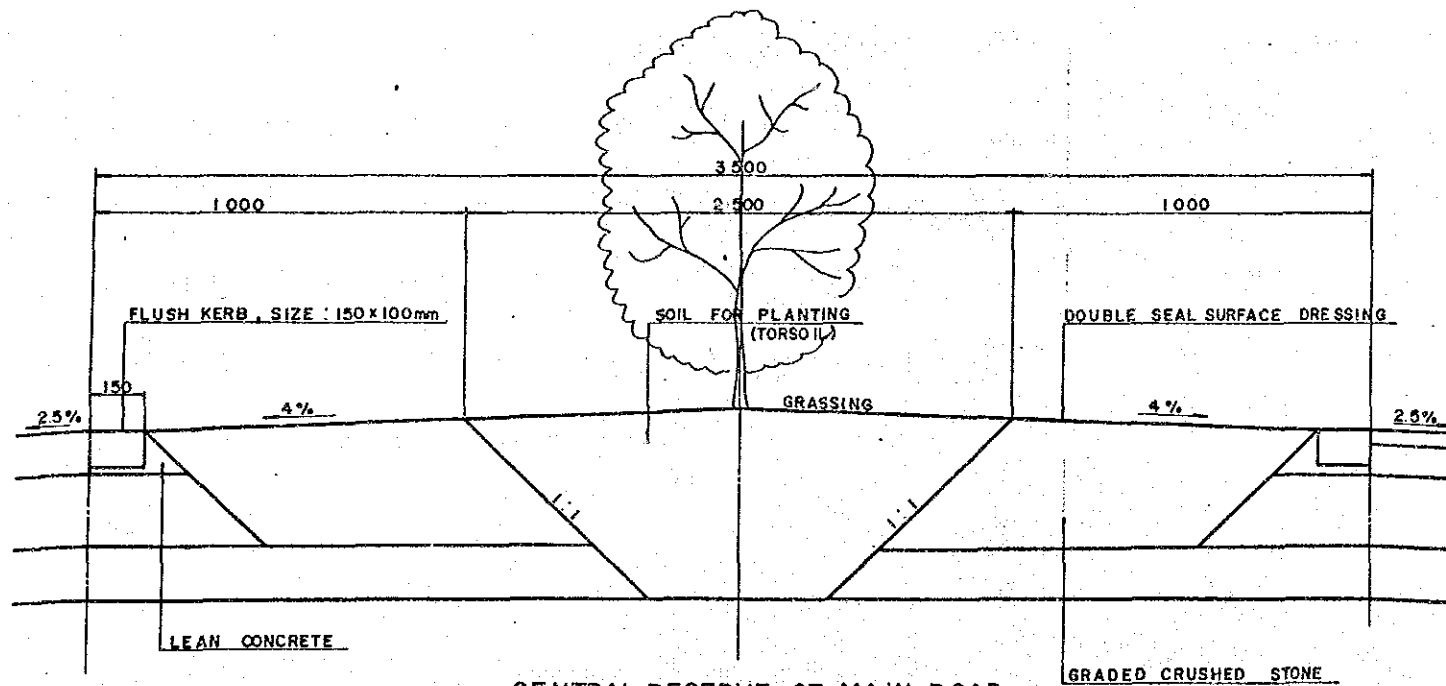
REVISIONS		JAPAN INTERNATIONAL COOPERATION AGENCY	CHIEF ENGINEER (ROADS)	SEN SUPT. ENG (DESIGN)	SCALES 1:100	NAIROBI BYPASS TYPICAL CROSS SECTION (MAIN) 3	D
DESCRIPTION	DATE						



CENTRAL RESERVE OF MAIN ROAD
(SUPERELEVATED SECTION)



MOMBASA ROAD J.C ~ UHURU MONUMENT J.C



CENTRAL RESERVE OF MAIN ROAD
(STANDARD SECTION)

DETAIL OF CENTRAL RESERVE

IN PRINCIPLE, PLANTING SHALL BE EXECUTED WITHIN THE CENTRAL RESERVE OF 3.5m WIDTH ALONG THE ENTIRE SECTION. THE PLAN REGARDING THE SPECIES TO BE PLANTED MUST SUBMITTED AND APPROVED PRIOR TO ROAD CONSTRUCTION WORK. TEST PLANTING WILL BE CONDUCTED AT CUT AND EMBANKMENT SECTIONS AS WELL AS TRAFFIC ISLANDS WITH A VIEW TO OBTAINING THE FINAL APPROVAL OF THE ENGINEER. (SEE LANDSCAPING PLAN)

THE PLANTING INTERVAL WILL BE 4m AT SECTIONS WHERE A DOUBLE HEADED GUARDRAIL IS PROVIDED FOR THE CENTRAL RESERVE. THE PLANTING INTERVAL FOR ALL OTHER SECTIONS WILL BE 5m.

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 LOCATION BY

M.O.P.W. ROADS DEPT DRG NO.

REVISIONS	
DESCRIPTION	DATE

JAPAN INTERNATIONAL
COOPERATION AGENCY

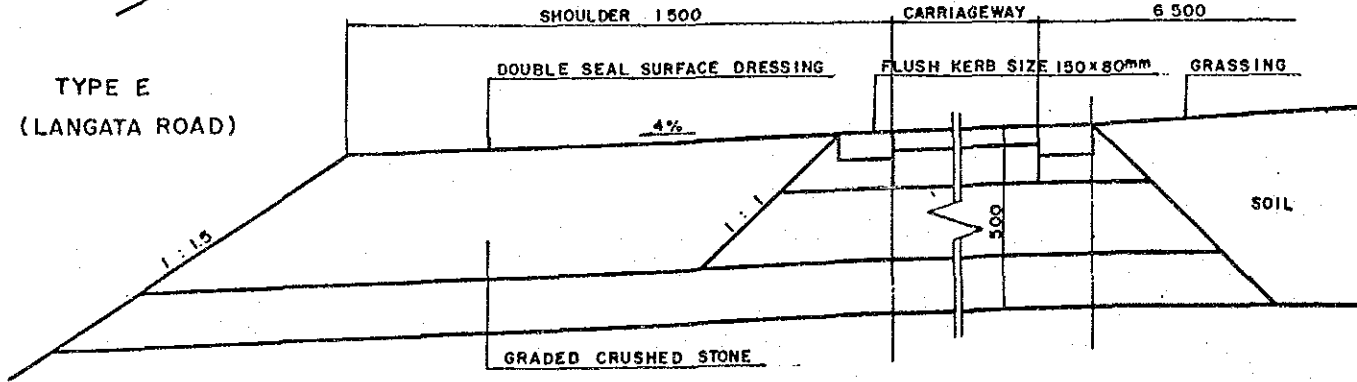
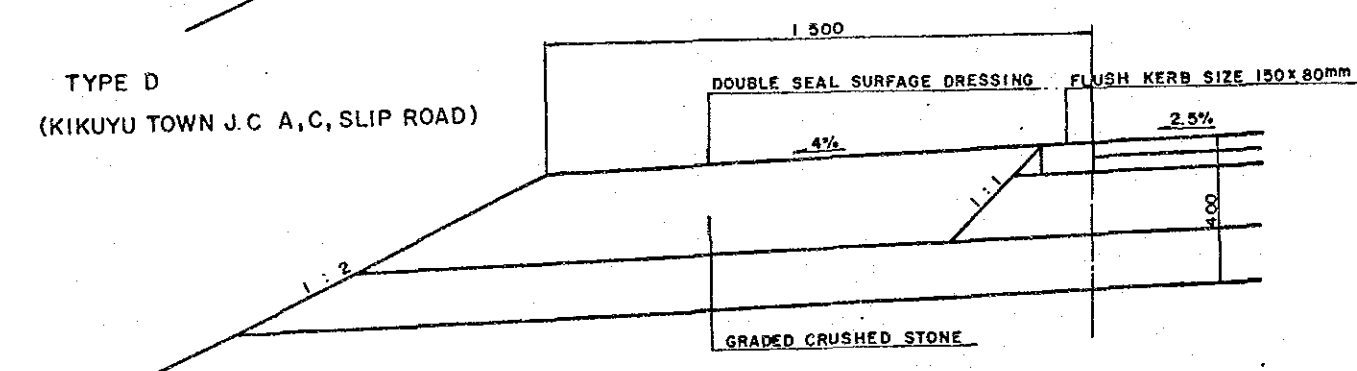
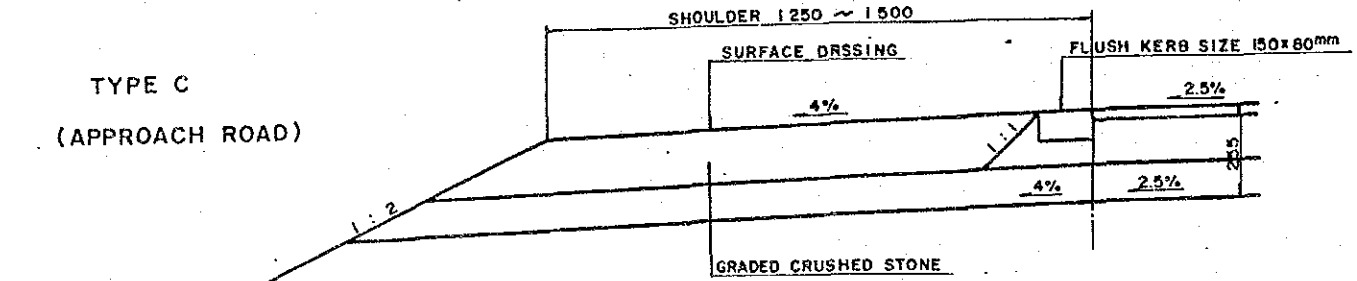
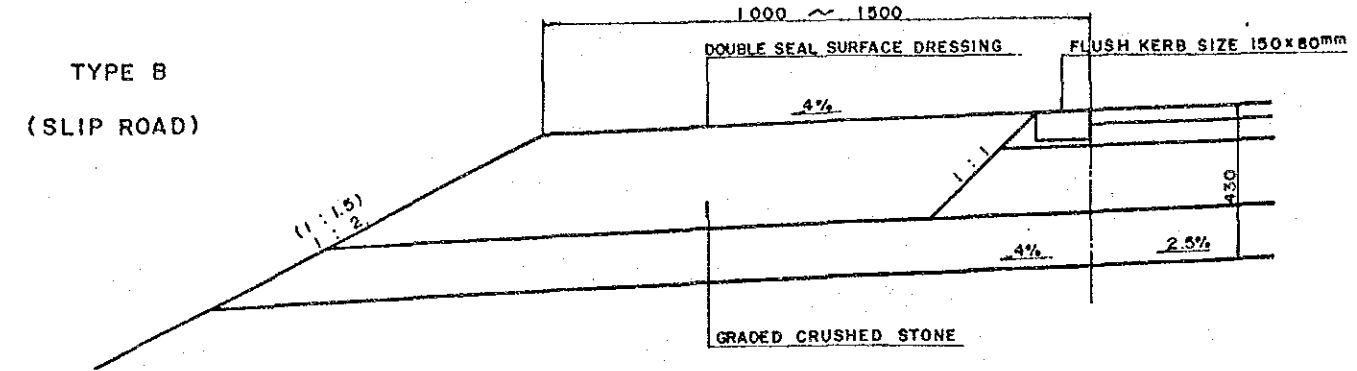
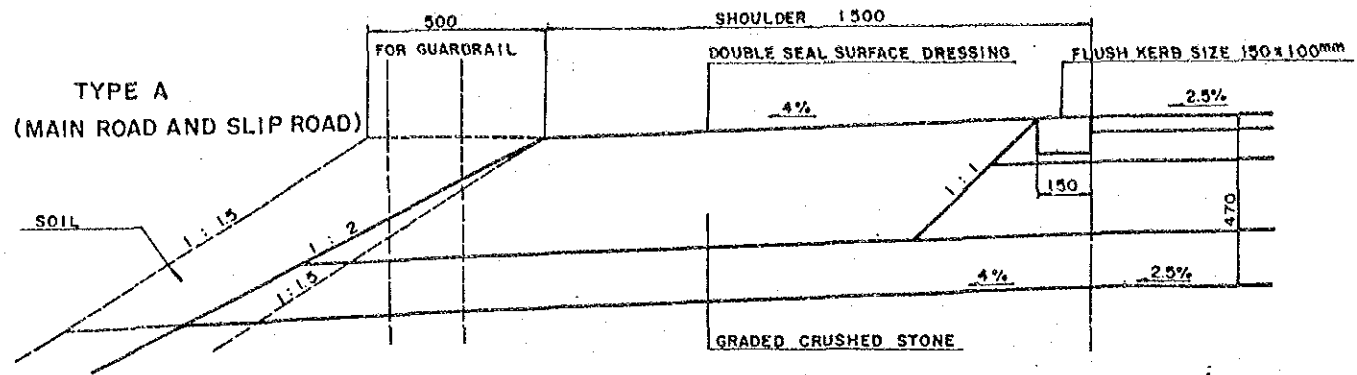
CHIEF ENGINEER (ROADS)
CHIEF SUPT. ENG. (DESIGN)

SEN SUPT. ENG. (DESIGN)
SUPT. ENGINEER (DESIGN)
PROJECT ENGINEER

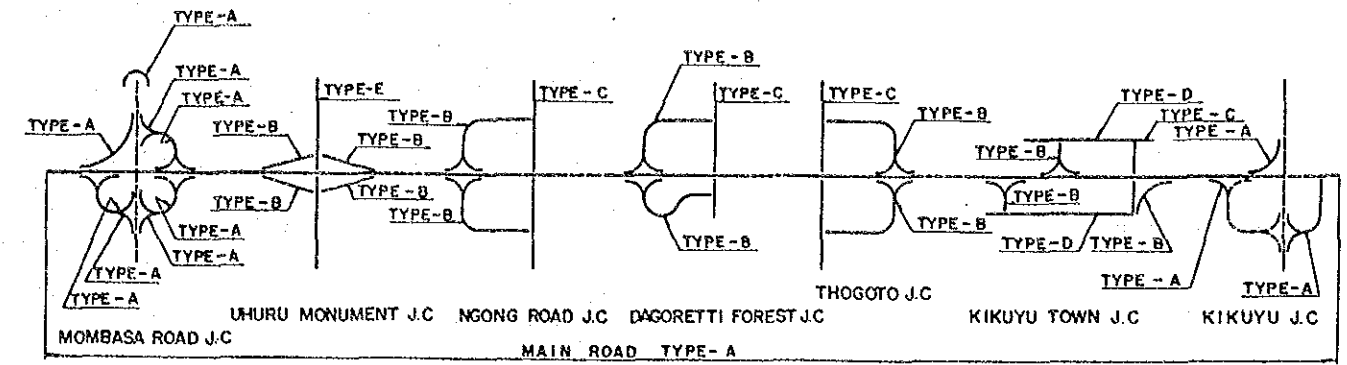
SCALES
1 : 10

NAIROBI BYPASS
PAVEMENT DETAIL (CENTRAL RESERVE)

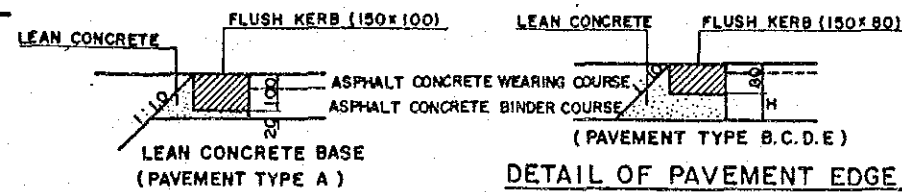
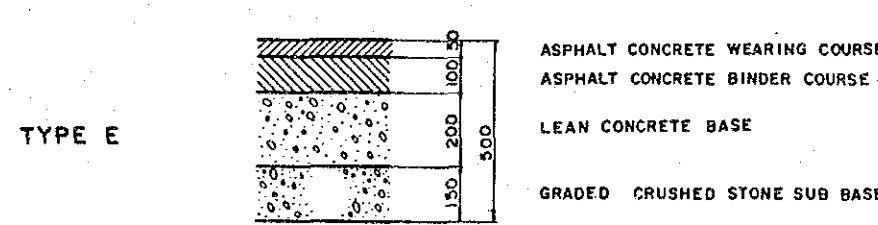
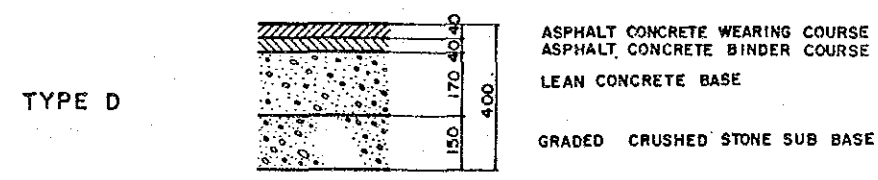
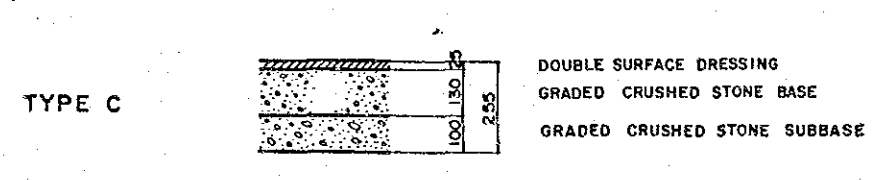
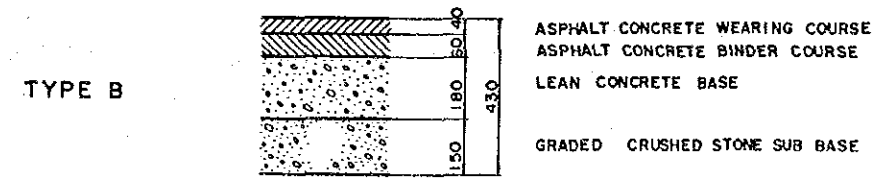
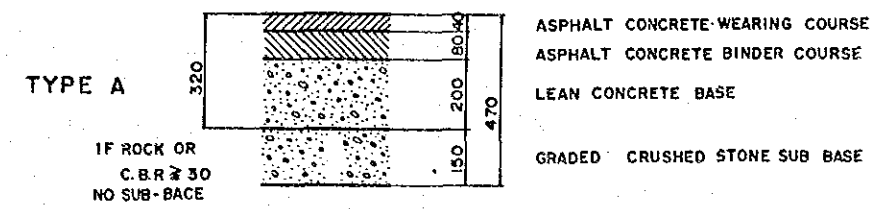
D
SHEET 4 OF 5



DETAIL OF SHOULDER



LOCATION OF PAVEMENT TYPE



DETAIL OF PAVEMENT EDGE

AERIAL PHOTO BY _____ SURVEYED BY _____
 MAPPING BY _____ TRACED BY _____
 LOCATION BY _____ CHECKED BY _____
 MOPW ROADS DEPT DRG NO _____

REVISIONS		JAPAN INTERNATIONAL COOPERATION AGENCY	CHIEF ENGINEER (ROADS)	SEN. SUPT. ENG. (DESIGN)	SCALES	NAIROBI BYPASS PAVEMENT DETAIL (SHOULDER)	D
DESCRIPTION	DATE						

