

JAPAN INTERNATIONAL COOPERATION AGENCY
MINISTRY OF COMMUNICATIONS,
WORKS AND PUBLIC UTILITIES, GRENADA

社会開発調査部報告書

NO. 2

THE FEASIBILITY STUDY
ON
ROAD REHABILITATION AND IMPROVEMENT
IN
GRENADA

FINAL REPORT
DRAWINGS

JANUARY 1998

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KATAHIRA & ENGINEERS INTERNATIONAL

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THE FEASIBILITY STUDY ON
ROAD REHABILITATION AND IMPROVEMENT

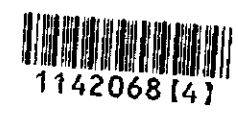
FINAL REPORT
DRAWINGS

JANUARY 1998

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**JAPAN INTERNATIONAL COOPERATION AGENCY
MINISTRY OF COMMUNICATIONS,
WORKS AND PUBLIC UTILITIES, GRENADA**

**THE FEASIBILITY STUDY
ON
ROAD REHABILITATION AND IMPROVEMENT
IN
GRENADA**

**FINAL REPORT
DRAWINGS**

JANUARY 1998

KATAHIRA & ENGINEERS INTERNATIONAL

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1. LOCATION MAP

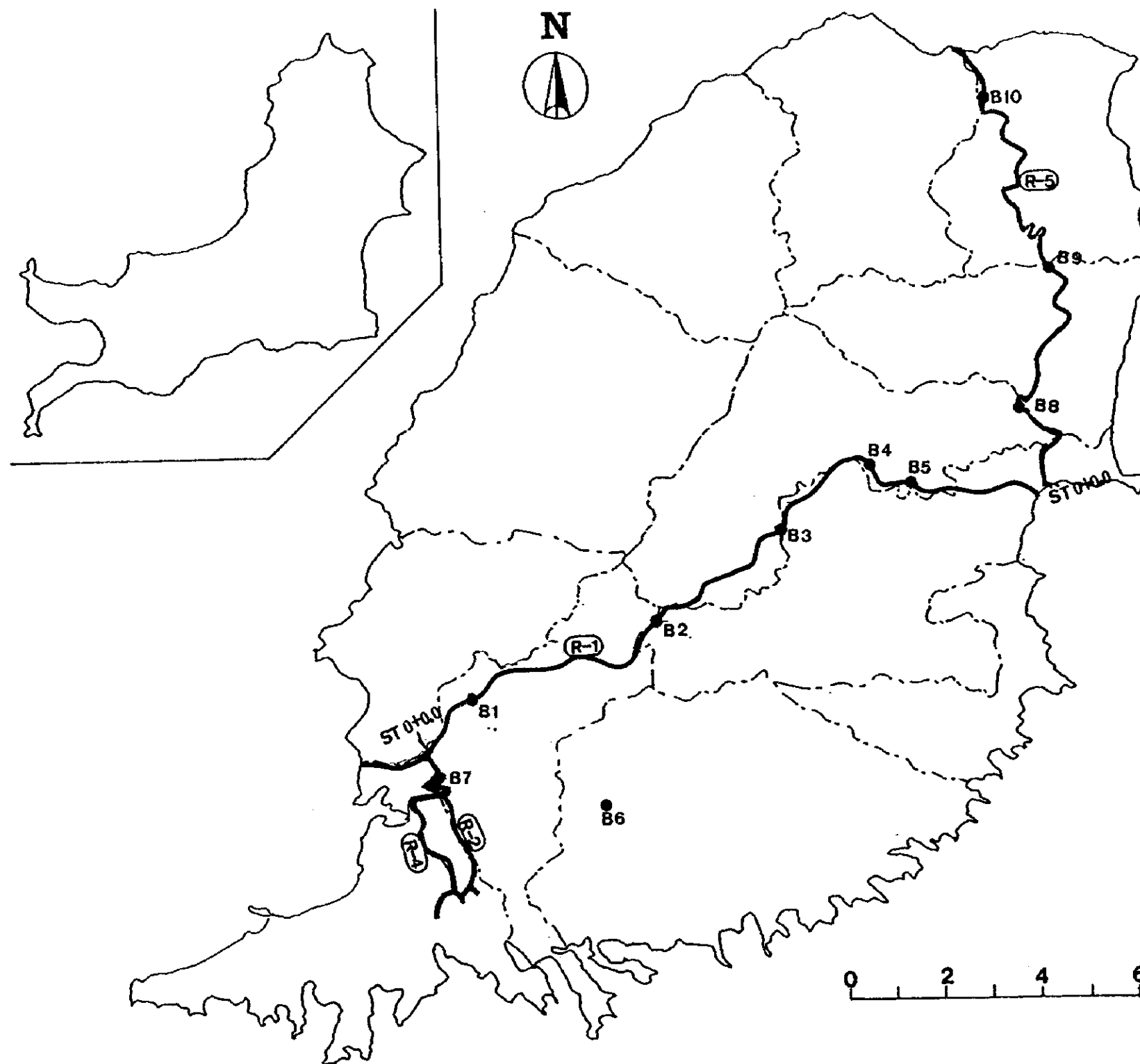
FEASIBILITY STUDY ON ROAD IMPROVEMENT AND REHABILITATION IN GRENADA

SCALE:

LOCATION MAP

DRAWING NO.

LM-1



PROJECT SITE
KEY MAP

Bridge Improvement and Rehabilitation

No.	Name
B - 1	Beaulieu Bridge
B - 2	St. Margaret Bridge
B - 3	Birch Grove Bridge
B - 4	Balthazar Bridge
B - 5	St. Cyr Greatriver Bridge
B - 6	Vineyard Bridge
B - 7	Tempe Bridge
B - 8	Dunfermline Bridge
B - 9	Pointe Field Bridge
B - 10	Madeys Bridge

LOCATION MAP

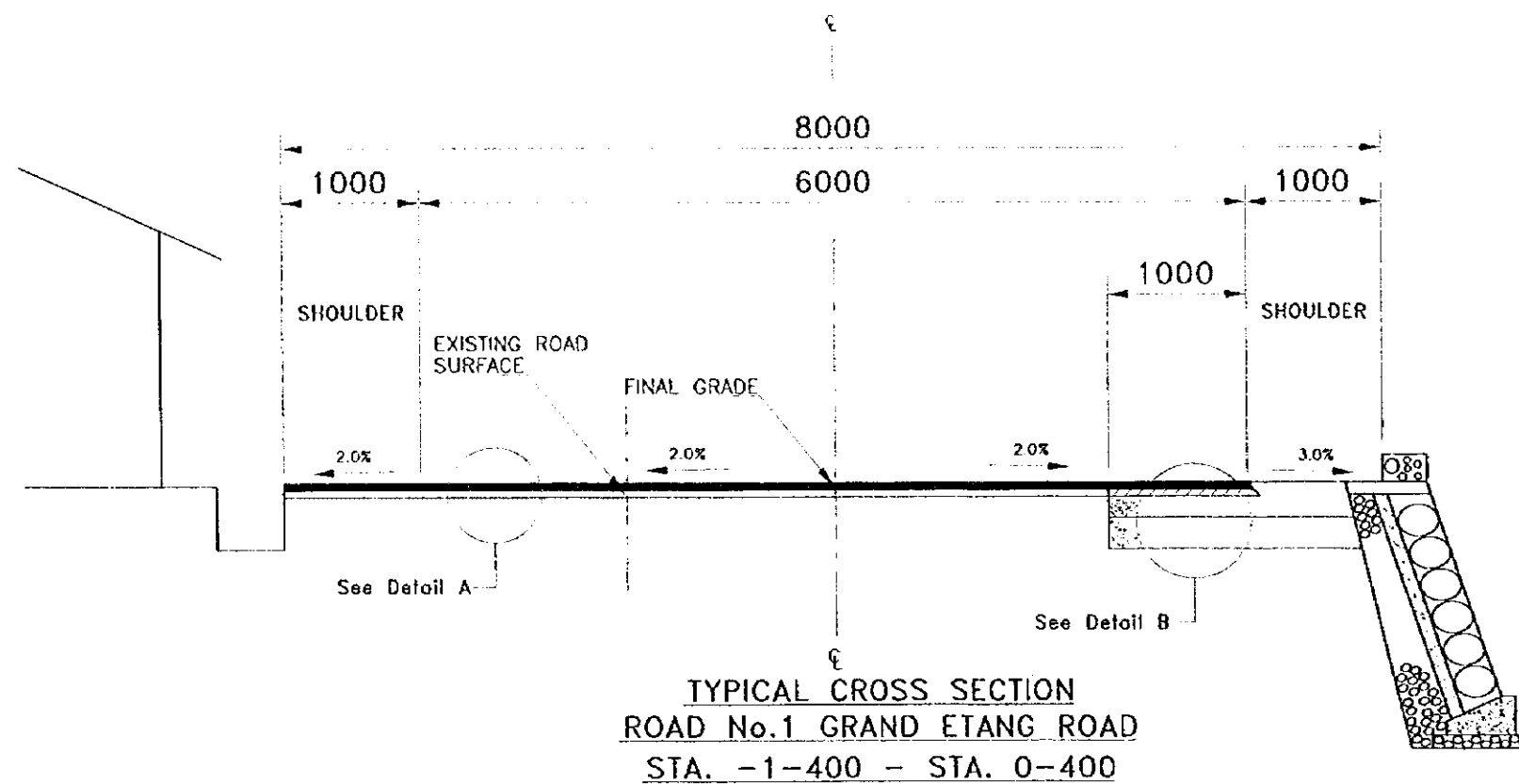
2. TYPICAL CROSS SECTION

FEASIBILITY STUDY ON ROAD IMPROVEMENT AND REHABILITATION
IN GRENADA

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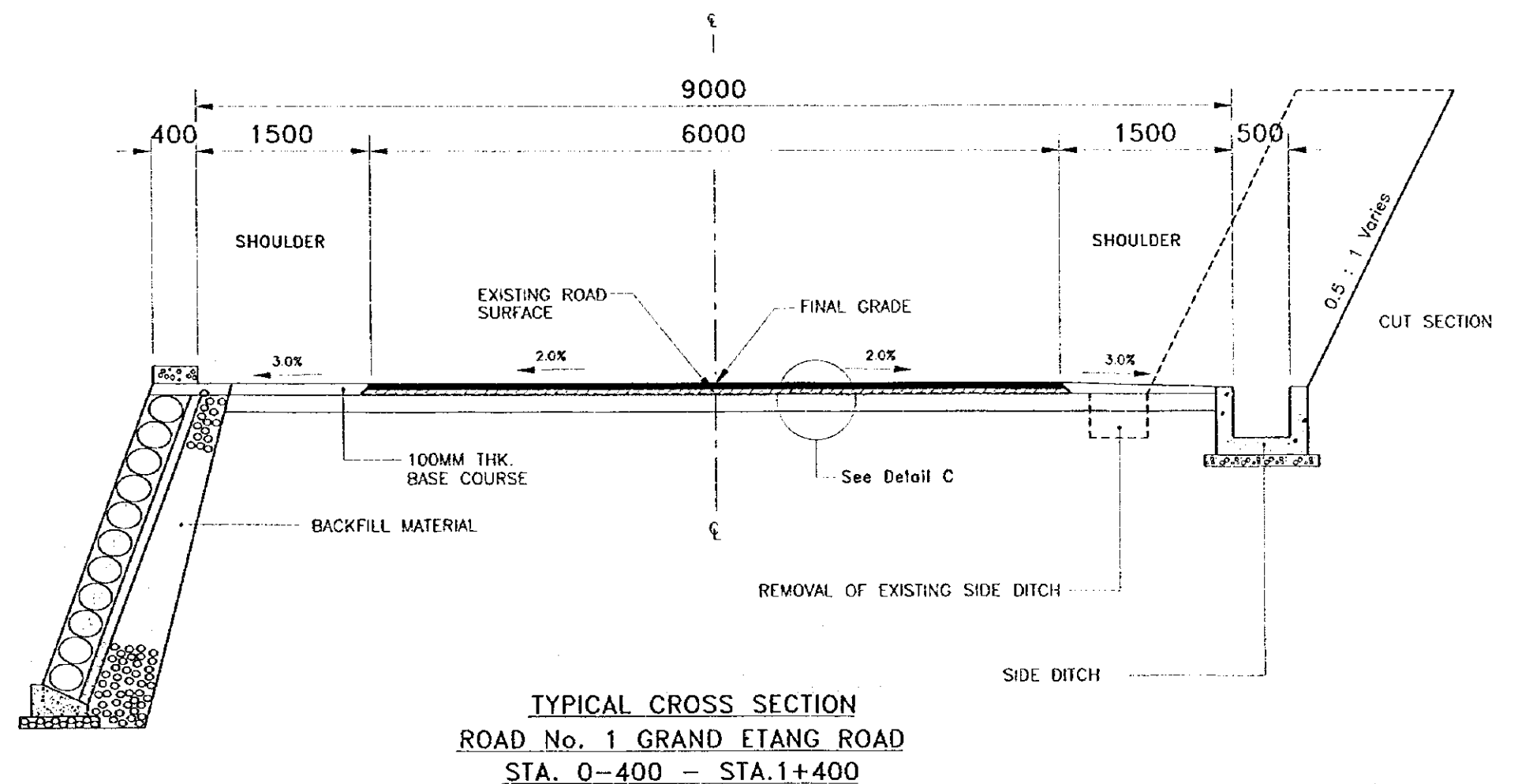
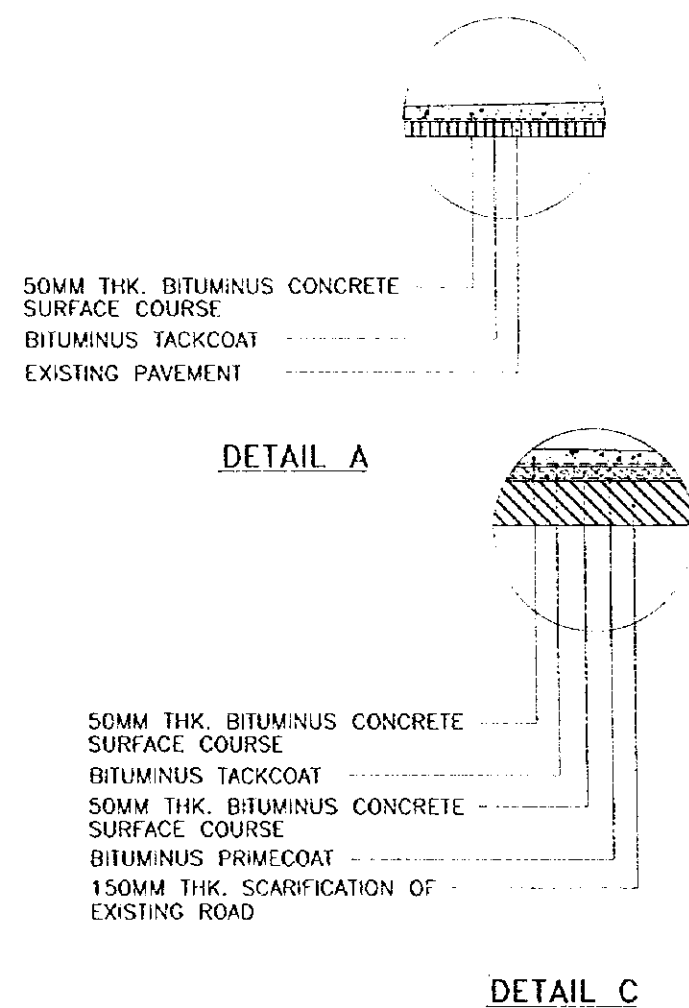
TYPICAL CROSS SECTIONS & DETAILS
R-1

DRAWING NO.
TC-1



50MM THK. BITUMINUS CONCRETE
SURFACE COURSE
BITUMINUS TACKCOAT
50MM THK. BITUMINUS CONCRETE
SURFACE COURSE
BITUMINUS PRIMECOAT
150MM THK. BASE COURSE
230MM THK. SUB-BASE COURSE

DETAIL B



FEASIBILITY STUDY ON ROAD IMPROVEMENT AND REHABILITATION
IN GRENADA

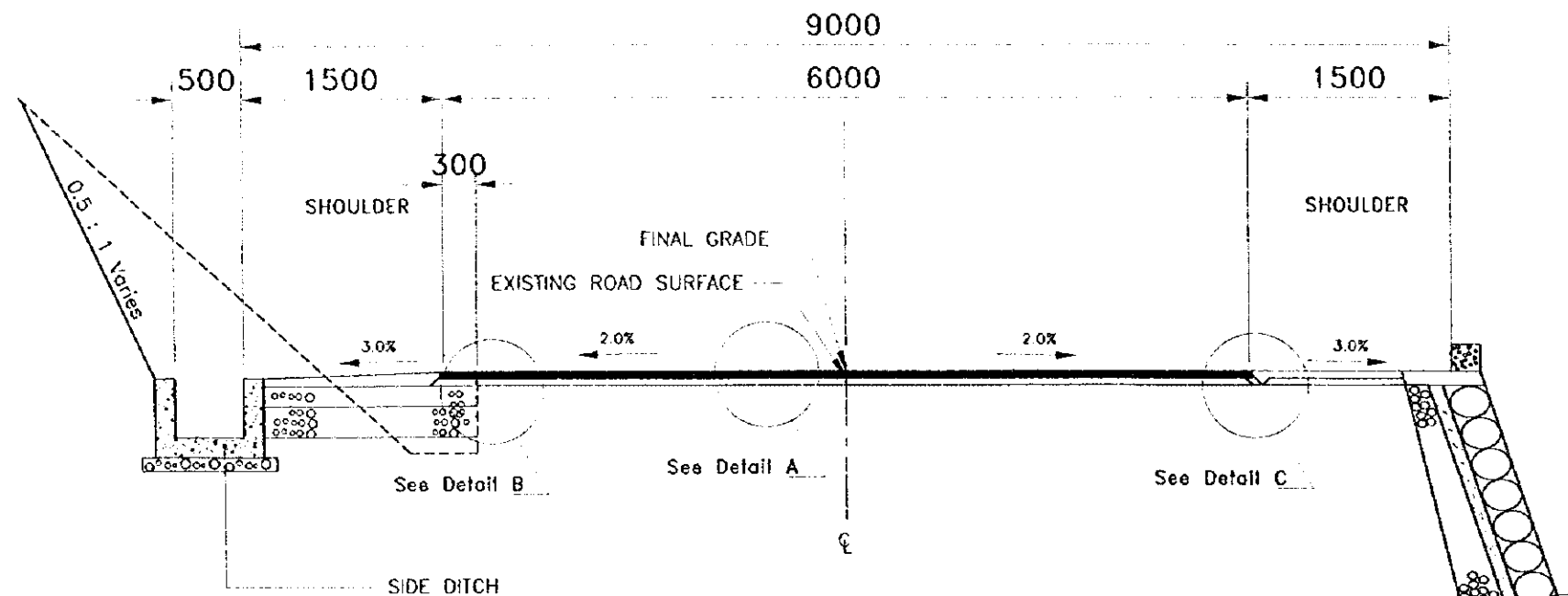
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TYPICAL CROSS SECTIONS & DETAILS
R-1

DRAWING NO.

TC-2



TYPICAL CROSS SECTION
ROAD No. 1 GRAND ETANG ROAD
STA. 1+400 -- STA. 3+700

50MM THK. BITUMINUS CONCRETE
SURFACE COURSE
BITUMINUS TACKCOAT
50MM THK. BITUMINUS CONCRETE
SURFACE COURSE
BITUMINUS PRIMECOAT
150MM THK. BASE COURSE
230MM THK. SUB-BASE COURSE
EXISTING PAVEMENT
EXISTING BASE COURSE

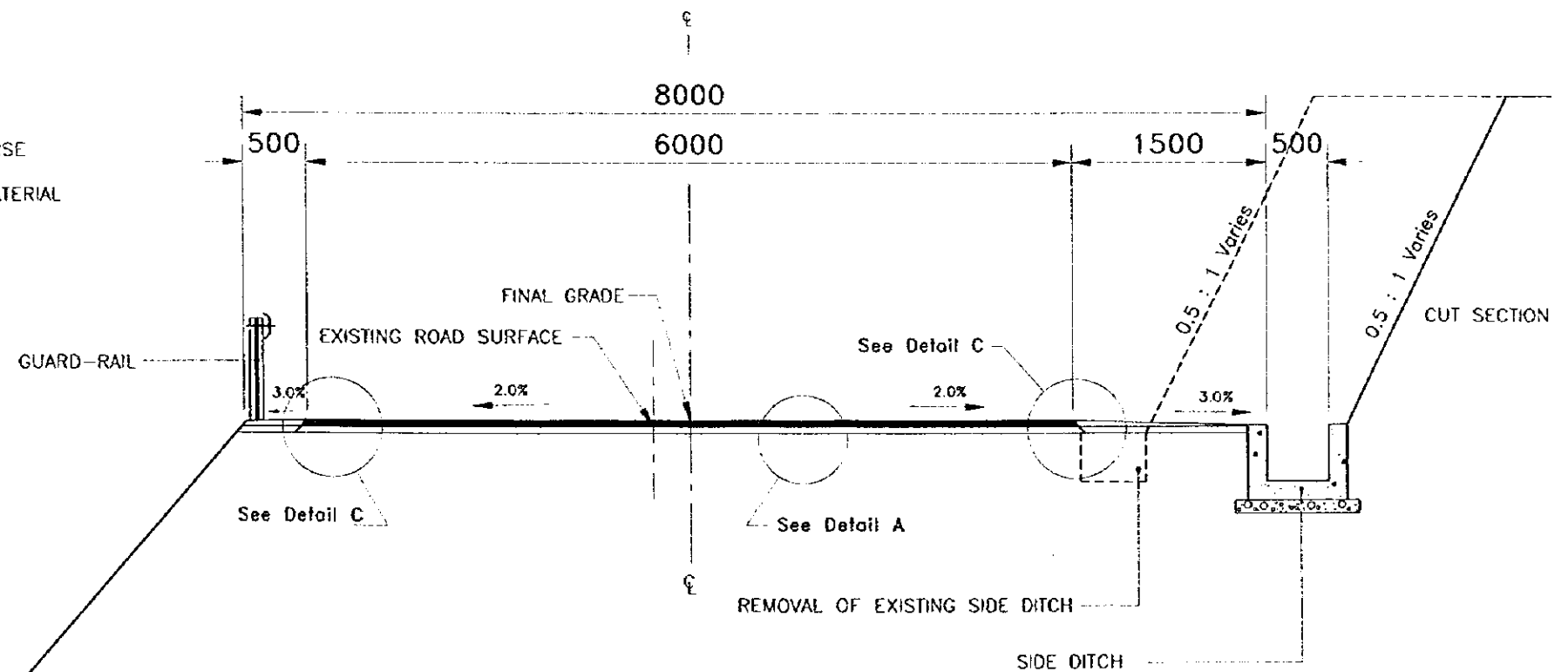
DETAIL B

50MM THK. BITUMINUS CONCRETE
SURFACE COURSE
BITUMINUS TACKCOAT
EXISTING PAVEMENT
50MM THK. BASE COURSE
EXISTING SHOULDER MATERIAL

DETAIL C

50MM THK. BITUMINUS CONCRETE
SURFACE COURSE
BITUMINUS TACKCOAT
EXISTING PAVEMENT

DETAIL A



TYPICAL CROSS SECTION
ROAD No. 1 GRAND ETANG ROAD
1 STA. 5+900 - STA. 10+800

FEASIBILITY STUDY ON ROAD IMPROVEMENT AND REHABILITATION
IN GRENADA

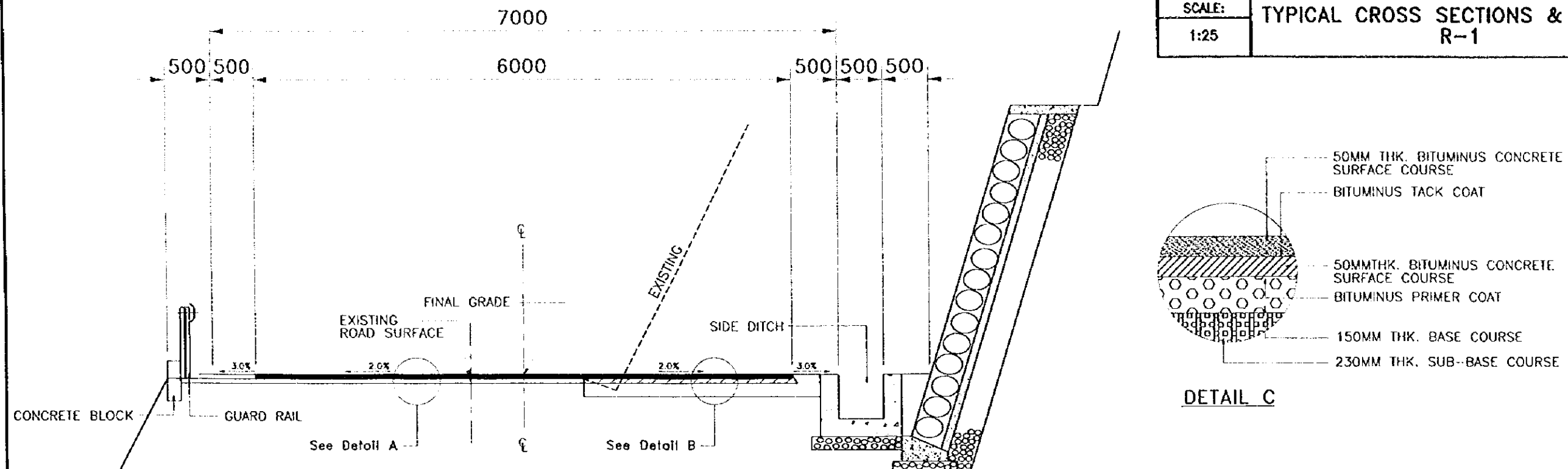
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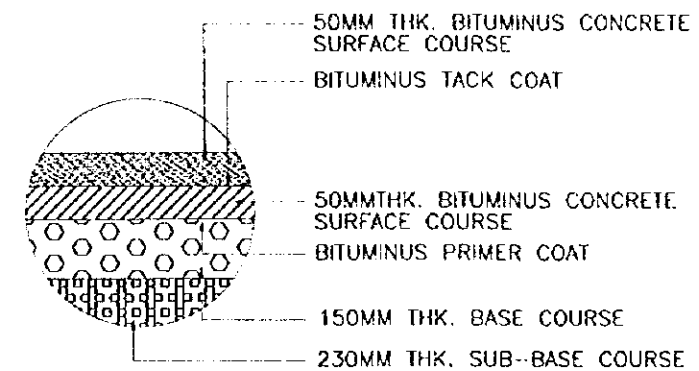
TYPICAL CROSS SECTIONS & DETAILS
R-1

DRAWING NO.

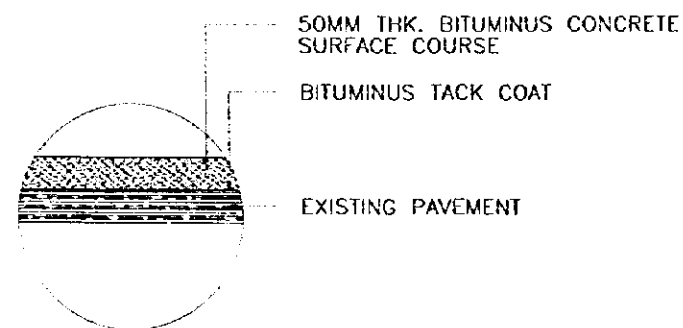
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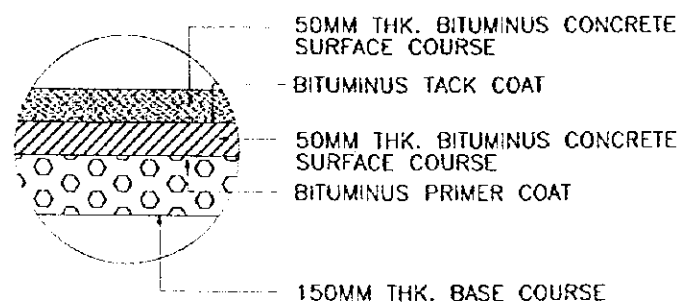
TYPICAL CROSS SECTION
ROAD No. 1 GRAND ETANG ROAD
STA. 10+800 - STA. 11+500



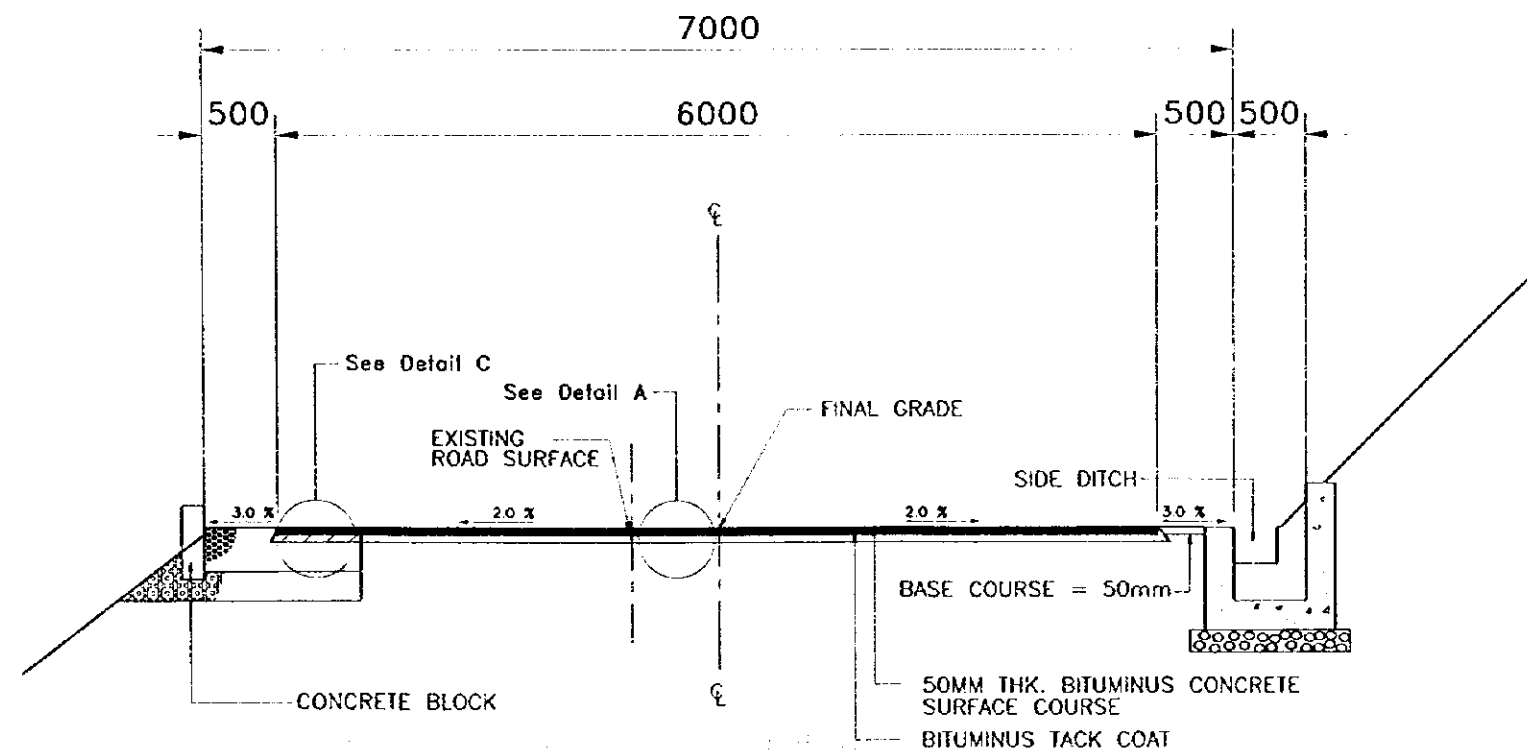
DETAIL C



DETAIL A



DETAIL B



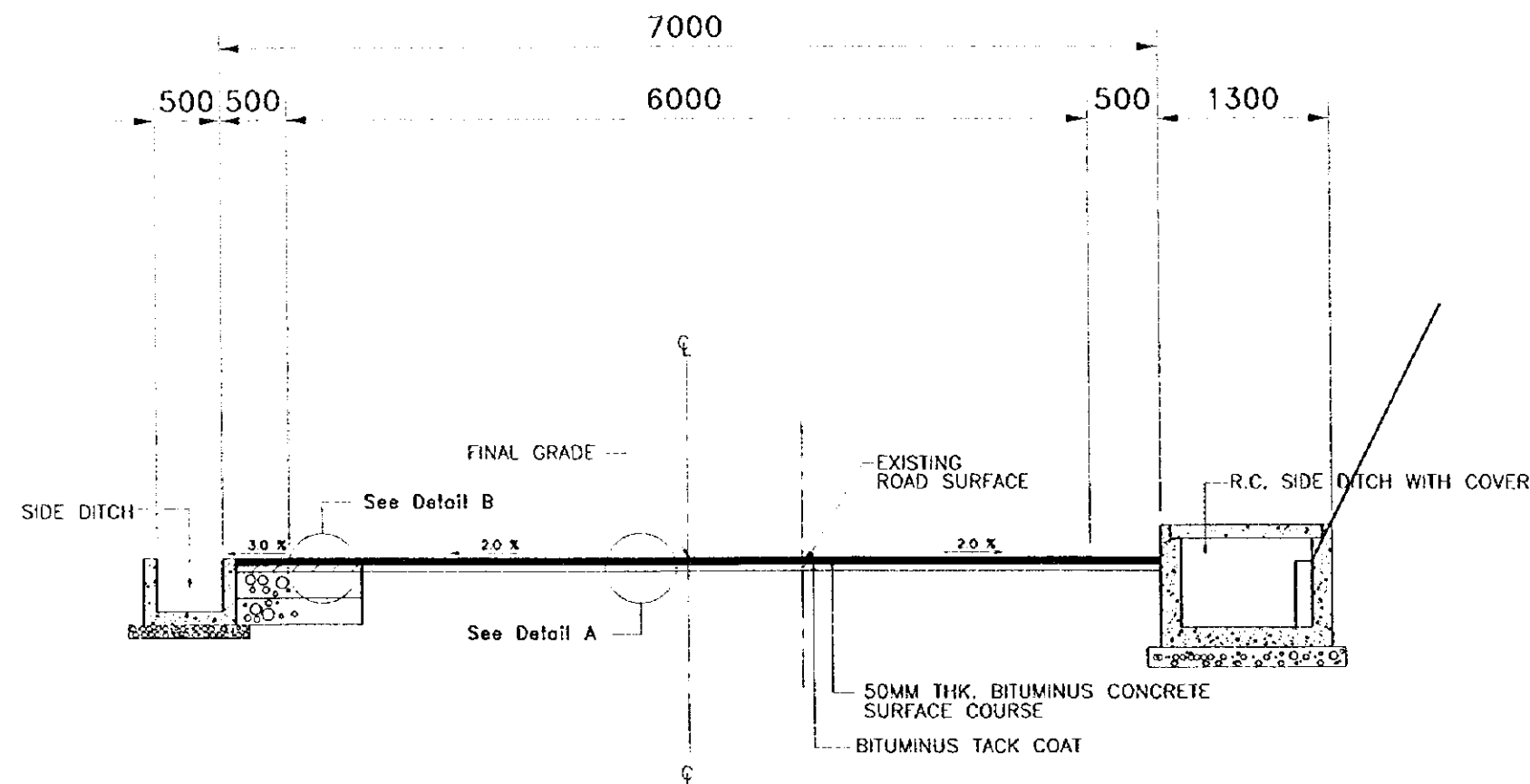
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STA. 11+500 - STA. 18+875

FEASIBILITY STUDY ON ROAD IMPROVEMENT AND REHABILITATION
IN GRENADA

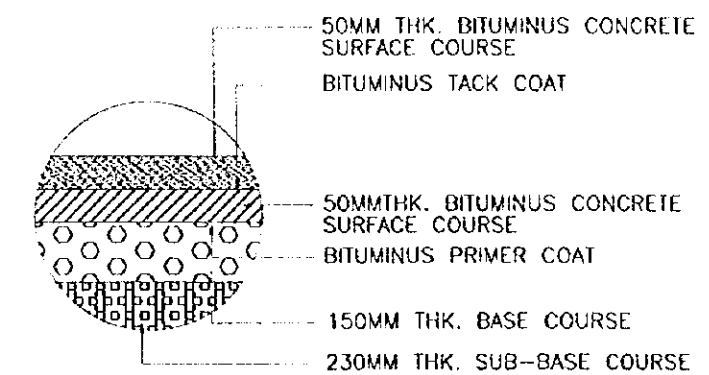
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TYPICAL CROSS SECTIONS & DETAILS
R-1, R-2

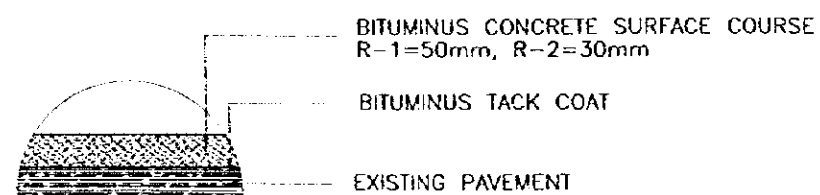
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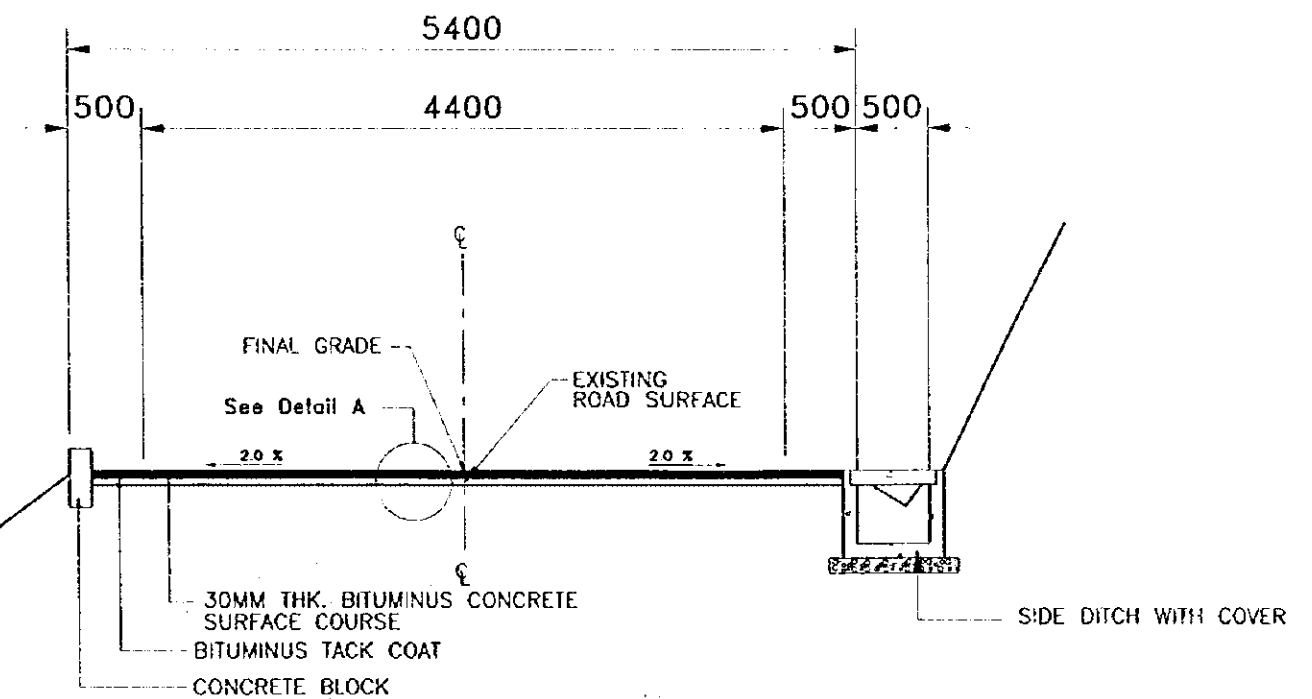
TYPICAL CROSS SECTION
ROAD No. 1 GRAND ETANG ROAD
ROAD No. 1 STA. 18+875 - STA. 20+300



DETAIL B



DETAIL A



TYPICAL CROSS SECTION
ROAD No. 2 MORNE JALOUX ROAD
STA. 0+800 - STA. 3+080

FEASIBILITY STUDY ON ROAD IMPROVEMENT AND REHABILITATION
IN GRENADA

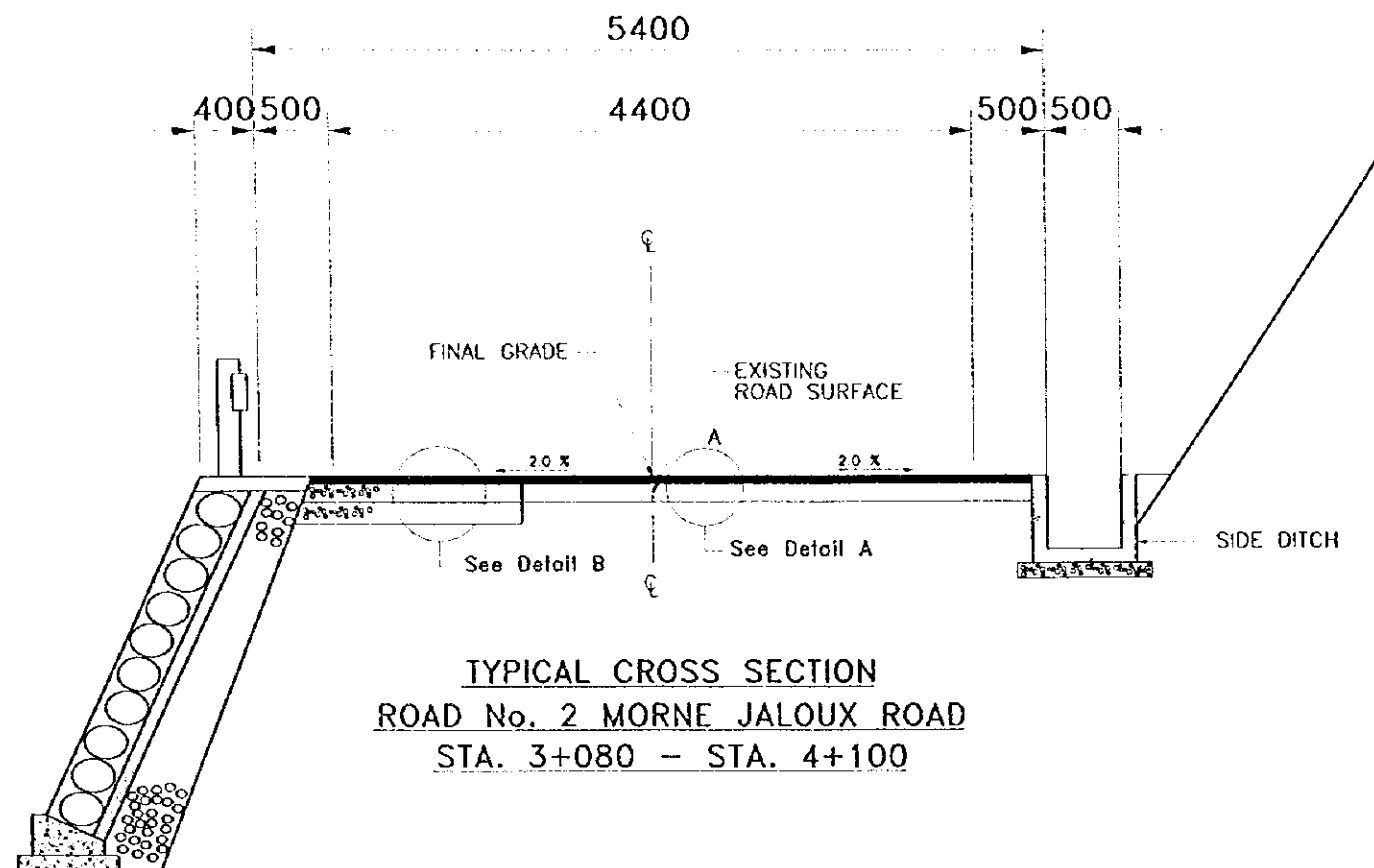
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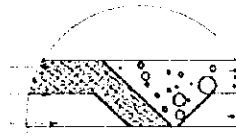
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R-2, R-4

DRAWING NO.

TC-5

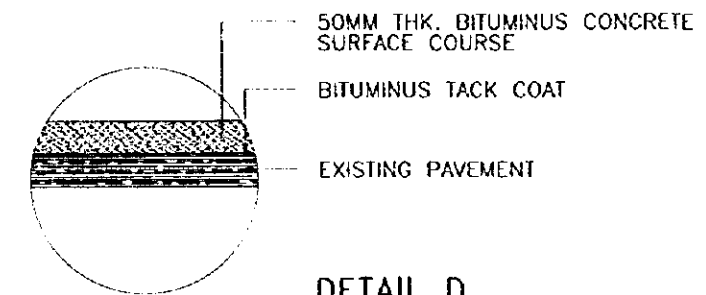


50MM THK. BITUMINUS
CONCRETE SURFACE COURSE
BITUMINUS TACK COAT
EXISTING PAVEMENT

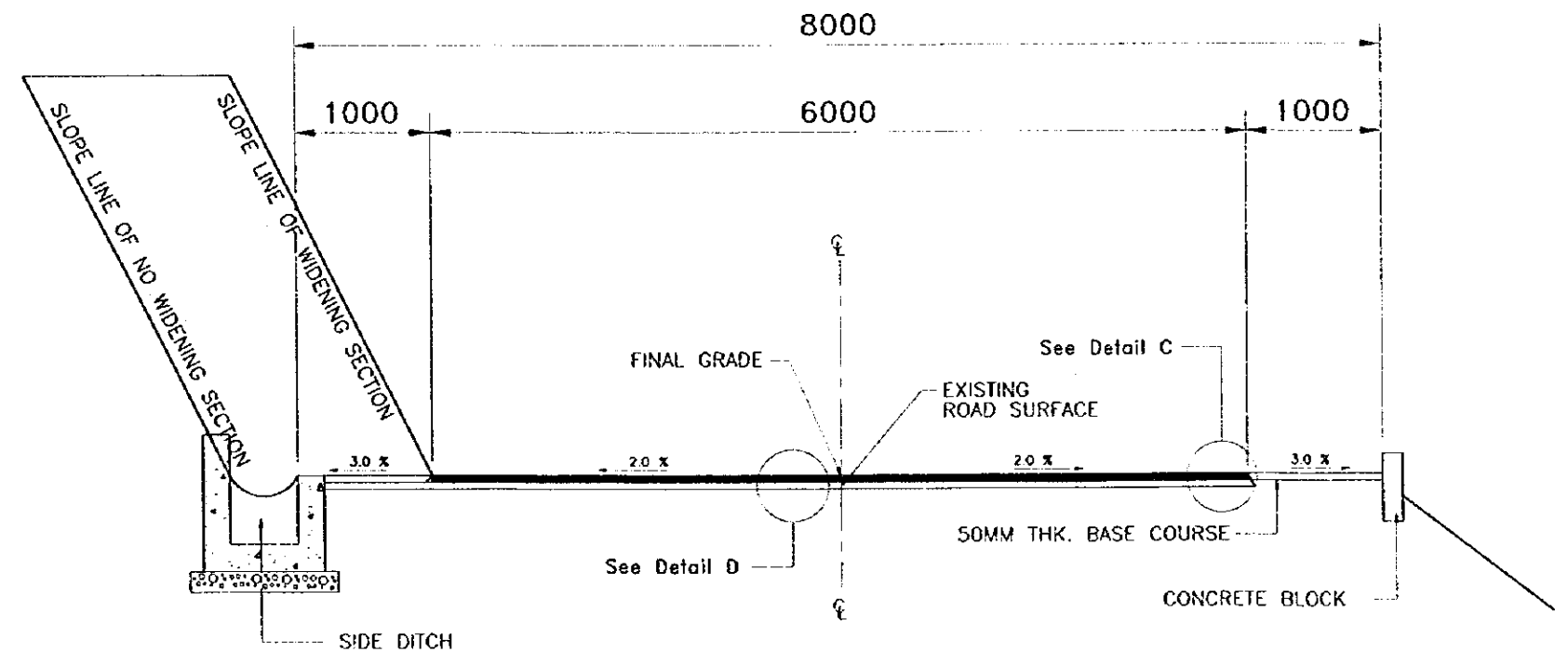
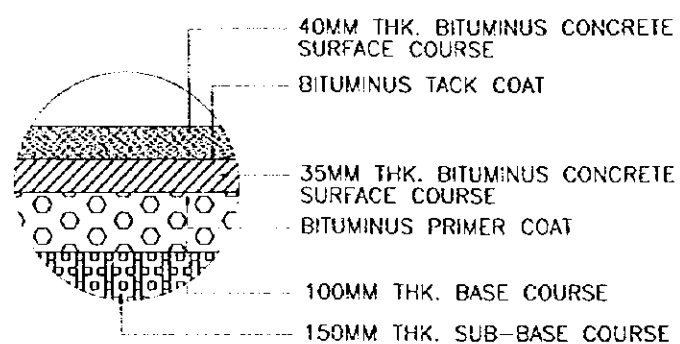
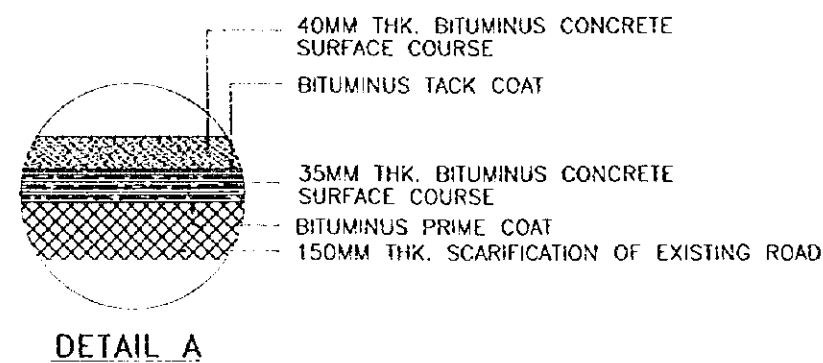


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EXISTING SHOULDER MAT'L'S

DETAIL C



DETAIL D



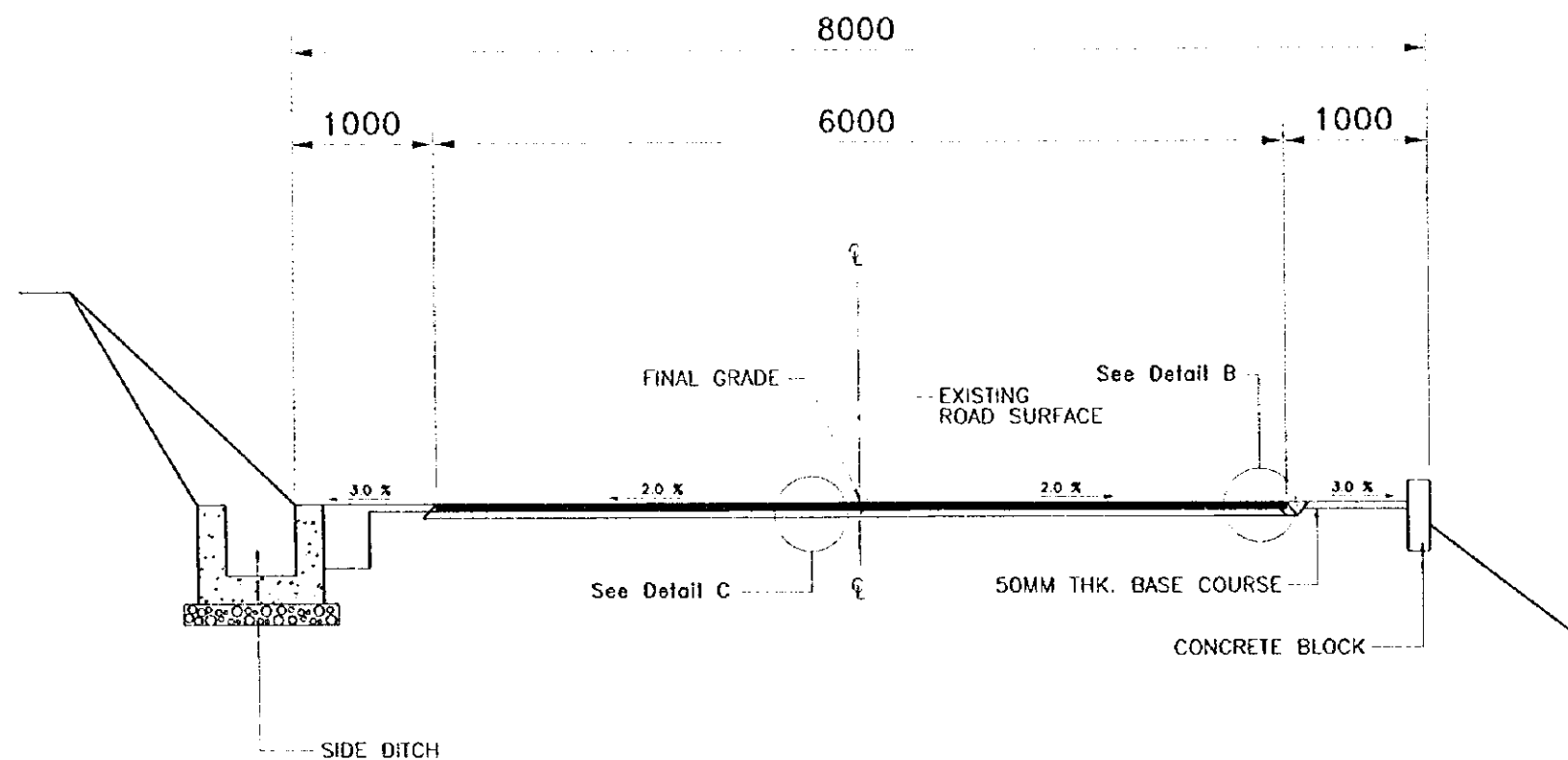
TYPICAL CROSS SECTION
ROAD No. 4 MT. GAY / SPRINGS ROAD
STA. 0+500 - STA. 3+050

FEASIBILITY STUDY ON ROAD IMPROVEMENT AND REHABILITATION
IN GRENADA

SCALE:
1:25

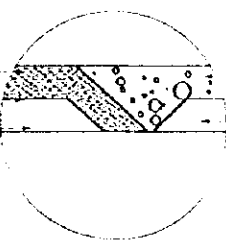
TYPICAL CROSS SECTIONS & DETAILS
R-4

DRAWING NO.
TC-6



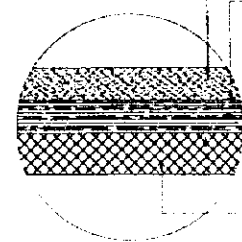
TYPICAL CROSS SECTION
ROAD No. 4 MT. GAY / SPRINGS ROAD
STA. 3+050 - STA. 4+800

50MM THK. BITUMINUS CONCRETE
SURFACE COURSE
BITUMINUS TACK COAT
EXISTING PAVEMENT
50MM THK. BASE COURSE
EXISTING SHOULDER MATERIALS



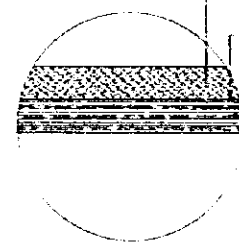
DETAIL B

50MM THK. BITUMINUS CONCRETE
SURFACE COURSE
BITUMINUS TACK COAT
50MM THK. BITUMINUS CONCRETE
SURFACE COURSE
BITUMINUS PRIME COAT
150MM THK. SCARIFICATION OF EXISTING ROAD

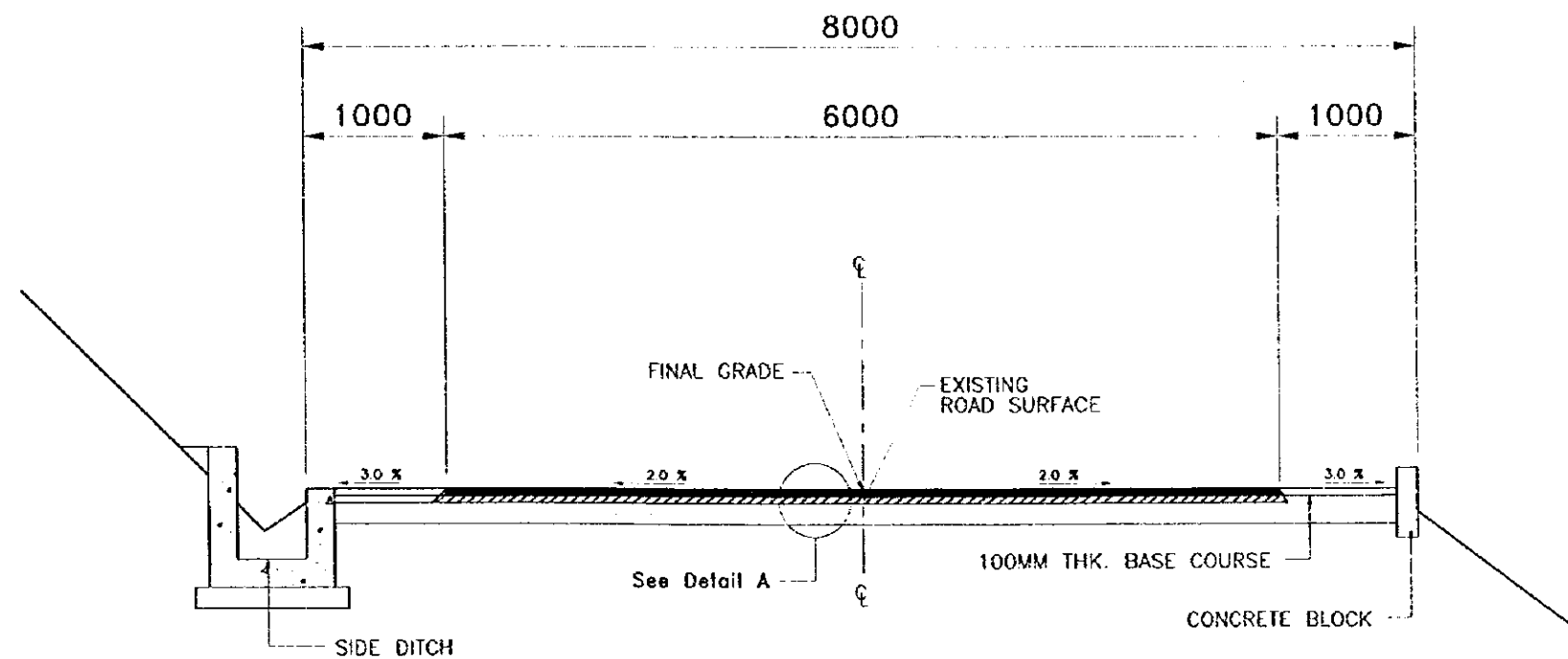


DETAIL A

50MM THK. BITUMINUS CONCRETE
SURFACE COURSE
BITUMINUS TACK COAT
EXISTING PAVEMENT



DETAIL C



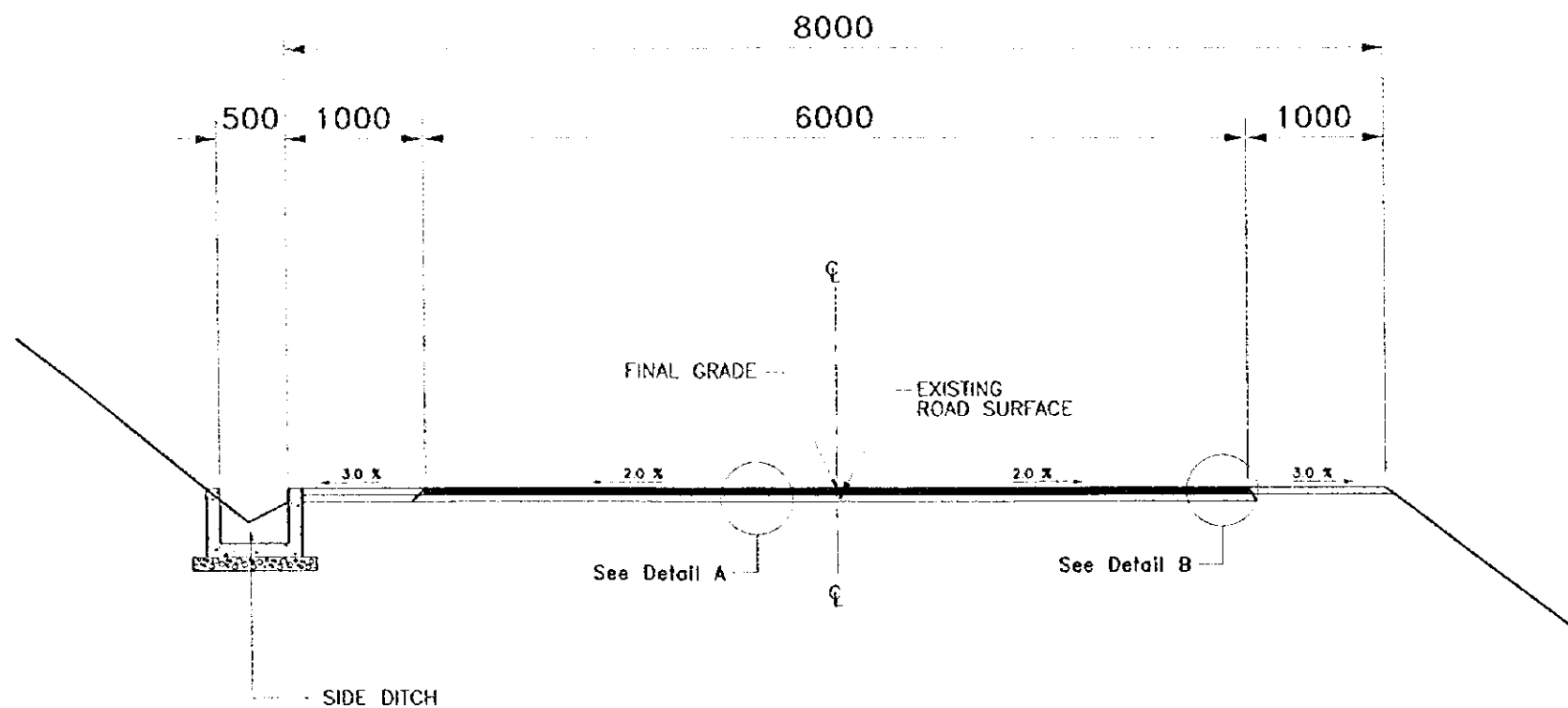
TYPICAL CROSS SECTION
ROAD No. 4 MT. GAY / SPRINGS ROAD
STA. 4+800 - STA. 6+000

FEASIBILITY STUDY ON ROAD IMPROVEMENT AND REHABILITATION
IN GRENADA

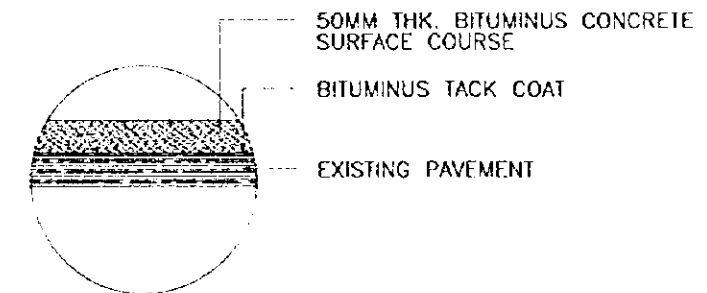
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TYPICAL CROSS SECTIONS & DETAILS
R-5

DRAWING NO.
TC-7

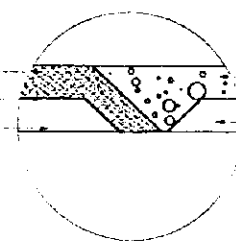


TYPICAL CROSS SECTION
ROAD No. 5 EASTERN MAIN ROAD
STA. 0+000 - STA. 6+500
& STA. 9+200 - STA. 10+200

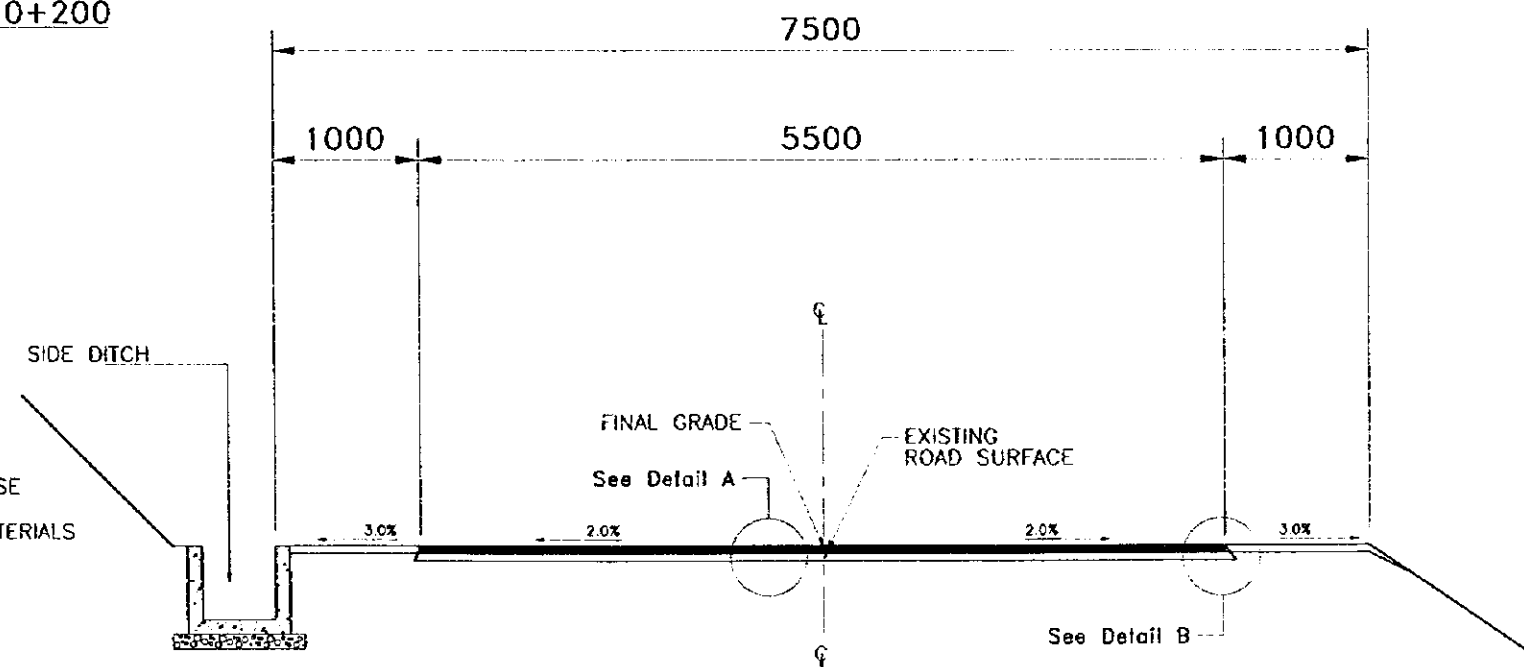


DETAIL A

50MM THK. BITUMINUS CONCRETE
SURFACE COURSE
BITUMINUS TACK COAT
EXISTING PAVEMENT



DETAIL B

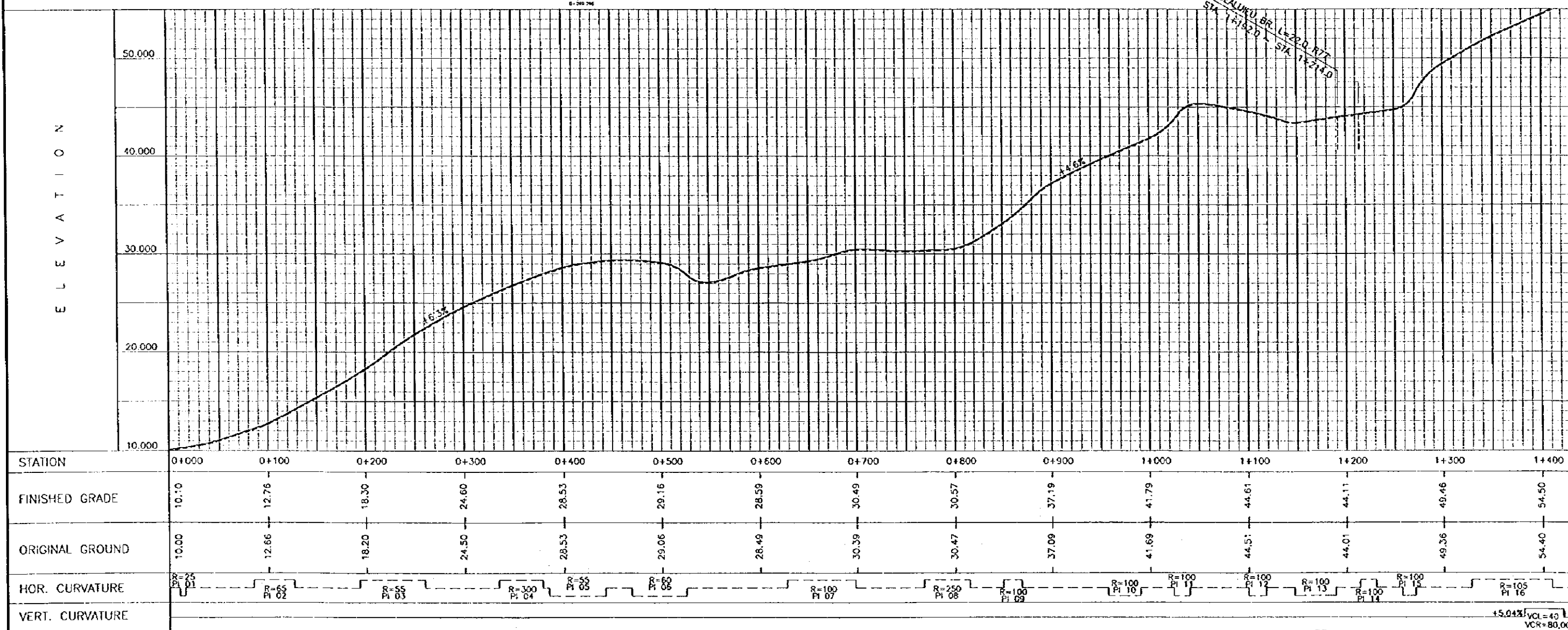
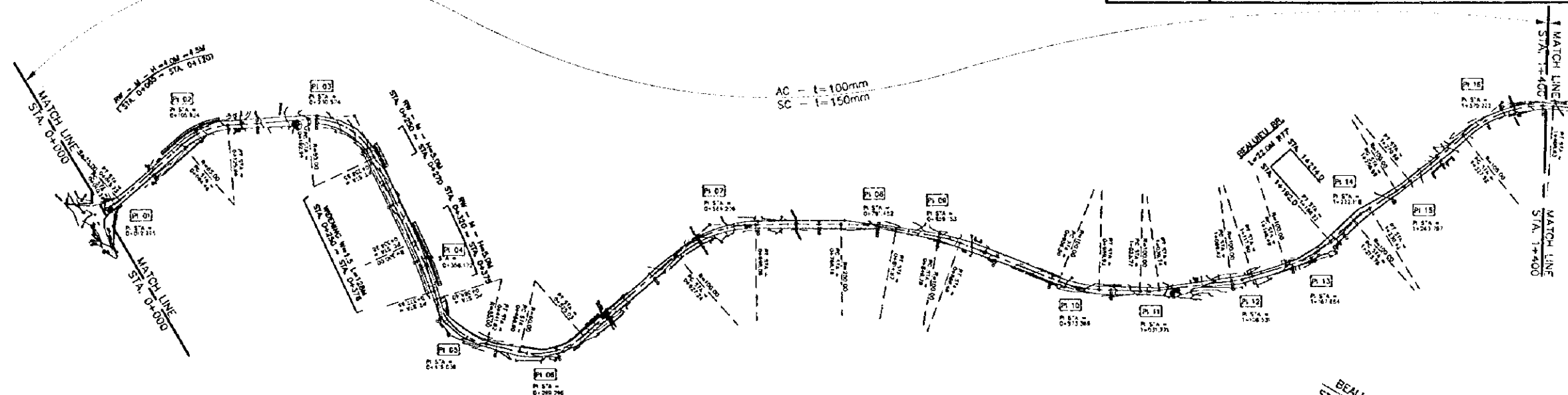


TYPICAL CROSS SECTION
ROAD No. 5 EASTERN MAIN ROAD
STA. 6+500 - STA. 9+200
& STA. 10+200 - STA. 16+000

3.PLAN AND PROFILE

SCALE:
HOR. 1:2000
VER. 1:200

DRAWING NO.
HG-1

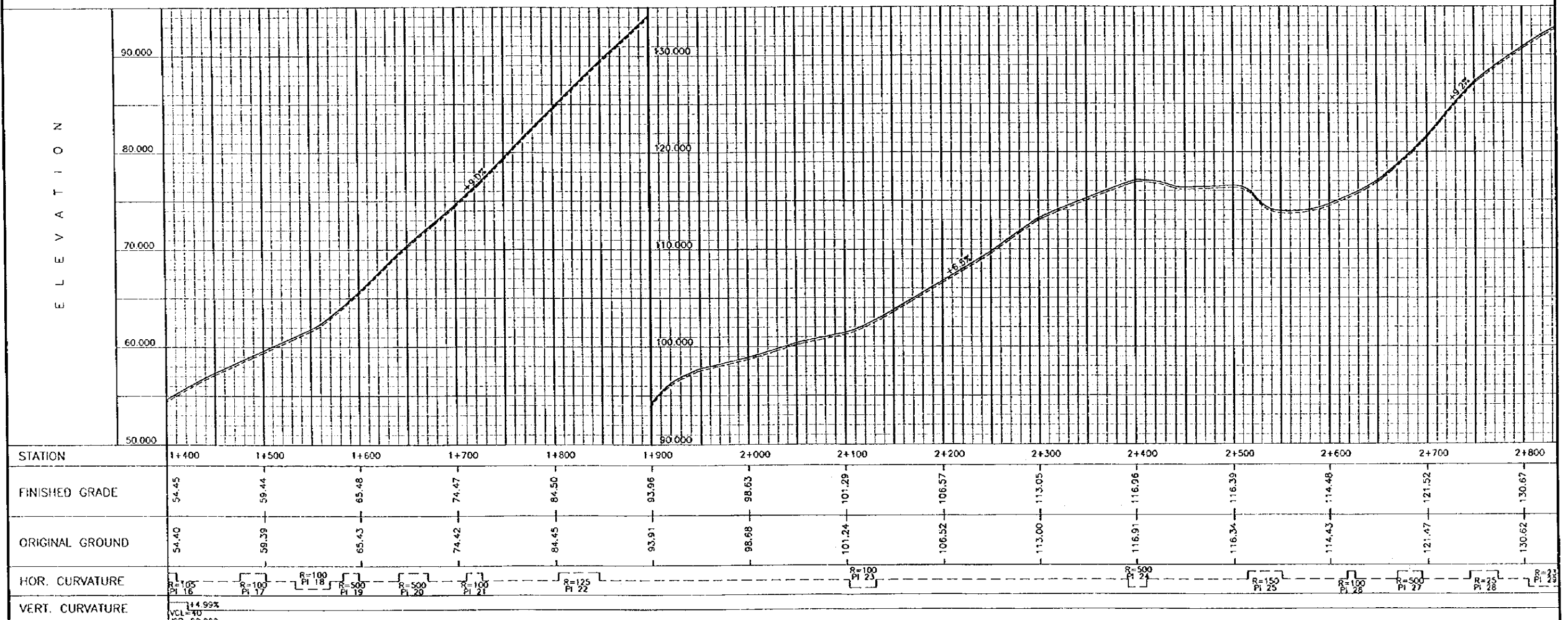
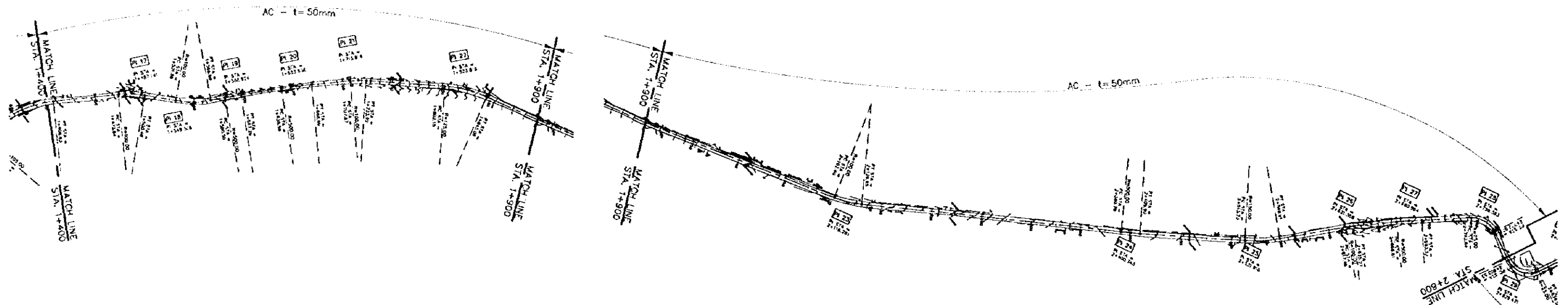


FEASIBILITY STUDY ON ROAD IMPROVEMENT AND REHABILITATION IN GRENADA

SCALE:
HOR. 1:2000
VER. 1:200

ROAD No. 1 - GRAND ETANG
PLAN & PROFILE
STA. 1+400 - STA. 2+800

DRAWING NO.
HG-2



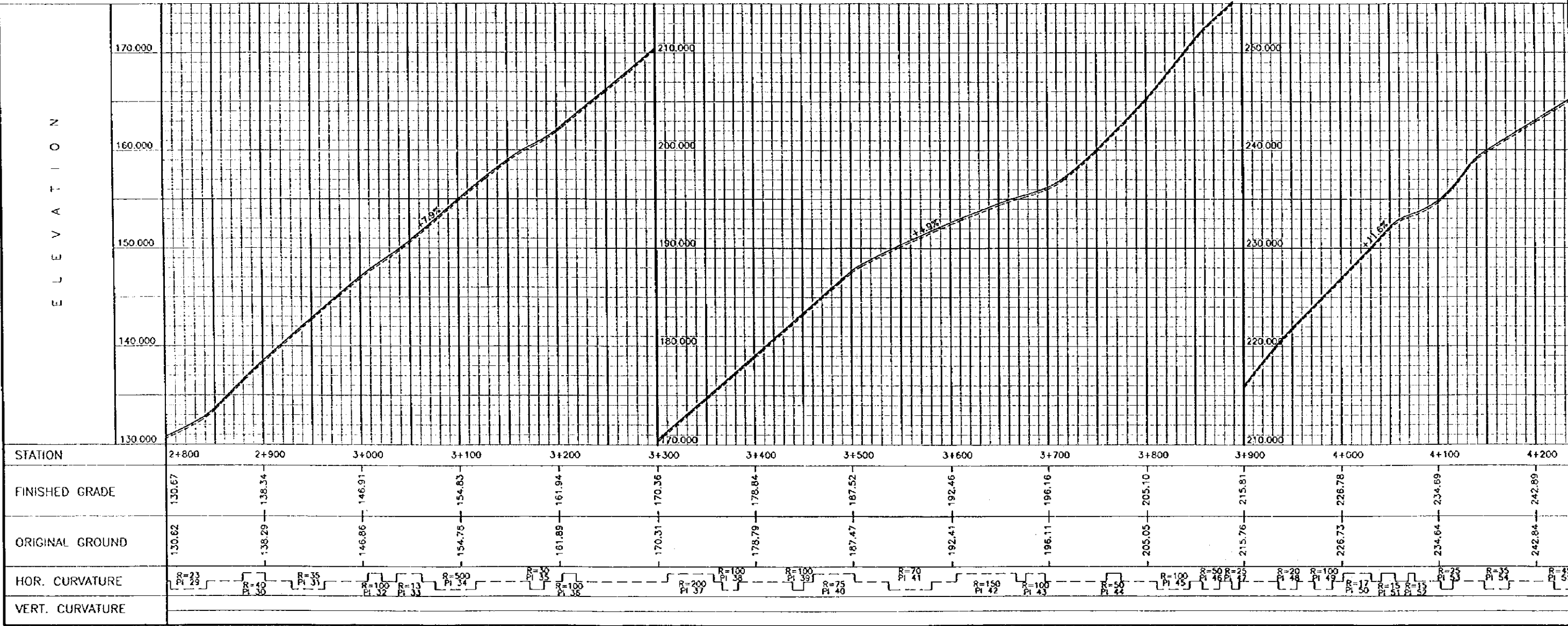
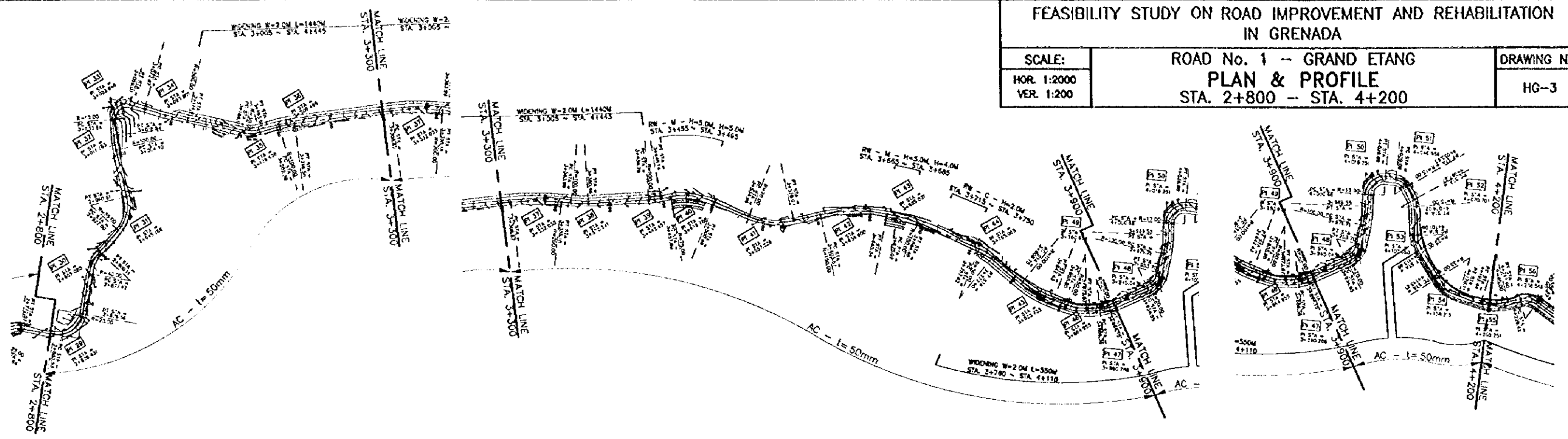
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FEASIBILITY STUDY ON ROAD IMPROVEMENT AND REHABILITATION
IN GRENADA

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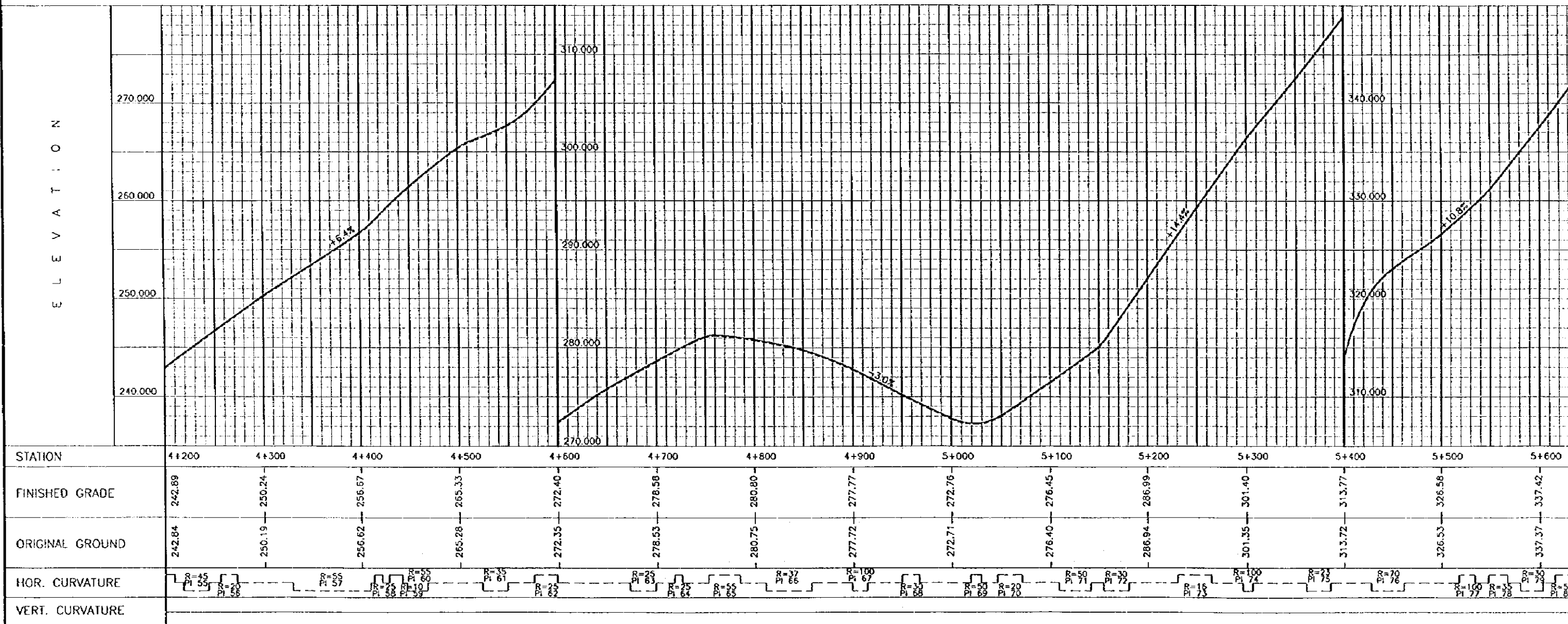
ROAD No. 1 -- GRAND ETANG
PLAN & PROFILE
STA. 2+800 -- STA. 4+200

DRAWING NO.
HG-3



SCALE:
HOR. 1:2000
VER. 1:200

DRAWING NO.
HG-4

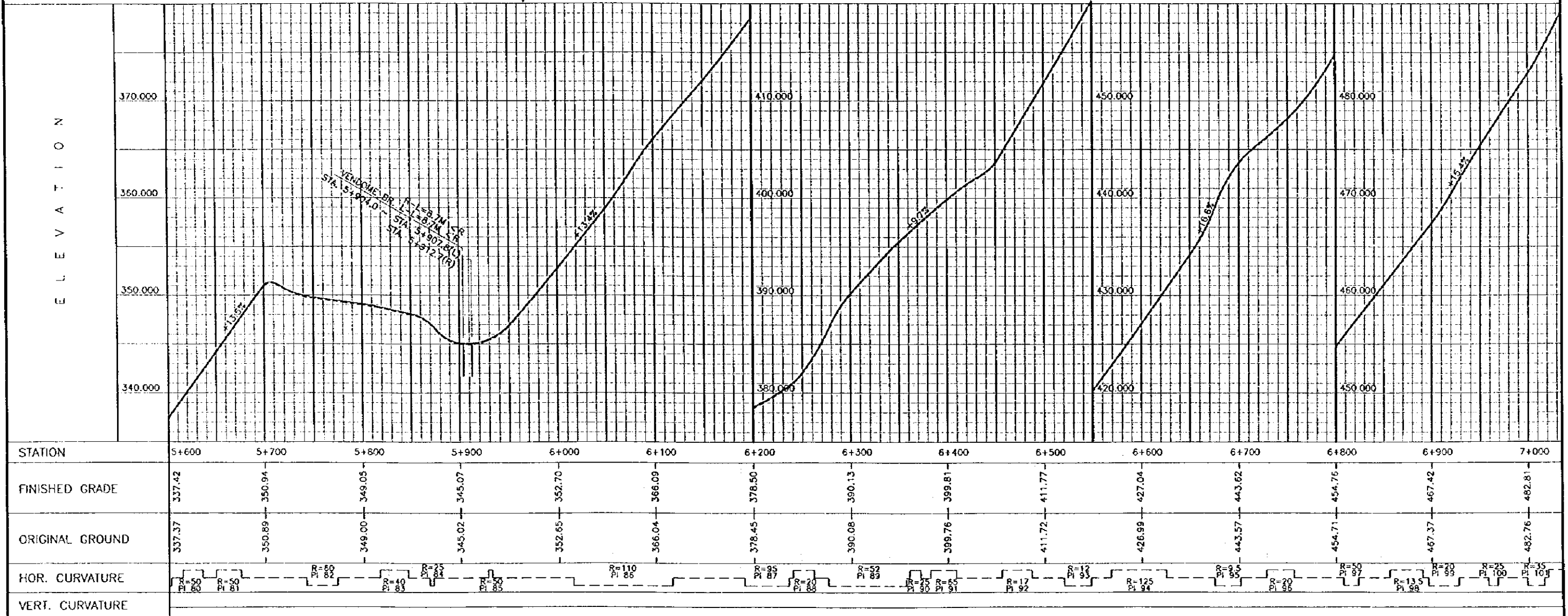
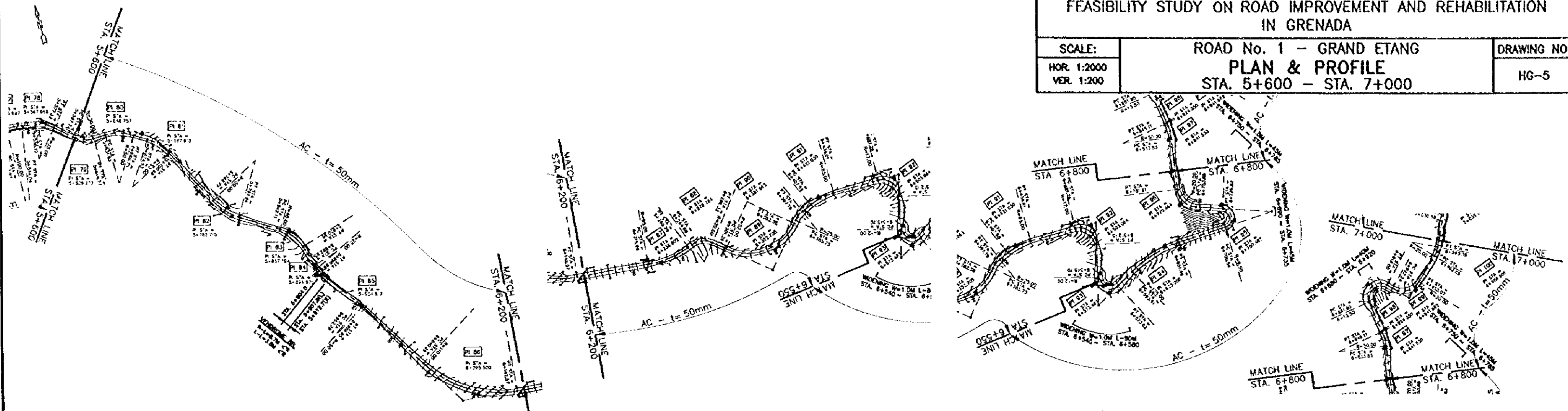


FEASIBILITY STUDY ON ROAD IMPROVEMENT AND REHABILITATION IN GRENADA

SCALE:
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VER. 1:200

ROAD No. 1 - GRAND ETANG
PLAN & PROFILE
STA. 5+600 - STA. 7+000

DRAWING NO.
HG-5

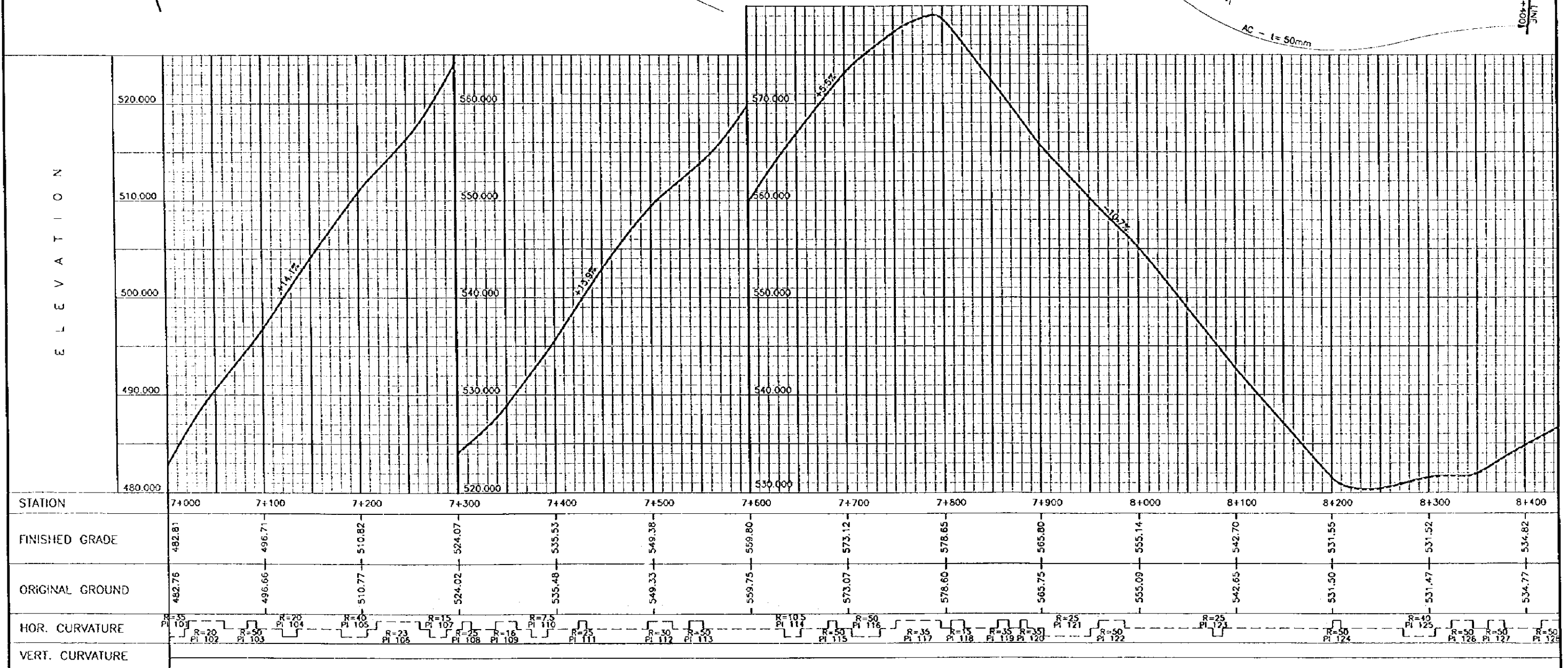
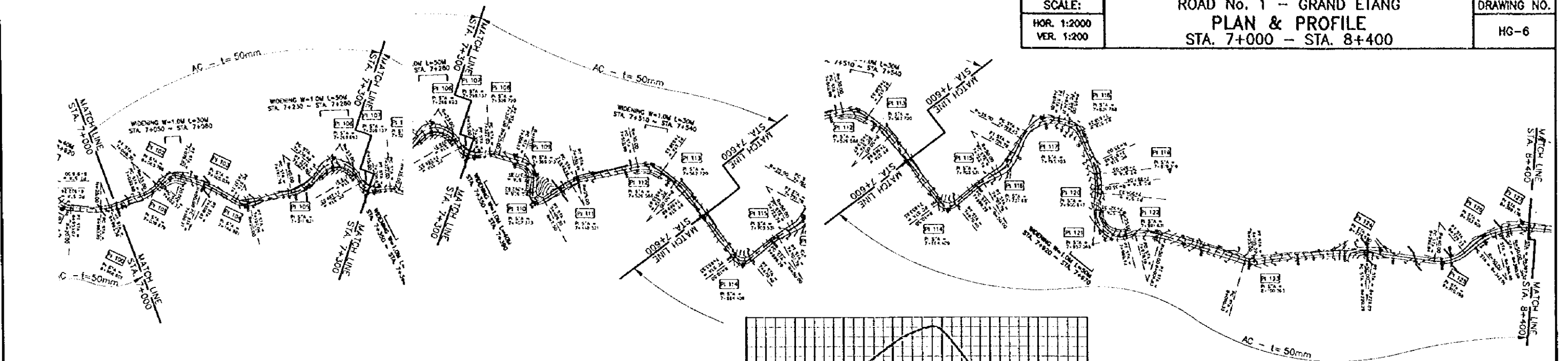


FEASIBILITY STUDY ON ROAD IMPROVEMENT AND REHABILITATION IN GRENADA

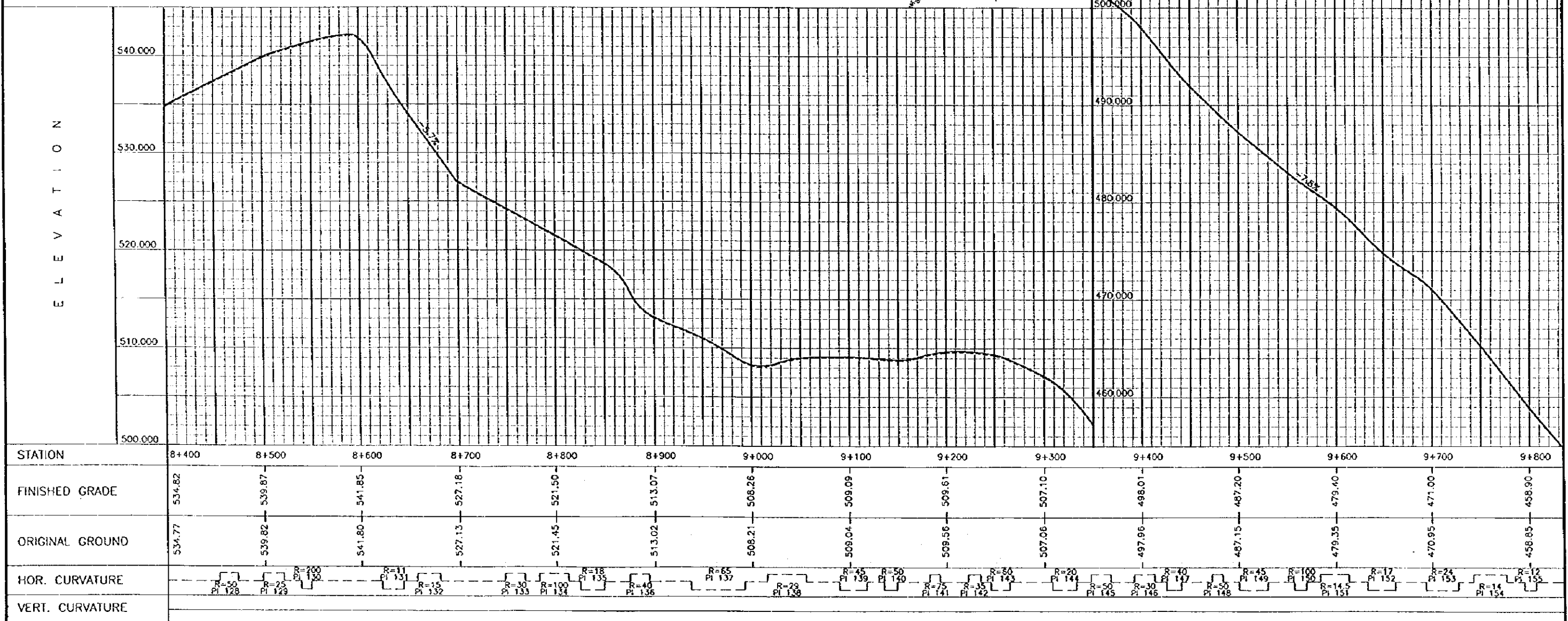
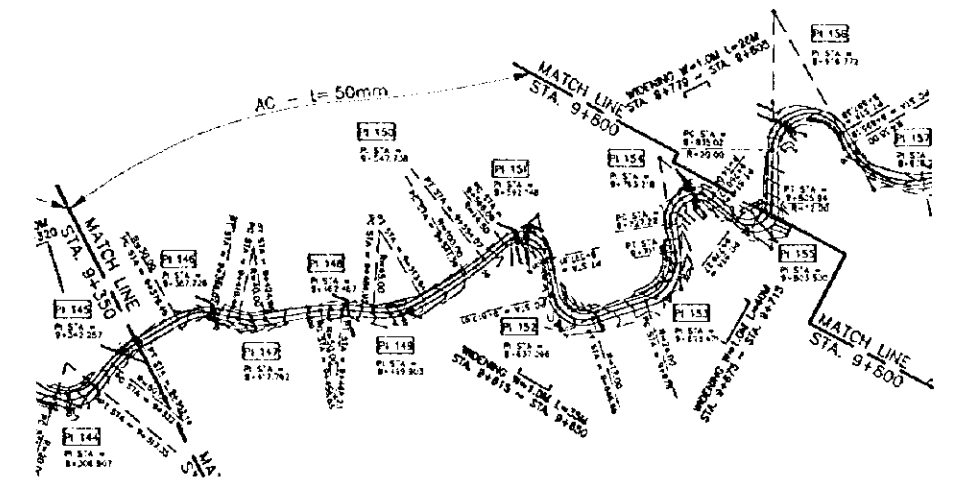
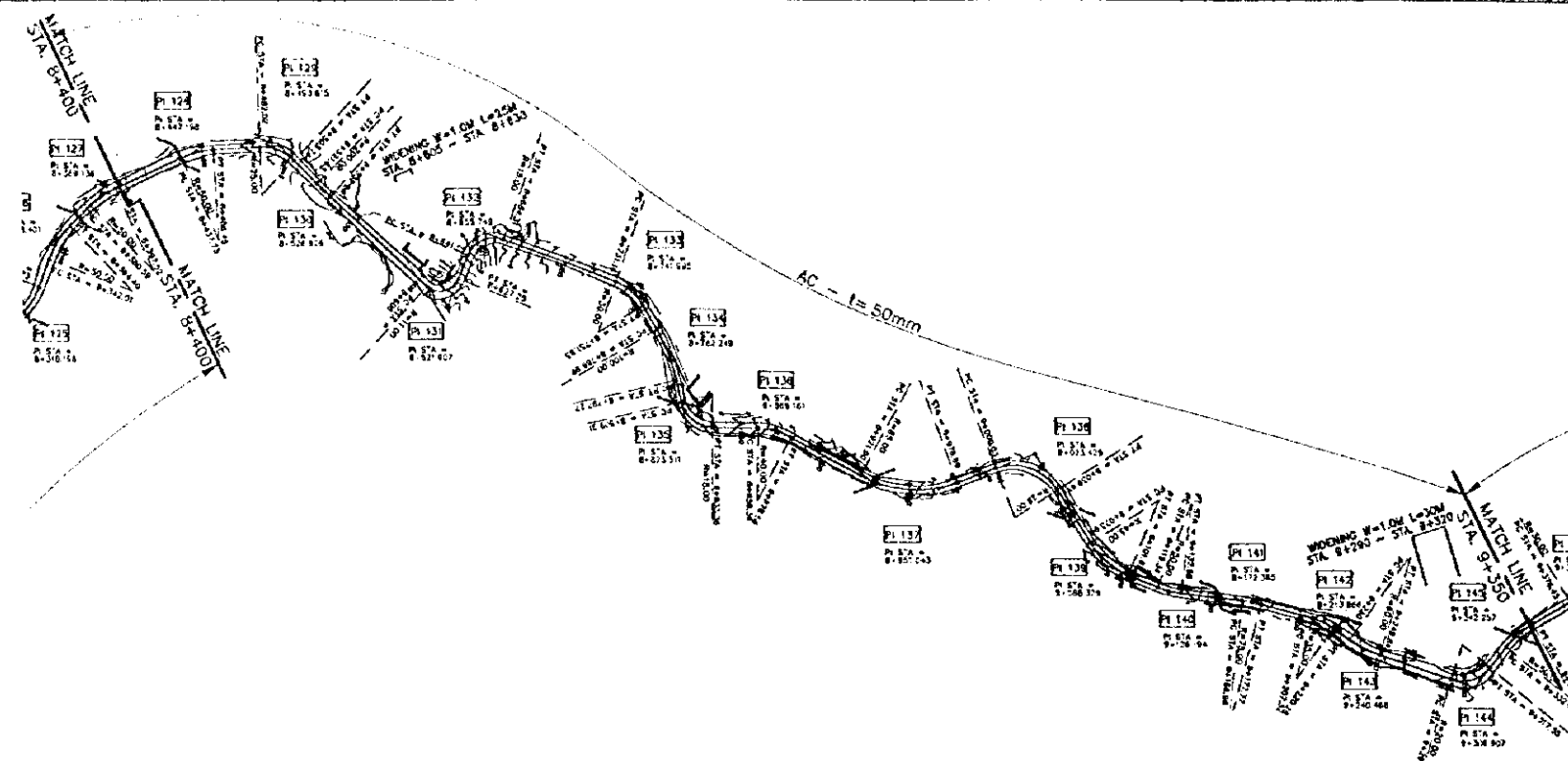
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ROAD No. 1 - GRAND ETANG
PLAN & PROFILE
STA. 7+000 - STA. 8+400

DRAWING NO.
HG-6

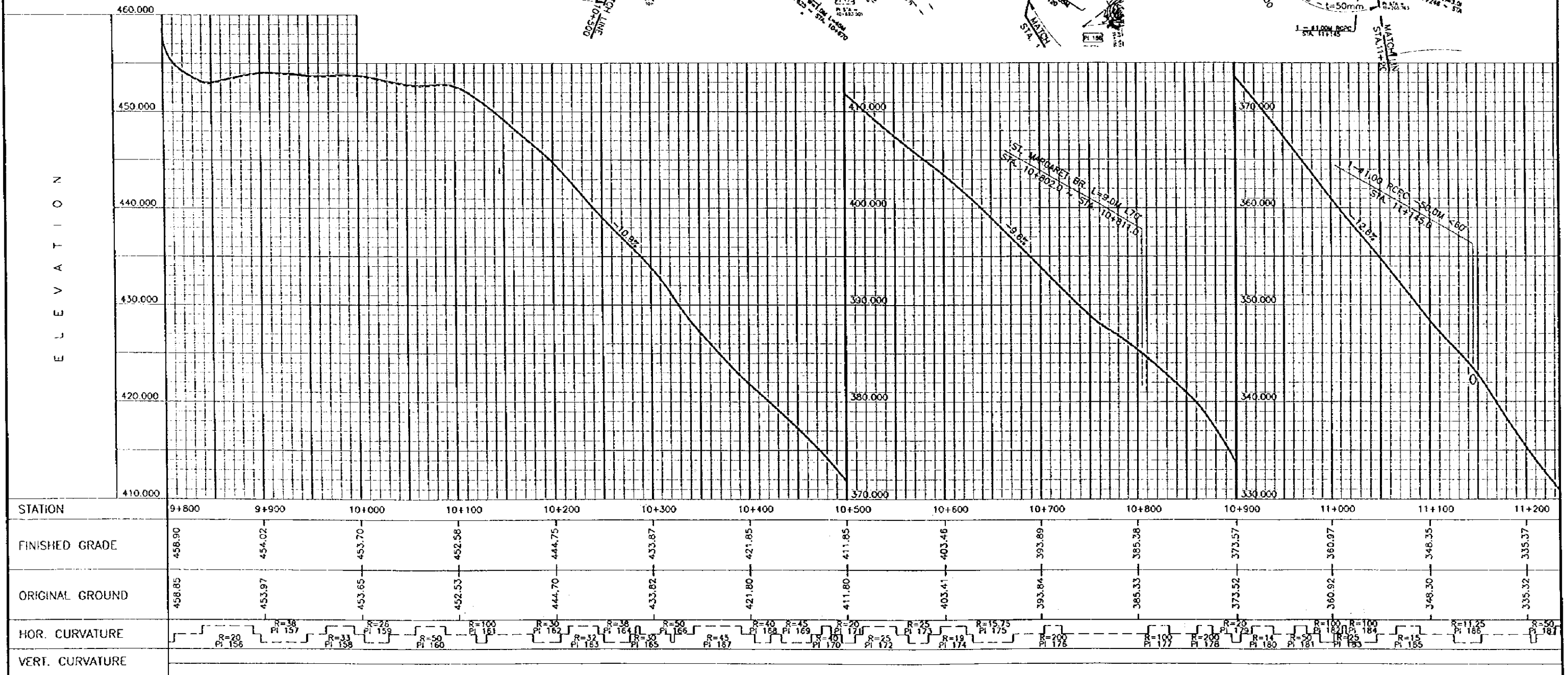
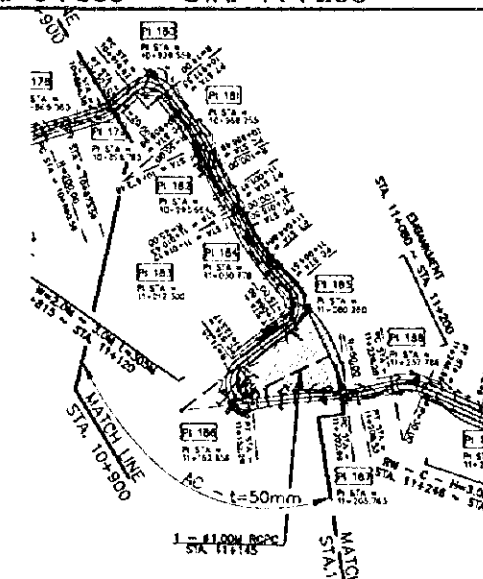
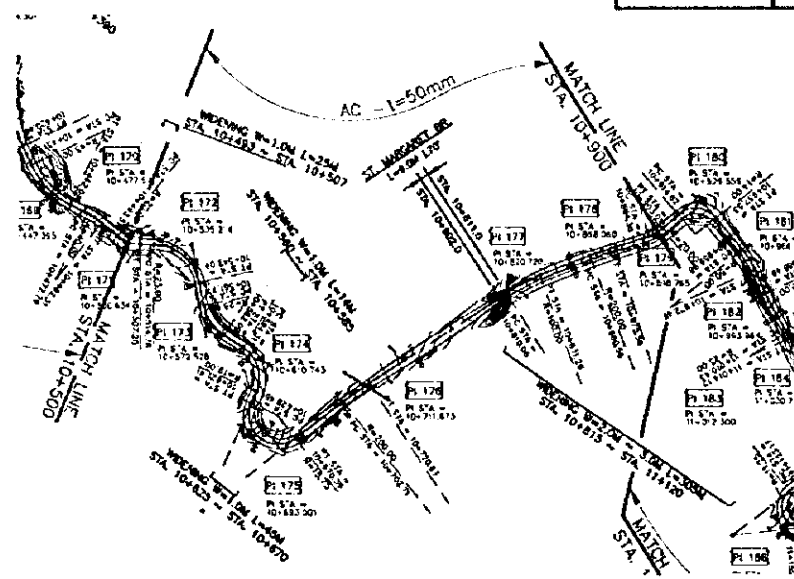


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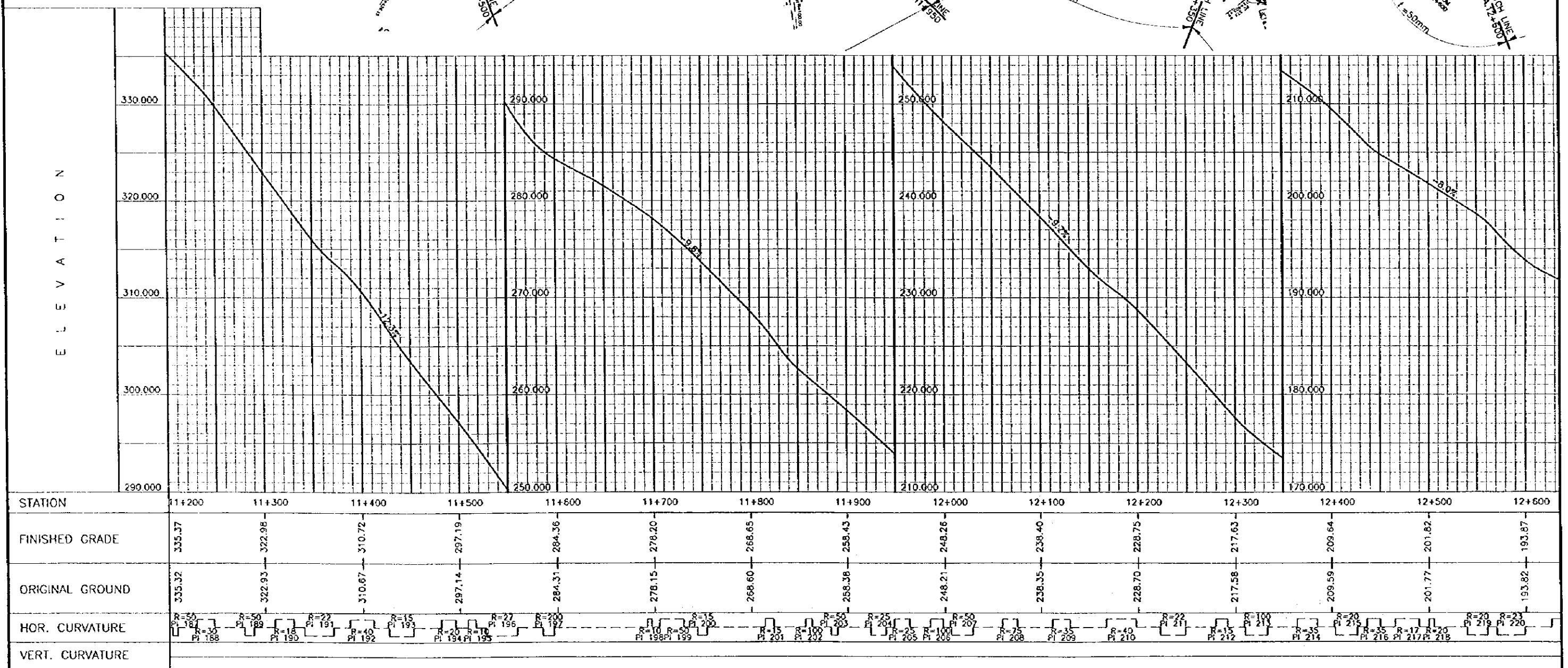
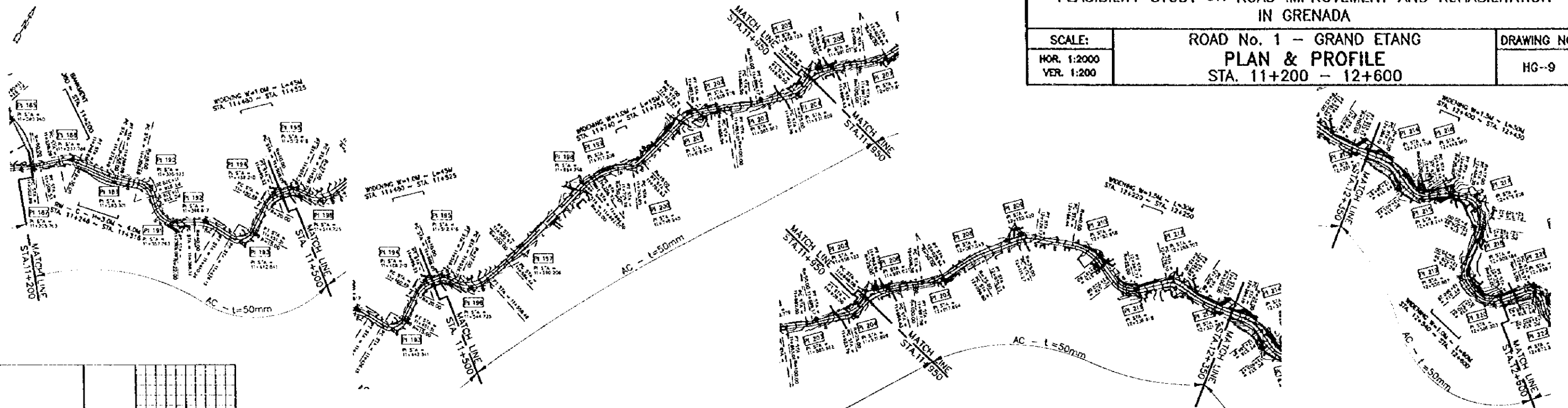


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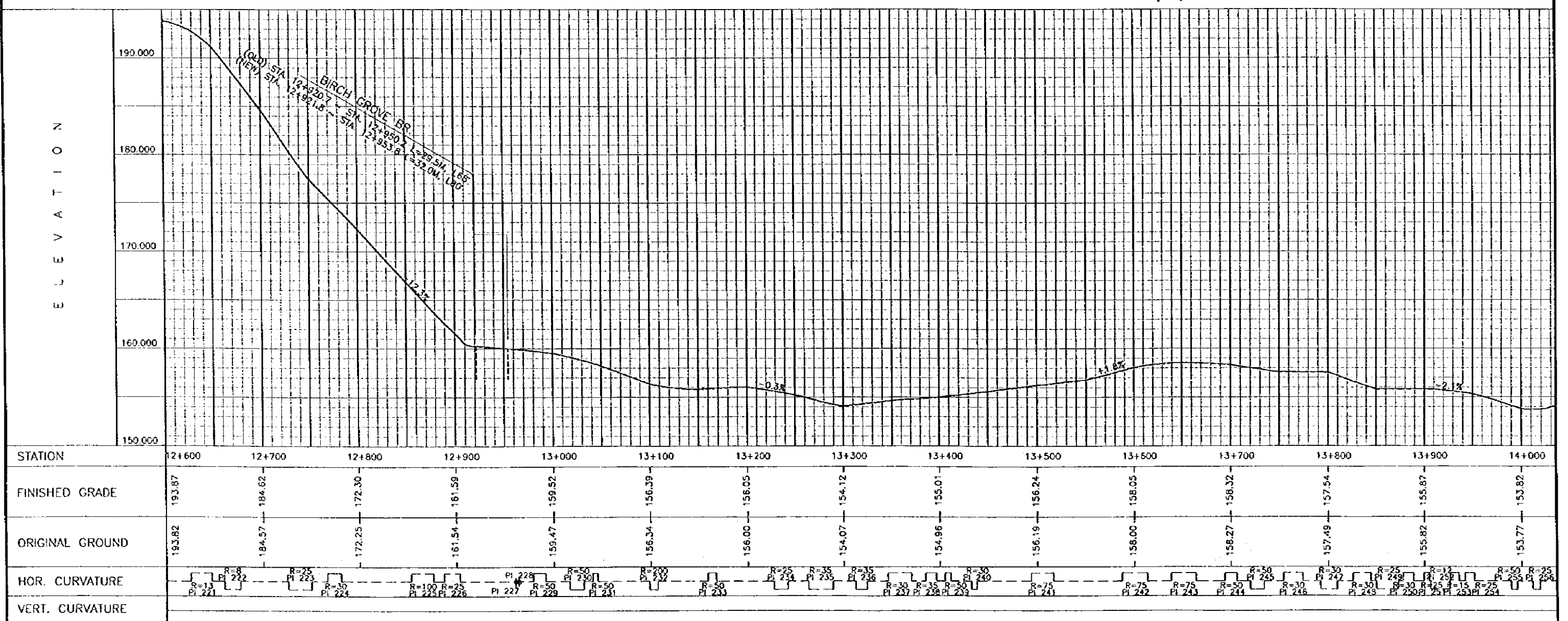
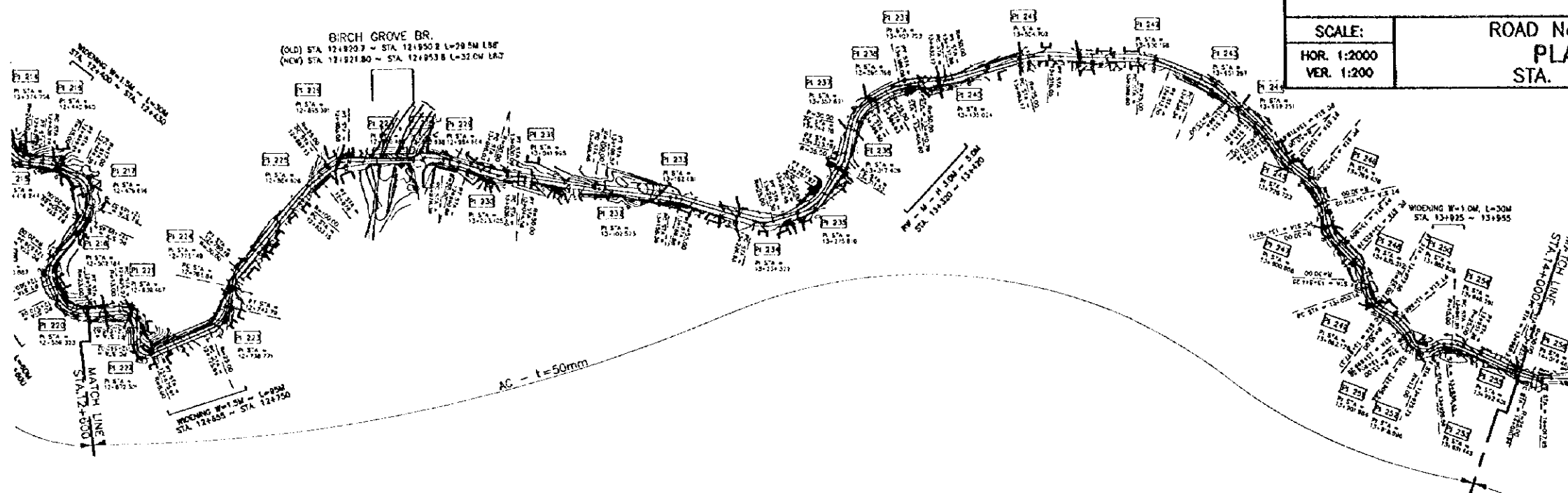
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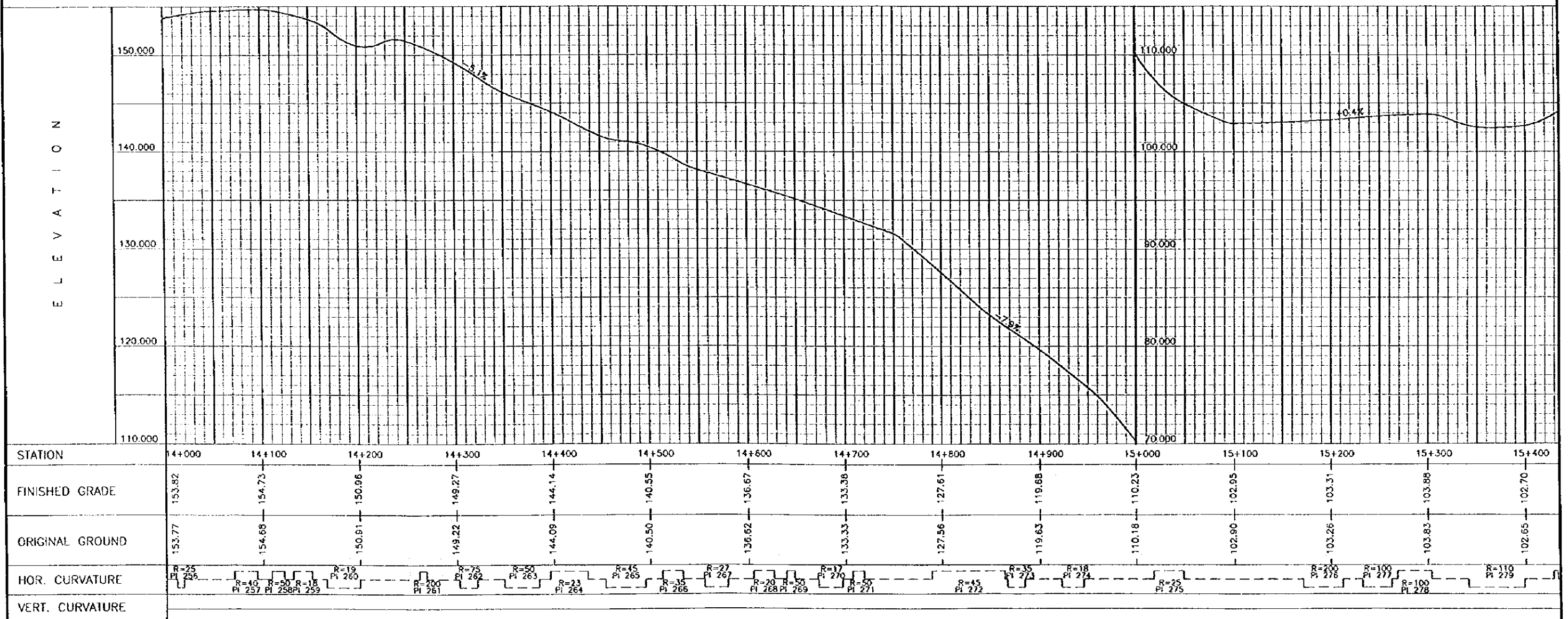
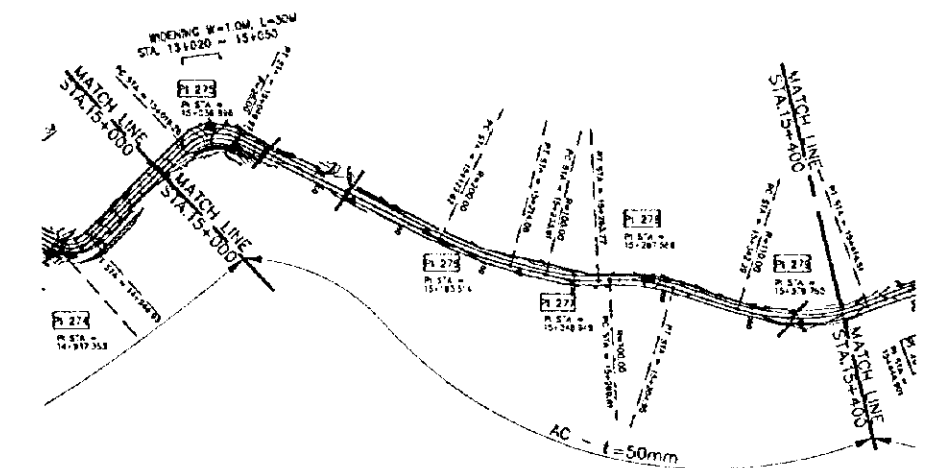
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HOR. 1:2000	PLAN & PROFILE	HC-9
VER. 1:200	STA. 11+200 - 12+600	



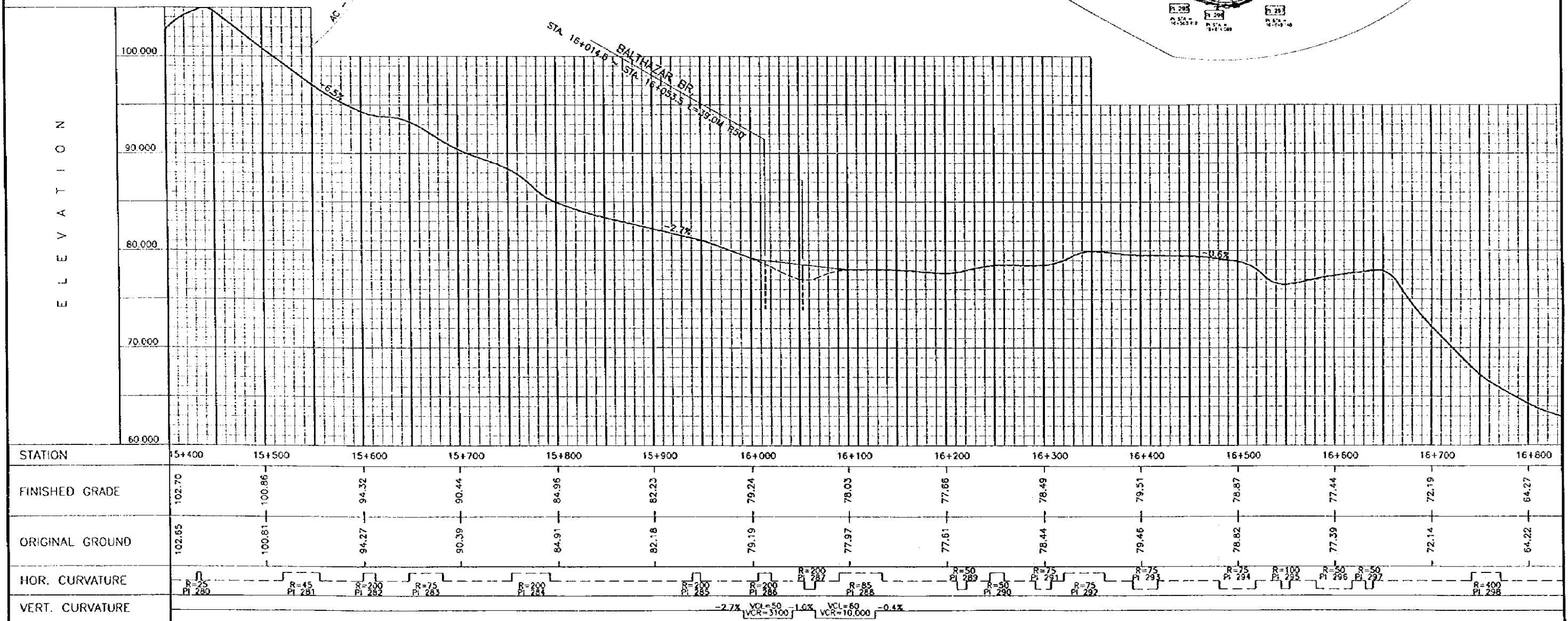
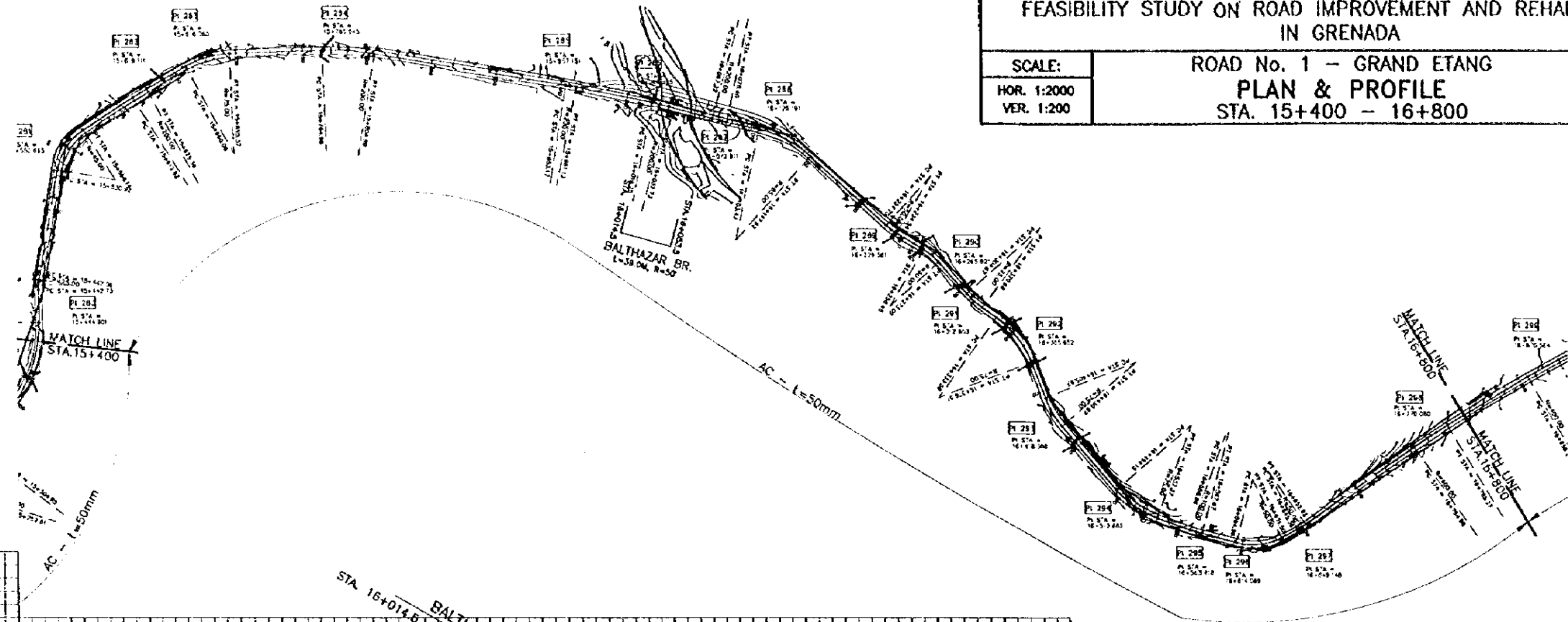
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VER. 1:200	STA. 12+600 - 14+000	



SCALE:	ROAD No. 1 - GRAND ETANG	DRAWING NO.
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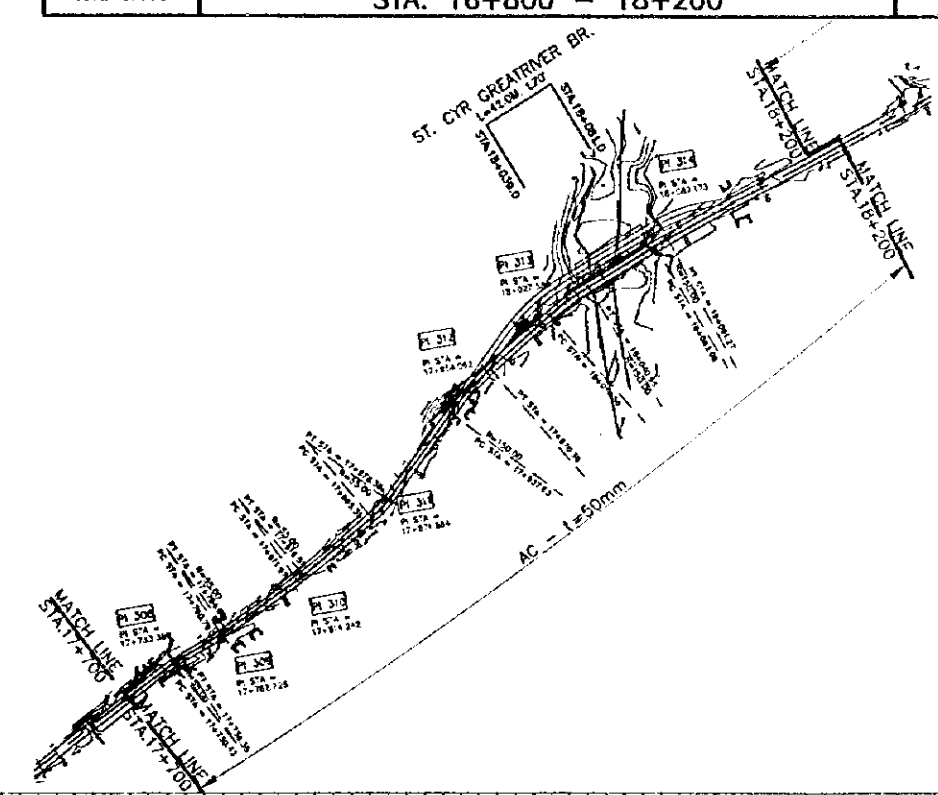
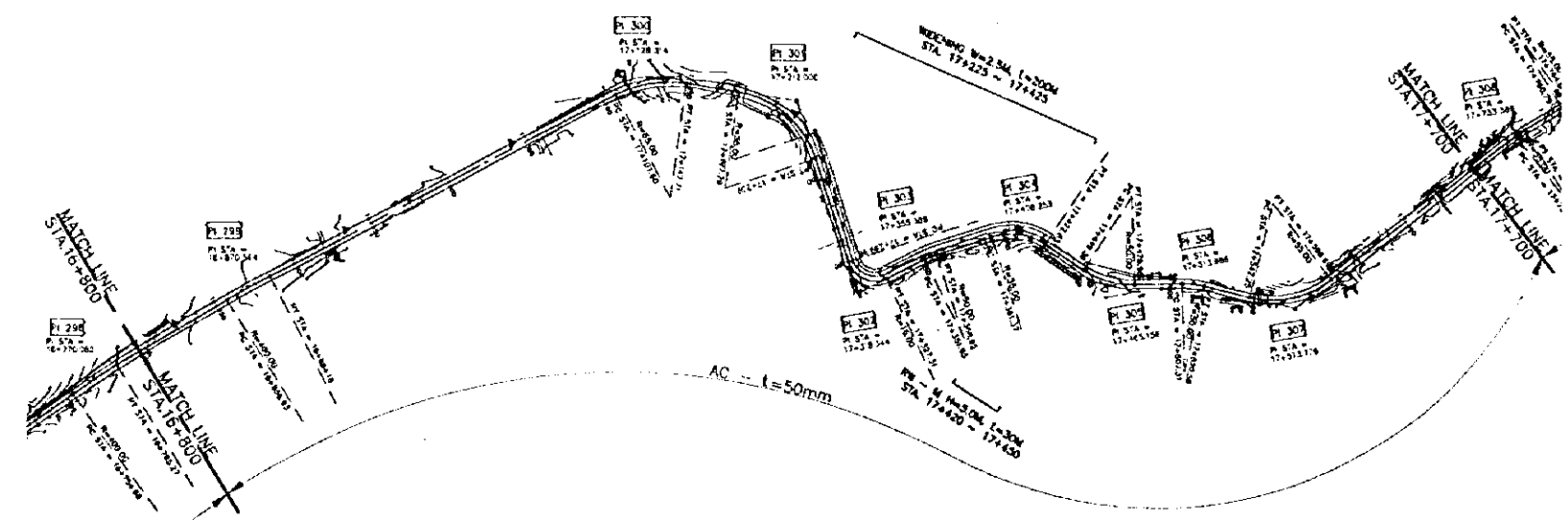


SCALE:	ROAD No. 1 - GRAND ETANG PLAN & PROFILE STA. 15+400 - 16+800	DRAWING NO.
HOR. 1:2000 VER. 1:200		HG-12

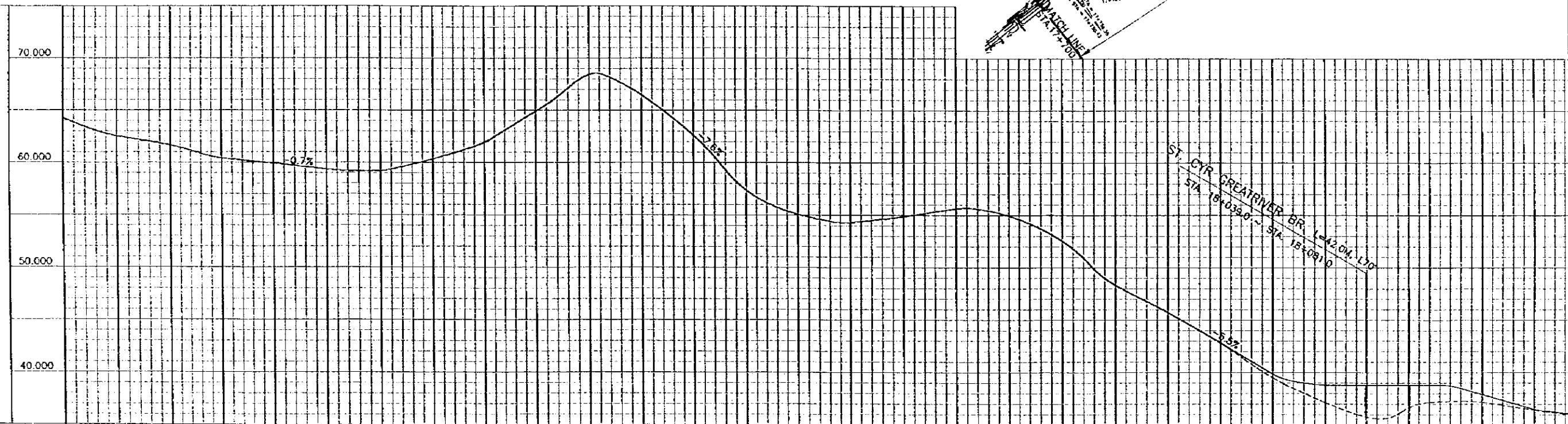


FEASIBILITY STUDY ON ROAD IMPROVEMENT AND REHABILITATION IN GRENADA

SCALE:	ROAD No. 1 - GRAND ETANG	DRAWING NO.
HOR. 1:2000	PLAN & PROFILE	HG-13
VER. 1:200	STA. 16+800 - 18+200	

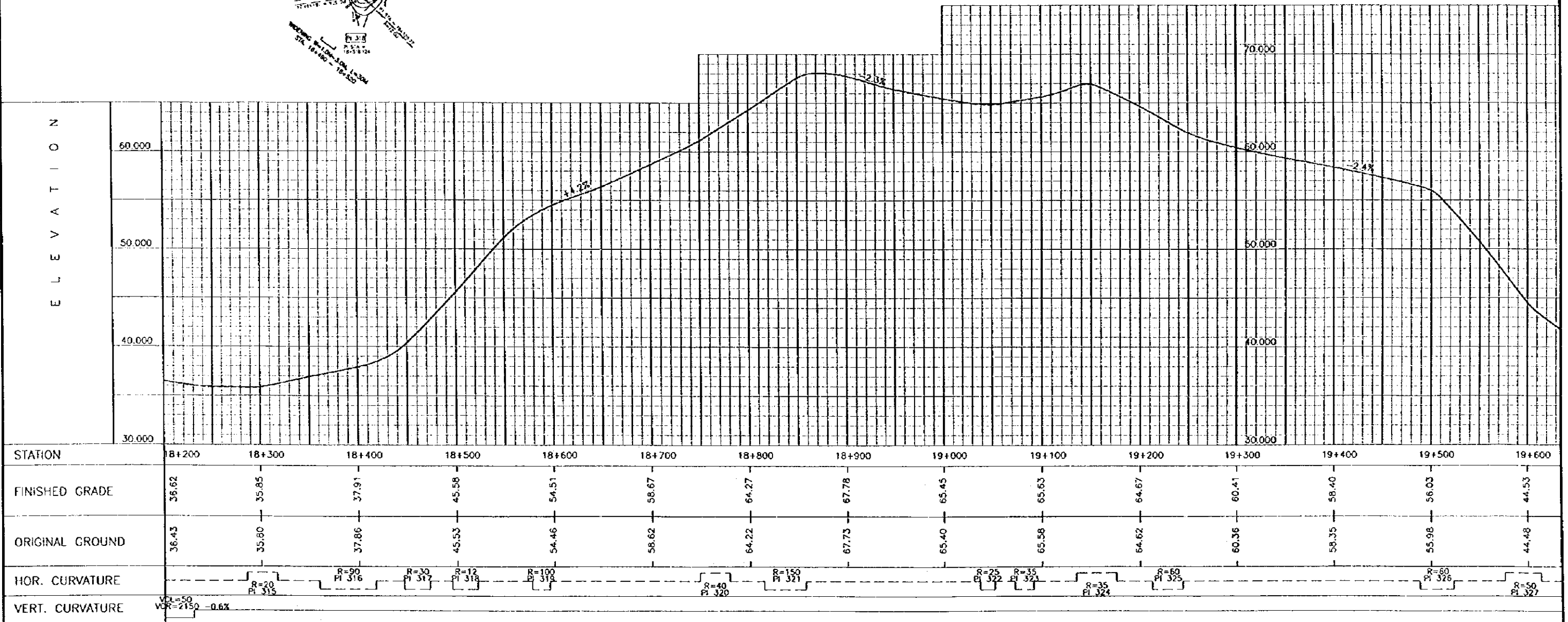


ELEVATION



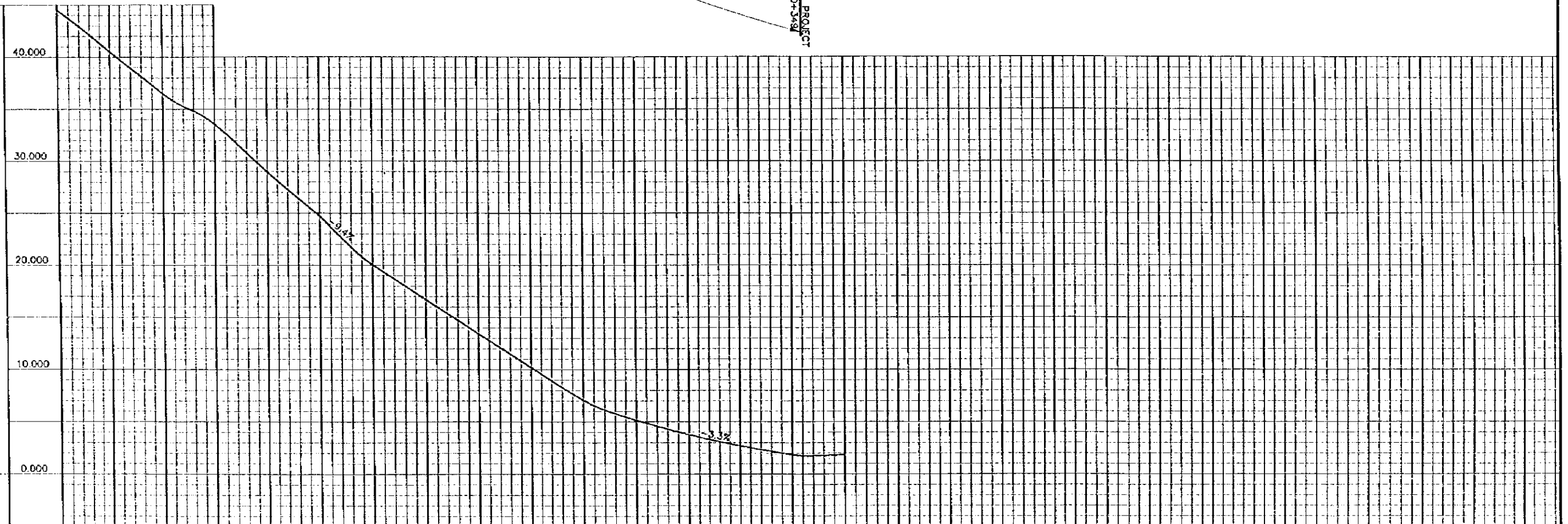
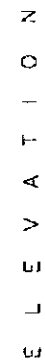
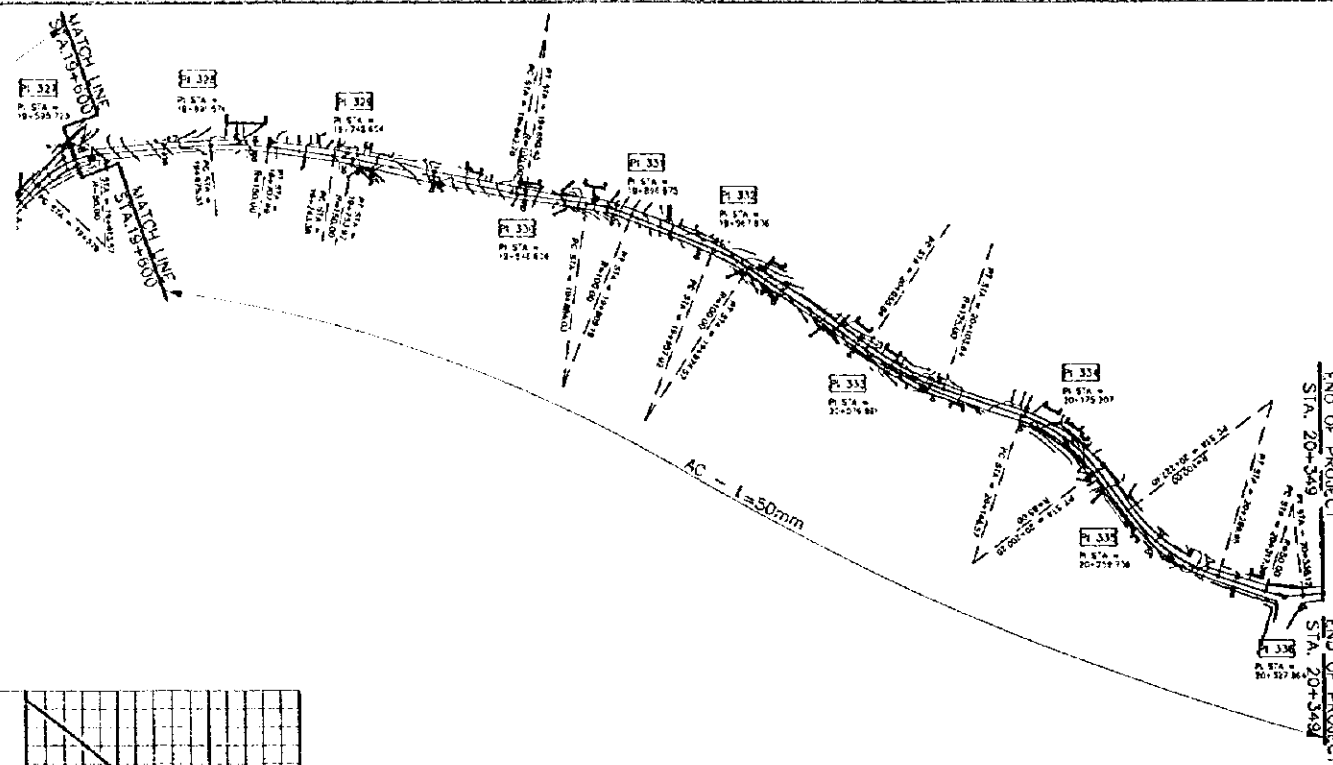
STATION	16+800	16+900	17+000	17+100	17+200	17+300	17+400	17+500	17+600	17+700	17+800	17+900	18+000	18+100	18+200
FINISHED GRADE	64.27	61.67	59.93	59.23	61.95	68.45	62.64	55.07	54.87	54.96	48.33	42.83	38.78	38.78	36.62
ORIGINAL GROUND	64.22	61.62	59.88	59.18	61.90	68.40	62.59	55.02	54.82	54.91	48.28	42.78	37.14	37.18	36.43
HOR. CURVATURE	R=400 PI 299		R=65 PI 300		R=55 PI 301	R=16 PI 302	R=50 PI 303	R=35 PI 304	R=50 PI 305	R=55 PI 306	R=55 PI 307	R=55 PI 308	R=55 PI 309	R=55 PI 310	R=55 PI 311
VERT. CURVATURE	-5.5% VCL=60 VCR=1100												0%	-2.9% VCL=60 VCR=2050	VCL=50 VCR=2150

SCALE:	ROAD No. 1 -- GRAND ETANG	DRAWING NO.
HOR. 1:2000 VER. 1:200	PLAN & PROFILE STA. 18+200 -- STA.19+600	HG-14



SCALE:
HOR. 1:2000
VER. 1:200

DRAWING NO.
HG-15



STATION	9+600	9+700	9+800	9+900	20+000	20+100	20+200	20+300	20+400	20+500	20+600	20+700	20+800	20+900	21+000
FINISHED GRADE	44.53	36.54	28.97	20.07	13.42	7.07	3.77	1.86							
ORIGINAL GROUND	44.48	36.49	28.92	20.02	13.37	7.02	3.72	1.81							
HOR. CURVATURE		R=150 PI 328	R=150 PI 329	R=100 PI 330	R=100 PI 331	R=100 PI 332	R=173 PI 333	R=85 PI 334	R=109 PI 335	R=50 PI 336	EOP				
VERT. CURVATURE										FOP					

SCALE:	ROAD No. 1 - GRAND ETANG	DRAWING NO.
HOR. 1:2000	PLAN & PROFILE	HC-18
VER. 1:200	STA. 0+000 - STA. -1-400	

