

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS & HIGHWAYS

Feasibility Study
on
The Rural Road Network Development Project

FINAL REPORT (Volume 18)

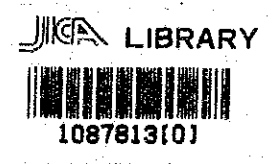
DRAWINGS FOR ROAD PROJECTS
IN
THE PROVINCE OF RIZAL

OCTOBER, 1990

JAPAN INTERNATIONAL COOPERATION AGENCY

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DRAWINGS FOR ROAD PROJECTS
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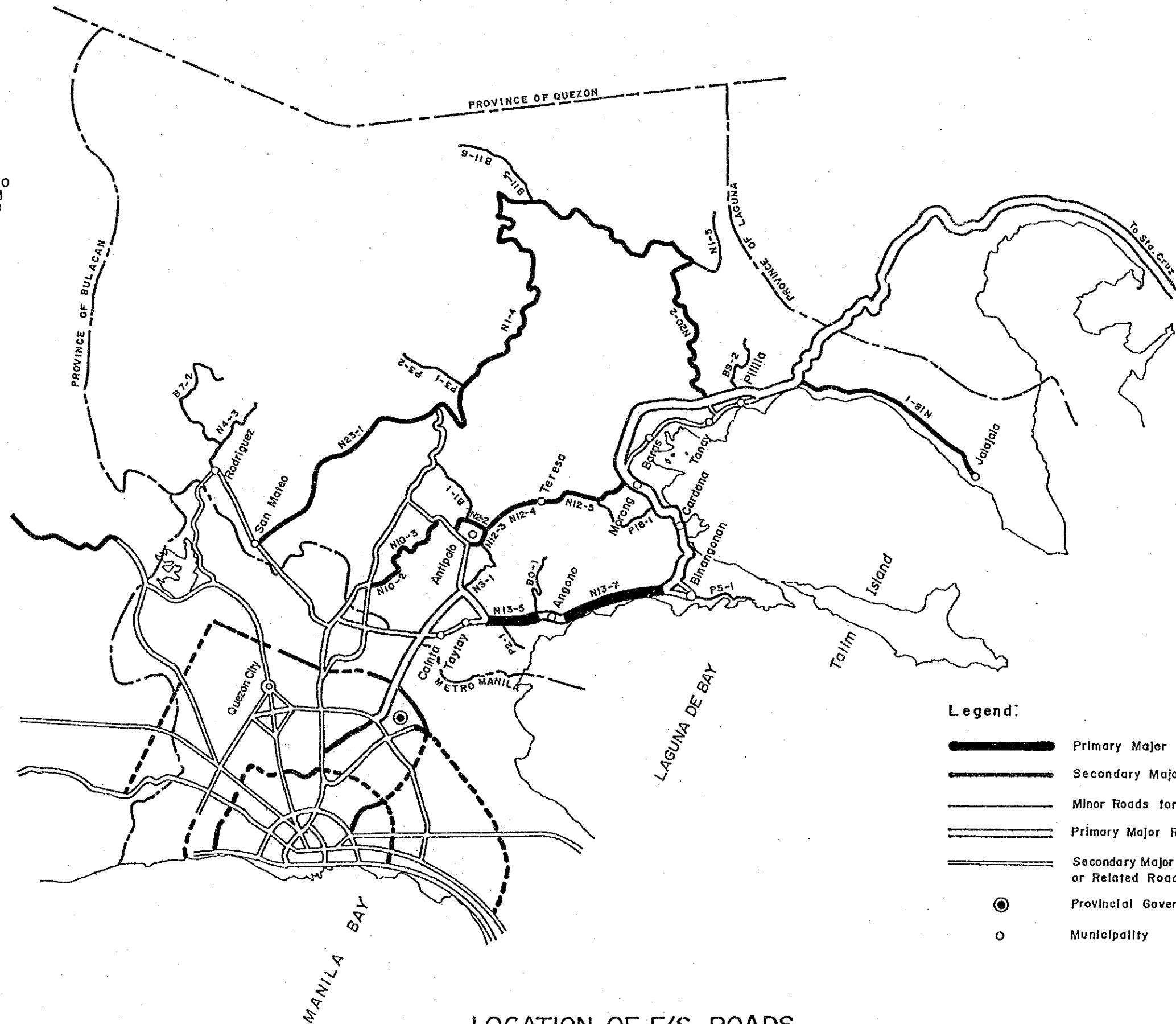
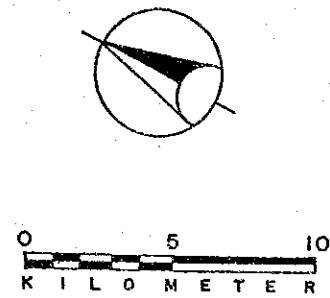
THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT
IN THE REPUBLIC OF THE PHILIPPINES

LOCATION MAP

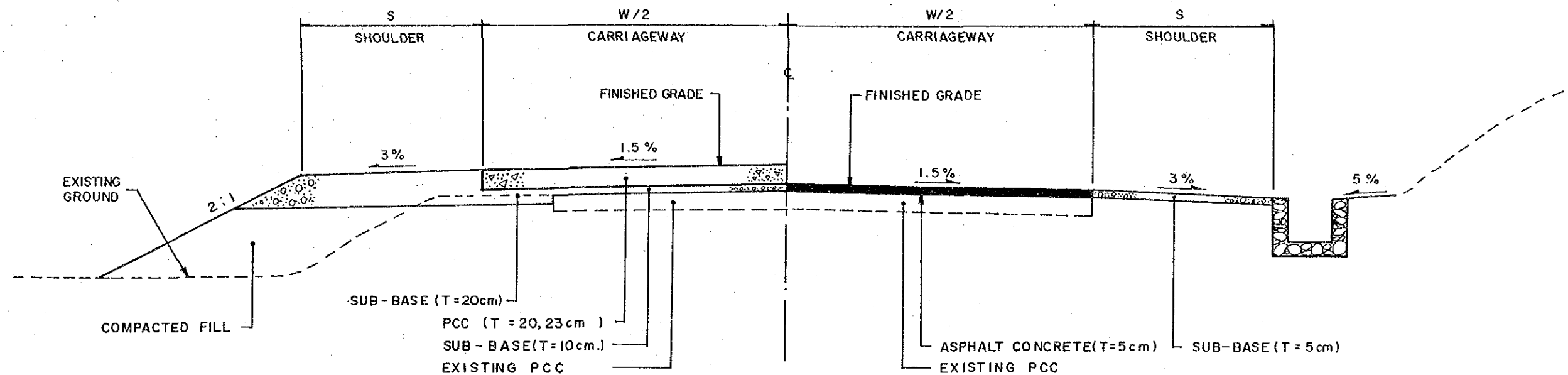
Scale

Drawing No.

1



LOCATION OF F/S ROADS

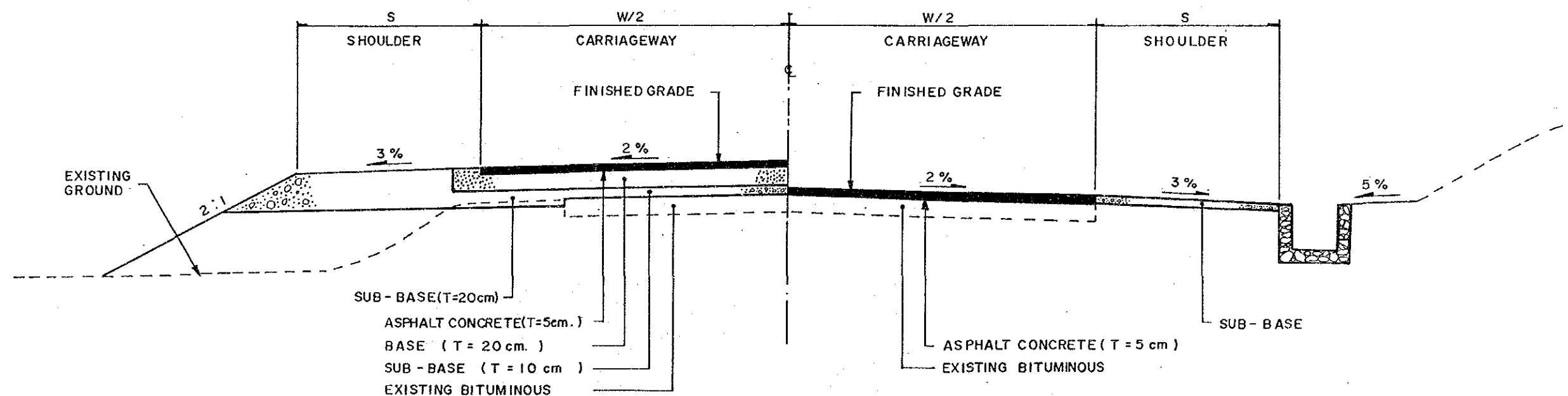


TYPE 1-1

PROPOSED PAVEMENT : PCC
EXISTING PAVEMENT : PCC (BAD / VERY BAD)

TYPE 1-2

PROPOSED PAVEMENT : ASPHALT CONCRETE OVERLAY
EXISTING PAVEMENT : PCC (BAD / VERY BAD)



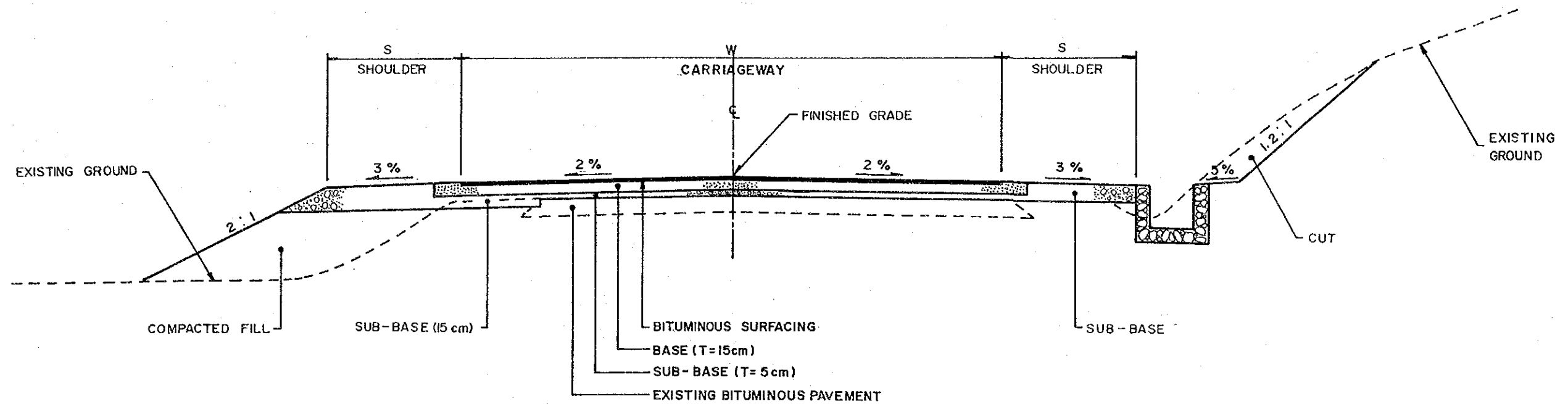
TYPE 1-3

PROPOSED PAVEMENT : ASPHALT CONCRETE
EXISTING PAVEMENT : BITUMINOUS (BAD / VERY BAD)

TYPE 1-4

PROPOSED PAVEMENT : ASPHALT CONCRETE OVERLAY
EXISTING PAVEMENT : BITUMINOUS (BAD / VERY BAD)

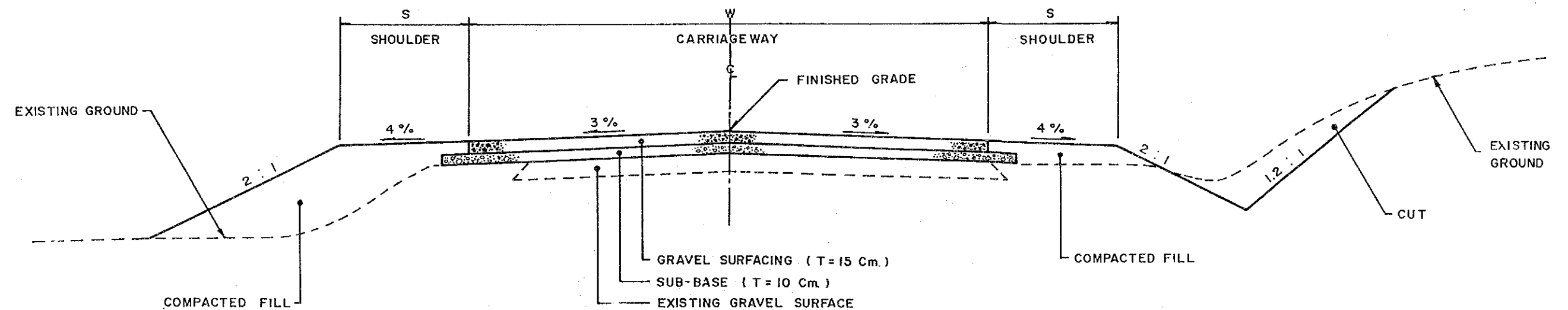
REHABILITATION (1)



TYPE I-5

PROPOSED PAVEMENT : BITUMINOUS MACADAM/DOUBLE BITUMINOUS SURFACE TREATMENT

EXISTING PAVEMENT : BITUMINOUS (BAD / VERY BAD)

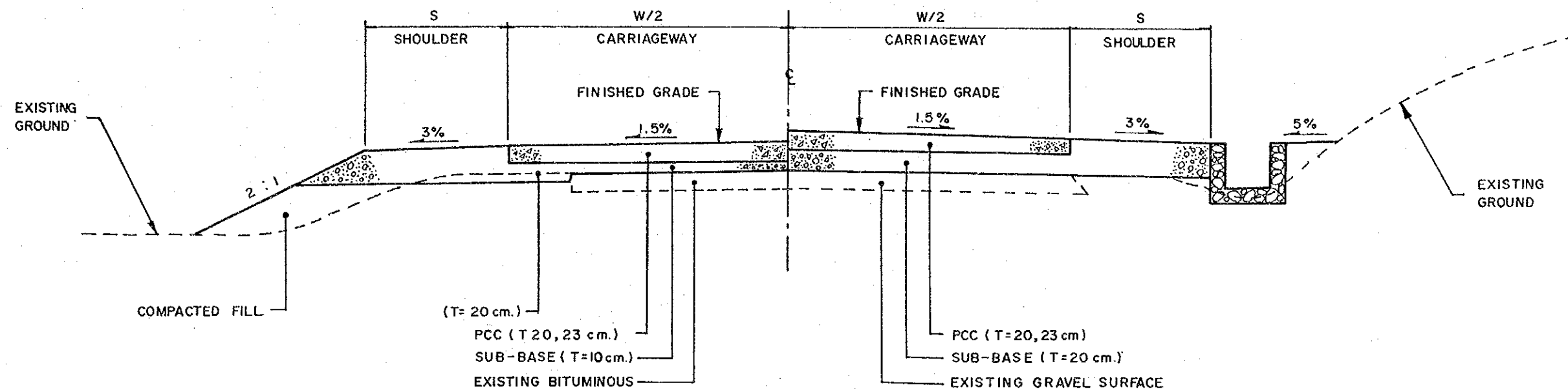


TYPE I-6

PROPOSED PAVEMENT : GRAVEL SURFACING

EXISTING PAVEMENT : GRAVEL SURFACING (BAD / VERY BAD)

REHABILITATION (2)



TYPE 2-1

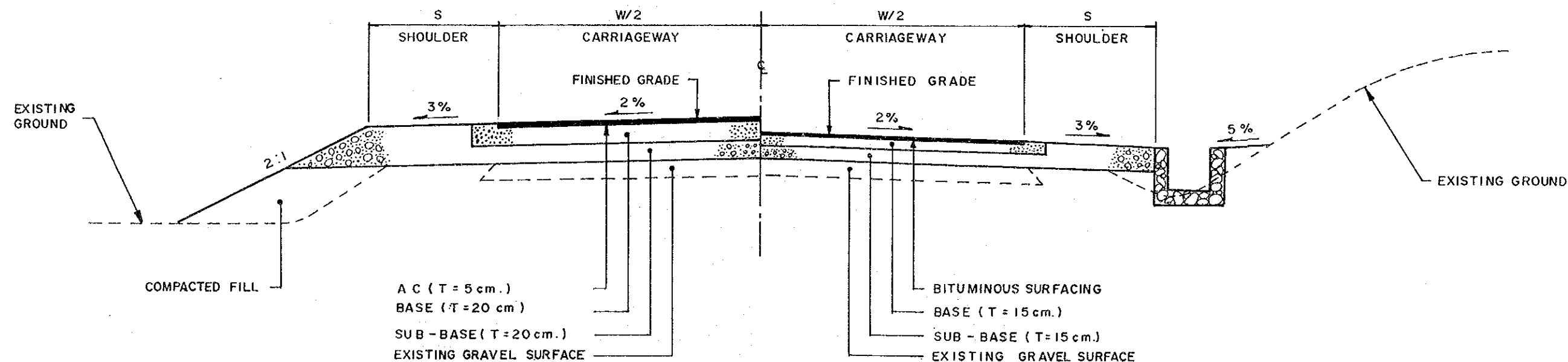
PROPOSED PAVEMENT : PCC

EXISTING PAVEMENT : BITUMINOUS (BAD/VERY BAD)

TYPE 2-2

PROPOSED PAVEMENT : PCC

EXISTING PAVEMENT : GRAVEL SURFACING (BAD/VERY BAD)



TYPE 2-3

PROPOSED PAVEMENT : ASPHALT CONCRETE

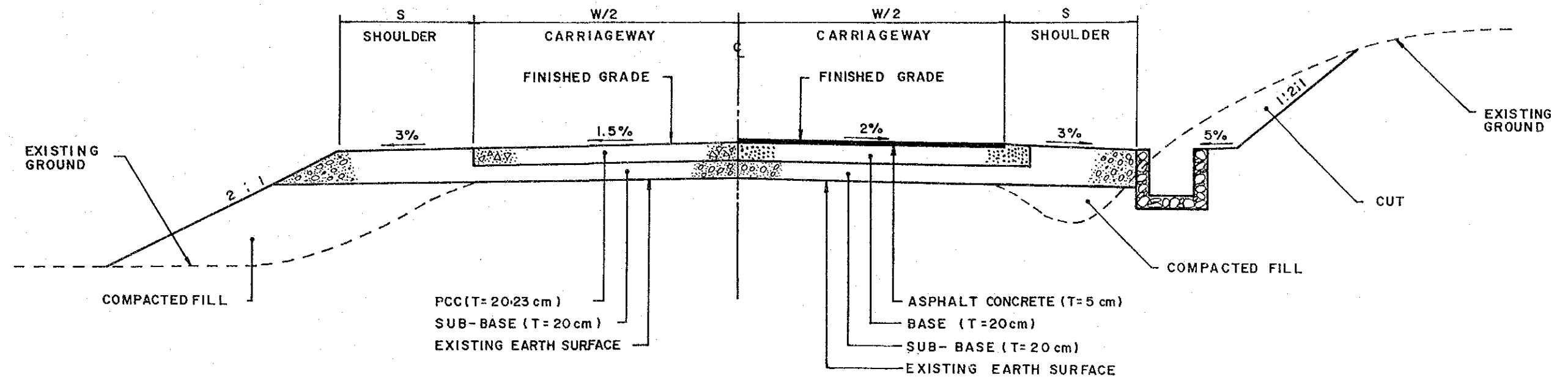
EXISTING PAVEMENT : GRAVEL SURFACING
(BAD/VERY BAD)

TYPE 2-4

PROPOSED PAVEMENT : BITUMINOUS MACADAM / DOUBLE BITUMINOUS
SURFACE TREATMENT

EXISTING PAVEMENT : GRAVEL SURFACING (BAD/VERY BAD)

IMPROVEMENT-1 (I)

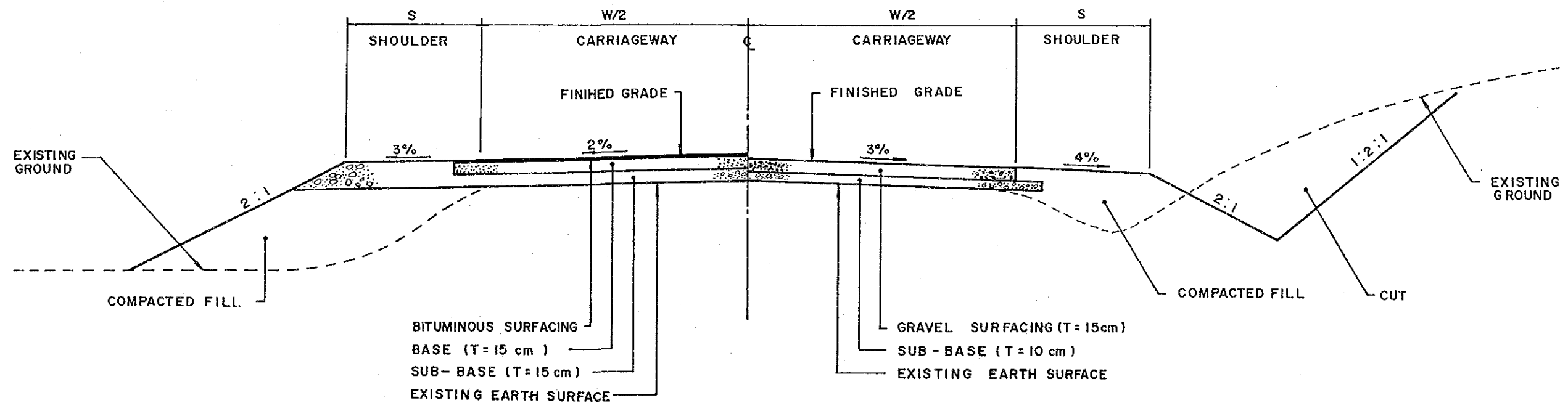


TYPE 2-5

PROPOSED PAVEMENT : PCC
EXISTING PAVEMENT : EARTH SURFACE

TYPE 2-6

PROPOSED PAVEMENT : ASPHALT CONCRETE
EXISTING PAVEMENT : EARTH SURFACE

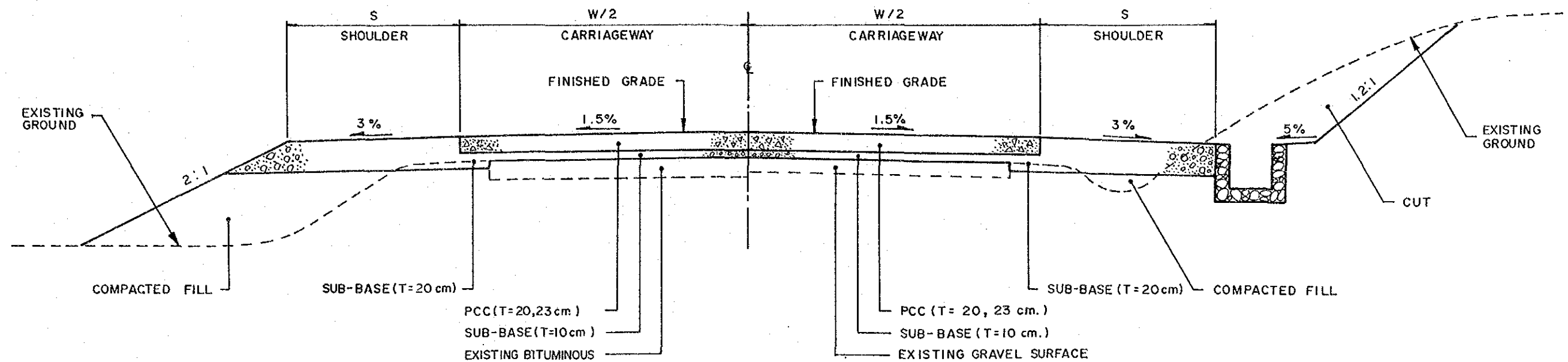


TYPE 2-7

PROPOSED PAVEMENT : BITUMINOUS MACADAM /
DOUBLE BITUMINOUS
SURFACE TREATMENT
EXISTING PAVEMENT : EARTH SURFACE

TYPE 2-8

PROPOSED PAVEMENT : GRAVEL SURFACING
EXISTING PAVEMENT : EARTH SURFACING

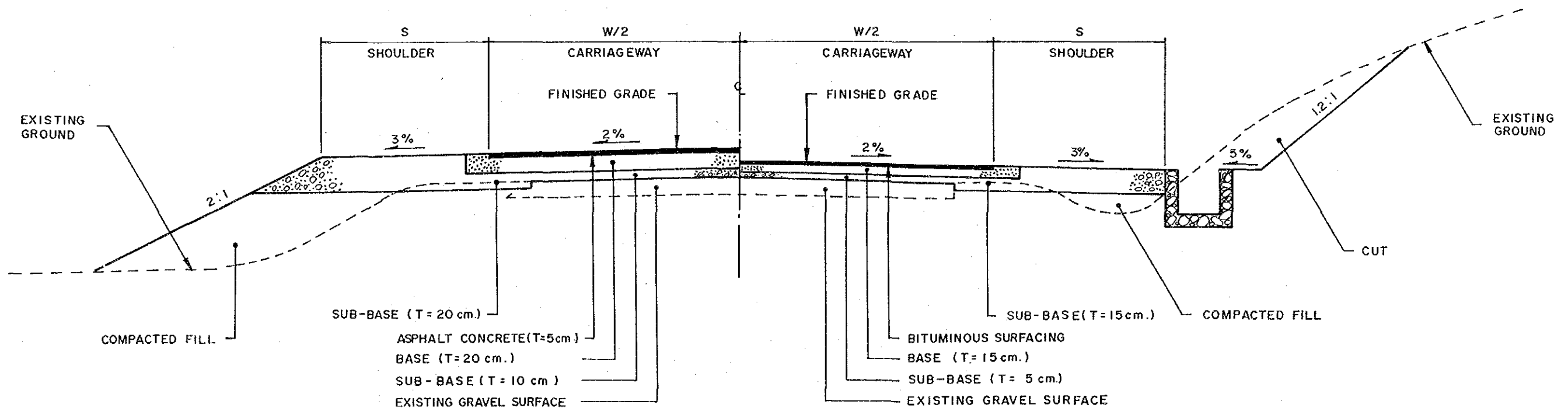


TYPE 3-1

PROPOSED PAVEMENT : PCC
EXISTING PAVEMENT : BITUMINOUS (Good/Fair)

TYPE 3-2

PROPOSED PAVEMENT : PCC
EXISTING PAVEMENT : GRAVEL SURFACING (Good/Fair)



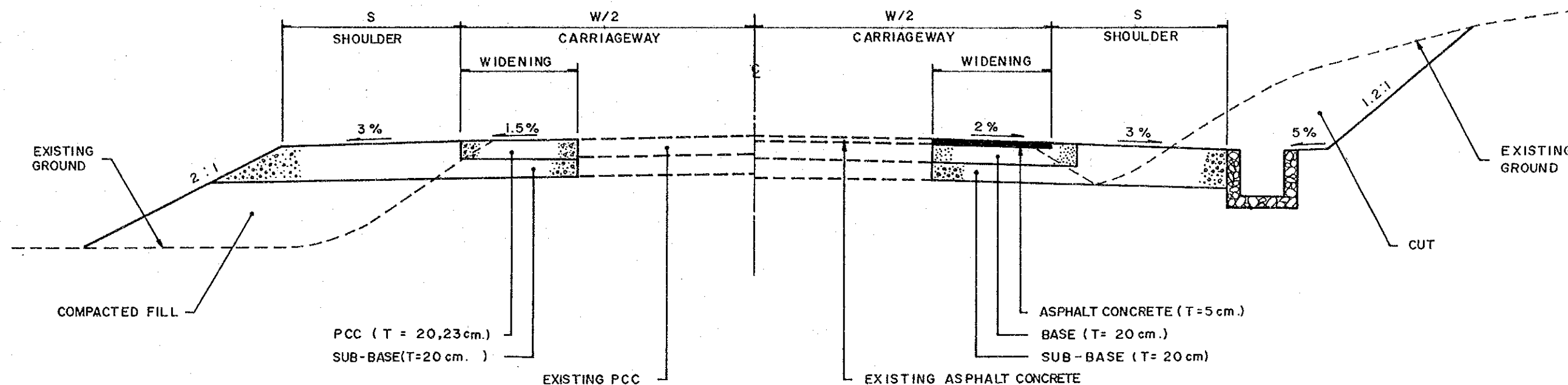
TYPE 3-3

PROPOSED PAVEMENT : ASPHALT CONCRETE
EXISTING PAVEMENT : GRAVEL SURFACING (Good/Fair)

TYPE 3-4

PROPOSED PAVEMENT : BITUMINOUS MACADAM/DOUBLE BITUMINOUS SURFACE TREATMENT
EXISTING PAVEMENT : GRAVEL SURFACING (Good/Fair)

IMPROVEMENT-2

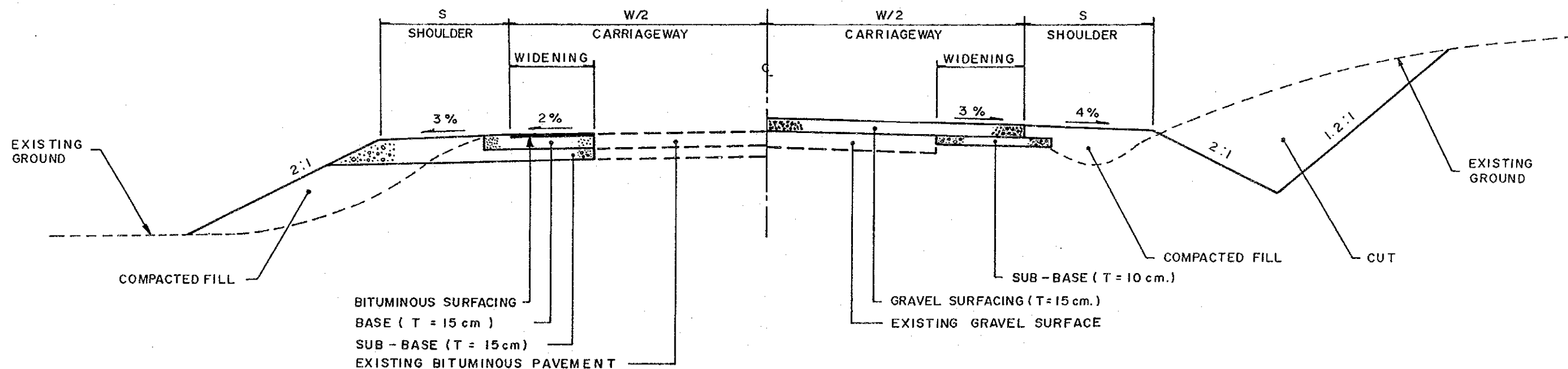


TYPE 4-1

PROPOSED PAVEMENT : PCC
EXISTING PAVEMENT : PCC

TYPE 4-2

PROPOSED PAVEMENT : ASPHALT CONCRETE
EXISTING PAVEMENT : ASPHALT CONCRETE



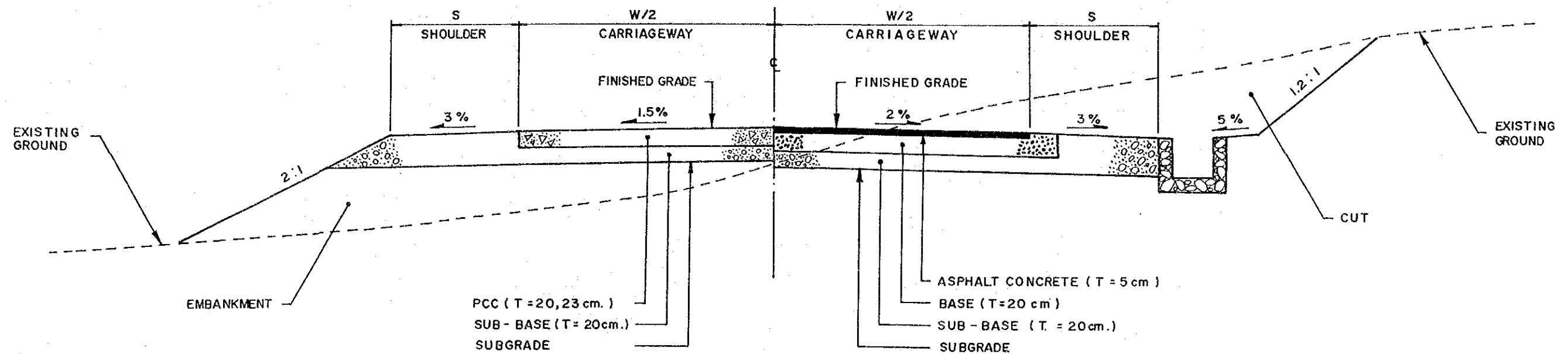
TYPE 4-3

PROPOSED PAVEMENT : BITUMINOUS MACADAM/
DOUBLE BITUMINOUS
SURFACE TREATMENT
EXISTING PAVEMENT : BITUMINOUS

TYPE 4-4

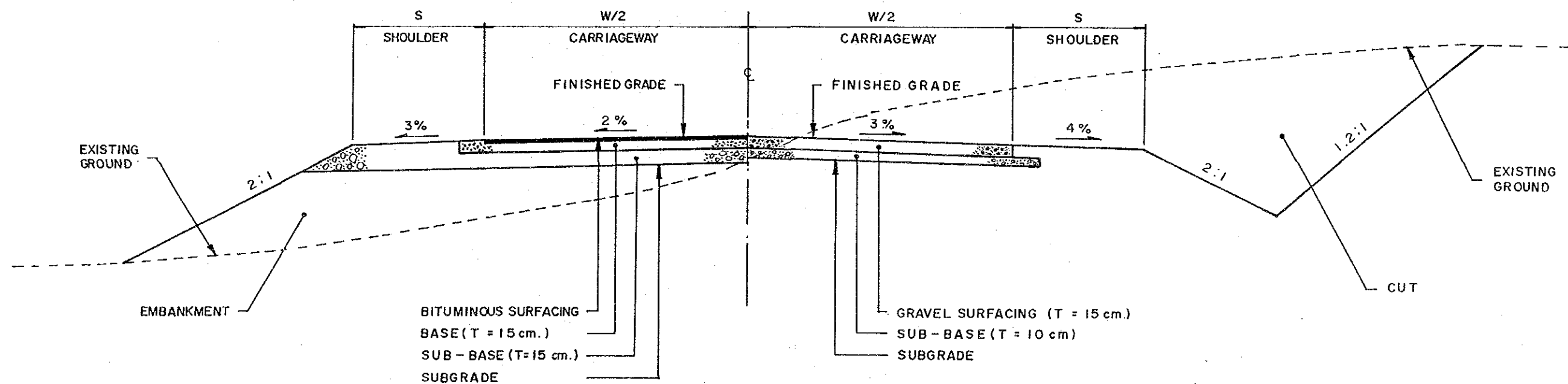
PROPOSED PAVEMENT : GRAVEL SURFACING
EXISTING PAVEMENT : GRAVEL SURFACING

WIDENING



TYPE 5-1
PROPOSED PAVEMENT : PCC

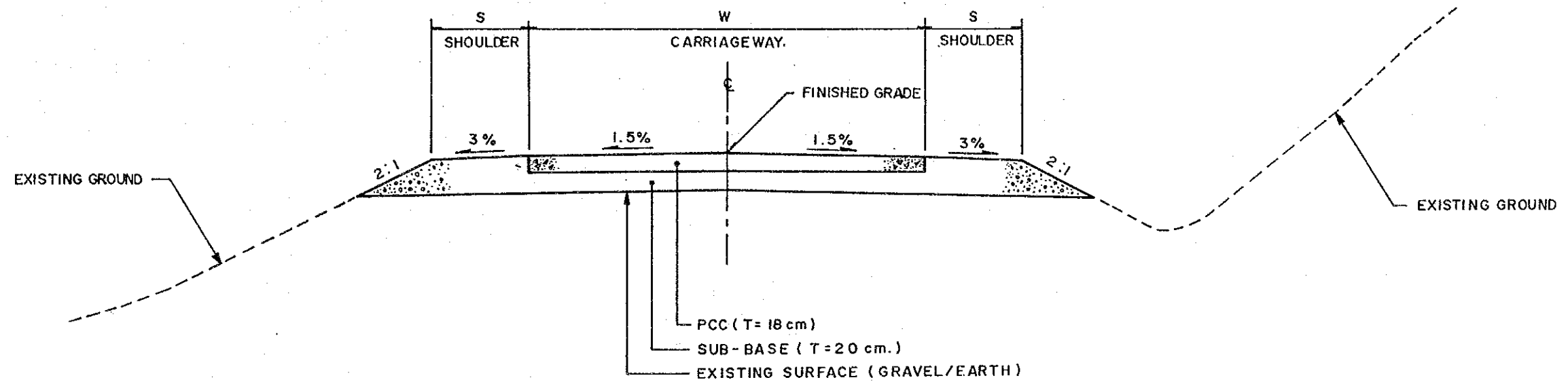
TYPE 5-2
PROPOSED PAVEMENT : ASPHALT CONCRETE



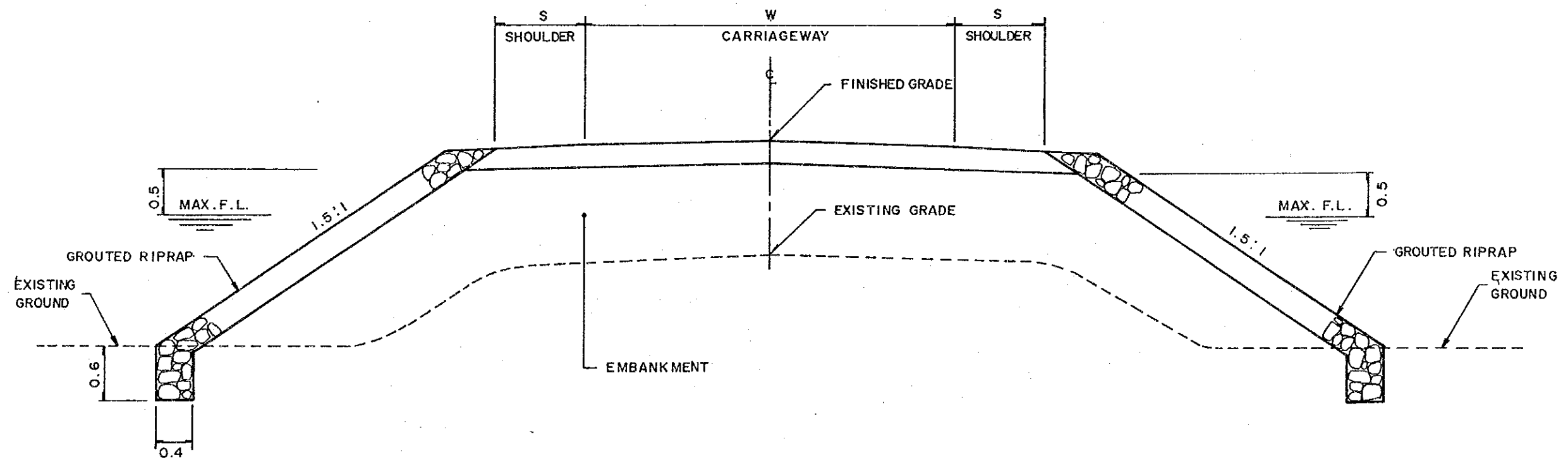
TYPE 5-3
PROPOSED PAVEMENT : BITUMINOUS MACADAM/
DOUBLE BITUMINOUS
SURFACE TREATMENT

TYPE 5-4
PROPOSED PAVEMENT : GRAVEL SURFACING

NEW CONSTRUCTION



TYPE 6
PCC PAVEMENT FOR STEEP GRADIENT SECTIONS



TYPE 7
GRADE RAISING SECTIONS IN FLOOD AREA

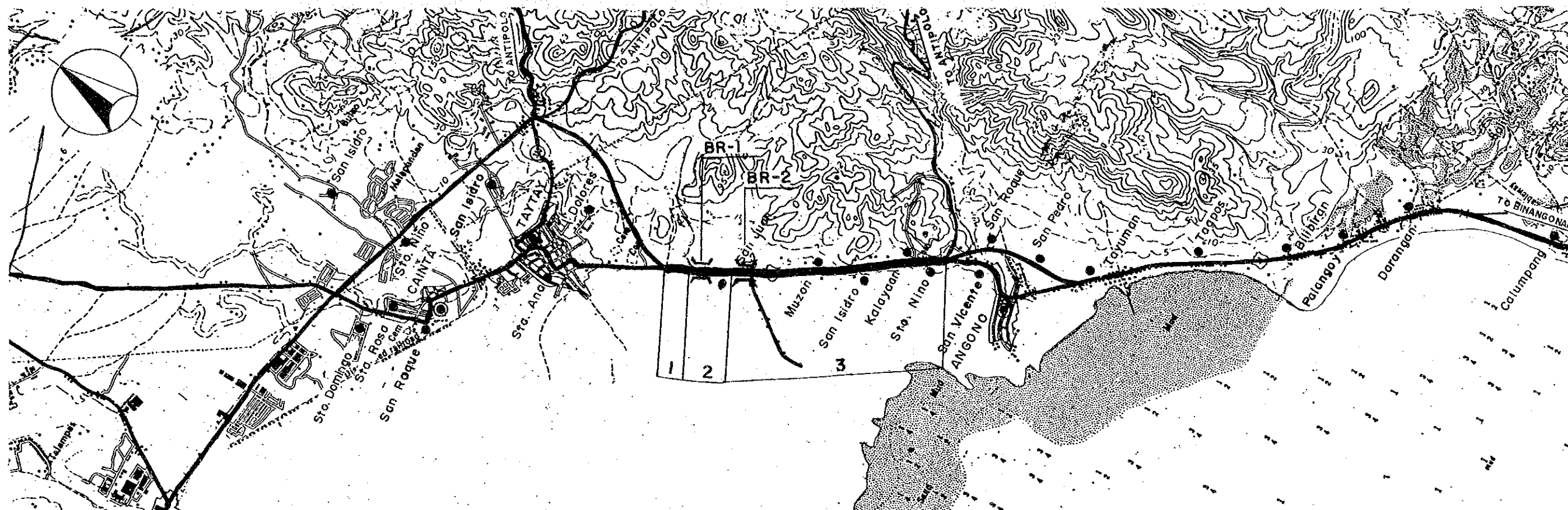
**THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT
IN THE REPUBLIC OF THE PHILIPPINES**

PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
1:50,000

Drawing No.
10

Road No: N13-5 Road Name: MANILA EAST ROAD
Location : TAYTAY & ANGONO, RIZAL



Road Classification	Primary Major (National Rd)		
Total Length	3.2 km		
Sub-section No.	1	2	3
Length (km)	.2	.5	2.5
Terrain	Flat	Flat	Flat
Existing Road Surface	7.0-PCC (Fair)	7.0-BTM (Good)	7.0-PCC (Bad)
Proposed Improvement			
Improvement Type	-	-	Rehabil.
Surface Type	-	-	Overlay
Carriageway Width(m)	-	-	7.0
Shoulder Width (m)	-	-	2.0
Ref. Typical Section	-	-	TYPE 1-2
Bridge No.	BR-1	BR-2	
Existing Type	Concrete	Concrete	
Length (m)	6	6	
Proposed Type	-	-	
Length (m)	-	-	
No. of Spans	-	-	

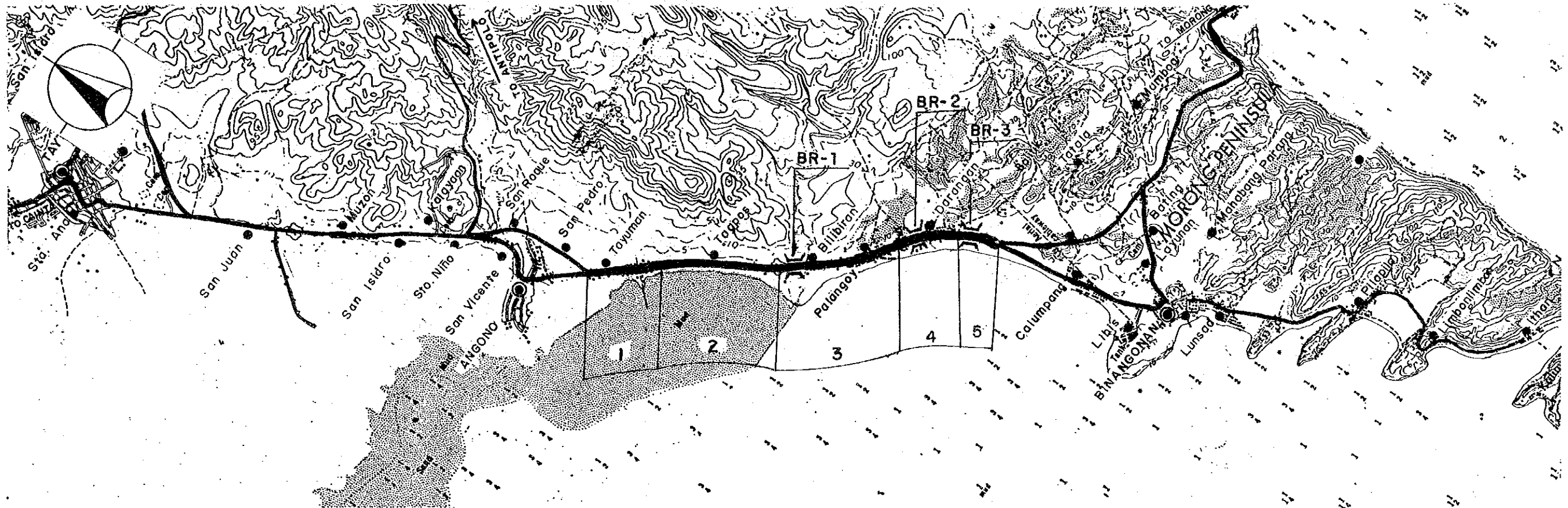
**THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT
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PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
1:50,000

Drawing No.
11

Road No: N13-7 Road Name: MANILA EAST ROAD
Location : ANGONÓ & BINANGONAN, RIZAL



Road Classification		Primary Major (National Road)				
Total Length		5.0 km				
Sub-section No.		1	2	3	4	5
Length (km)		.9	1.4	1.5	.7	.5
Terrain		Flat	Flat	Flat	Flat	Flat
Existing Road Surface		6.0-PCC (Fair)	6.0-PCC (Bad)	6.0-PCC (Fair)	6.0-PCC (Good)	6.0-PCC (Bad)
Proposed Improvement						
Improvement Type		- Rehabil.		-	- Rehabil.	
Surface Type		- Overlay		-	- Overlay	
Carriageway Width(m)		- 6.0		-	- 6.0	
Shoulder Width (m)		- 2.0		-	- 2.0	
Ref. Typical Section		- TYPE 1-2		-	- TYPE 1-2	
Bridge No.		BR-1	BR-2	BR-3		
Existing Type		Concrete	Concrete	Concrete		
Length (m)		36	36	11		
Proposed Type		-	-	-		
Length (m)		-	-	-		
No. of Spans		-	-	-		

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PRESENT CONDITION AND PROPOSED IMPROVEMENT

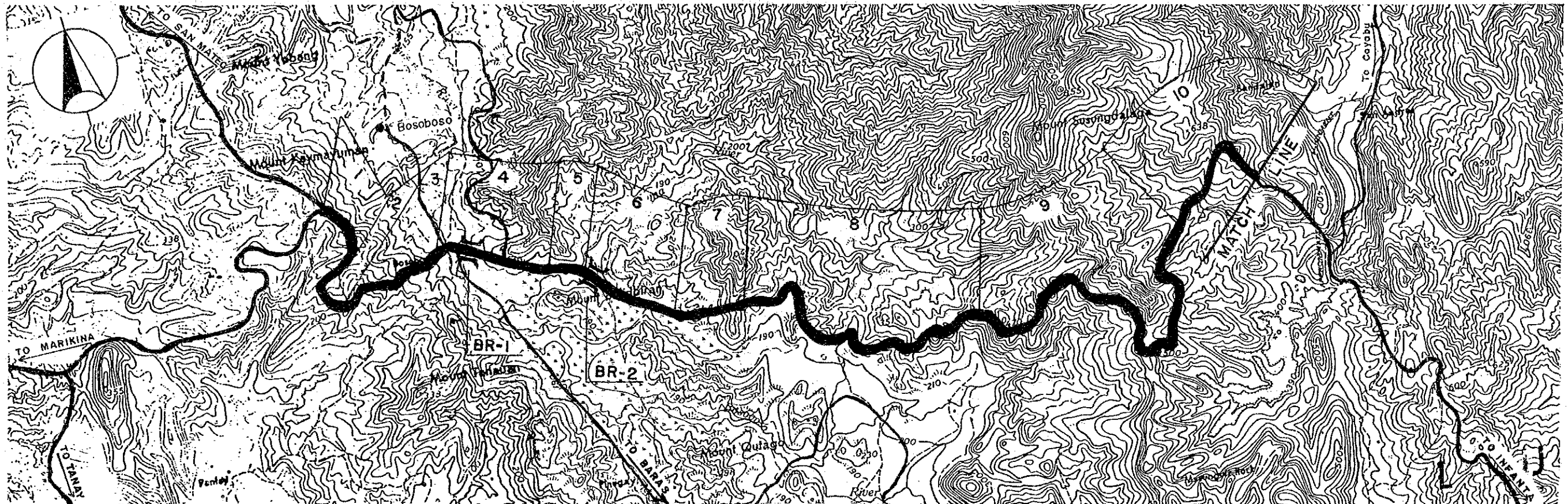
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Drawing No.
12

Road No: N1-4

Road Name: MARCOS HIGHWAY

Location : ANTIPOLLO & TANAY, RIZAL



Road Classification	Secondary Major (National Road)									
Total Length	32.2 km									
Sub-section No.	1	2	3	4	5	6	7	8	9	10
Length (km)	.7	.9	1.6	1.4	.6	1.2	.8	4.0	5.6	1.7
Terrain	Mt'nous	Mt'nous	Rolling	Flat	Flat	Rolling	Mt'nous	Mt'nous	Mt'nous	Mt'nous
Existing Road Surface	6.0-BTM (Fair)	6.0-BTM (Bad)	6.0-BTM (V.Bad)	6.0-BTM (V.Bad)	6.0-GRV (Bad)	6.0-BTM (Bad)	6.0-GRV (V.Bad)	6.0-BTM (V.Bad)	5.5-GRV (V.Bad)	6.0-GRV (V.Bad)
Proposed Improvement	-	Rehabil.	Rehabil.	Rehabil.	Rehabil.	Rehabil.	Rehabil.	Rehabil.	Rehabil.	Rehabil.
Improvement Type	-	Overlay	* BMP	* BMP	Gravel	Overlay	Gravel	* BMP	Gravel	Gravel
Surface Type	-	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Carriageway Width(m)	-	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Shoulder Width (m)	-	1.0	1.0	1.5	1.0	1.5	.5	1.0	.5	.5
Ref. Typical Section	-	TYPE 1-4	TYPE 1-5	TYPE 1-5	TYPE 1-6	TYPE 1-4	TYPE 1-6	TYPE 1-5	TYPE 1-6	TYPE 1-6
Special Treatment	-	-	-	-	-	-	-	-	-	-
Slope Protection	-	-	-	-	-	-	-	20	100	-
(Cut Slope)	-	-	-	-	-	-	-	10	30	-
(Embank't Slop)	-	-	-	-	-	-	-	-	-	-
Bridge No.	BR-1	BR-2								
Existing Type	Concrete	Concrete								
Length (m)	36	48								
Proposed Type	-	-								
Length (m)	-	-								
No. of Spans	-	-								

* DBST can be applied instead depending on conditions of subgrade, axle load, drainage, etc.

**THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT
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PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale

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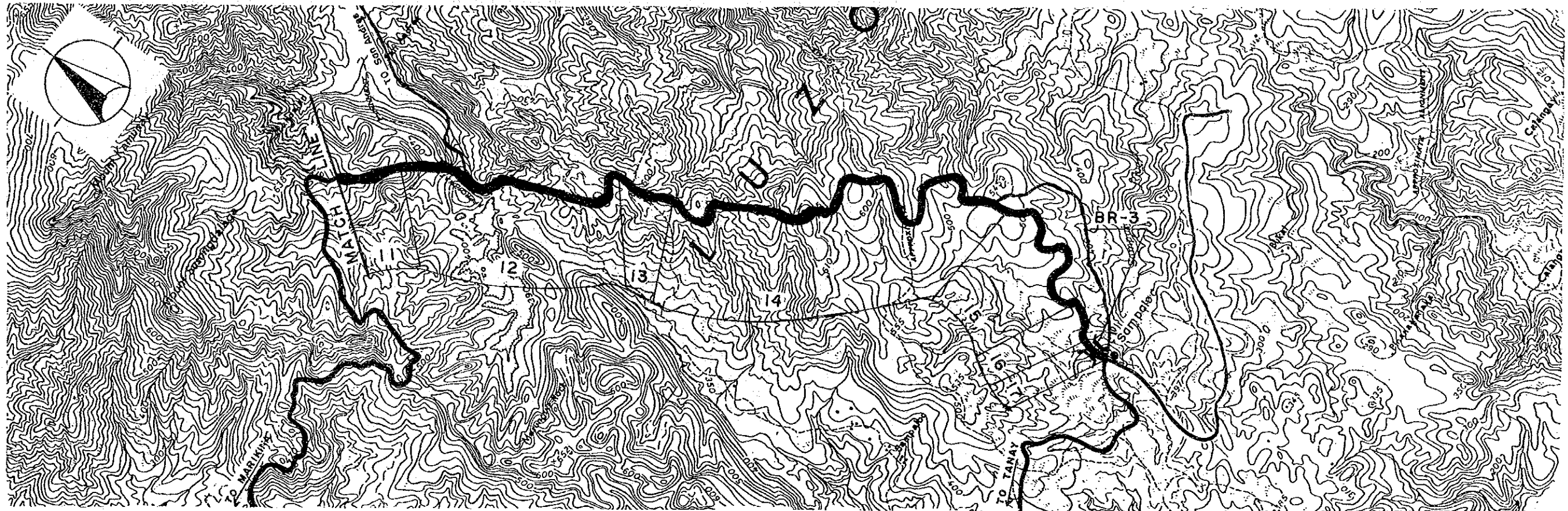
Drawing No.

13

Road No: N1-4

Road Name: MARCOS HIGHWAY

Location: ANTIPOLLO & TANAY, RIZAL



Road Classification Total Length							
Sub-section No.	11	12	13	14	15	16	17
Length (km)	.8	3.2	.8	5.9	2.1	.6	.3
Terrain	Mt'nous	Mt'nous	Mt'nous	Mt'nous	Mt'nous	Rolling	Rolling
Existing Road Surface	3.0-PCC (Good)	3.0-PCC (Bad)	6.0-PCC (Fair)	6.0-GRV (Bad)	6.0-GRV (V.Bad)	6.0-PCC (Fair)	6.0-GRV (Bad)
Proposed Improvement							
Improvement Type	Widening	Widening	-	Rehabil.	Rehabil.	-	Rehabil.
Surface Type	PCC	PCC	-	Gravel	Gravel	-	Gravel
Carriageway Width(m)	6.0	6.0	-	6.0	6.0	-	6.0
Shoulder Width (m)	1.0	1.0	-	.5	.5	-	.5
Ref. Typical Section	TYPE 4-1	TYPE 4-1	-	TYPE 1-6	TYPE 1-6	-	TYPE 1-6
Special Treatment							
Slope Protection (Cut Slope)	-	-	-	-	-	-	-
(Embank't Slop)	-	-	-	-	-	-	-
Bridge No.	BR-3						
Existing Type	Steel						
Length (m)	22						
Proposed Type	-						
Length (m)	-						
No. of Spans	-						

* DBST can be applied instead depending on conditions of subgrade, axle load, drainage, etc.

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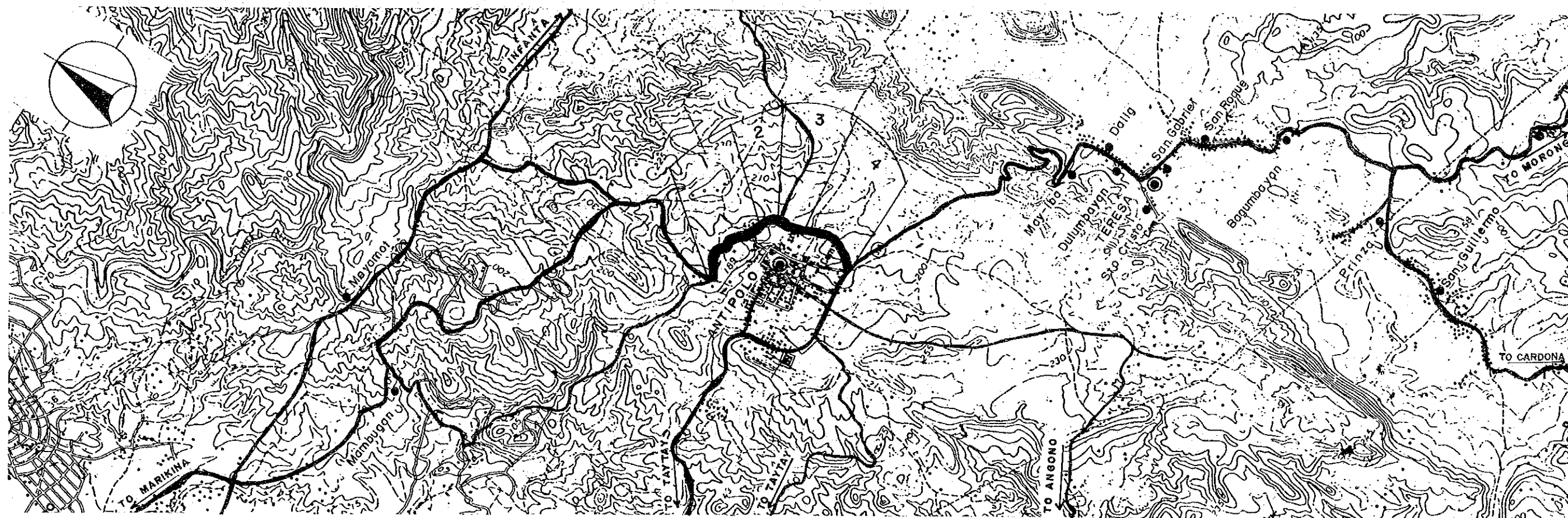
PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
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Drawing No.
14

Road No: N2-2

Road Name: VICTORIA VALLEY - ANTIPOLO ROAD
Location: ANTIPOLO, RIZAL



Road Classification	Secondary Major (National Road)			
Total Length	2.4 km			
Sub-section No.	1	2	3	4
Length (km)	1.0	.2	.4	.8
Terrain	Rolling	Rolling	Rolling	Rolling
Existing Road Surface	6.0-PCC (Good)	6.0-PCC (Good)	6.0-BTM (Good)	6.0-GRV (Bad)
Proposed Improvement				
Improvement Type	-	-	-	Impr.-1
Surface Type	-	-	-	PCC
Carriageway Width(m)	-	-	-	6.7
Shoulder Width (m)	-	-	-	1.5
Ref. Typical Section	-	-	-	TYPE 2-2

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PRESENT CONDITION AND PROPOSED IMPROVEMENT

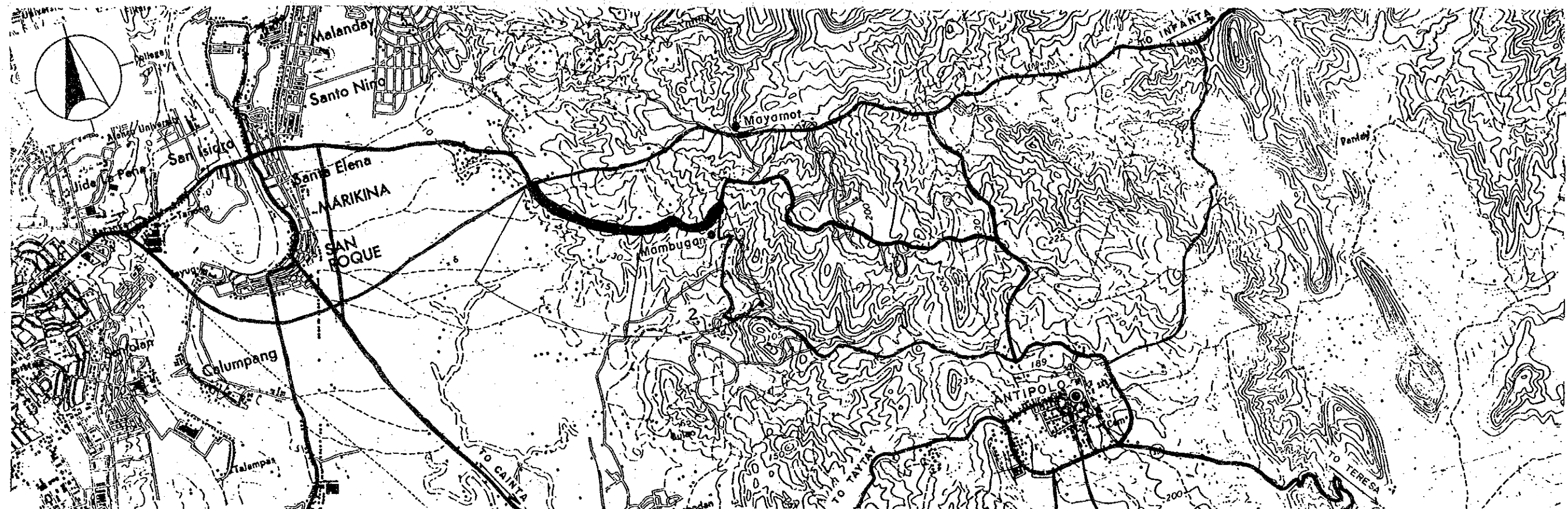
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Drawing No.

15

Road No: N10-2 Road Name: SUMULONG HIGHWAY
Location: ANTIPOLO, RIZAL



Road Classification	Second'y Major Rd (National Road)	
Total Length	2.7 km	
Sub-section No.	1	2
Length (km)	1.6	1.1
Terrain	Rolling	Rolling
Existing Road Surface	6.0-PCC (Good)	6.0-BTM (Bad)
Proposed Improvement		
Improvement Type	- Rehabil.	
Surface Type	- Overlay	
Carriageway Width(m)	- 6.0	
Shoulder Width (m)	- 1.5	
Ref. Typical Section	- TYPE 1-4	

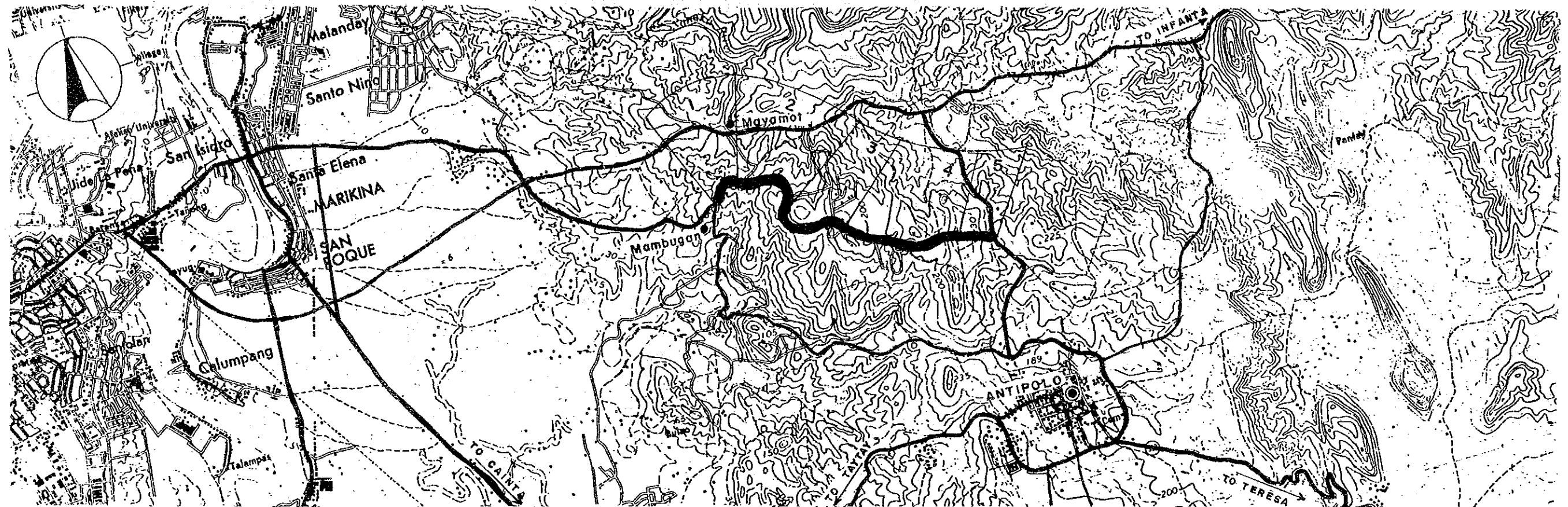
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PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
1:50,000

Drawing No.
16

Road No: N10-3 Road Name: SUMULONG HIGHWAY
Location: ANTIPOLO, RIZAL



Road Classification	Secondary Major (National Road)				
Total Length	4.7 km				
Sub-section No.	1	2	3	4	5
Length (km)	.6	1.1	1.1	1.5	.4
Terrain	Rolling	Rolling	Rolling	Rolling	Rolling
Existing Road Surface	6.0-BTM (Fair)	6.0-BTM (Bad)	6.0-BTM (Good)	6.0-PCC (Good)	6.0-PCC (Good)
Proposed Improvement					
Improvement Type	- Rehabil.	-	-	-	-
Surface Type	- Overlay	-	-	-	-
Carriageway Width(m)	- 6.0	-	-	-	-
Shoulder Width (m)	- 1.5	-	-	-	-
Ref. Typical Section	- TYPE 1-4	-	-	-	-

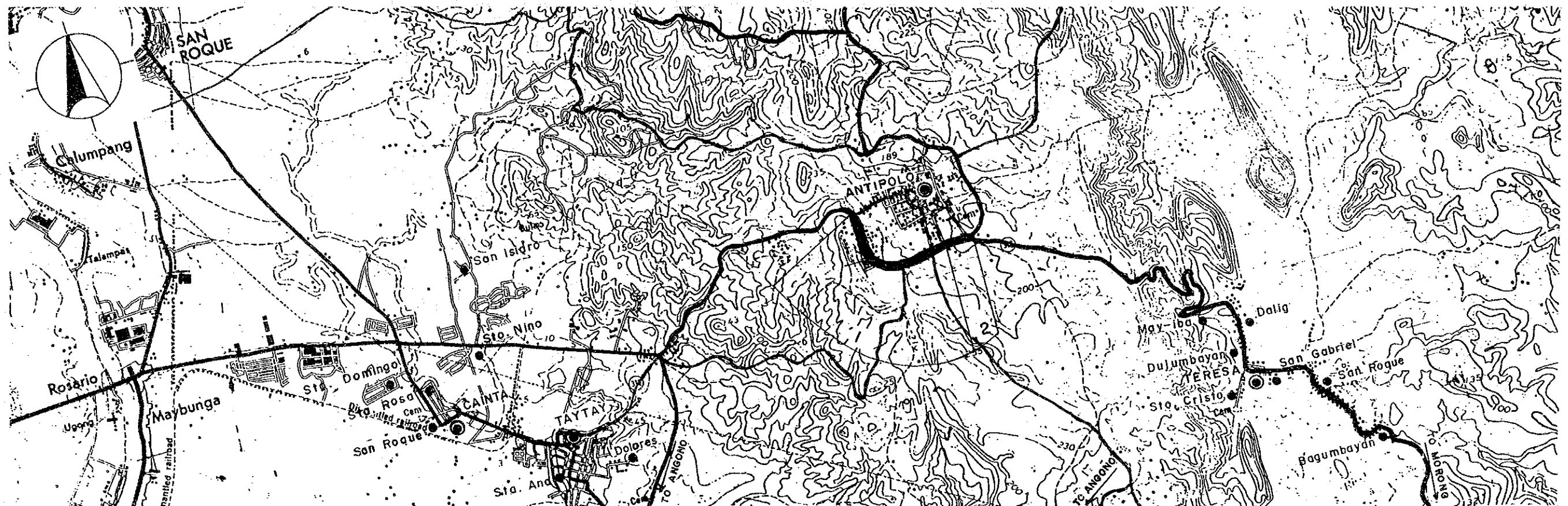
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PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
1:50,000

Drawing No.
17

Road No: N12-3 Road Name: CAINTA - ANTIPOLO - MORONG ROAD
Location : ANTIPOLO, RIZAL



Road Classification	Second'y Major Rd (National Road)	
Total Length	1.8 km	
Sub-section No.	1	2
Length (km)	1.5	.3
Terrain	Rolling	Rolling
Existing Road Surface	6.0-BTM (Bad)	6.0-BTM (Good)
Proposed Improvement		
Improvement Type	Rehabil.	--
Surface Type	Overlay	--
Carriageway Width(m)	6.0	--
Shoulder Width (m)	1.5	--
Ref. Typical Section	TYPE 1-4	--

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PRESENT CONDITION AND PROPOSED IMPROVEMENT

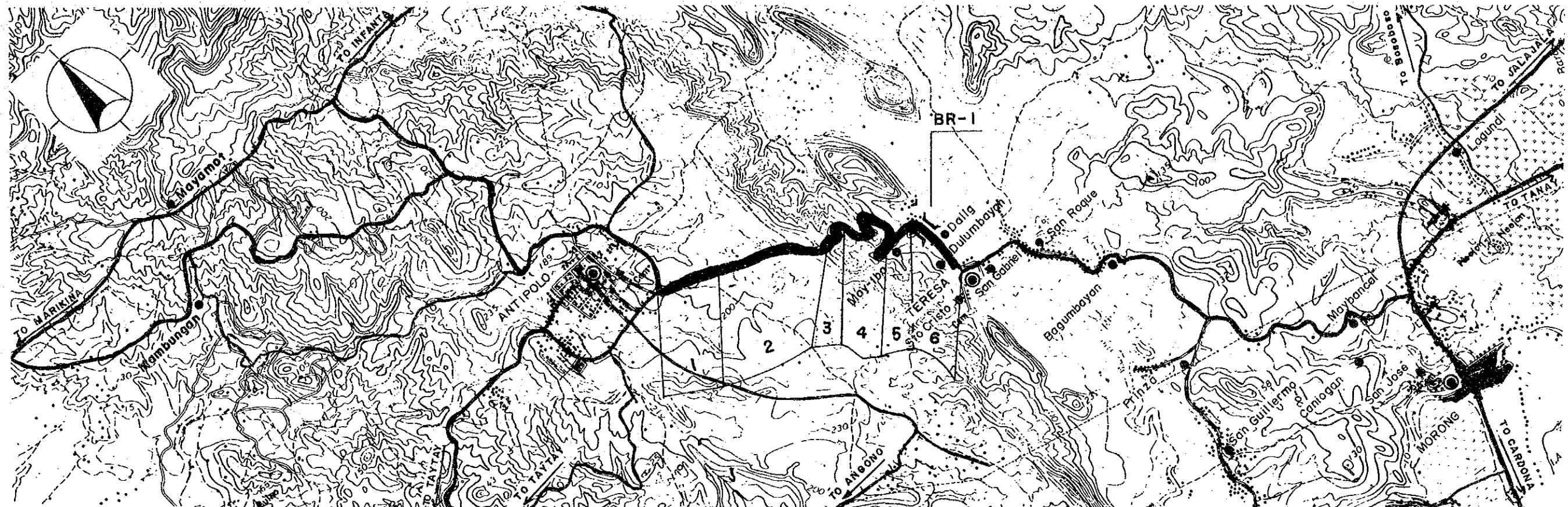
Scale

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Drawing No.

18

Road No: N12-4 Road Name: CAINTA - ANTIPOLO - MORONG ROAD
Location : ANTIPOLO & TERESA, RIZAL



Road Classification	Secondary Major (National Road)					
Total Length	6.1 km					
Sub-section No.	1	2	3	4	5	6
Length (km)	.8	1.7	.5	1.7	.5	.9
Terrain	Flat	Rolling	Rolling	Mt'nous	Rolling	Flat
Existing Road Surface	6.0-BTM (Good)	6.0-BTM (Fair)	6.0-BTM (Bad)	6.0-BTM (Fair)	6.0-BTM (Fair)	6.0-PCC (Bad)
Proposed Improvement						
Improvement Type	-	-	Rehabil.	-	-	Rehabil.
Surface Type	-	-	Overlay	-	-	Overlay
Carriageway Width(m)	-	-	6.0	-	-	6.0
Shoulder Width (m)	-	-	1.5	-	-	2.0
Ref. Typical Section	-	-	TYPE 1-4	-	-	TYPE 1-2
Bridge No.	BR-1					
Existing Type	Concrete					
Length (m)	5					
Proposed Type	-					
Length (m)	-					
No. of Spans	-					

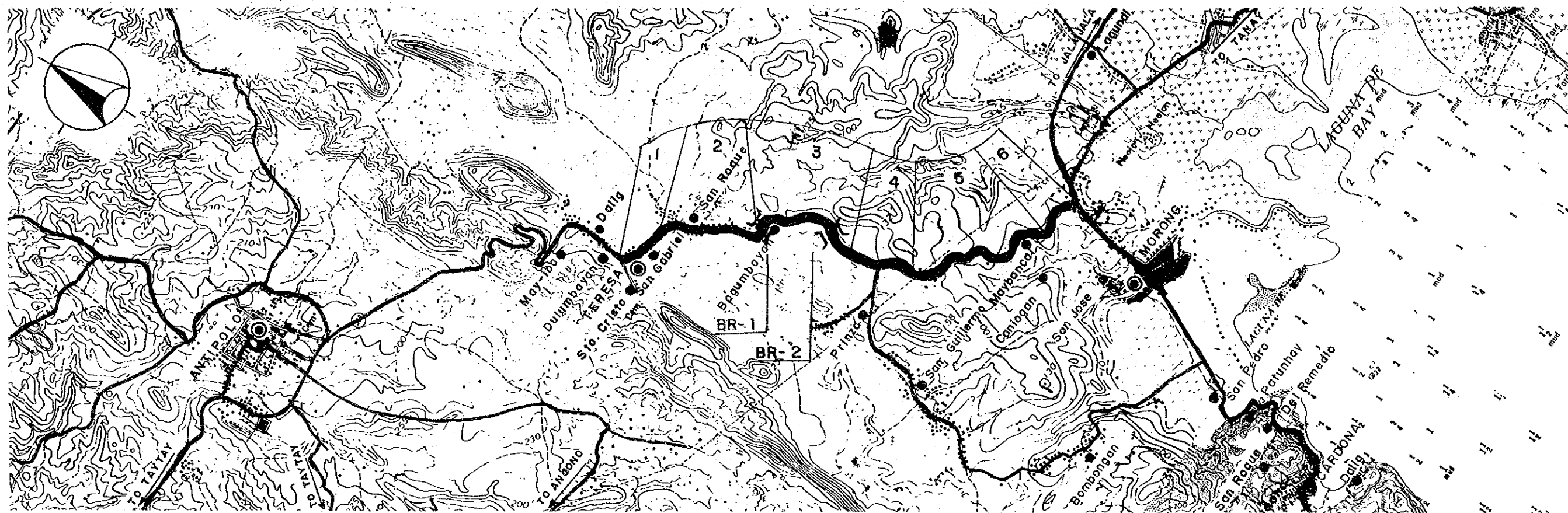
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PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
1:50,000

Drawing No.
19

Road No: N12-5 Road Name: CAINTA - ANTIPOLLO - MORONG ROAD
Location: TERESA & MORONG, RIZAL



Road Classification	Secondary Major (National Road)					
Total Length	6.7 km					
Sub-section No.	1	2	3	4	5	6
Length (km)	.6	1.6	1.2	.8	1.8	.7
Terrain	Flat	Flat	Rolling	Rolling	Rolling	Rolling
Existing Road Surface	6.0-PCC (Good)	6.0-BTM (Fair)	6.0-BTM (Bad)	6.0-BTM (Good)	6.0-BTM (Bad)	6.0-PCC (Good)
Proposed Improvement	-	-	Rehabil.	-	Rehabil.	-
Improvement Type	-	-	Overlay	-	Overlay	-
Surface Type	-	-	6.0	-	6.0	-
Carriageway Width(m)	-	-	1.5	-	1.5	-
Shoulder Width (m)	-	-	TYPE 1-4	-	TYPE 1-4	-
Ref. Typical Section	-	-	TYPE 1-4	-	TYPE 1-4	-
Bridge No.	BR-1	BR-2				
Existing Type	Concrete	Concrete				
Length (m)	45	6				
Proposed Type	-	-				
Length (m)	-	-				
No. of Spans	-	-				

**THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT
IN THE REPUBLIC OF THE PHILIPPINES**

PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale

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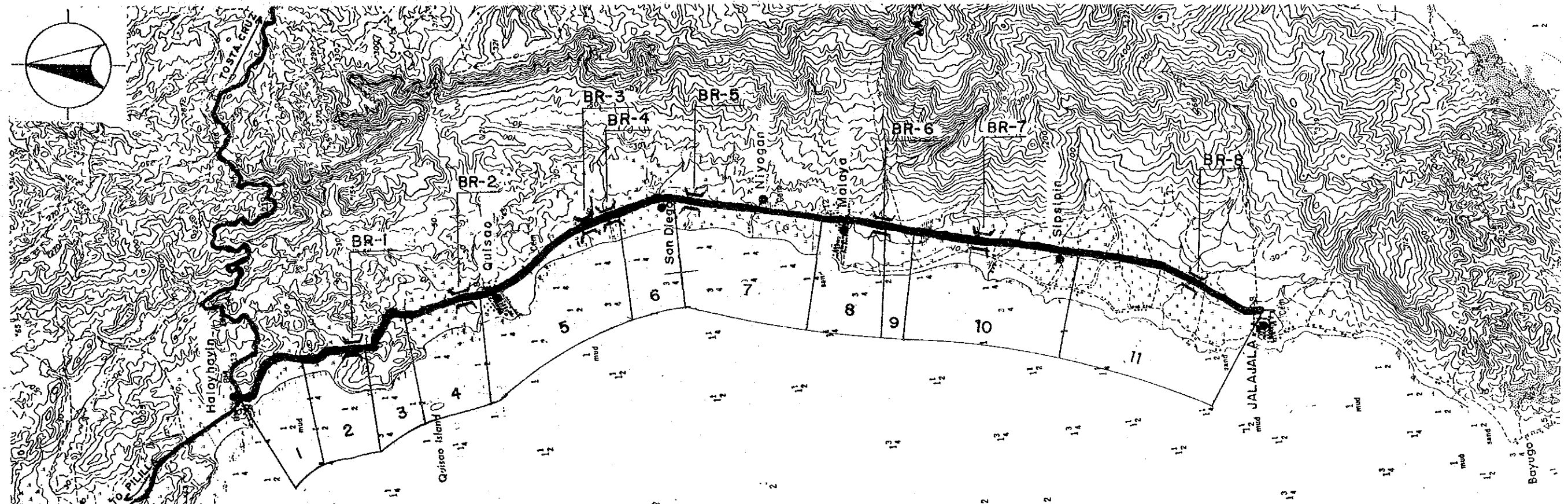
Drawing No.

20

Road No: N18-1

Road Name: PILILLA - JALAJALA ROAD

Location: PILILLA & JALAJALA, RIZAL



Road Classification	Secondary Major (National Road)										
Total Length	13.8 km										
Sub-section No.	1	2	3	4	5	6	7	8	9	10	11
Length (km)	1.0	.8	.7	1.1	2.1	.7	1.8	.7	.4	2.0	2.5
Terrain	Flat	Flat	Rolling	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat
Existing Road Surface	6.0-BTM (Fair)	8.0-BTM (V.Bad)	8.0-BTM (V.Bad)	8.0-BTM (V.Bad)	6.0-PCC (Good)	6.0-BTM (Fair)	6.0-PCC (Good)	6.0-PCC (Good)	6.0-BTM (Fair)	8.0-BTM (V.Bad)	6.0-BTM (Fair)
Proposed Improvement	-	Rehabil.	Rehabil.	Rehabil.	-	-	-	-	-	Rehabil.	-
Improvement Type	-	AC	AC	AC	-	-	-	-	-	AC	-
Surface Type	-	6.0	6.0	6.0	-	-	-	-	-	6.0	-
Carriageway Width(m)	-	2.0	1.5	2.0	-	-	-	-	-	2.0	-
Shoulder Width (m)	-	-	-	-	-	-	-	-	-	-	-
Ref. Typical Section	-	TYPE 1-3	TYPE 1-3	TYPE 1-3	-	-	-	-	-	TYPE 1-3	-
Bridge No.	BR-1	BR-2	BR-3	BR-4	BR-5	BR-6	BR-7	BR-8			
Existing Type	Concrete	Concrete	RCBC	RCBC	RCBC	Concrete	RCBC	Concrete			
Length (m)	6	8	5	5	5	18	5	6			
Proposed Type	-	-	-	-	-	-	-	-			
Length (m)	-	-	-	-	-	-	-	-			
No. of Spans	-	-	-	-	-	-	-	-			

**THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT
IN THE REPUBLIC OF THE PHILIPPINES**

PRESENT CONDITION AND PROPOSED IMPROVEMENT

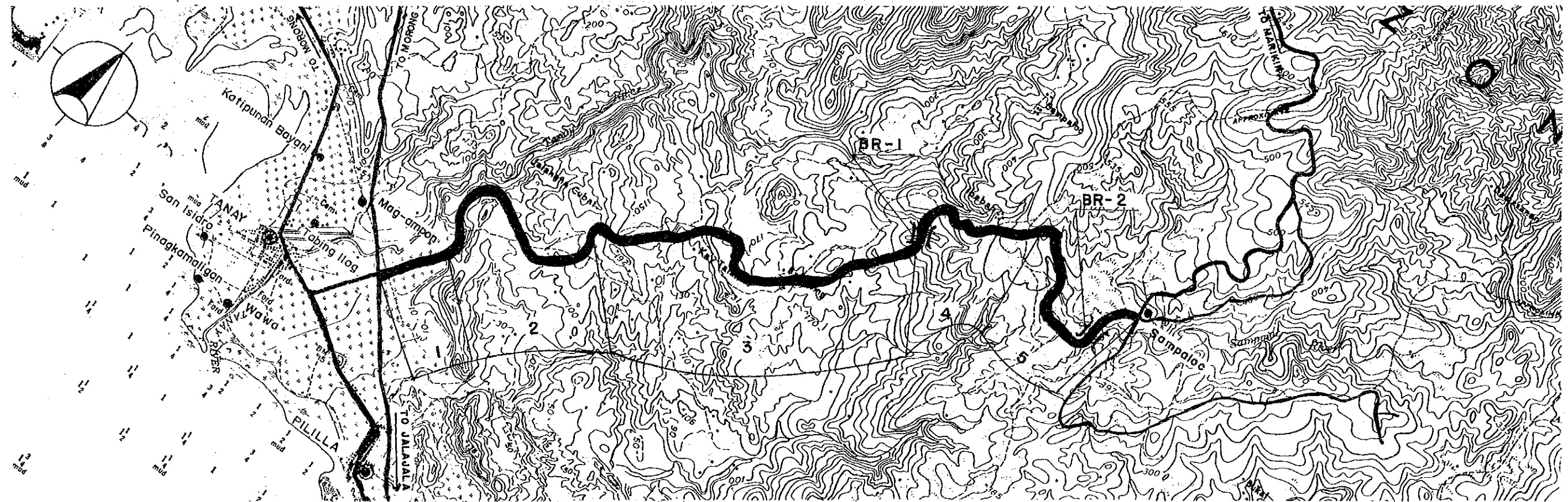
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Drawing No.
21

Road No: N20-2

Road Name: TANAY - SAMPALOC ROAD

Location: TANAY, RIZAL



Road Classification	Secondary Major (National Road)				
Total Length	13.8 km				
Sub-section No.	1	2	3	4	5
Length (km)	.9	2.9	4.6	2.4	3.0
Terrain	Flat	Rolling	Rolling	Mt'nous	Mt'nous
Existing Road Surface	6.0-BTM (Bad)	6.0-BTM (V.Bad)	6.0-BTM (Bad)	6.0-BTM (Bad)	6.0-BTM (V.Bad)
Proposed Improvement	Rehabil.	Rehabil.	Rehabil.	Rehabil.	Rehabil.
Improvement Type	Overlay	AC	Overlay	Overlay	AC
Surface Type					
Carriageway Width(m)	6.0	6.0	6.0	6.0	6.0
Shoulder Width (m)	2.0	1.5	1.5	1.0	1.0
Ref. Typical Section	TYPE 1-4	TYPE 1-3	TYPE 1-4	TYPE 1-4	TYPE 1-3
Bridge No.	BR-1	BR-2			
Existing Type	Concrete	Steel			
Length (m)	10	30			
Proposed Type	-	-			
Length (m)	-	-			
No. of Spans	-	-			

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THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT
IN THE REPUBLIC OF THE PHILIPPINES

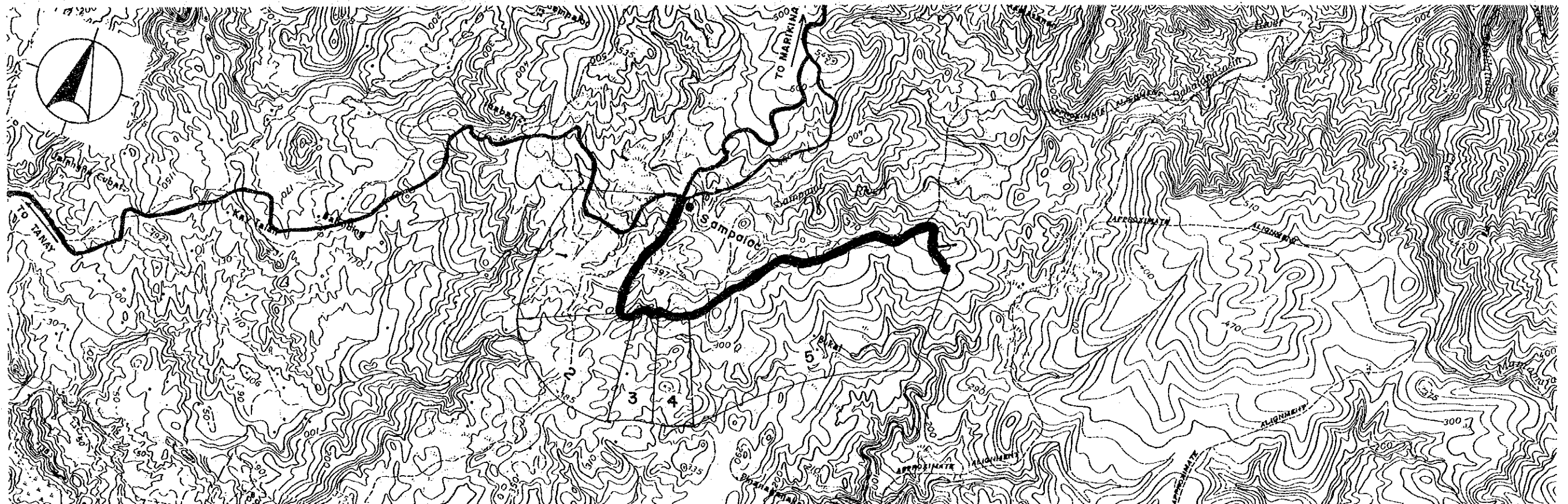
PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
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Drawing No.
23

Road No: N1-5

Road Name: MARCOS HIGHWAY
Location: TANAY, RIZAL



Road Classification	Minor Road (National Road)				
Total Length	5.9 km				
Sub-section No.	1	2	3	4	5
Length (km)	1.7	.3	.3	.4	3.2
Terrain	Mt'nous	Mt'nous	Mt'nous	Mt'nous	Mt'nous
Existing Road Surface	6.0-PCC (Good)	3.0-PCC (Fair)	6.0-GRV (Bad)	3.0-PCC (Fair)	6.0-GRV (Bad)
Proposed Improvement					
Improvement Type	-	Widening	Impr.-1	Widening	Rehabil.
Surface Type	-	PCC	PCC	PCC	Gravel
Carriageway Width(m)	-	6.0	6.0	6.0	6.0
Shoulder Width (m)	-	1.0	1.0	1.0	.5
Ref. Typical Section	-	TYPE 4-1	TYPE 2-2	TYPE 4-1	TYPE 1-6

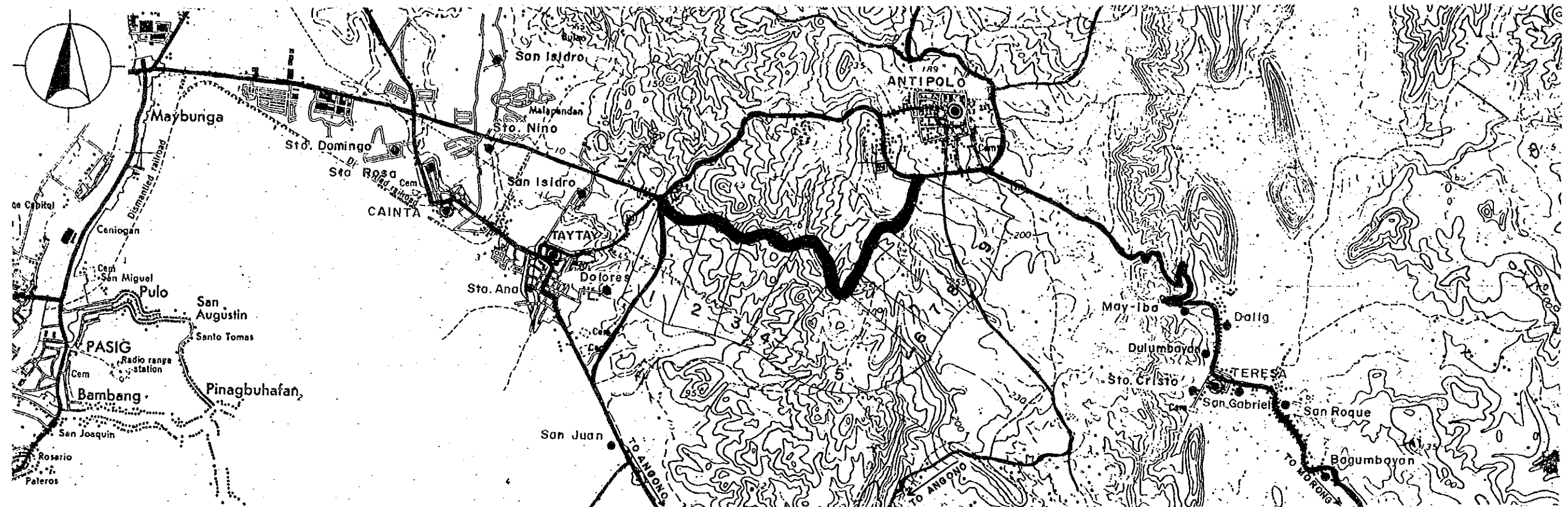
THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT IN THE REPUBLIC OF THE PHILIPPINES

PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
1:50,000

Drawing No.
24

Road No: N3-1 Road Name: CABRERA - KAYTICKLING ROAD
Location: ANTIPOLLO, RIZAL



Road Classification	Minor Road (National Road)									
Total Length	5.0 km									
Sub-section No.	1	2	3	4	5	6	7	8	9	
Length (km)	.8	.5	.8	.7	.4	.3	.5	.3	.7	
Terrain	Rolling	Rolling	Rolling	Rolling	Rolling	Rolling	Rolling	Rolling	Rolling	Rolling
Existing Road Surface	6.0-BTM (Bad)	5.0-BTM (Bad)	5.0-BTM (Bad)	5.0-BTM (Bad)	5.0-BTM (Bad)	6.0-PCC (Good)	6.0-PCC (Good)	6.0-BTM (Bad)	6.0-BTM (Bad)	6.0-BTM (Bad)
Proposed Improvement	Rehabil.	Rehabil.	Rehabil.	Rehabil.	Rehabil.	-	-	Rehabil.	Rehabil.	Rehabil.
Improvement Type	Overlay	Overlay	Overlay	Overlay	Overlay	-	-	Overlay	Overlay	Overlay
Surface Type	6.0	5.0	5.0	5.0	5.0	-	-	6.0	6.0	6.0
Carriageway Width(m)	1.0	1.0	1.0	1.0	1.0	-	-	1.0	1.0	1.0
Shoulder Width (m)	1.0	1.0	1.0	1.0	1.0	-	-	1.0	1.0	1.0
Ref. Typical Section	TYPE 1-4	TYPE 1-4	TYPE 1-4	TYPE 1-4	TYPE 1-4	-	-	TYPE 1-4	TYPE 1-4	TYPE 1-4

**THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT
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PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale

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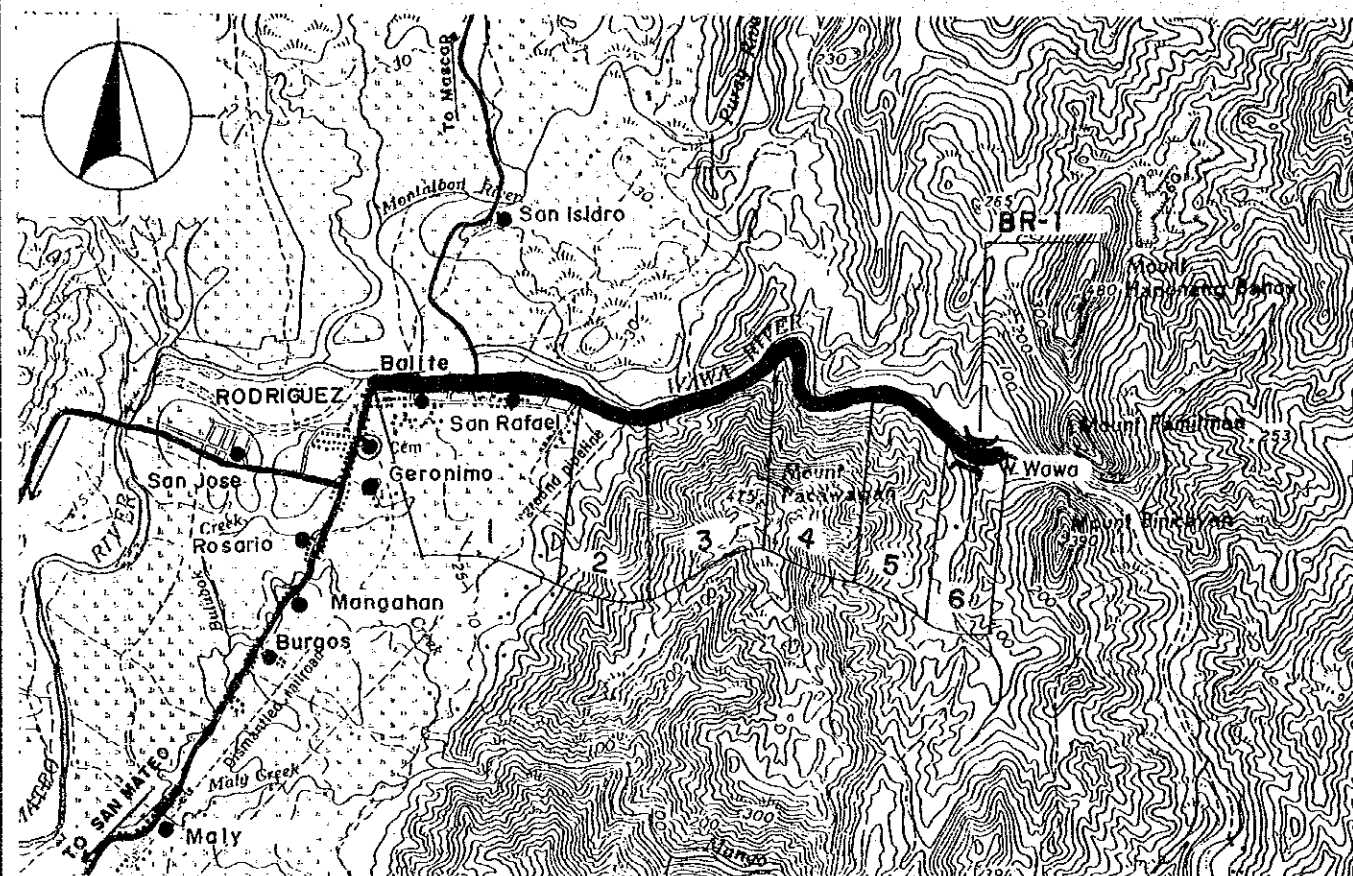
Drawing No.

25

Road No: N4-3

Road Name: MARIKINA - RODRIGUEZ - WAWA ROAD

Location: RODRIGUEZ, RIZAL



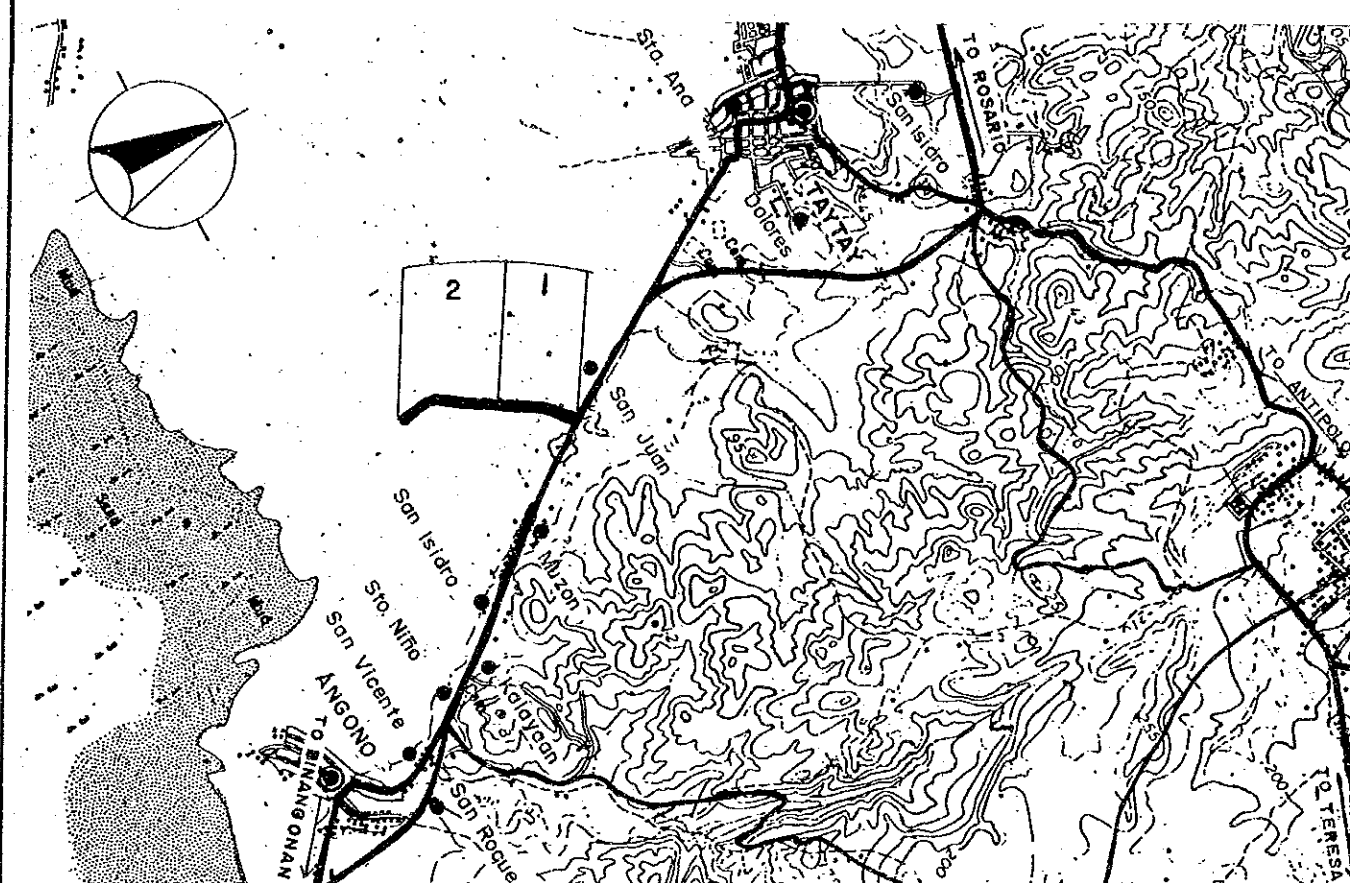
Road Classification	Minor Road (National Road)					
Total Length	5.2 km					
Sub-section No.	1	2	3	4	5	6
Length (km)	1.5	.5	1.1	1.1	.6	.4
Terrain	Flat	Rolling	Rolling	Rolling	Rolling	Rolling
Existing Road Surface	8.0-PCC (Fair)	4.5-GRV (Bad)	4.5-GRV (V.Bad)	4.5-GRV (Bad)	4.5-GRV (Bad)	4.5-GRV (Bad)
Proposed Improvement						
Improvement Type	-	Impr.-1	Impr.-1	Impr.-1	Impr.-1	Impr.-1
Surface Type	-	* BMP	* BMP	* BMP	* BMP	* BMP
Carriageway Width(m)	-	6.0	6.0	6.0	6.0	6.0
Shoulder Width (m)	-	1.0	1.0	1.0	1.0	1.0
Ref. Typical Section	-	TYPE 2-4	TYPE 2-4	TYPE 2-4	TYPE 2-4	TYPE 2-4
Bridge No.	BR-1					
Existing Type	Ford-Cr.					
Length (m)	-					
Proposed Type	2Lane-Br					
Length (m)	10					
No. of Spans	1					

* DBST can be applied instead depending on conditions of subgrade, axle load, drainage, etc.

Road No: P2-1

Road Name: TAYTAY - BANGIAD ROAD

Location: TAYTAY, RIZAL



Road Classification	Minor Road (Provincial Road)	
Total Length	1.2 km	
Sub-section No.	1	2
Length (km)	.5	.7
Terrain	Flat	Flat
Existing Road Surface	6.0-PCC (Good)	4.5-GRV (Bad)
Proposed Improvement		
Improvement Type	-	Rehabil.
Surface Type	-	Gravel
Carriageway Width(m)	-	6.0
Shoulder Width (m)	-	1.0
Ref. Typical Section	-	TYPE 1-6
Special Treatment		
Flood Section Length	-	500
Height	-	1.5

**THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT
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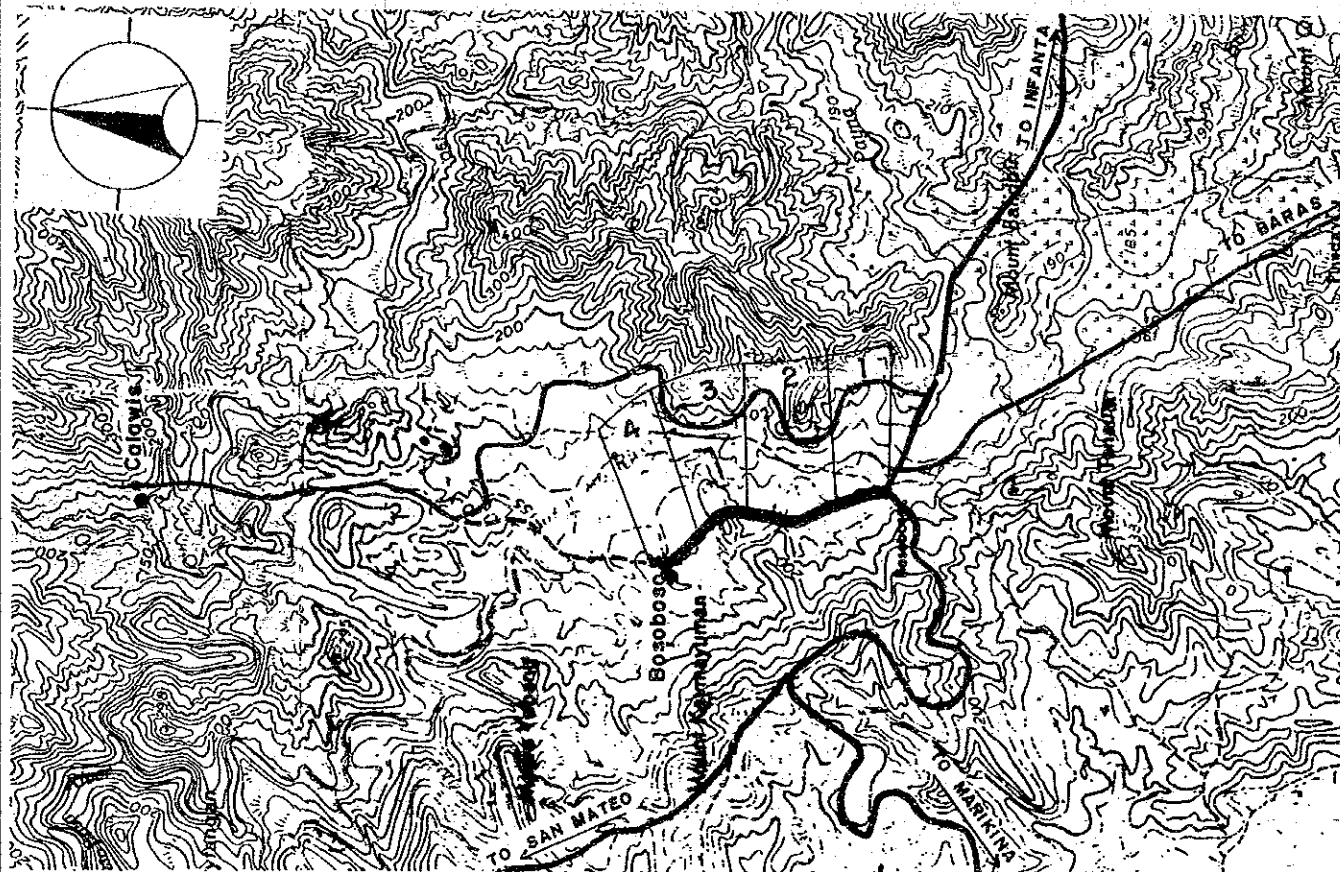
PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
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Drawing No.
26

Road No: P3-1

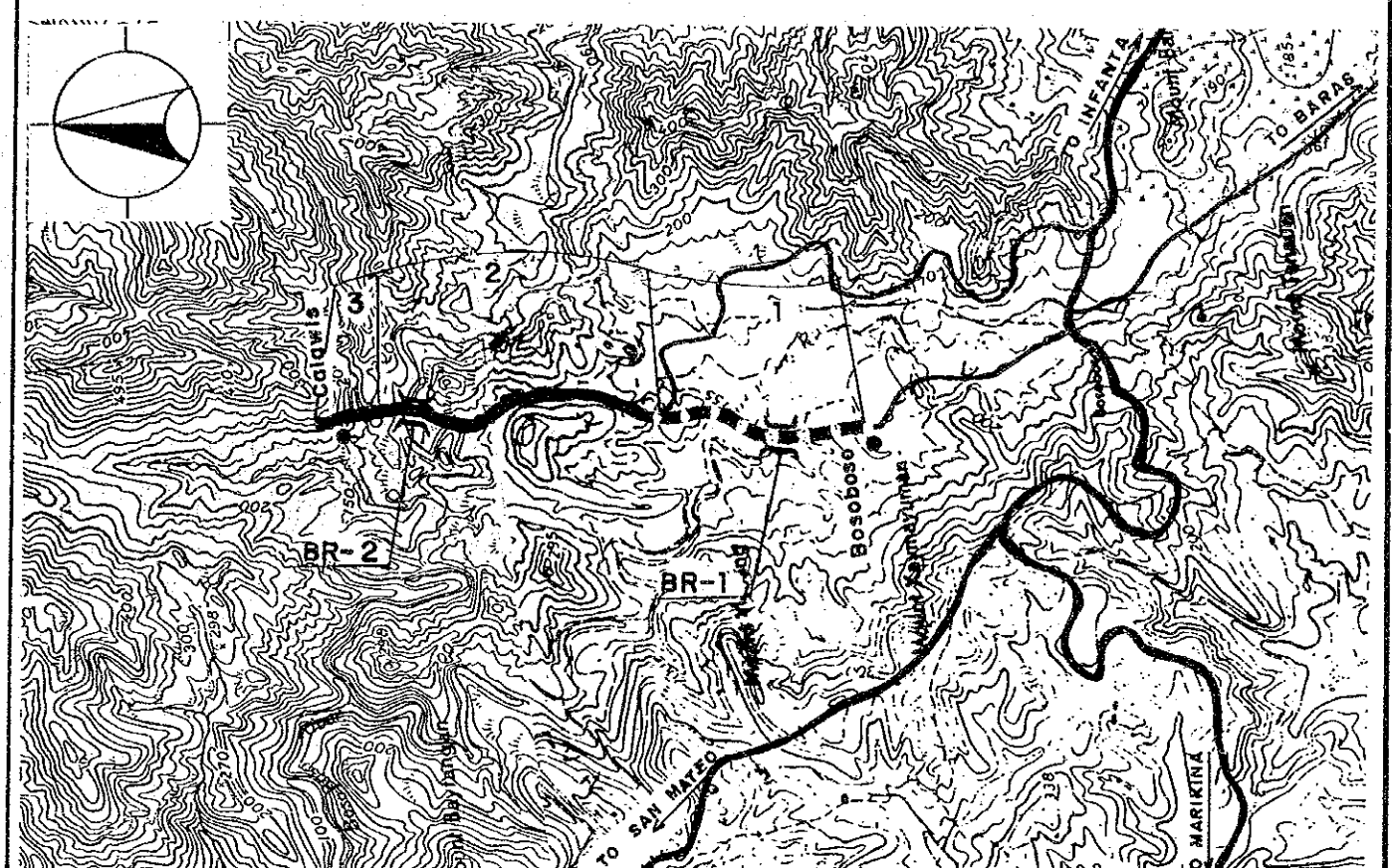
Road Name: MARCOS HIGHWAY - BOSOBOSO ROAD
Location: ANTIPOLLO, RIZAL



Road Classification Total Length	Minor Road (Provincial Road) 1.9 km			
Sub-section No.	1	2	3	4
Length (km)	.4	.6	.5	.4
Terrain	Rolling	Rolling	Rolling	Flat
Existing Road Surface	6.0-GRV (Bad)	4.5-GRV (Bad)	6.0-GRV (Bad)	6.0-GRV (Bad)
Proposed Improvement	Rehabil.	Rehabil.	Rehabil.	Rehabil.
Improvement Type	Gravel	Gravel	Gravel	Gravel
Surface Type	6.0	6.0	6.0	6.0
Carriageway Width(m)	.5	.5	.5	1.0
Shoulder Width (m)	TYPE 1-6	TYPE 1-6	TYPE 1-6	TYPE 1-6
Ref. Typical Section				

Road No: P3-2

Road Name: BOSOBOSO - CALAWIS ROAD
Location: ANTIPOLLO, RIZAL



Road Classification Total Length	Minor Road (Provincial Road) 4.0 km		
Sub-section No.	1	2	3
Length (km)	1.5	2.0	.5
Terrain	Flat	Mt'nous	Mt'nous
Existing Road Surface	Non Ex- isting	4.5-GRV (Bad)	4.5-GRV (Bad)
Proposed Improvement	New Con.	Rehabil.	Rehabil.
Improvement Type	Gravel	Gravel	Gravel
Surface Type	6.0	6.0	6.0
Carriageway Width(m)	1.0	.5	.5
Shoulder Width (m)	TYPE 5-4	TYPE 1-6	TYPE 1-6
Ref. Typical Section			
Bridge No.	BR-1	BR-2	
Existing Type	Ford-Cr.	Ford-Cr.	
Length (m)	-	-	
Proposed Type	2Lane-Sp	2Lane-Sp	
Length (m)	35	30	
No. of Spans	-	-	

THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT
IN THE REPUBLIC OF THE PHILIPPINES

PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale

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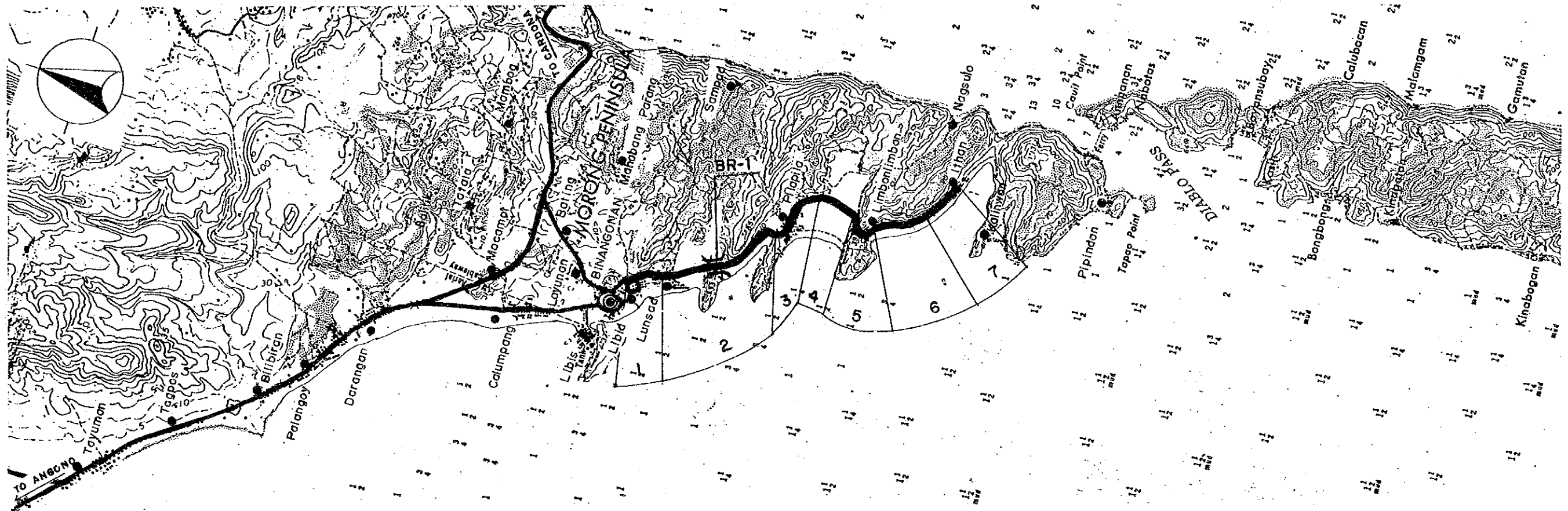
Drawing No.

27

Road No: P5-1

Road Name: BINANGONAN - PILAPILA ROAD

Location: BINANGONAN, RIZAL



Road Classification	Minor Road (Provincial Road)						
Total Length	4.5 km						
Sub-section No.	1	2	3	4	5	6	7
Length (km)	.4	1.5	.7	.5	.5	.6	.3
Terrain	Flat	Flat	Rolling	Flat	Rolling	Rolling	Rolling
Existing Road Surface	6.0-PCC (Fair)	6.0-BTM (Bad)	5.0-BTM (Good)	5.0-BTM (Bad)	5.0-BTM (Bad)	5.0-BTM (Good)	4.5-GRV (Bad)
Proposed Improvement							
Improvement Type	- Rehabil.	- Rehabil.	- Rehabil.	- Rehabil.	- Rehabil.	- Rehabil.	- Impr.-1
Surface Type	- Overlay	- Overlay	- Overlay	- Overlay	- Overlay	- Overlay	- * BMP
Carriageway Width(m)	- 6.0	- 6.0	- 5.0	- 5.0	- 5.0	- 5.0	- 6.0
Shoulder Width (m)	- 1.5	- 1.5	- 1.5	- 1.0	- 1.0	- 1.0	- 1.0
Ref. Typical Section	- TYPE 1-4	- TYPE 1-4	- TYPE 1-4	- TYPE 1-4	- TYPE 1-4	- TYPE 1-4	- TYPE 2-4
Bridge No.	BR-1						
Existing Type	Steel						
Length (m)	6						
Proposed Type	2Lane-Br						
Length (m)	6						
No. of Spans	1						

* DBST can be applied instead depending on conditions of subgrade, axle load, drainage, etc.

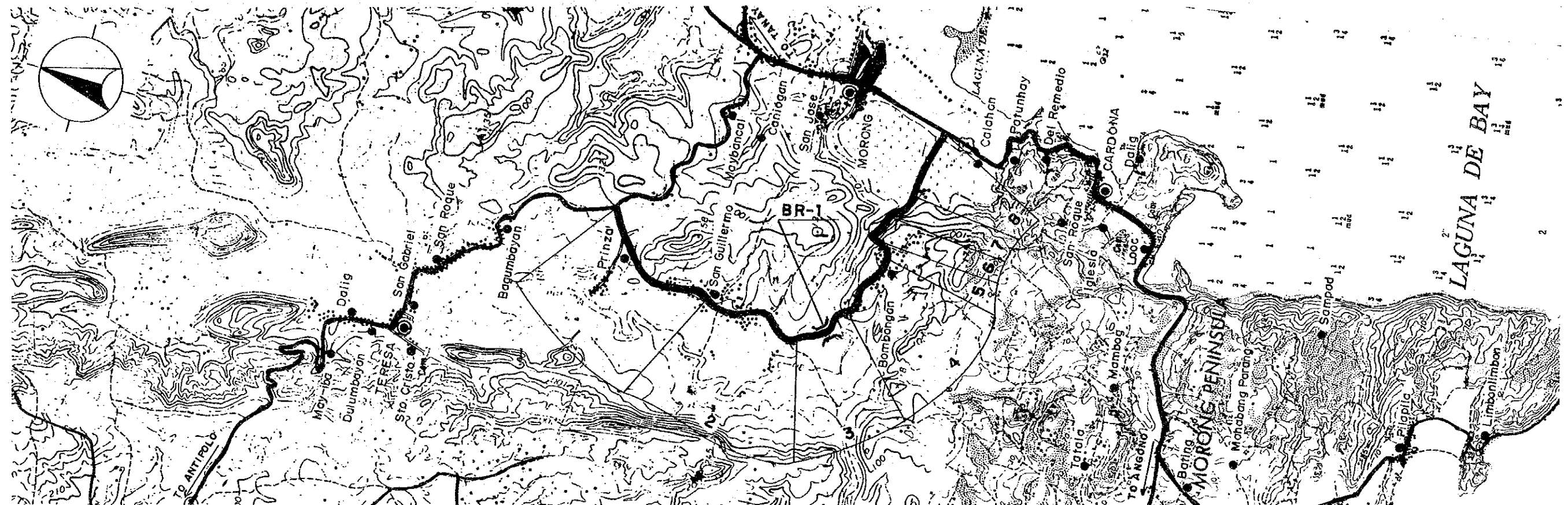
**THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT
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PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
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Drawing No.
28

Road No: P18-1 Road Name: MORONG - BOMBONGAN ROAD
Location : MORONG, RIZAL



Road Classification	Minor Road (Provincial Road)							
Total Length	7.0 km							
Sub-section No.	1	2	3	4	5	6	7	8
Length (km)	1.8	1.3	.8	1.0	.2	.7	.3	.9
Terrain	Rolling	Rolling	Flat	Rolling	Rolling	Mt'nous	Rolling	Flat
Existing Road Surface	6.0-BTM (Bad)	6.0-BTM (Fair)	6.0-BTM (Good)	5.0-BTM (V.Bad)	5.0-PCC (Good)	5.0-BTM (V.Bad)	5.0-BTM (V.Bad)	5.0-BTM (Bad)
Proposed Improvement								
Improvement Type	Rehabil.	-	-	Rehabil.	-	Rehabil.	Rehabil.	Rehabil.
Surface Type	Overlay	-	-	* BMP	-	* BMP	* BMP	Overlay
Carriageway Width(m)	6.0	-	-	6.0	-	6.0	6.0	5.0
Shoulder Width (m)	1.0	-	-	1.0	-	1.0	1.0	1.5
Ref. Typical Section	TYPE 1-4	-	-	TYPE 1-5	-	TYPE 1-5	TYPE 1-5	TYPE 1-4
Bridge No.	BR-1							
Existing Type	Concrete							
Length (m)	40							
Proposed Type	-							
Length (m)	-							
No. of Spans	-							

* DBST can be applied instead depending on conditions of subgrade, axle load, drainage, etc.