

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS & HIGHWAYS

Feasibility Study
on
The Rural Road Network Development Project

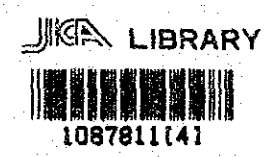
FINAL REPORT (Volume 16)

DRAWINGS FOR ROAD PROJECTS
IN
THE PROVINCE OF NUEVA VIZCAYA

OCTOBER, 1990

JAPAN INTERNATIONAL COOPERATION AGENCY

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CONTENTS

Drawing No.

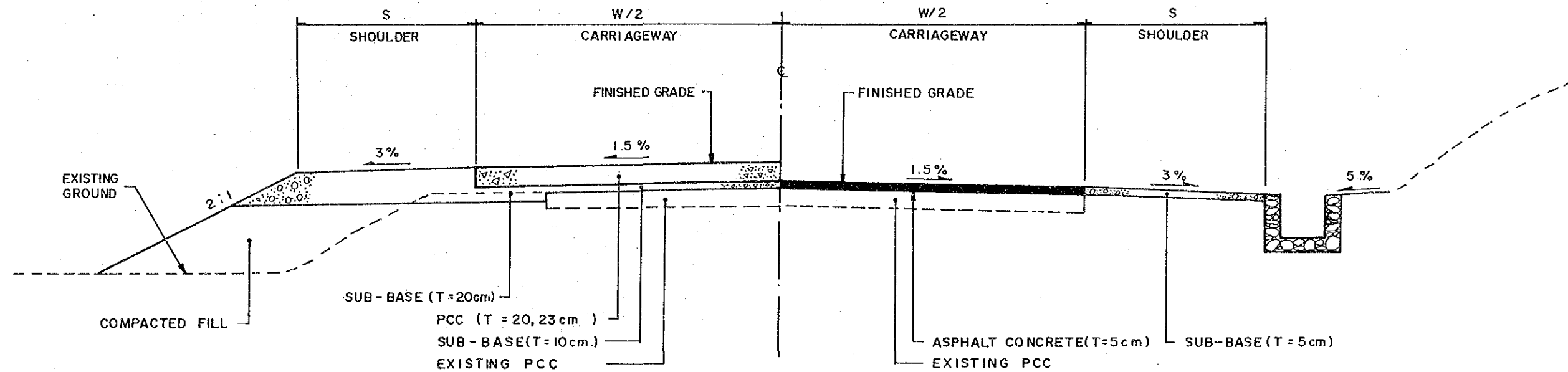
Title

1	LOCATION MAP
2 to 9	TYPICAL ROAD SECTIONS
10 to 44	PRESENT CONDITION AND PROPOSED IMPROVEMENT

LIST OF ROADS

Road Class	Road No.	Drawing No.	Road Class	Road No.	Drawing No.	Road Class	Road No.	Drawing No.
Secondary Major Road	N5 - 1	10	Minor Road	P21	24	Minor Road	B4 - 1	38
	N5 - 2	10		P33	25		B4 - 5	38
	N5 - 3	11		P36	26		B5 - 1	39
	N7 - 3	12		P42	27		B5 - 4	39
	N7 - 4	13		P43	28		B8 - 3	40
	P19	14		P47	29		B9 - 2	41
Minor Road	N5 - 4	15		P49	30		B9 - 5	42
	N7 - 2	16 & 17		P51	31		B10 - 1	42
	P1	18		P52 - 1	32		B10 - 2	43
	P3	19		P52 - 2	32		B12 - 2	43
	P6	19		P52 - 3	33		B14 - 2	44
	P7	20		P58	34			
	P10	21		P59	35			
	P13 - 2	22		B0 - 1	36			
	P14	23		B2 - 4	37			

LOCATION OF F/S ROADS



TYPE 1-1

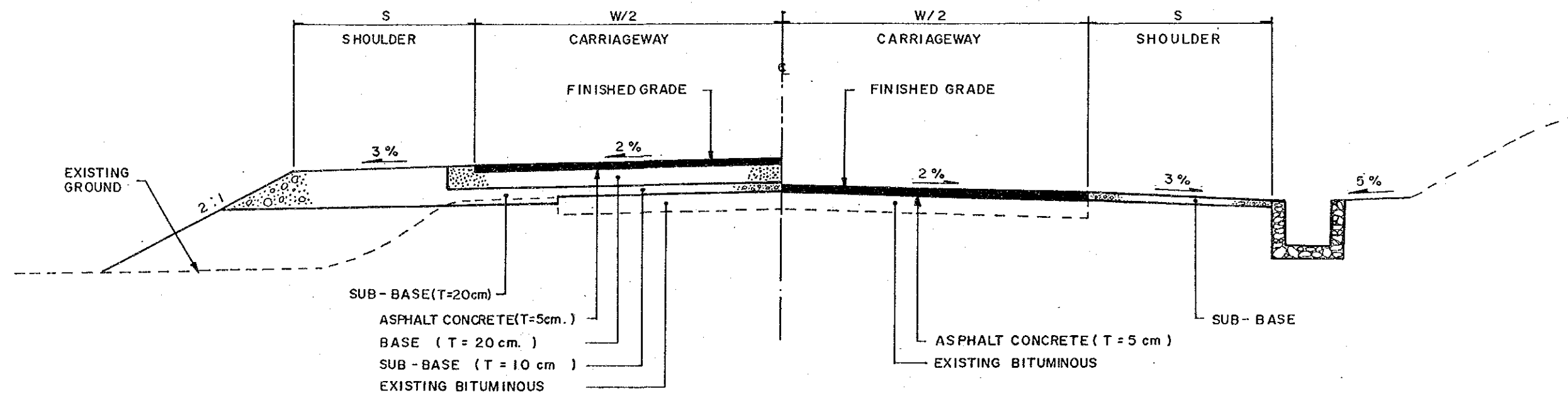
PROPOSED PAVEMENT : PCC

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

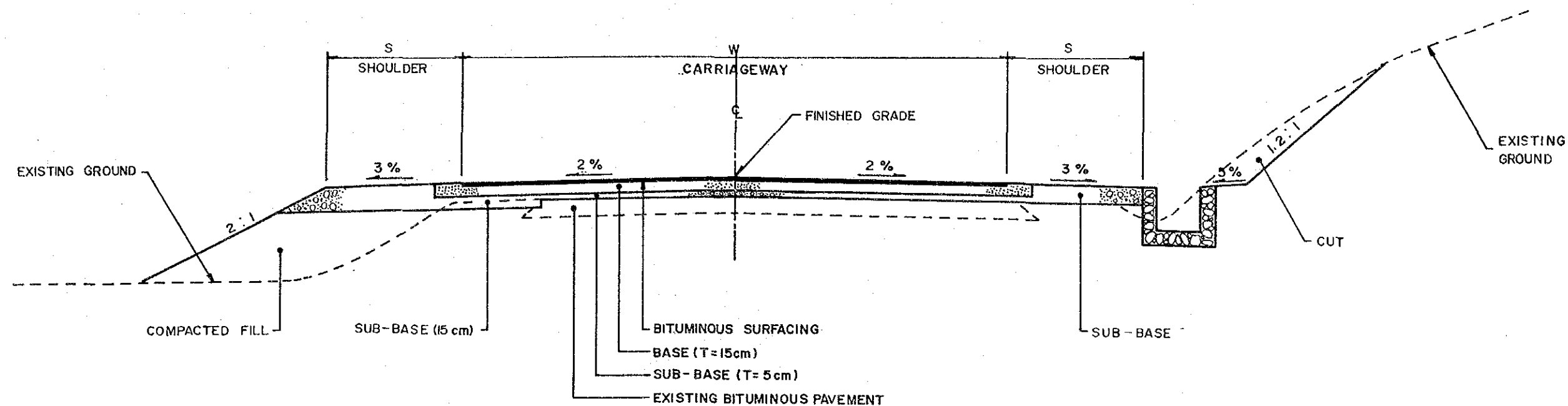
EXISTING PAVEMENT : BITUMINOUS (BAD / VERY BAD)

TYPE 1-4

PROPOSED PAVEMENT : ASPHALT CONCRETE OVERLAY

EXISTING PAVEMENT : BITUMINOUS (BAD / VERY BAD)

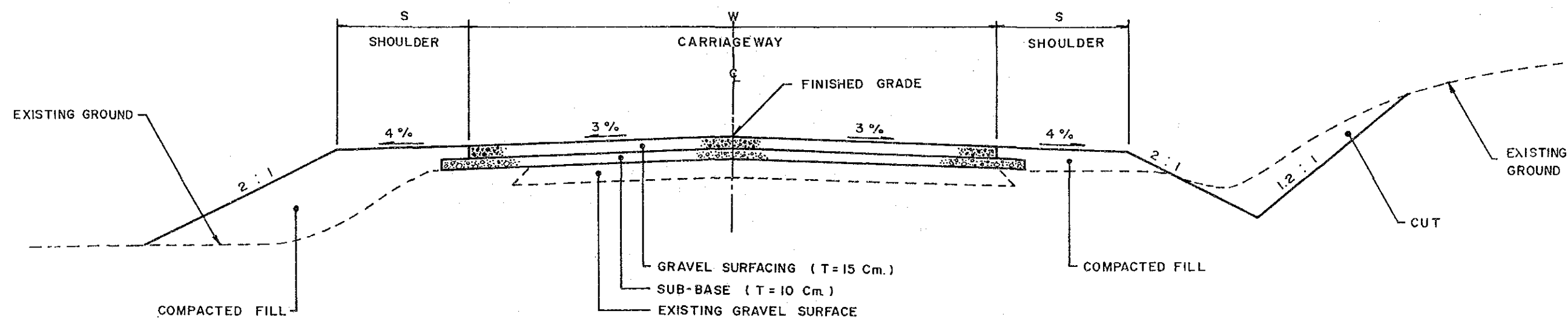
REHABILITATION (1)



TYPE I-5

PROPOSED PAVEMENT : BITUMINOUS MACADAM/DOUBLE BITUMINOUS SURFACE TREATMENT

EXISTING PAVEMENT : BITUMINOUS (BAD / VERY BAD)

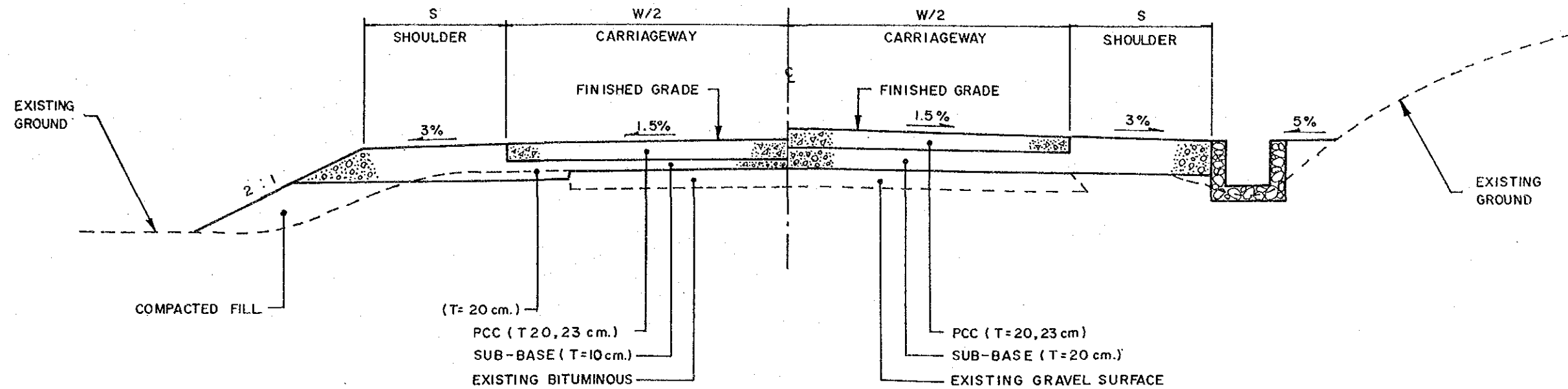


TYPE I-6

PROPOSED PAVEMENT : GRAVEL SURFACING

EXISTING PAVEMENT : GRAVEL SURFACING (BAD / VERY BAD)

REHABILITATION (2)



TYPE 2-1

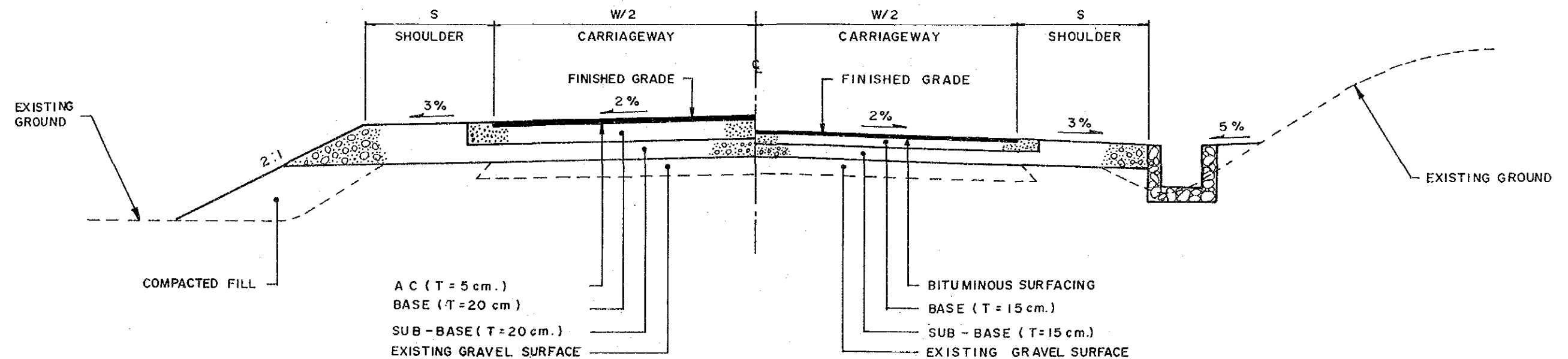
PROPOSED PAVEMENT : PCC

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

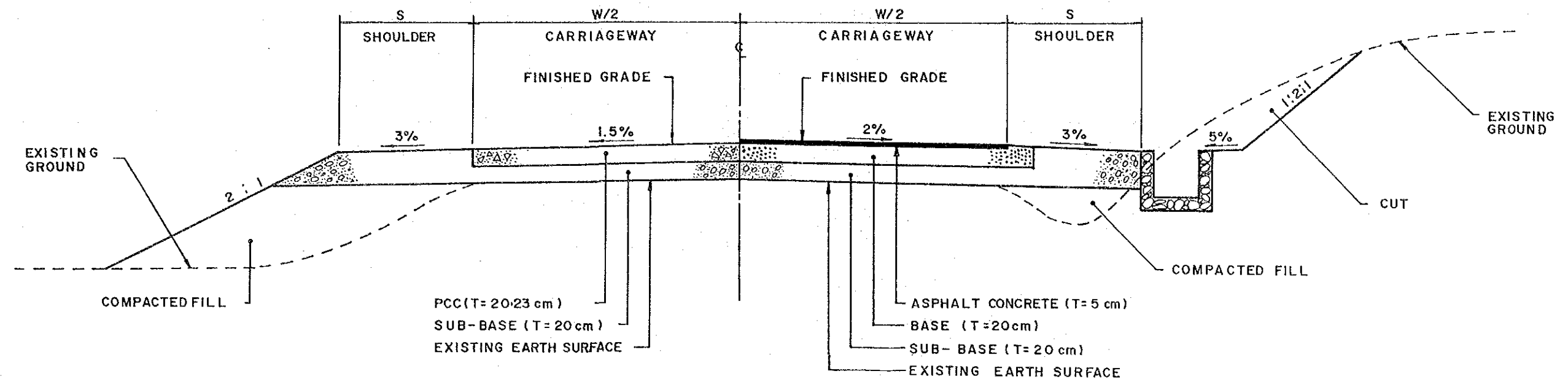
EXISTING PAVEMENT : GRAVEL SURFACING
(BAD/VERY BAD)

TYPE 2-4

PROPOSED PAVEMENT : BITUMINOUS MACADAM / DOUBLE BITUMINOUS
SURFACE TREATMENT

EXISTING PAVEMENT : GRAVEL SURFACING (BAD/VERY BAD)

IMPROVEMENT - I (I)

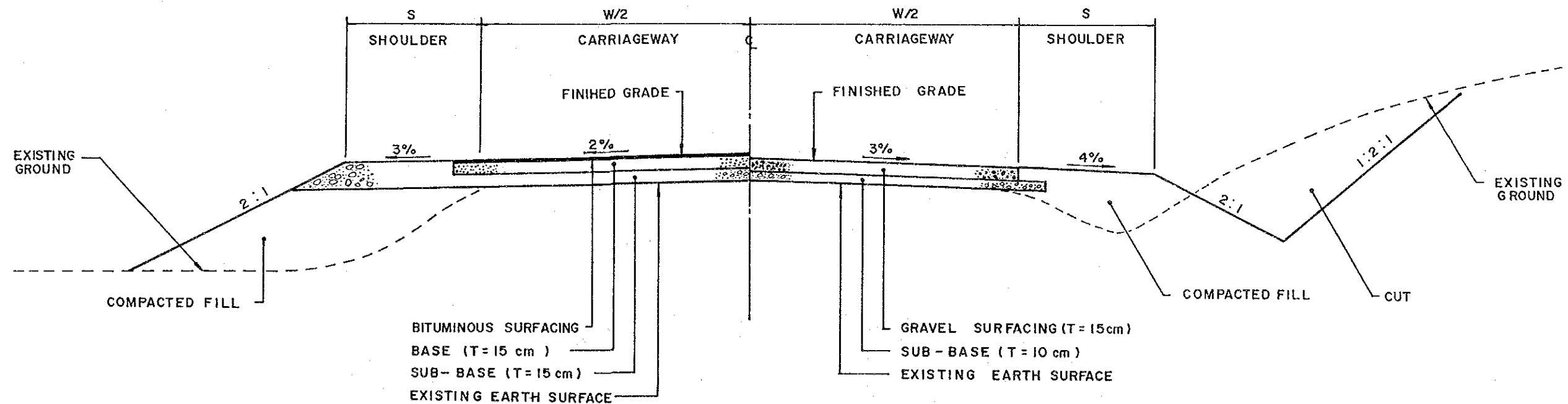


TYPE 2-5

PROPOSED PAVEMENT : PCC
EXISTING PAVEMENT : EARTH SURFACE

TYPE 2-6

PROPOSED PAVEMENT : ASPHALT CONCRETE
EXISTING PAVEMENT : EARTH SURFACE

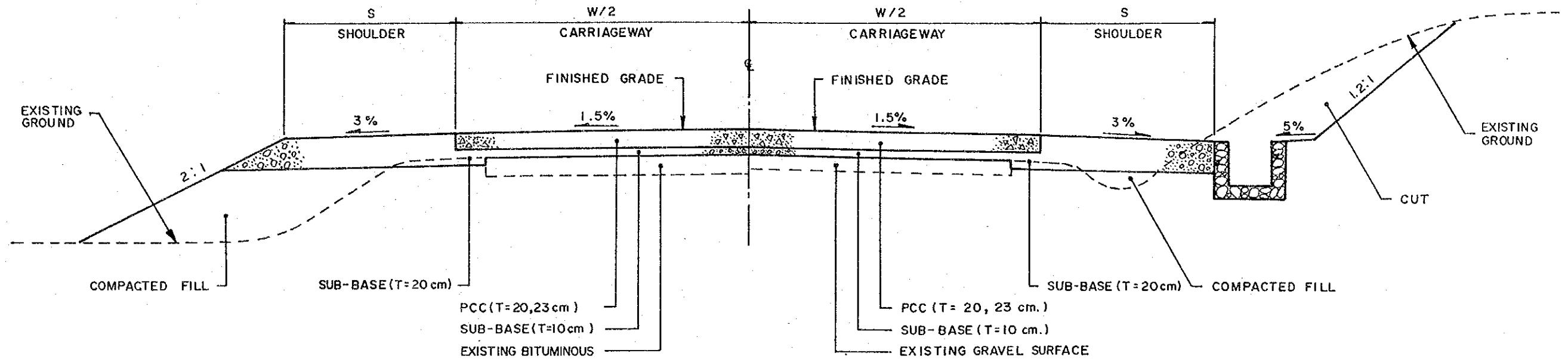


TYPE 2-7

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

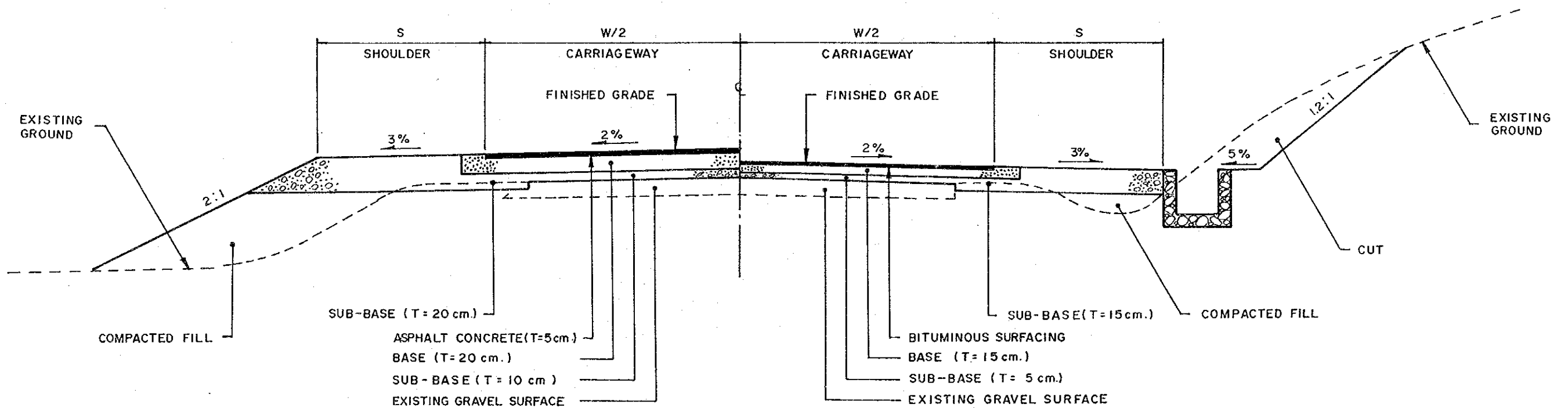
TYPE 2-8

PROPOSED PAVEMENT : GRAVEL SURFACING
EXISTING PAVEMENT : EARTH SURFACING



TYPE 3-1
PROPOSED PAVEMENT : PCC
EXISTING PAVEMENT : BITUMINOUS (Good/Fair)

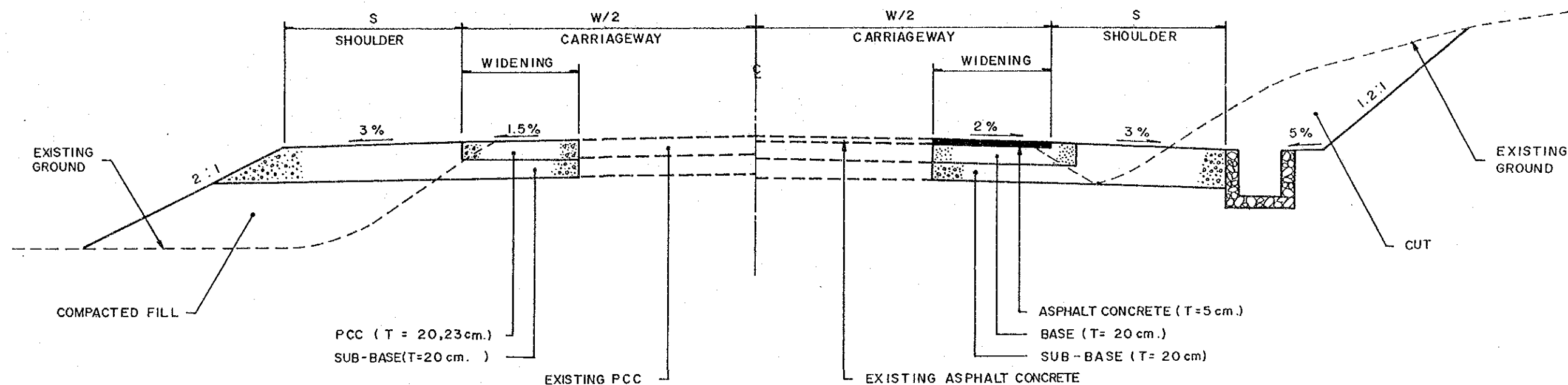
TYPE 3-2
PROPOSED PAVEMENT : PCC
EXISTING PAVEMENT : GRAVEL SURFACING (Good/Fair)



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

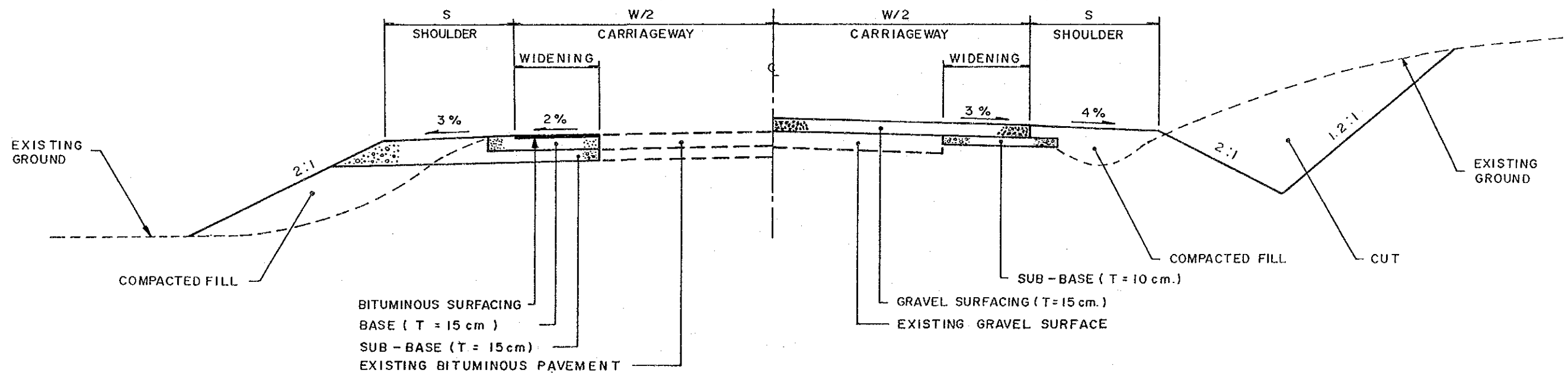


TYPE 4-1

PROPOSED PAVEMENT : PCC
EXISTING PAVEMENT : PCC

TYPE 4-2

PROPOSED PAVEMENT : ASPHALT CONCRETE
EXISTING PAVEMENT : ASPHALT CONCRETE



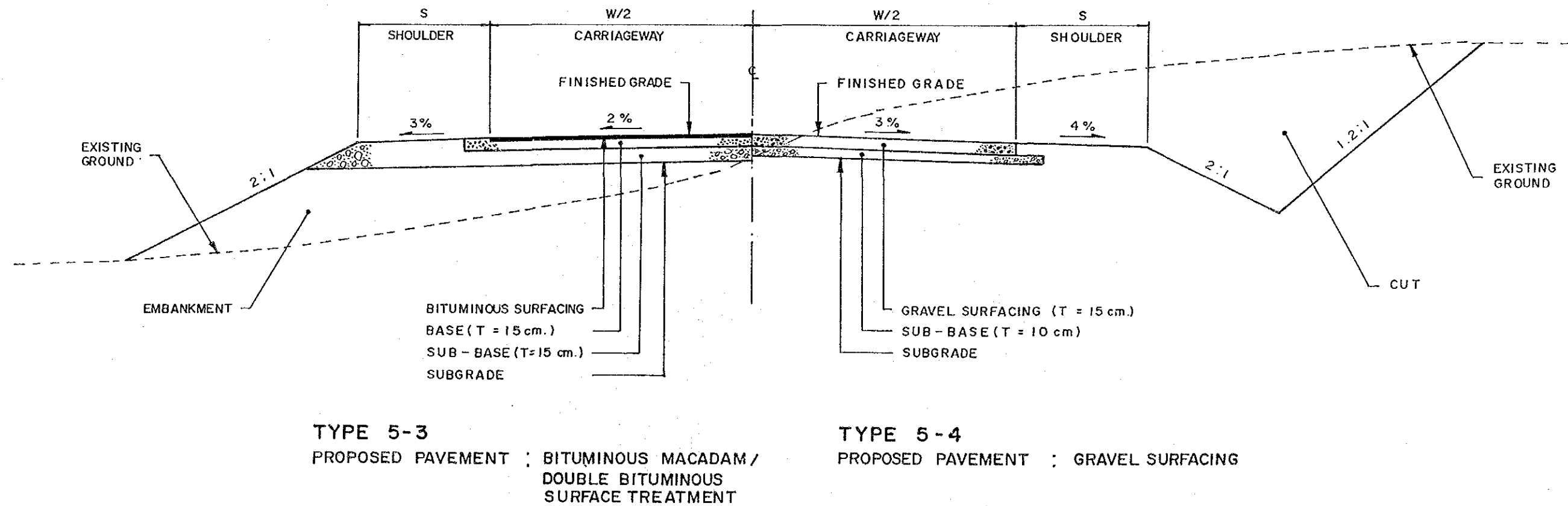
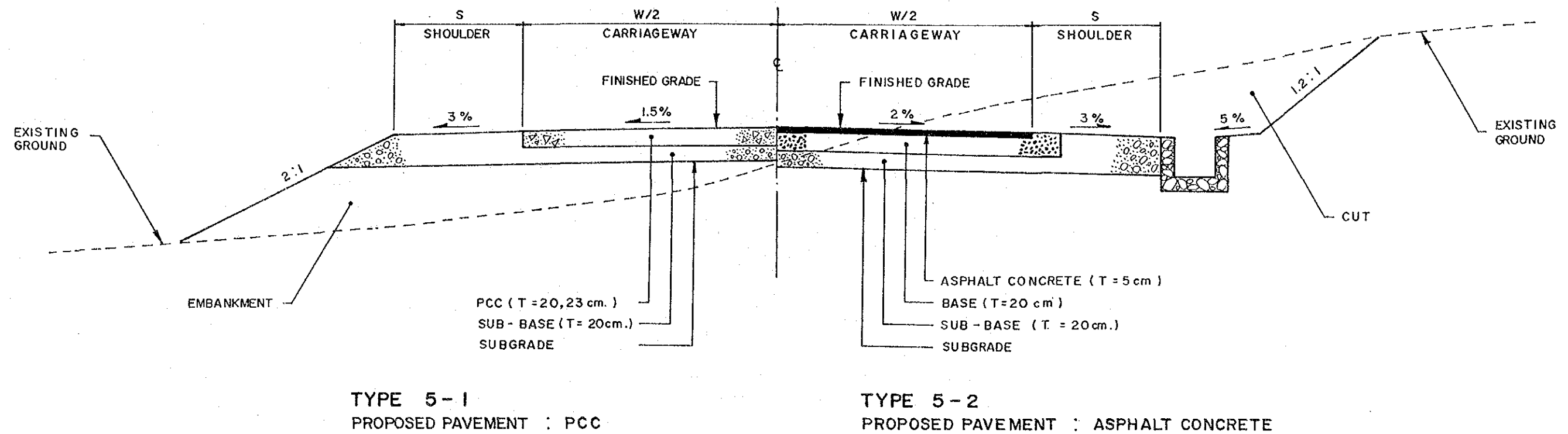
TYPE 4-3

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

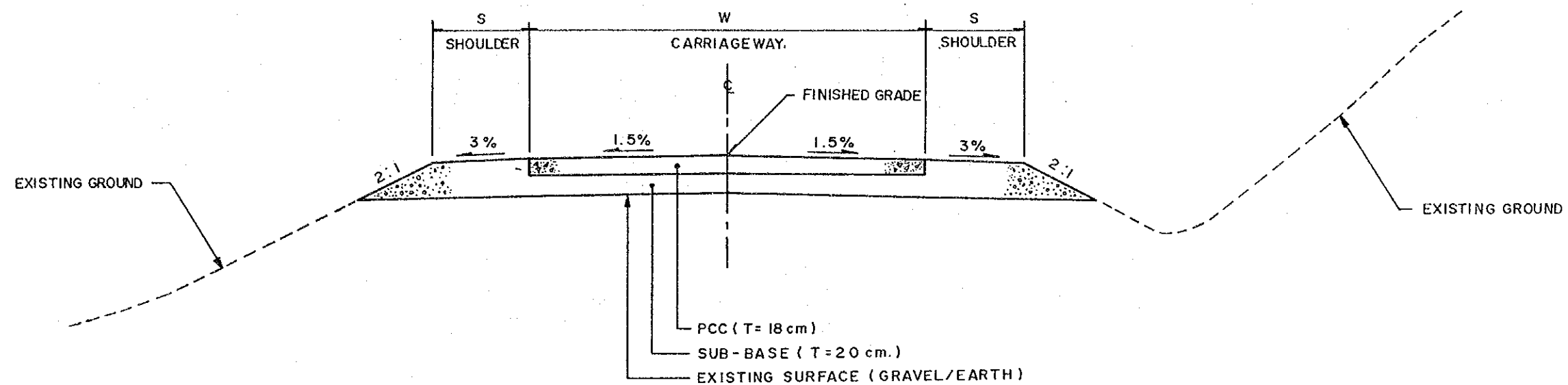
TYPE 4-4

PROPOSED PAVEMENT : GRAVEL SURFACING
EXISTING PAVEMENT : GRAVEL SURFACING

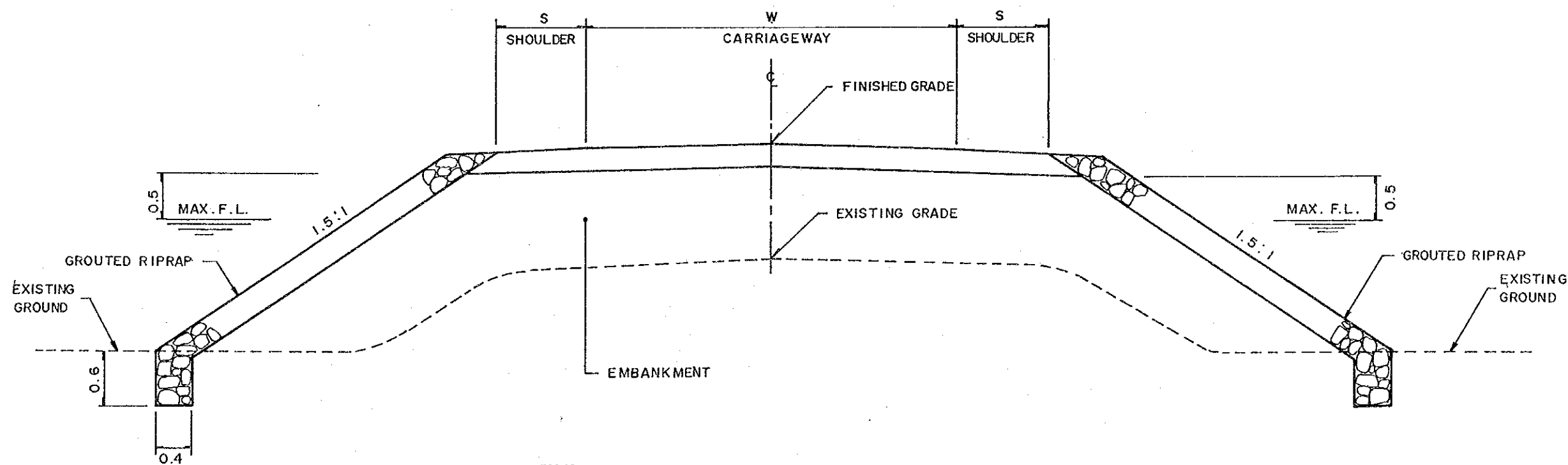
WIDENING



NEW CONSTRUCTION



TYPE 6
PCC PAVEMENT FOR STEEP GRADIENT SECTIONS



TYPE 7
GRADE RAISING SECTIONS IN FLOOD AREA

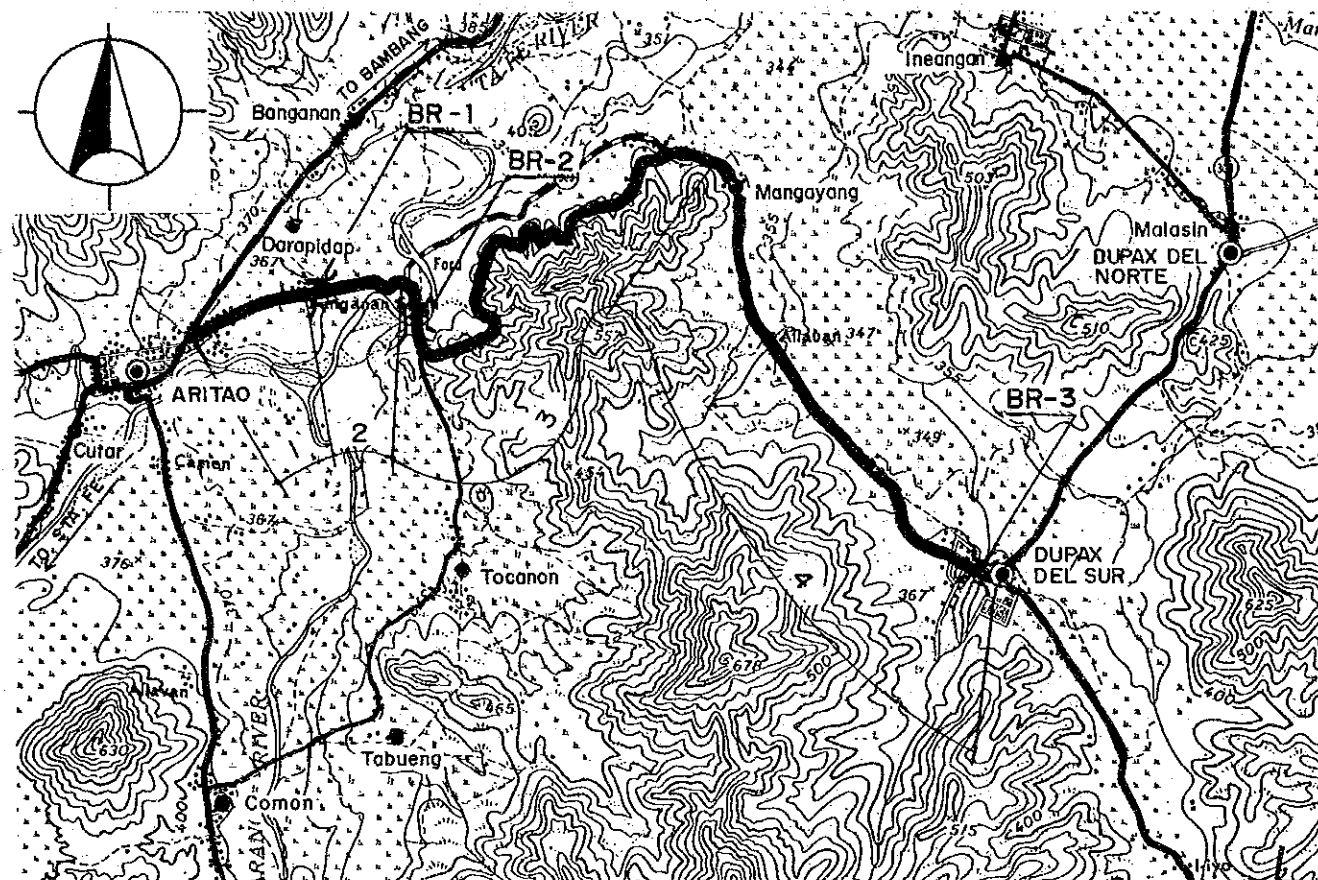
**THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT
IN THE REPUBLIC OF THE PHILIPPINES**

PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
1:50,000

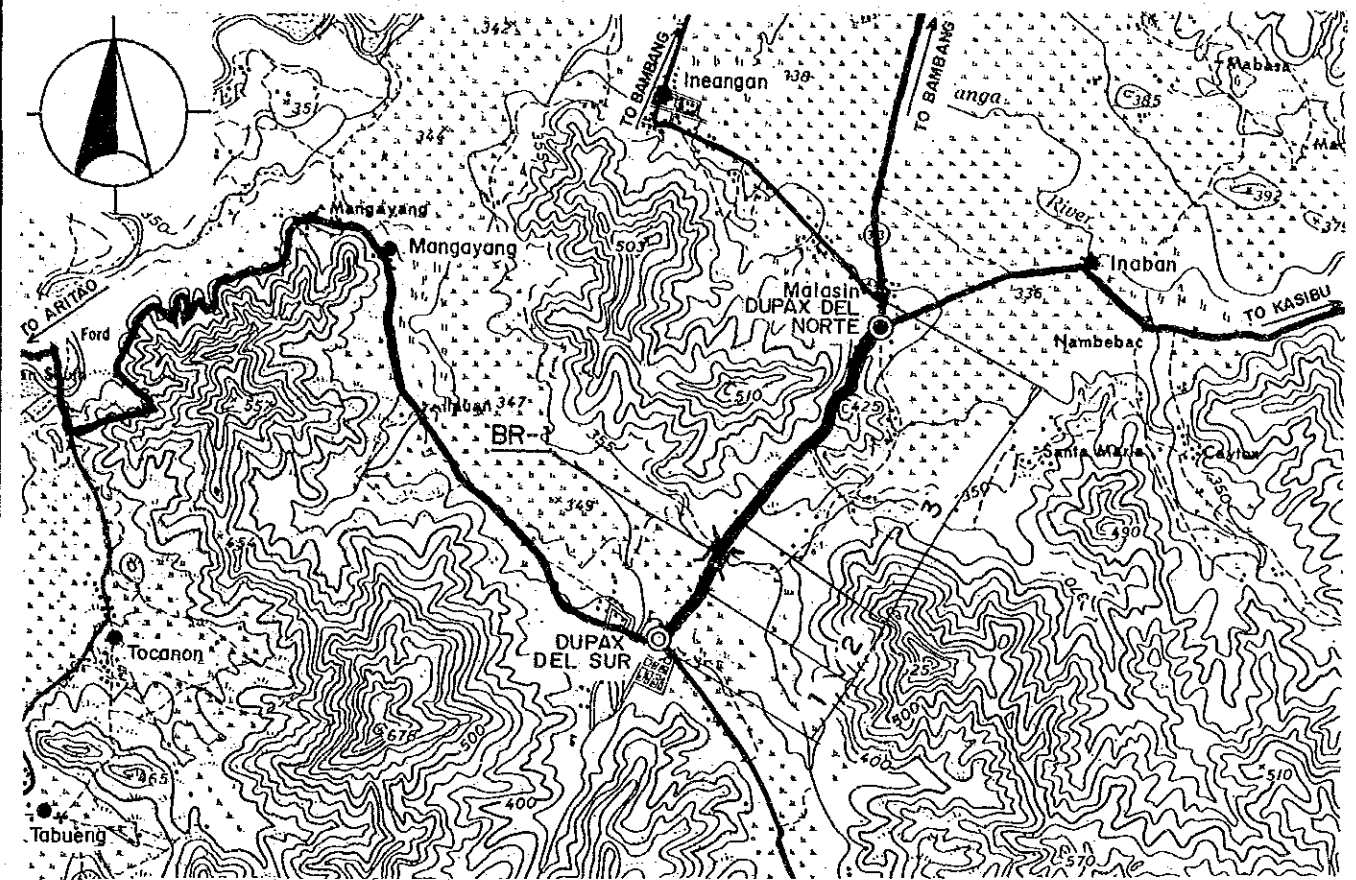
Drawing No.
10

Road No: N5-1 Road Name: ARITAO - DUPAX - KASIBU ROAD
Location : ARITAO & DUPAX SUR, NUEVA VIZCAYA



Road Classification Total Length	Secondary Major (National Road) 8.5 km			
Sub-section No.	1	2	3	4
Length (km)	.8	.5	3.5	3.7
Terrain	Flat	Flat	Rolling	Flat
Existing Road Surface	6.1-PCC (Good)	3.6-GRV (Bad)	3.6-GRV (Bad)	6.1-PCC (Good)
Proposed Improvement	-	Rehabil.	Rehabil.	-
Improvement Type	-	Gravel	Gravel	-
Surface Type	-	6.0	6.0	-
Carriageway Width(m)	-	1.0	.5	-
Shoulder Width (m)	-	-	-	-
Ref. Typical Section	-	TYPE 1-6	TYPE 1-6	-
Special Treatment	-	-	-	-
Flood Section Length	-	400	-	-
Height	-	.5	-	-
Bridge No.	BR-1	BR-2	BR-3	
Existing Type	Bailey	Ford-Cr.	Concrete	
Length (m)	6	-	12	
Proposed Type	2Lane-Br	2Lane-Br	-	
Length (m)	6	200	-	
No. of Spans	1	8	-	

Road No: N5-2 Road Name: ARITAO - DUPAX - KASIBU ROAD
Location : DUPAX SUR & DUPAX NORTE, NUEVA VIZCAYA



Road Classification Total Length	Second'y Major(National Rd) 2.9 km		
Sub-section No.	1	2	3
Length (km)	.5	.5	1.9
Terrain	Flat	Flat	Rolling
Existing Road Surface	6.1-PCC (Good)	5.5-GRV (Bad)	6.1-PCC (Good)
Proposed Improvement	-	Impr.-1	-
Improvement Type	-	* BMP	-
Surface Type	-	6.0	-
Carriageway Width(m)	-	1.5	-
Shoulder Width (m)	-	-	-
Ref. Typical Section	-	TYPE 2-4	-
Bridge No.	BR-1		
Existing Type	Bailey		
Length (m)	207		
Proposed Type	2Lane-Br		
Length (m)	210		
No. of Spans	9		

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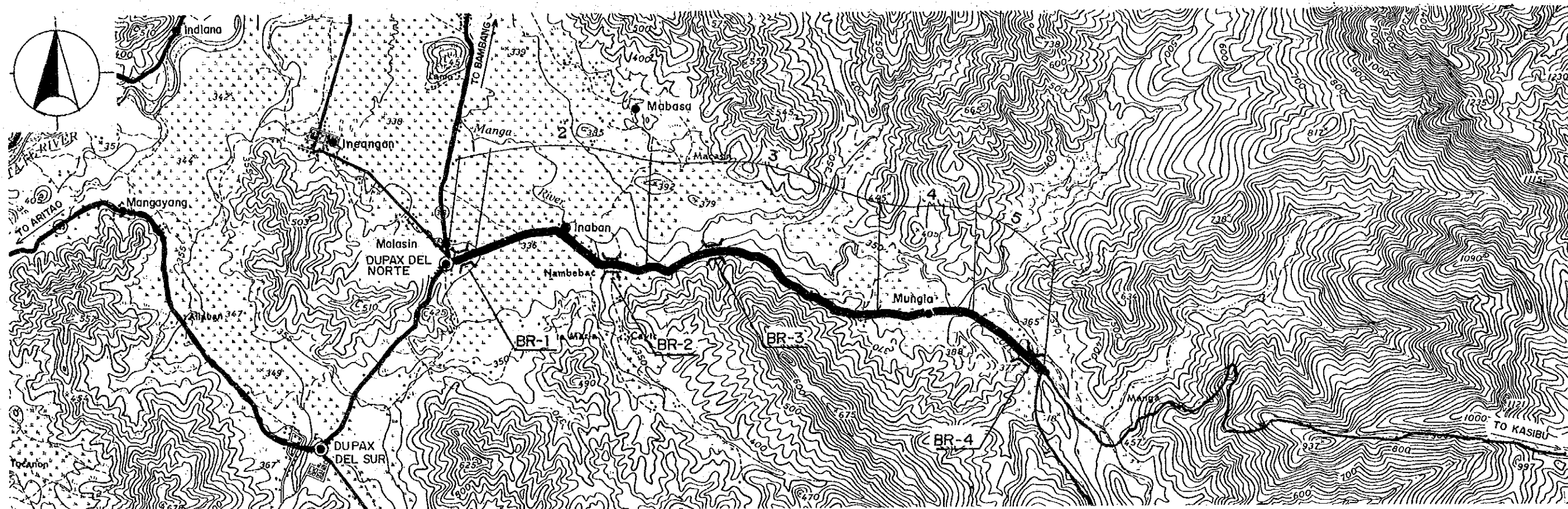
PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
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Drawing No.
11

Road No: N5-3

Road Name: ARITAO - DUPAX - KASIBU ROAD
Location : DUPAX NORTE, NUEVA VIZCAYA



Road Classification	Secondary Major (National Road)				
Total Length	8.1 km				
Sub-section No.	1	2	3	4	5
Length (km)	.3	2.3	3.0	1.2	1.3
Terrain	Flat	Flat	Rolling	Flat	Flat
Existing Road Surface	5.5-GRV (Fair)	5.5-GRV (Bad)	5.5-GRV (Bad)	5.5-GRV (Bad)	5.5-GRV (Bad)
Proposed Improvement	Widening	Rehabil.	Rehabil.	Rehabil.	Rehabil.
Improvement Type	Gravel	Gravel	Gravel	Gravel	Gravel
Surface Type	6.0	6.0	6.0	6.0	6.0
Carriageway Width(m)	1.0	1.0	.5	1.0	1.0
Shoulder Width (m)	TYPE 4-4 TYPE 1-6 TYPE 1-6 TYPE 1-6 TYPE 1-6				
Ref. Typical Section					
Bridge No.	BR-1	BR-2	BR-3	BR-4	
Existing Type	Bailey	Bailey	Bailey	Bailey	
Length (m)	9	24	12	9	
Proposed Type	2Lane-Br	2Lane-Br	2Lane-Br	2Lane-Br	
Length (m)	10	25	15	12	
No. of Spans	1	1	1	1	

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PRESENT CONDITION AND PROPOSED IMPROVEMENT

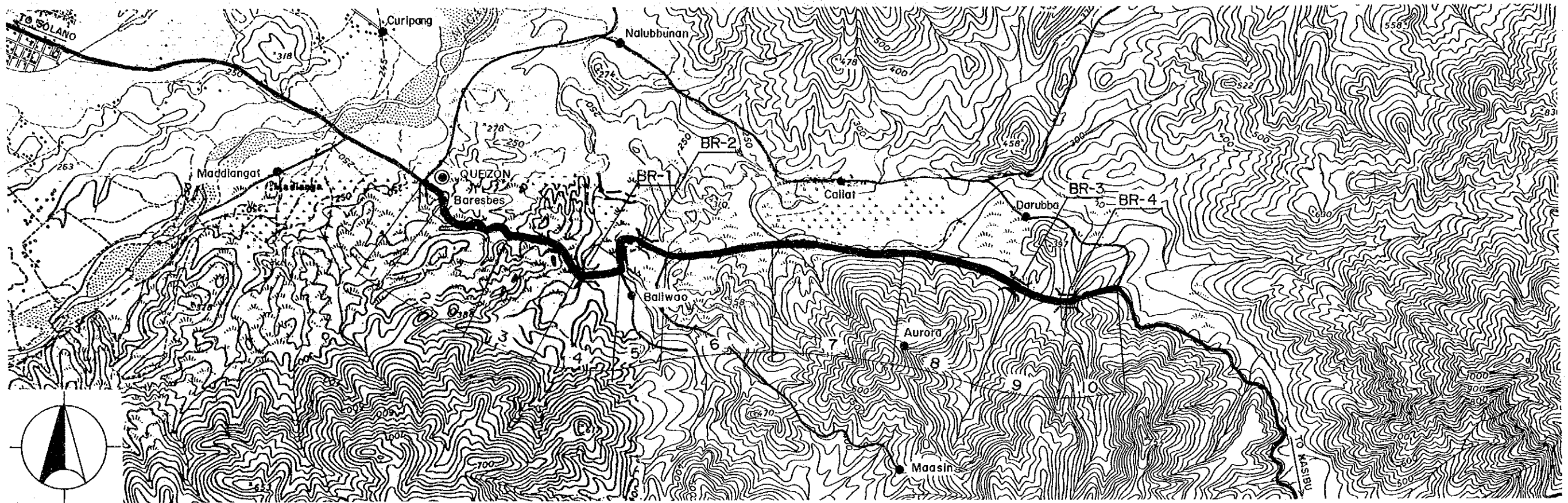
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Drawing No.
12

Road No: N7-3

Road Name: BAMBANG - KASIBU - QUEZON - SOLANO ROAD

Location: QUEZON, NUEVA VIZCAYA



Road Classification	Secondary Major (National Road)									
Total Length	10.1 km									
Sub-section No.	1	2	3	4	5	6	7	8	9	10
Length (km)	.3	1.1	1.3	.6	.9	1.3	1.6	1.7	.7	.6
Terrain	Rolling	Rolling	Rolling	Flat	Rolling	Rolling	Flat	Rolling	Rolling	Rolling
Existing Road Surface	6.0-BTM (Bad)	6.0-GRV (Bad)	5.0-GRV (Bad)	5.5-GRV (Fair)	5.0-GRV (Bad)	4.5-GRV (Bad)	4.0-GRV (Bad)	3.6-GRV (Bad)	3.6-GRV (Bad)	3.6-GRV (Bad)
Proposed Improvement	Rehabil.	Rehabil.	Rehabil.	Widening	Rehabil.	Rehabil.	Rehabil.	Rehabil.	Rehabil.	Rehabil.
Improvement Type	* BMP	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel
Surface Type	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Carriageway Width(m)	1.0	.5	.5	1.0	.5	.5	1.0	.5	.5	.5
Shoulder Width (m)	TYPE 1-5	TYPE 1-6	TYPE 1-6	TYPE 4-4	TYPE 1-6	TYPE 1-6	TYPE 1-6	TYPE 1-6	TYPE 1-6	TYPE 1-6
Ref. Typical Section										
Bridge No.	BR-1	BR-2	BR-3	BR-4						
Existing Type	Ford-Cr.	Ford-Cr.	Bailey	Ford-Cr.						
Length (m)	-	-	18	-						
Proposed Type	2Lane-Br	2Lane-Br	2Lane-Br	2Lane-Br						
Length (m)	15	200	20	20						
No. of Spans	1	8	1	1						

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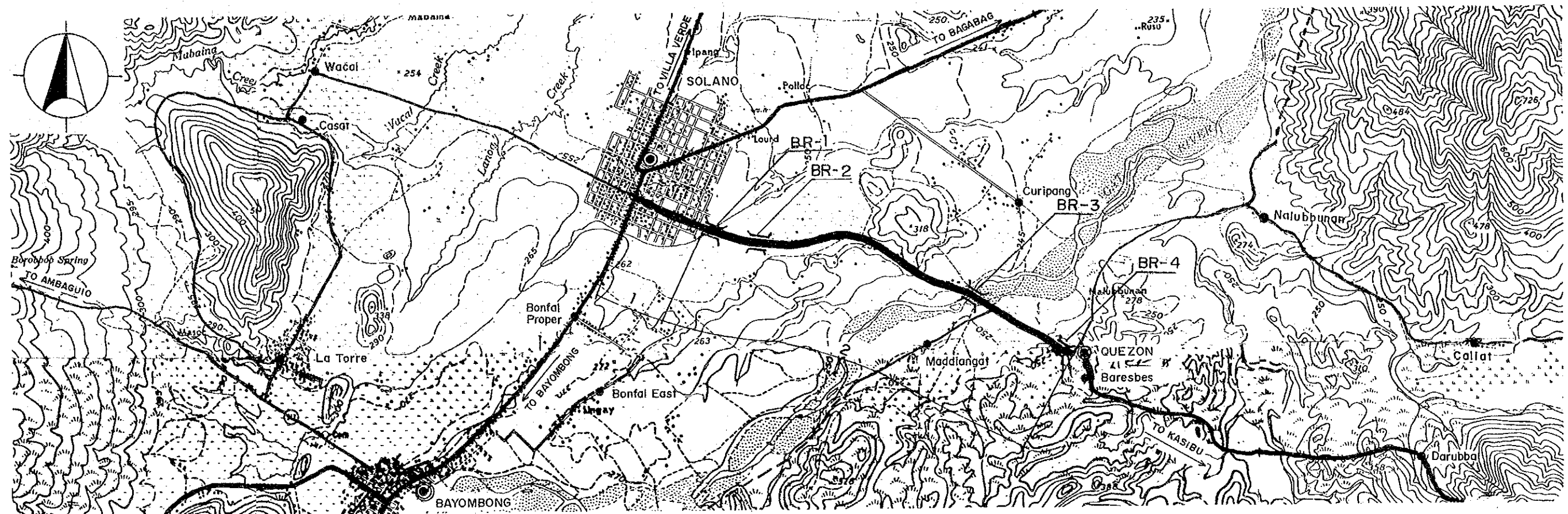
PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
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Drawing No.
13

Road No: N7-4

Road Name: BAMBANG - KASIBU - QUEZON - SOLANO ROAD
Location : SOLANO & QUEZON, NUEVA VIZCAYA



Road Classification	Secondary Major (National Road)			
Total Length	5.8 km			
Sub-section No.	1	2		
Length (km)	.9	4.9		
Terrain	Flat	Flat		
Existing Road Surface	6.1-PCC (Fair)	5.5-GRV (Bad)		
Proposed Improvement	- Rehabil.			
Improvement Type	- Gravel			
Surface Type	- 6.0			
Carriageway Width(m)	- 1.0			
Shoulder Width (m)	- TYPE 1-6			
Ref. Typical Section				
Bridge No.	BR-1	BR-2	BR-3	BR-4
Existing Type	Bailey	Bailey	Concrete	Bailey
Length (m)	15	6	90	24
Proposed Type	2Lane-Br	2cell-BC	-	2Lane-Br
Length (m)	15	6	-	25
No. of Spans	1	2	-	1

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PRESENT CONDITION AND PROPOSED IMPROVEMENT

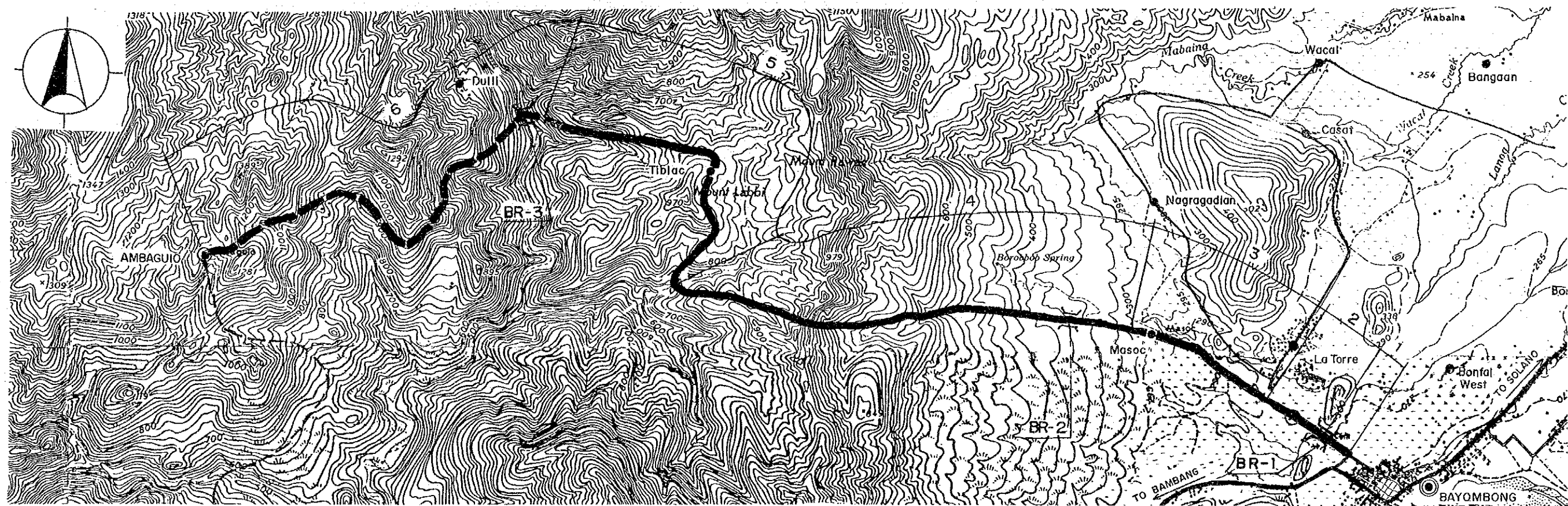
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Drawing No.
14

Road No: P19

Road Name: BAYOMBONG - AMBAGUIO ROAD

Location : BAYOMBONG & AMBAGUIO, NUEVA VIZCAYA



Road Classification	Secondary Major (Provincial Road)					
Total Length	18.4 km					
Sub-section No.	1	2	3	4	5	6
Length (km)	.5	.7	1.8	5.7	4.3	5.4
Terrain	Flat	Flat	Flat	Mt'nous	Mt'nous	Mt'nous
Existing Road Surface	6.0-BTM (Fair)	4.5-GRV (Bad)	4.5-GRV (Bad)	4.0-GRV (V.Bad)	3.6-GRV (V.Bad)	Non Ex- isting
Proposed Improvement	- Rehabil. Rehabil. Rehabil. Rehabil. New Con.					
Improvement Type	- Gravel Gravel Gravel Gravel Gravel					
Surface Type	- 6.0 6.0 6.0 6.0 6.0					
Carriageway Width(m)	- 1.0 1.0 .5 .5 .5					
Shoulder Width (m)	- TYPE 1-6 TYPE 1-6 TYPE 1-6 TYPE 1-6 TYPE 5-4					
Ref. Typical Section	- TYPE 1-6 TYPE 1-6 TYPE 1-6 TYPE 1-6 TYPE 5-4					
Special Treatment						
Flood Section Length	-	-	800	-	-	-
Height	-	-	.5	-	-	-
Steep Section Length	-	-	-	200	300	-
Bridge No.	BR-1	BR-2	BR-3			
Existing Type	Concrete	Ford-Cr.	Ford-Cr.			
Length (m)	10	-	-			
Proposed Type	-	1Lane-Br	1Lane-Br			
Length (m)	-	30	100			
No. of Spans	-	2	4			

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PRESENT CONDITION AND PROPOSED IMPROVEMENT

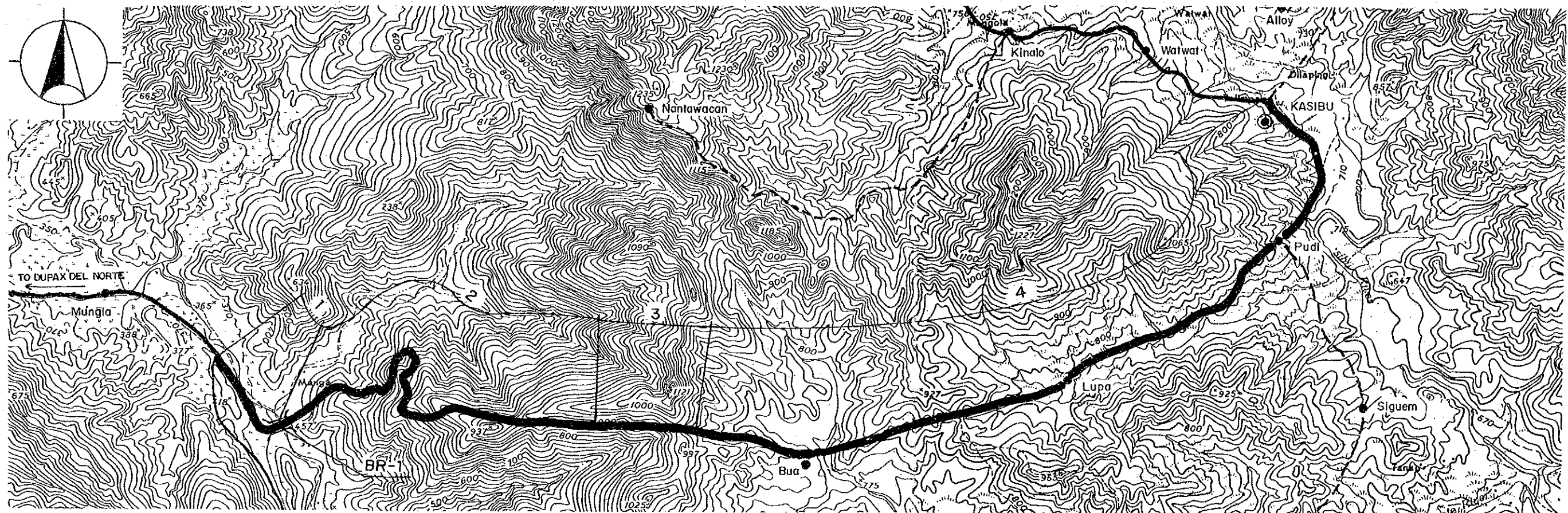
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Drawing No.
15

Road No: N5-4

Road Name: ARITAO - DUPAX - KASIBU ROAD

Location: DUPAX NORTE & KASIBU, NUEVA VIZCAYA



Road Classification	Minor Road (National Road)			
Total Length	20.3 km			
Sub-section No.	1	2	3	4
Length (km)	1.2	6.0	1.3	11.8
Terrain	Rolling	Mt'nous	Mt'nous	Mt'nous
Existing Road Surface	5.0-GRV (Bad)	4.0-EAR (Impass)	4.0-EAR (Impass)	4.0-EAR (Impass)
Proposed Improvement	Rehabil.	Impr.-1	Impr.-1	Impr.-1
Improvement Type	Gravel	Gravel	Gravel	Gravel
Surface Type	4.0	4.0	4.0	4.0
Carriageway Width(m)	.5	.5	.5	.5
Shoulder Width (m)	TYPE 1-6	TYPE 2-8	TYPE 2-8	TYPE 2-8
Ref. Typical Section				
Special Treatment				
Steep Section Length	-	1800	390	-
Bridge No.	BR-1			
Existing Type	Ford-Cr.			
Length (m)	-			
Proposed Type	1Lane-Br			
Length (m)	30			
No. of Spans	1			

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PRESENT CONDITION AND PROPOSED IMPROVEMENT

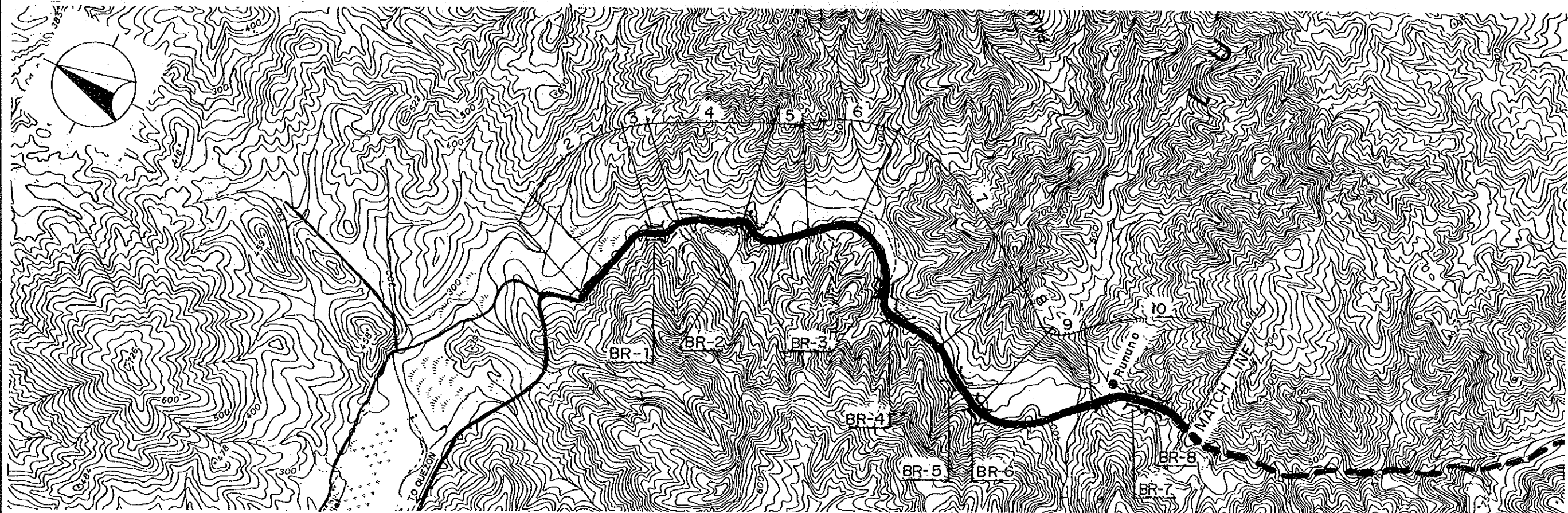
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Drawing No.
16

Road No: N7-2

Road Name: BAMBANG - KASIBU - QUEZON - SOLANO ROAD

Location: QUEZON & KASIBU, NUEVA VIZCAYA



Road Classification	Minor Road (National Road)									
Total Length	29.6 km									
Sub-section No.	1	2	3	4	5	6	7	8	9	10
Length (km)	.7	1.3	.4	1.6	.8	.9	2.2	1.0	1.0	1.7
Terrain	Rolling	Flat	Rolling	Rolling	Flat	Rolling	Rolling	Rolling	Rolling	Rolling
Existing Road Surface	4.5-EAR (Impass)	4.5-EAR (Impass)	4.0-EAR (Impass)	3.6-EAR (Impass)	3.6-EAR (Impass)	4.5-EAR (Impass)	4.5-GRV (Impass)	4.5-GRV (Impass)	3.6-EAR (Impass)	3.2-EAR (Impass)
Proposed Improvement	Impr.-1	Impr.-1	Impr.-1	Impr.-1	Impr.-1	Impr.-1	Rehabil.	Rehabil.	Impr.-1	Impr.-1
Improvement Type	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel
Surface Type	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel
Carriageway Width(m)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Shoulder Width (m)	.5	1.0	.5	.5	1.0	.5	.5	.5	.5	.5
Ref. Typical Section	TYPE 2-8	TYPE 2-8	TYPE 2-8	TYPE 2-8	TYPE 2-8	TYPE 2-8	TYPE 1-6	TYPE 1-6	TYPE 2-8	TYPE 2-8
Bridge No.	BR-1	BR-2	BR-3	BR-4	BR-5	BR-6	BR-7	BR-8		
Existing Type	Ford-Cr.	Ford-Cr.	Ford-Cr.	Ford-Cr.	Ford-Cr.	Ford-Cr.	Ford-Cr.	Ford-Cr.		
Length (m)	-	-	-	-	-	-	-	-		
Proposed Type	1Lane-Sp	2cell-BC	1Lane-Sp	1Lane-Sp	1Lane-Sp	1Lane-Sp	1Lane-Sp	1Lane-Sp		
Length (m)	20	8	15	30	45	40	50	100		
No. of Spans	-	2	-	-	-	-	-	-		

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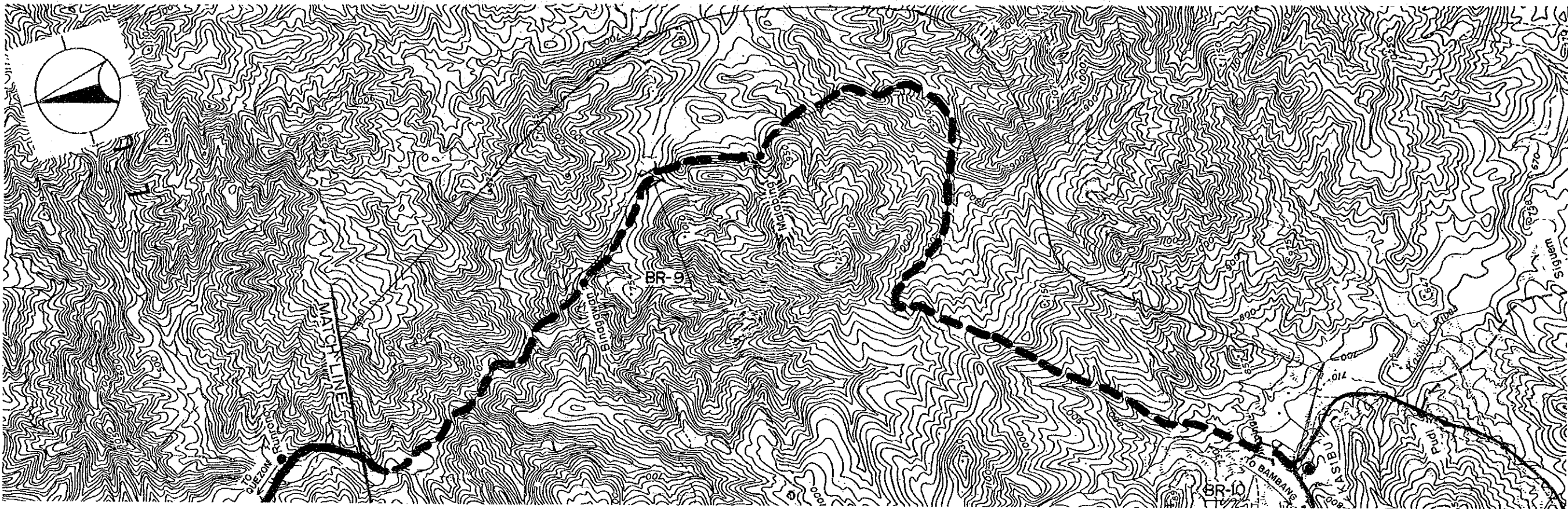
PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
1:50,000

Drawing No.
17

Road No: N7-2

Road Name: BAMBANG - KASIBU - QUEZON - SOLANO ROAD
Location : QUEZON & KASIBU, NUEVA VIZCAYA



Road Classification		
Total Length		
Sub-section No.	11	
Length (km)	18.0	
Terrain	Mt'nous	
Existing Road Surface	Non Ex-isting	
Proposed Improvement	New Con.	
Improvement Type	Gravel	
Surface Type	4.0	
Carriageway Width(m)	.5	
Shoulder Width (m)	TYPE 5-4	
Ref. Typical Section		
Bridge No.	BR-9	BR-10
Existing Type	Ford-Cr.	Ford-Cr.
Length (m)	-	-
Proposed Type	1Lane-Sp	1Lane-Sp
Length (m)	30	50
No. of Spans	-	-

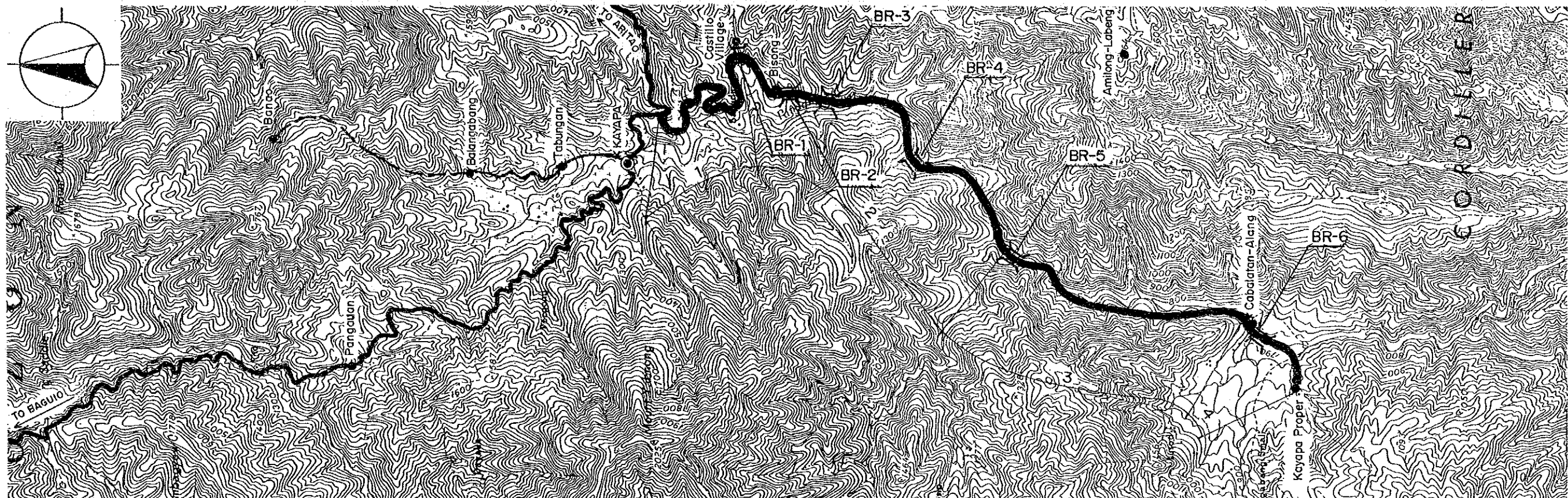
**THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT
IN THE REPUBLIC OF THE PHILIPPINES**

PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
1:50,000

Drawing No.
18

Road No: P1 Road Name: KAYAPA - KAYAPA PROPER ROAD
Location : KAYAPA, NUEVA VIZCAYA



Road Classification	Minor Road (Provincial Road)					
Total Length	14.9 km					
Sub-section No.	1	2	3	4		
Length (km)	2.4	6.1	4.8	1.6		
Terrain	Mt'nous	Mt'nous	Mt'nous	Rolling		
Existing Road Surface	4.0-GRV (Fair)	4.0-GRV (Fair)	4.0-GRV (V.Bad)	4.0-EAR (Impass)		
Proposed Improvement						
Improvement Type	-	-	Rehabil.	Impr.-1		
Surface Type	-	-	Gravel	Gravel		
Carriageway Width(m)	-	-	4.0	4.0		
Shoulder Width (m)	-	-	.5	.5		
Ref. Typical Section	-	-	TYPE 1-6	TYPE 2-8		
Special Treatment						
Steep Section Length	-	-	-	100		
Bridge No.	BR-1	BR-2	BR-3	BR-4	BR-5	BR-6
Existing Type	Steel	RCBC	Bailey	Bailey	Bailey	Ford-Cr.
Length (m)	4	3	18	9	15	-
Proposed Type	-	-	-	-	-	1Lane-Sp
Length (m)	-	-	-	-	-	30
No. of Spans	-	-	-	-	-	-

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

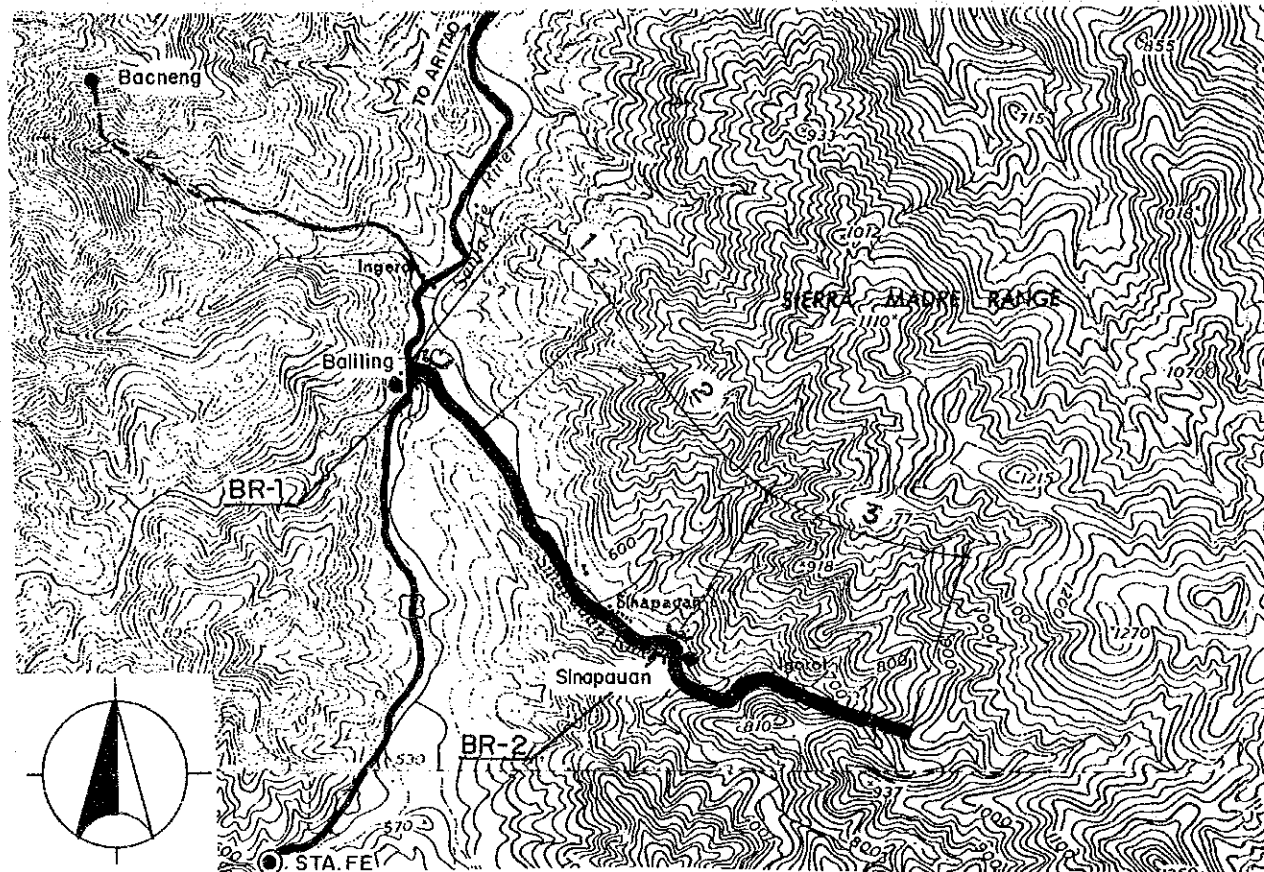
PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
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Drawing No.
19

Road No: P3

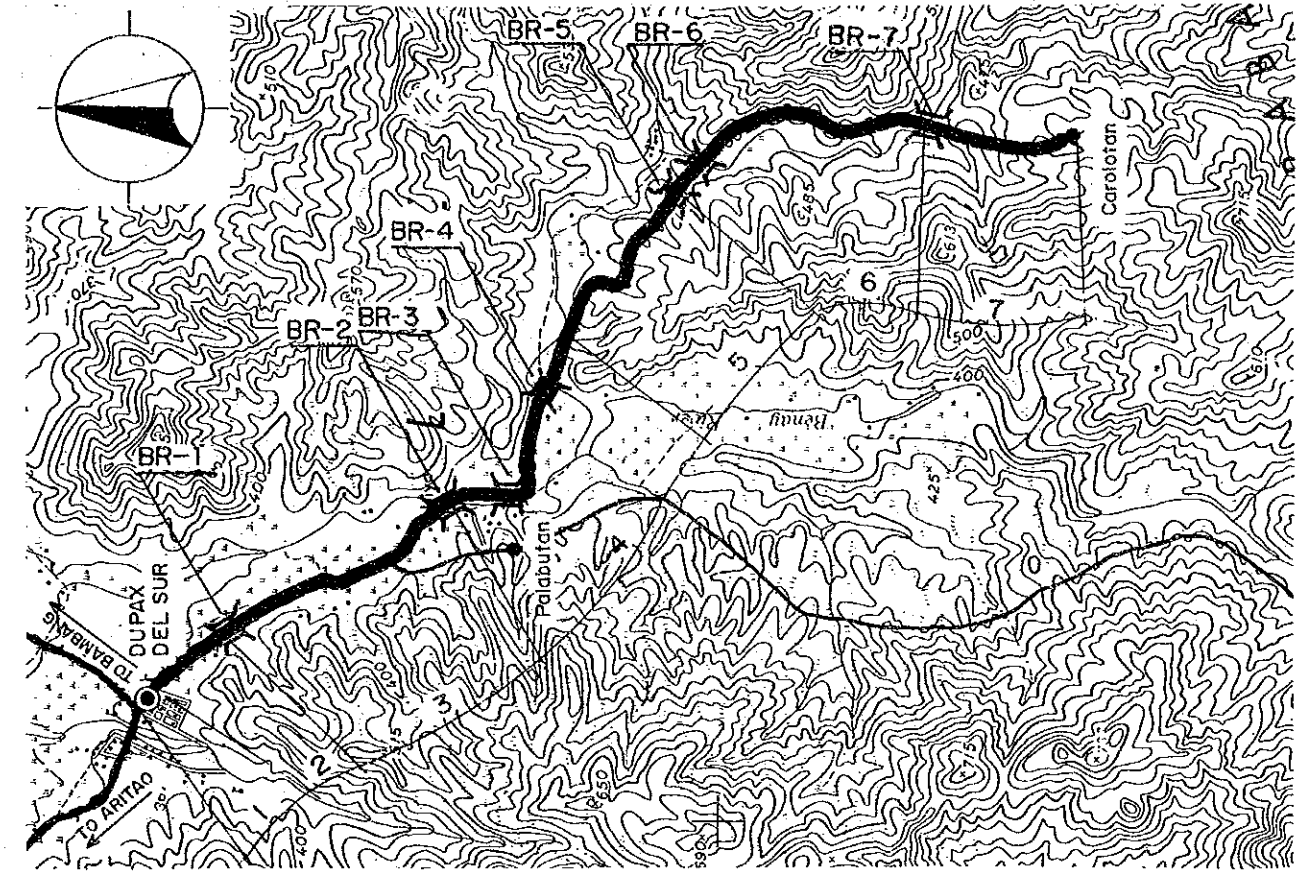
Road Name: BALILING - SINAPAOAN ROAD
Location : STA. FE, NUEVA VIZCAYA



Road Classification	Minor Road (Provincial Road)		
Total Length	5.1 km		
Sub-section No.	1	2	3
Length (km)	.7	2.4	2.0
Terrain	Flat	Rolling	Mt'nous
Existing Road Surface	3.2-GRV (Bad)	3.2-GRV (Bad)	3.2-GRV (Bad)
Proposed Improvement	Rehabil.	Rehabil.	Rehabil.
Improvement Type	Gravel	Gravel	Gravel
Surface Type	Gravel	Gravel	Gravel
Carriageway Width(m)	4.0	4.0	4.0
Shoulder Width (m)	1.0	.5	.5
Ref. Typical Section	TYPE 1-6	TYPE 1-6	TYPE 1-6
Special Treatment			
Flood Section Length	700	-	-
Height	.5	-	-
Bridge No.	BR-1	BR-2	
Existing Type	Ford-Cr.	Ford-Cr.	
Length (m)	-	-	
Proposed Type	1Lane-Br	1Lane-Sp	
Length (m)	50	30	
No. of Spans	2	-	

Road No: P6

Road Name: DUPAX SUR - IYO - CARLOTAN ROAD
Location : DUPAX SUR, NUEVA VIZCAYA



Road Classification	Minor Road (Provincial Road)						
Total Length	9.3 km						
Sub-section No.	1	2	3	4	5	6	7
Length (km)	.2	.6	1.8	1.8	1.4	2.5	1.0
Terrain	Flat	Flat	Flat	Rolling	Rolling	Rolling	Rolling
Existing Road Surface	4.0-GRV (Bad)	4.0-GRV (Bad)	4.0-GRV (Bad)	4.0-GRV (Bad)	4.0-GRV (Bad)	3.6-EAR (Bad)	3.2-EAR (Bad)
Proposed Improvement	Rehabil.	Rehabil.	Rehabil.	Rehabil.	Rehabil.	Impr.-1	Impr.-1
Improvement Type	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel
Surface Type	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel
Carriageway Width(m)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Shoulder Width (m)	1.0	1.0	1.0	.5	.5	.5	.5
Ref. Typical Section	TYPE 1-6	TYPE 1-6	TYPE 1-6	TYPE 1-6	TYPE 1-6	TYPE 2-8	TYPE 2-8
Bridge No.	BR-1	BR-2	BR-3	BR-4	BR-5	BR-6	BR-7
Existing Type	Steel	Ford-Cr.	Concrete	Ford-Cr.	Ford-Cr.	Ford-Cr.	Ford-Cr.
Length (m)	6	-	6	-	-	-	-
Proposed Type	-	1Lane-Br	-	1Lane-Sp	1Lane-Sp	1Lane-Sp	1Lane-Sp
Length (m)	-	20	-	50	30	15	15
No. of Spans	-	1	-	-	-	-	-

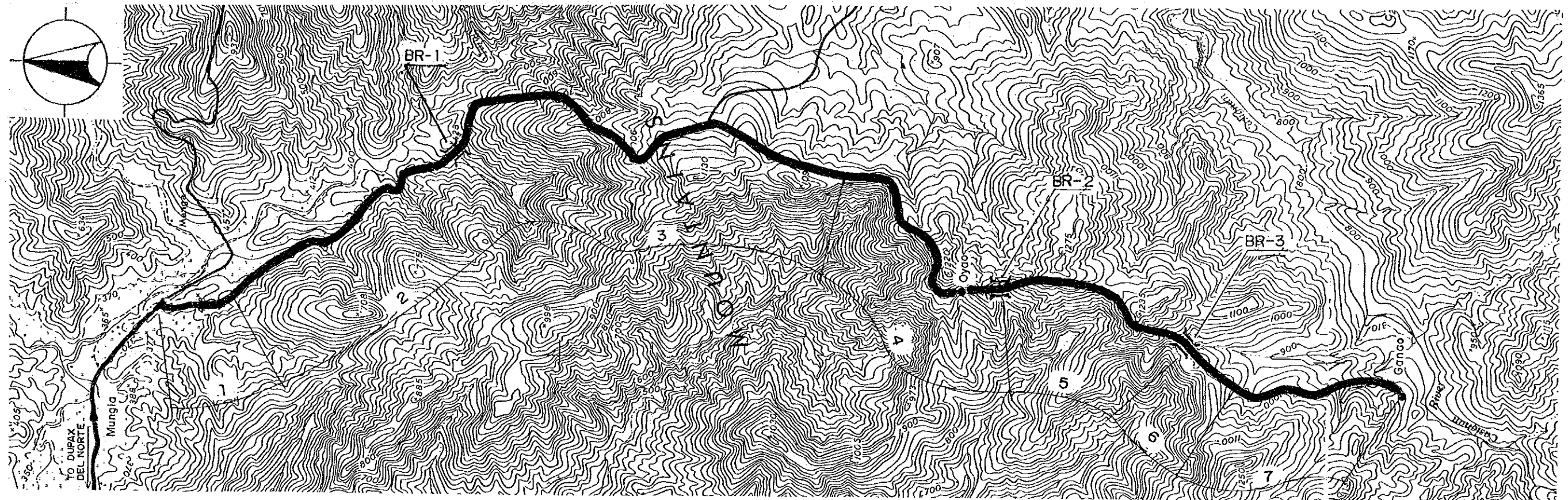
**THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT
IN THE REPUBLIC OF THE PHILIPPINES**

PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
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Drawing No.
20

Road No: P7 Road Name: BITUNONG - UYAO - GANAO ROAD
Location : DUPAX NORTE, NUEVA VIZCAYA



Road Classification	Minor Road (Provincial Road)						
Total Length	20.4 km						
Sub-section No.	1	2	3	4	5	6	7
Length (km)	1.1	3.2	6.3	3.0	3.0	.8	3.0
Terrain	Rolling	Rolling	Mt'nous	Mt'nous	Rolling	Rolling	Rolling
Existing Road Surface	4.5-GRV (Bad)	4.5-GRV (Bad)	4.0-GRV (Bad)	4.0-GRV (V.Bad)	3.6-EAR (V.Bad)	3.6-EAR (V.Bad)	3.6-EAR (V.Bad)
Proposed Improvement	Rehabil.	Rehabil.	Rehabil.	Rehabil.	Impr.-1	Impr.-1	Impr.-1
Improvement Type	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel
Surface Type	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel
Carriageway Width(m)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Shoulder Width (m)	.5	.5	.5	.5	.5	.5	.5
Ref. Typical Section	TYPE 1-6	TYPE 1-6	TYPE 1-6	TYPE 1-6	TYPE 2-8	TYPE 2-8	TYPE 2-8
Bridge No.	BR-1	BR-2	BR-3				
Existing Type	Concrete	Timber	Ford-Cr.				
Length (m)	6	9	-				
Proposed Type	-	1Lane-Br	1Lane-Sp				
Length (m)	-	10	10				
No. of Spans	-	1	-				

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

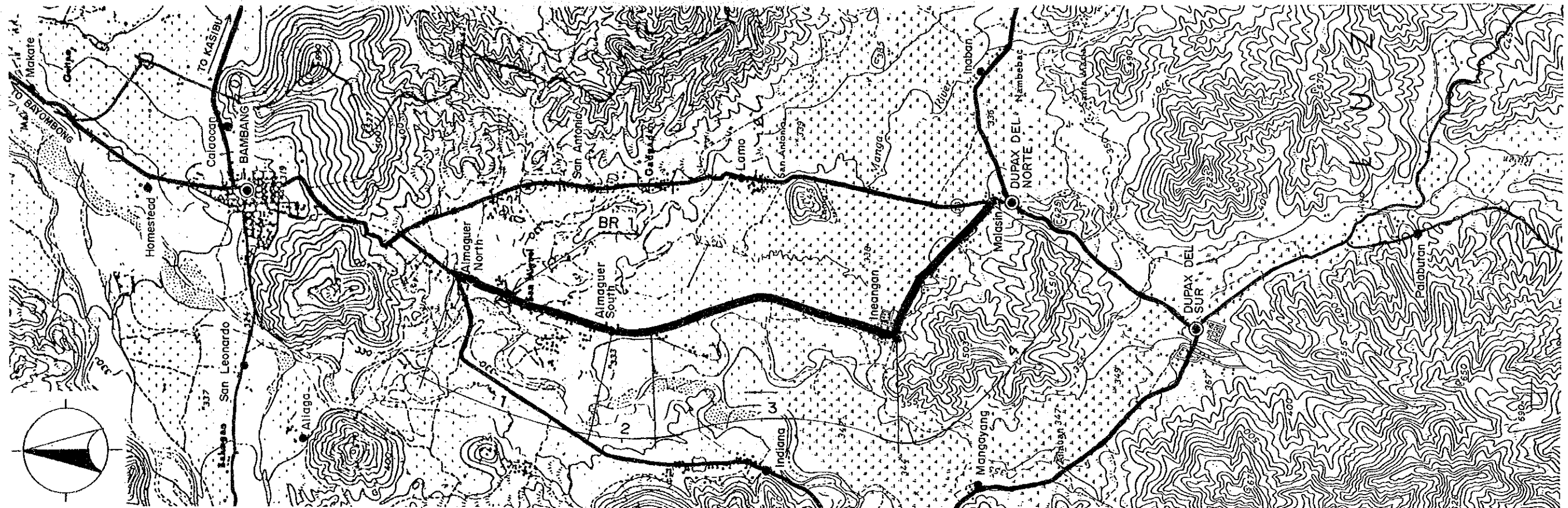
PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
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Drawing No.
21

Road No: P10

Road Name: INDIANA - ALMAGUER - INEANGAN ROAD
Location: BAMBANG & DUPAX NORTE, NUEVA VIZCAYA



Road Classification	Minor Road (Provincial Road)			
Total Length	8.1 km			
Sub-section No.	1	2	3	4
Length (km)	2.0	.5	3.2	2.4
Terrain	Flat	Flat	Flat	Flat
Existing Road Surface	6.0-GRV (Fair)	6.0-GRV (Bad)	4.0-GRV (Bad)	6.0-BTM (Fair)
Proposed Improvement	-	Rehabil.	Rehabil.	-
Improvement Type	-	Gravel	Gravel	-
Surface Type	-	6.0	6.0	-
Carriageway Width(m)	-	1.0	1.0	-
Shoulder Width (m)	-	TYPE 1-6	TYPE 1-6	-
Ref. Typical Section	-	TYPE 1-6	TYPE 1-6	-
Special Treatment	-	-	-	-
Flood Section Length	-	500	3000	-
Height	-	.5	.5	-
Bridge No.	BR-1			
Existing Type	Concrete			
Length (m)	34			
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

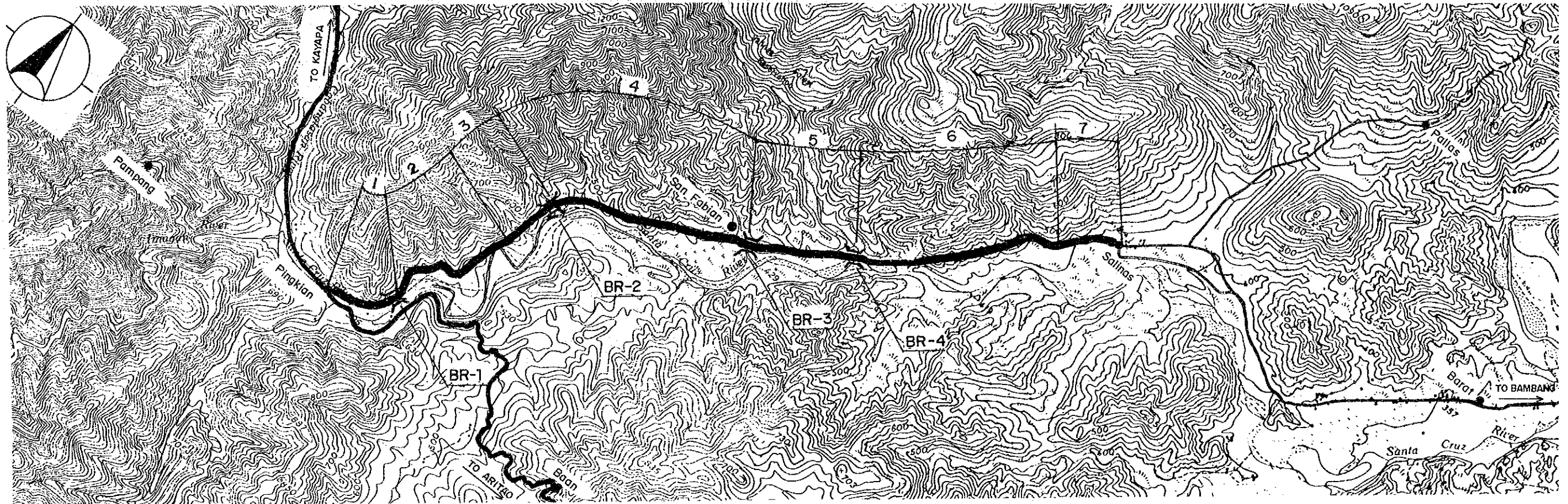
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Drawing No.
22

Road No: P13-2

Road Name: BAMBANG - SALINAS - SN. FABIAN ROAD

Location: KAYAPA & BAMBANG, NUEVA VIZCAYA



Road Classification	Minor Road (Provincial Road)						
Total Length	11.2 km						
Sub-section No.	1	2	3	4	5	6	7
Length (km)	.9	2.2	.8	2.4	1.4	2.7	.8
Terrain	Mt'nous	Mt'nous	Mt'nous	Mt'nous	Flat	Mt'nous	Flat
Existing Road Surface	4.0-GRV (Fair)	4.0-GRV (Bad)	4.0-GRV (Bad)	4.0-GRV (Bad)	4.0-GRV (Fair)	4.0-GRV (Fair)	4.0-GRV (Fair)
Proposed Improvement	-	Rehabil.	Rehabil.	Rehabil.	-	-	-
Improvement Type	-	Gravel	Gravel	Gravel	-	-	-
Surface Type	-	4.0	4.0	4.0	-	-	-
Carriageway Width(m)	-	.5	.5	.5	-	-	-
Shoulder Width (m)	-	TYPE 1-6	TYPE 1-6	TYPE 1-6	-	-	-
Ref. Typical Section	-	TYPE 1-6	TYPE 1-6	TYPE 1-6	-	-	-
Bridge No.	BR-1	BR-2	BR-3	BR-4			
Existing Type	Bailey	Timber	Concrete	Bailey			
Length (m)	14	7	24	16			
Proposed Type	-	2cell-BC	-	-			
Length (m)	-	7	-	-			
No. of Spans	-	2	-	-			

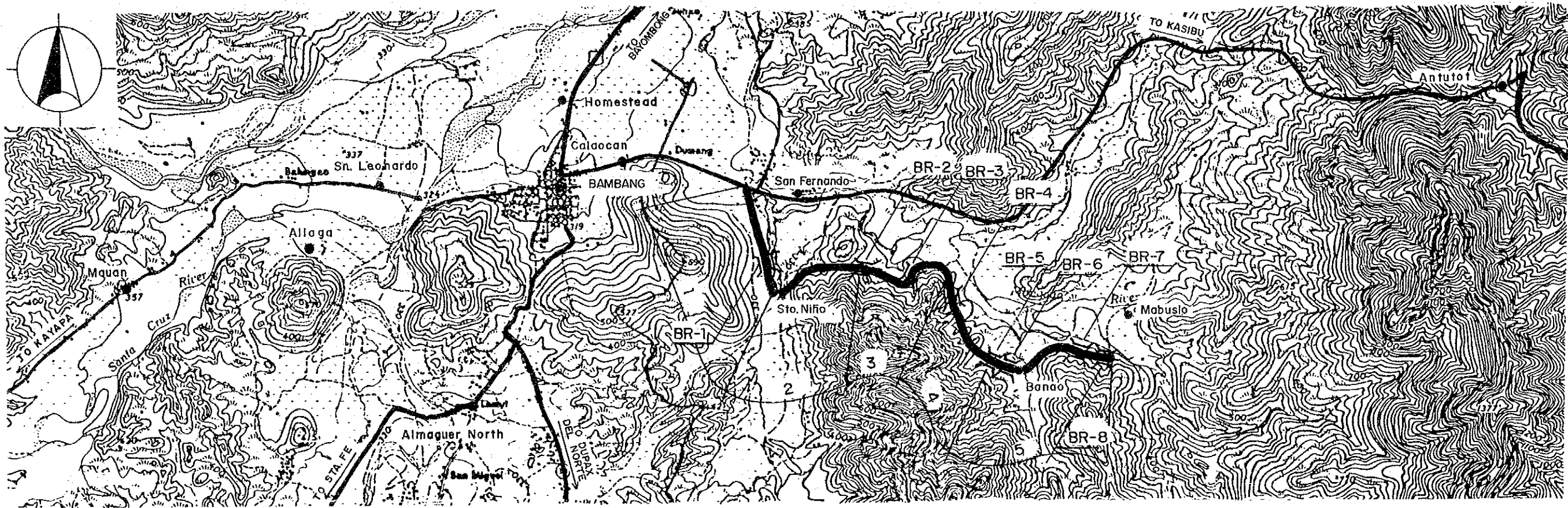
**THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT
IN THE REPUBLIC OF THE PHILIPPINES**

PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
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Drawing No.
23

Road No: P14 Road Name: SN. FERNANDO - STO. NINO - BANAOG ROAD
Location : BAMBANG, NUEVA VIZCAYA



Road Classification	Minor Road (Provincial Road)							
Total Length	6.6 km							
Sub-section No.	1	2	3	4	5			
Length (km)	1.3	1.1	1.4	1.2	1.6			
Terrain	Flat	Rolling	Rolling	Mt'nous	Rolling			
Existing Road Surface	4.0-GRV (Fair)	4.0-GRV (Fair)	4.0-GRV (Fair)	4.0-GRV (Bad)	4.0-GRV (Fair)			
Proposed Improvement	-	-	-	Rehabil.	-			
Improvement Type	-	-	-	Gravel	-			
Surface Type	-	-	-	4.0	-			
Carriageway Width(m)	-	-	-	.5	-			
Shoulder Width (m)	-	-	-	TYPE 1-6	-			
Ref. Typical Section	-	-	-	-	-			
Bridge No.	BR-1	BR-2	BR-3	BR-4	BR-5	BR-6	BR-7	BR-8
Existing Type	Bailey	Bailey	Timber	Timber	Bailey	Bailey	Concrete	Bailey
Length (m)	12	9	6	5	6	12	4	15
Proposed Type	-	-	2cell-BC	2cell-BC	-	-	-	-
Length (m)	-	-	4	6	-	-	-	-
No. of Spans	-	-	2	2	-	-	-	-

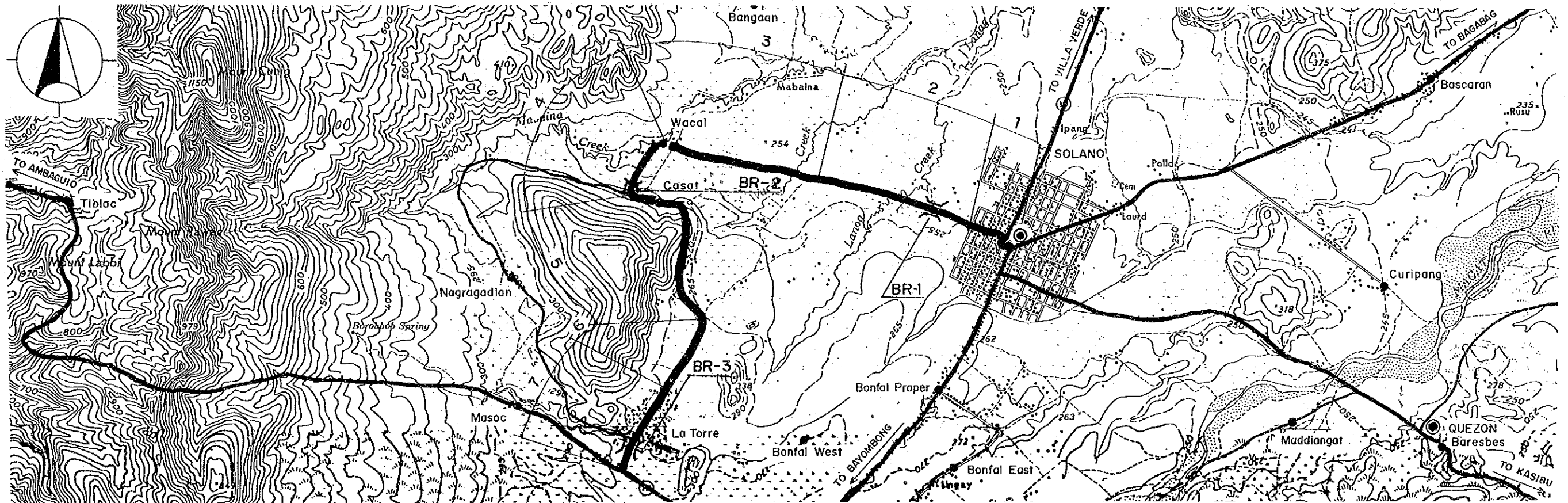
**THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT
IN THE REPUBLIC OF THE PHILIPPINES**

PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale
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Drawing No.
24

Road No: P21 Road Name: LA TORRE - SOLANO ROAD
Location : BAYOMBONG & SOLANO



Road Classification	Minor Road (Provincial Road)						
Total Length	10.0 km						
Sub-section No.	1	2	3	4	5	6	7
Length (km)	.6	1.9	2.0	1.0	2.1	1.1	1.3
Terrain	Flat	Flat	Flat	Flat	Rolling	Flat	Flat
Existing Road Surface	7.0-BTM (Fair)	4.0-GRV (Fair)	3.2-GRV (Bad)	3.2-GRV (Bad)	4.5-GRV (Fair)	5.5-GRV (Fair)	6.9-PCC (Good)
Proposed Improvement	-	-	Rehabil.	Rehabil.	-	-	-
Improvement Type	-	-	Gravel	Gravel	-	-	-
Surface Type	-	-	4.0	4.0	-	-	-
Carriageway Width(m)	-	-	1.0	1.0	-	-	-
Shoulder Width (m)	-	-	TYPE 1-6	TYPE 1-6	-	-	-
Ref. Typical Section	-	-	-	-	-	-	-
Bridge No.	BR-1	BR-2	BR-3				
Existing Type	RCBC	Concrete	Concrete				
Length (m)	2	6	15				
Proposed Type	-	-	-				
Length (m)	-	-	-				
No. of Spans	-	-	-				