

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

**PRESENT CONDITION AND PROPOSED IMPROVEMENT**

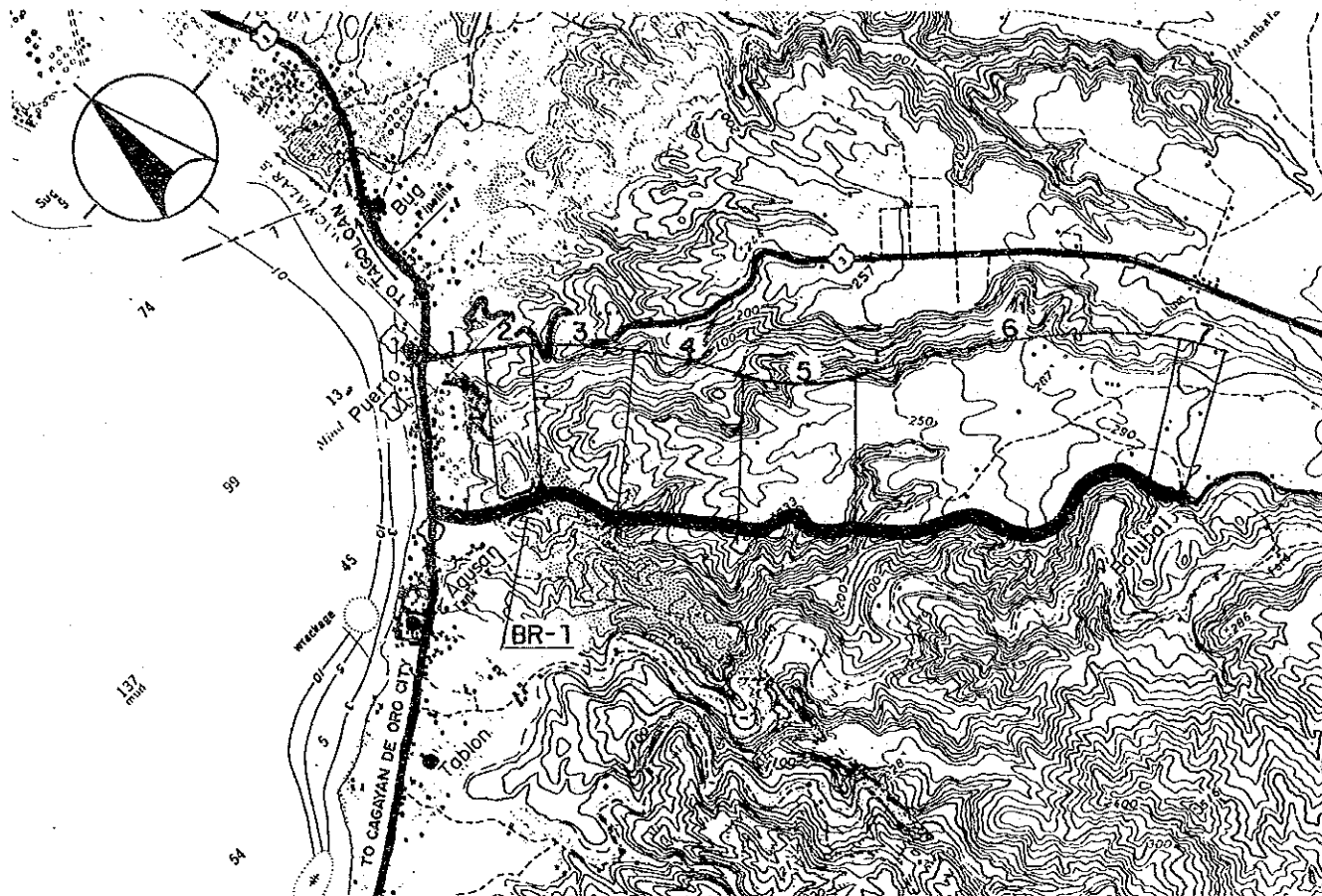
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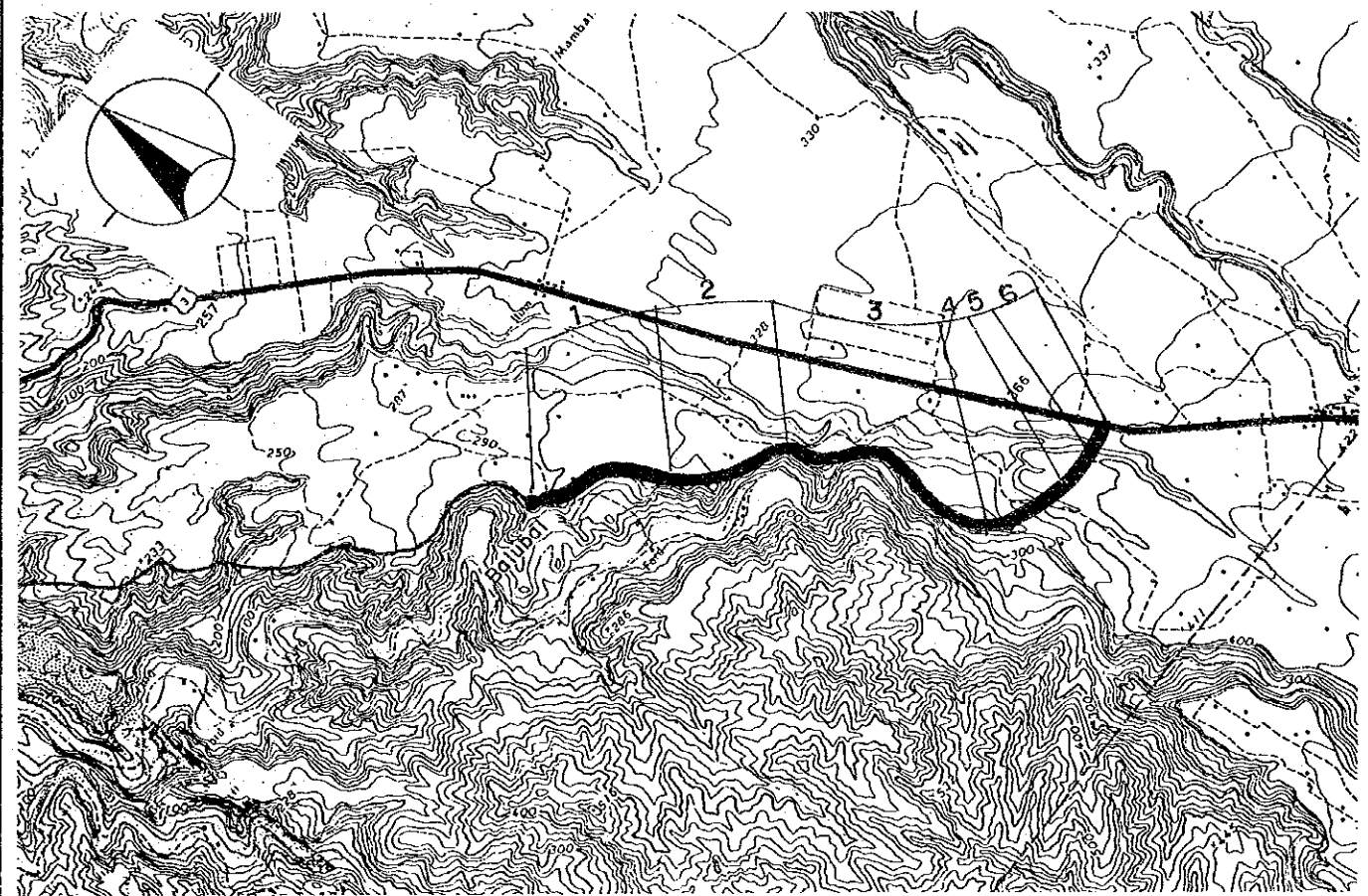
Drawing No.

44

Road No: B00-1 Road Name: AGUSAN-BALUBAL ROAD  
Location: CAGAYAN DE ORO CITY, MISAMIS ORIENTAL



Road No: B00-2 Road Name: BALUBAL-ALAE ROAD  
Location: CAGAYAN DE ORO CITY, MISAMIS ORIENTAL



Road Classification	Minor Road (Barangay Road)						
Total Length	7.2 km						
Sub-section No.	1	2	3	4	5	6	7
Length (km)	.6	.3	.7	1.0	1.1	3.2	.3
Terrain	Flat	Rolling	Mt'nous	Rolling	Rolling	Flat	Flat
Existing Road Surface	4.0-GRV (Bad)	4.5-GRV (Bad)	3.2-GRV (V.Bad)	3.2-GRV (V.Bad)	4.0-GRV (V.Bad)	4.0-GRV (Fair)	6.0-PCC (Good)
Proposed Improvement	Rehabil.	Rehabil.	Rehabil.	Rehabil.	Rehabil.	Widening	-
Improvement Type	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	-
Surface Type	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	-
Carriageway Width(m)	6.0	6.0	6.0	6.0	6.0	6.0	-
Shoulder Width (m)	1.0	.5	.5	.5	.5	1.0	-
Ref. Typical Section	TYPE 1-6	TYPE 1-6	TYPE 1-6	TYPE 1-6	TYPE 1-6	TYPE 4-4	-
Bridge No.	BR-1						
Existing Type	Spillway						
Length (m)	15						
Proposed Type	-						
Length (m)	-						
No. of Spans	-						

Road Classification	Minor Road (Barangay Road)					
Total Length	5.0 km					
Sub-section No.	1	2	3	4	5	6
Length (km)	1.1	.9	1.7	.7	.3	.3
Terrain	Flat	Rolling	Mt'nous	Rolling	Rolling	Flat
Existing Road Surface	4.0-GRV (Fair)	4.0-EAR (V.Bad)	4.0-GRV (Bad)	4.5-EAR (V.Bad)	4.0-GRV (V.Bad)	2.4-EAR (Bad)
Proposed Improvement	Widening	Impr.-1	Rehabil.	Impr.-1	Rehabil.	Impr.-1
Improvement Type	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel
Surface Type	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel
Carriageway Width(m)	6.0	6.0	6.0	6.0	6.0	4.0
Shoulder Width (m)	1.0	.5	.5	.5	.5	1.0
Ref. Typical Section	TYPE 4-4	TYPE 2-8	TYPE 1-6	TYPE 2-8	TYPE 1-6	TYPE 2-8
Special Treatment	-	-	200	-	-	-
Steep Section Length	-	-	200	-	-	-

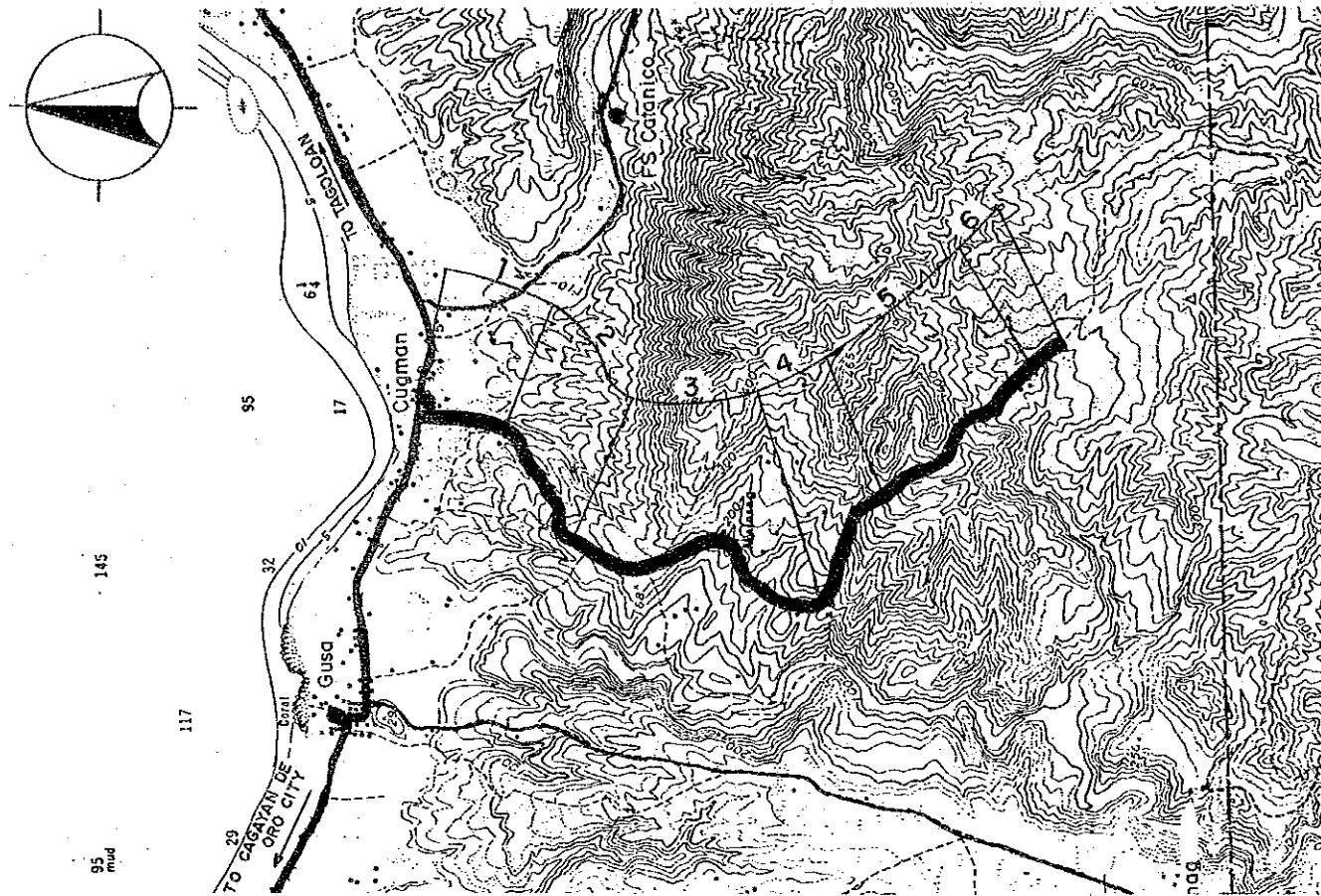
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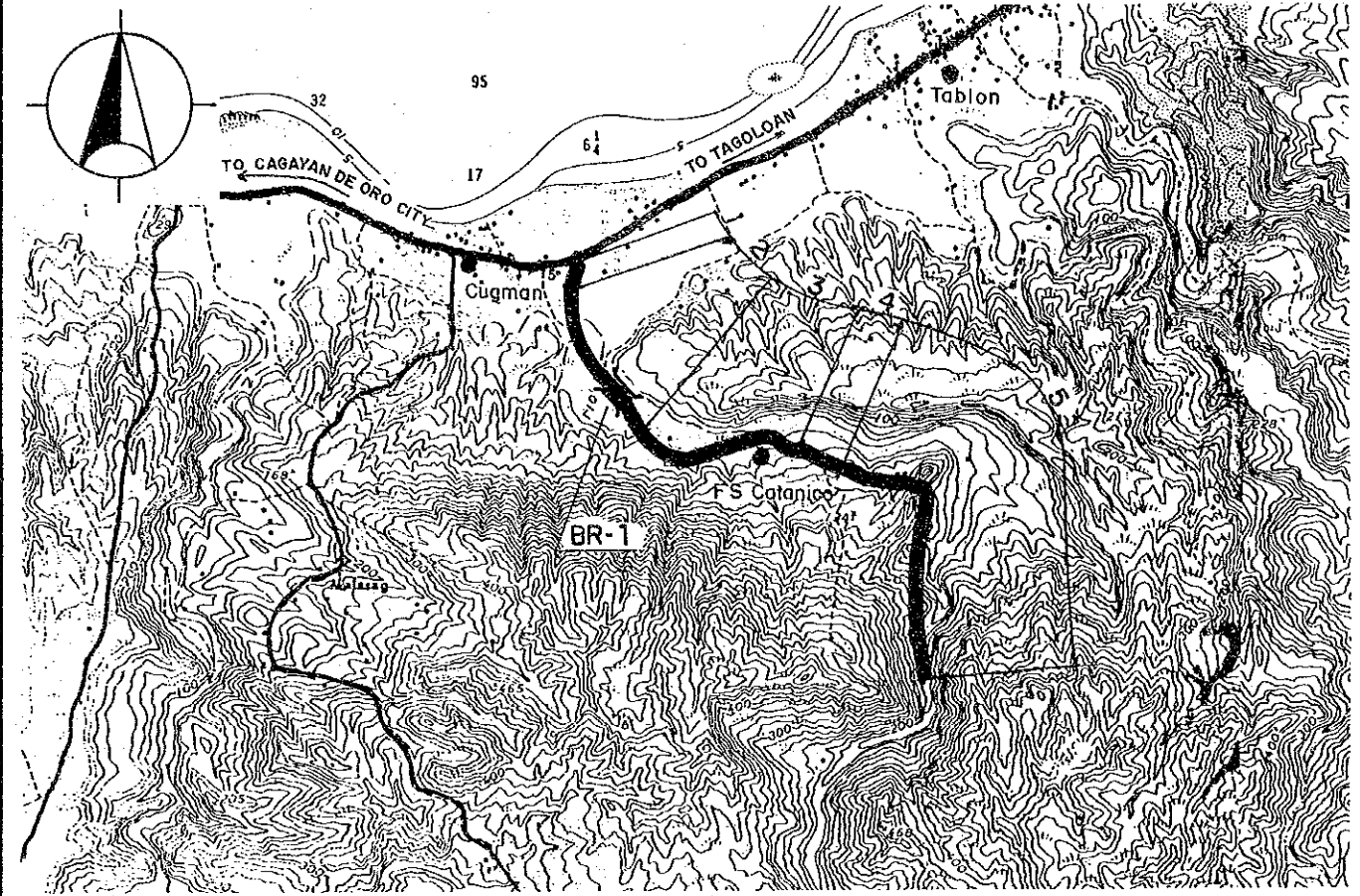
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Drawing No.  
45

Road No: B00-4 Road Name: CUGMAN-MALASAG ROAD  
Location : CAGAYAN DE ORO CITY, MISAMIS ORIENTAL



Road No: B00-8 Road Name: CUGMAN-WATERFALLS ROAD  
Location : CAGAYAN DE ORO CITY, MISAMIS ORIENTAL



Road Classification	Minor Road (Barangay Road)					
Total Length	6.1 km					
Sub-section No.	1	2	3	4	5	6
Length (km)	.6	.9	2.0	.8	1.5	.3
Terrain	Flat	Mt'nous	Mt'nous	Mt'nous	Mt'nous	Mt'nous
Existing Road Surface	5.1-PCC (Good)	5.0-BTM (V.Bad)	5.0-BTM (V.Bad)	5.0-BTM (V.Bad)	3.4-EAR (V.Bad)	4.0-GRV (Fair)
Proposed Improvement	-					
Improvement Type	-	Rehabil.	Rehabil.	Rehabil.	Impr.-1	Rehabil.
Surface Type	-	* BMP	* BMP	* BMP	Gravel	Gravel
Carriageway Width(m)	-	6.0	6.0	6.0	4.0	4.0
Shoulder Width (m)	-	.5	.5	.5	.5	.5
Ref. Typical Section	-	TYPE 1-5	TYPE 1-5	TYPE 1-5	TYPE 2-8	TYPE 1-6

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

Road Classification	Minor Road (Barangay Road)				
Total Length	4.9 km				
Sub-section No.	1	2	3	4	5
Length (km)	.2	1.2	1.2	.3	2.0
Terrain	Flat	Rolling	Flat	Flat	Mt'nous
Existing Road Surface	6.0-PCC (Good)	4.0-EAR (V.Bad)	3.2-GRV (V.Bad)	5.1-PCC (Good)	3.6-GRV (Bad)
Proposed Improvement	-				
Improvement Type	-	Impr.-1	Rehabil.	-	Rehabil.
Surface Type	-	Gravel	Gravel	-	Gravel
Carriageway Width(m)	-	4.0	4.0	-	4.0
Shoulder Width (m)	-	.5	1.0	-	.5
Ref. Typical Section	-	TYPE 2-8	TYPE 1-6	-	TYPE 1-6
Special Treatment	-				
Flood Section Length	-	-	800	-	-
Height	-	-	.4	-	-
Slope Protection (Cut Slope)	-	-	-	-	100
Bridge No.	BR-1				
Existing Type	Spillway				
Length (m)	12				
Proposed Type	-				
Length (m)	-				
No. of Spans	-				

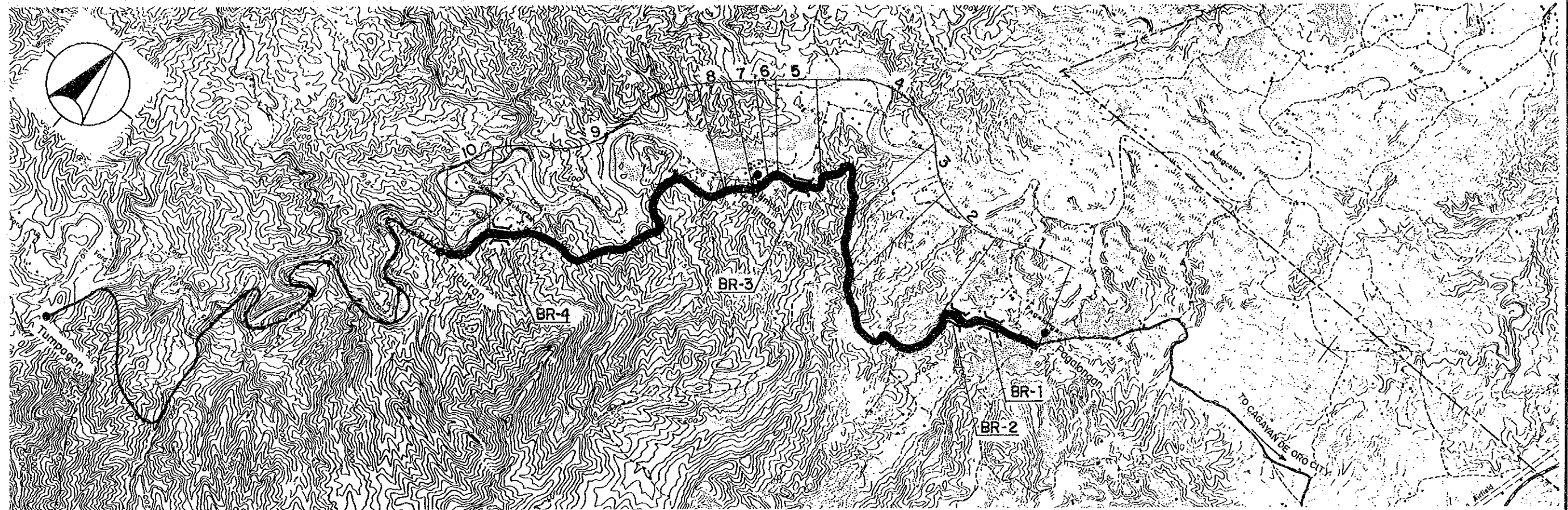
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**PRESENT CONDITION AND PROPOSED IMPROVEMENT**

Scale  
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Drawing No.  
46

Road No: B00-16      Road Name: PAGALUNGAN-TUBURAN ROAD  
Location: CAGAYAN DE ORO CITY, MISAMIS ORIENTAL



Road Classification	Minor Road (Barangay Road)									
Total Length	11.7 km									
Sub-section No.	1	2	3	4	5	6	7	8	9	10
Length (km)	1.5	2.4	.7	1.1	1.0	.2	.1	.4	3.7	.6
Terrain	Mt'nous	Mt'nous	Mt'nous	Mt'nous	Mt'nous	Flat	Rolling	Flat	Rolling	Rolling
Existing Road Surface	2.8-GRV (V.Bad)	2.8-GRV (V.Bad)	2.8-EAR (V.Bad)	3.2-GRV (V.Bad)	3.2-GRV (V.Bad)	2.8-GRV (V.Bad)	5.0-PCC (Good)	2.8-GRV (Bad)	2.8-GRV (V.Bad)	2.8-GRV (V.Bad)
Proposed Improvement	Rehabil.	Rehabil.	Impr.-1	Rehabil.	Rehabil.	Rehabil.	-	Rehabil.	Rehabil.	Rehabil.
Improvement Type	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	-	Gravel	Gravel	Gravel
Surface Type	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
Shoulder Width (m)	.5	.5	.5	.5	.5	1.0	-	1.0	.5	.5
Ref. Typical Section	TYPE 1-6	TYPE 1-6	TYPE 2-8	TYPE 1-6	TYPE 1-6	TYPE 1-6	-	TYPE 1-6	TYPE 1-6	TYPE 1-6
Special Treatment										
Flood Section Length	-	-	-	-	-	-	-	-	200	-
Height	-	-	-	-	-	-	-	-	.5	-
Steep Section Length	100	400	200	-	200	-	-	-	800	-
Bridge No.	BR-1	BR-2	BR-3	BR-4						
Existing Type	Bailey	Bailey	Ford-Cr.	Ford-Cr.						
Length (m)	10	39	-	-						
Proposed Type	1Lane-Br	1Lane-Br	1Lane-Sp	1cell-BC						
Length (m)	12	40	15	4						
No. of Spans	1	2	-	1						

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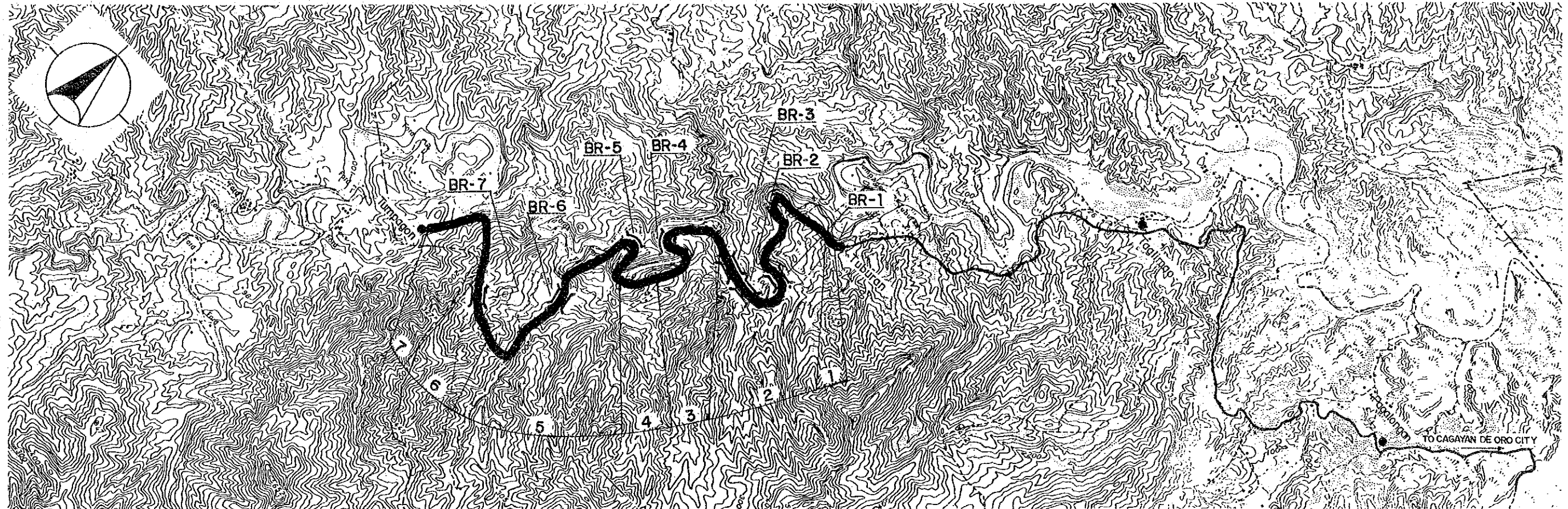
Drawing No.

47

Road No: B00-18

Road Name: TUBURAN-TUBAGON ROAD

Location: CAGAYAN DE ORO CITY, MISAMIS ORIENTAL



Road Classification	Minor Road (Barangay Road)						
Total Length	10.7 km						
Sub-section No.	1	2	3	4	5	6	7
Length (km)	.1	2.9	1.7	.4	3.3	.8	1.5
Terrain	Rolling	Rolling	Mt'nous	Rolling	Mt'nous	Mt'nous	Mt'nous
Existing Road Surface	5.0-PCC (Good)	3.2-GRV (Bad)	3.0-GRV (V.Bad)	3.0-EAR (V.Bad)	3.0-GRV (V.Bad)	3.0-GRV (V.Bad)	2.8-EAR (V.Bad)
Proposed Improvement	-	Rehabil.	Rehabil.	Impr.-1	Rehabil.	Rehabil.	Impr.-1
Improvement Type	-	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel
Surface Type	-	4.0	4.0	4.0	4.0	4.0	4.0
Carriageway Width(m)	-	.5	.5	.5	.5	.5	.5
Shoulder Width (m)	-	TYPE 1-6	TYPE 1-6	TYPE 2-8	TYPE 1-6	TYPE 1-6	TYPE 2-8
Ref. Typical Section	-	200	100	-	700	240	-
Special Treatment	-	500	100	-	70	-	-
Steep Section Length	-						
Slope Protection (Cut Slope)	-						
Bridge No.	BR-1	BR-2	BR-3	BR-4	BR-5	BR-6	BR-7
Existing Type	Bailey	Bailey	Bailey	Bailey	Ford-Cr.	Ford-Cr.	Ford-Cr.
Length (m)	9	10	12	12	-	-	-
Proposed Type	1Lane-Br	1Lane-Br	1Lane-Br	1Lane-Br	1Lane-Sp	1cell-BC	1Lane-Sp
Length (m)	12	12	12	12	20	4	27
No. of Spans	1	1	1	1	-	1	-

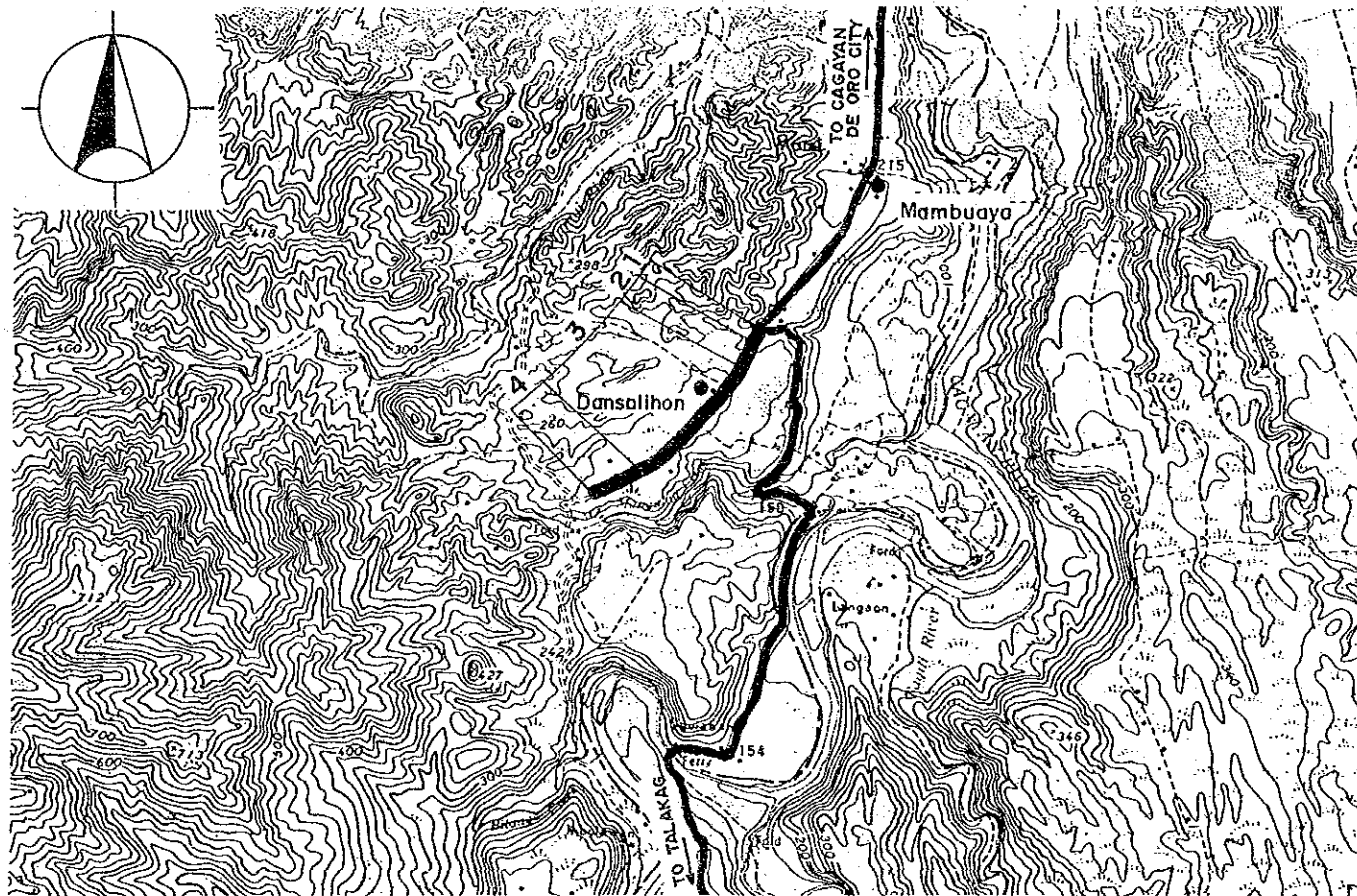
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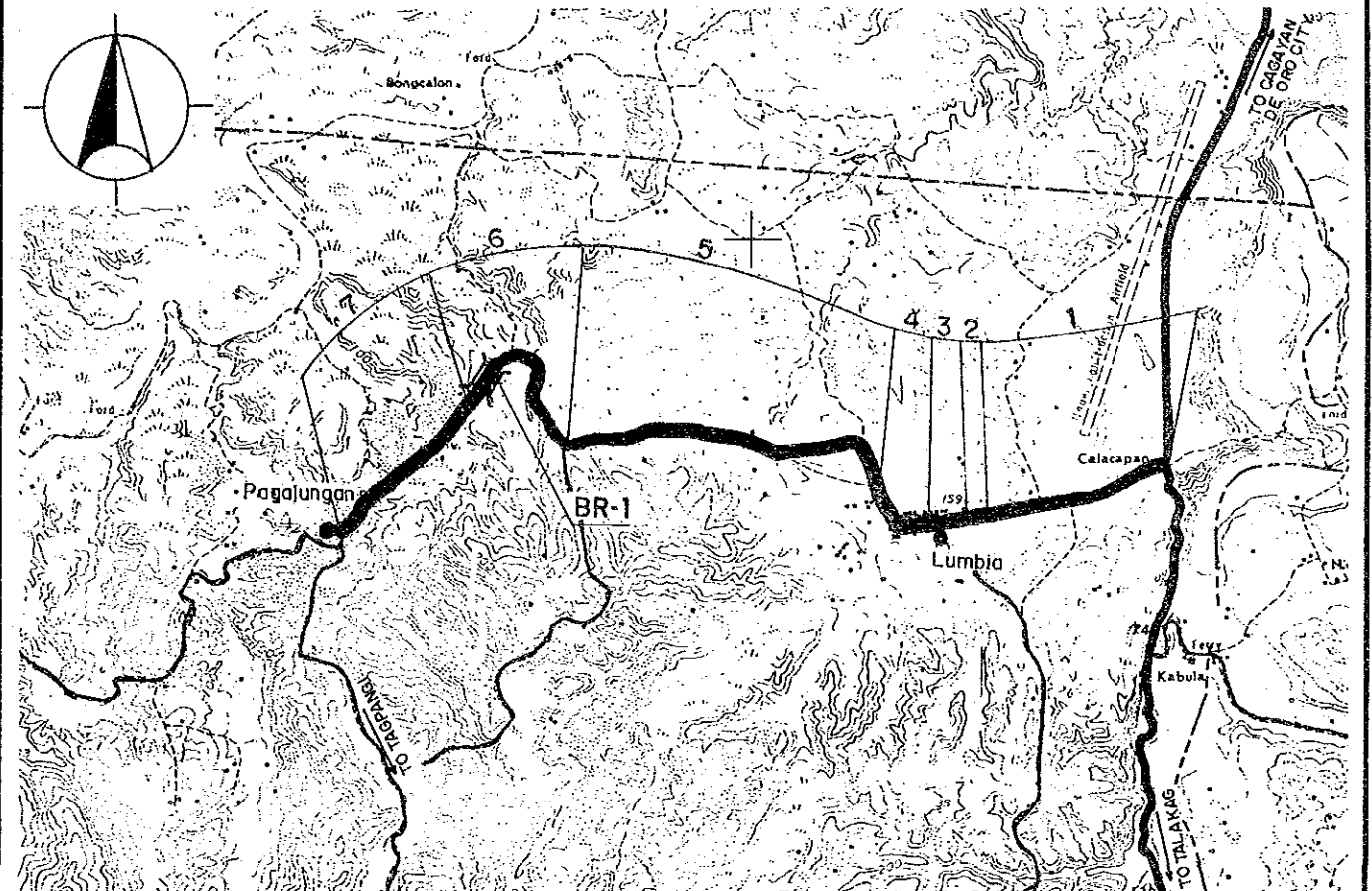
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Drawing No.  
**48**

Road No: B00-19 Road Name: TUMPAGON-DANSOLIHAN ROAD  
Location: CAGAYAN DE ORO CITY, MISAMIS ORIENTAL



Road No: B00-21 Road Name: PAGALUNGAN-LUMBIA ROAD  
Location: CAGAYAN DE ORO CITY, MISAMIS ORIENTAL



Road Classification	Minor Road (Barangay Road)			
Total Length	1.7 km			
Sub-section No.	1	2	3	4
Length (km)	.1	.2	1.0	.4
Terrain	Flat	Flat	Rolling	Rolling
Existing Road Surface	3.9-EAR (Bad)	5.1-PCC (Good)	4.0-EAR (Bad)	3.2-GRV (V.Bad)
Proposed Improvement	Impr.-1 Rehabil.			
Improvement Type	Impr.-1 Rehabil.			
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 2-8		TYPE 2-8 TYPE 1-6	

Road Classification	Minor Road (Barangay Road)						
Total Length	7.3 km						
Sub-section No.	1	2	3	4	5	6	7
Length (km)	1.3	.1	.3	.5	2.5	1.4	1.2
Terrain	Rolling	Rolling	Rolling	Rolling	Rolling	Mt'nous	Mt'nous
Existing Road Surface	4.7-GRV (Bad)	4.9-BTM (V.Bad)	5.1-PCC (Fair)	3.2-BTM (V.Bad)	4.0-GRV (V.Bad)	3.2-GRV (V.Bad)	3.2-GRV (V.Bad)
Proposed Improvement	Impr.-1 Rehabil. Widening Rehabil. Impr.-1 Impr.-1 Impr.-1						
Improvement Type	Impr.-1 Rehabil. Widening Rehabil. Impr.-1 Impr.-1 Impr.-1						
Surface Type	* BMP	* BMP	PCC	* BMP	* BMP	* BMP	* BMP
Carriageway Width(m)	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Shoulder Width (m)	.5	.5	1.0	.5	.5	.5	.5
Ref. Typical Section	TYPE 2-4	TYPE 1-5	TYPE 4-1	TYPE 1-5	TYPE 2-4	TYPE 2-4	TYPE 2-4
Special Treatment	-						
Steep Section Length	-						360
Bridge No.	BR-1						
Existing Type	Spillway						
Length (m)	24						
Proposed Type	-						
Length (m)	-						
No. of Spans	-						

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

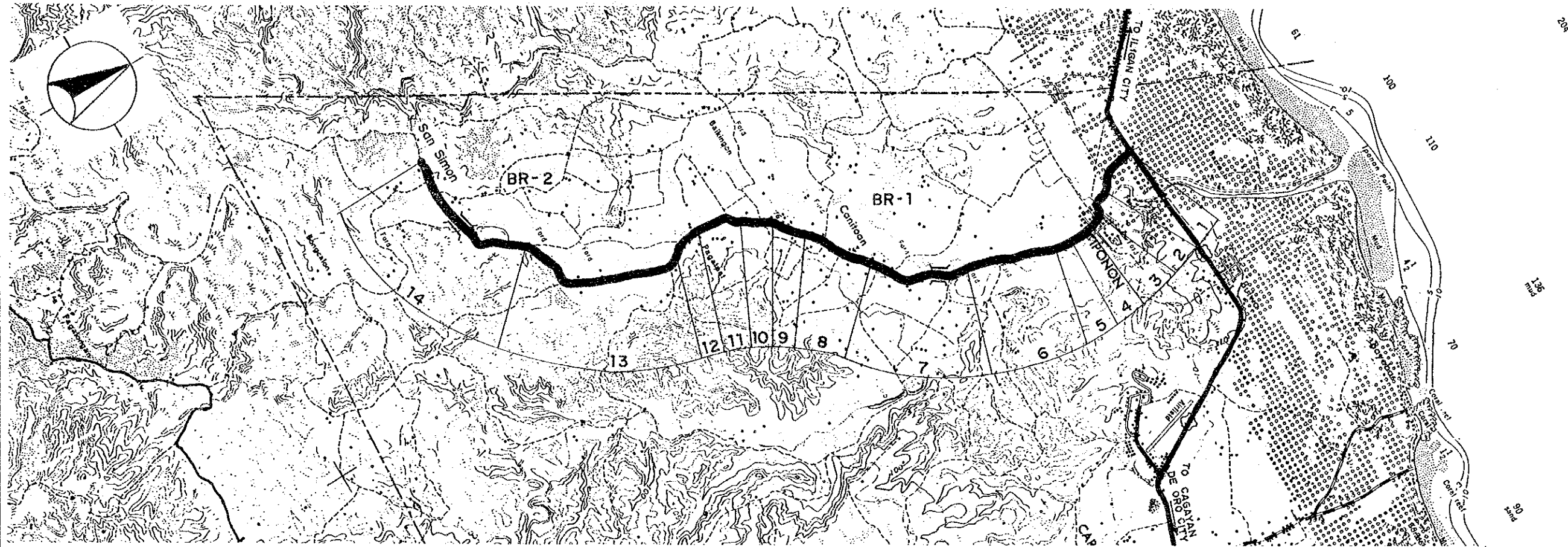
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**PRESENT CONDITION AND PROPOSED IMPROVEMENT**

Scale  
1:50,000

Drawing No.  
49

Road No: B00-23 Road Name: IPONAN-SAN SIMON ROAD  
Location : CAGAYAN DE ORO CITY, MISAMIS ORIENTAL



Road Classification	Minor Road (Barangay Road)													
Total Length	9.4 km													
Sub-section No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Length (km)	.5	.3	.2	.2	.2	1.0	1.2	.8	.4	.3	.5	.3	2.0	1.5
Terrain	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Rolling
Existing Road Surface	4.1-GRV (Fair)	5.6-BTM (Bad)	5.1-PCC (Good)	4.6-GRV (Bad)	3.8-BTM (Bad)	4.0-GRV (Fair)	3.2-GRV (V.Bad)	5.6-BTM (Fair)	6.0-GRV (Fair)	5.0-PCC (Good)	5.3-GRV (Fair)	5.0-PCC (Good)	5.3-GRV (Fair)	4.0-GRV (Bad)
Proposed Improvement	Impr.-2	Rehabil.	Widening	Impr.-1	Rehabil.	Impr.-2	Impr.-1	Widening	-	Widening	Impr.-2	Widening	Impr.-2	Impr.-1
Improvement Type	Impr.-2	Rehabil.	Widening	Impr.-1	Rehabil.	Impr.-2	Impr.-1	Widening	-	Widening	Impr.-2	Widening	Impr.-2	Impr.-1
Surface Type	* BMP	* BMP	PCC	* BMP	* BMP	* BMP	* BMP	* BMP	-	PCC	* BMP	PCC	* BMP	* BMP
Carriageway Width(m)	6.0	6.0	6.0	6.0	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	1.0	1.0	1.0	1.0	-	1.5	1.0	1.5	1.0	.5
Ref. Typical Section	TYPE 3-4	TYPE 1-5	TYPE 4-1	TYPE 2-4	TYPE 1-5	TYPE 3-4	TYPE 2-4	TYPE 4-3	-	TYPE 4-1	TYPE 3-4	TYPE 4-1	TYPE 3-4	TYPE 2-4
Special Treatment														
Flood Section Length	-	-	-	-	-	500	-	-	-	-	-	-	-	-
Height	-	-	-	-	-	1.0	-	-	-	-	-	-	-	-
Bridge No.	BR-1	BR-2												
Existing Type	Ford-Cr.	Ford-Cr.												
Length (m)	-	-												
Proposed Type	2Lane-Sp	2Lane-Br												
Length (m)	50	100												
No. of Spans	-	4												

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

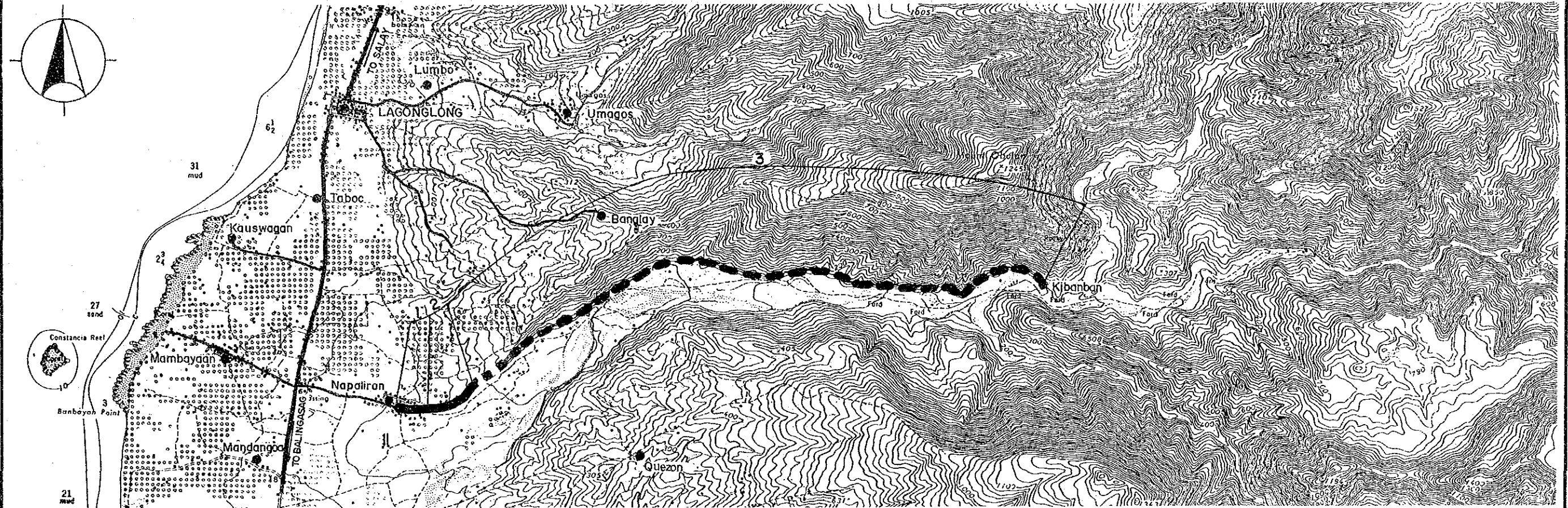
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**PRESENT CONDITION AND PROPOSED IMPROVEMENT**

Scale  
**1:50,000**

Drawing No.  
**50**

Road No: B02-7    Road Name: NAPALIRAN-KIBANBAN ROAD  
Location : BALINGASAG, MISAMIS ORIENTAL



Road Classification	Minor Road (Barangay Road)		
Total Length	9.0 km		
Sub-section No.	1	2	3
Length (km)	.4	.7	7.9
Terrain	Flat	Rolling	Mt'nous
Existing Road Surface	3.2-GRV (Bad)	2.8-GRV (V.Bad)	Non Ex- isting
Proposed Improvement			
Improvement Type	Rehabil.	Rehabil.	New Con.
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 5-4

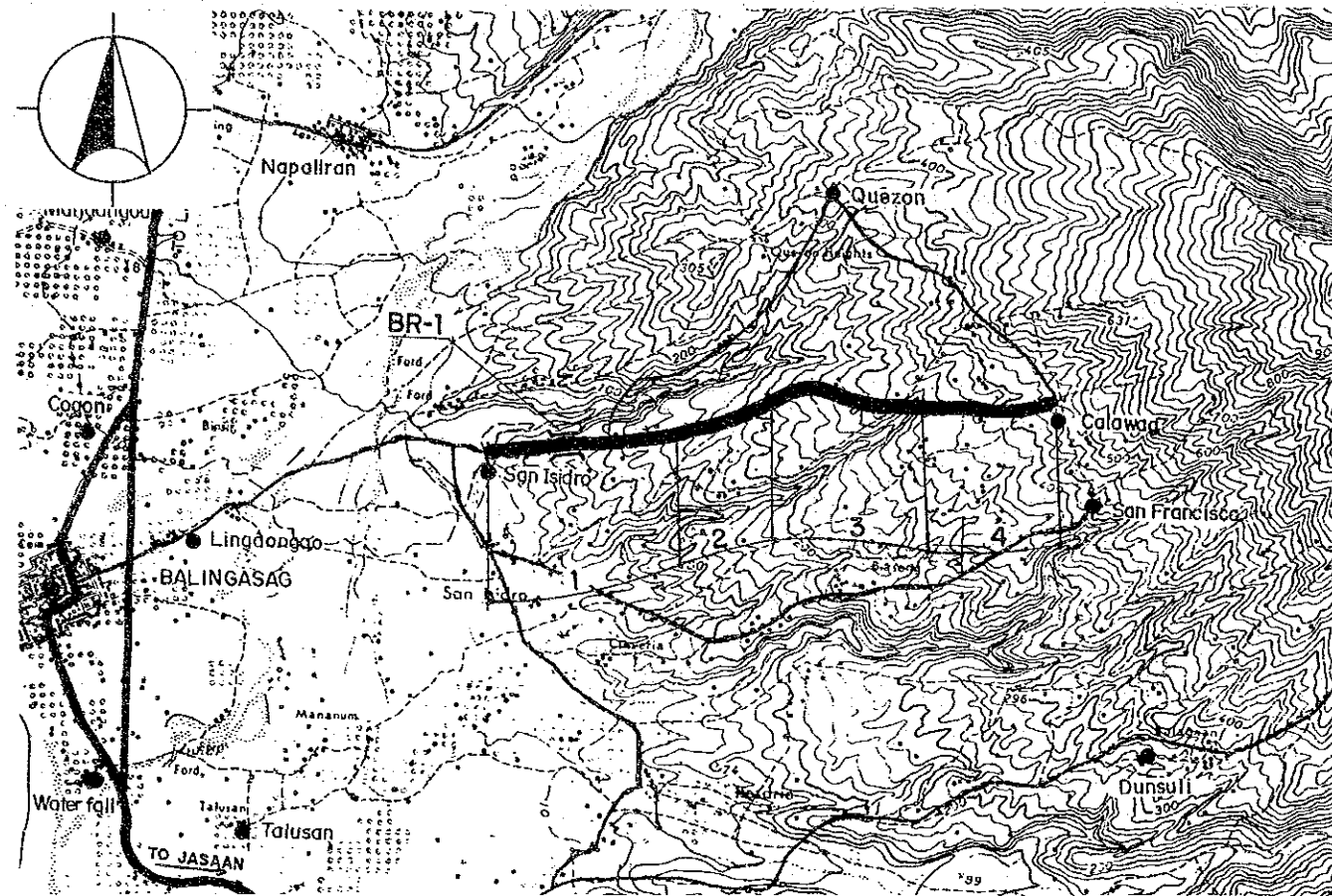
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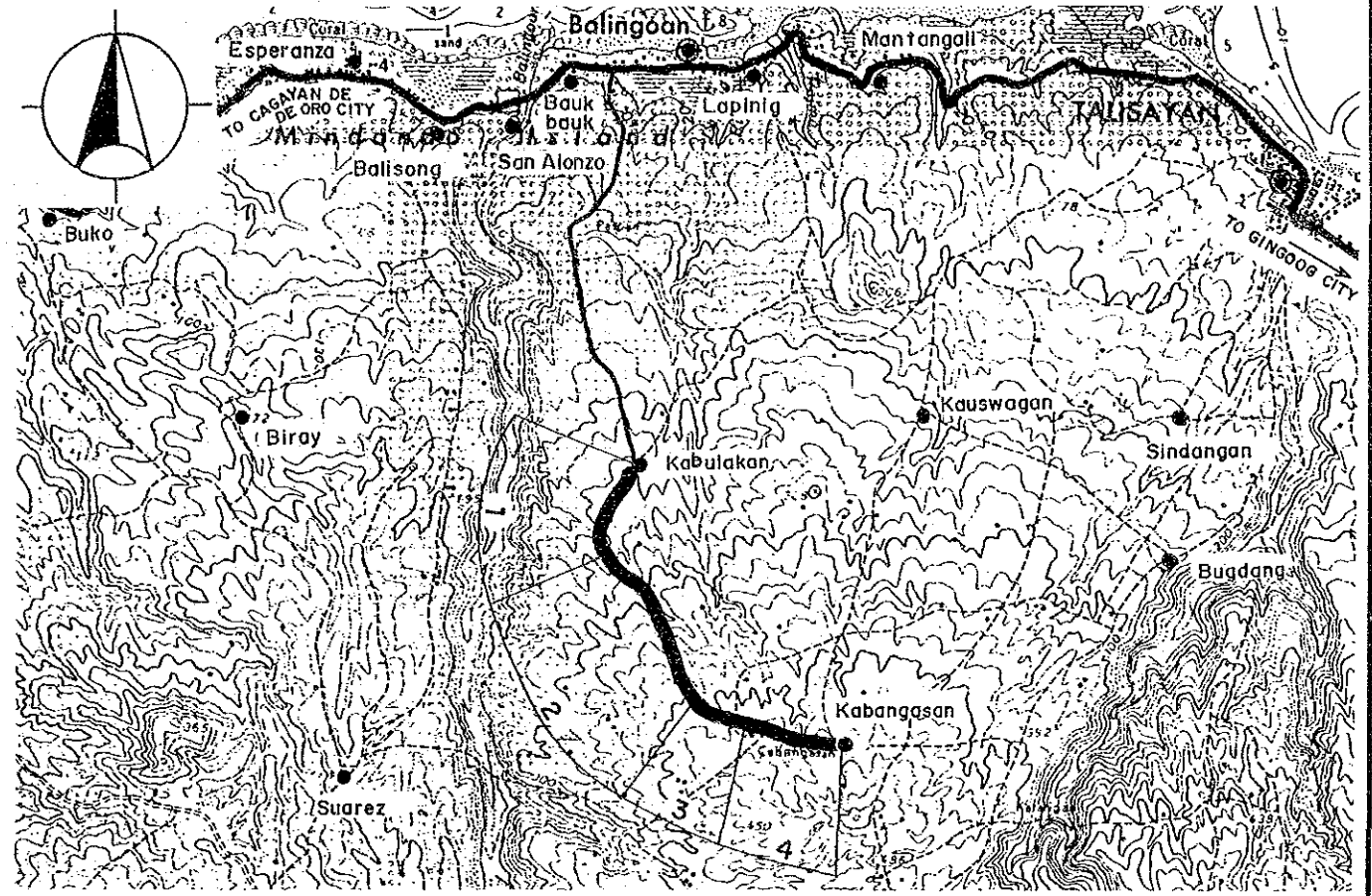
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Drawing No.  
51

Road No: B02-12 Road Name: SAN ISIDRO-CALAWAG ROAD  
Location: BALINGASAG, MISAMIS ORIENTAL



Road No: B03-2 Road Name: KABULAKAN-KABANGASAN ROAD  
Location: BALINGOAN, MISAMIS ORIENTAL



Road Classification	Minor Road (Barangay Road)			
Total Length	4.1 km			
Sub-section No.	1	2	3	4
Length (km)	1.4	.6	1.1	1.0
Terrain	Flat	Mt'nous	Mt'nous	Rolling
Existing Road Surface	3.0-GRV (Bad)	2.4-GRV (V.Bad)	3.2-EAR (Bad)	3.2-GRV (V.Bad)
Proposed Improvement	Rehabil.	Rehabil.	Impr.-1	Rehabil.
Improvement Type	Gravel	Gravel	Gravel	Gravel
Surface Type	4.0	4.0	4.0	4.0
Carriageway Width(m)	1.0	.5	.5	.5
Shoulder Width (m)	TYPE 1-6	TYPE 1-6	TYPE 2-8	TYPE 1-6
Ref. Typical Section	1000	-	-	-
Special Treatment	1.0	-	-	-
Flood Section Length	-			
Height	-			
Bridge No.	BR-1			
Existing Type	Spillway			
Length (m)	7			
Proposed Type	-			
Length (m)	-			
No. of Spans	-			

Road Classification	Minor Road (Barangay Road)			
Total Length	3.0 km			
Sub-section No.	1	2	3	4
Length (km)	.8	1.2	.4	.6
Terrain	Rolling	Rolling	Rolling	Rolling
Existing Road Surface	4.0-GRV (Bad)	4.0-GRV (V.Bad)	3.8-EAR (V.Bad)	2.8-EAR (V.Bad)
Proposed Improvement	Rehabil.	Rehabil.	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 1-6	TYPE 2-8	TYPE 2-8
Ref. Typical Section	240	-	100	-
Special Treatment	-			
Steep Section Length	-			



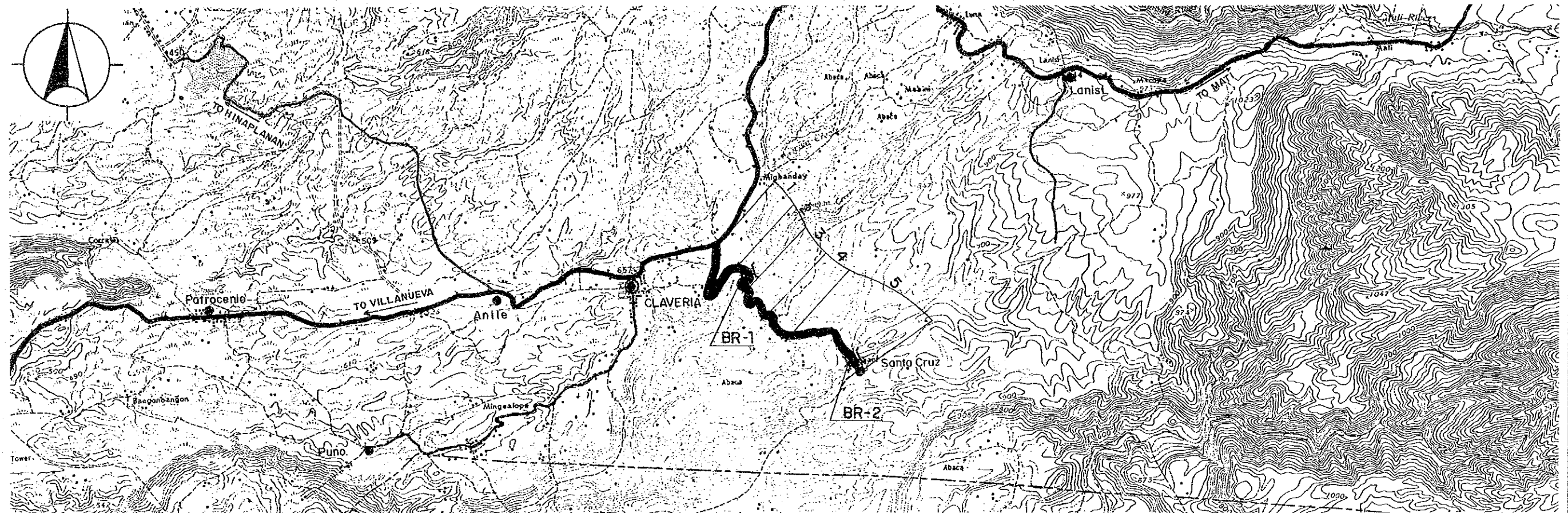
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Scale  
1:50,000

Drawing No.  
52

Road No: B05-22      Road Name: STA. CRUZ-MABINI ROAD  
Location: CLAVERIA, MISAMIS ORIENTAL



Road Classification	Minor Road (Barangay Road)				
Total Length	4.3 km				
Sub-section No.	1	2	3	4	5
Length (km)	1.2	.6	.6	.7	1.2
Terrain	Rolling	Mt'nous	Mt'nous	Mt'nous	Mt'nous
Existing Road Surface	3.0-GRV (Bad)	2.8-GRV (V.Bad)	3.2-GRV (V.Bad)	3.2-EAR (V.Bad)	4.0-EAR (V.Bad)
Proposed Improvement	Rehabil.	Rehabil.	Rehabil.	Impr.-1	Impr.-1
Improvement Type	Gravel	Gravel	Gravel	Gravel	Gravel
Surface Type	Gravel	Gravel	Gravel	Gravel	Gravel
Carriageway Width(m)	4.0	4.0	4.0	4.0	4.0
Shoulder Width (m)	.5	.5	.5	.5	.5
Ref. Typical Section	TYPE 1-6	TYPE 1-6	TYPE 1-6	TYPE 2-8	TYPE 2-8
Special Treatment					
Slope Protection (Cut Slope)	-	200	100	-	-
Bridge No.	BR-1	BR-2			
Existing Type	Ford-Cr.	Ford-Cr.			
Length (m)	-	-			
Proposed Type	1Lane-Sp	1Lane-Sp			
Length (m)	20	30			
No. of Spans	-	-			

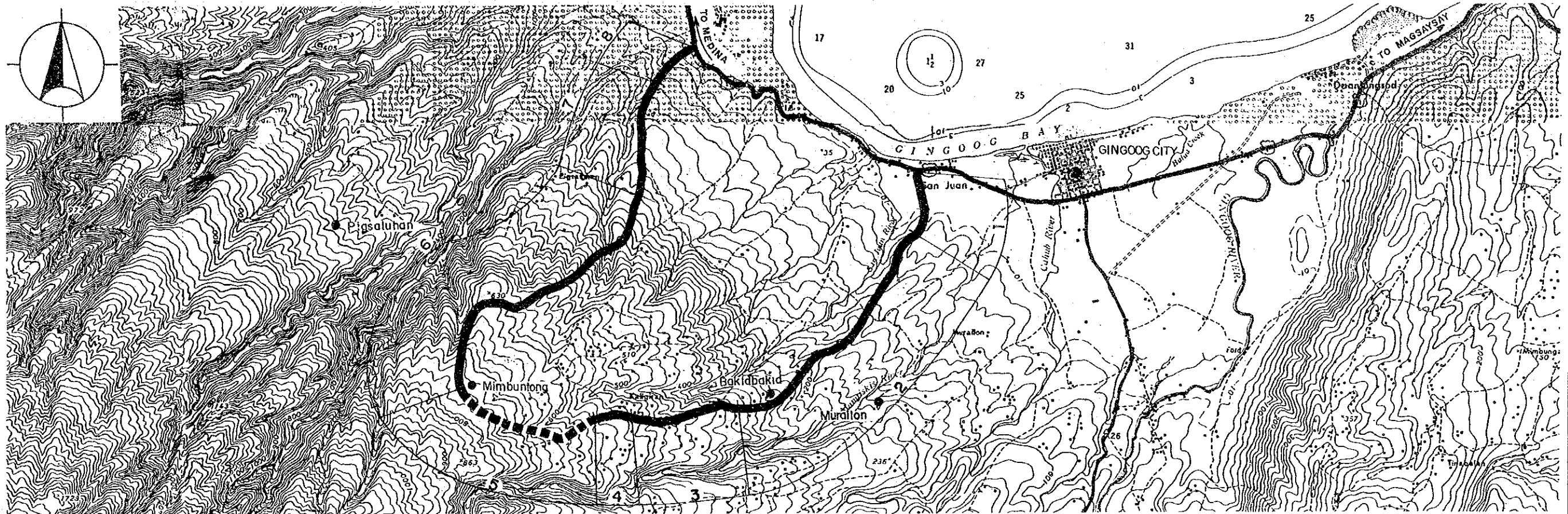
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**PRESENT CONDITION AND PROPOSED IMPROVEMENT**

Scale  
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Drawing No.  
53

Road No: B07-6      Road Name: CATUAN-SAN JUAN ROAD  
Location: GINGOOG CITY, MISAMIS ORIENTAL



Road Classification	Minor Road (Barangay Road)							
Total Length	13.4 km							
Sub-section No.	1	2	3	4	5	6	7	8
Length (km)	.8	3.2	1.4	.5	2.0	3.6	1.3	.6
Terrain	Flat	Rolling	Mt'nous	Mt'nous	Mt'nous	Mt'nous	Mt'nous	Rolling
Existing Road Surface	4.0-GRV (Bad)	4.0-GRV (V.Bad)	4.0-GRV (V.Bad)	2.4-GRV (Impass)	Non Ex- isting	3.2-EAR (V.Bad)	3.2-EAR (Bad)	3.7-GRV (V.Bad)
Proposed Improvement	Rehabil.	Rehabil.	Rehabil.	Rehabil.	New Con.	Impr.-1	Impr.-1	Rehabil.
Surface Type	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
Shoulder Width (m)	1.0	.5	.5	.5	.5	.5	.5	.5
Ref. Typical Section	TYPE 1-6	TYPE 1-6	TYPE 1-6	TYPE 1-6	TYPE 5-4	TYPE 2-8	TYPE 2-8	TYPE 1-6
Special Treatment								
Steep Section Length	-	100	200	-	-	1080	390	-

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

**PRESENT CONDITION AND PROPOSED IMPROVEMENT**

Scale

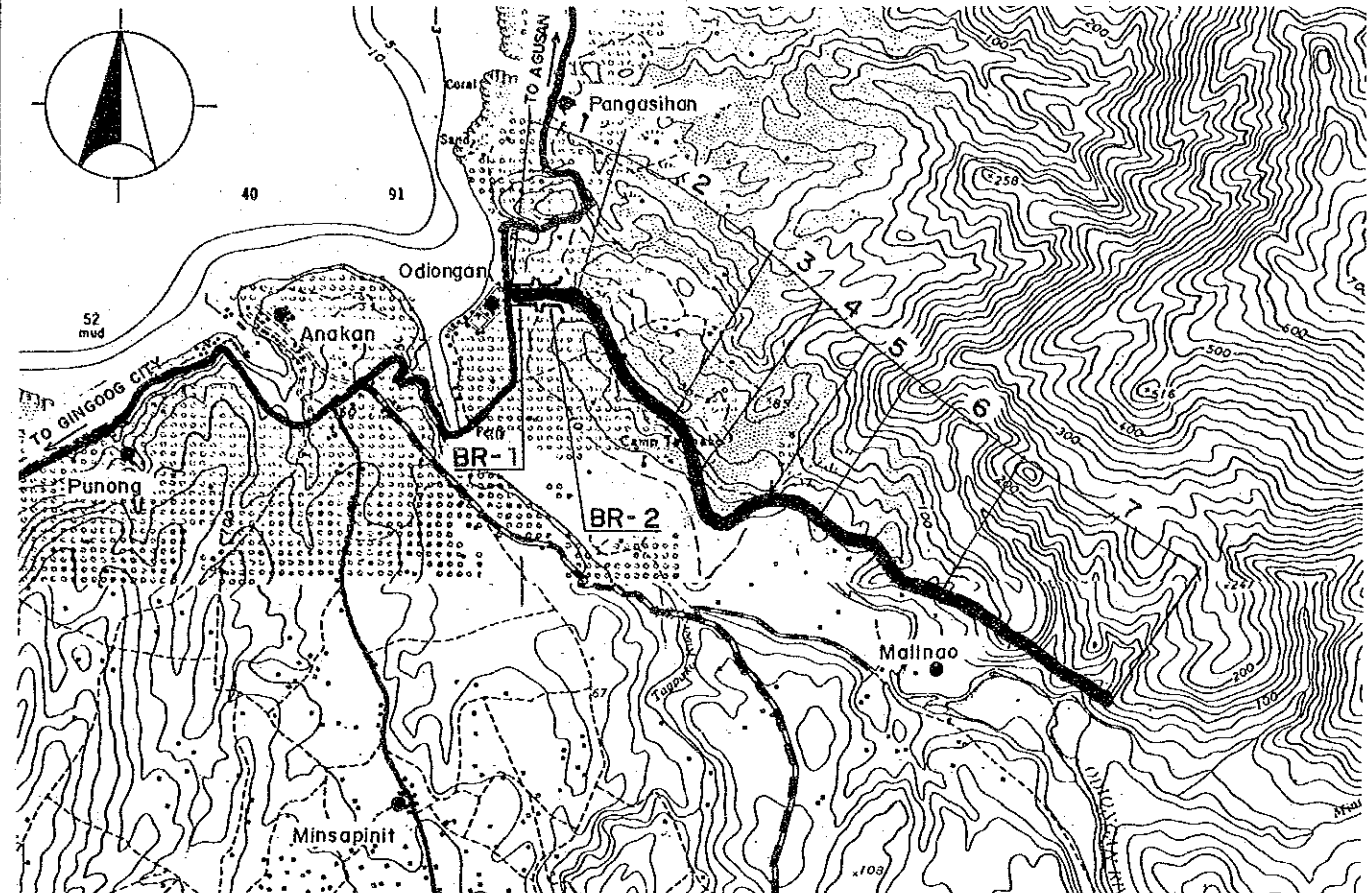
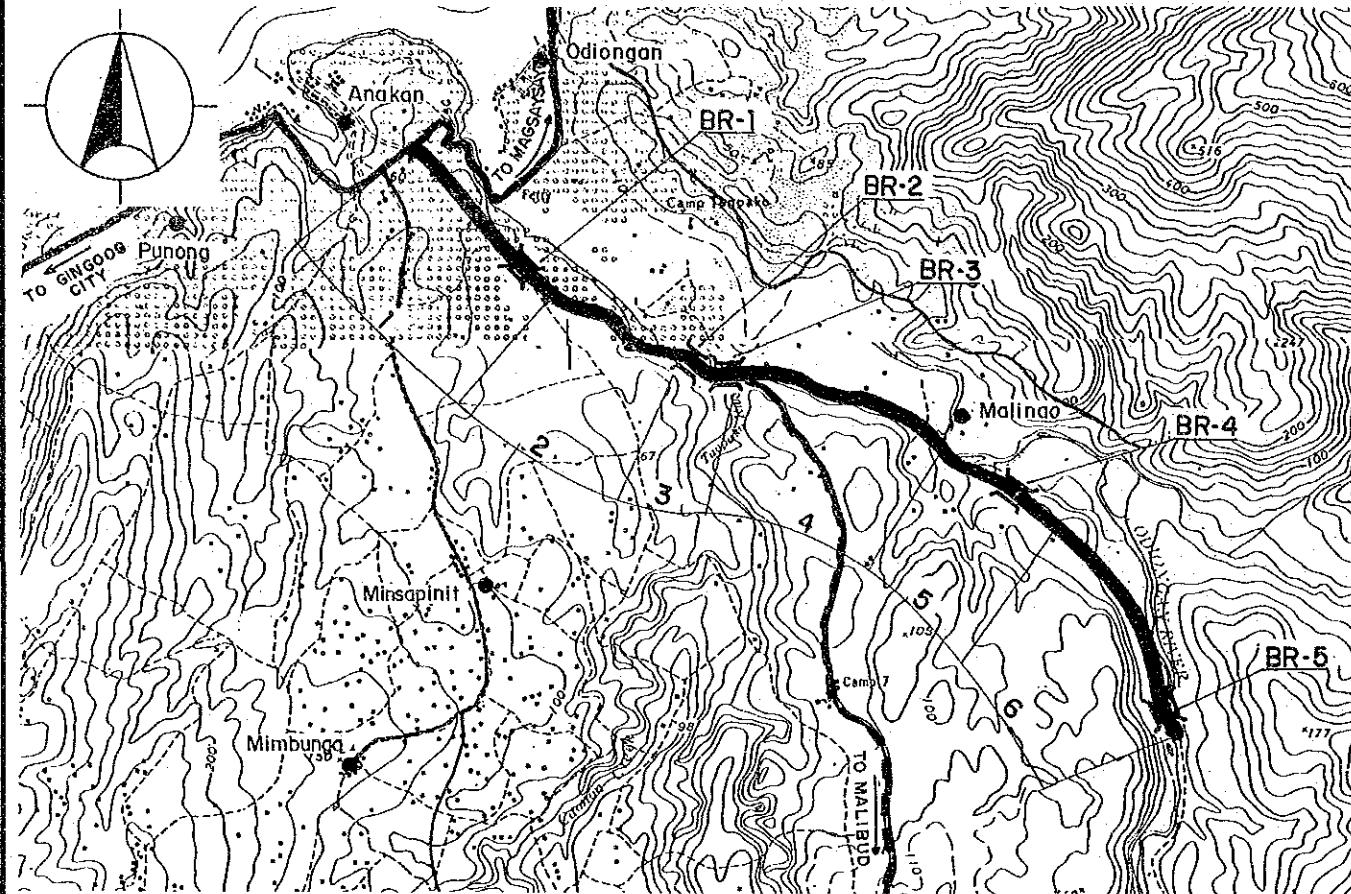
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Drawing No.

54

Road No: B07-8 Road Name: ANAKAN-MALINAO ROAD  
Location: GINGOOG CITY, MISAMIS ORIENTAL

Road No: B07-12 Road Name: ODIONGAN-MALINAO ROAD  
Location: GINGOOG CITY, MISAMIS ORIENTAL



Road Classification	Minor Road (Barangay Road)					
Total Length	7.5 km					
Sub-section No.	1	2	3	4	5	6
Length (km)	1.8	1.2	.5	1.6	.9	1.5
Terrain	Flat	Rolling	Rolling	Flat	Rolling	Flat
Existing Road Surface	4.5-GRV (Bad)	4.5-GRV (Bad)	4.0-GRV (V.Bad)	2.8-GRV (Bad)	2.5-GRV (Bad)	2.9-GRV (Bad)
Proposed Improvement	Impr.-1	Impr.-1	Impr.-1	Impr.-1	Impr.-1	Impr.-1
Improvement Type	* BMP	* BMP	* BMP	* BMP	* BMP	* BMP
Surface Type						
Carriageway Width(m)	6.0	6.0	6.0	6.0	6.0	6.0
Shoulder Width (m)	1.0	.5	.5	1.0	.5	1.0
Ref. Typical Section	TYPE 2-4	TYPE 2-4	TYPE 2-4	TYPE 2-4	TYPE 2-4	TYPE 2-4
Bridge No.	BR-1	BR-2	BR-3	BR-4	BR-5	
Existing Type	Timber	Timber	Timber	RCBC	Ford-Cr.	
Length (m)	22	8	32	15	-	
Proposed Type	2Lane-Br	2Lane-Br	2Lane-Br	2Lane-Br	2Lane-Sp	
Length (m)	25	12	30	15	50	
No. of Spans	1	1	2	1	-	

Road Classification	Minor Road (Barangay Road)						
Total Length	6.0 km						
Sub-section No.	1	2	3	4	5	6	7
Length (km)	.3	1.3	.4	.8	.4	1.1	1.7
Terrain	Flat	Rolling	Rolling	Rolling	Rolling	Rolling	Rolling
Existing Road Surface	2.6-GRV (Fair)	3.4-GRV (Fair)	3.6-GRV (Fair)	3.4-GRV (Fair)	3.2-EAR (V.Bad)	2.4-EAR (V.Bad)	2.4-EAR (V.Bad)
Proposed Improvement	Widening	Widening	Widening	Widening	Impr.-1	Impr.-1	Impr.-1
Improvement Type							
Surface Type	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel
Carriageway Width(m)	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Shoulder Width (m)	1.0	.5	.5	.5	.5	.5	.5
Ref. Typical Section	TYPE 4-4	TYPE 4-4	TYPE 4-4	TYPE 4-4	TYPE 2-8	TYPE 2-8	TYPE 2-8
Special Treatment							
Steep Section Length	-	-	-	-	-	100	-
Bridge No.	BR-1	BR-2					
Existing Type	Timber	Timber					
Length (m)	10	9					
Proposed Type	2Lane-Br	2Lane-Br					
Length (m)	10	10					
No. of Spans	1	1					

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

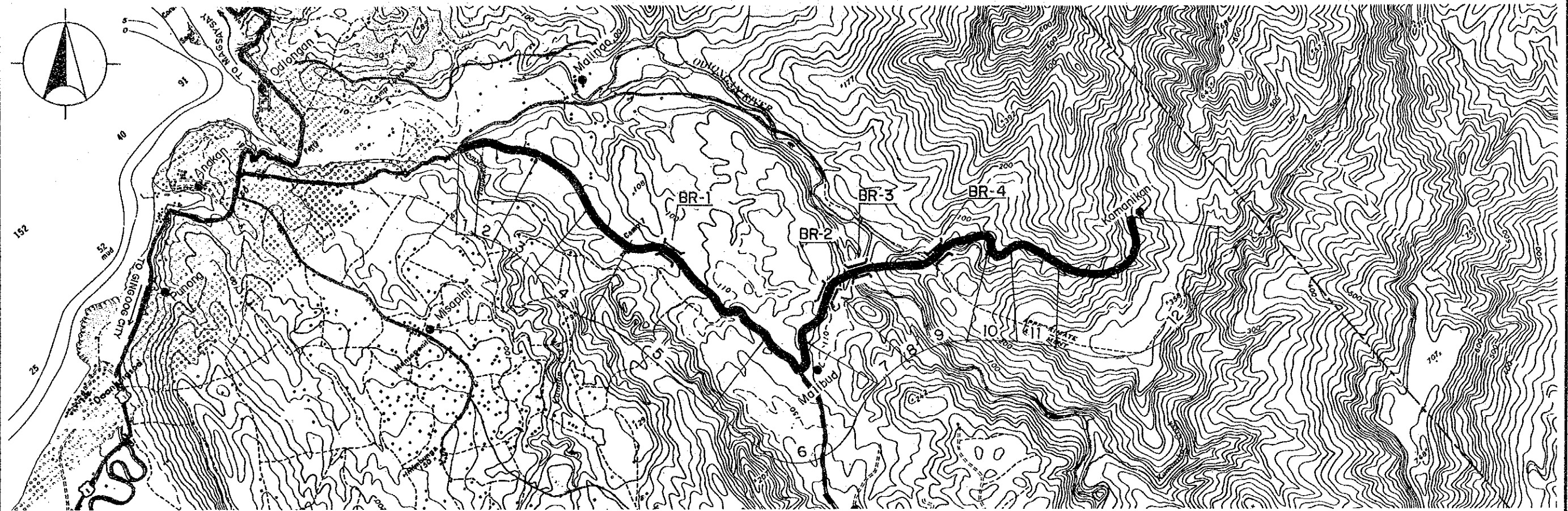
THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT  
IN THE REPUBLIC OF THE PHILIPPINES

PRESENT CONDITION AND PROPOSED IMPROVEMENT

Scale  
1:50,000

Drawing No.  
55

Road No: B07-13 Road Name: TAGPAKO-MALIBUD-KAMANIKAN ROAD  
Location : GINGOOG CITY, MISAMIS ORIENTAL



Road Classification	Minor Road (Barangay Road)											
Total Length	11.4 km											
Sub-section No.	1	2	3	4	5	6	7	8	9	10	11	12
Length (km)	.3	.7	.8	.7	2.3	1.0	.8	.6	1.7	.4	.8	1.3
Terrain	Rolling	Rolling	Rolling	Flat	Rolling	Rolling	Rolling	Rolling	Mt'nous	Mt'nous	Rolling	Rolling
Existing Road Surface	4.5-GRV (Bad)	5.5-GRV (Bad)	4.5-GRV (Bad)	4.7-GRV (Bad)	5.5-GRV (Bad)	5.0-GRV (Bad)	5.0-GRV (Bad)	4.7-GRV (Bad)	4.0-GRV (Bad)	4.0-GRV (Bad)	2.8-EAR (V.Bad)	2.4-EAR (V.Bad)
Proposed Improvement	Impr.-1											
Improvement Type	* BMP											
Surface Type	* BMP											
Carriageway Width(m)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Shoulder Width (m)	.5	.5	.5	1.0	.5	.5	.5	.5	.5	.5	.5	.5
Ref. Typical Section	TYPE 2-4	TYPE 2-4	TYPE 2-4	TYPE 2-4	TYPE 2-4	TYPE 2-4	TYPE 2-4	TYPE 2-4	TYPE 2-4	TYPE 2-4	TYPE 2-7	TYPE 2-7
Special Treatment	-											
Steep Section Length	-									200		-
Bridge No.	BR-1	BR-2	BR-3	BR-4								
Existing Type	Timber	Timber	Timber	Timber								
Length (m)	11	23	32	11								
Proposed Type	2Lane-Br	2Lane-Br	2Lane-Br	2Lane-Br								
Length (m)	15	30	40	20								
No. of Spans	1	2	2	1								

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

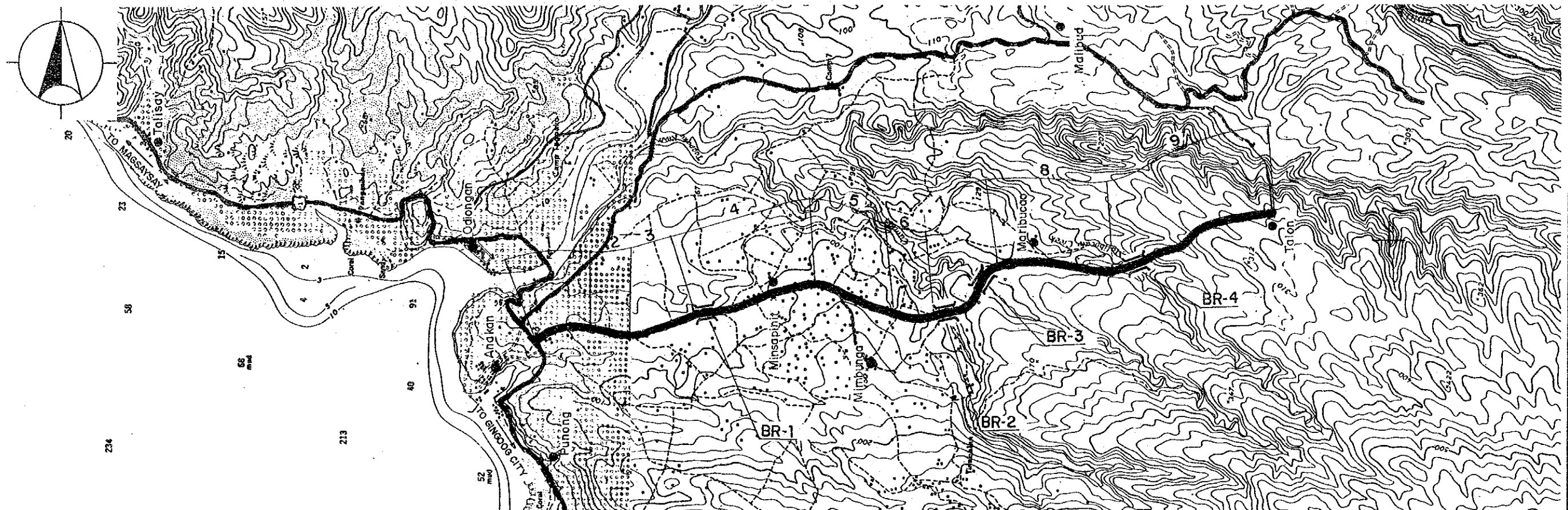
**THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT  
IN THE REPUBLIC OF THE PHILIPPINES**

**PRESENT CONDITION AND PROPOSED IMPROVEMENT**

Scale  
1:50,000

Drawing No.  
56

Road No: B07-14      Road Name: ANAKAN-MIN-MARIBU-TALON ROAD  
Location: GINGOOG CITY, MISAMIS ORIENTAL



Road Classification	Minor Road (Barangay Road)								
Total Length	9.7 km								
Sub-section No.	1	2	3	4	5	6	7	8	9
Length (km)	.7	.5	.8	1.5	1.0	.6	1.1	1.4	2.1
Terrain	Rolling	Flat	Flat	Rolling	Flat	Flat	Mt'nous	Rolling	Mt'nous
Existing Road Surface	3.4-GRV (Bad)	4.1-BTM (Bad)	3.1-GRV (Bad)	3.6-GRV (Bad)	3.3-GRV (Fair)	3.4-EAR (V.Bad)	3.2-EAR (V.Bad)	2.8-GRV (V.Bad)	2.8-EAR (V.Bad)
Proposed Improvement	Rehabil.	Rehabil.	Rehabil.	Rehabil.	Widening	Impr.-1	Impr.-1	Rehabil.	Impr.-1
Improvement Type	Gravel	* BMP	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel	Gravel
Surface Type	4.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Carriageway Width(m)	.5	1.0	1.0	.5	1.0	1.0	.5	.5	.5
Shoulder Width (m)	TYPE 1-6    TYPE 1-5    TYPE 1-6    TYPE 1-6    TYPE 4-4    TYPE 2-8    TYPE 2-8    TYPE 1-6    TYPE 2-8								
Ref. Typical Section	Special Treatment								
Special Treatment	Steep Section Length								
Steep Section Length	-	-	-	-	-	-	300	100	630
Bridge No.	BR-1	BR-2	BR-3	BR-4					
Existing Type	Bailey	RCBC	Spillway	Spillway					
Length (m)	18	4	25	10					
Proposed Type	-	1cell-BC	-	-					
Length (m)	-	4	-	-					
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  
IN THE REPUBLIC OF THE PHILIPPINES**

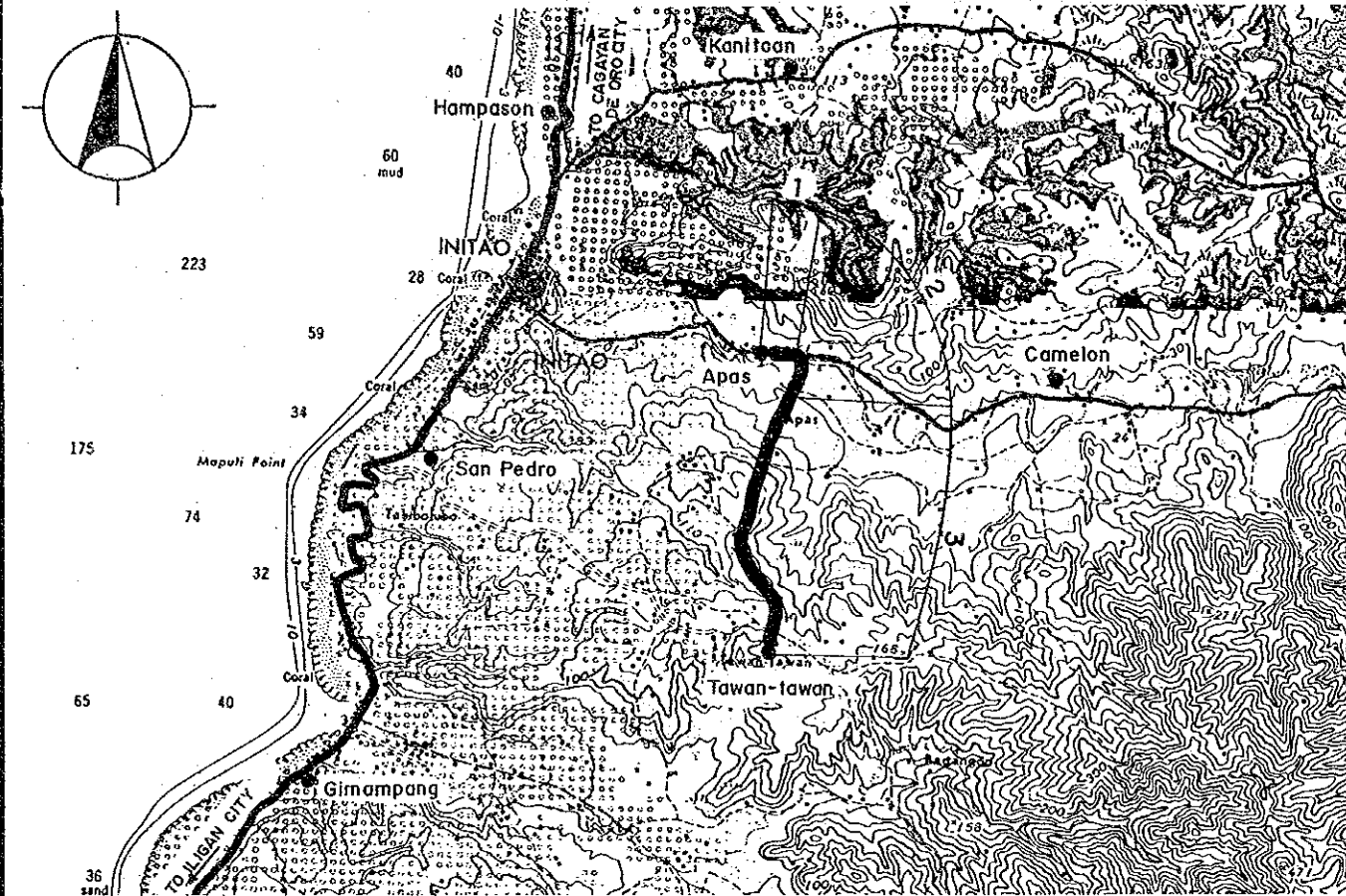
**PRESENT CONDITION AND PROPOSED IMPROVEMENT**

Scale  
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Drawing No.  
57

Road No: B09-2

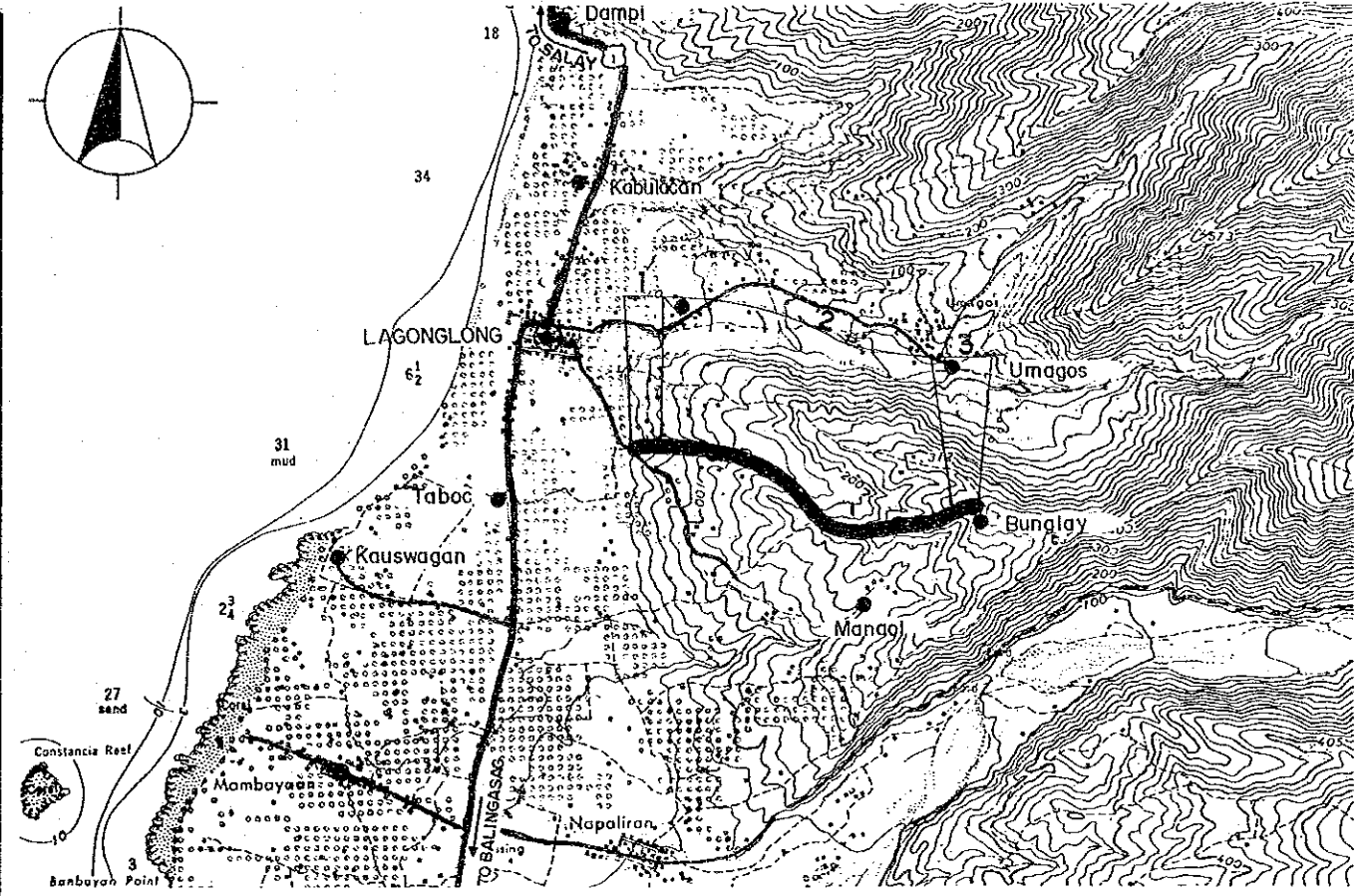
Road Name: APAS-TAWAN-TAWAN ROAD  
Location: INITAO, MISAMIS ORIENTAL



Road Classification	Minor Road (Barangay Road)		
Total Length	2.3 km		
Sub-section No.	1	2	3
Length (km)	.3	.5	1.5
Terrain	Flat	Rolling	Flat
Existing Road Surface	2.0-GRV (Bad)	2.4-GRV (V.Bad)	2.4-GRV (V.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	1.0
Ref. Typical Section	TYPE 1-6	TYPE 1-6	TYPE 1-6

Road No: B12-1

Road Name: SAPONG-BANGLAY ROAD  
Location: LAGONGLONG, MISAMIS ORIENTAL



Road Classification	Minor Road (Barangay Road)		
Total Length	2.7 km		
Sub-section No.	1	2	3
Length (km)	.2	2.3	.2
Terrain	Rolling	Mt'nous	Mt'nous
Existing Road Surface	3.2-GRV (V.Bad)	3.2-GRV (V.Bad)	3.7-GRV (V.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)	.5	.5	.5
Ref. Typical Section	TYPE 1-6	TYPE 1-6	TYPE 1-6
Special Treatment			
Steep Section Length	-	300	-

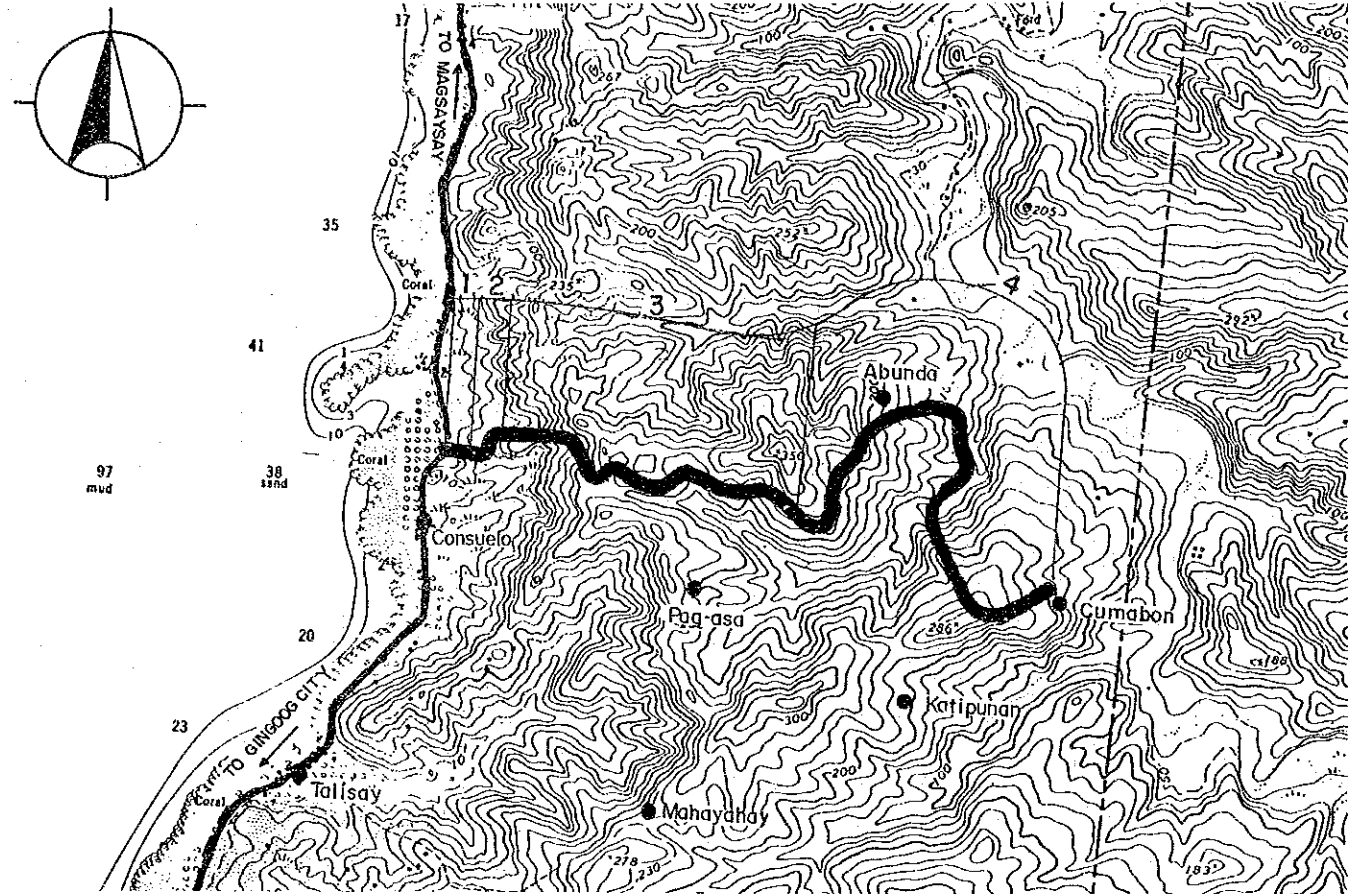
**THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT  
IN THE REPUBLIC OF THE PHILIPPINES**

**PRESENT CONDITION AND PROPOSED IMPROVEMENT**

Scale  
**1:50,000**

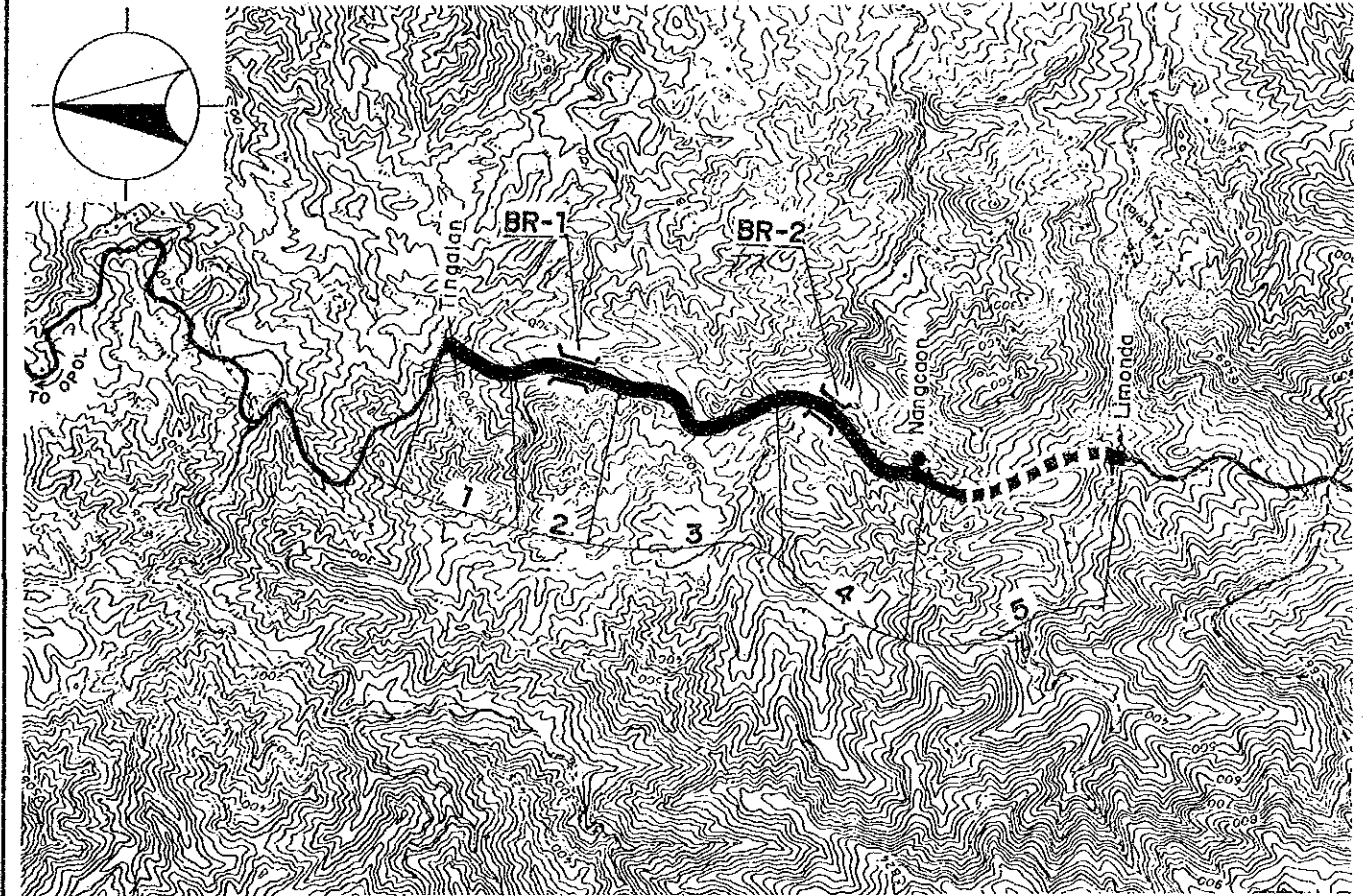
Drawing No.  
**58**

Road No: B16-5    Road Name: CONSUELO-ABUNDA-GUMABUN ROAD  
Location: MAGSAYSAY, MISAMIS ORIENTAL



Road Classification	Minor Road (Barangay Road)			
Total Length	7.0 km			
Sub-section No.	1	2	3	4
Length (km)	.1	.4	2.5	4.0
Terrain	Flat	Mt'nous	Mt'nous	Rolling
Existing Road Surface	4.0-PCC (Good)	3.6-EAR (V.Bad)	3.6-EAR (Impass)	3.6-EAR (Impass)
Proposed Improvement	-	Impr.-1	Impr.-1	Impr.-1
Improvement Type	-	Gravel	Gravel	Gravel
Surface Type	-	4.0	4.0	4.0
Carriageway Width(m)	-	.5	.5	.5
Shoulder Width (m)	-	-	-	-
Ref. Typical Section	-	TYPE 2-8	TYPE 2-8	TYPE 2-8
Special Treatment	-	-	-	-
Steep Section Length	-	120	750	-

Road No: B20-6    Road Name: TINGALAN-LIMUNDA ROAD  
Location: NAAWAN, MISAMIS ORIENTAL



Road Classification	Minor Road (Barangay Road)				
Total Length	5.0 km				
Sub-section No.	1	2	3	4	5
Length (km)	.4	.8	1.4	1.2	1.2
Terrain	Flat	Mt'nous	Mt'nous	Mt'nous	Mt'nous
Existing Road Surface	2.5-EAR (V.Bad)	2.4-EAR (V.Bad)	2.8-EAR (V.Bad)	3.4-EAR (V.Bad)	Non Ex- isting
Proposed Improvement	Impr.-1	Impr.-1	Impr.-1	Impr.-1	New Con.
Improvement Type	Gravel	Gravel	Gravel	Gravel	Gravel
Surface Type	4.0	4.0	4.0	4.0	4.0
Carriageway Width(m)	1.0	.5	.5	.5	.5
Shoulder Width (m)	-	-	-	-	-
Ref. Typical Section	TYPE 2-8	TYPE 2-8	TYPE 2-8	TYPE 2-8	TYPE 5-4
Bridge No.	BR-1	BR-2			
Existing Type	Ford-Cr.	Ford-Cr.			
Length (m)	-	-			
Proposed Type	1Lane-Sp	1Lane-Sp			
Length (m)	15	15			
No. of Spans	-	-			

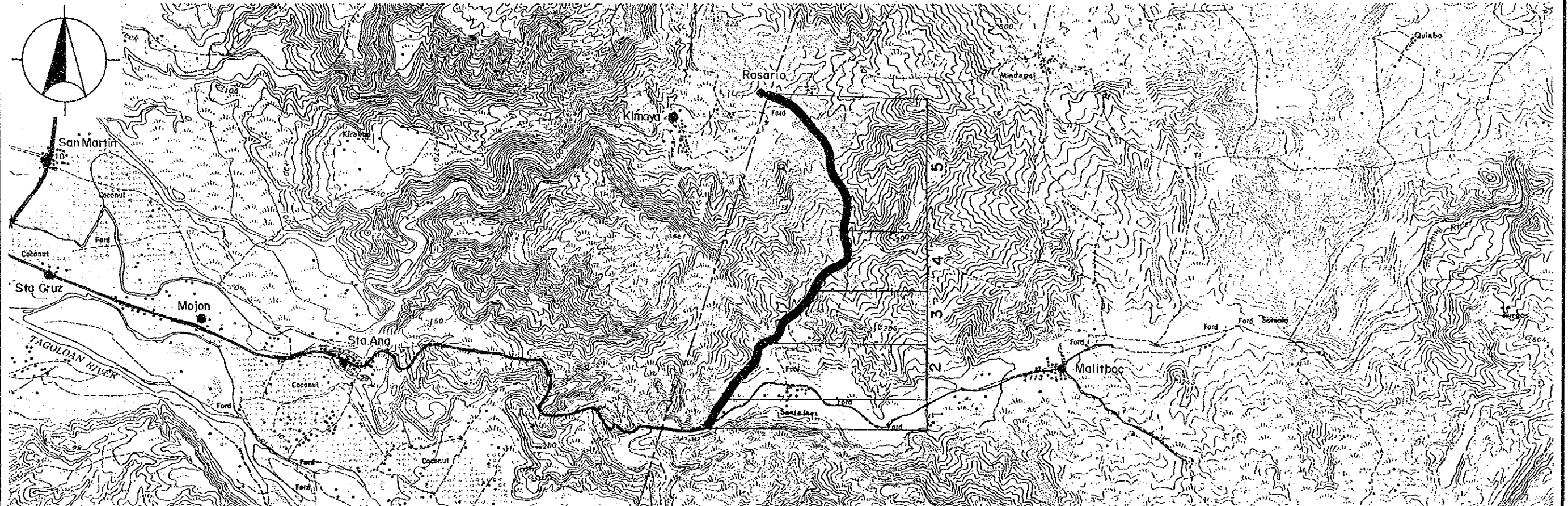
**THE FEASIBILITY STUDY ON THE RURAL ROAD NETWORK DEVELOPMENT PROJECT  
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**PRESENT CONDITION AND PROPOSED IMPROVEMENT**

Scale  
**1:50,000**

Drawing No.  
**59**

Road No: B23-3    Road Name: JCT. STA. CRUZ-MAL-ROSARIO ROAD  
Location : TAGOLOAN, MISAMIS ORIENTAL



Road Classification	Minor Road (Barangay Road)				
Total Length	5.0 km				
Sub-section No.	1	2	3	4	5
Length (km)	.4	.9	.8	.8	2.1
Terrain	Rolling	Mt'nous	Mt'nous	Mt'nous	Mt'nous
Existing Road Surface	4.0-GRV (Bad)	1.9-GRV (Bad)	2.4-GRV (V.Bad)	2.4-GRV (V.Bad)	1.2-GRV (Impass)
Proposed Improvement	Rehabil. Rehabil. Rehabil. Rehabil. Rehabil.				
Improvement Type	Gravel Gravel Gravel Gravel Gravel				
Surface Type	Gravel Gravel Gravel Gravel Gravel				
Carriageway Width(m)	4.0	4.0	4.0	4.0	4.0
Shoulder Width (m)	.5	.5	.5	.5	.5
Ref. Typical Section	TYPE 1-6	TYPE 1-6	TYPE 1-6	TYPE 1-6	TYPE 1-6
Special Treatment					
Steep Section Length	100	100	-	-	-
Slope Protection (Cut Slope)	-	-	50	-	-



