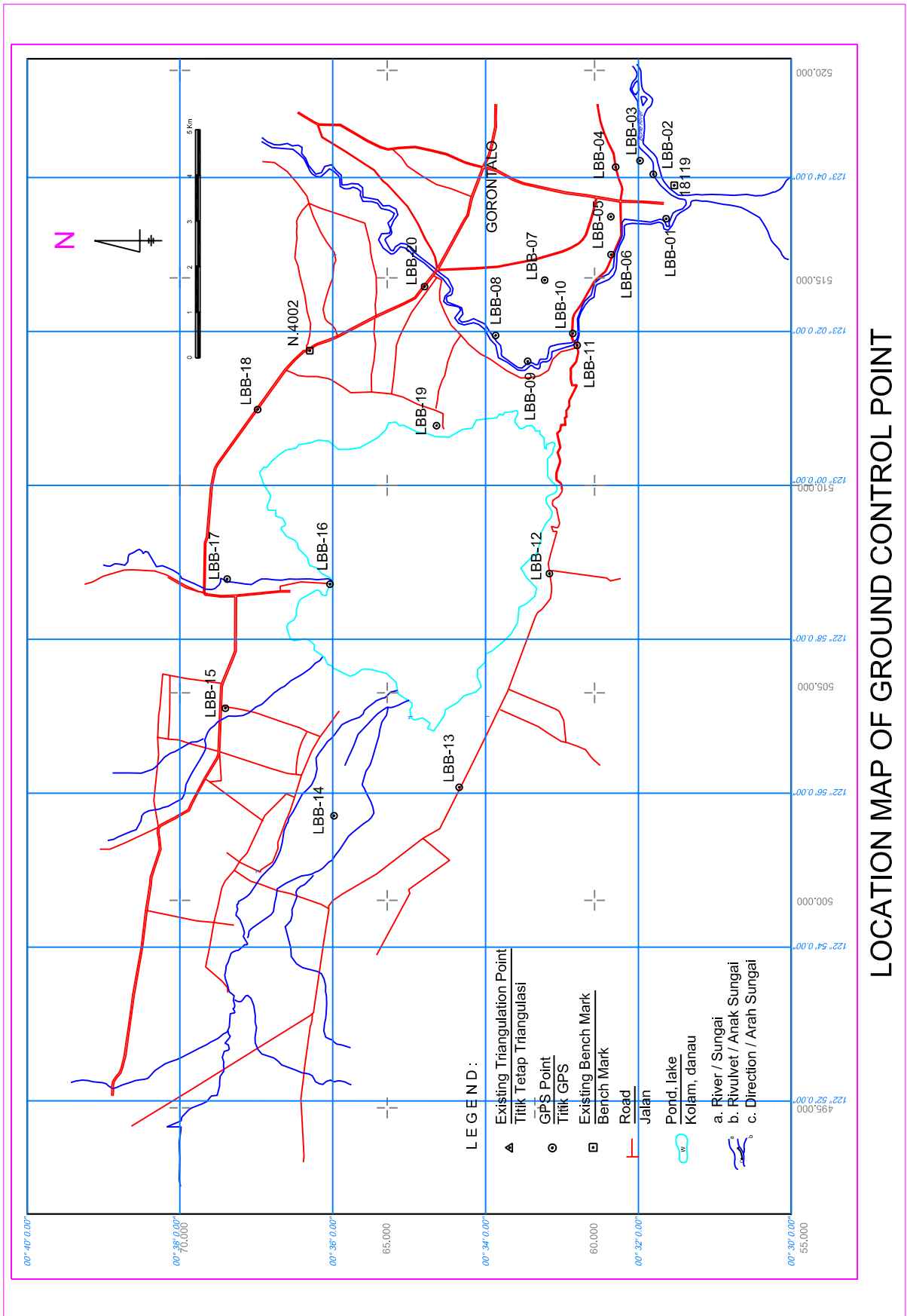


DATA-A

TOPOGRAPHIC MAPPING AND RIVER SURVEYS



List of Ground Control Point Result

Number	Point Number	UTM Coordinate (meter)		Elevation meter (msl)	Remark
		X	Y		
1	BPN.18119	507229.403	58079.406	3.263	Fix Point/GPS/Elevation
2	BO.01	-	-	8.716	Fix Point/Elevation
3	N.4002	503243.307	66866.12	-	Fix Point/GPS
4	LBB.01	506425.108	58273.075	2.564	New Point
5	LBB.02	507495.836	58583.091	1.991	New Point
6	LBB.03	507823.625	58904.249	4.043	New Point
7	LBB.04	507670.185	59489.883	4.519	New Point
8	LBB.05	506474.598	59606.026	3.792	New Point
9	LBB.06	505559.927	59602.495	4.532	New Point
10	LBB.07	504947.286	61202.429	5.525	New Point
11	LBB.08	503598.815	62388.096	8.681	New Point
12	LBB.09	502990.583	61611.829	7.533	New Point
13	LBB.10	503659.917	60523.746	5.258	New Point
14	LBB.11	503375.228	60418.762	8.641	New Point
15	LBB.12	497873.825	61087.325	10.891	New Point
16	LBB.13	492713.852	63252.711	19.452	New Point
17	LBB.14	492037.716	66280.934	9.357	New Point
18	LBB.15	494643.626	68906.016	7.477	New Point
19	LBB.16	497622.622	66363.144	6.195	New Point
20	LBB.17	497748.901	68873.260	11.06	New Point
21	LBB.18	501811.868	68126.234	16.283	New Point
22	LBB.19	501423.16	63812.992	6.186	New Point
23	LBB.20	504804.188	64122.118	12.238	New Point

Accuracy Control Table of Levelling

Name	Distance (km)	Error (cm)	JICA Limited Error (cm)
From BPN.18119 to BO.01	9.8	5.6	15.7
From BPN.18119 to LBB.11	11.4	5.1	16.9
From BO.01 to LBB.08	50	1.9	35.4
Total	71.2		



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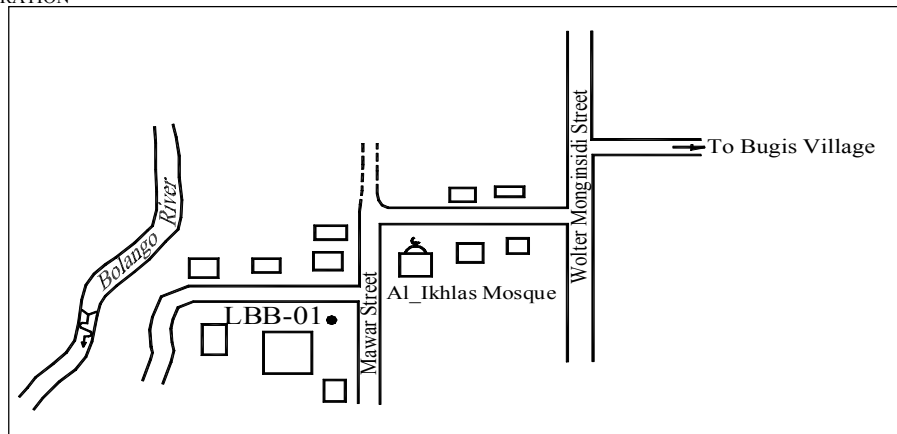
POINT NO.

LBB-01

DRAWING AND PHOTOGRAPH OF BENCH MARK LOCATION

- | | |
|------------------------------|--|
| 01. REFERENCE MAP : RUPABUMI | 05. NORTHING COORDINATES : 58273,075 N |
| 02. SCALE : 1 : 50.000 | 06. EASTING COORDINATES : 506425,108 E |
| 03. SHEET NO. : 2316 - 41 | 07. LATITUDE : 0° 31' 37,972241" |
| 04. ELEVATION : 2,564 M | 08. LONGITUDE : 123° 03' 27,875002" |

09. ILLUSTRATION



10. PHOTOGRAPH



- | |
|------------------------------------|
| 11. MADE BY : PT. ATLAS DELTASATYA |
| 12. DATE : July 21, 2001 |
| 13. CHECKED DATE : August 24, 2001 |



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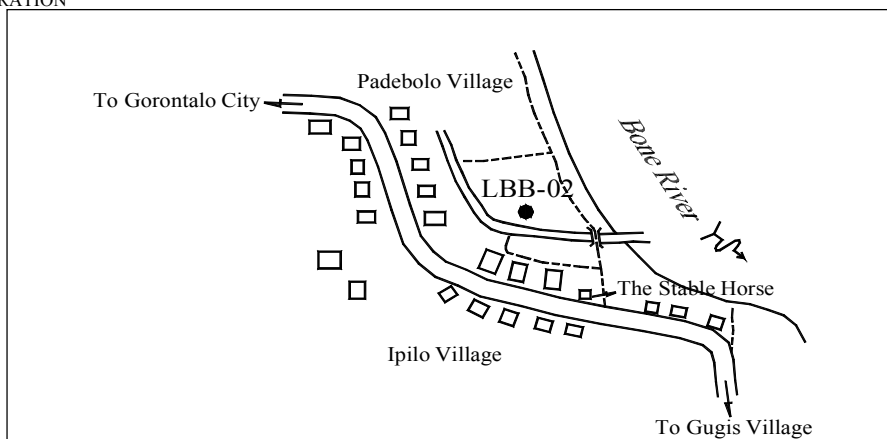
POINT NO.

LBB-02

DRAWING AND PHOTOGRAPH OF BENCH MARK LOCATION

- | | |
|------------------------------|--|
| 01. REFERENCE MAP : RUPABUMI | 05. NORTHING COORDINATES : 58583,091 N |
| 02. SCALE : 1 : 50.000 | 06. EASTING COORDINATES : 507495,836 E |
| 03. SHEET NO. : 2316 - 41 | 07. LATITUDE : 0° 31' 48,069054" |
| 04. ELEVATION : 1,991 M | 08. LONGITUDE : 123° 04' 02,518173" |

09. ILLUSTRATION



10. PHOTOGRAPH



- | |
|------------------------------------|
| 11. MADE BY : PT. ATLAS DELTASATYA |
| 12. DATE : July 21, 2001 |
| 13. CHECKED DATE : August 24, 2001 |



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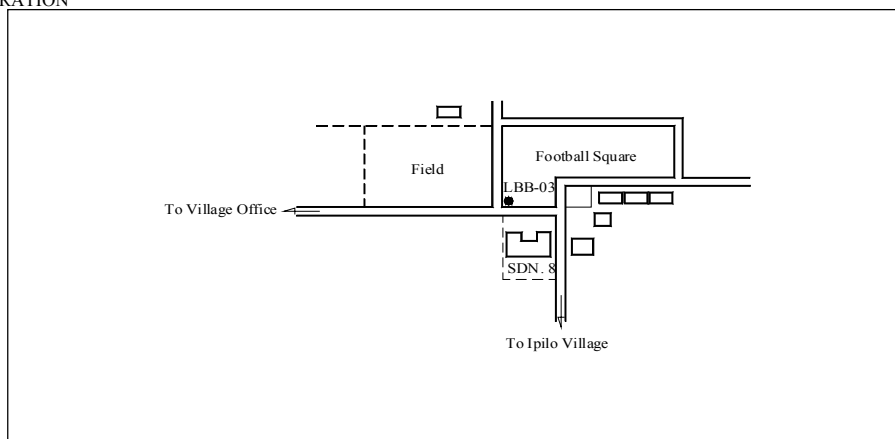
POINT NO.

LBB-03

DRAWING AND PHOTOGRAPH OF BENCH MARK LOCATION

- | | |
|------------------------------|--|
| 01. REFERENCE MAP : RUPABUMI | 05. NORTHING COORDINATES : 58904,249 N |
| 02. SCALE : 1 : 50.000 | 06. EASTING COORDINATES : 507823,625 E |
| 03. SHEET NO. : 2316 - 41 | 07. LATITUDE : 0° 31' 58,529286" |
| 04. ELEVATION : 4,043 M | 08. LONGITUDE : 123° 04' 02,518173" |

09. ILLUSTRATION



10. PHOTOGRAPH



- | |
|------------------------------------|
| 11. MADE BY : PT. ATLAS DELTASATYA |
| 12. DATE : July 21, 2001 |
| 13. CHECKED DATE : August 24, 2001 |



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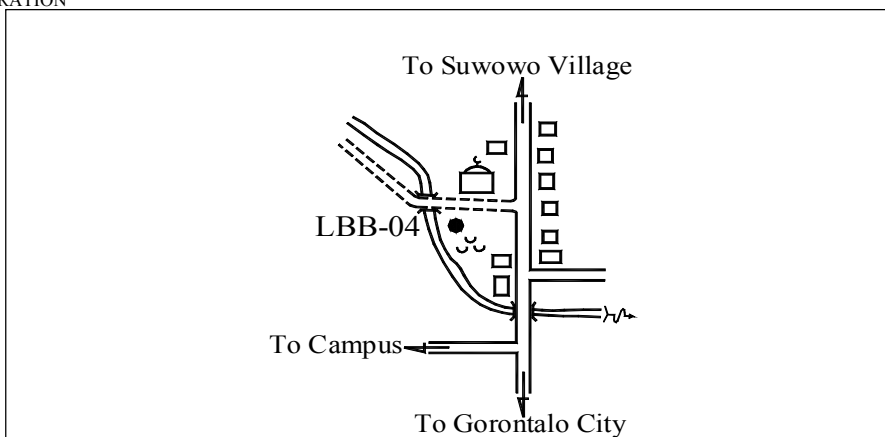
POINT NO.

LBB-04

DRAWING AND PHOTOGRAPH OF BENCH MARK LOCATION

- | | |
|------------------------------|--|
| 01. REFERENCE MAP : RUPABUMI | 05. NORTHING COORDINATES : 59489,883 N |
| 02. SCALE : 1 : 50.000 | 06. EASTING COORDINATES : 507670,185 E |
| 03. SHEET NO. : 2316 - 41 | 07. LATITUDE : 0° 32' 17,604232" |
| 04. ELEVATION : 4,519 M | 08. LONGITUDE : 123° 04' 08,159874" |

09. ILLUSTRATION



10. PHOTOGRAPH



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|------------------------------------|
| 11. MADE BY : PT. ATLAS DELTASATYA |
| 12. DATE : July 21, 2001 |
| 13. CHECKED DATE : August 24, 2001 |



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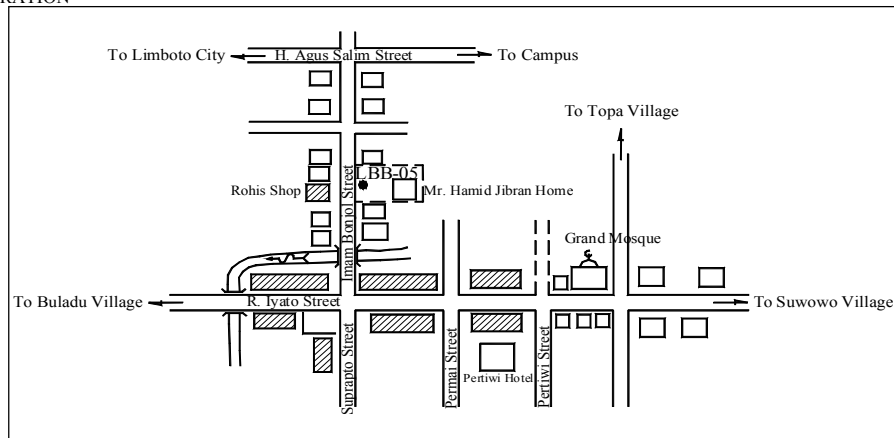
POINT NO.

LBB-05

DRAWING AND PHOTOGRAPH OF BENCH MARK LOCATION

- | | |
|------------------------------|--|
| 01. REFERENCE MAP : RUPABUMI | 05. NORTHING COORDINATES : 59606,026 N |
| 02. SCALE : 1 : 50.000 | 06. EASTING COORDINATES : 506474,598 E |
| 03. SHEET NO. : 2316 - 41 | 07. LATITUDE : 0° 32' 21,388061" |
| 04. ELEVATION : 3,792 M | 08. LONGITUDE : 123° 03' 29,477187" |

09. ILLUSTRATION



10. PHOTOGRAPH



- | |
|------------------------------------|
| 11. MADE BY : PT. ATLAS DELTASATYA |
| 12. DATE : July 21, 2001 |
| 13. CHECKED DATE : August 24, 2001 |



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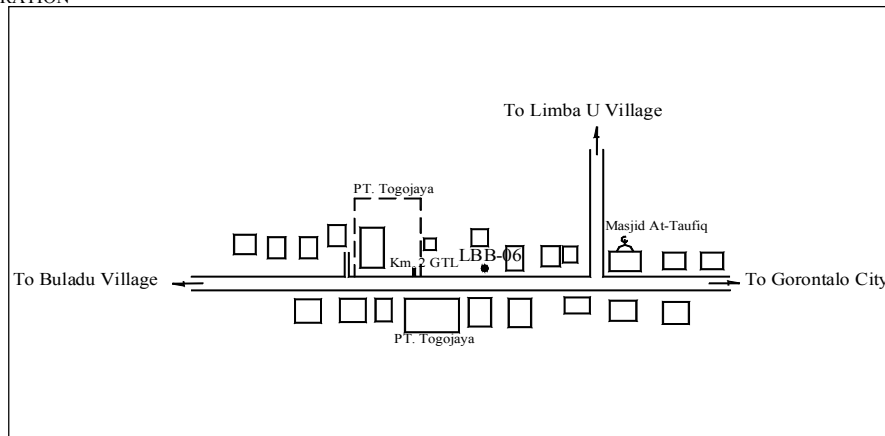
POINT NO.

LBB-06

DRAWING AND PHOTOGRAPH OF BENCH MARK LOCATION

- | | |
|------------------------------|--|
| 01. REFERENCE MAP : RUPABUMI | 05. NORTHING COORDINATES : 59602,495 N |
| 02. SCALE : 1 : 50.000 | 06. EASTING COORDINATES : 505559,927 E |
| 03. SHEET NO. : 2316 - 41 | 07. LATITUDE : 0° 32' 21,273703" |
| 04. ELEVATION : 4,532 M | 08. LONGITUDE : 123° 02' 59,883336' |

09. ILLUSTRATION



10. PHOTOGRAPH



- | |
|------------------------------------|
| 11. MADE BY : PT. ATLAS DELTASATYA |
| 12. DATE : July 22, 2001 |
| 13. CHECKED DATE : August 24, 2001 |



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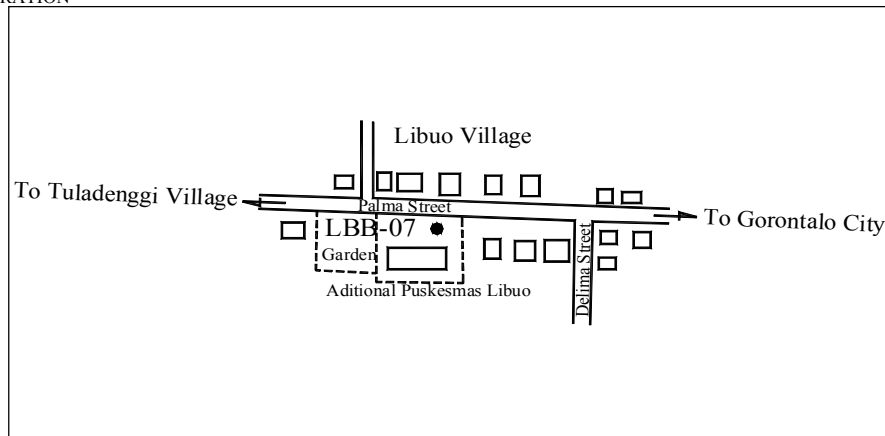
POINT NO.

LBB-07

DRAWING AND PHOTOGRAPH OF BENCH MARK LOCATION

- | | |
|------------------------------|--|
| 01. REFERENCE MAP : RUPABUMI | 05. NORTHING COORDINATES : 91202,429 N |
| 02. SCALE : 1 : 50.000 | 06. EASTING COORDINATES : 504947,286 E |
| 03. SHEET NO. : 2316 - 41 | 07. LATITUDE : 0° 33' 13,385941" |
| 04. ELEVATION : 5,525 M | 08. LONGITUDE : 123° 02' 40,062636" |

09. ILLUSTRATION



10. PHOTOGRAPH



- | |
|------------------------------------|
| 11. MADE BY : PT. ATLAS DELTASATYA |
| 12. DATE : July 21, 2001 |
| 13. CHECKED DATE : August 24, 2001 |



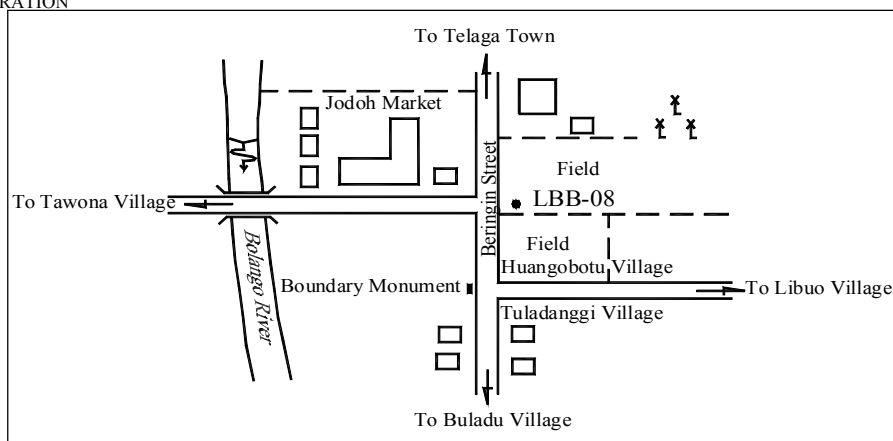
DIRECTORATE GENERAL OF WATER RESOURCES
THE STUDY ON FLOOD CONTROL AND WATER MANAGEMENT
IN LIMBOTO - BOLANGO - BONE BASIN

POINT NO.
LBB-08

DRAWING AND PHOTOGRAPH OF BENCH MARK LOCATION

- | | |
|------------------------------|--|
| 01. REFERENCE MAP : RUPABUMI | 05. NORTHING COORDINATES : 62388,096 N |
| 02. SCALE : 1 : 50.000 | 06. EASTING COORDINATES : 503598,815 E |
| 03. SHEET NO. : 2316 - 41 | 07. LATITUDE : 0° 33' 52,005429" |
| 04. ELEVATION : 8,681 M | 08. LONGITUDE : 123° 01' 56,433945" |

09. ILLUSTRATION



10. PHOTOGRAPH



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|------------------------------------|
| 11. MADE BY : PT. ATLAS DELTASATYA |
| 12. DATE : July 22, 2001 |
| 13. CHECKED DATE : August 24, 2001 |