

7.8.5 Locations of Major Intersections

The location map and list of the major intersections on the Trans-Sulawesi Mamminasata Road and Mamminasa Bypass are shown in **Figure 7.8.1** and **Table 7.8.4**.

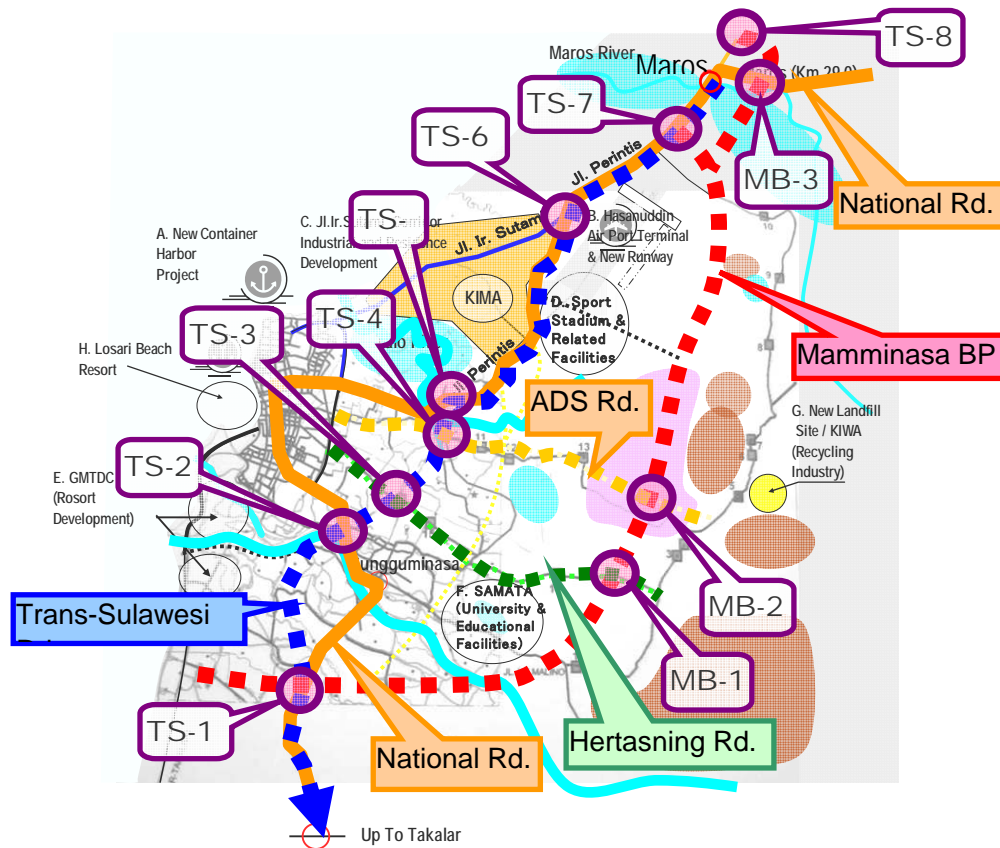


Figure 7.8.1 Location Map of Intersections and Identification No

Table 7.8.4 List of Major Intersections

Main Road	Crossroad	IC No.	Location (Current Area Division)	Land Use
Trans-Sulawesi Mamminasata Road	National Rd. / Mamminasa BP	TS-1	Gowa (Rural)	Agricultural area
	National Rd. / Local Rd.	TS-2	Makassar /Gowa (Urban)	Commercial area
	Hertasning Rd.	TS-3	Makassar (Urban)	Residential / Agricultural area
	ADS Rd.	TS-4	Makassar (Urban)	Residential area
	Perintis Rd.	TS-5	Makassar (Urban)	Commercial / Education / Swamp area
	Ir. Sutami Rd.	TS-6	Makassar (Urban)	Development area
	Mamminasa BP	TS-7	Maros (Semi-urban)	Development area / Agricultural area
	Mamminasa BP	TS-8	Maros (Semi-urban)	Agricultural area
Mammi -nasa Bypass	Hertasning Rd.	MB-1	Gowa (Rural)	Agricultural area
	ADS Rd.	MB-2	Gowa (Rural)	Agricultural area
	National Rd.	MB-3	Maros (Urban)	Residential area

Note: All roads are Type II and Class I based on Indonesia geometric design standards (Standard Specifications for Geometric Design of Urban Roads, March 1992) and estimated future traffic volume in Y2023.

Source: JICA Study Team

7.8.6 Intersection Plan for Each Intersection

(1) TS-1 (Trans-Sulawesi Road / Existing Sunggminasa – Takalar National Road)

Three roads (Trans-Sulawesi Road, Mamminasa Bypass and an existing national road) will meet at this intersection. The existing national road has a 2-lane travelway and it is planned to widening to a 4 lane road. The proposed location is surrounded by paddy field. There is a fish farming firm at the southwest and an irrigation canal along the east side of the national road as shown in **Figure 7.8.2(1)**.

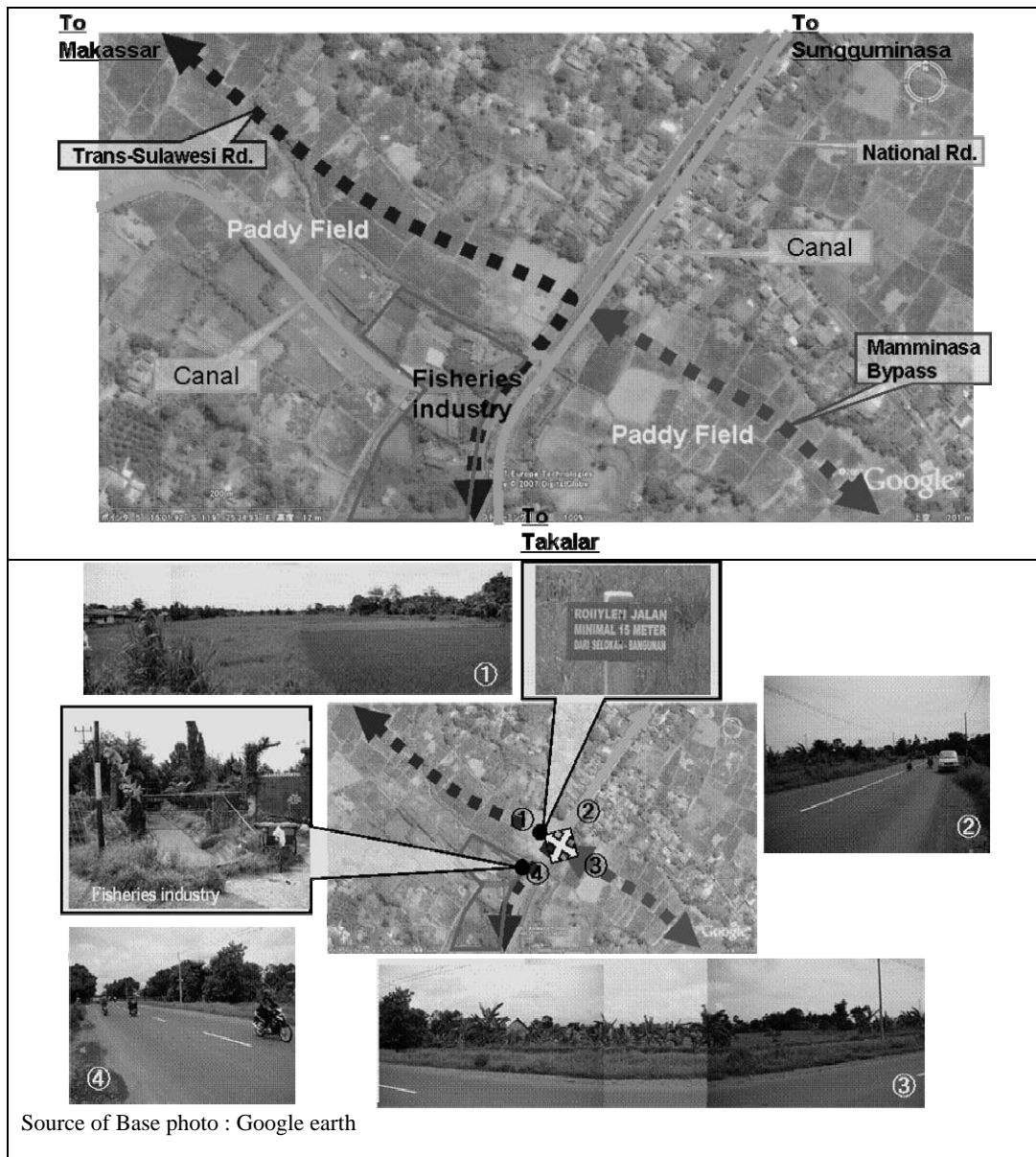


Figure 7.8.2(1) Site Condition at TS-1 IC

The alternative intersections studied are signal-controlled at-grade intersection (Type-1), roundabout (Type-2) and grade-separate intersection (Type-3) as shown in **Figure 7.8.2(2)**. The

recommended intersection type for this intersection is signal-controlled at-grade intersection. It will be upgraded to grade-separate intersection in the future when traffic demand requires it.

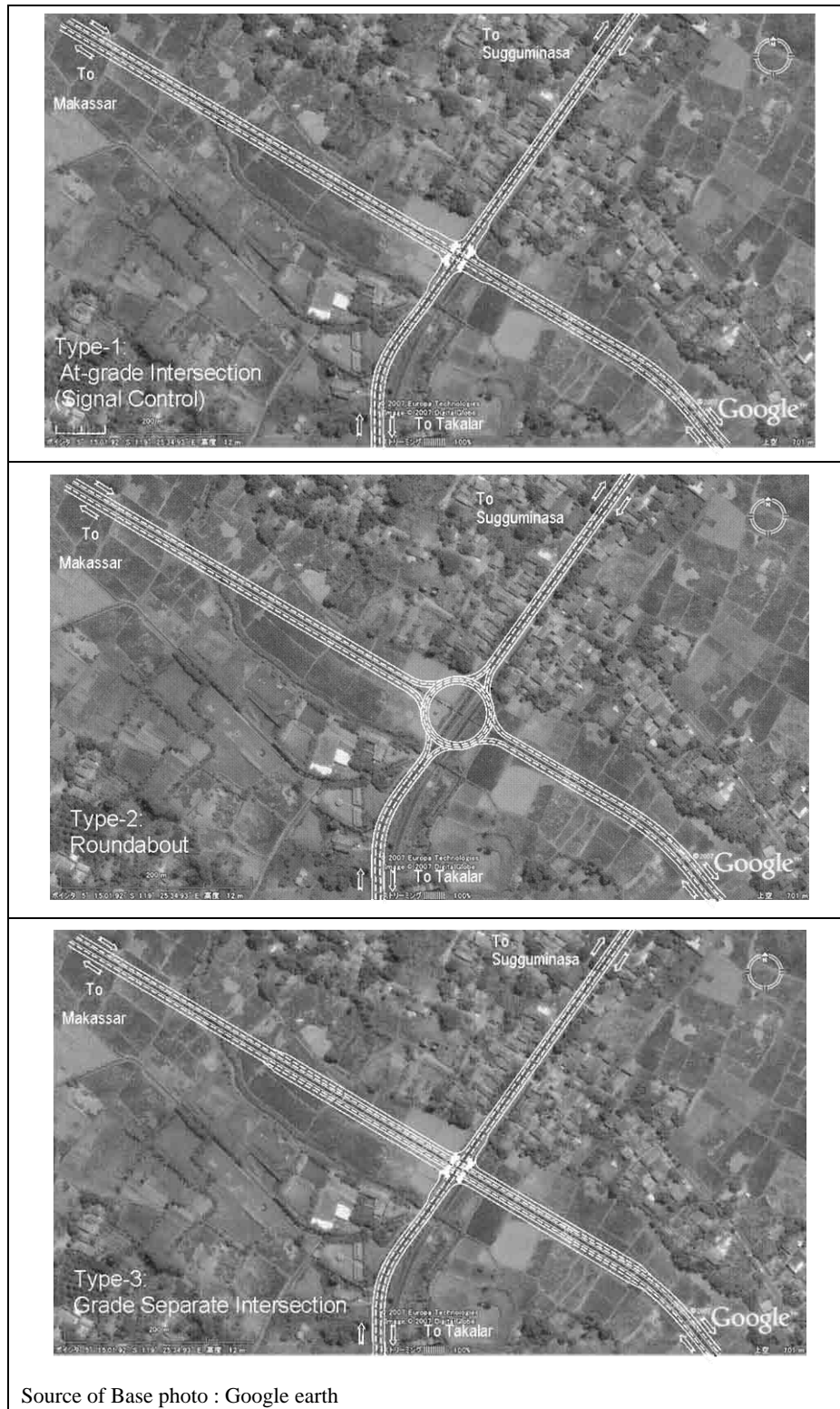


Figure 7.8.2(2) Alternative Intersection Plans for TS-1 IC

(2) TS-2 (Trans-Sulawesi Road / Sultan Alauddin Road)

This intersection is located at the administrative border of Makassar City and Gowa Regency, and near the Jeneberang River. Three roads (Trans-Sulawesi Road, Sultan Alauddin Road and Syeh Yusuf Road) cross at this intersection. The existing national road has 4 lanes traveled way and the traffic volume is very large. Traffic jam is common with many motorbikes, bicycles, mini-buses and cars meeting at this intersection.

The intersection is surrounded by office buildings and shops. There are housing development areas in the east, a bus terminal and factory at the west, the border monument at the center as shown in **Figure 7.8.3(1)**.

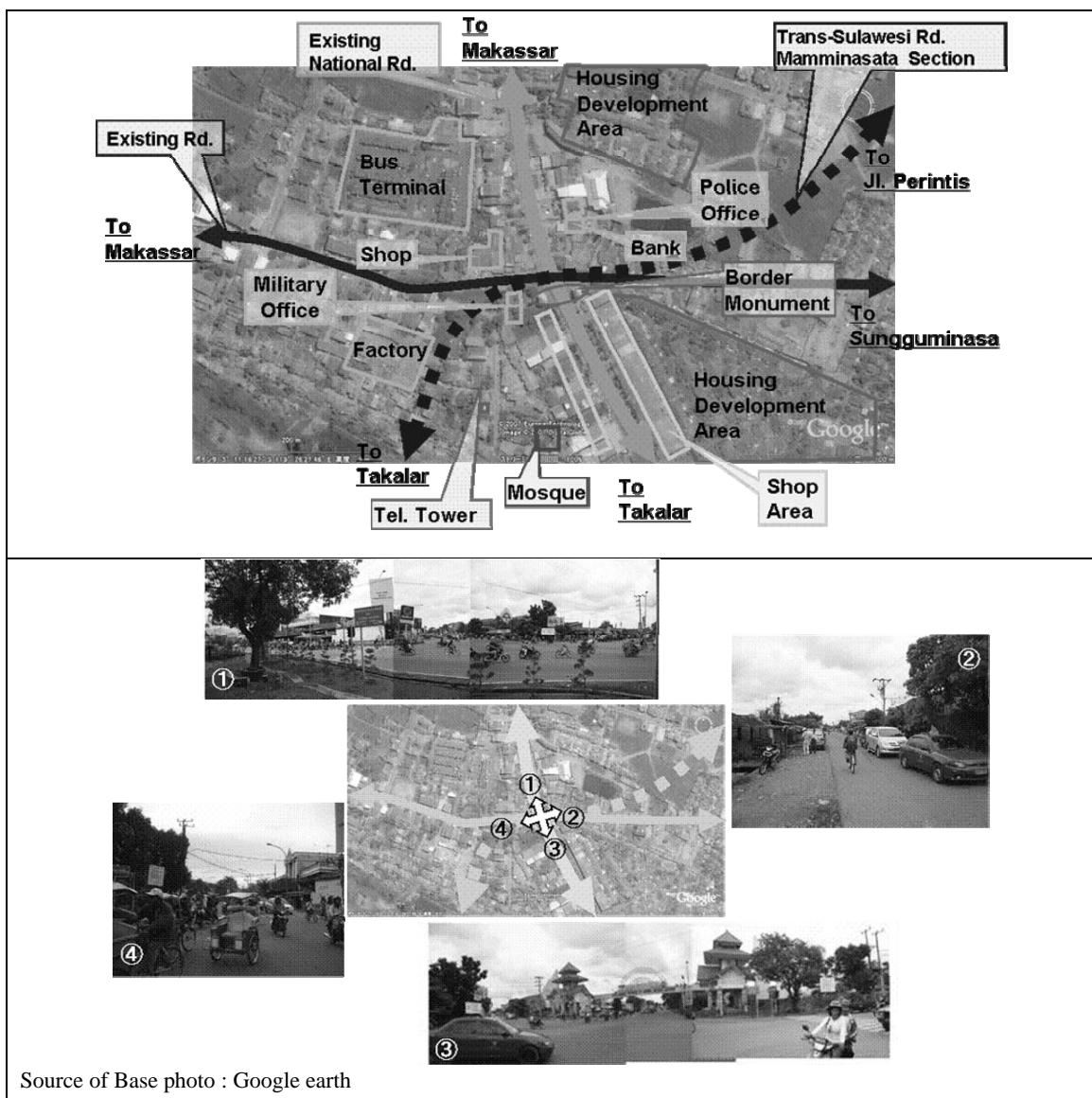


Figure 7.8.3(1) Site Condition at TS-2 IC

The alternative intersections include signal-controlled at-grade intersection (Type-1), grade-separate intersection (Type-2) and full cloverleaf interchange (Type-3) as shown in **Figure**

7.8.3(2). The grade-separate intersection type is proposed because of large existing and future traffic volume and approach to the Jeneberang River and 3 roads crossings.

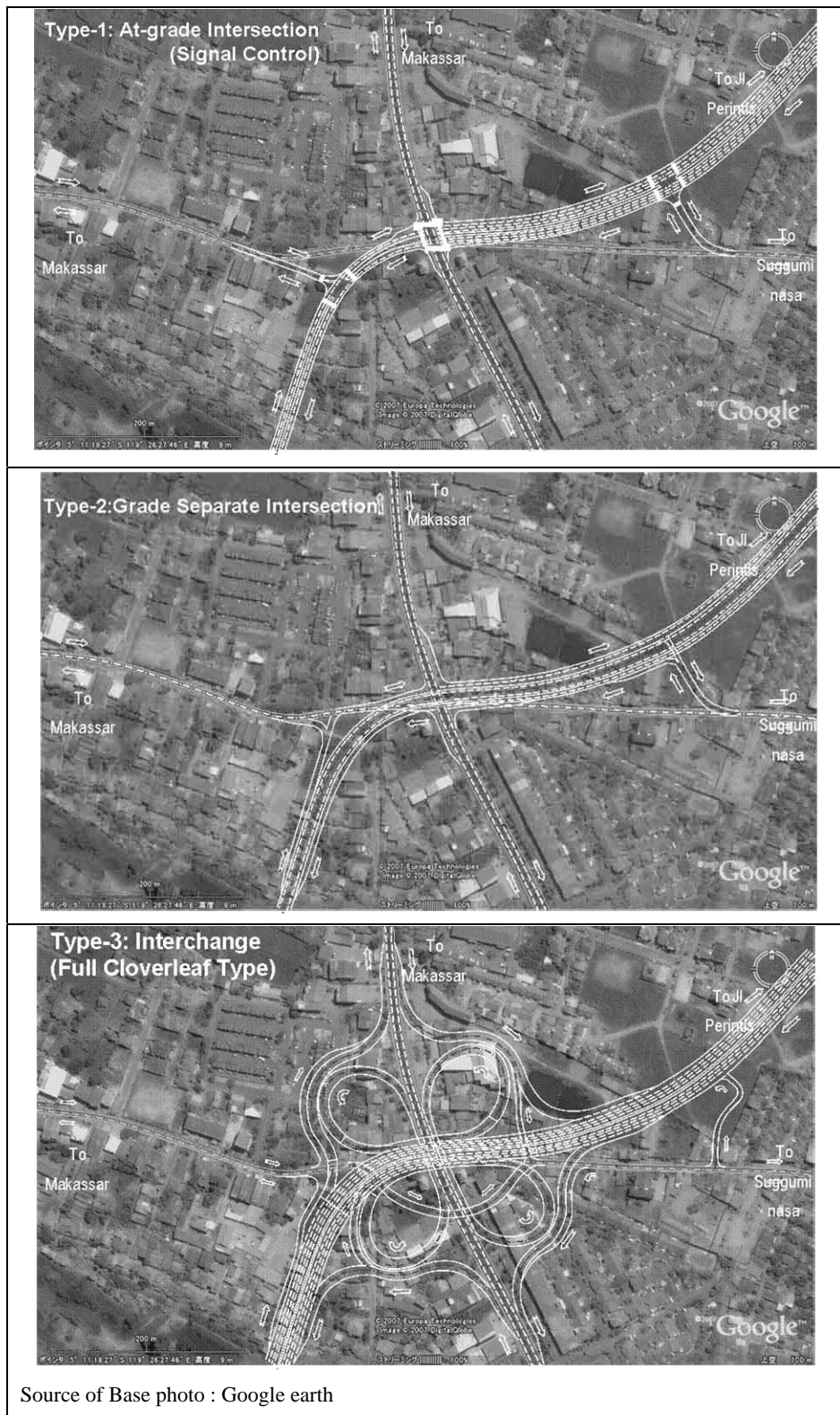


Figure 7.8.3(2) Alternative Intersection Plans for TS-2 IC

(3) TS-3 (Trans-Sulawesi Road / Hertasning Road)

This intersection crosses the existing Hertasning road and Trans-Sulawesi road. Hertasning road has been widened to a 4-lane road with a median by South Sulawesi Province. New houses and factories are built up along Hertasning Road and the backyard is surrounded by cultivated area as shown in **Figure 7.8.4(1)**. The planned intersection is signal-controlled at-grade intersection as shown in **Figure 7.8.4(2)**.

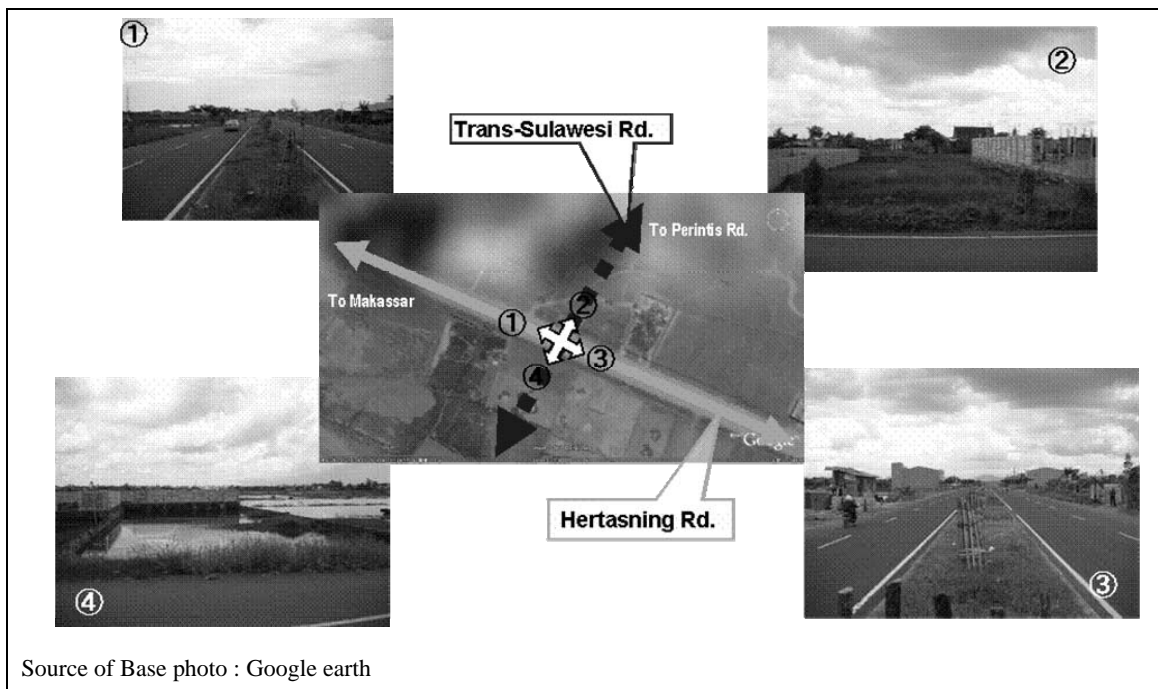


Photo 7.8.4(1) Site Condition at TS-3 IC

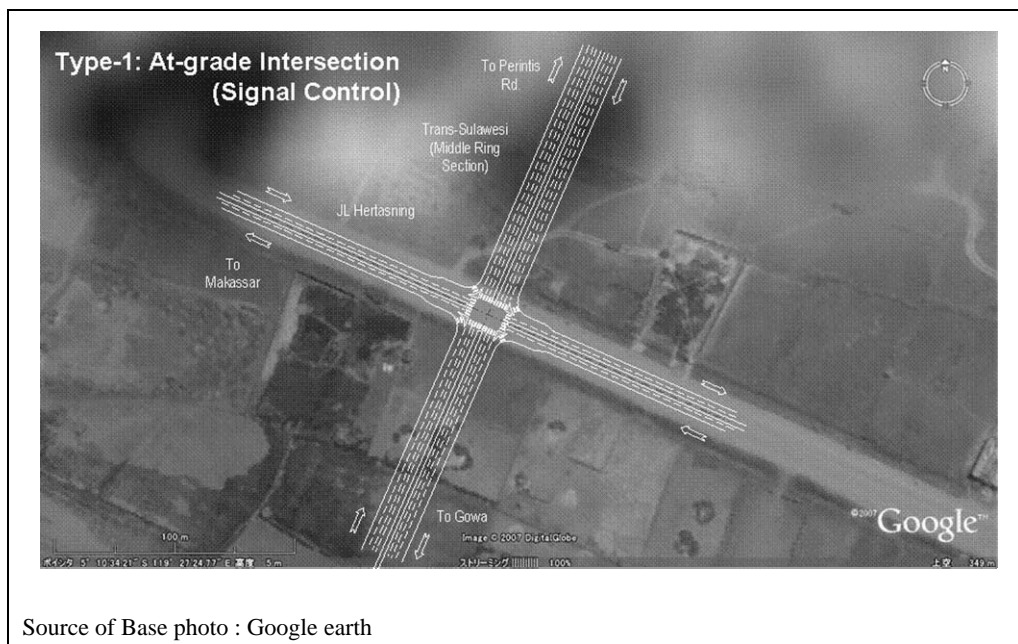


Figure 7.8.4(2) Intersection Plan at TS-3 IC

(4) TS-4 (Trans-Sulawesi Road / Abdullah Daeng Siura Road)

Trans-Sulawesi Road crosses at the water supply canal (PDAM) running along Abdullah Daeng Siura Road which is under 4-lane improvement by Makassar City. The surrounding area is mostly residential area as shown in **Figure 7.8.5(1)**.

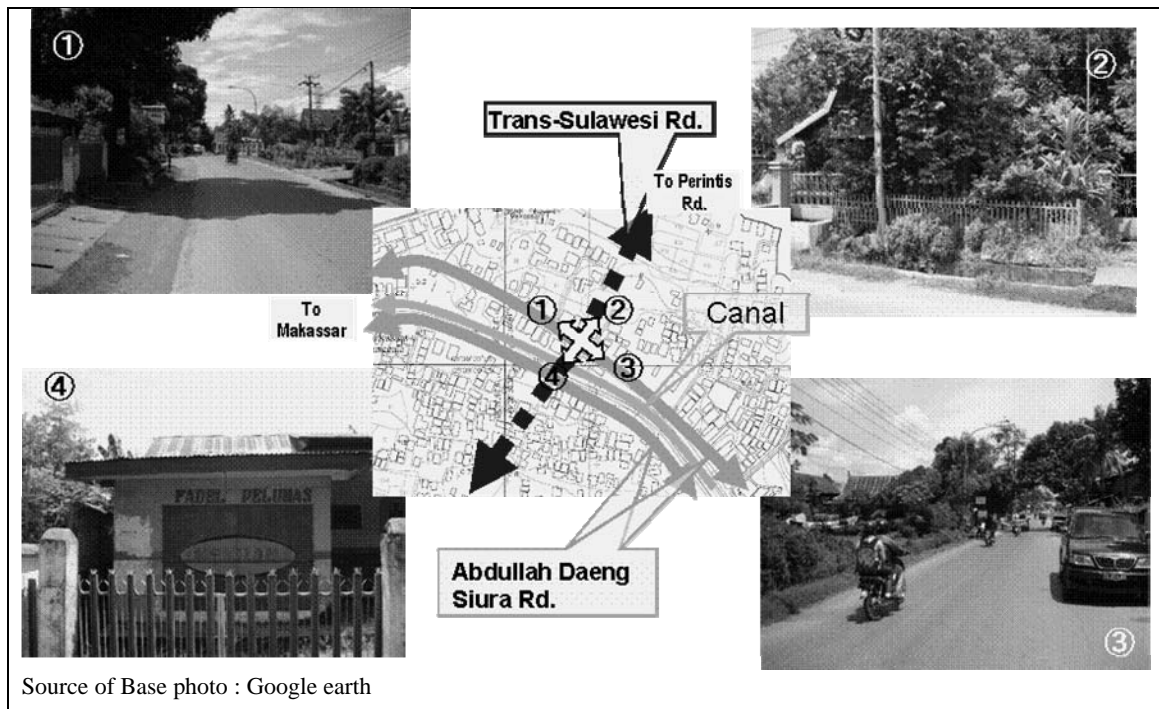


Figure 7.8.5(1) Site Condition at TS-4 IC

The alternative intersection plans are signal-controlled at-grade intersection, 1-way and 2-way systems (Type-1 and Type-2) as illustrated in **Figure 7.8.5(2)**. The signal controlled at-grade intersection 1-way system is recommended because it can meet complicated traffic movement at this intersection.

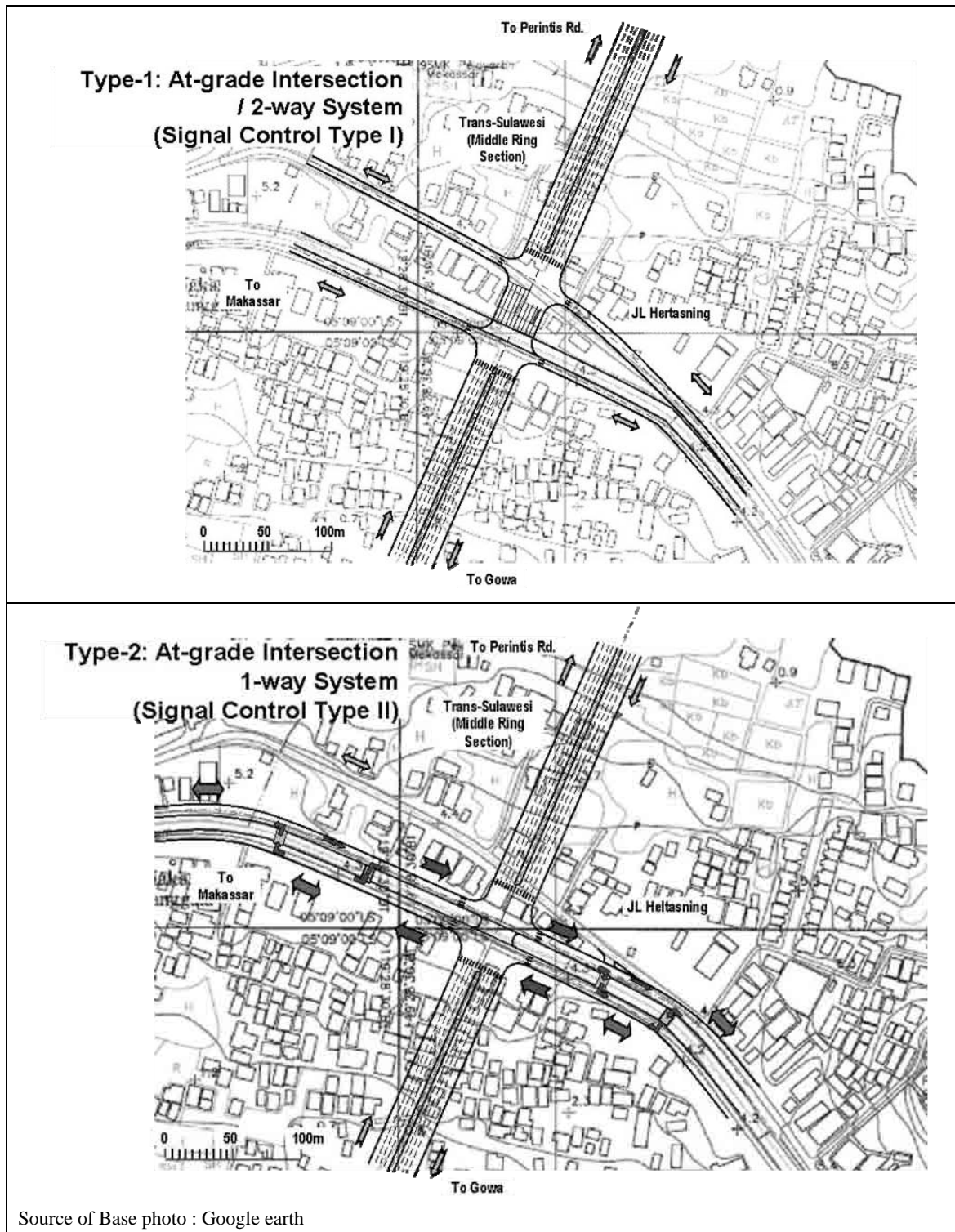


Figure 7.8.5(2) Alternative Intersection Plans for TS-4 IC

(5) TS-5 (Trans-Sulawesi Road / Perintis Kemerdekaan Road)

This intersection is a branch point of Trans-Sulawesi Road from Perintis Kemerdekaan Road, entering Middle Ring Road. The existing Perintis Kemerdekaan Road has a 4-lane road and it is under widening to 6 lanes by DGH. The traffic volume on Perintis Kemerdekaan Road is very high. This intersection is surrounded by office buildings and a college campus in the north and an open swamp in the south as shown in **Figure 7.8.6(1)**.

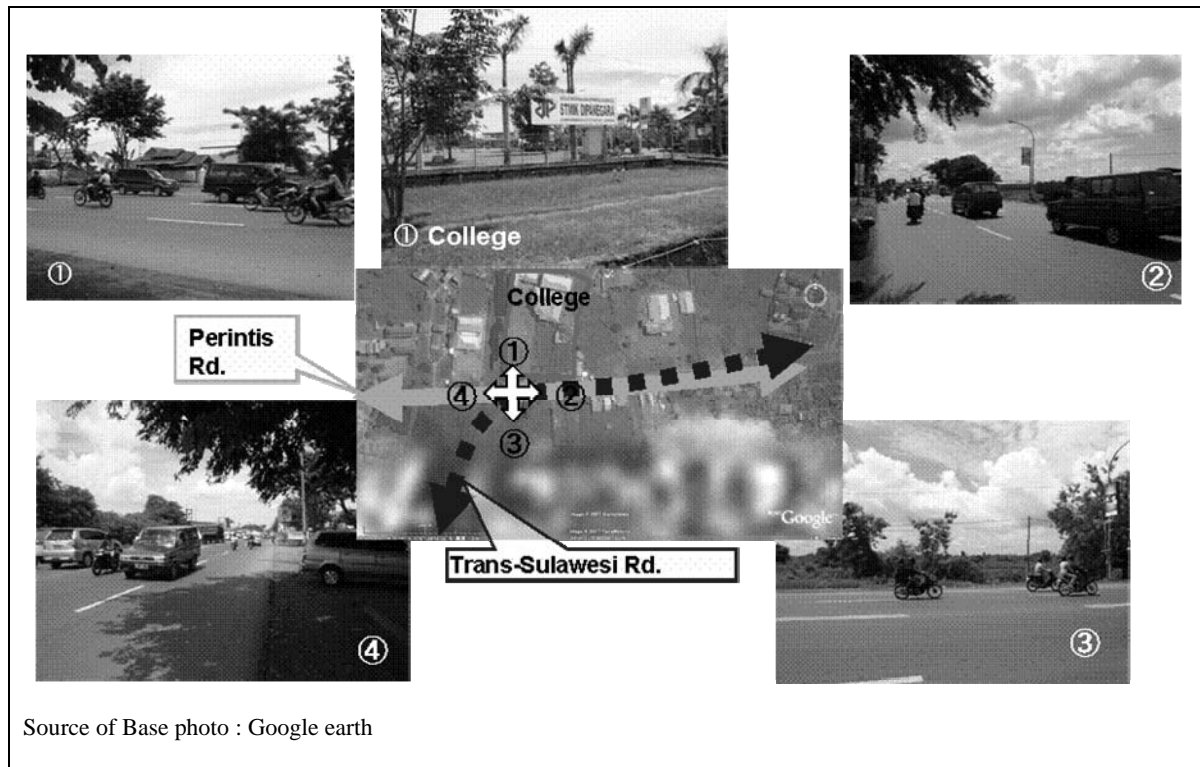


Figure 7.8.6(1) Site Condition at TS-5 IC

The alternative intersections planned are signal-controlled at-grade intersection and two trumpet type interchanges as illustrated in **Figure 7.8.6(2)**. The at-grade intersection with signal control was proposed as it can take the traffic without saturation by the year 2023 and considering its construction cost.

Upgrading of this intersection to a grade-separate intersection is required in the future. The northern extension of Middle Ring Road, which was denied in the Mamminasata Spatial Plan, would be reconsidered as a direct access to the Makassar port through Ir.Sutami Toll Road in the future.

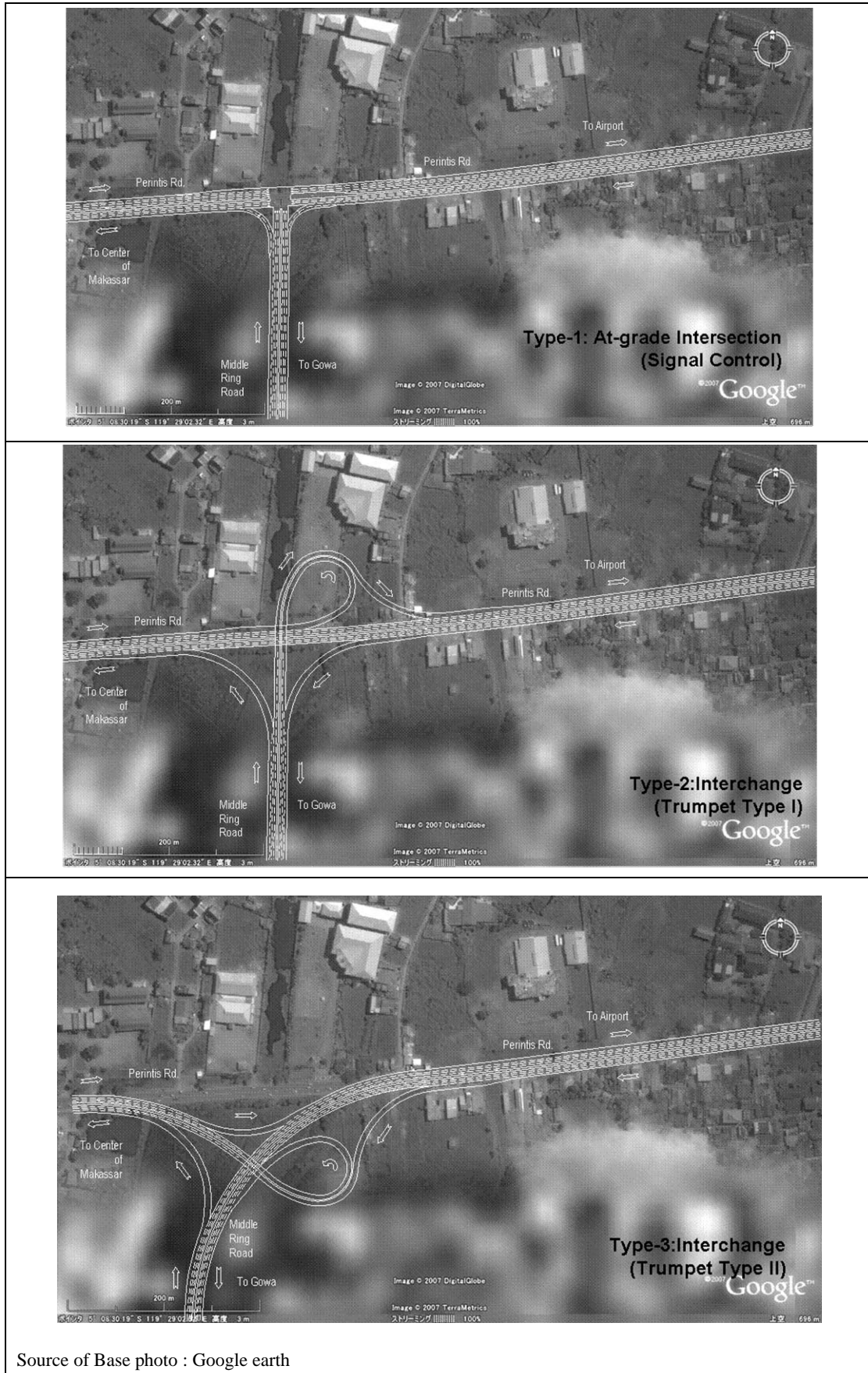


Figure 7.8.6(2) Alternative Intersection Plan for TS-5 IC

(6) TS-6 (Trans-Sulawesi Road / Ir. Sutami Toll Road)

This intersection crosses the Trans-Sulawesi Road, Ir. Sutami Toll Road, new airport terminal access road and a city road. Construction of the expressway and frontage roads (Ir. Sutami Toll road) is under progress by a BOT scheme. The existing condition of this intersection is as shown in **Figure 7.8.7(1)**. This interchange was designed as a combination of grade-separated intersection with roundabout in the BOT project as given in **Figure 7.8.7(2)**. As this plan was approved by DGH, the Study Team followed this plan.

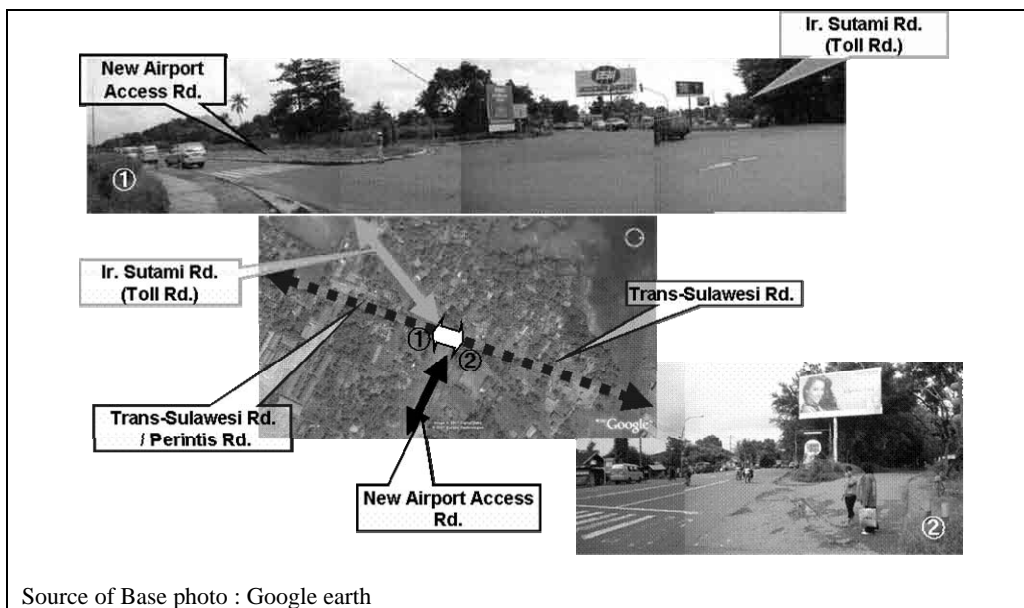


Figure 7.8.7(1) Site Condition at TS-6 IC

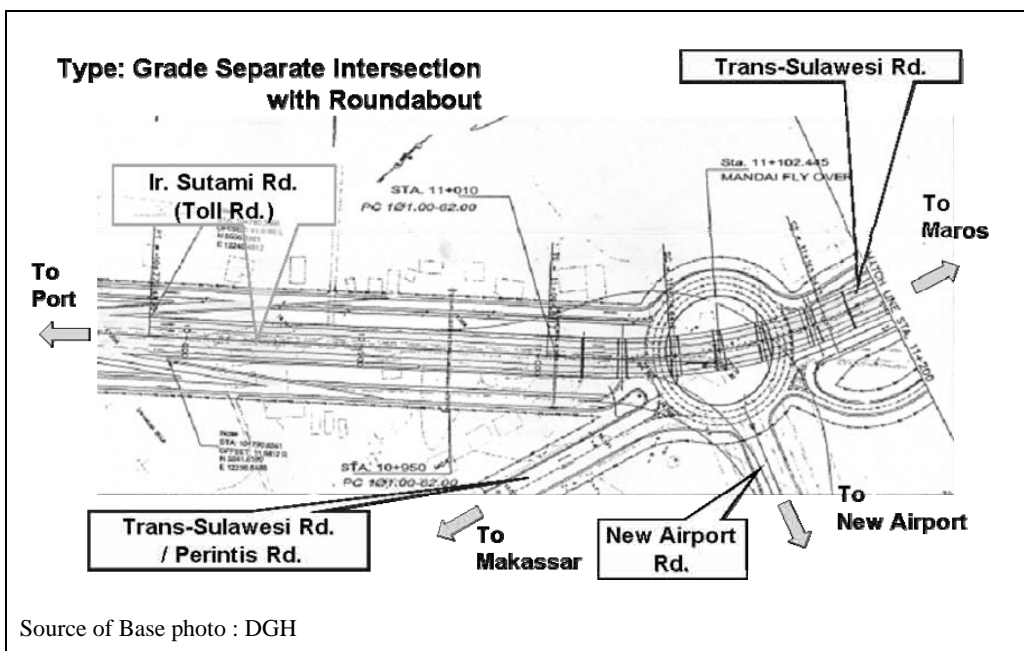


Figure 7.8.7(2) Intersection Plan for TS-6 IC

(7) **TS-7 (Trans-Sulawesi Road / Mamminasa Bypass before Maros Town)**

This intersection crosses Trans-Sulawesi Road and Mamminasa Bypass just before Maros Town. There are some houses, government offices and shops along the existing national road. The east of road is paddy field as shown in **Figure 7.8.8(1)**.

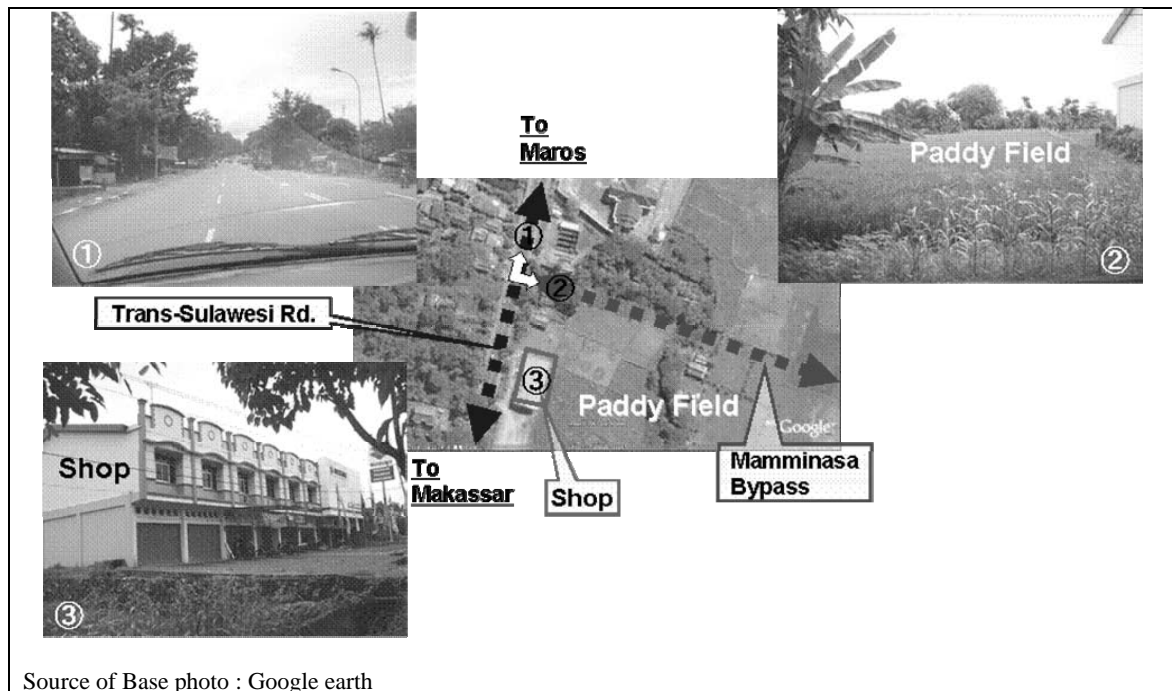


Figure 7.8.8(1) Site Condition at TS-7 IC

The alternative intersection types are signal-controlled at-grade intersection (Type-1) and roundabout (Type-2) as illustrated in **Figure 7.8.8(2)**. A signal-controlled at-grade intersection was recommended.

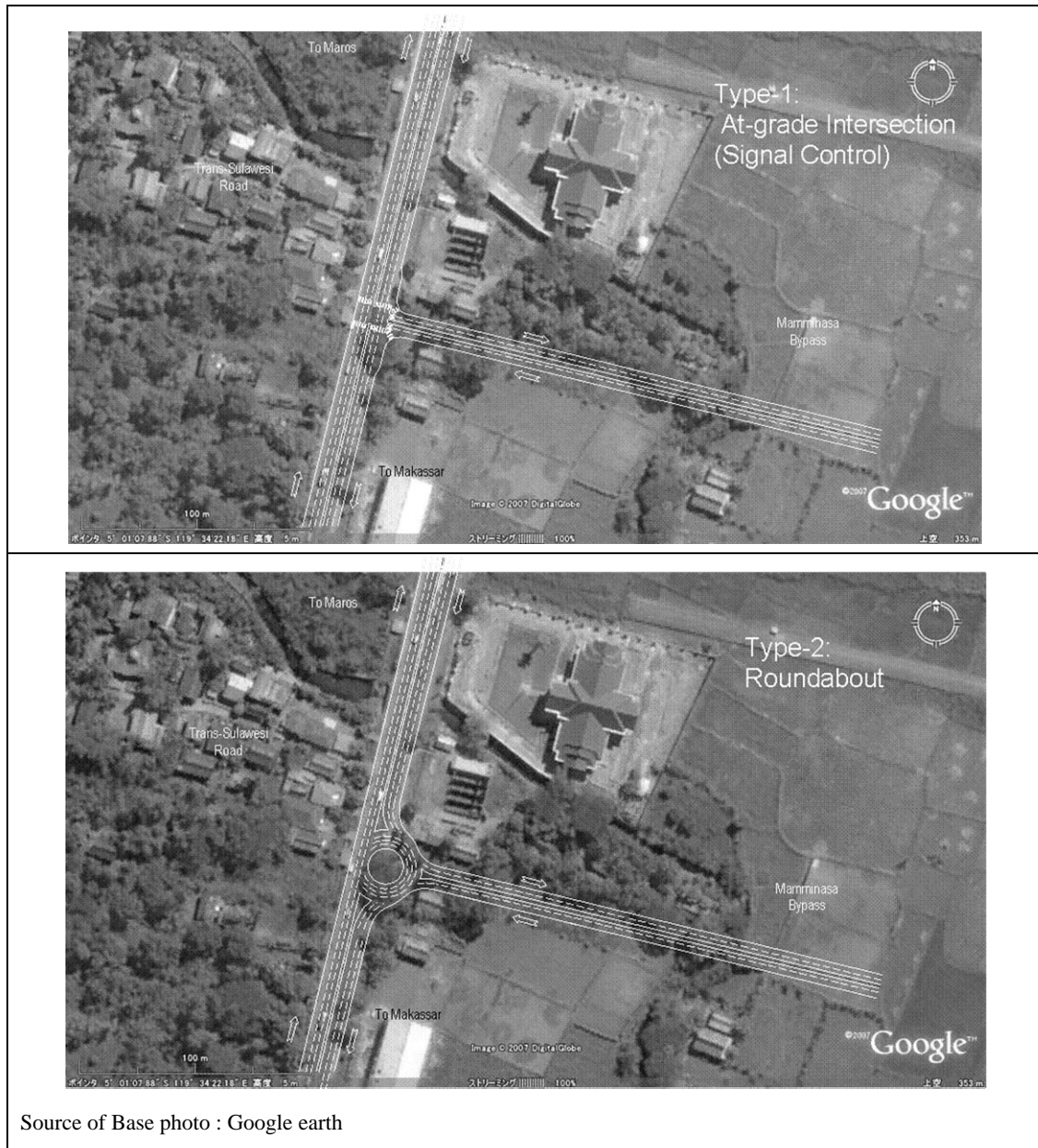


Figure 7.8.8(2) Alternative Intersection Plans for TS-7 IC

(8) TS-8 (Trans-Sulawesi Road / Mamminasa Bypass after Maros Town)

This intersection crosses Trans-Sulawesi Road and Mamminasa Bypass after Maros Town. There are some houses along the existing national road and paddy field at backyard of houses as shown in **Figure 7.8.9(1)**.

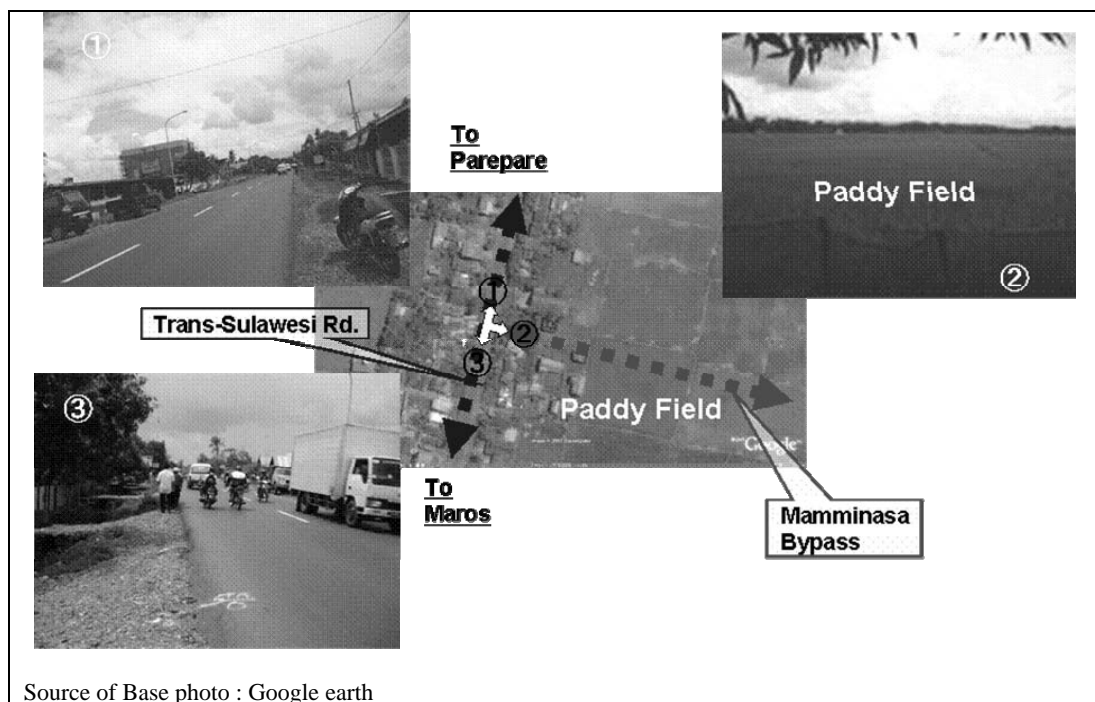


Figure 7.8.9(1) Site Condition at TS-8 IC

The planned types of intersection are signal-controlled at-grade intersection and roundabout as illustrated in **Figure 7.8.9(2)**. A signal-controlled at-grade intersection was recommended.

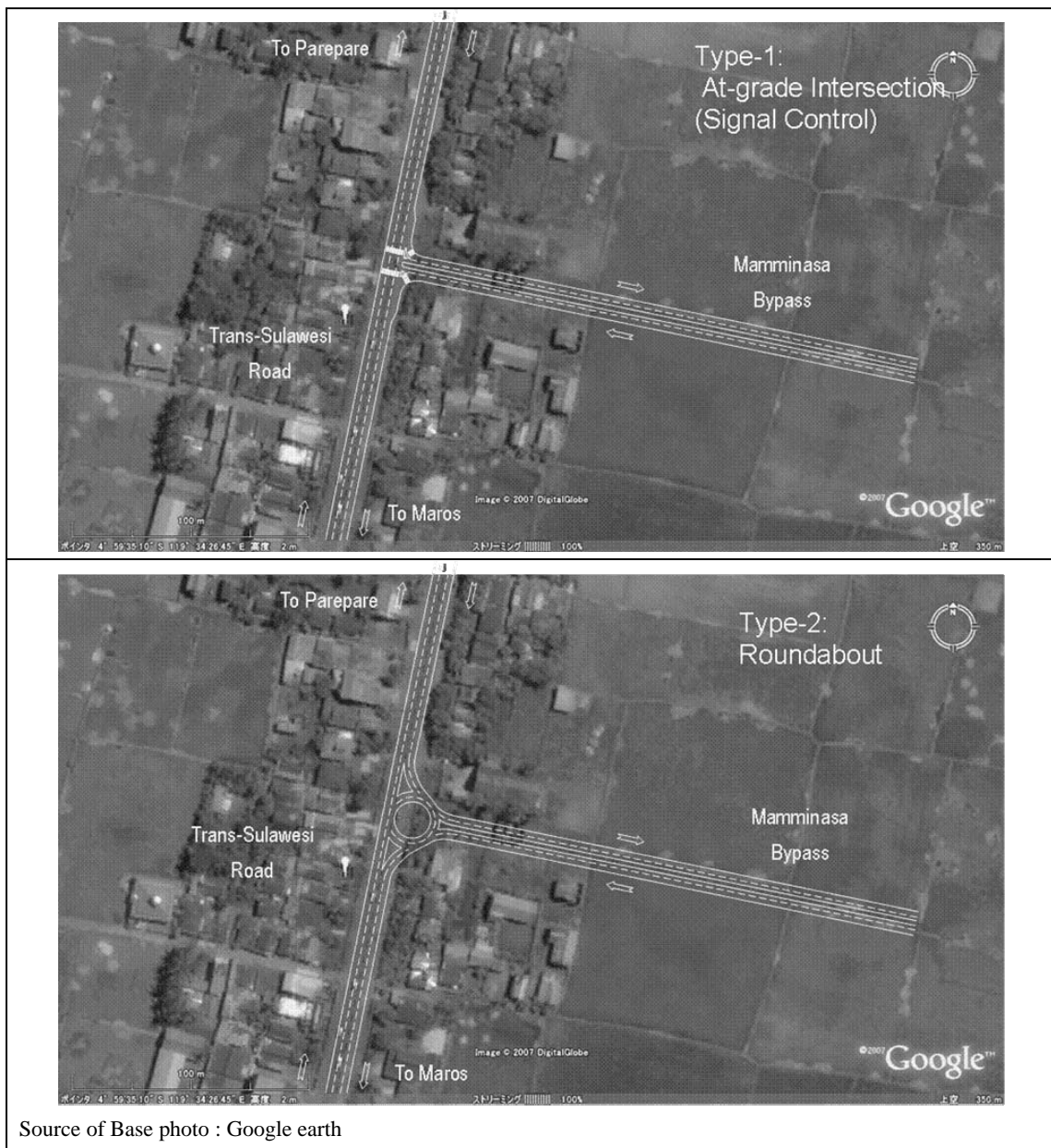
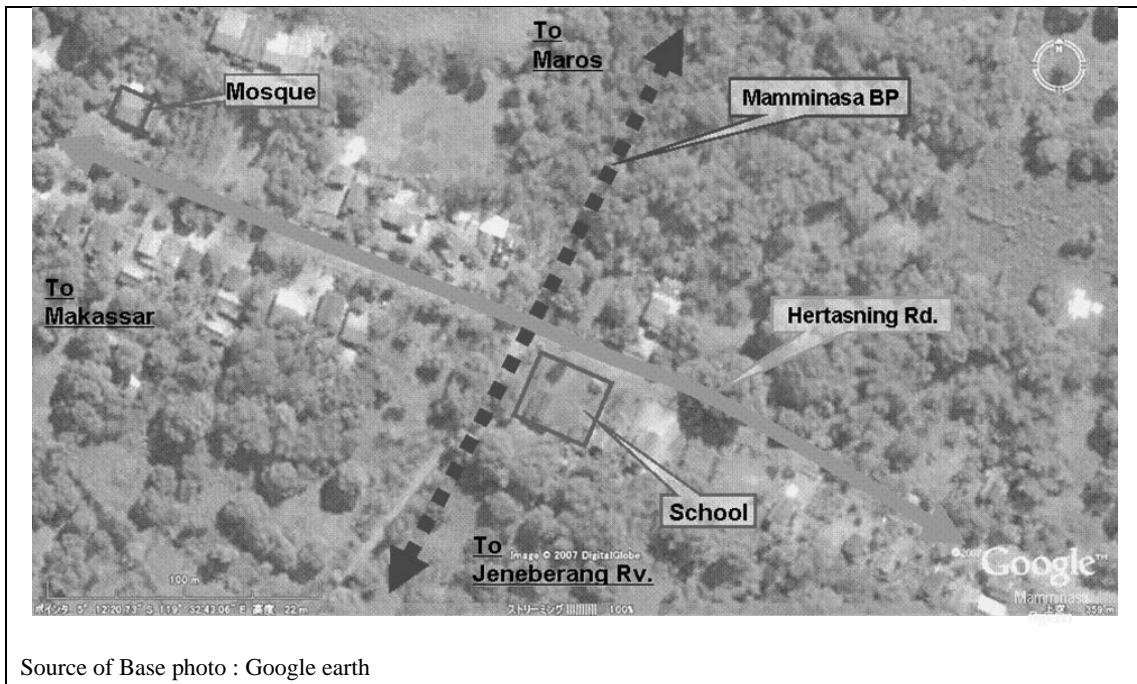


Figure 7.8.9(2) Alternative Intersection Plans for TS-8 IC

(9) MB-1 (Mamminasa Bypass / Hertasning Road)

This intersection crosses Mamminasa Bypass and Hertasning Road at approximately 15 km from the Makassar City center in Kabupaten Gowa. This is located at a rural area and there are some houses, gardens and paddy field along the existing Hertasning Road as shown in **Figure 7.8.10(1)**.



Source of Base photo : Google earth

Figure 7.8.10(1) Site Condition at MB-1 IC

The planned intersections are signal-controlled at-grade intersection (Type-1) and roundabout (Type-2) as illustrated in **Figure 7.8.10(2)**. Roundabout type intersection was recommended taking operation and maintenance at the rural area into consideration.

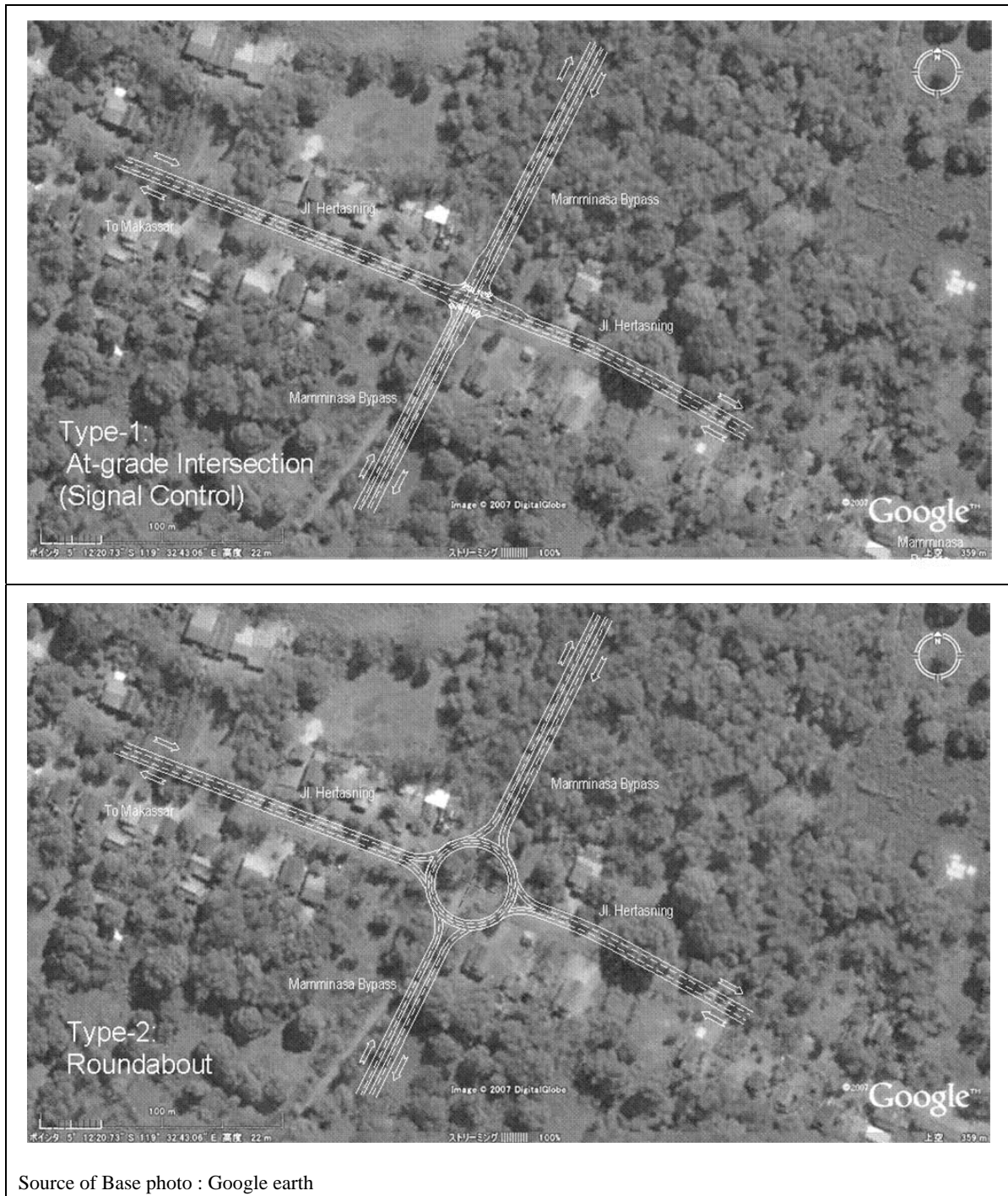


Figure 7.8.10(2) Alternative Intersection Plans for MB-1 IC

(10) MB-2 (Mamminasa Bypass / Abdullah Daeng Sirua Road)

This intersection crosses Mamminasa Bypass and New Abdullah Daeng Sirua Road at approximately 15 km from the Makassar City center in Kabupaten Gowa. The location is a rural area surrounded by agricultural lands and uncultivated land as shown in **Figure 7.8.11(1)**.

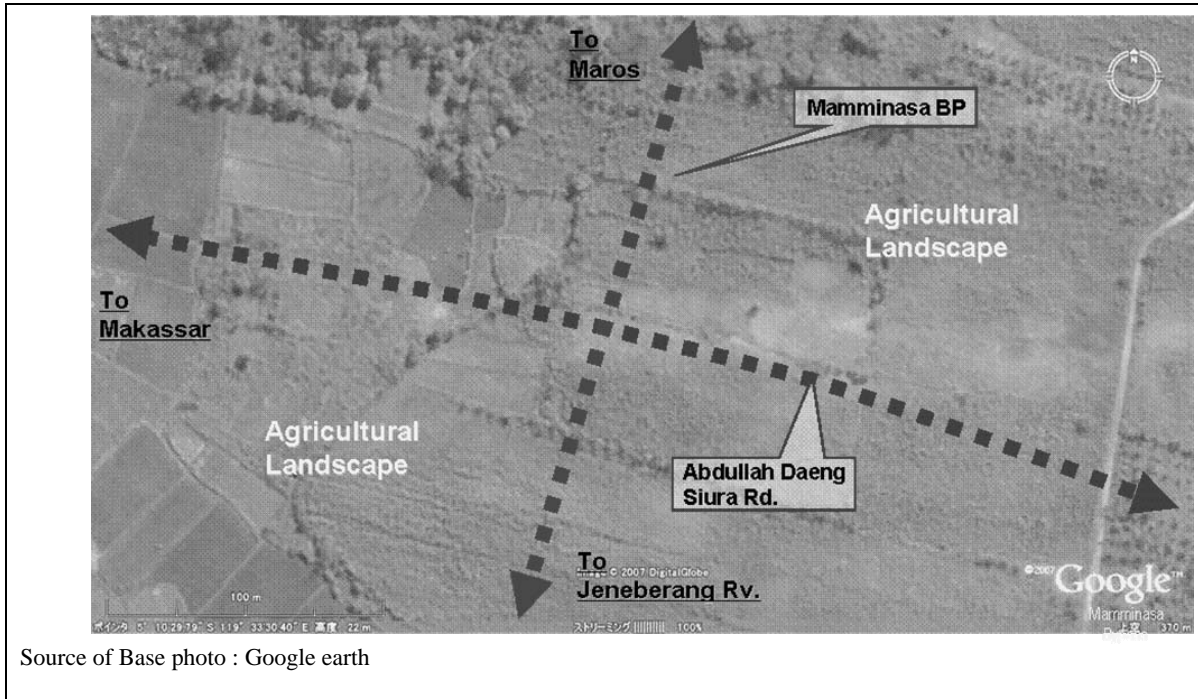
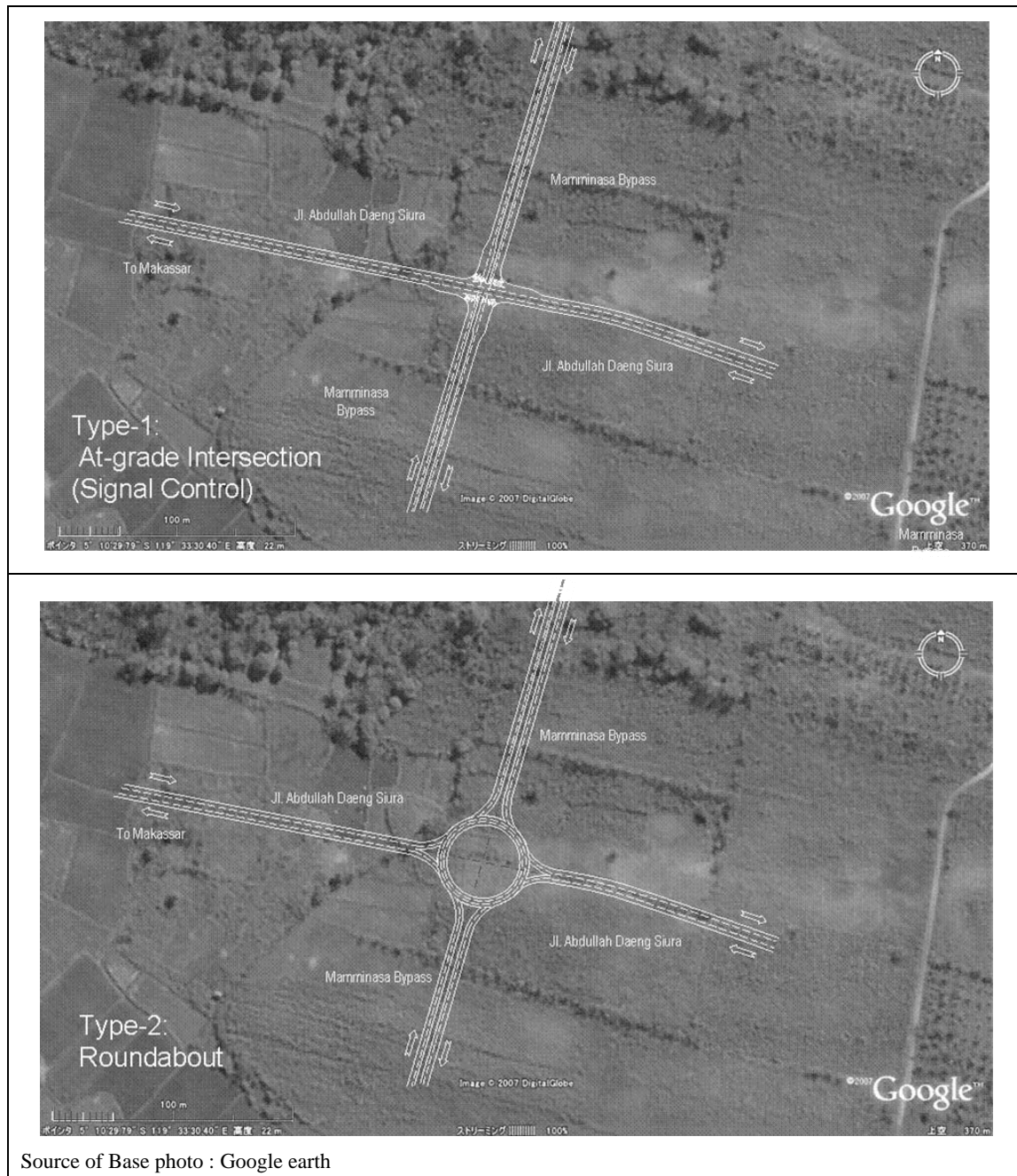


Figure 7.8.11(1) Site Condition at MB-2 IC

The planned intersections are signal-controlled at-grade intersection (Type-1) and roundabout based (Type-2) as illustrated in **Figure 7.8.11(2)**. Roundabout type intersection was recommended taking operation and maintenance at the rural area into consideration.



Source of Base photo : Google earth

Figure 7.8.11(2) Alternative Intersection Plans for MB-2 IC

(11) MB-3 (Mamminasa Bypass / Existing National Road for Watampone/Bajoe Port)

This intersection crosses Mamminasa Bypass and the existing national road for Kabupaten Bone (Watampone and Bajoe Port) at the east of Maros Town. This is a future bypass for Maros Town. The surrounding area is paddy field and some houses exist. An irrigation canal runs along the national road as shown in **Figure 7.8.12(1)**.

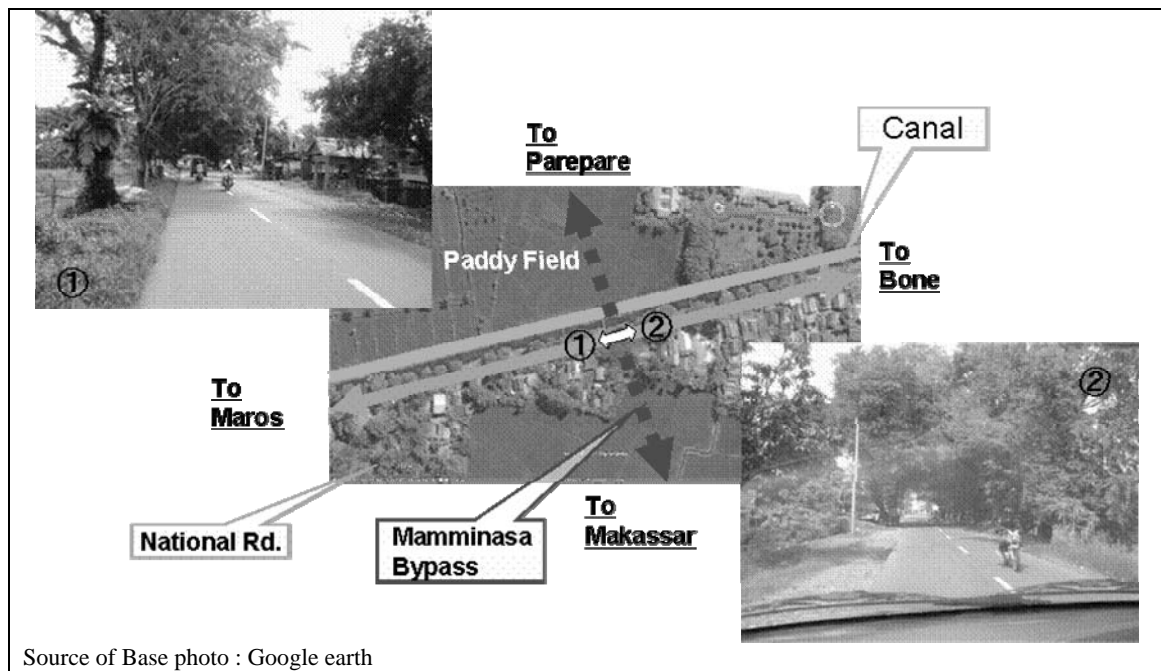


Figure 7.8.12(1) Site Condition at MB-3 IC

The planned intersections are signal-controlled at-grade intersection (Type-1) and roundabout (Type-2) as shown in **Figure 7.8.12(2)** and the former was recommended.

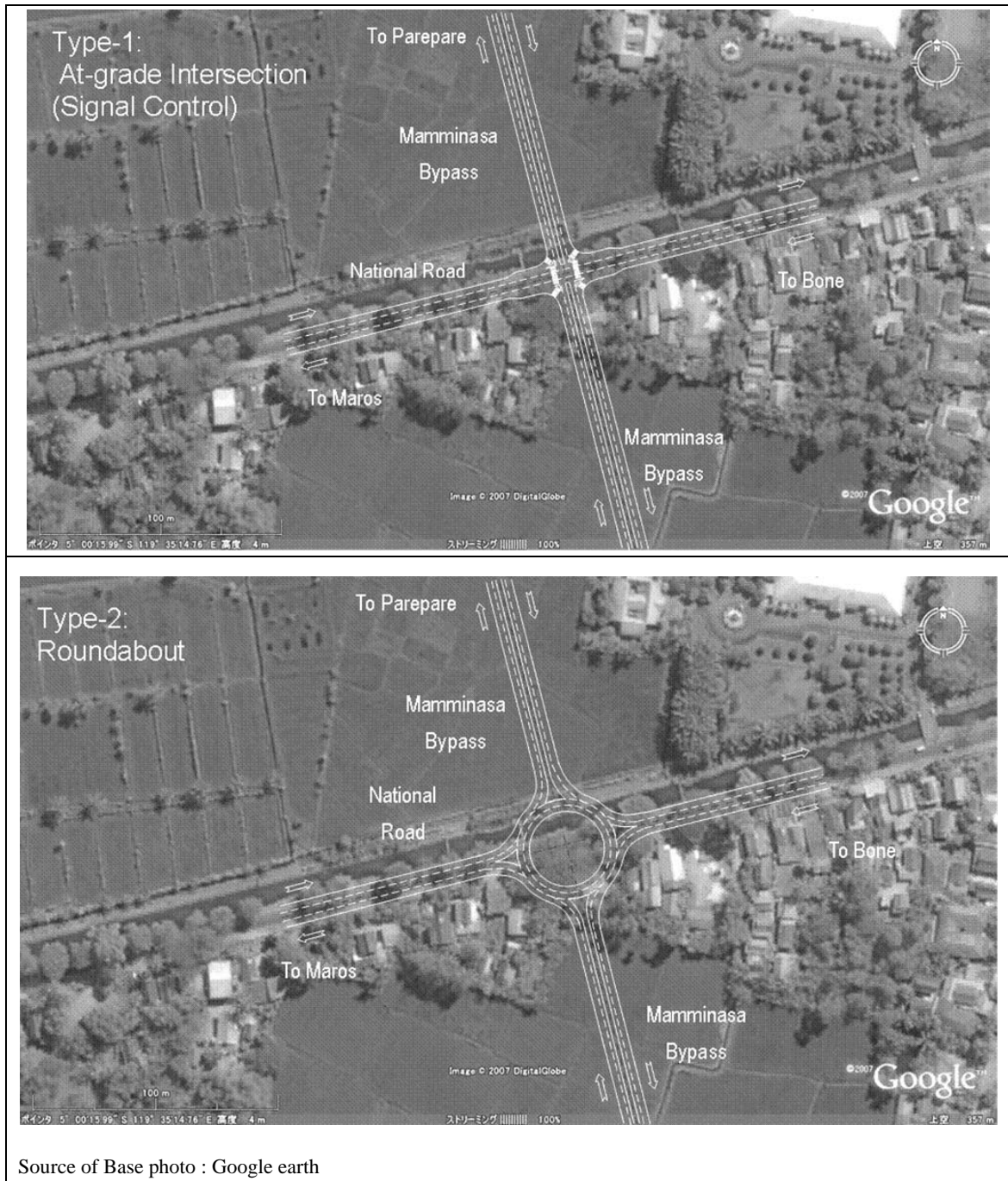


Figure 7.8.12(2) Alternative Intersection Plans for MB-3 IC