

Pavement Road Crossing Sirtu Village Kondowa

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ABSTRACT:

Based on its geographical position, Pasarwajo District has regional boundaries, namely: Kapontori District, Wolowa District, Wabula District, South Buton Regency, Flores Sea and BauBau City. Kondowa Village is one of the villages in Pasarwajo District whose population is mostly transmigration. The area of Pasarwajo District is 3.77 KM². Kondowa Village only has 1 access road to connect with Holimombo Jaya Village so the community took the initiative to build a new road that will be an alternative route to go to the opposite village. The results of the debate resulted in the design of the Kondowa Village Road and the materials that will be used for the construction of the village road which is then agreed upon with the length of the road to be worked on, which is 2,715 meters long. The Kondowa Village Government hopes to collaborate with the Civil Engineering Study Program, Faculty of Engineering, University of Muhammadiyah Buton to continue helping design planning in the building industry.

Keywords: Design; Kondowa Village; Location Plan; Road

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1. Introduction

Astronomically, Pasarwajo Subdistrict is located between 05°19' - 05°33" South Latitude and 122°44' - 122°54' East Longitude. Based on its geographical position, Pasarwajo District has regional boundaries, namely: Kapontori District, Wolowa District, Wabula District, South Buton Regency, Flores Sea and BauBau City.

Pasarwajo Subdistrict consists of 22 villages/kelurahan. Kondowa Village is one of the villages in Pasarwajo District whose population is mostly transmigration. The area of Pasarwajo District is 3.77 KM². Kondowa village is divided into 4 (four) hamlets, each headed by one hamlet head.

The people of Kondowa Village have very varied livelihoods ranging from farmers, farm workers, civil servants, handymen, traders, entrepreneurs and others with the level of education of the people of Kondowa Village itself. By regional boundaries:

- a. The North is bordered by the Flores Sea
- b. South It is bordered by Dongkala Village, Holimombo Village and Takimpo Village
- c. The west is bordered by Takimpo Village, Holimombo Jaya Village, and Wabula District
- d. The east is bordered by the Flores Sea and Holimombo Jaya Village

According to Law Number 6 of 2014 concerning Villages, Village Infrastructure Development aims at sustainable development by meeting basic needs, building village

facilities and infrastructure, developing local economic potential, and utilizing natural resources and the environment. Village development includes the planning, implementation and monitoring stages. Village development based on Article 78(2) of Law No. 6 of 2014 prioritizes togetherness, kinship, and mutual cooperation in order to mainstream peace and social justice.

Roads play an important role as part of a country's transportation system, especially in supporting activities in the economic, social, cultural, and environmental fields. Building roads through regional development methods to achieve balanced and equitable inter-regional development, forming and strengthening national unity to strengthen state defense and security, and forming and realizing spatial planning in the framework of national development goals. To realize land transportation infrastructure by road, the shape of the road must be formed so that travelers, both people and objects, can reach their destination safely. probably at a reasonable cost of travel. so that it can be used by all walks of life. In addition, things that road users really want can not only be done safely, quickly and cheaply, but also comfortably so that the trip is not tiring. Designing safe, comfortable, and efficient highways starts with knowing how regulations are made. One of them is by knowing the cross-section of the highway. This way we can design a good highway. In the transportation sector, roads have the potential to provide access to transportation of services and goods throughout the planned area, which has an impact as a component of accelerating regional or regional development.

Currently, there are still many areas of agricultural land that do not have suitable farmer roads, which greatly hinders the farming community from trying to cultivate the land (Anneke Puspasari, 2012). Therefore, agricultural roads should be planned with an understanding of new construction, capacity building, or rehabilitation so that they meet the technical standards for the traffic of vehicles carrying agricultural products, agricultural products, and agricultural machinery. Through this plan, it is hoped that the mayor of Awaynullah can support activities that are the source of livelihood for farmers.

In addition, it is also to increase the productivity and welfare of farmers. This farming road will facilitate access to agricultural tools and machinery (alsintan) to reach rice fields (Rahmadi & Setiawati, 2020). This agricultural road will cut off large production costs and provide many benefits for farmers (Havizah et al., 2018). The existence of farmer roads is very important for farmers and is an opportunity that can be improved (Rahmadi & Setiawati, 2020). Farmer roads in the implementation of the construction of farm business roads involve a large number of local workers so as to increase the opinion of the beneficiary communities of the farm business road (Dinata et al., 2021). With the implementation of the construction of this farm business road, it is hoped that the process of mobilizing tools and agriculture as well as agricultural products will be smoother (Perdana et al., 2022). In addition, it can reduce production costs (transportation costs) and agricultural commodity prices to be better (Hakim, 2019).

The people of Kondowa village always prioritize mutual cooperation and mutual cooperation among some of these hamlets in carrying out activities, both governmental and social, such as the construction of public facilities, because only with hard work and high enthusiasm can regional development be successful. Kondowa Village only has 1 access road to connect with Holimombo Jaya Village so it is very difficult to travel to the village across the road if there are obstacles on the road or is being used by residents who are celebrating. Therefore, the community took the initiative to build a new road that would become an alternative route to go to the opposite village.

The problem of this service is that there is no planning on the construction of farm roads and the Village Government needs assistance in road construction planning.

2. Method

The stages carried out to carry out this service activity are as follows:

a) Preparatory stage

The implementation of community service starts from the preparatory stage. The preparatory stage aims to coordinate and discuss with stakeholders in the regions, including the District Government, The Management of Rukun Warga and the Management of Rukun Tetangga to discuss plans for the implementation of community service by a team of lecturers. Coordination and discussions are carried out to obtain broad information regarding the community strategic plan to be prepared. Discussions are also useful in identifying the stages of implementing activities so that they run efficiently and achieve optimal results. At this preparatory stage, the equipment needed to support the implementation of community service activities is also identified so that they can run smoothly.

b) Implementation Phase

The activities that will be carried out at the implementation stage are:

- 1) Collecting information from stakeholders, Neighborhood Pillar Management, Neighboring Rukun Management, PKK Management, Posyandu Management, Existing Agency Administrators and community leaders.
- 2) Mapping the area of Bibisluhur Village including residential areas
- 3) Conduct field surveys related to infrastructure issues, including road conditions, drainage channels and bridges.
- 4) Conducting field surveys related to settlement issues,
- 5) Summarizes the data obtained from multiplication through surveys and interviews conducted.
- 6) Hold focus group discussions focused on individual studies on infrastructure and housing.
- 7) Draw thematic maps according to the field of research.
- 8) Public consultation with stakeholders

3. Result and Discussion

3.1 Preliminary stages of village road planning in Kondowa Village

Preliminary research is an activity to obtain the necessary initial information and data on the service site and is later useful for further analysis. Preliminary research for this service must go through several stages, such as: B. licensing stage, location survey and initial discussion. At the licensing stage, the service team sends a letter of appointment to the village office. After that, proceed to the site survey and road survey. Based on the results of the first survey, it can be seen that there are still no roads in the area used for agriculture. After that, during the trip, the service team had a preliminary meeting with one of the village officials. Based on the information from the first discussion, it can be seen that there are several problems in the field, ranging from roads that do not yet exist to field conditions that are very steep so that they require a special approach from the technical team.

Based on the preliminary survey, we will compile measurement data and photo documents as material for the analysis process, conduct a site analysis of the condition of the existing road location, conduct spatial analysis as necessary, make preliminary design drawings, etc. some activities take place. From the pre-design materials that have been

prepared, in the form of site plans, plans and pieces, discussions are held with district officials and residents and after obtaining can be obtained input and suggestions for pre-design improvements. Approval of pre-design drawings, calculation of structural detail drawings for construction drawings of construction drawings, preparation of detailed drawings of construction implementation, and conducting supporting analysis.

3.2 Determination of the design and length of the Kondowa Village Road

The companion provided many design ideas for the village road design concept based on the challenges faced by the Village Government and Karangtaruna. The results of the debate resulted in the design of the Kondowa Village Road and the materials that will be used for the construction of the village road. The following is the result of the road design of Kondowa Village.

a. Kondowa Village Road Location Plan

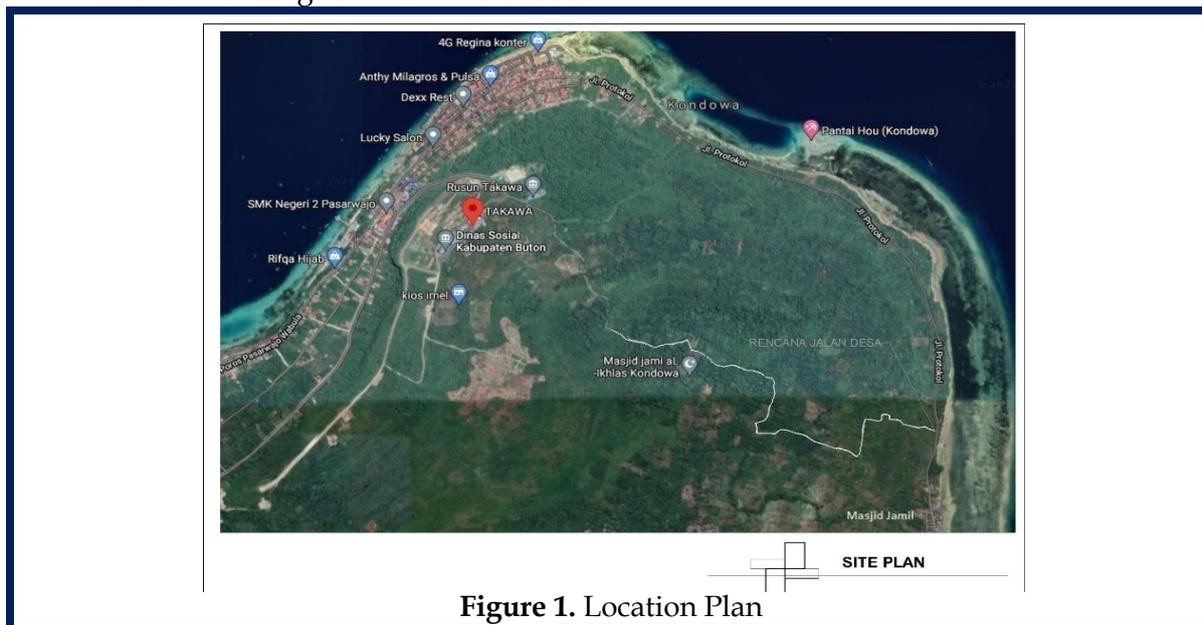


Figure 1. Location Plan

The results of field observations throughout the village area, point retrieval, and several other data obtained from stakeholders of related village equipment ((BPS, 2019), (Kondowa Village, 2019) as well as downloaded satellite images were then processed using the AutoCAD Application 2007. The existing data is then overlaid for the georeferens process, digitization of maps to the finalization of the Site Plan (site plan layout). In this activity, the map is placed with a scale of 1:1500 on paper measuring 1 x 1 m (scaled).

b. Road Length Determination

Based on the results of field observations, it was then agreed with the length of the road to be worked on, which is 2,715 meters long with the following design:

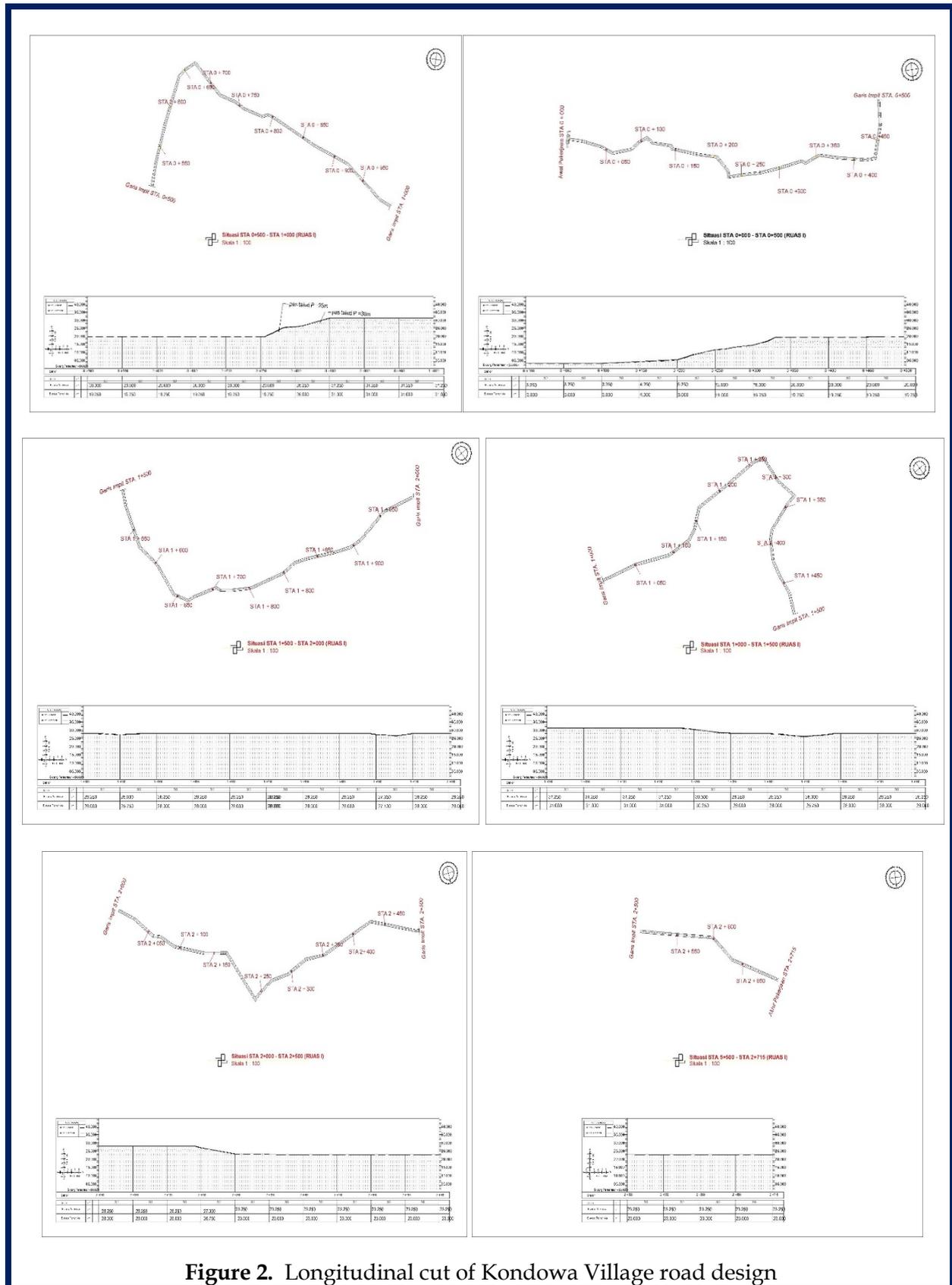


Figure 2. Longitudinal cut of Kondowa Village road design

c. Road Width Determination

Based on the results of field observations, it was then agreed that the width of the road to be worked on was 5 meters long with the following design:

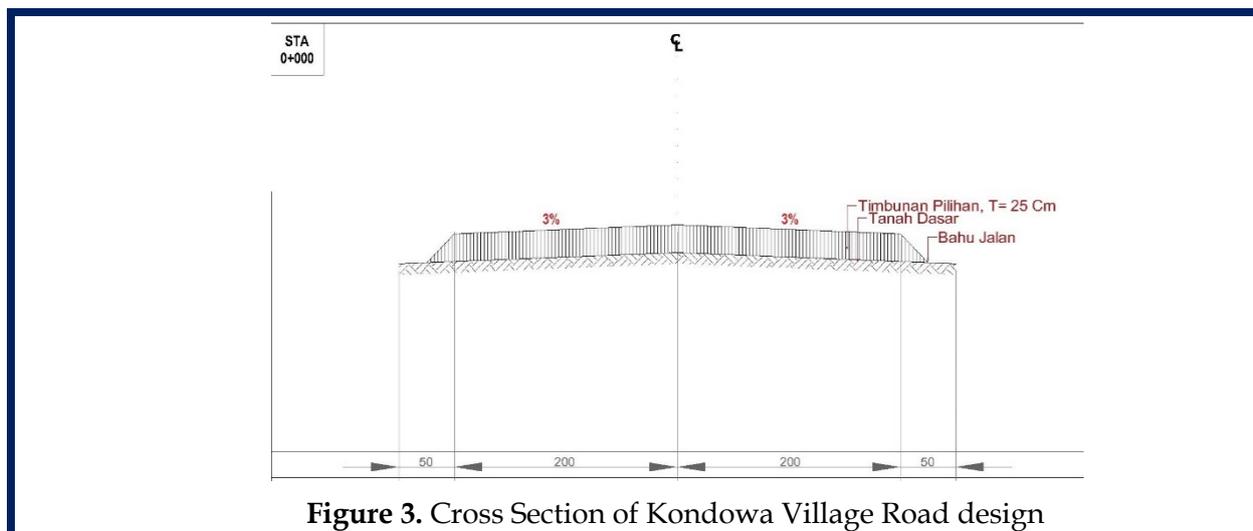


Figure 3. Cross Section of Kondowa Village Road design

4. Conclusion

Some of the results obtained from this service include the design concept of the Kondowa Village Road Making plan and Site Plan, as well as materials that will be used in the village road work process. The Kondowa Village Government hopes to collaborate with the Civil Engineering Study Program, Faculty of Engineering, University of Muhammadiyah Buton to be able to cooperate regarding socialization and design planning trainings in the building industry.

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