ABSTRACT

The concrete rebate road construction project in Village Y is planned to begin in August and is planned to be completed in November 2023. Currently, the project is in the planning stage. During the implementation of the project, it was discovered that there was a problem, namely the unavailability of a scheduling design for the project, causing there to be no reference in project work and the potential for delays. Thus, the Y Village Government and the project team need to design a schedule regarding the problems that arise. An approach using the critical path method (CPM) was proposed in the research process to the Y Village Government and the project team to be able to assist in the scheduling design process and to know the details of each activity that is on the critical path.

Research for scheduling design using the CPM method produces output in the form of a CPM network diagram, Gantt chart, and project progress curve. CPM network diagrams can provide visualization of the sequence of work implementation, determine the sequence of activities on the critical path, as well as activities that can be carried out in parallel or simultaneously. In the process of designing a CPM network diagram, using the CPM method calculations that have been carried out can determine the fastest time to start, the longest time to start, the fastest time to finish, and the longest time to finish. The output is in the form of a Gantt chart, which can present a visualization that contains time information for each job to be carried out. By providing time information on the Gantt chart, it is hoped that time management can be carried out efficiently on projects. Meanwhile, the project progress curve is a graph that displays cumulative data from planning progress values and actual progress values in the field, so that comparisons can be made regarding project progress.

Keywords — Scheduling, Concrete Cast Road Project, Network Diagram, Critical Path Method** (CPM)**, Gantt Chart, S-Curve Project