

CHAPTER V

CONCLUSION AND ADVISE

5.1 Conclusion

From the results of the design that has been done in this final project can be taken conclusion as follows:

1. The bridge is designed for Gunung Nago Padang with cable stayed method. Two plane system and fan system for longitudinal cables.
2. The total length of the bridge is 140 m consisting of 1 main span with a length of 100 m and a side span with a length of 40 m, and 1 pylon type A-Shaped, while the width of the bridge is 9 meters, consists of 2 lanes With a width of 3.5 m, 2 sidewalks with a width of 1 m. The vehicle floor thickness (deck) is 300 mm.
3. The type of girder used is I girder post tensioning system. The dimensions of the girder is 1600 mm height, while the cross girder is 900 mm height.
4. The design of this bridge pylon is A-Shaped with reinforce concrete material. This pylon includes a slim column. And there is a stiffener beam between the pylons. Dimensions of columns and beams:
 - Upper Pylon: (2.5 m x 3 m)
 - Lower pylon: (3 m x 3 m)
 - Stiffener beam: (1.8 m x 2 m)
5. The designed abutment has a height of 9 meters and a thickness of 1 meters.

6. The type of Abutment and Pylon foundation use precast pile with a width 356 mm. For abutment used 20 pile, for pylon used 48 pile with the thickness of the pile cap is 1 meter.
7. The cost estimation for this design is Rp.76.193.953.527.

5.2 Advise

From making this final task, there are some things that must be considered :

1. For colleagues who wish to continue research on cable stayed bridge design, may use this as a reference or preliminary guideline.
2. For the calculation of budget plan cost is expected to obtain price from authorized factory in order to get the calculation of price estimation become better and accurate.

