CHAPTER V

CONCLUSION AND SUGGESTION

5.1 Conclusion

Based on the planning that has been done. it can be concluded as follows:

1. Assalaffiyah Islamic Boarding School project location is included in the SD location classification (medium soil).
2. The output of the resulting modeling results is safe.
3. In planning the roof structure. this Boarding School has a limas roof that uses a profile C 200×75×20 thickness 2.0 for curtain rods. C 200×75×20 thickness 2.0 for truss element design and uses bolted connections in both buildings.
4. This Assallafiyyah Islamic Boarding School structural columns with a size of 500×500 mm. In addition. this building has 14 types of main beams with a size of 400×200 mm (BI 1 Dorm). a size of 350×200 mm (BI 2 Dorm. BI 2 Edu. and BI 3 Edu). a size of 300×200 mm (BI 3 Dorm and BI 6 Edu). size 250×200 mm (BI 4 Dorm. BI 4 Edu. BI 7 Edu. and BI 8 Edu). size 200×200 mm (BI 5 Dorm. BI 5 Edu and BI 9 Edu). There are 8 types of joists in this building with a size of 250×200 mm (BA 1 Dorm. BA 3 Dorm. BA 1 Edu and BA 5 Edu). size 350×200 mm (BA 2 Dorm. BA 2 Edu and BA 3 Edu) and size 400×250 mm (BA 4 Edu).
5. In planning directional slabs. Assallafiyyah Islamic Boarding School has 6 types of slabs using two-way reinforcement and 16 types of slabs using one-way reinforcement.
6. The design of stairs in building one has main reinforcement D16-300. field main reinforcement D16-150. and shrinkage reinforcement P10-200. In the second building. the design of the stairs has D10-300 main support reinforcement. D10-100 field main reinforcement. and P8-150 shrinkage reinforcement.

5.2 Suggestions

In this study there are several suggestions that the author can give. including:

1. A feasibility study must be carried out carefully before planning the building structure. This is so that in the structural calculations later satisfactory planning results can be obtained both in terms of quality. cost and time.

2. In planning a building structure using the SAP 2000 and ETABS programs. a good understanding of the coefficients/multipliers used in the program is required. Knowledge of the science contained in civil engineering. must be mastered in order to obtain good planning results.

3. Regulations and standard guidelines in structural planning must always be followed. so that the resulting building will always meet the latest requirements such as earthquake-resistant structural planning regulations. concrete structural planning standards. and so on.

4. The selection of the implementation method and the use of materials and equipment is guided by the ease of carrying out work in the field. the experience of the workforce and its economic aspects.

These are the conclusions and suggestions obtained during the process of working on this final project. The author realizes that this report is far from perfect. so corrections and input from readers are highly expected.

REFERENCES