

## CHAPTER V

### CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Conclusions

1. Foamed asphalt procedure by inject water into the hot bitumen at temperature of 160-200°C with water measure of 2.0-2.5% while the water and hot bitumen mix together it will be a foamed, during this time find out two parameters they were expansion ratio and half-life
2. This study used AC 60/70 grade which the test result at the temperature of 170°C and water measure of 2.5% find out the expansion ratio of 14 by half-life of 10.92 seconds
3. The expansion ratio and half life within the temperature and water for foamed asphalt range
4. Possible resource materials and compaction
5. 100%RAP ITS,  $M_R$ , fatigue, deformation worse than 50%RAP and 0%RAP
6. Increase temperatures, the result in lower  $M_R$
7. Higher cement content and longer curing time result in higher UCS
8. According to DOH specification , 3.45% cement content
9. ITS and  $M_R$  of 100%RAP with 3% cement and 2.5% foamed asphalt are similar

#### 5.2 Recommendations

1. Foamed asphalt stabilization is a suitable and practical rehabilitation for deteriorated flexible pavement. It will provide a very high quality base layer for the new pavement
2. Quality control of foamed asphalt mixtures are foamed asphalt and aggregates

3. Portland cement is suitable and practical rehabilitation for deteriorated flexible pavement. It will provide a very high quality base layer for the new pavement
4. Quality control of Portland cement mixtures are cement contents and aggregates
5. Further study for other mix proportions of foamed asphalt mixtures with greater cement samples
6. Properties of foamed asphalt mixtures from the field.



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