FLOOD MITIGATION STUDY OF GRAHA FAMILY RESIDENCE AND ITS SURROUNDING IN WEST SURABAYA

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ABSTRACT

Graha Family Residence, is one of the residences in the Wiyung region, which is trying to arrange its own residence with the best drainage system in order not to burden the city channels and flood will never happen in their own residence. The outlet of the Graha Family Residence is Kali Makmur. Kali Makmur is not sufficiently profitable because of limited capacity to accommodate water runoff in the surrounding areas. To go to Kali Makmur, water runoff from the Graha Family Residence enter Kali Kendal channel that passes Wiyung residence.

With the advantage of higher elevation than its surrounding area and 3 Golf’s Lake that are available in the residence, flood is always happen every year in this residence. In this study, we are trying to know the cause of flood by analyzing the drainage facility which is available now in Graha Family Residence and solve the flooding problem.

Base of this study, known that there is a failure in drainage facility. To solve the flooding problem, the solution that should be done is re-dimension in several drainage facility, such as the
Primary channel in residence that toward the outlet, Kali Kendal and adding some gutters.

Key words: Graha Family, Outlet, Capacity, Kali Makmur, Kali Kendal, Storage, Dimension, Drainage Facility.