

## **ABSTRACT**

*BPBD West Java is a government agency that operates in the field of disaster management. Because BPBD is an agency that operates in the field of disaster management, BPBD has a warehouse that functions to accommodate logistical aid items such as mineral water and equipment such as tents. The warehouse has an area of  $\pm 832 \text{ m}^2$  and is divided into eleven rooms and three hallways. The problem that occurs in the BPBD warehouse is the lack of utilization of each existing room, this is known after calculating the area utility and also the volume utility in each room in the warehouse. After calculating the average area utility and actual volume utility, the results were 47.7% for area utility and 27.4% for volume utility, this is very far from optimal where the maximum utility is 85%. Apart from that, another problem experienced by the BPBD warehouse is the random placement of goods due to the lack of facilities for storing goods, where the BPBD warehouse only has 29 shelves.*

*In order to overcome the problems that occurred at the West Java Province BPBD warehouse, a design was carried out regarding the proposed improvements to the new layout for the BPBD warehouse. The initial step taken was to classify goods using ABC – VED Analysis followed by creating an ABC – VED Matrix for food and non-food goods and dividing them into three categories. Next, calculations are made regarding the shelf requirements for each room based on the average number of items in the period 2020 – 2022. The next step is to make a proposed new layout design for the food and non-food rooms based on the shelf requirements for each room, aisle width, and increasing the MHE The area and staging area in room A are in accordance with BPBD warehouse requirements. Next, organize storage based on categories from the ABC – VED Matrix.*

*Based on the results obtained, the proposed design can increase warehouse utility where the average area utility for the three rooms is 54% where the utility increases by 21.3% while for volume utility the result is 41.1% where the utility increases by 17.5%. Then, through the design results, the proposed number of shelves was also obtained, namely 64, which is an increase of 35 shelves compared to the actual number, namely only 29 shelves. It is also known that the design results can save*

*space from the actual condition of requiring seven rooms and one hallway to only requiring 3 rooms for storing stock goods and 1 room for storing temporary goods which will be sent to 27 city and district BPBD.*

*Keywords: BPBD West Java, Class Based Storage, ABC – VED Analysis, Warehouse Utilities*