CHAPTER II

LITERATURE REVIEW

2.1 Pedestrian

According to WHO (2013) A pedestrian is any person who is travelling by walking for at least part of his or her journey. In addition to the ordinary form of walking, a pedestrian may be using various modifications and aids to walking such as wheelchairs, motorized scooters, walkers, canes, skateboards, and roller blades. The person may carry items of varying quantities, held in hands, strapped on the back, placed on the head, balanced on shoulders, or pushed/pulled along. A person is also considered a pedestrian when running, jogging, hiking, or when sitting or lying down in the roadway.

Pedestrian is a movement or displacement people from one place as starting point to another place as a destination with use walking mode. On the other hand, pedestrian means "person walking in the street ". Pedestrian in context urban usually meant as a special space for pedestrians to protect pedestrians from danger of motorized vehicles (Iswanto, 2006).

2.2 Pedestrian Facilities

In planning the pedestrian facilities, you should consider the interaction between one person with another, safety service, comfort, entertainment facilities along pedestrian roads and public facilities such as bin, seats, or markers for disabilities people.

According to Rubenstein (1987), there are several categories of pedestrians:

- Full pedestrian, are those who use the mode of walking as the main mode, walking is used entirely from the origin to the destination.
- Pedestrians using public transportation, are pedestrians who use the mode of walking as an intermediate mode. Usually done from the place of origin to the

place of public transportation, or on the route of moving public transportation routes, or public transportation stops to the final destination.

- Pedestrians who use public vehicles and private vehicles, are those who use the mode of walking as a mode between, from the private vehicle parking lot to the place of public transportation, and from the public vehicle parking lot to the final destination of the trip.
- Pedestrians who use full private vehicles, are those who use the mode of walking as a mode between the private vehicle parking area to the destination of traveling that is only reached on foot.

According to Direktorat Jenderal Bina Marga (1995), facilities pedestrians are all buildings that are reserved for use pedestrians provide services to pedestrians feet so that it can increase smoothness, safety and comfort pedestrian. Pedestrian facilities must be planned based on the provisions as following 1995):

- Pedestrians must reach their destination as close as possible, safe from other traffic and smooth.
- Continuity of pedestrian facilities feet, which connect the area one with another.
- If the pedestrian path intersects other traffic flow must be carried out traffic settings, both with regulating lamp or with crossing markers, or places crossings that are not on a level. Pedestrian path that cuts through the lane traffic in the form of crossings (Zebra Cross), road markings with traffic lights (Pelican Cross), crossing bridges and tunnel.
- Pedestrian facilities must be made on road segments in urban or on places where the volume of walkers feet meet the terms or conditions for the manufacture of these facilities.
- Pedestrian path should be placed in such a way from the lane other traffic, so pedestrian safety more guaranteed.
- Equipped with signs or other road complement, so pedestrians are free to walk, especially for pedestrians who are tuna forced.

- Planning for pedestrian paths can be parallel, not parallel or cut existing traffic lanes.
- Pedestrian paths must be made such that when it rains the surface isn't slippery, it's not happening puddles as well as recommended for equipped with trees shade.
- To maintain security and pedestrian flexibility, must be installed road buffalo so pedestrian facilities higher than the surface of the road.

2.3 Pedestrian Pathway

According to Iswanto (2006), pedestrian pathway can be classified as follows:

- Pedestrian lane

Pedestrian lane is made separate from public transport lanes, usually located next to or near each other, given a surface layer, given a higher elevation than the pavement surface and generally parallel to the vehicle traffic lane.

- Crossings

Crossings is a pedestrian path that is used as a crossing point to overcome and avoid conflicts with transport or road users or underground crossings. For this reason, facilities in the form of zebra crossing, skyway, subway are needed.

- Pedestrian Plaza

Pedestrian Plaza is a recreational pedestrian path. Pedestrians can stop and rest on the benches that have been provided.

- Pedestrian Mall

Pedestrian Mall is a pedestrian path used for various activities such as sitting, relaxed and walking while looking shopping center.

2.4 Pedestrian Lane Material

Pedestrian lane material can be divided into 2, the pedestrian lane itself (material from the pedestrian lane), and supporting elements on the pedestrian lane (lighting, vegetation, bin, public telephone, bus stops, signs, and others). The types of material

commonly used in the pedestrian path are paving (concrete), brick or stone (Iswanto, 2006).

- Concrete paving

Source: Google Image, 2019

Figure 2.1 Concrete paving

Concrete paving is made with a variety of shapes, textures, colors, and variations in shapes that have the advantage of looking like a brick, and its installation and maintenance is easy. This concrete paving can be used in various places because of its strength, the road installed paving or concrete can be passed by cars, motorbikes, buses and other vehicles. Shapes can be made for pedestrian path patterns so they don't look monotonous and give a different atmosphere.

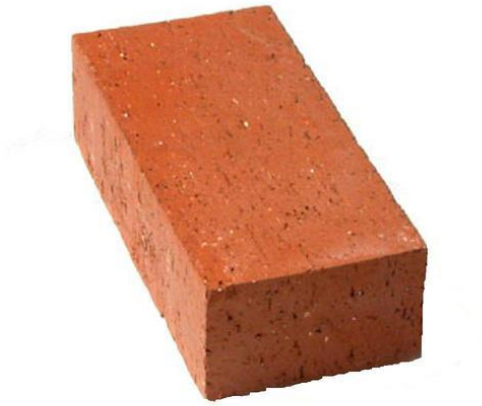
- Stone

Source: Google Image, 2019

Figure 2.2 Rock

Stone is one of the most durable materials, has a strong durability and is easy to maintain. Granite is one that is often used on pedestrian paths that require beauty.

- Bricks



Source: Google Image, 2019

Figure 2.3 Brick

These materials are materials that are easy to maintain, and easy to obtain. Brick has a texture and can absorb water and heat quickly but easily cracks.

In making pedestrian paths must also pay attention to supporting elements of pedestrian paths such as pedestrian lights that should not cause blackspots and made an optimal lighting, proper bus stop placement in each pedestrian, road signs, public facilities that can be use for many people, and other parts which enhance aesthetic value for pedestrian who pass through.