THE SIDEWALK STRUCTURING STRATEGY AS AN INTERACTIVE PEDESTRIAN (CASE STUDY: JALAN STASIUN PONDOK CINA, DEPOK)

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Abstract - This study was motivatedby a conflict of interest between pedestrians and other road users (informal vendors and motorized vehicles). As one of the areas included in the effort to develop 5 (five) transit points of the transit city of Depok, Jalan Stasiun Pondok Cina is important and interesting to develop. This road connects Jalan Margonda Raya as the main road from Jakarta-Depok with Pondok Cina Commuter line Station/ University of Indonesia Campus. Another interesting factor that characterizes this road is that the majority of road users are students who are young at heart, dynamic and need space to support interaction while waiting for public transportation such as TransJakarta and Commuter line. This study was conducted to obtain a new sidewalk model as an interactive pedestrian and pedestrian-friendly sidewalk. From the formulation of the problem, a descriptive method will be carried out. a descriptive method is carried out to make a description, description systematically factually and accurately regarding the facts, characteristics and relationships between the phenomena investigated. This description is obtained through field observations, interviews and data from relevant agencies. The method of the approach taken to achieve the predetermined goals is the Identification of Design Norms; Identification of Comparative Studies and Identification of Potentials and Problems. The results of this study are in the form of a redesign of the sidewalk which functions as a pedestrian interactive and pedestrian friendly.

Keywords - Conflicts of Interest, Pedestrian Interactive, and Pedestrian Friendly

I. INTRODUCTION

Depok is a supporting city of Jakarta, which for the past 20 years had to support the burden of Jakarta's population explosion. This resultan increase in the number of vehicles which eventually caused traffic jams. One of the government's efforts to overcome congestion is by establishing transit-oriented areas or Transit OrientedDevelopment/TOD (cnnindonesia.com). This isaccordance with the mandate of Peraturan Presiden No. 55, 2018 on the Jakarta, Bogor, Depok, Tangerang and Bekasi (RITJ) Rencana Induk Transportasi Jakarta 2018-2029, the City Government of Depok is working towards the construction of 5 transit oriented development (TOD). “Pondok Cina station is one of the planned transit orientation points. In the RITJ it has been described where there are two TODs, namely the environmental TOD located in Jatijajar to Citayam. Whereas the City TOD covers the Integrated Station and Pondok Cina". Said the head of the transportation department of the city of Depok, Dadang Wihana (kompas.com).

Transit-oriented development/TOD is a development that includes a mixture of housing, offices, retail and/or commercial development and other facilities integrated into a walkable environment and located within half a mile of quality public transportation (Danburry, 2010). TOD must meet 5 aspects, one of which is maximizing the use of pedestrian or bicycle networks (kompas.com). Roads in the TOD area are the most vital elements in determining the quality of public spaces, roads must be pedestrian friendly. But the fact is, the conditions on the Pondok Cina station road which is one of several planned transit points is far from ideal. With a road width of 6-7 meters, the road where the majority of users are pedestrians from among the students does not have a special path for pedestrians. The other side, many street vendors and motor vehicle who crowded the side of the road make this road more chaotic.

Considering the current road conditions are still far from ideal, Jalan pondok pondok Cina becomes interesting to do an assessment of the optimization of pedestrian movements as an interactive pedestrian.

II. PROBLEMS OF STUDY

2.1. Identification

Jalan Pondok China Station does not accommodate the safety and comfort of pedestrians, most of whom are students and can be interactive pedestrians

2.2. Scope of Study

In this study the problems discussed are limited to the following:

1. Sidewalk design that can accommodate the safety and comfort of pedestrians, most of whom are students and can be interactive pedestrians
2. The area of study is sidewalk on Jalan Stasiun Pondok Cina, Depok

III. METHODOLOGY

This study uses a descriptive research method approach. Descriptive method is carried out to make a descriptionsystematically, factually and accurately regarding the facts, characteristics and relationships

between phenomena investigated [3]. The results of this study are in the form of a redesign of the sidewalk which functions as a Interactive Pedestrian so that it can accommodate the safety and comfort of pedestrians most of whom are students.The following are described methods of approach taken to achieve the predetermined goals:

3.1. Identification of Design Norms
The aim is to formulate criteria, indicators and elements that must be considered in designing sidewalks that accommodate the safety and comfort of pedestrian users and and can be interactive pedestrians

3.2.Identification of The Comparative Study
Aim to get a comparison of the criteria, indicators and elements of pedestrian design that are already there and are considered successful.

3.3. Identification of Potential and Problems
This identification aims to determine the condition of the existing research area, both its potential and problems.

IV. DISCUSSION

4.1. Basic Concepts
The basic concept of this research is to redesign the sidewalk on Jalan Pondok China Station, which can accommodate the comfort and safety of pedestrians, especially among students/ colleges. In addition, the sidewalk is also expected to be a means of socializing.

4.2. The Concept of Convenience
In this research, the concept of convenience lies in the elements of climate and circulation. The concept of comfort in the climate element, the pedestrian will be placed protective in the areas most often exposed to solar radiation. as aesthetics, there will be processing shapes, sizes, and colors on the protector. Protectors can be permanent or non-permanent.

The concept of convenience in the element of circulation is related to the affirmation and optimization of the pedestrian dimension. Pedestrian width is made by referring to existing standards. pedestrian must be accessible to all users, including pedestrians with various physical limitations. In addition, there will also be a special area for dropping off online motorcycle.

4.3. The Concept of Safety
The concept of safety in this study lies in separation between motorcyclesand pedestrians. The intended separation is through time management of motor vehicles and pedestrian placement. Motorized vehicles that are allowed to cross the Jalan Cina Station are only outside rush hour. The pedestrian placement will be equipped with a barrier so pedestrians can avoid being hit by motorized vehicles.

4.4. The Concept of Interactive
The concept of interactive in this study lies to make spots at certain points as a place to socialize. The Pedestrian designsmustbe able to interact with pedestrians, such as signs and the use of instagramable designs.

The location of study is on Jalan Stasiun Pondok Cina, Depok West Java

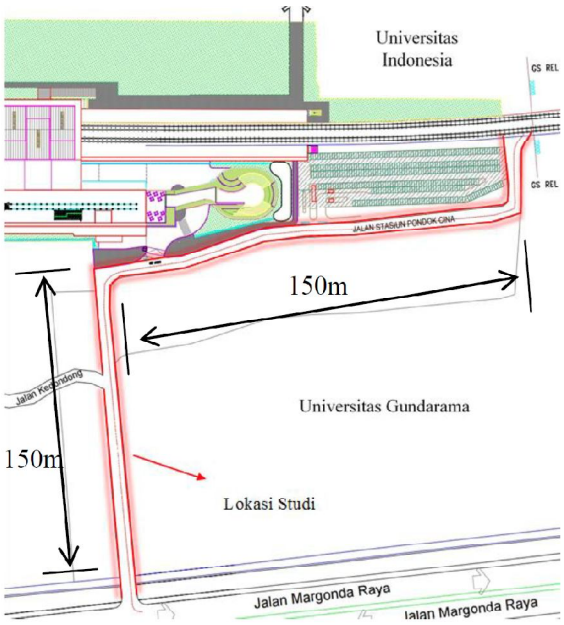


Figure 1. The Location of Study

Based on the Rencana Rinci Tata Ruang Wilayah Kota Depok, Jalan Stasiun Pondok Cina corridor was included in Sub-District of Bejiwith the allocation of Public and Social Services. Following are the regional boundaries of Jalan Stasiun Pondok Cina:

North Side: borders University of Indonesia/
Pondok Cina Station
South Side: borders Jalan Margonda
East Side: borders University of Gunadarma
West side: borders on residential area

Pondok Cina Station Road is a road flanked by two large campuses, Universitas Indonesia and Universitas Gunadarma Depok. this road connects Pondok Cina Train Station with Jalan Margonda Raya. The width of this road is 6-7 meters. For dailyactivities, this road is used by pedestrians, the majority of which are students, and motorbikes. cars can only cross from Jalan Margonda to Jalan Kedondong. In line with the construction of Pondok China flat towers, an exit gate is planned at one of the road points.

The existing conditions of Jalan Pondok Cina Stationis:



Figure 2. The Existing Conditions Around The Site



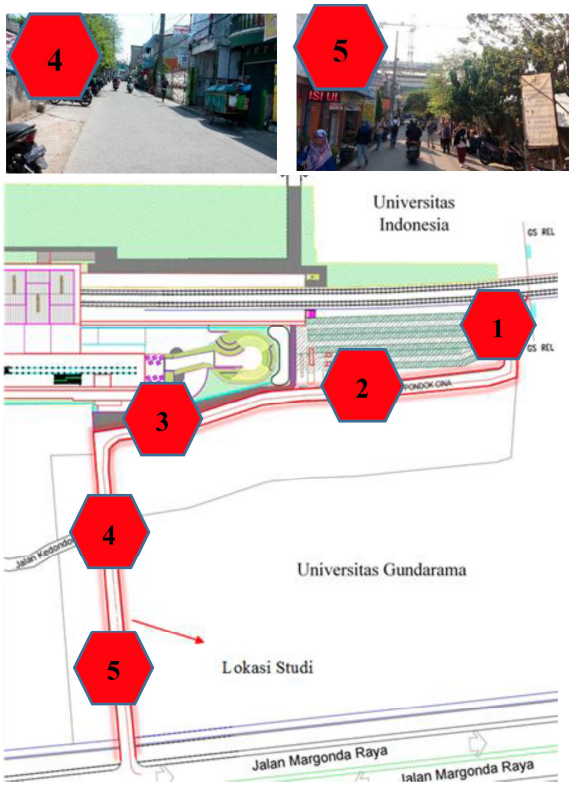


Figure 3. The Existing Conditions of Site

V. THE RESULT OF STUDY

Refer to existing concepts, design plans implemented in the sidewalk structuring strategy as an interactive pedestrian is:

a. The Concept of Convenience

- Pedestrian will be equipped with protection by considering the shape, size and color, to create comfort in aesthetic terms.

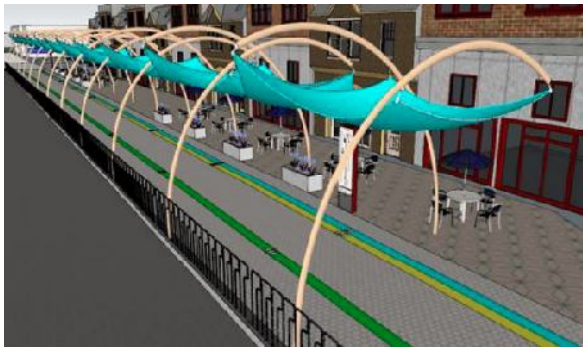
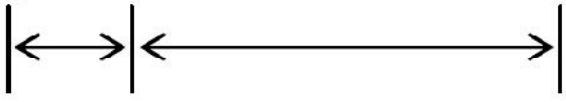


Figure 4. Perspective of "Shell" Protection (above), Floor Plan of "Shell" Protection (below)

- Affirmation and optimization in the pedestrian dimension



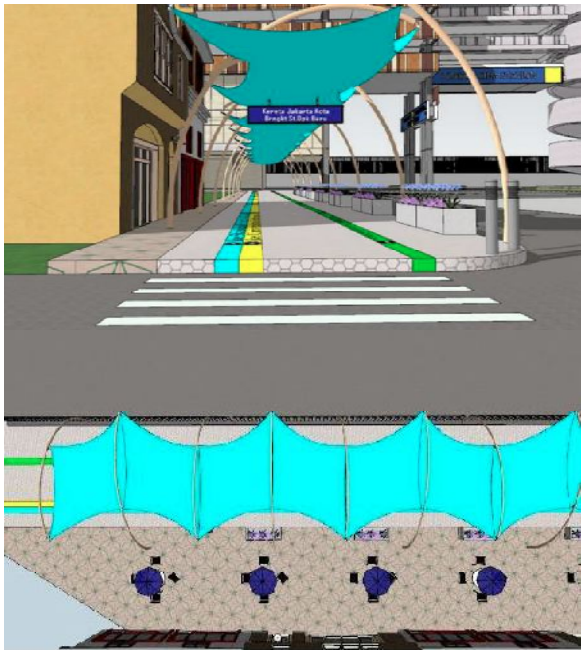


Figure 5. The Pedestrian Dimension (above), The Vehicle Space Dimension (below)

b. The Concept of Safety

- Pedestrian will be separated by the form of a fence and potted plants, so pedestrians can avoid being hit by motorized vehicles. Access to motorized vehicles will be limited, during peak hours all vehicles, both motorbikes and cars, are not allowed inside

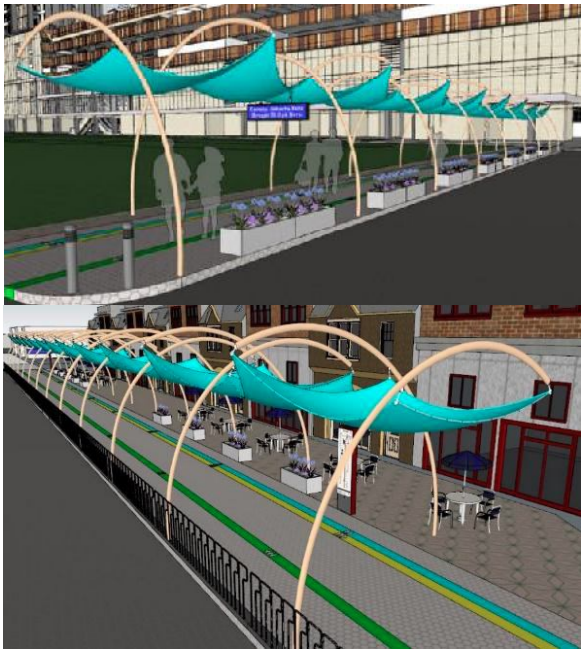


Figure 6. The Separator by Potted Plants (above), The Separator by Fences (below)

c. The Concept of Interactive

- Provides social spaces. The first spot is located within a radius of 50 meters to the east of Jalan Pondok Cina. The second spot is located next to the online motorcycle taxi shelter, 50 meters from the UI motor gate.



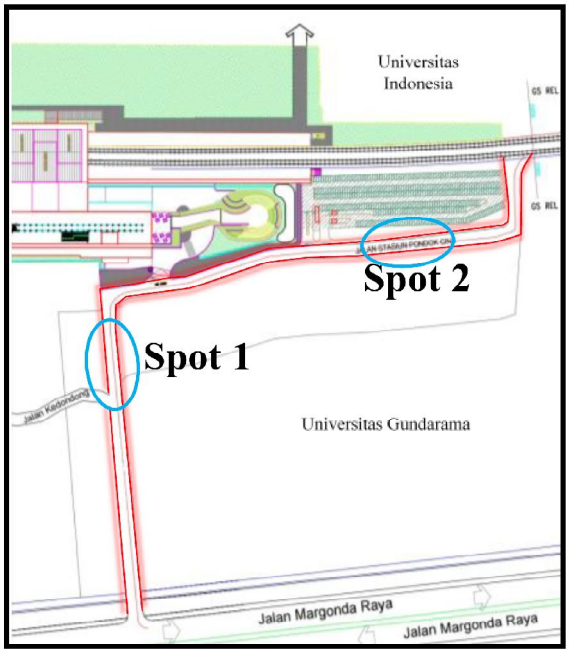


Figure 7. The Distribution Spot of Social Space

- provide lines that indicate the direction for pedestrians, with certain meanings in each color. The blue color refers to Pondok Cina Station, the yellow color refers to Universitas Indonesia, and the green color refers to Jalan Margonda Raya.

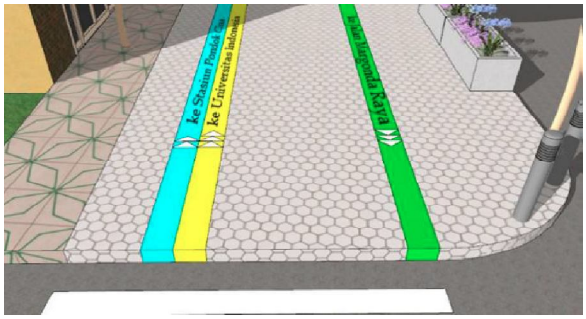


Figure 8. The Indicator Line of Directions

- provide Laying information screens regarding the whereabouts of trains, and put a smart map around the pedestrian.

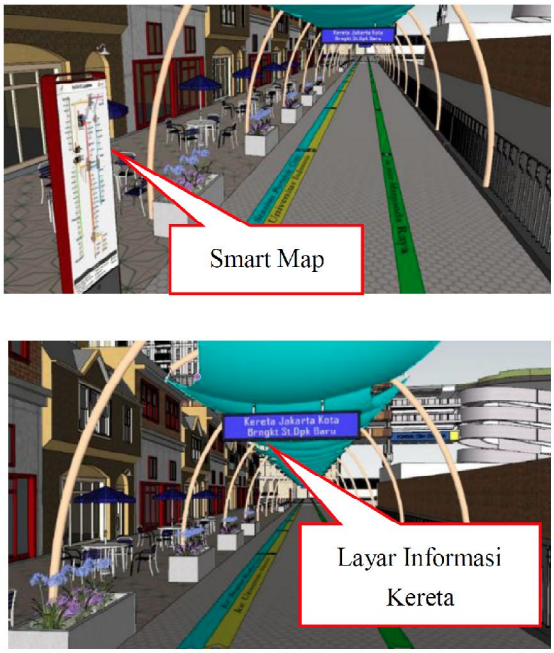


Figure 9. The Distribution of Smart Maps and Screen of Commuterline Information

VI. CONCLUSION

After analyzing the aspects that affect the design of interactive pedestrian arrangements is the convenience aspect is obtained from "shell" by considering the shape, size and color, to create comfort in aesthetic terms and affirmation and optimization in the pedestrian dimension The safty aspect of pedestrian is obtained from separated by the form of a fence and potted plants, so pedestrians can avoid being hit by motorized vehicles. Access to motorized vehicles will be limited, during peak hours all vehicles, both motorbikes and cars, are not allowed inside. The interactive aspect of pedestrian is obtained from provides social spaces. The first spot is located within a radius of 50 meters to the east of Jalan Pondok Cina. The second spot is located next to the online motorcycle taxi shelter, 50 meters from the UI motor gate. In addition, provide lines that indicate the direction for pedestrians, with certain meanings in each color. The blue color refers to Pondok Cina Station, the yellow color refers to Universitas Indonesia, and the green color refers to Jalan Margonda Raya. Finally, provide Laying information screens regarding the whereabouts of trains, and put a smart map around the pedestrian.

REFERENCES

[1] Peraturan Mentri Pekerjaan Umum, Nomor: 03/PRT/M/2014
[2] Nazir, (2005)"Metode Penelitian", Ghalia Indonesia, pp. 4
[3] Atikah (2017) "Konsep Optimalisasi Pergerakan Pejalan Kaki di Wonokromo (studi kasus: koridor Jalan raya wonokromo, jalan stasiun Wonokromo, dan jalan raya darmo)", Thesis
[4] CynthiaYuwono., "Arsitektur Interaktif Sebagai Katalis Interaksi Sosial Pada Ruang Mati Kota", 4 RUANG KREATIF, 239-255
[5] Indah Yuliasari., (2019) "Evaluasi Konsep Ruang Terbuka Publik Terhadap Tingkat Pelayanan Pejalan Kaki Di Kawasan Jalan Pahlawan Semarang", LAKAR, 2 (1), 53-58
[6] Amanda Ristiana Pattisinai., (2013) "Kajian Kualitas Jalan Pahlawan Sebagai Jalur Pejalan Kaki Di Kota Semarang", JURNAL PEMBANGUNAN WILAYAH & KOTA, 9 (3), 248-258
[7] Melita Setiawan., (2015) "Mengajak Masyarakat Ikut Aktif Dalam Kampanye Friendly Bandung Melalui Instalasi Interaktif", WIMBA, 7 (1), 68-80
[8] Razqyan Mas Bimatyurga Jati., (2018) "Ruang Interaktif Dalam Fasilitas Kesehatan Anak", MINTAKAT, 19 (2), 93-103

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