

**CRITERIA OF LIVABLE STREET FOR COMMERCIAL CORRIDOR STUDY CASE:
URIP SUMOHARJO STREET CORRIDOR IN YOGYAKARTA**

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ABSTRACT

Yogyakarta is one of fast-growing cities in Indonesia which has many potentials, such as tourism potential that can increase regional economic. In this process, there are many problem bothering people. Some problems can be seen in Urip Sumoharjo Street, as one of commercial street corridor in Yogyakarta. The problems are the cramped pedestrian way next to the busy road, vendors on pedestrian ways, and no pedestrian facilities for the elderly and disable people. We try to use livable street approach which is focus on how a corridor can accommodate all users, including pedestrians. Character Appraisal and Ped-Shed are techniques that used to analyze aspects livable street in this corridor. This research aimed to find criteria of livable street for Urip Sumoharjo Yogyakarta Commercial Corridor. The criteria described in each aspect of livability such as the ease of accessibility, comfortability and safety, give the image and signage area, and also improve the environment quality with landscape element.

Keywords: Commercial Corridor, Livable Street

1. Introduction

Yogyakarta City, in the process of its rapid development, has a lot of potential for tourism. This city changing its city shape that can be seen from the number of new buildings and tall buildings with modern style. Moreover, it also can be seen from the crowded road, and congestion at some point even the main street of the city. The potential of tourism owned also be a pull factor towards people from outside the city. Indirectly, it is also becoming a main income for local economy. The Corridor of Urip Sumoharjo Street is one of the commercial areas that support the improvement of the local economy, in which the existing condition and land use along the corridor is the zone of trade and services.

2. General Description of The Study Area

From the economic aspect, tourism sector is the main income source of Yogyakarta City. For the city of Yogyakarta, tourism as an industry. This sector involves many other economic sectors, such as trade, hotels and restaurants, transport and communications, finance, lease and service companies, and also the services sector. The contribution of these sectors in PDRB reached 78.6% of all economic activities in Yogyakarta (Spatial Planning Policy 2012-2029). The Corridor of Urip Sumoharjo Street is one of the commercial corridor that has these sectors.

Urip Sumoharjo Street is the secondary collector road linking Yogyakarta City with other districts in The Yogyakarta Province. It is also the access road from other district to some famous tourism objects in Yogyakarta. This street located in the subdistrict administration Gondokusuman with the west boundary is Sudirman Street and east boundary is Laksamana Muda Adi Sucipto Street. It is also one of the main service centers Yogyakarta City. It serves Yogyakarta City to the north and east, as well as parts of Sleman and Bantul (Rencana Detail Tata Ruang Kota Yogyakarta 2012-2029/ Spatial Regulation Plan 2012-2029).

Study area in this research is Urip Sumoharjo Street with a length of about 490 meters from the boundary / Urip Sumoharjo west-end to the east until the intersection of Kemakmuran Street. The piece of this street have been selected based on observations related to the level of problems and crowd of the area, while other pieces have fewer problems than selected pieces of the street.

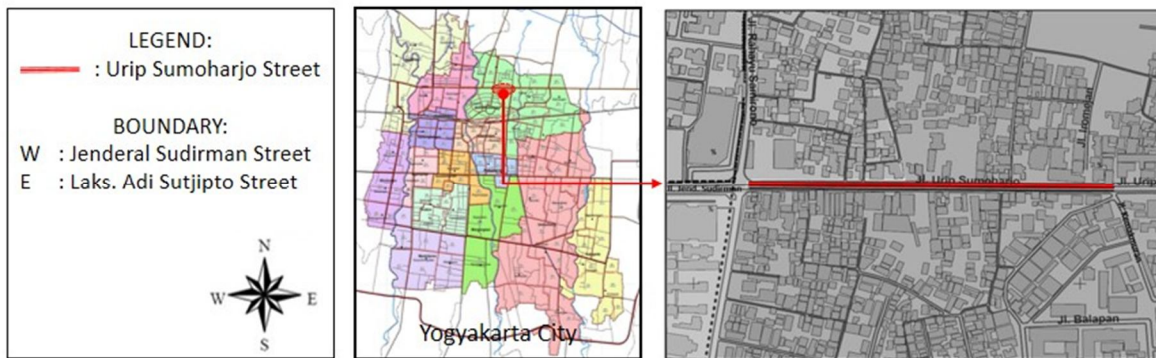


Figure 1 - Location of Urip Sumoharjo Street in Yogyakarta City

3. Methodology

This research using Character Appraisal Analysis to describe the physical characteristics of the corridor. Analysis process is performed on Livable Street aspects so that the level of livability in this corridor can be known. Ped-Shed used to measure the reach of pedestrians and describe the quality of pedestrian ways. To make the criteria of livable street for this commercial corridor, structured interviews with respondents, such visitors and shopkeeper, added as public opinion that can make the proper criteria. The list of questions drawn up by aspects of livability assesment. Determination of the interview sample using purposive sampling technique. Sugiono (2011) describes a purposive sampling as a sampling technique with special considerations that deserve to be sampled. This technique is usually performed on qualitative research. For this study, the determination of the numbers and who is the samples / interviewees is determined by the specific purpose, namely to determine the relevant assesment by the local community livability corridor. The number of samples are not restricted to a certain amount, as long as can show people opinion about the level of livability assesment.

With that process steps of analysis, the results of each steps then compared each other so that can make the criteria of livable street for commercial corridor, especially for Urip Sumoharjo Street in Yogyakarta.

4. Livable Street

In *Inclusive Urban Design - Streets for Life* (Burton, 2006), six principles of the concept Streets for Life is Familiarity; Legibility; Distinctiveness; Accessibility; Comfort; and Safety. Here are two interpretations of the concept Streets for Life, such as:

1. The street is easily recognizable, can be enjoyed, as well as a place that can be used as a playground sphere or gathered by community
2. Inclusive Street can be used by all levels of society, including older people and people with dementia

Ministries for the Environment, 2002, New Zealand, describe that to measure the level of livability in an area, used several variables called quality standards. These quality standard is Accessible; Choice; Comfortable; Easily Understood; Flexible; Healthy Environment; Safety; and Sense of Place. Beside that, there are three key questions that can measure people's desire to describe what they do and who they doesn't like associated with their environment. The questions include:

- What do they like from this environment?
- What do they dislike from this environment?
- What do they want from this environment?

From this two livable street literatures, aspects that are used in this research are:

- **Accessibility**
To measure how easy it can be to reach the overall environment with a vehicle, bicycle, or on foot
- **Comfortable**
To measure how comfortable the environment for the community, it is also related to security aspects of mutual support with aspects of comfort that can be incorporated discussion. Safety related to the extent to which people feel secure and do not worry about running anywhere in the region
- **Familiarity**
To measure how easily the environment can be identified and not confusing for newcomers / visitors, it can be seen correspondence between the shape of the building / area which is supposed to its function
- **Legibility**
Roads are easily readable, can mean the way that has network / routes and junctions are easy and simple, marking a clear and visible, as well as facilities that are not ambiguous
- **Healthy Environment**
To measure the environmental feasibility of the healthy aspect
Aspects that are not used in this research, such as:
- **Choice**
To determine whether there is a variation of lifestyle choice and employment. This principle is not used in this study because the study area lifestyle choices and the work can not be seen if only on a commercial corridor alone
- **Flexible**
To determine whether the region has the potential to experience significant growth. In this study, less can be used to determine the characteristics of the corridor.
- **Distinctiveness**
To measure how far the environment provide an atmosphere and a special identity and good for society. This aspect is also related to aspects familiarity so in this study both aspects can be one

5. Result and Discussion

5.1.Character Appraisal Analysis

The analysis process is assessing the characteristics obtained from observations in the study area based on five aspects of livability, the result is:

Table 1 - Character Appraisal Analysis Result

Aspect	Character Appraisal Analysis Result
Accessibility	<ul style="list-style-type: none"> • The study area has a strategic location and bypassed by public transport (trans-jogja bus) so it can be easily reached either by private vehicle or public transportation • Accessibility in the study area is quite easy as there are parking facilities and supporting circulation
Comfortable and Safety	<ul style="list-style-type: none"> • Pedestrian way in the study area is not quite convenient because there are other activities that interfere pedestrians. This other activities is the activities of street vendors and unloading goods

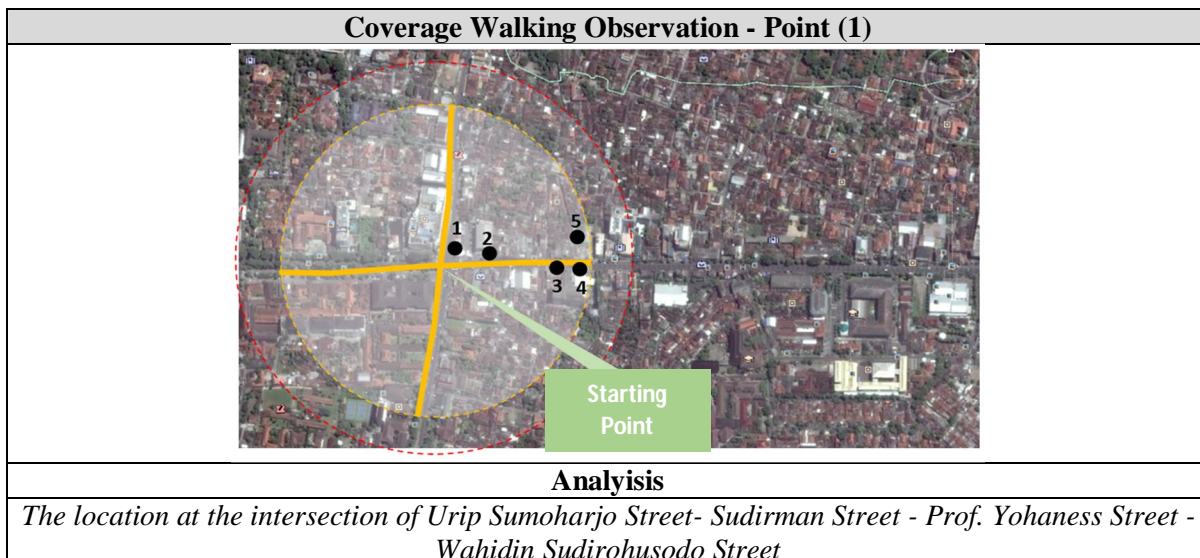
	<ul style="list-style-type: none"> • The study area has on-street parking that use some street space. Parking on-street for cars on the north street side and motorcycle on the south street side • Parking located in the zone of the street reduce safety and comfortable for people, it creates inter-side circulation so enable people hit by vehicles and others
Familiarity	<ul style="list-style-type: none"> • The shape of the building on this corridor is dominated by the store building that extends along the elongated windows and lined with symmetric • The shape of the building provides space for placement of advertisement that many stores are attached to buildings • The height of the building is not contrast so that creating the impression that a regular skyline corridor • Street furniture is still limited existence. There are only a shade pedestrian facilities in some spots
Legibility	<ul style="list-style-type: none"> • There is no signage associated with commercial corridor in unique/recognizable shape
Healthy Environment	<ul style="list-style-type: none"> • This corridor has vegetation with the function of shade • This corridor has less varieties of green elements/vegetation that can support a healthy environment

Source: Analysis Result, 2015

5.2.Ped-Shed Analysis

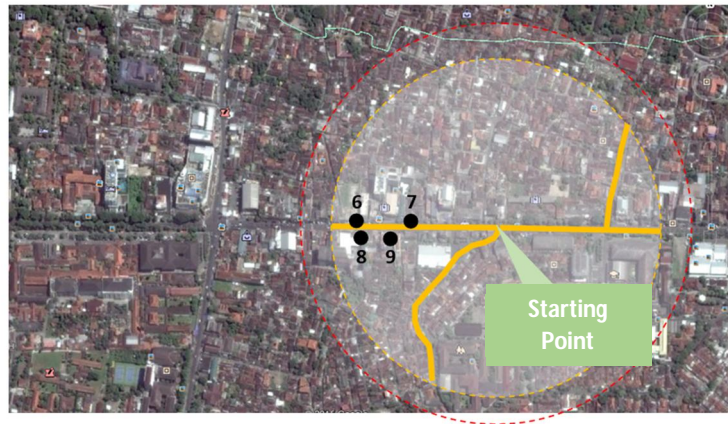
This analysis is used to measure how far pedestrians reach their path, knowing the quality of pedestrian paths, and determine potential spots that can be re-developed. In the process, the first step is to determine the point of observation., Consideration in determining the point of observation is dismissal centers, such as parking facility or shelter, because the observations made by walking. Other considerations are the crossroads or the end of the study area boundary. Then the observers walk from the observation point within 5-10 minutes. In normal situation, the distance that can be achieved at least about 400 meters within 5 minutes (1/4 mile), and 800 meters in 10 minutes (1/2 mile).

Table 2 – Ped Shed Analysis



- Researchers walks from the starting point of observation within 5 minutes at normal speed. Distances that can be achieved during this time is less than 400 meters. During the walk within 5 minutes with a distance less than 400 meters, the researchers worked normally but less enjoy the visual shops that passed
- From this observation, there are some problems that can be felt and cause less than 400 meters of distance. The problem such as activities of loading and unloading of shop equipment at point 2, the density due to street vendors and their buyers at point 3 and 4, and car circulation from off street parking in some stores that have their own parking. Another thing is the perceived lack of comfort around point 3 and 4, and also lack of hygiene as a result there are many vendors on pedestrian way, and the fatigue due to hot weather and walking on the sidewalk that does not have the facilities shade
- From this observation, we know that busiest point is at point 4 which is Gardena Department Store, and there are many vendors on pedestrian ways around it. There is a parking zone at point 1 and empty land at a point 5 which functioned as a parking zone only if the on-street parking on the street corridor is insufficient
- Due to the proximity of the location of points 1 and 2, it is possible relocation of loading and unloading activities at point 2 to Point 1.

Coverage Walking Observation - Point (2)



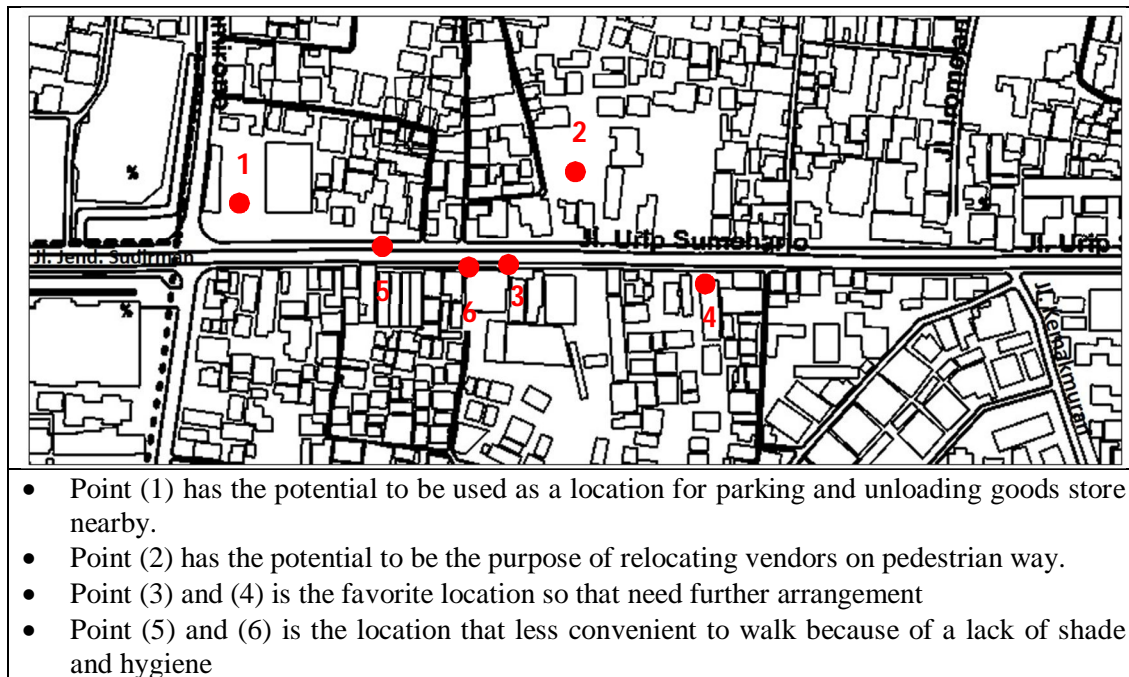
Analysis

The location at intersection Urip Sumoharjo Street – Balapan Street

- Researchers walks from the starting point of observation within 5 minutes at normal speed. Distances that can be achieved during this time is less than 400 meters. During the walk within 5 minutes with a distance less than 400 meters, the researchers worked normally and reasonably able to enjoy the visual landscape passed shops
- From this observation, there are some problems that can be felt and cause less than 400 meters of distance. The problems such as the stalls that grows wild as a result of the needs of the employees of shops and hotels around, its located at the point 6 and 7. The other obstacle is the presence of street vendors at point 8 and surroundings.
- Point 6 and 8 are still adjacent to point 5 (see ped-shed analysis at startig point 1), thus point 5 can be the destination location to relocated the vendors on pedestrian and other stalls that occupy the pedestrian path.
- Another thing that can be felt is a pretty shady sidewalk thus improving pedestrian comfort.
- From this obsevation, we also known the favorite spot is at point 9, which is a store Elizabeth, store bags and shoes, quite crowded than its surrounding shops.

Source: Analysis 2015

Table 3 – Conclusion Ped-Shed Analysis



Source: Analysis Result, 2015

5.3.Criteria of Livable Street

To strengthen the criteria of livability in this commercial corridor, conducted interviews with some visitors and workers in the commercial area. Interviews were conducted by asking three key questions livable street that can measure people's desire to describe what they do and they do not like about the livability of the corridor. The result is:

Table 4 – Livability Measure from Community

Key Question Livability	Answer
What they like from this environment?	Trading activities in the line of corridor has many variations of goods sold and many option items that can be purchased communities and easier to get the desired goods in one place
What they don't like from this environment?	Dense, crowded, dirty, chaotic, the pavement is not functioning properly and yet provide safety and comfort due to the presence of street vendors
What is expected from this environment?	<ul style="list-style-type: none"> • This corridor can be more organized and give an image of commercial place • There is a space for vendors that do not interfere with pedestrians • Increased safety, comfortable, and cleanliness

Sumber: Interview, 2015

Based on analysis result of character appraisal, ped-shed, and result of interview, criteria of livable street can be conclude:

Table 5 – Criteria Livable Street for Urip Sumoharjo Commercial Corridor

Aspect	Conclusion of Analysis and Interview	Criteria
Accessibility	<ul style="list-style-type: none"> Urip Sumoharjo is a commercial corridor that has an important function as an access road between the district and quite easy to be achieved either by private vehicle or by public transport This corridor has four lanes reserved for all transportation modes, but still has no specific rows, such as special bus lanes trans-jogja, as well as dedicated bike lanes 	<p>This commercial corridor should be able to accommodate all corridor users and/or visitors from all levels of society, include disabled people and the elderly. This criteria can be realized by the addition of pedestrian facilities for disabled people and elderly, and also the addition of bus lanes and bike lanes on the street.</p>
Comfortable and Safety	<ul style="list-style-type: none"> In general, the condition of the corridor is not quite comfortable and safe. There are many vendors on pedestrian way that caused inconvenience to pedestrians people. For further structuring, street vendors should be relocated at a point that allows (based on ped-shed result) The pedestrian zone also has no barrier to support the safety aspects Pedestrian way is not support the comfortable for all users, including the elderly, and the disabled people Parking facilities are available on the side of the street (on-street parking). However, his condition did not support the user's safety because of its location that using a street zone passed by other transportation modes. This parking facilities need to be reorganized and relocated to the parking centers 	<ul style="list-style-type: none"> Vendors on pedestrian ways should be relocated to spot/land that is still empty based on ped-shed result Corridor must provide facilities to support the activities of loading and unloading the item store The addition of a centralized parking on vacant land based on ped-shed result Pedestrian crossing facilities should be added at the people's favorite spot, such as zebra cross; and traffic light for crossing Pedestrian way should provide the comfortable and safety with a minimum width of 2 meters and free from activities other than walking people
Familiarity	<ul style="list-style-type: none"> The existing building forms in the study area has the characteristic elongated window, and triangular shape of roof and gevel. It becomes a characteristic of the building in corridors that can be easily recognized by visitors of various ages and conditions 	<ul style="list-style-type: none"> The shape of the building should follow the rhythm (elongated window) and triangular shape of roof and gevel Advertising board should never be placed to cover up the facades of

	<ul style="list-style-type: none"> • The character of the building's facade is covered up with billboards and advertisements boards. It reduces the visual value of building design in this corridor • Existing condition of street furniture is still not easier for people to use, and the number is still lacking, so it requires the addition of street furniture for the public with a design that is easily recognizable and used. This addition preferably at the points of people's favorite 	buildings
Legibility	<ul style="list-style-type: none"> • Condition of signage facility in the study area still lacks of clarity so that the visitors feel confused • The addition of the signage facility is required, especially at the crowd points of corridor that can help visitors identify the region 	<ul style="list-style-type: none"> • Signage facilities should be provided in the crowd spot and near from the parking facility (based on ped-shed analysis)
Healthy Environment	<ul style="list-style-type: none"> • There are green elements in the study area such as shade trees that facilitate pedestrians. But there is no other vegetation with other functions such as vegetation with the function of donor safety and comfort of pedestrians. • There is no waste facilities along this corridor 	<ul style="list-style-type: none"> • Vegetation shade at some point in the corridor must be maintained. Vegetation shade that placed on the canopy should be added and follow the design of existing facilities shade • Waste facilities should be added along the corridor

Source: Analysis Result, 2015

6. Conclusion

Commercial corridor of Urip Sumoharjo Street is a corridor that has a strategic location and has the potential to be developed further to support the local economy. To increase comfortable for the people, used the criteria that described in each aspect of livability such increasing the value of livability corridor so that it can really be felt by all kinds of people, through the addition of bike and bus lanes, sidewalks comfortable without interruption vendors, development of forms of buildings with the same characteristics without being distracted by a billboard/reclame to increase the visual value of the region, adding that facilitate community facilities with limited and aging societies, as well as adding green elements such as shade trees and green line as the border between pedestrian and vehicle lanes so as to create security.

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