ITDP

Jakarta NMT Vision and Design Guideline

CONTENT

INTRODUCTION

1

1.1 FOREWORD

The Institute for Transportation Development Policy (ITDP) is a nonprofit institution that was established since 1985 and headquartered in New York, USA with a main focus on creating sustainable transportation in cities all around world. ITDP Indonesia has provided more than ten years of technical assistance to the DKI Jakarta, Medan and Pekanbaru provincial governments regarding mass public transportation, parking systems and improvement of pedestrian facilities.

In several discussions with Dinas Bina Marga of the DKI Jakarta Province, the ITDP also has the same concern related to efforts to realize a network of access for non-motorized transport with great quality and can be used by everyone. Therefore, this book was formulated to provide guidance both in the standards for the implementation of planning and design in road spaces in Jakarta. The formulation in this book is the result of a field survey by the ITDP Indonesia team, a study of various sources, such as TOD Standard 3.0 (ITDP), Global Street Design Guide (NACTO), Access for All: Guidance Note on Inclusive Street Design for Asia and the Pacific (ITDP-ADB), dan Guidelines for Planning, Provisioning and Utilization of Pedestrian Network Infrastructure and Facilities (Kementerian Pekerjaan Umum).

1.2 GOALS

This book was prepared to complement the related official, especially Dinas Bina Marga of the DKI Jakarta Province, to formulate human mobility networks guideline plan in DKI Jakarta for the next 5 years. Containing a 2017-2022 vision that focuses on pedestrian networks with detail elements to realize this vision, this document can also be used as a reference framework for improving pedestrian facilities (and cyclists) in Jakarta.

In addition to explaining the standards of various elements contained in the detail element of the vision, ITDP Indonesia also gave recommendations on selected location that are in accordance with the vision which are then detailed into recommendations for priority locations that can be used as reference for development for 5 years.

1.3 SCOPE OF WORK

The scope of work on the preparation of this document includes the selection of the location of sidewalk construction and / or other pedestrian access in DKI Jakarta for the next 5 years, recommendations for the distribution of road space and sidewalks, design guidelines, and estimated allocation for the budget. Bicycle paths and supporting component are additional topics that can also be prepared parrallel with sidewalks and pedestrian access in DKI Jakarta.

Caption 03
Source

1.4 METHODOLOGY

STANDARD ARRANGEMENT

TOD STANDARD 3.0

GLOBAL STREET DESIGN GUIDE

ACCESS FOR ALL: ON INCLUSIVE fOR ASIA AND THE PACIFIC

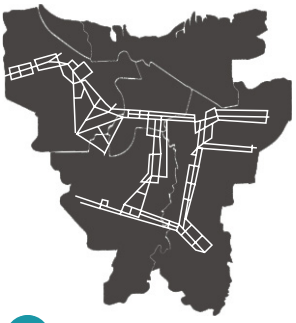
PEDOMAN PERENCANAAN, PENYEDIAAN, DAN MANFAAT PRASARANA DAN SARANA PEJALAN KAKI

LOCATION RECOMMENDATION PLANNING PROCESS

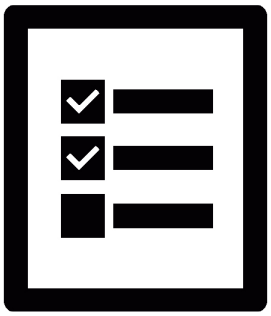
1 Mapping Transit Spot Location

(Transjakarta, KRL, MRT, LRT)

2 500 m Buffer



3 Choosing the Path and Area



4 Priority Determination

Priority Determinant Factors:

- Jumlah Penumpang (TJ & KRL)
- Laporan Warga (QLUE)
- Pusat Kegiatan (POI)
- Potensi Integrasi Antar Moda

WHY WALKING?

2

2.1 FACTS AND DATA

Sidewalk
7,8%

RQM kilometer
DKI Jakarta sidewalk length 2015 (Jakarta Dalam Angka 2016)

SVRS kilometer
DKI Jakarta road length 2015 (Jakarta Dalam Angka 2016)

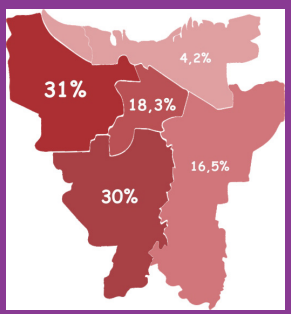
N pejalan kaki
DKI Jakarta road length 2015 (Jakarta Dalam Angka 2016)

>NOR kateron/m3
kandungan partikel polusi udara di Jakarta Utara
(Desert Research Institute)

PRNP langkah/hari
rata-rata jumlah langkah orang Indonesia
(Stanford University)

>QM% PNS
DKI Jakarta mengalami obesitas
(Dinas Kesehatan DKI Jakarta)

DATA FROM QLUE DURING #PEDESTRIANFIRST CAMPAIGN (1 AUGUST - 5 September 2017)



During the #PedestrianFirst campaign period which takes place simultaneously with month of "Walking properly on the sidewalk", there are complaints that go through application that related to violation on pedestrian facilities as much 643 report.

Of the 643 reports that entered, West Jakarta is a city with the most related reports with disturbances on the sidewalk. Number of reports in West Jakarta is 31% of total reports submitted.

The amount of complaint entered through the application QLUE does represent that region have a poor management, but can describe the amount of participation community to catch problems in the field and can be used for consideration of prioritizing the plan or development.

2.2 BENEFIT OF WALKING

Walking can be identified as a characteristic of modern urban life. The reason why people walk varies. Some people choose to walk from their origin point to a destination, some walk only to reach transit points, and there are also people who walk for sightseeing and traveling around the city. Walking became the first option for people to mobilize as it does not charge any fee. Besides providing economic benefits, walking provides a variety of other benefits, including:

PUBLIC HEALTH

- Increasing physical activity
- Decreasing air and sound pollution
- Lowering mental stress and physic

QUALITY OF LIFE

- Promoting social interaction
- Increasing the creation of public space
- Connecting people
- Create a lively city

ENVIRONMENT SUSTAINABILITY

- Increasing access to green area
- Lowering carbon emission
- Promoting a better water management as green space expands in pedestrian area
- Additional vegetations works not only as shades but also give a good impact for the climate

ECONOMICS

- Promoting business opportunities
- Increasing investment value in corridors passed by pedestrian
- Creating an added economic value within local people
- Increasing region value

SOCIAL JUSTICE

- Walking can be done by all segments of citizen
- Facilitating vulnerable groups such as elderly people, child, and disabled people

COMPLETE STREET DEFINITION

3

3.1 DISTRIBUTION OF ROAD SPACE

SETBACK

Setback is a vacant space/yard inside a building's ground area, located closest to the street.

SIDEWALKS

Sidewalks are dedicated road space for pedestrians that are defined safe from the motorized vehicles distruption. This space is designed according to the basic needs of pedestrians including material selection.

VEHICLE LANE

The vehicle lane is a path that can be passed by cars, motorcycles, or other motorized vehicles.

BUS LANE

A dedicated bus lane (also known busway) is a separated lane from the vehicle, either physically or just marked, which can only be passed by the bus and/or BRT.

ON-STREET PARKING

Space as high as a road body that can be used for a vehicle stop (car) which is indicated by certain markers.

BICYCLE LANE

A safe path that can only be used by bicycle users specifically. Can be separate paths with security such as bollards or planter boxes, or can be in the form of mixed space with pedestrians.

SERVICE LANE

In certain cases and/or road spaces, this line can only be used for ambulances, fire trucks, and so on. It can also be traversed by all vehicles that will enter and/or turn into neighborhood roads or building parcels.

Distribution of road space before the sidewalk renovation

Jatinegara, 2017

ALL USER	ALL AGE	ALL ABILLITIES

Basically the term of complete streets refers to roads that can accommodate a variety of road users from various ages and with various abilities. In addition, the intended road must be safe, comfortable, and the design should qualify the needs of various groups. It should be understood that in the realization of complete streets, the mindset of road space use should also change into prioritizing pedestrian space before private vehicles lane. The mindset of prioritizing motorized vehicles, especially cars, is an obstacle in realizing complete street. Mindsets that should be possessed in realizing complete street are as follows :

1. Make sure there is a road space to accommodate people to walk. If the road does not have a sidewalk yet, then prioritize the procurement of pedestrian space first.

2. Organizing space for cyclists. Cycling paths can be formed into a safe path that is physically separated, or in a form of shared lanes with other modes.

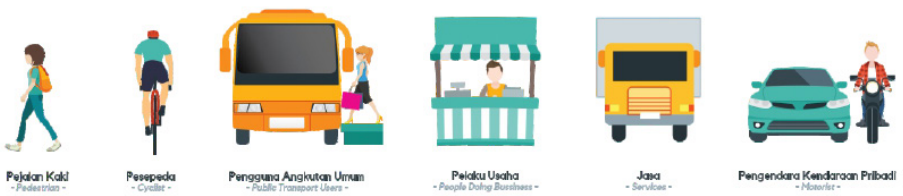
3. After walking and cycling spaces are available, then add space for road-based public transportation such as buses. The intended road space includes bus lanes and other facilities such as bus stops.

4. Then, the remaining space can be provided for motorized vehicles, such as cars. Vehicle lanes can be used either by private cars, taxis, motorbikes, and so on.

5. If there are remaining spaces that also support land use and / or activities in the area, then on-street parking can be added

3.2 TYPE OF ROAD USERS

As the aforementioned explains, the priority for road users should be sequentially starting with pedestrians, cyclists, public transport users, commercial use, services and private vehicle users.



SIDEWALK

4 DISTRIBUTION OF SIDEWALK SPACE

1. Muka bangunan
2. Ruang variasi
3. Ruang pejalan kaki
4. Jalur sepeda atau ruang *street furniture*
5. Area *buffer* dan zona utilitas

JAKARTA

5

5.1 JAKARTA VISION 2017-2022

Towards Walkable Jakarta 2022

Creating a **complete, safe, comfortable, and humanist** pedestrian space that also promote for increasing uses for public transportation.

COMPLETE

- Walkways
- Crossings
- Access to Transit
- Complementary Uses
- Access to Food
- Access to Public Spaces

SAFE

- Speed
- Lightings
- Bollards
- Driveways Density
- Pedestrian Refuges
- Sidewalk Extension
- Curbs

COMFORTABLE

- Shades and shelters
- Active Frontage
- Permeable Frontage
- Small Blocks
- Seatings
- Tree/Plant/ Landscape
- Waste Bins
- Placemaking

HUMANISTIC

- Tactile
- Wayfindings
- Signage
- Ramps

5.2 VISION IMPLEMENTATION ELEMENTS

5.2.1 COMPLETE

Complete means building a network of pedestrian facilities that are not partial and have a single unit of function. In this case, pedestrian access was built and/or repaired to connect all of Jakarta resident and to encourage walking activities as a choice of urban mobility. This approach can be made by linking various land uses and activities to public transportation. Some key words from complete vision elements include: walkways, crossings, access to transit, complementary uses, access to food, and access to public spaces.

1 WALKWAYS

Durability and completeness of pedestrian lines are the main prerequisites for the construction of sidewalks. This path must be adjusted to accessibility standards and applicable regulations. Complete walkways can also be defined as follows:

- Special lanes, separate and safe for pedestrians
- A shared street whose design accommodates people walking safety and limit maximum vehicle speed of 15km/hour
- Path or small lane specifically made for pedestrians

Surabaya Continuous Sidewalk

To fulfill this point, pedestrian space must also be designed to be friendly to people with disabilities in accordance with local standards and regulations. This line must also be equipped with adequate street lights. Disturbances in the walkways caused by the surrounding development must be accompanied by alternative pedestrian routes that are safe and adequate.

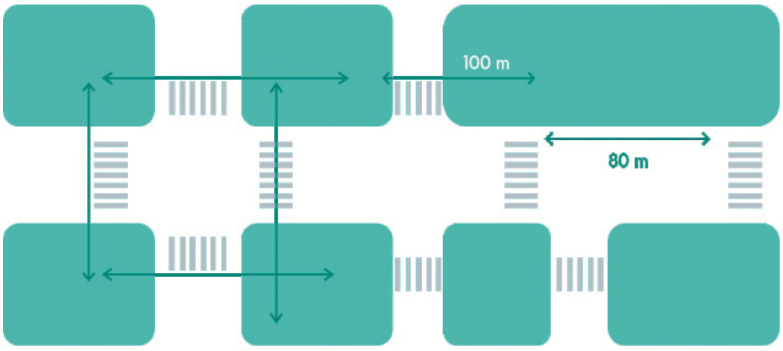
2 CROSSINGS

The crossing is placed on all intersections and spacing every 80-100 meters. In some cases, road crossings can also be placed for 150 meters. Not only placed at the intersection, crossings can also be placed in the middle of the block. Safe crosswalks can be defined as follows:

- Marked and has a marking width of at least 2 meters
- Accessible to persons with disabilities
- If the length of the crossing crosses more than two traffic flows, it must be equipped with a crossing island that also accommodates persons with disabilities

Crossings in Kyoto

Same-level crossings is the best form of crossing and gives priority to people walking. This crossing can work well if a clear crossing marker is included. On some roads that are passed by vehicles with speeds above 30 km/hour, a marker for crossing locations can be added. In addition, crossings should have short distances, this aim to increase safety for people who cross the road.



Same-level Crossings

The types of same=level crossings are as follows:

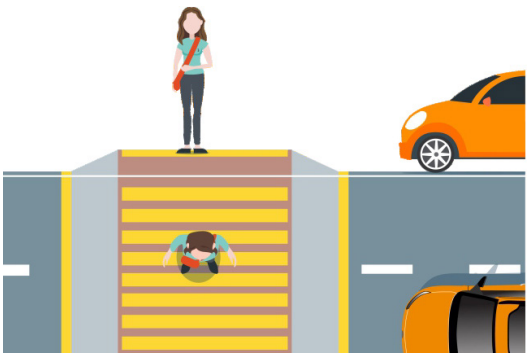
a Conventional Crossings

The Conventional crossing is a type of crossing that is generally found at intersections on the main road. This type of crossing can be used in locations with a number of pedestrians from low to high. Crossings need a marker and are placed at the intersection. Roads with a variety of vehicle speeds can use the following crossing designs even with a low to solid traffic volume.

b Diagonal Crossings

This type of crossing allows pedestrians to move the side of the road at the intersection of at least 4 branches in one time phase simultaneously. During this crossing phase, all motorized vehicles are given a signal to stop. This type of crossing can be implemented only at intersections with high pedestrian volumes with wide enough pedestrian and crossing spaces.

In practice, this type of crossing provides benefits such as improving safety and reducing waiting times for walking people.



c Raised Crossings

Raised crossings or walkways as high as sidewalks are usually placed on residential streets that are quite dense in traffic, both for people walking and passing vehicles. The speed of vehicles passing in the road space mentioned is less than 30 km/hour. This crossing usually has no signal.

Besides being able to be applied in a busy residential area, this type of crossing can also be applied to roads with high commercial activities or also small roads that are directly connected with larger roads (meaning there are differences in vehicle speed).

Traffic Calmed Crossing, Rotterdam

d Traffic Calmed Crossings

Traffic calmed crossings is usually located mid-block of the road. This crossing have reminder elements that can be either speed bump, line markers, or even pads to reduce the speed of motorized vehicles to remind that there will be crossings afterward. The placement is in the vehicle lane at 5-10 meters before the crossing space. If the volume of vehicles passing is increasing and pedestrians find it increasingly difficult to find the crossing phase, additional signals can be made for this type of crossing.

Traffic Calmed Crossing, Calgary

(by Steven Vance)

e Pelican Crossings

This type of crossing is usually placed between blocks on a road that is quite wide with quite high traffic. Pedestrians who will cross the road are asked to press a button that automatically activates the light signal to order the vehicle to stop. Then, people have some time to cross the road while the vehicle stops.

f Staggered Crossings

Staggered crossings are a type of crossing that is not parallel to a road with at least two traffic flows. The application of staggered crossings provides an opportunity for pedestrians to keep a distance from the speed of motorized vehicles. The minimum median width or island crossing is 3 meters and the offset distance between the two crossings is not more than 1 meter. This crossing can be applied as a crossing in the middle of a block for roads that accommodates vehicle speeds above 30 km/hour.

As with previous crossings, if there is an increase in the volume of vehicles passing, then additional markers, signals, or even speed bumps can be done.

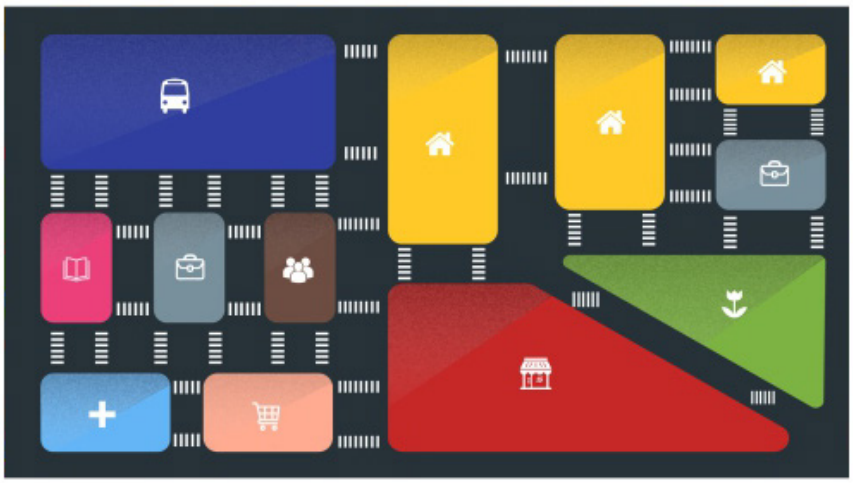
g Pinchpoint/Yield Crossings

Pinchpoint/yield crossings are crossings in the middle of a block that shorten the distance of crossing someone. This crossing can be applied to roads that are passed by vehicles at speeds below 30 km/hour. By expanding the pedestrian area, the vehicle space is reduced, for example, from two lanes to one lane and ultimately forcing motor vehicle drivers to reduce speed when approaching the crossing. This extension of the pedestrian space must leave at least 3.5 meters of space so that emergency vehicles can still be passed, such as firefighters and ambulances.

3 ACCESS TO TRANSIT

Supporting the creation of complete pedestrian facilities means connecting pedestrian facilities to the mass transit system. Improving the walking facilities around the transit area, create a complete function of urban mobility function. Priority area that need to be prioritized to support this function: are 500 – 1.000 meters from the center point of the bus stop/ station or the same as a 10 minute walk. This public transportation includes:

- High-capacity stops or stations (such as Transjakarta, KRL Commuter Line, MRT, LRT)
- Bus stop or station with direct transit service that connects the area to the previous points within 5 km



Fresh Food Store - Lyon

Mixed use area - Tokyo

4 COMPLEMENTARY USES

In creating complete pedestrian facilities, it is necessary to arrange an area that supports the creation of mixed land use area. It's means to combine land use between residential areas and non-residential areas within the same area. Complementary land uses in a development area can be defined in these two categories:

- Internally complementary, is the concept of mixed-use in its development under condition that the house function is not less than 15% and not more than 85%.
- Contextually complementary, an area can be defined to complement larger context if more than half of the total built-up floor area is dedicated to functions that balance the use of the dominant land around it. Or it could also be a mixed area that includes the internally complementary aspect in the middle of the area with percentage of residential land use between 40-60%.

resh Food Store - Lyon

5 ACCESS TO FOOD

Within a 500-meter radius of the construction area or transit station, there must be a place to get the food from the source needed. In this context, the food sources include fresh vegetables and fruit, fresh dairy products, meat, chicken and seafood. The food sources can be sold by traditional markets, roadside traders, minimarkets/supermarkets/hypermarkets or market that opened periodically (weekly, two daily, etc) and can be easily accessed by the public.

6 ACCESS TO PUBLIC SPACES

The development of pedestrian facilities will have a complete function if it also connects people to the location of public and social facilities. These public spaces can mean schools, markets, parks, hospitals, pharmacies, playgrounds, and so on. Pedestrian facilities around this location can be a priority because it is also a location that can create high human activity and more specifically pedestrians.

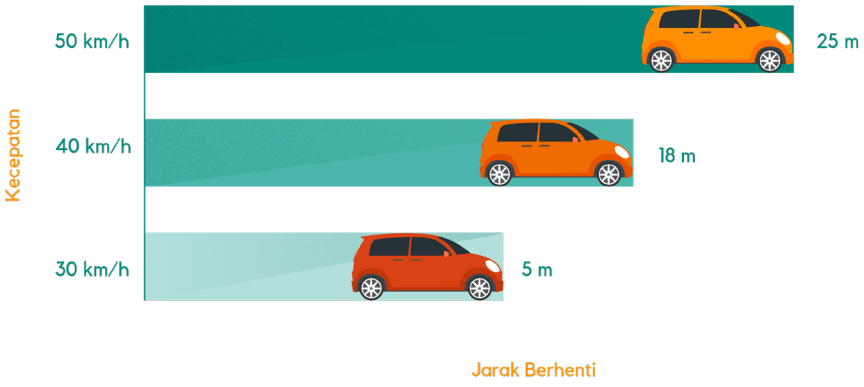
Public Park - Frankfurt

5.2.2 SAFE

Safe means placing pedestrians as a priority. Maintain safety and security in pedestrian spaces. Minimizing criminal acts that might occur to pedestrians in public spaces, as well as preventing accidents that could potentially occur to pedestrians. Some of the physical to support safe elements are: speed regulation, intersection, lighting, bollards, signals, driveways density, pedestrian refuges, sidewalk extensions, and curb.

1 SPEED REGULATION

Setting and limiting the speed of vehicles in each road lane can help facilitate safe walking for most people. Vehicle speed is related to the stopping distance, the breadth of view, and the level of injury that can be caused by it.



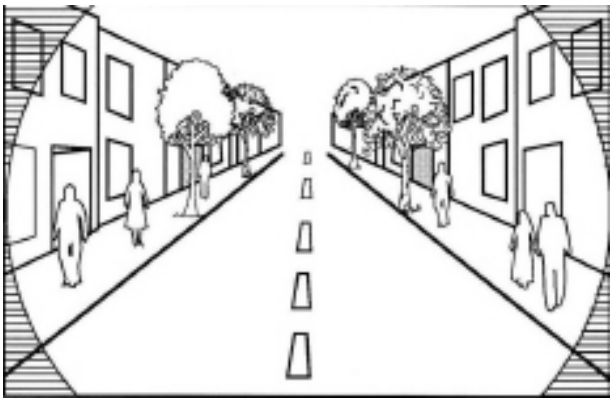
Stopping distance and vehicle speed regulation

From the picture above, it is explained that a car traveling at a speed of 30 km/h if it stops the vehicle suddenly, then the car will be able to stop at 5 meters from the point the driver stepped on the brake.

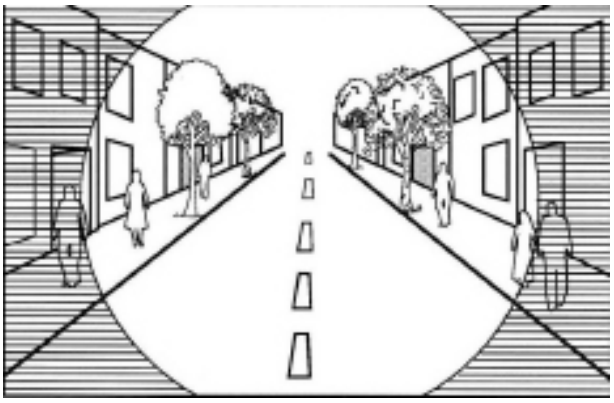
If the car driven at a speed of 40 km/h wants to stop suddenly, then the new car can stop 18 meters afterwards. And if the driver of the vehicle carrying the vehicle at a speed of 50 km/h wants to stop suddenly, then the new vehicle will be able to stop after 25 meters.

From several other studies (Pasanen 1993, DETR 1998, Rosen and Sanders 2009, and Tefft 2011) show that there is a relationship between vehicle speed and pedestrian death risk in urban areas in developed cities. Vehicles traveling less than 20 km/h can cause 0-1% risk of pedestrian death. While vehicles with speeds of 40 km/h can cause a 25% risk of pedestrian death. While the risk of death is biased to 60% when people are run over by a vehicle that runs 50 km/hour. Above 70km/h, the risk of death increases to 100%.

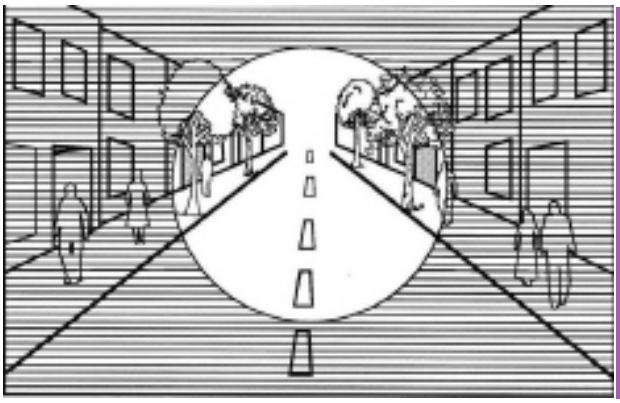
The pictures below illustrate the relationship between the speed of the car and the broad view of the driver of the car. The faster the car, the wider the narrow view. Therefore, the more invisible the activities of people in the walking room which further increases the risk of accidents



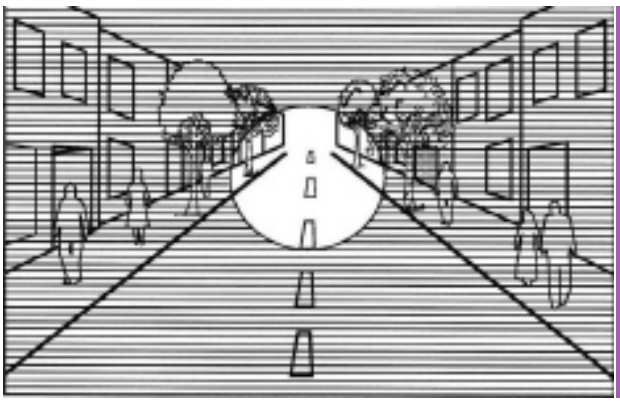
Vehicle Visibility at 20 kmph



Vehicle Visibility at 30 kmph



Vehicle Visibility at 40 kmph



Vehicle Visibility at 50 kmph

2 LIGHTING

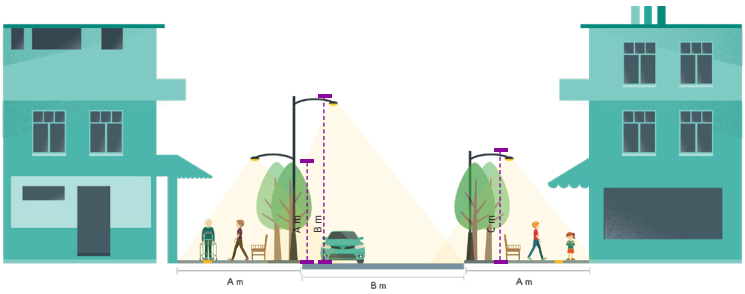
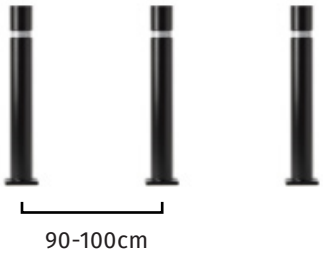


Illustration of lighting in pedestrian area

Lighting is one of the important elements that creates security in road space. Besides suppressing the possibility of criminal acts, lighting is also able to turn on the pedestrian lane and make pedestrians visible at night.

Lamps on the pedestrian lane must be able to ensure the level of lighting (lumen) is in accordance with the designation of the area. In commercial areas, lighting should be brighter and in residential areas made bright enough to prevent dark spots. Physical facilities of lighting facilities are attempted not to interfere with the free space to walk or not to disturb the guiding tiles.

3 BOLLARDS



Examples of bollard in Amsterdam

Installation of bollards can improve pedestrian safety and security. By installing a bollard, it will reduce the risk of injury that can befall pedestrians on the sidewalk due to the negligence of the driver of the motorized vehicle or the pedestrian negligence itself. The existence of bollard can also reduce the entry of a number of vehicles onto the sidewalk and prevent damage to sidewalk surfaces and other street furniture.

Bollard can be installed in a conflict room or a meeting between pedestrians and motorized vehicles such as vehicle access to the building (driveway), intersection, and crossing. Bollards placement should not interfere with pedestrian space in general, guide tiles and bicycle lanes. Bollard has various types and shapes. Generally the bollard is in the form of a pole with a height of 1 meter, besides that there is also a bollard pole which is shorter, or spherical, or equipped with other markers, etc. The selection of bollard forms can be discussed based on the location of the laying and its uses.

The distance between bollards with one another is 90-100 cm. This adjusts the space requirements of wheelchair users, namely 75-80cm or also people with luggage that requires space of 75-90cm.

4 DRIVEWAY DENSITY

Continuous sidewalk on driveway area - Honolulu

Elements that can increase the safety and safety points of pedestrians on the sidewalk are the limits of the density and/or number of driveways. Vehicle access as intended by the driveway is ramps that stretch to the entrance of the vehicle into the building which cuts people's walking paths. This access can be connected with off-street parking activities or also with loading and unloading activities.

Along with regional arrangement, the driveway density should also be regulated. Density that is proper according to the TOD Standard 3.0 ITDP is 2 or less per 100 meter face block.

5 PEDESTRIAN REFUGE

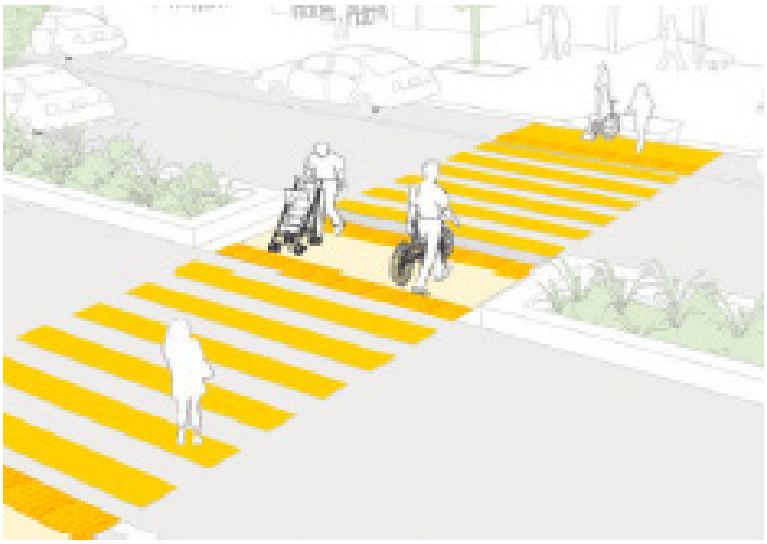


Illustration of pedestrian refuge

Crossing islands are provided for crossing people through more than two lanes of vehicle traffic or in conditions where vehicle speed and volume do not allow pedestrians to do single-stage crossing. The features of the crossing island are as follows:

Pedestrian refuge island - Hongkong

a Pedestrian Refuge Islands

The design is equipped with a marker and enough space for people to wait before crossing the road. Can be added signals or marker lights, bollard, or curb if needed in accordance with traffic conditions. The crossing island must be clearly visible both in the afternoon and at night. Ideally this space length is 10-12 meters with a width of 1.8-2.4 meters so that it can create a safe crossing waiting room.

Median tips - New York

b Median Tips

The crossing island at each intersection should have a tip which is an extension of the crossing room. This means to give a broad impression on the pedestrian area and crossing the road. The median tips must be parallel to the pedestrian lane so that passing vehicles reduce their speed and make the crossing lane clear. This is also useful for protecting pedestrians while waiting to cross the road.

Median cut-through - Nagoya

b Median Cut Through

In mid-block crossings where the traffic conditions are quite high, a median cut-through can be used. Its dimensions are like the dimensions of a crossing island and its location follows the laying of a mid-block crossing. When installed on a road where a vehicle is traveling at speeds above 30 km/h, signals and markers can be added

5 SIDEWALK EXTENSION

Sidewalk extensions can reduce crossing distances and increase the level of security for people walking. Physically, sidewalk extensions narrow the road section for motorized vehicles and expand the waiting room for pedestrians and mix elements of street furniture, such as park benches, trees, transit places, and street lights. Sidewalk extensions can be classified into three parts, namely:

a Corner Aligments

Corner alignments expand the pedestrian area at the intersection by designing a smaller intersection radius. By reducing the intersection radius, it will increase the visibility of people walking. In addition, this condition also forces motor vehicles to slow down when turning. With this approach, the walking space is wider, the crossing distance is shorter, and more continuous.

b Bulb-Outs

Bulb-outs aims to expand pedestrian space adjacent to the on-street parking area. This type can be installed in locations that coincide with the existence of on-street parking. This design can have an impact on increasing visibility of people walking due to reduced vehicle speed, reducing crossing distances, and providing extra waiting space, and can be used for space for adding road accessories and landscaping such as benches and plants.

The dimensions adjust the existing road space to the width of the sidewalk. This type of design is also included in the traffic calming strategy.

b Slip Lane Removal

Slip lane removal is an extension of the pedestrian space that occupy vehicle space and traffic islands at the intersection. Usually, this condition is used at the main intersection and has the potential to harm pedestrian security. This can reduce the level of risk of accidents at intersections where the existing conditions provide the opportunity for the vehicle to turn left directly. By utilizing or eliminating the left turn space, it will reduce conflicts between motorized vehicle users and crossing pedestrians.

The spaces that are removed can be used as additional waiting rooms when going to cross, where road accessories, or also landscape elements.

6 CURBS

This road element is used to make physical boundaries between sidewalks with bicycle lanes or also with motorized lanes. Directly, the existence of curbs prevents motorized vehicles from occupying sidewalk space or even just entering it. Curb is also used as access to drain water on the road.

The recommended curb does not have a height of more than 15 cm. The proper installation of the curb is adjusted to the crossing so that it can be accessed by everyone.

Kerb at Frankfurt, Germany

5.2.3 COMFORT

Comfortable pedestrian facilities means making pedestrian passages pleasant and can give an impression. In realizing a sense of comfort, walking space will involve the five human senses. Comfortable walking space can be a supporting factor that creates more people to walk. Comfortability contribute to the creation of a more pleasant walking experience in the city so someone wants to walk longer or even further. Some elements that support the creation of comfortable sidewalks are shades/ shelters, trees/plants/landscape, visually active frontage, permeable frontage, small blocks, seating, waste bins, and placemaking.

1 SHADES AND SHELTER

Installation of shade facilities can increase comfort when walking. Shade facilities can be either artificial or natural shade that serves as a protection from weather such as rain or the hot sun in urban area. This component includes trees, a canopy, or also the roof of a building. A road space can also be classified as having a shade if at the most blazing hours the walking space is covered in the shadow of the surrounding buildings (meaning pedestrians are not exposed to sunlight) in full.

Pedestrian shades at Kuala Lumpur, Malaysia

2 VISUALLY ACTIVE FRONTAGE

The face of the building is the side of the building that directly adjacent to the pedestrian space. Visually, the face of the building is called active if there is a minimum of 20% of the surface area of the building that is one level with pedestrians in the form of transparent walls, or windows, or rolling door shops which when the activity hours walk open or at least can be seen by walking people. The addition of the exterior of buildings seen by passive pedestrians on the side of the building (dead walls) can be called an attempt to activate the facade of the building.

By creating a visually active building face, it can increase the comfort and safety of people walking outside the building. Without realizing it, the face of an active building can have an important role in maintaining one's mood while walking and creating a pleasant walking experience. Activities in buildings such as shops or restaurants that have an active building face can divert a person's tiredness or fatigue while walking so that someone can walk longer or farther.

Besides being able to increase comfort while walking, this active frontage design can also increase security points in running space. The existence of activities and people in the building can make the road space also become active and more alive so as to minimize the possibility of criminal acts.

On a regional scale, the area that has more than 90% of the face of an active building has the highest value to achieve the creation of a good TOD area. Conversely, if less than 50% of the face of the building is active in the area, then the area has the lowest value or is classified as an area that does not support walking activities.

Visually Active Frontage at Karawaci, Indonesia

Visually Active Frontage at Guangzhou, China

3 PERMEABLE FRONTAGE

Permeable frontage is direct access to buildings from the face of buildings directly adjacent to the pedestrian space. The assessment can be done by calculating the amount of access for pedestrian to the building every 100 meters.

Permeable frontage includes the access to shops, restaurants and cafes, pedestrian access to the park, and all access to buildings specifically for pedestrians. The value of the region will be determined by the average amount of accesses per 100 meters. The area will have the highest value if the average entrance access per 100 meters is 5 or more and has the lowest value if the average entry access is less than 3 per 100 meters

Street with visually active and permeable frontage at Amsterdam, The Netherlands

4 SMALL BLOCKS

Regions that have small building blocks will make it easy to move from one road to another for pedestrians. The existence of small building blocks will shorten the distance of travel that must be taken by someone while providing a choice of shortcuts for pedestrians.

Buildings that are 150 meters long or more are classified as large building blocks that are less comfortable for pedestrians. The length of the building that is less than 110 meters is included in the small building block which in the creation of the TOD area has the highest value. 'Cutting' blocks that are too large can be done by adding pedestrian-specific access that is open to the public for at least 15 hours a day. This pedestrian-specific designation aims to give access that crosses the building to reach another road adjacent to the building without having to walk around the building by the pedestrian.

Small blocks at Guangzhou, China

5 SEATINGS

Benches on a sidewalk at Chengdu, China

Provision of benches is made to facilitate pedestrians to sit or rest for some time. The addition of these elements can increase comfort on the sidewalk. This type of benches can vary, either with the backrest or not. Comfort can also be improved by providing sufficient legroom and not disturbing pedestrian free space of at least 1.5 meters. The placement of the bench can be adjusted according to the conditions and width of each sidewalk. Some things to consider when putting a bench are as follows:

- It is placed outside the pedestrian free space with a minimum width of 1.5 meters.
- Not placed on access to and out of buildings.
- Not placed above, or too tight, or disturbing the guide tiles.
- Priority is placed adjacent to the area that invites a lot of human activities such as parks, playgrounds, sports facilities, kiosks, and other commercial facilities.
- If placed facing the building, the distance is at least 100 cm from the curb.
- If placed facing outward (towards the road), then a minimum distance of 200 cm from the curb.
- The distance between the benches adjusts the land use and / or building activities around.
- If it is close to public areas with high walking activities, it can be placed every 20 meters or less.

6 TREE/PLANT/LANDSCAPE

Trees on a sidewalk at Budapest, Hungary

Addition of trees, plants, or other landscape elements to pedestrian facilities not only serves as shade, but is also useful for creating a pleasant atmosphere on the sidewalk. He can also contribute to the creation of character or also regional identity. More broadly, these elements can control weather or even climate, improve air conditions, filter pollutants, and have an impact on human physical health.

Some things to consider in laying out landscape elements on the sidewalk are:

- Types of trees or plants to be used
- Volume of land available under pavement
- Spacing between trees
- Space for landscape elements is not in the middle of walking space and it is recommended that a straight line on the buffer side be given a distance from the curb
- The depth of planting of each tree is adjusted to the type of root and the period of tree growth
- You can install tree gates that still allow perfect water absorption into the soil

7 WASTE BINS

Waste bin on a sidewalk at Macau

Cleanliness is one of the comfort criteria in the pedestrian facilities provided. Sidewalks that are clean and free of bad odors, can encourage the creation of a good walking climate. One way to realize cleanliness in walking space, it is necessary to provide trash bins. Placement of trash can be based on the location of landfills such as in commercial and public spaces.

Some other things that need to be considered in the provision of bins are:

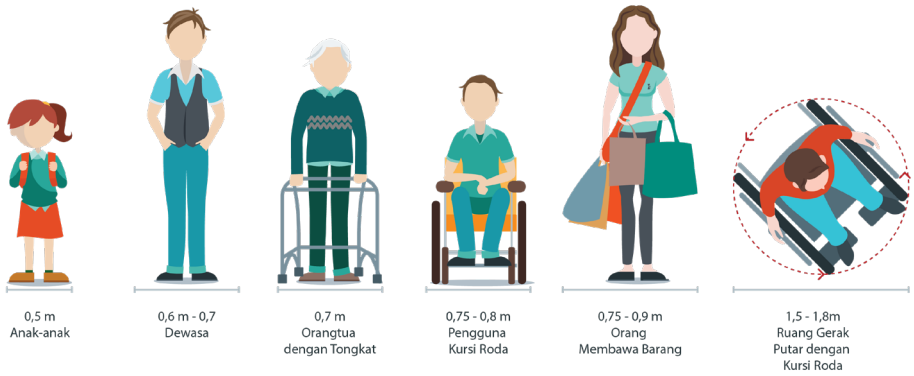
- The distance between trash cans is at least 20 meters
- The placement does not interfere with free space on foot
- It is recommended to be put together in the utility room in a straight line
- Available at intersections and adjacent to crossing locations

The design and dimensions of the bin can adjust to the character of the area or other preferences. Furthermore, the provision of trash cans must also execute by good management of regional waste to actualize a clean and comfortable walking space

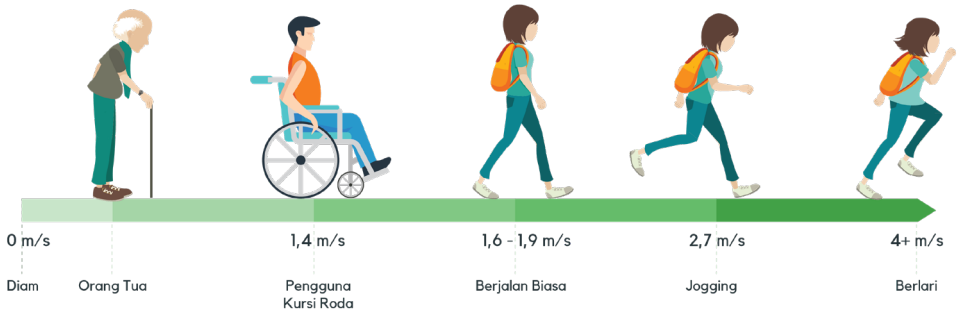
5.2.4 HUMANISTIC

Humanistic means to realize pedestrian access that can be used by all people and all ages and genders. These include men, women, people with disabilities, children, and parents. Some supporting elements from humanists include tactile, wayfinding, signage and ramp. The provision of humanist pedestrian space also means the availability of sufficiently wide space that accommodates a variety of users on the sidewalk.

The space requirements for various types of pedestrians are as follows:



Or the minimum width can be defined as 1.5-1.8 meters based on the need for space for adults and one room to overtake because the speed of walking of different people. In general, the speed of people walking is as follows:



1 TACTILE

Guiding tiles (tactile paving) are installed above the sidewalk surface to provide a marker for people with limited vision. There are two types of tiles, each of which has a different function. The first type is tiles with line markers, and the other types are tiles with dot markers.

Tiles with a pattern arising lines indicate that people can continue to follow the next guide tile and tiles with a pattern appear to indicate a warning so that people who cross stop briefly or be careful because they will enter the conflict area (pedestrian meeting area with vehicles motorized). The guide tiles themselves usually have different colors or materials, so people are aware of the special pathway for those with disabilities.

Sidewalks with tactile paving at Shanghai, China

The installation of guide tiles between line patterns and points pay attention to the following conditions:

- Before the inrit (vehicle entry access), the pattern will set to dots. When inrit, followed by a line pattern, and after inrit ends with a dot pattern.
- On the ramp and crossing or conflict area which is forced to break the direction tile, it is indicated by a point pattern and ‘captured 'again with a dot pattern before proceeding with a line pattern.
- Guide tiles must be installed free from obstacles and/or interference
- Tactile must also be minimal from defections that are not too important

2 WAYFINDING

Good walking facilities are also able to provide sufficient information for anyone who passes it. Wayfinding can directly provide information for pedestrians regarding multi-modal transit information. Not only that, wayfinding installation can help provide direction orientation where a person is located and directions regarding the nearest station or other public facilities location. Wayfinding can be either a thin board or a board with electrical installations and lights.

By installing the wayfinding, someone will feel more comfortable and secure because they know their current position along with information on the location around it. In addition, a person can also know the distance to be traveled to and/or from the nearest transit point.

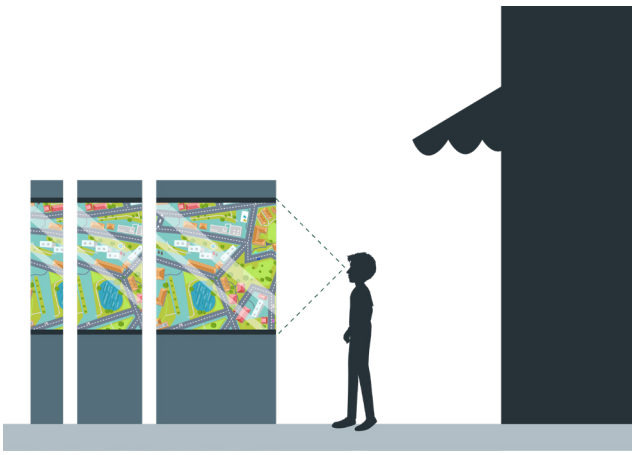


Illustration of wayfinding visibility

Wayfinding installation is recommended to be placed in strategic locations such as stops, stations, public open spaces, and commercial areas. Next, the installation is done every time it takes 5-10 minutes from and to that location. In other placement recommendations, wayfinding can also be installed adjacent to a large intersection to provide directional orientation when walking after the intersection. The installation distance at the intersection is 8-10 meters from the intersection. Can be placed on both sides or one of them, adjusts to the needs and uses of the area's land.

Wayfinding at Frankfurt

The shape and size of the wayfinding can be varied according to the size of the body of the local community. This must be done so that the information available can be captured by the eye. The type and size of letters found in wayfinding must also be clearly legible. The choice of language, graphic design, and maps that are informed must be universally understood because people who will access can be local communities, workers, commuters, and tourists. In a better design, a good wayfinding can accommodate the needs of blind people by providing information in braille that is placed in strategic places such as shelters, stations and commercial areas.

Wayfinding at Bandung

3 SIGNAGE

Signposts or markers can be divided into two, namely signpost for motorists and signposts for pedestrians. Signposts for vehicles have a height that is different from the height of the sign intended for pedestrians. Pedestrian signs are installed at the height of the eye range ranging from 2-3 meters. While signposts for vehicles are placed higher so that from a distance the motorist can see the information addressed to him clearly, the height of this sign refers to the standard.

Signage positioning at Frankfurt

Placement of information boards is placed outside the pedestrian-free space. It is recommended to be placed in the utility room and/or buffer. The choice of location is based on the needs or conditions of each road space.

4 RAMP

Sidewalk ramp at Tokyo

Ramp provision is carried out to facilitate persons with disabilities who use wheelchairs or other walking aids. Installation of the ramp is done in a walking room that has a height difference at one point. The three ramp elements are:

- **Slope**, the selection of material in this area must be anti-slip and the recommended slope ratio is 1:12 or equal to 8%. The width of the ramp is at least the same as the minimum width of free space that is 1.5-1.8 meters or recommended to have a width of 2-2.4 meters.
- **Top landing**, on the upper side of the slope. The minimum width of this area is equal to the width of the slope or equal to the width of the free space that is 1.5-1.8 meters.
- **Side flares**, are wings on both sides of the slope which is added to prevent danger from tripping when a person with disability maneuvers on the ramp. The ramp can also be matched with tactile. This area cannot be more than 1:10.

DESIGN GUIDELINE

6

6.1 DESIGN TYPE

6.1.1 DESIGN A

EXISTING CONDITION

The width of the road is less than or equal to 3 meters. Majority of land use function as commercial or tourism destination.

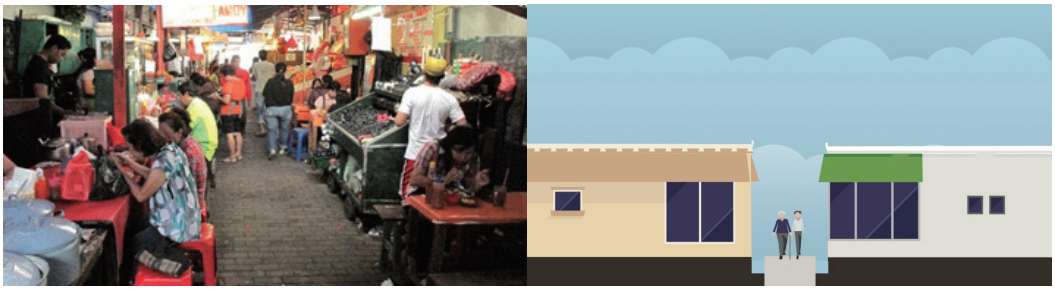
ROAD SAMPLE

Gang Gloria, Glodok

DESIGN PLAN

Roads with these characteristics should be designed only for pedestrians. Pedestrian activity can generate regional economic and increase safety in the area.

Existing



Design Plan

6.1.2 DESIGN B

EXISTING CONDITION

The width of the road is less or equal to 3 meter. Majority of land use function as housing.

ROAD SAMPLE

H. Noim street, Ragunan

DESIGN PLAN

On small roads with residential land use as majority, it is recommended that the design that creates shared street to share space between pedestrians and bicycles. Motorcycle use is limited only by homeowners on the road. Treatment for pedestrian safety can be by adding speed bump or also the application of rules of the vehicle that should not be driven when crossing.

Existing

Design Plan

6.1.3 DESIGN C

EXISTING CONDITION

width of the road 3-3.5 meter. Majority of land use function as comercial activity

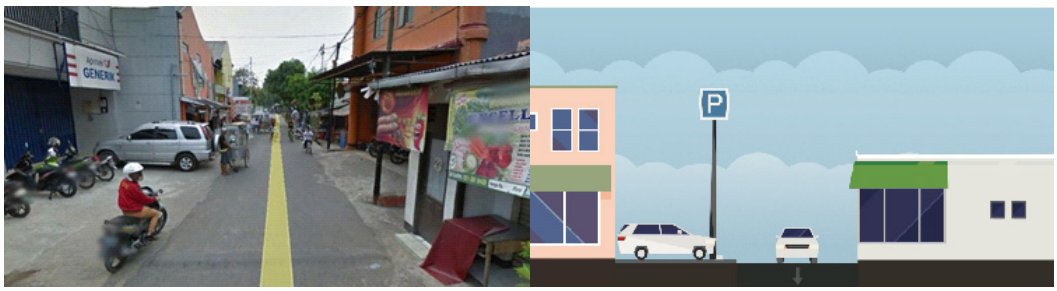
ROAD SAMPLE

H. Ridi street, Ciledug

DESIGN PLAN

On a 4 meter wide road that has active commercial activity on its right and left, it is advisable to apply a shared street that allows pedestrians to remain safe despite sharing space both on a bicycle and a motorcycle. The use of the speed bump is also recommended for this type.

Existing



Design Plan

6.1.4 DESIGN D

EXISTING CONDITION

width of the road 3-3.5 meter. Majority of land use function as housing.

ROAD SAMPLE

Way Seputih street, Tanjung Duren.

DESIGN PLAN

On a residential road with a width of 5 meters, it can be directed to become a road together with a given speed bump and can be traversed limited by the car. Roads like this are not recommended to use asphalt material which gives priority to motorized vehicles. Enforcement of one-way roads, can be arranged on a small site or more larger sites.

Existing

Design Plan

6.1.5 DESIGN E

EXISTING CONDITION

width of the road 5.5-10 meter. Majority of land use function as housing.

ROAD SAMPLE

Bangka street

DESIGN PLAN

Design plan for neighborhood road with 5.5-10 meter width road can be implemented through three alternative design:

Existing

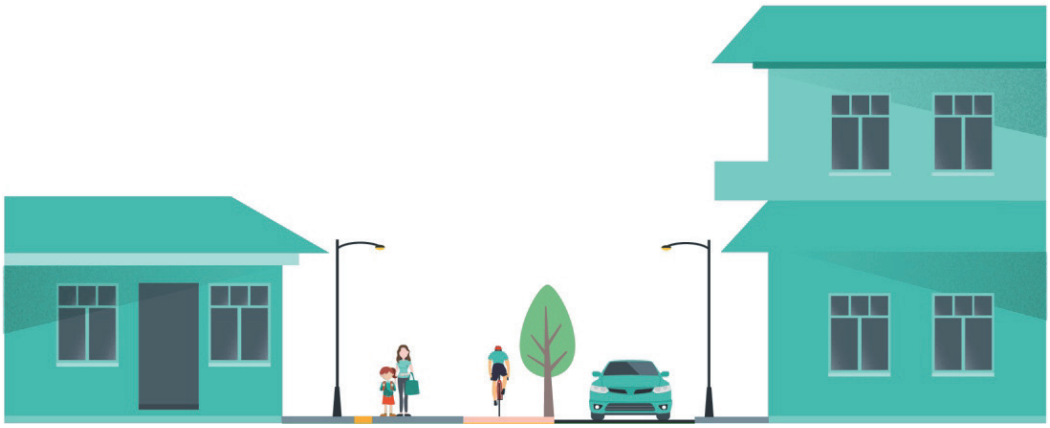
1

First Alternative

Separate road space to road for the vehicle (can be covered by asphalt) and space for walkways for pedestrians on the one side of the road.

2

Second Alternative



Road space can be divided into spaces for vehicles, bicycle spaces, and space for pedestrians. Vehicle space is separated from the path of cyclists and pedestrians. While the bicycle space can be as high as the sidewalk or as high as the road that is given a physical barrier to the vehicle lane and also a physical barrier or markers towards the pedestrian path. At least 6 meters of road space can only be selected using this design.

3

Third Alternative

In this design, road space can be grouped for vehicle and pedestrian on the both side of the road.

The reason for providing access to pedestrians and bicycle lanes on roads located in residential areas designated for spaces that are not intended for vehicles can be used as a social space for local residents while providing added value to the area both socially, environmentally, healthily, economically, and even recreational functions.

Providing vehicle access in the form of one lane and one direction can be developed to scale one area so that the calculation of vehicles going in and out of the area can be monitored.

6.1.6 DESIGN F

EXISTING CONDITION

width of the road 5.5-10 meter. Majority of land use function as commercial or mixed use.

ROAD SAMPLE

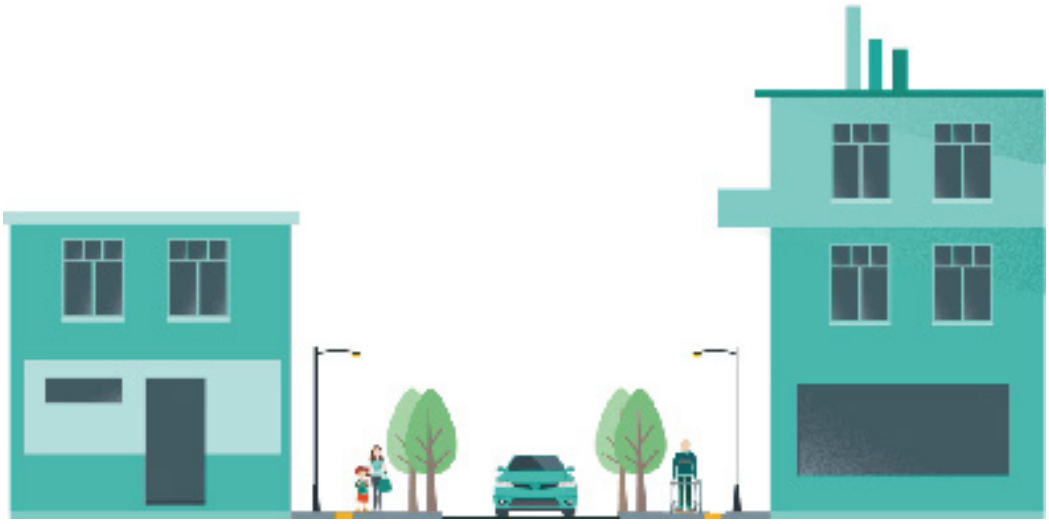
Palmerah Selatan Street.

DESIGN PLAN

Design plan for neighborhood road with 5.5-10 meter which has commercial uses on the both side of the road width road can be implemented through three alternative design:

Existing

1
First Alternative

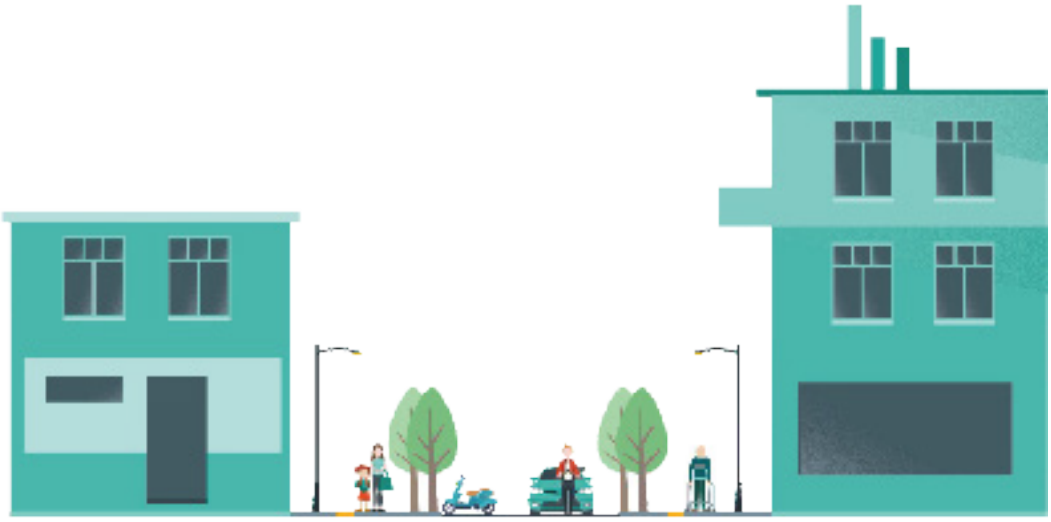


Allocate 1 road lane and walkways on the both side of the road. Walkways and vehicle road separated with clear distinction.

2

Second Alternative

ads with a width of at least 9 meters can use this design. The lane of the vehicle is placed in the middle then followed by the laying of bicycle lanes on both sides and also the sidewalk. The bicycle lane is given a physical limit to the vehicle lane and can be provided with physical barriers or markers on the sidewalk.



3

Third Alternative

Roads with a minimum width of 8 meters can be allocated for parking spaces on the road body which is 2 meters wide. Sidewalks on both sides can also be placed side by side with the face of the building.

Prioritizing pedestrians on roads where the majority of buildings have commercial activities capable of increasing regional economic activity. People find it easier to shop and go in and out of shop buildings or restaurants. In addition, people also get added value in the form of security values when walking.

6.1.7 DESIGN G

EXISTING CONDITION

width of the road 7.5 - 10 meters. Majority of land use function as mixed use.

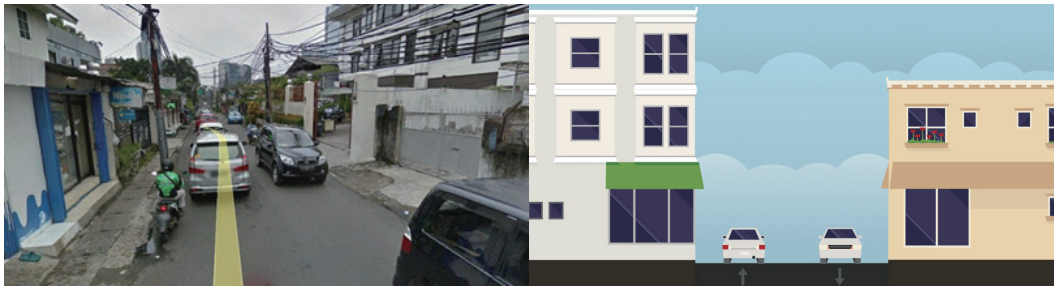
ROAD SAMPLE

Karet Pedurenan street.

DESIGN PLAN

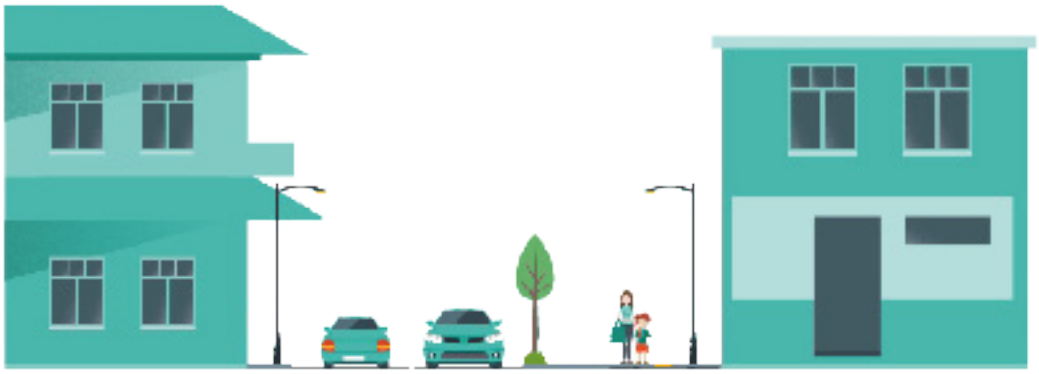
On roads with a width of 7.5-10 meters with the use of mixed land and having a high volume of traffic, an approach can be made with the following two designs:

Existing



1

First Alternative



Accommodate two directions each one lane of the vehicle. Added to this road are sidewalk facilities on one side of the road. Accommodate two directions each one lane of the vehicle. Added to this road are sidewalk facilities on one side of the road.

2

Second Alternative

On wider roads such as 8.5 or 9 meters, you can start with two design alternatives that place two-way vehicle lanes and are given sidewalks on both sides of the building.

Prioritizing pedestrians on roads where the majority of buildings have commercial activities capable of increasing regional economic activity. People find it easier to shop and go in and out of shop buildings or restaurants. In addition, people also get added value in the form of security values when walking.

6.1.8 DESIGN H

EXISTING CONDITION

width of the road 10-15 meter. Majority of land use function as mixed use.

ROAD SAMPLE

Cemara street, Menteng.

DESIGN PLAN

There are three alternative designs that can be selected or combined on roads with a width of 10-15 meters:

Existing

1
First Alternative

Roads with a width of 10 meters can be allocated for 2-way road space for vehicles and sidewalks on both sides. Next to the road that is getting wider, a wider addition is made to the sidewalk. If the free space on the sidewalk is 2 meters, then you can add street furniture similar to a bench on one side. Additions can be made on the road with a width of 14 meters or on a road of 15 meters, in the sidewalk space on both sides can be added.

2

Second Alternative

The second design provides additional bicycle lanes that can be placed on both sides starting on roads with a minimum width of 11 meters.

3

Third Alternative

On roads with a minimum width of 12 meters in an area that has commercial land use, you can add space for the parking area on the road on one side only.

As previous alternatives, the placement of road space in the suggested design can be developed with a combination that can be included in one road segment. Placement can be done based on the width and activity of the building.

6.1.9 DESIGN I

EXISTING CONDITION

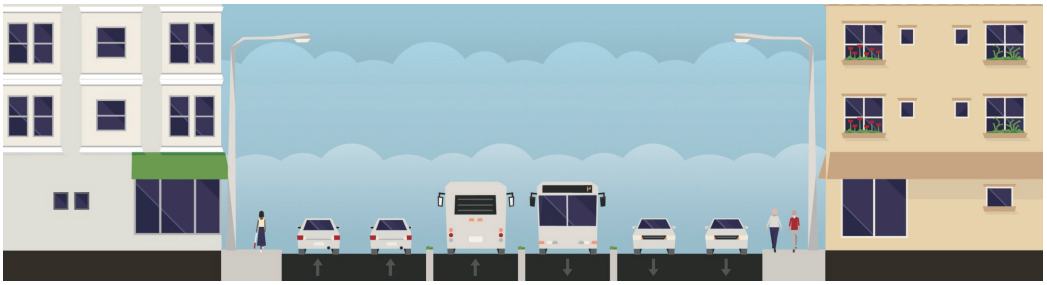
width of the road 18 - 25 meters. Majority of land use function as mixed use and has public transport.

ROAD SAMPLE

Mampang Prapatan street

DESIGN PLAN

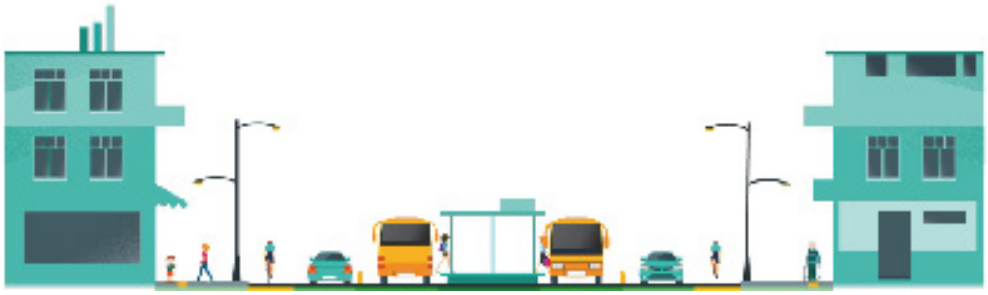
A road with 18-25 meters that already has a special route for public transportation, can be carried out three design approaches as follows:



Existing

1
First Alternative

In a road space that has a bus stop in the center, a vehicle lane next to it can be followed by pedestrian walkways.



2

Second Alternative

On road sections with bus stops in the middle and wider, 1.5 meters of each bicycle lane can be added on both sides. On both sides of the road it can be placed sidewalks with a minimum width of 2 meters free of interference.

3

Third Alternative

On the part of the road that does not have a bus stop but is still passed by a special bus lane, it can be given two-way vehicle lanes of two lanes each.

6.1.10 DESIGN J

EXISTING CONDITION

width of the road 15-25 meter. Majority of land use function as mixed use.

ROAD SAMPLE

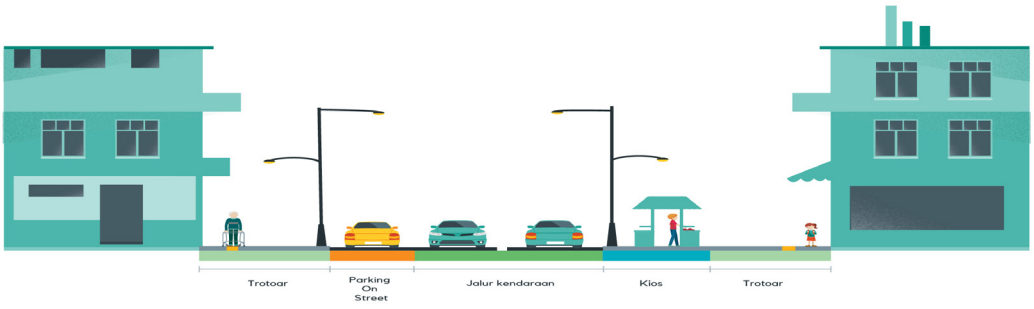
Bulevar Barat street, Kelapa Gading

DESIGN PLAN

On roads with a width of 15-25 meters with mixed land use, the following four designs can be used:

Existing

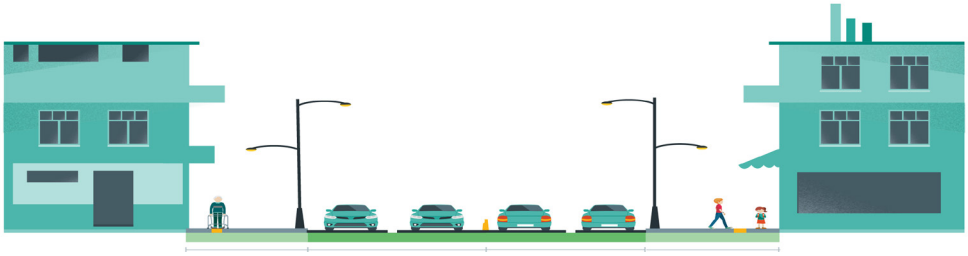
1
First Alternative



Provide two lanes of two-way vehicles and parking spaces for vehicles on the road on one side. Then the remaining space can be used to place wide sidewalks on both sides. If there is a minimum of 2 meters of free space, shops or street furniture can be placed in the sidewalk space

2

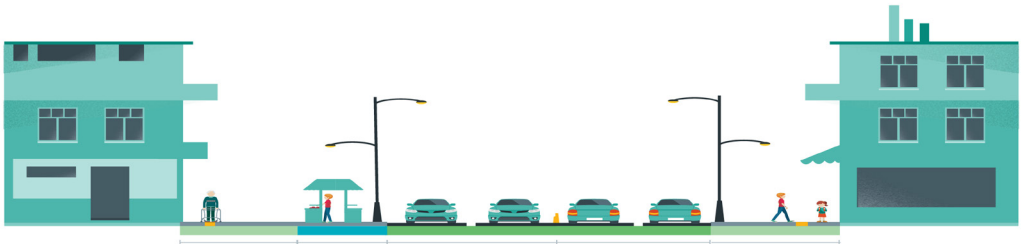
Second Alternative



On roads with a minimum width of 16 meters, 2 directions of vehicles can be placed each with 2 lanes which also have sidewalks on both sides.

3

Third Alternative



The width of the road with a minimum of 18 meters can be added to a shop on one side, provided that the store width varies between 1 meter - 2 meters. Free sidewalk space can also be allocated with a minimum width of 2 meters.

4

Fourth Alternative

In a room with a minimum width of 20 meters, you can also add parking on the body of the road on one side.

6.1.11 DESIGN K

EXISTING CONDITION

width of the wider than 25 meter. Majority of land use function as mixed use and has public transportation.

ROAD SAMPLE

Perintis Kemerdekaan street.

DESIGN PLAN

On roads of this type, it is recommended to construct the complete street which means that it accommodates all road users, all ages, and all abilities on the road. Roads of this type have sidewalk components, bicycle lanes, bus lanes, vehicle lanes, and if necessary parking spaces can be added on both sides of the road. While the combination can be adjusted to the function of the building adjacent to the pedestrian space. The wider the road space, the priority is given to the width of the sidewalk first and then it can be followed by bicycle lanes, bus special lanes, and so on. Addition of sidewalk width can also be followed by adding plants, benches, kiosks, and so on.

Existing

Design Plan

6.1.12 DESIGN L

EXISTING CONDITION

Road is located on the side of the river

ROAD SAMPLE

Sunter Karya Utara 1 street

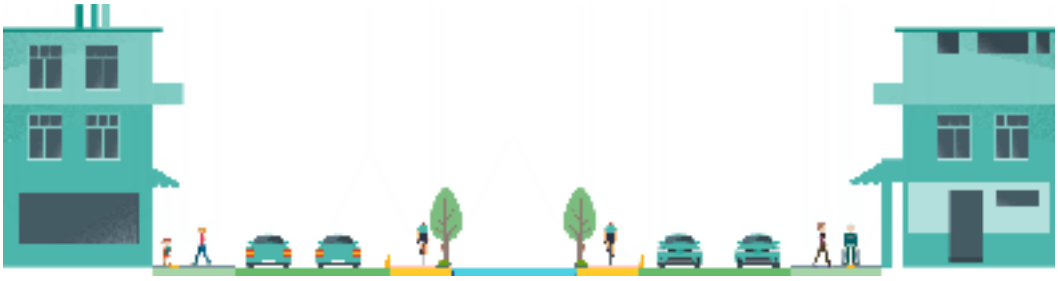
DESIGN PLAN

In some roads that have rivers or water bodies in the middle of the road space, several design approaches can be carried out below:

Existing

1

First Alternative



Provide two lanes of two-way vehicles and parking spaces for vehicles on the road on one side. Then the remaining space can be used to place wide sidewalks on both sides. If there is a minimum of 2 meters of free space, shops or street furniture can be placed in the sidewalk space

2

Second Alternative

On roads with a minimum width of 16 meters, 2 directions of vehicles can be placed each with 2 lanes which also have sidewalks on both sides.

3

Third Alternative

If there are conditions that cannot make the sidewalk side by side with the building, then pedestrian space can be added in the middle adjacent to the water body, bicycle lane and park.

6.2 MARKETPLACE

It is undeniable that the laying of shops on the street and also street vendors (PKL) in pedestrian spaces is often debated. Some support the existence of this business actor, and some others are against it. Not only in Indonesia, it is easy to find views of people who use the road space to run their businesses because of economic motives. Some shop buildings or restaurants were found to expand the area of selling their goods or services to the sidewalk or in front of their buildings. There are also small shops or trade carts or just trade stalls scattered in various corners of the city. Some are mobile, some are temporary stalls, and some are semi-permanent (some cases have even turned into permanent buildings).

By doing additional shops or trade stalls on the sidewalk or also widening the activities of shops and restaurants into a walking room that can add activity on the sidewalk. This business actor can be an active driver of road space. Stalls or other trade stalls, can be a tool to activate the passive facade of the building. Increased activity in the road space will simultaneously increase security in the walking space which was previously passive (or even dormant). On the other hand, the presence of pedestrians also increases economic value for both business and regional actors.

Sidewalk division between marketplace and pedestrian at Amsterdam, The Netherlands

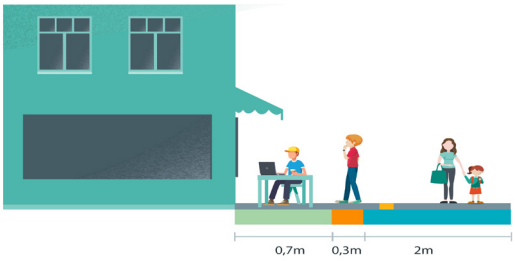
Some things to note when accommodating trading activities on the sidewalk are as follows:

- Sidewalk width (the position of the business actor can be done outside the free walking space which is at least 2 meters)
- The type of business that is permitted
- The amount of space provided for business
- Permission and supervision
- Time of space use or scheduling
- Related regulations or rules
- Complementary activities such as cleanliness, access to electricity, and water

The types of use of space for businesses and their dimensions are as follows:

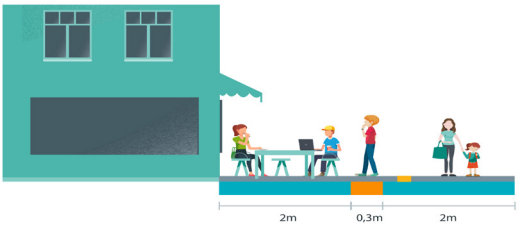
a SIDEWALK CAFE

Some urban sidewalk spaces can also be designed by adding a café or restaurant expansion from existing buildings. With the addition of a café on the ground floor, it can activate the face of the building as well as the area. The space dimension for this type of activity is at least 1 meter and the maximum width of the requirement for this activity is 4 meters. While this activity should not interfere with pedestrians free space with a width of at least 2 meters or can adjust to pedestrian volume.



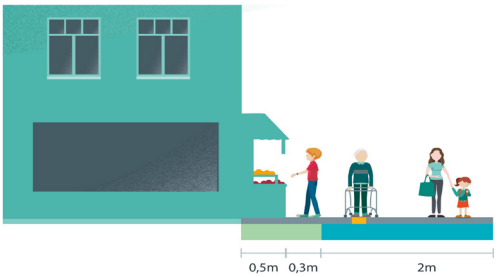
b SHOP SIDEWALK

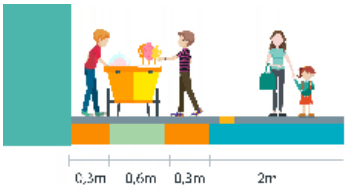
Some stores such as book stores, clothing, or fruit and vegetable shops often use the area in front of their store to place display items or discount items as well as information and promotions. This area is directly related to the area inside the store or right in front of the store building. The area permitted for this store runoff is 0.5 meter for goods and 0.3 meter for lanes of people looking at goods. This can be done if after deducting 0.8 meters, pedestrian free space is still available at least 2 meters or more adjusting to the pedestrian volume.

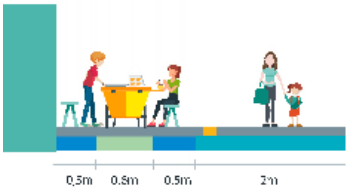


c SMALL SHOP AND CART

Other business spaces that can also be found in sidewalk spaces are carts and small merchant shops. The majority of food traders use carts or small kiosks to sell on the sidewalk. Some provide chairs and some don't. The availability of space for this activity is at least 1.2 meter or a maximum of 2 meter. Provision of space for this activity must still leave room to walk at least 2 meters.

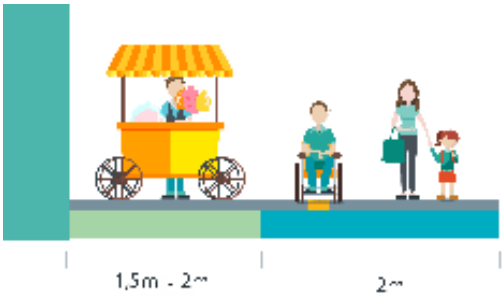






d FOOD TRUCK & MOBILE VENDORS

Some types of businesses that can also be found in Jakarta are traders who use cars or car modification or who are later known as food trucks. In addition to cars, some traders or business people who move places that are also easily found in Jakarta are hawkers, herbalists, drink sellers with bicycles, traveling tailors, and so on. Treatment for mobile sellers, there is no need to provide a special space on the sidewalk. Provision of space for food trucks or traders with cars is done in the on-street parking space that has been provided with restrictions and/ or time management. Another thing that can be done is by providing a special one-line room with on-street parking space can be done. Turning parking spaces into activity spaces can also be referred to as the creation of parklets.



Sidewalk division for marketplace at Frankfurt, Germany

The division of space for businesses is not limited to the physical quantities available, but arrangements can also be made and/or arrangements based on time of use. One same space can be used by 2 to 3 different activities at different times. So setting up the operational time of the business can also be done to complete the division of space for businesses, business licensing, and can also be used to supervise the utilization of business space. This also applies when road space is used for different types of activities at certain times such as Car Free Day (CFD), so business space licensing also follows the need for different activities.


HALTE BANK IND ESIA

RECOMMENDATIONS FOR LOCATION PLAN

7

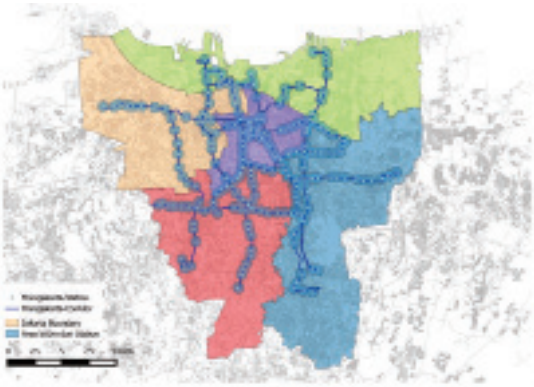
7.1 BASICS OF PLANNING PROCESS

Work on this document is useful for increasing accessibility to and from mass public transportation stations to facilitate passenger first-mile and last mile movements. This means that with recommendations for improvement of pedestrian facilities, it can provide options for people to be able to directly walk after arriving at the destination of the transit location. The focus of improvements in the area around mass transit stations is a priority. The key word in the direction of this plan is connectivity and continuity that play an important role.

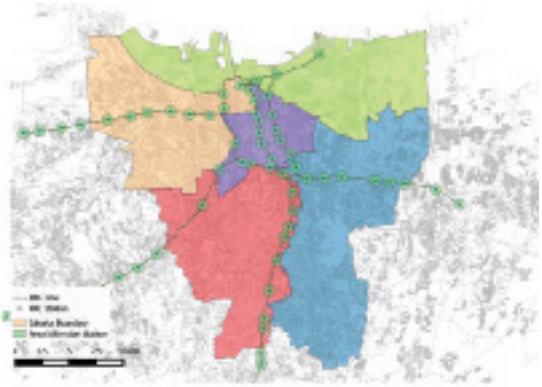
1 Mapping Transit Spot Location

2 500 m Buffer

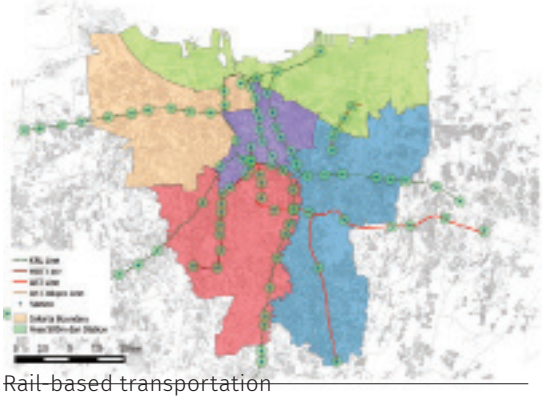
3 Choosing the Path and Area



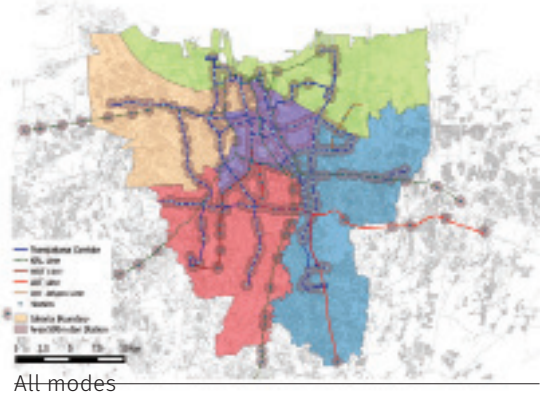
Transjakarta



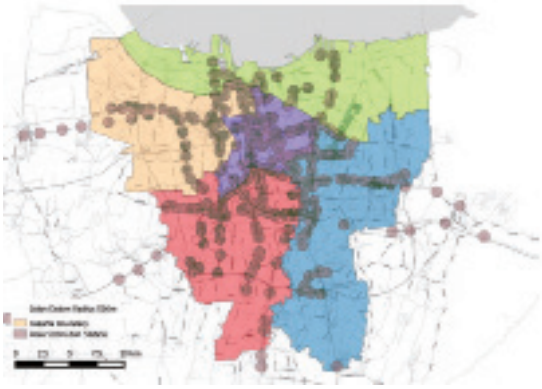
Commuter Line



Rail-based transportation



All modes



Potential spots for development

Central Jakarta

No	Area	Amount	Road Length (km)
1	Cempaka Putih Galur	4	14,1
2	Gunung Sahari	2	6,2
3	Salemba Percetakan Negara	5	15,5
4	Senen	2	5,9
5	Juanda Pasar Baru	2	7,1
6	Petojo Utara	3	9,8
7	Petojo Selatan	3	10,2
8	Medan Merdeka	2	3,9
9	Kebon Sirih	2	6,3
10	Kp Bali Kb Kacang	2	6,6
11	Gondangdia Menteng	3	10,2
12	Cikini	2	7,1
13	Kb Melati Karet Tengsin	1	3,6
14	Karet Tengsin Benhil	2	7,6
15	Gelora	1	3,1
16	Gunung Sahari Selatan	1	3,3
17	Kartini Karanganyar	1	3,3
	Total	**38**	**124,5**

North Jakarta

No	Area	Amount	Road Length(km)
1	Pluit	5	18,1
2	Bandeng Pejagalan	3	10,5
3	Mangga Dua	2	6,4
4	Pademangan Barat	2	7,0
5	Sunter Agung	4	15,1
6	Kelapa Gading	6	18,9
7	Tugu Rawabadak	4	11,8
	Total	**26**	**88,0**

South Jakarta

No	Area	Total (km)
1	Ragunan	6,5
2	Warung Jati Barat	10,2
3	Buncit	4,0
4	Mampang Prapatan	14,9
5	Tendean	5,3
6	Kuningan I	10,3
7	Kuningan II	13,0
8	Manggarai	6,2
9	Sultan Agung	5,9
10	Lebak Bulus	6,6
11	Gandaria	9,3
12	Kebayoran Lama	6,4
13	Simprug	6,4
14	Permata Hijau	5,4

No	Area	Total (km)
15	Cawang Tebet	10,7
16	Smesco	6,9
17	LIPI	5,0
18	Tebet	5,6
19	Duren Kalibata	5,5
20	Pasar Minggu Baru	7,4
21	Pasar Minggu	3,5
22	Tanjung Barat	6,8
23	Lenteng Agung	3,0
24	Taman Puring	6,1
25	Ciledug Raya I	6,5
26	Ciledug Raya II	6,3
27	Trunojoyo	7,5

East Jakarta

No	Area	Total (km)
1	Pulogadung I	9,4
2	Pulogadung II	7,9
3	Cempaka Putih	15,1
4	TU Gas Arion	10,3
5	Pemuda UNJ	7,9
6	Pramuka Raya	11,5
7	Ahmad Yani	10,4
8	Cipinang	20,8
9	Klender	13,9
10	Pondok Kopi	23,0
11	UKI Basura	12,3
12	Otista	13,0
13	UKI PGC	5,8
14	Raya Bogor I	7,8
15	Raya Bogor II	11,1
16	Kp Rambutan	8,3
17	Pinang Ranti	8,2
18	Matraman	7,1
Total		**205,2**

West Jakarta

No	Area	Total (km)
1	Slipi Petemburan	3,3
2	Slipi Kemanggisan	7,5
3	Tomang Central Park	12,6
4	Grogol	11,3
5	Seasons City	6,4
6	Daan Mogot Ciputra	5,9
7	Taman Kota	4,7
8	Plaza Cengkareng	7,1
9	Green Park	8,8
10	Green Garden	5,0
11	Kedoya	7,9
12	Kelapa Dua	14,8
13	Permata Hijau	5,8
Total		**101,6**

Total amount of work

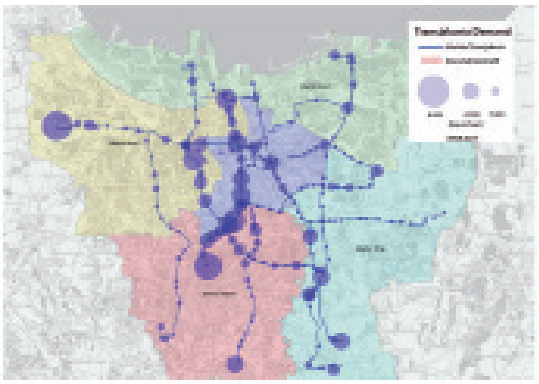
No	Area	Total (km)
1	Jakarta Pusat	124,5
2	Jakarta Utara	88,0
3	Jakarta Selatan	192,5
4	Jakarta Timur	205,3
5	Jakarta Barat	101,7
Total		**712,0**

7.2 DEFINING PRIORITY AREA

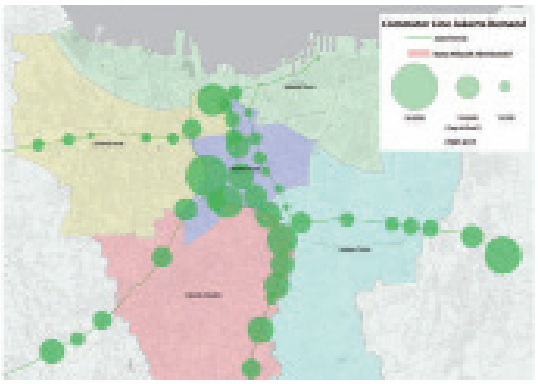
1

By Amount of Passengers

Transjakarta Passengers



Commuter Line Passengers



Top Stations - Amount of Transjakarta daily passengers

Jakarta Pusat		Jakarta Selatan		Jakarta Timur		Jakarta Utara		Jakarta Barat	
Kanet	6.581	Blok M	8.115	Pinang Ranti	5.212	Sunter Kelapa Gading	3.580	Kalideres	8.632
Harmoni	5.458	Ragunan	5.191	Cawang UKI	5.002	Tanjung Priok	3.276	Central Park	6.173
Tosari	5.449	GOR Sumantri	3.591	Kampung Melayu	4.822	Penjaringan	2.482	Grogol 1&2	2.818
Sarinah	4.902	Gatot Subroto Jamsostek	3.414	PGC	4.368	Enggano	2.188	Slipi Kemanggisan	4.011
Senen	4.590	Mampang Prapatan	2.613	Kampung Rambutan	3.745	Walikota Jakarta Utara	651	Sumber Waras	3.999

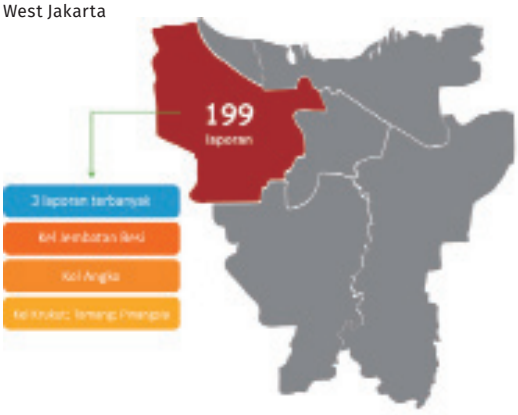
Top Stations - Amount of Commuter Line daily passengers

Jakarta Pusat		Jakarta Selatan		Jakarta Timur		Jakarta Utara		Jakarta Barat	
Tanah Abang	46.195	Tebet	24.721	Jatinegara	11.340	Kampung Bandan	5.503	Jakarta Kota	25.361
Sudirman	26.531	Pasar Minggu	18.183	Klender Baru	6.836			Duri	9.627
Gandaria	17.264	Manggarai	17.451	Klender	5.487			Grogol	4.106
Juanda	14.803	Duren Kalibata	17.198						
Cikini	13.820	Cawang	14.577						

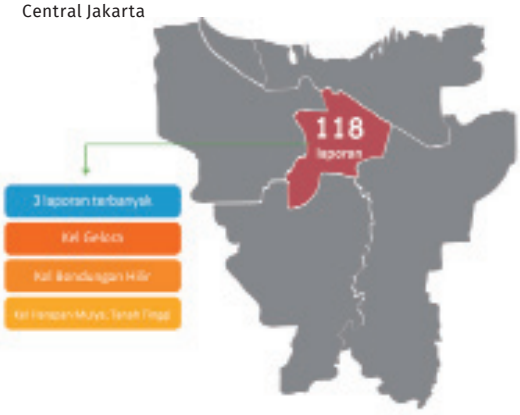
2

Citizens report (QLUE)

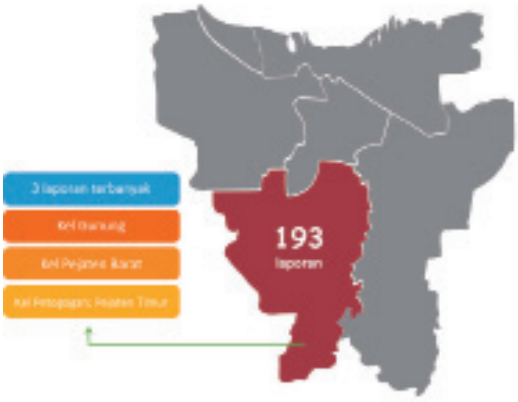
West Jakarta



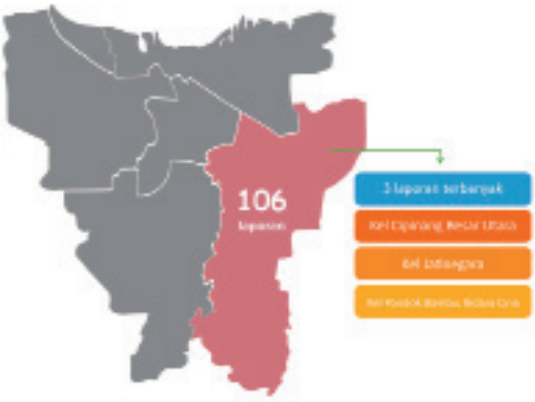
Central Jakarta



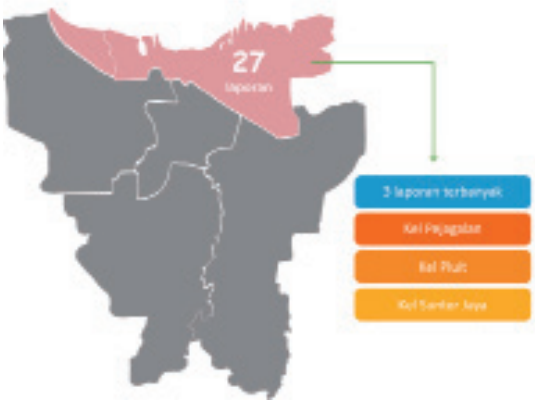
South Jakarta



East Jakarta



North Jakarta



3

Point of Interest

Prioritized Area

No	Area	Total (km)
1	Pulogadung I	9,4
2	TU Gas Arion	10,3
3	Pemuda UNJ	7,9
4	Pramuka Raya	11,5
5	Cipinang	20,8
6	UKI Basura	12,3
7	Otista	13,0
8	UKI PGC	5,8
9	Raya Bogor II	11,1
10	Kp Rambutan	8,3
11	Pinang Ranti	8,2
	Total	**119,8**

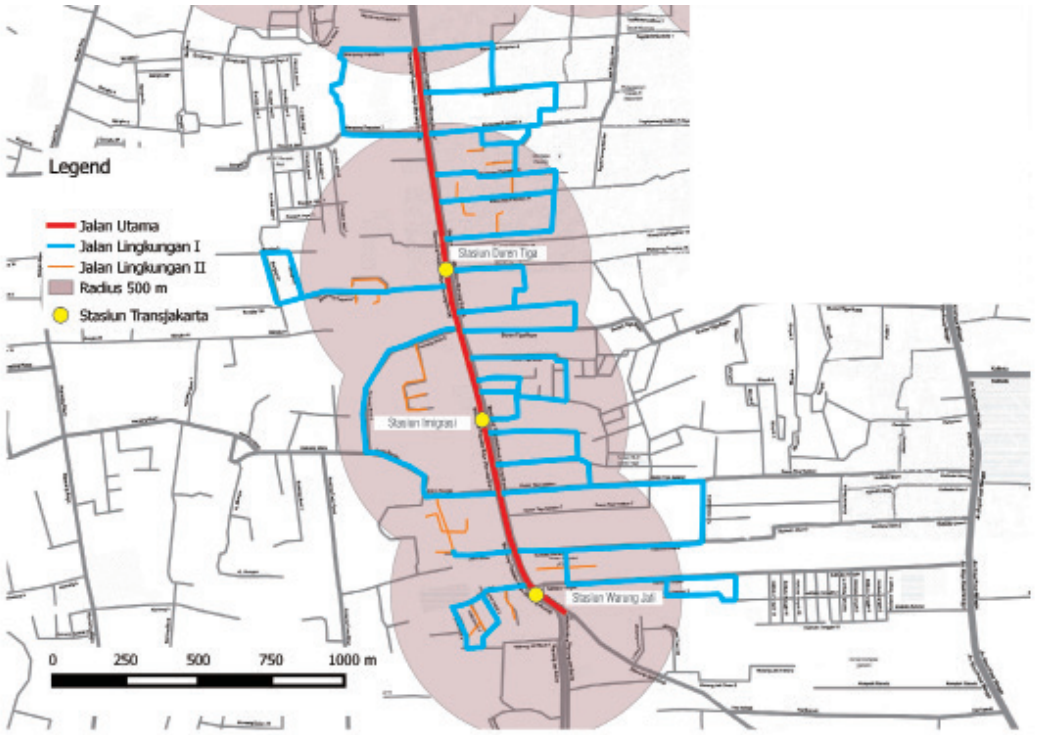
No	Area	Total (km)
1	Slipi Kemanggisan	7,5
2	Tomang Central Park	12,6
3	Grogol	11,3
4	Daan Mogot Ciputra	5,9
5	Green Park	8,8
	Total	**46,5**

No	Area	Total (km)
1	Sunter Agung	3,2
2	Kelapa Gading Permai	8,2
3	Tugu Rawabadak	6,7
4	Pluit	8,4
5	Mangga Dua	6,4
	Total	**33,1**

No	Area	Total (km)
1	Senen	3,8
2	Juanda Pasar Baru	4,7
3	Kebon Sirih	6,3
4	Kp Bali Kb Kacang	7,2
5	Gondangdia	6,6
6	Cikini	3,7
7	Kb Melati Karet Tengsin	4,3
	Total	**36,8**

No	Area	Total (km)
1	Ragunan	6,5
2	Tendean	5,3
3	Kuningan I	10,3
4	Kuningan II	13,0
5	Manggarai	6,2
6	Lebak Bulus	6,6
7	Kebayoran Lama	6,4
8	Cawang Tebet	10,7
9	LIPI	5,0
10	Tebet	5,6
11	Duren Kalibata	5,5
12	Pasar Minggu	3,5
13	Taman Puring	6,1
	Total	**91,2**

7.3 EXAMPLES OF WORKING AREA



1

DUREN TIGA WORKING PACKAGE

~~Main road length:~~
~~2.018 meter~~

~~Primary alley length:~~
~~13.172 meter~~

~~Secondary alley length:~~
~~2.106 meter~~

7.4 BUDGET ESTIMATION

Total

Program Penataan Fasilitas Pejalan Kaki dan Pesepeda	Tahun					Total
	2018	2019	2020	2021	2022	
Jumlah Perbaikan & Penataan	150 km	150 km	150 km	150 km	112 km	712 km
Kebutuhan Anggaran	Rp 1,5 T	Rp 1,7 T	Rp 1,7 T	Rp 1,7 T	Rp 1,7 T	Rp 8,3 T

Prioritas

Program Penataan Fasilitas Pejalan Kaki dan Pesepeda	Tahun					Total
	2018	2019	2020	2021	2022	
Jumlah Perbaikan & Penataan	65 km	65 km	65 km	65 km	61 km	321 km
Kebutuhan Anggaran	Rp 600 M	Rp 750 M	Rp 750 M	Rp 750 M	Rp 750 M	Rp 3,6 T

CONTACT PERSON

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