Evaluation Of Parking Facilities For Delivery Vehicle/Pick-Up At The Ferry Port Of Kalabahi, Alor District, East Nusa Tenggara Province

A. Agus Tjahjono, Yeti Komalasari & Maulana Akbar

Abstract

The Ferry Port of Kalabahi, Alor District managed by the Services Unit of Transportation Center Business Port Region XIII of East Nusa Tenggara Province. But the implementation is felt not maximized due to parking facilities for delivery vehicle/pick-up inadequate. At the time of crowded conditions often their vehicles to park outside the port. Frequent shuttle delivery vehicle/pick-up parked irregularly due to the lack of parking patterns created. Based on the existing problems, it needs closer analysis of the condition of the parking facility for delivery vehicle/pick-up at the Ferry Port of Kalabahi. The methods used in this research is quantitative research and to analyse the problems based on appendix II Transportation Minister Decree No. 52 of 2004 on the Implementation of Ferry Port and the Director General of Land No. 272 /Hk.105/DriJD/96 About Technical Implementation Guidelines parking facilities. An analysis it is necessary to increase the area for parking facility for delivery vehicle/pick-up and the proposed pattern of service in the port parking lot so more regularly.

Keywords: Evaluation; Parking Facility For Delivery Vehicle/Pick-up; Ferry Port.

1. Introduction

Transport is one of the important things in the progress of several fields such as economics, the field of construction and tourism. Due to the need to transport all the interest about the movement of goods and people will be very effective and efficient. And also the distance it is far movement of goods and / or people will be very easy.

Throughout the territory of Indonesia certainly are requiring their transportation to create connectivity between regions, it concerns the distribution of development and the regional economy. One of the areas in Indonesia, East Nusa Tenggara province, where East Nusa Tenggara Province is one of the provinces that form the archipelago, according to data from the Central Statistics Agency East Nusa Tenggara province, the province has 1,192 islands (43 inhabited and 1149 the island was not inhabited), an area of 47931.54 km², and has 21 counties and one city, and therefore particularly water transport (ferry transport) is very suitable for inter-island connectivity in East Nusa Tenggara province.

In this case one of the agencies that play an important role in the transport of water, especially ASDP namely Services Unit of Transportation Center Business (BPTD). BPTD Region XIII is one institution that houses directly ground transportation in the province of East Nusa Tenggara Province.

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based in Kupang. This institution is an institution in which the C-type shaped shade region or a region dominated archipelago ferry transport for the movement of people and goods mobility.

BPTD Region XIII East Nusa Tenggara province has three sections: Section of Road Transport, Infrastructure Support Section of River, Lake, and Commercial and Pioneer Ferries and Traffic and Transportation Section of River, Lake and Ferries Commercial and Pioneer.

In the BPTD Region XIII East Nusa Tenggara province have 3 ferry ports which service unit Ferry Port of Bolok, Services Unit Port of Labuan Bajo and Services Unit Port of Kalabahi that serves as supervising the implementation of ferry transport.

At the time of execution of Field Work Practice (PKL), the author placed in the Ferry Port of Kalabahi located in the village Binongko, District Kalabahi, Alor regency. Where Alor district is bordered on the east are the islands of Maluku, west namely Strait Lomblen Lembata, north, north is the Flores Sea and south of the Strait Umbay and Timor Leste.

Ferry Port of Kalabahi managed by Unit Service port, where the port is operating four days a week, with five ships Ro-ro operate and serve five tracks, one track commercial that trajectory Kalabahi-Kupang and 4 tracks pioneer is track Kalabahi-Baranusa, Kalabahi-Lewoleba, Kalabahi-Larantuka, and Kalabahi-Bakalang.

The author made observations at the Ferry Port of Kalabahi, where the author found the parking lot facility introduction/pick-up inadequate because it is still a lot of vehicles parked outside the port due to the indication of the parking lot is not appropriate capacity.

The Vehicle Condition Parked Outside The Port

Source: Documentation Team PKL Kalabahi 2019

And the parking lot delivery vehicle/pick-up has not been found so parking pattern delivery vehicle/pick-up parked irregularly and often vehicles will enter and exit the port inhibited.

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4 Guideline Book of Services Unit of Transportation Center Business (BPTD) Region XIII. (2019)

5 Ibid.
2. Research Methodology\(^6\)

a. Primary Data
The data obtained by direct observation by the author, the authors obtain primary data using the following method:

1) Observations
   Direct observation of actual conditions DII field is the condition activities and existing facilities at the Ferry Port of Kalabahi.

2) Registration of Passengers
   In this data collection, survey productivity arrival and departure of passengers during the 15 days from 17 April 2019 until 31 May 2019 and a survey for delivery vehicle/pick-up at the Ferry Port of Kalabahi for 15 days from 17 April 2019 until 31 May 2019.

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Arrival Graph Passengers at Ferry Port of Kalabahi For 15 Days

3) Measurement
Measurement of the dimensions of onshore facilities ferry ports of Kalabahi.

Table 1
Characteristics Infrastructure Ferry Port of Kalabahi

<table>
<thead>
<tr>
<th>No.</th>
<th>TYPES OF FACILITIES</th>
<th>DIMENSION</th>
<th>VOL</th>
<th>UNIT</th>
<th>CONDITION</th>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>3</td>
<td>4</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Toll Gate/Counter</td>
<td>4</td>
<td>4</td>
<td>16</td>
<td>m²</td>
<td>✓</td>
</tr>
<tr>
<td>2</td>
<td>Terminal building</td>
<td>30.70</td>
<td>20.94</td>
<td>642.85</td>
<td>m²</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>The waiting room</td>
<td>30.70</td>
<td>15.10</td>
<td>463.57</td>
<td>m²</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Office Operational Building</td>
<td>30.70</td>
<td>20.94</td>
<td>642.85</td>
<td>m²</td>
<td>✓</td>
</tr>
<tr>
<td>3</td>
<td>Parking Lot Introduction and pick-up</td>
<td>50</td>
<td>30</td>
<td>1500</td>
<td>m²</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>2-Wheels:</td>
<td>24</td>
<td>21</td>
<td>504</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Courses Ready Load Vehicle Parking | 50 | 21 | 1050 | m² | ✓ | There is
---|---|---|---|---|---|---
Area Lighting Lamps Ports | 4 | 4 | 16 | m² | ✓ | There is
Checkpoints | 2 | 2 | 4 | Point | There is
WC / Toilet | 2 | 2 | 4 | Fruit | ✓ | There is
Clean Water Tank | 4000 | Liter | ✓ | There is
---|---|---|---|---|---|---
Electricity (Genset / PLN) | KVA / Watt | There is
Firefighters | 10 | unit | ✓ | AP AR
Supporting Business Facilities
a. Shop | 7 | unit | Places that are not appropriate
b. Kiosks | unit | There is no
access Road
a. to the Port | 200 | 3.4 | 680 | m | Calculated from the highway
b. in Port | 1801 | 6 | 1080 | m | There is
Official House / Mess | 3 | unit | ✓ | There is

Source: Survey Of PKL Kalabahi 2019 Team

4) Documentation
In this data collection, carried out shooting by the author Operations activities and facilities on the mainland side of the Ferry Port of Kalabahi.

b. Secondary Data
Data is obtained based on the observations of others and in the form of a written report, the authors obtain secondary data using the following method:
1) Literature
This research used literature study in the Library of the Inland Water and Ferries Transport Polytechnic of Palembang, as well as the regulations in connection with this research.

2) Method of Assessing Internal Documents
The data were collected from a variety of institutions associated with the research, namely:

(a) BPTD Region XIII East Nusa Tenggara Province.
(b) Transportation Department East Nusa Tenggara Province.
(c) Services Unit Port of Kalabahi Office.
(d) BPS East Nusa Tenggara Province.
(e) PT.ASDP Indonesia Ferry office Branch Of Bolok.

Table 2
Transport Departures Productivity Data at the Ferry Port of Kalabahi Last 5 Years

<table>
<thead>
<tr>
<th>Year</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trip</td>
<td>159</td>
<td>166</td>
<td>195</td>
<td>219</td>
<td>240</td>
<td></td>
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<tr>
<td>Passenger</td>
<td>15 209</td>
<td>22394</td>
<td>36 489</td>
<td>32 592</td>
<td>45 249</td>
<td>151 933</td>
</tr>
<tr>
<td>Vehicles (Cat.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>2529</td>
<td>3072</td>
<td>3275</td>
<td>2933</td>
<td>3848</td>
<td>15657</td>
</tr>
<tr>
<td>III</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>IV</td>
<td>209</td>
<td>205</td>
<td>216</td>
<td>176</td>
<td>251</td>
<td>1057</td>
</tr>
<tr>
<td>V</td>
<td>418</td>
<td>449</td>
<td>480</td>
<td>454</td>
<td>567</td>
<td>2368</td>
</tr>
<tr>
<td>VI</td>
<td>32</td>
<td>13</td>
<td>8</td>
<td>26</td>
<td>32</td>
<td>111</td>
</tr>
<tr>
<td>VII</td>
<td>1</td>
<td>10</td>
<td>10</td>
<td>0</td>
<td>3</td>
<td>24</td>
</tr>
<tr>
<td>VIII</td>
<td>11</td>
<td>20</td>
<td>16</td>
<td>0</td>
<td>1</td>
<td>48</td>
</tr>
<tr>
<td>IX</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>6</td>
<td>8</td>
</tr>
</tbody>
</table>

Number of vehicles: 3200, 3769, 4007, 3589, 4708

Source: NTT XIII Regional BPTD

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Table 3
Productivity Data of Transport Arrivals in Ferries Port of Kalabahi the Last 5 Years

<table>
<thead>
<tr>
<th>Year</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trip</td>
<td>155</td>
<td>166</td>
<td>194</td>
<td>217</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>Passenger</td>
<td>29890</td>
<td>23932</td>
<td>24065</td>
<td>31654</td>
<td>53499</td>
<td>163040</td>
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<tr>
<td>Vehicles (Cat.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>II</td>
<td>4668</td>
<td>3936</td>
<td>4306</td>
<td>3893</td>
<td>6576</td>
<td>23379</td>
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<tr>
<td>III</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>IV</td>
<td>314</td>
<td>301</td>
<td>328</td>
<td>305</td>
<td>443</td>
<td>1691</td>
</tr>
<tr>
<td>V</td>
<td>492</td>
<td>451</td>
<td>509</td>
<td>486</td>
<td>559</td>
<td>2497</td>
</tr>
<tr>
<td>VI</td>
<td>39</td>
<td>5</td>
<td>12</td>
<td>20</td>
<td>55</td>
<td>131</td>
</tr>
<tr>
<td>VII</td>
<td>4</td>
<td>10</td>
<td>7</td>
<td>3</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>VIII</td>
<td>12</td>
<td>12</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>31</td>
</tr>
<tr>
<td>X</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Amount</td>
<td>5529</td>
<td>4715</td>
<td>5168</td>
<td>4707</td>
<td>7639</td>
<td></td>
</tr>
</tbody>
</table>

*Source: BPTD XIII Regional NTT*
### Table 4
**RO-RO Ship Kakateristik At The Ferry Port Of Kalabahi**

<table>
<thead>
<tr>
<th>NO.</th>
<th>NAME KMP</th>
<th>PRODUCTION YEAR</th>
<th>TYPE</th>
<th>SIZE (M)</th>
<th>LOAD CAPACITY</th>
<th>RAMPA DOOR (M)</th>
<th>HIGH CARDECK (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LONG LOA / LOB</td>
<td>WIDE</td>
<td>IN</td>
<td>LOADED</td>
</tr>
<tr>
<td>1</td>
<td>Ile Mandiri</td>
<td>1990</td>
<td>Ro-Ro</td>
<td>45.30 / 40.72</td>
<td>12.00</td>
<td>3.00</td>
<td>2.00</td>
</tr>
<tr>
<td>2</td>
<td>Inerie II</td>
<td>2013</td>
<td>Ro-Ro</td>
<td>56.02 / 48.82</td>
<td>14</td>
<td>3.80</td>
<td>2.70</td>
</tr>
<tr>
<td>3</td>
<td>Ranaka</td>
<td>2012</td>
<td>Ro-Ro</td>
<td>56.02 / 48.82</td>
<td>14</td>
<td>3.80</td>
<td>2.70</td>
</tr>
<tr>
<td>4</td>
<td>Lakaan</td>
<td>2016</td>
<td>Ro-Ro</td>
<td>56.7 / 50.5</td>
<td>14</td>
<td>3.8</td>
<td>2.70</td>
</tr>
<tr>
<td>5</td>
<td>Ile Ape</td>
<td>1995</td>
<td>Ro-Ro</td>
<td>45.35 / 38.35</td>
<td>12.00</td>
<td>3.00</td>
<td>2.00</td>
</tr>
</tbody>
</table>

*Source: BPTD Region XIII NTT Prov.*
3) Literature
By studying the theories and books as well as the existing modules as reference material in the analysis and discussion of the authors also make a flow chart of the study. Where in this document can be identified all the data that has been collected.

3. Result and Discussion
a. Analysis of Issues
The analysis of the issues to be discussed as follows:
1. Analysis of passenger growth.
2. Analysis of parking facilities for delivery vehicle/pick-up.

1) Analysis of passenger growth
In this calculation is based on the realization of the predicted growth in passenger transport productivity over the last 5 years. To determine the growth of passengers and vehicles used exponential method. Before analyzing the number of passengers during the first year to the next, first calculate the rate of growth each year by using the following formula:

\[
\frac{r}{t} = \frac{\ln(P_t)}{\ln(P_0)}
\]

Information:
\[r\] = Rate of population growth
\[t\] = Duration
\[P_t\] = Total population in year t
\[P_0\] = Total population in the base year

To analyze the first passenger growth next year is to calculate the growth rate of passengers every year, in analyzing the data used passenger growth last 5 years can be seen in The calculation of population growth rate is as follows:

\[
r = \frac{1}{t} \ln\left(\frac{P_t}{P_0}\right)
\]

Then: \[r = \frac{1}{1} \ln\left(\frac{45249}{32592}\right)\]
\[r = 0.328 / 0.33\]

Note: If the value of \(r > 0\), meaning a positive population growth or increase the amount of population from the previous year. If \(r < 0\), it means negative population growth or a reduction in the number of residents over the previous year. If \(r = 0\), it means a change in the number of residents over the previous year.

After getting the growth rate annually, can be obtained predictions for 1 year to the next by using the following formula:

---

Information:

\[ P_t = P_0 e^{rt} \]

- \( P_t \) = Total population in year \( t \)
- \( P_0 \) = Total population in the base year
- \( e \) = Numbers exponential magnitude = 2.718281828
- \( r \) = Rate of population growth
- \( t \) = Duration

Then:

\[ P_{2019} = P_{2018} e^{r \times t} \]

\[ P_{2019} = 45249 \times 2.718281828^{0.33 \times 1} \]

\[ P_{2019} = 45249 \times 1.39 \]

\[ P_{2019} = 62896.11 \]

From the above calculation in getting the passenger growth in 2019 amounting to 62,897 passengers. With the number of operating days 4 days in 1 week with five trips per week, it can be predicted that the number of trips per year is as much as five trips per week \( x \) 48 weeks = 240 trips / year. So, to calculate the concentration ratio can be taken aboard passenger capacity on average as many as 246 people.

Concentration Ratio =

\[ \frac{\text{Passenger Prediction in 2019}}{\text{Average pnp Capacity in the ship } \times \text{trips/year}} \]

\[ = \frac{62897}{246 \times 240} \]

\[ = 1.06 \sim 1.1 \]

2) Analysis of the parking facilities for delivery vehicle/pick-up

a) Analysis of the suitability of the parking facilities for delivery vehicle/pick-up.
For parking facilities for delivery vehicle/pick-up is not appropriate because at the time there is still a port operational implementation of 2-wheel vehicles still parked outside the port and 4-wheel vehicles are not neatly parked in the parking provided.

b) Analysis of factors affecting the parking facilities for delivery vehicle/pick-up.
The factors that influence the persistence of the vehicle, which was parked outside the port area and the vehicle is parked is not neat because there is no parking pattern in a parking facility. To determine the factors affecting the area as a parking of parking facilities for delivery vehicle/pick-up should be performed in accordance calculation Decree of the Minister of Communication Number KM.52 of 2004 on the Implementation of the Ferry Port as follows:
Vehicle parking facility needs an introduction / pick-up obtained by calculation in the appendix MoC Decree No. KM.52 of 2004 on the Implementation of the Ferry Port. Here heal & condition the parking facilities for delivery vehicle/pick-up area9:

9 Triadmojo, Bambang. (2010). Port Planning, Gadjah Mada University, Yogyakarta
(1) The area of the parking facilities for delivery vehicle/pick-up for 4-wheel vehicles

\[ A_2 = a \times n1 \times N \times x \times y \times z \times \frac{1}{n2} \]

Information:
\[ A_2 = \text{The total area of the parking facilities for delivery vehicle/pick-up} \]
\[ a = \text{The total area needed for one vehicle. (Case study of passenger vehicles is 25 m}^2) \]
\[ n1 = \text{number of passengers in the ship} \]
\[ n2 = \text{Number of passengers in one vehicle. (Average Average 8 people / vehicles)} \]
\[ N = \text{Number of vessels Coming / Depart (1 ship)} \]
\[ x = \text{Average utilization (1.0)} \]
\[ y = \text{Rasio concentration, generally taken as (1,1)} \]
\[ z = \text{ratio of utilization, drawn figure of 1.0} \]

\[ A_2 = a \times n1 \times N \times x \times y \times z \times \frac{1}{n2} \]
\[ = 25 \text{ m}^2 \times 246 \times 1 \times 1.1 \times 1 \times 1/8 \]
\[ = 845.62 \text{ m}^2 \]

Based on the calculation of the parking facilities for delivery vehicle/pick-up area is found in accordance with the rules is 845.62 m².

(2) The area of the parking facilities for delivery vehicle/pick-up for 2-wheel vehicles

\[ A_2 = a \times n1 \times N \times x \times y \times z \times \frac{1}{n2} \]

Information:
\[ A_2 = \text{The total area of parking facilities for delivery vehicle/pick-up} \]
\[ a = \text{Size area needed for one vehicle. (Case Study 2 wheel vehicles = 2 m}^2) \]
\[ n1 = \text{number of passengers in a single vessel}. \]
\[ n2 = \text{Number of passengers in one vehicle. (For class II or motorcycle that average price 1 person / vehicle)} \]
\[ N = \text{Number of vessels Coming / Depart (1 ship)} \]
\[ x = \text{Average utilization (1.0)} \]
\[ y = \text{Rasio concentration, generally taken as (1,1)} \]
\[ z = \text{ratio of utilization, drawn figure of 1.0} \]

\[ A_2 = a \times n1 \times N \times x \times y \times z \times \frac{1}{n2} \]
\[ = 2 \text{ m}^2 \times 246 \times 1 \times 1.1 \times 1 \times 1/1 \]
\[ = 541 \text{ m}^2 \]

Based on the calculation of the area of the parking facilities for delivery vehicle/pick-up 2-Wheels found extents according to the rules is 541 m².
Based on the description above the parking facilities for delivery vehicle/pick-up 2-wheel, especially a shortage of land amounting to 37 m².

c) Analysis of the efforts that will be made for parking facilities for delivery vehicles/pick-up. Efforts need to be done on the parking facilities for delivery vehicle/pick-up is as follows:10:

(1) Propose the addition parking facilities for delivery vehicle/pick-up 2-Wheels corresponding calculations are performed.

(2) Gave the proposal need to be made patterns on the parking park parking facilities introduction / pick-up 4-Wheels.

b. Discussion

As for solving the issues to be discussed as follows:

1) Planning additional land area for parking facilities for delivery vehicle/pick-up 2-Wheels. Based on the analysis that has been discussed, that is based on calculations that have been done on the analysis of the problem. For parking facilities for delivery vehicle/pick-up 2-Wheels based on table IV.1, still less land that is equal to 37 m². Planned as follows:

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10 Ibid.
In the picture above describes the addition spacious parking lot introduction / pick-up 2-Wheels which took the land portion shoulder of the road in the port area of 24 m x 2 m = 48 m² (over an area that is less that 37 m²), this is done see the condition of the field where there is no barrier permanent between the parking lot introduction / pick-up 2-Wheels with an access road in the port. This planning attention to the existing road shoulder width is 9 meters and is used for planning the remaining width of 2 meters and 7 meters width of the road, where the width of the remaining road is still passable by vehicles.

Thus the area of the parking lot added an introduction / pick-up to the 2-Wheels is 48 m² and if the added broadly available today that is 504 m² to 552 m².

2) Planning on parking facilities for delivery vehicle/pick-up 4-Wheels.

To determine the pattern of the planned park will then have to be known in advance the type and class of the most dominant vehicles entering the Ferry Port of Kalabahi, based on the table of the most dominant III.5 vehicles entering the Ferry Port of Kalabahi that vehicle or motorcycle class II and class IV or private vehicles /mini bus.

To plan the required number of parking patterns then it should be in the know SRP (parking space) for each class of vehicle. On the decision of the Director General of Land No. 272 / Hk.105 / DrJD / 96 About Technical Implementation Guidelines parking facilities, is set SRP (parking space for each vehicle. Based on existing data for the class of vehicle established by decision of the Director General of Land No. : 272 / Hk.105 / DrJD / 96 About Technical Implementation Guidelines parking facilities, in the table at the Ferry Port II.1 to Kalabahi included in class II. And for SRP (parking space) in table II.2 ie for class II or private vehicle / passenger SRP (parking space) is a width of 2.5 mx 5 m wide.
To adjust the extent of the current conditions in the parking facilities for delivery vehicle/pick-up then need to know the extent of the parking facilities for delivery vehicle/pick-up today is as follows:

Table 6
Parking Facilities for delivery vehicle/pick-up Current

<table>
<thead>
<tr>
<th>No.</th>
<th>Parking lot</th>
<th>Wide</th>
<th>Long</th>
<th>Area (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4-Wheels</td>
<td>30</td>
<td>50</td>
<td>1500</td>
</tr>
<tr>
<td>2</td>
<td>2-Wheels</td>
<td>21</td>
<td>24</td>
<td>504</td>
</tr>
</tbody>
</table>

Due to see the extent of the parking facilities for delivery vehicle/pick-up 4-Wheels has been adequate, it can be proposed their plan of parking patterns.

Picture 6
Proposed Pattern Center Planned For Planning Vehicle Parking Facility Introduction / pick-up 4-Wheels
Source: Author

From the image above for the length of the pattern that is 5 meters and a width of 2.5 meters to a road vehicle and lane alley in the face for 900 parking pattern that aisle width is 8 meters (according Director General of Land Transportation Regulation Number:272 / Hk.105 / DrJD / 96. Overall with the land 50 mx 30 m was found 45 parking slots for 4-wheel vehicles.
4. Closing

a. Conclusion

Based on the analysis described in the previous chapter, it can be concluded:

1) Condition of parking facilities for delivery vehicle/pick-up at the Ferry Port of Kalabahi currently not according to the standard regulatory requirements.

2) Factors that affect parking facility for delivery vehicle/pick-up at the Ferry Port of Kalabahi namely land parking facility for delivery vehicle/pick-up to the 2-Wheels are not appropriate and there are no parking facilities at the park pattern delivery vehicles / pick-up 4-wheel.

3) The effort is made by the addition of land area parking facilities introduction / pick-up 2-Wheels and the proposed procurement parking pattern in a parking facility introduction / pick-up 4-Wheels.

b. Recommendations

The advice can be delivered specifically to the manager of the Ferry Port of Kalabahi is as follows:

1) Vehicle parking facilities should suit with parking facility for delivery vehicle/pick-up conditions that occur at this time with the applicable rules.

2) The land area of parking facility for delivery vehicle/pick-up 2-Wheels to be adjusted and the parking facility for delivery vehicle/pick-up 4-Wheels for created conditions ie no parking pattern.

3) Efforts to increase parking facility for delivery vehicle/pick-up area especially 2-wheel and parking patterns need to be made on parking facility for delivery vehicle/pick-up 4-Wheels as proposed by the planning undertaken the author.

5. References

1) Guideline Book of Services Unit of Transportation Center Business (BPTD) Region XIII. (2019)


5) Triadmojo, Bambang. (2010). Port Planning, Gadjah Mada University, Yogyakarta

6) Act No. 17 of 2008 On Shipping.


8) Transportation Minister Decree Number 52 of 2004 on the Implementation of the Ferry Port.