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Rest Area Plus Design on the South Coast of Java: A Campground Conceptual Approach

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ABSTRACT

The Pansela route is a new alternative route connecting Java Island to reduce the imbalance in vehicle loads during the homecoming flow on big days. The Pansela route has the attraction of coastal tourism and scenery but does not yet have adequate rest areas according to standards to meet the rest needs of road users. Lack of rest time and fatigue result in the risk of accidents for road users, so there needs to be a rest area according to adequate standards on the Pansela route. The design of a rest area with added value on the Pansela route utilizes the need for rest areas and the potential of coastal tourism by implementing the campground concept. This rest area plus follows the regulatory standards of the Road Service Kiosk (APJ) and based on its location is categorized as APJ type B or type 2 which provides facilities including: green open space zone, utility zone, parking zone, management office zone, clinic zone and lactation room, rest zone, mini forest park zone, gas station zone, workshop, food court, superior commodity gallery and amphitheater. The design of the rest area plus in addition to accommodating the rest needs of road users on the Pansela route is also expected to be a place to promote products and regional tourism in Pangandaran Regency and encourage economic activities of the surrounding community.

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1. INTRODUCTION

Mudik or '*pergi ke udik*' (*hulu*) is an annual ritual of Indonesian people which is carried out every holiday such as Eid al-Fitr, where people who live away from home temporarily return to their hometowns to gather with their families (Andaka, 2020). Mudik is a temporary population movement activity via transportation (land, sea or air) which is very massive, where more than 50% of the population of big cities carry out mudik (return to their hometown), namely from urban areas (cities) to suburban areas (rural areas) (Lestari, 2020). In 2023, the dominant transportation during the 2023 Eid homecoming will be dominated by private vehicles, where the movement of public transportation vehicles passing through toll roads and arteries will reach 9.97 million movements, an increase of 175.56% compared to the 2022 Eid homecoming and return flow (Rachman, 2023). Mudik using a private vehicle is considered more flexible in terms of departure and return times compared to using public transportation.

The largest number of homecoming trips are on the island of Java (Biro Komunikasi dan Informasi Publik Kementrian Perhubungan, 2024) with the largest number of origins, namely East Java at 16.2% (31.3 million people), Jabodetabek at 14.7% (28.43 million people), and Central Java at 13.5% (26.11 million people). The largest number of destinations are Central Java at 31.8% (61.6 million people), East Java at 19.4% (37.6 million people), and West Java at 16.6% (32.1 million people). The Java Island homecoming route is connected via the Pantura route (north coast), the central route, the Trans Java Toll route and the Pansela route (south coast). The Pansela route is an alternative route to reduce the economic gap between the northern and southern regions which was initiated since 2015, connecting the Cilegon-Anyer-Pangandaran-Yogyakarta-Banyuwangi route (Direktorat Jenderal Bina Marga, 2021). The Pansela route has the attraction of coastal and scenic tourist attractions, which have an impact on improving the economy of the surrounding community through the many places to sell and optimization of rest areas for road users along the route (Direktorat Jenderal Bina Marga, 2023).

Travel conditions and long driving times can cause travelers to become tired, especially if they do not get enough rest (Kholid, 2018). Signs of driver fatigue include feeling sleepy, restless, making movements to reduce drowsiness, and decreased level of alertness to the environment (Zuraida, 2015). If not resting enough, driver fatigue endangers themselves and their surroundings because of the high risk of accidents. To avoid prolonged fatigue, drivers are advised to take a break which is usually accommodated in a rest area. For a driving time of 4 hours for car drivers and 2 hours for motorcycle drivers, the minimum recommended rest is 30 minutes by sleeping, lying down, or stretching the muscles of the legs, hands, shoulders and the whole body (Kholid, 2018).

Providing a rest area is one of the requirements for long-distance travel as a facility that can reduce the factors that cause accidents. A rest area is needed not only for rest, but also for the needs of eating and drinking, refueling, toilets, buying souvenirs, and so on which are usually accommodated in one place. The standard for rest areas has been developed by the Road and Bridge Research and Development Center with the concept of Road Service Platform (Anjungan Pelayanan Jalan/APJ), with the main function as a rest area and additional function as a place to accommodate interactions between road users and local potential (Pedoman Perencanaan Tempat Istirahat Pada Jalan Umum, 2018).

The trend of long-distance driving has changed perception, where a tourism culture has emerged and people have begun to enjoy long-distance travel using private vehicles and making their vehicles mobile homes. Technological advances have also encouraged the development of mobile homes with compact and portable cooking and food storage

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equipment that is easy to carry on the trip. This has given rise to a travel tourism culture that aims to find a different atmosphere from the urban environment, including in homecoming activities. Travelers enjoy the trip by bringing food supplies that are cooked/eaten while resting while enjoying the natural scenery. In addition to the need for rest, travelers who bring small family formations usually need special activities that adjust to the needs of children such as parenting, playing, recreational activities, or buying souvenirs for the family. This behavior is the basis for considering the need for space that needs to be accommodated in the rest room during long-distance travel.

Rest areas, in addition to being a place to accommodate the needs of road users, can also be used to show the local potential of the region. Rest areas can provide areas for superior products/commodities of the region such as tourist attractions, culinary specialties, souvenirs, and plantation products. The Pansela route which has tourist attractions and views is an added value in long-distance travel and can be recreational for travelers. This potential can be accommodated in the provision of rest areas on the Pansela route with the added value of scenic tourism. The trend of mobile-home travel on the Pansela route has the potential to present rest areas that in addition to being a place to rest can also be a place to enjoy the natural scenery, or known as the campground concept. The campground concept consists of an indoor space (rest room in the building, place of worship, minimarket, toilet, clinic) and an outdoor space (vehicle parking, outdoor rest area).

Pangandaran Regency, which is located in the southern part of West Java Province, is famous for its beach tourism, with a high number of tourist visits of 4,288,185 tourists in 2022 (BPS Provinsi Jawa Barat, 2023). Beach tourism objects in Pangandaran are often a stopover for people who are going home while traveling on the Pansela route. However, currently there are no adequate rest areas on the Pansela route, especially on the Banten - West Java Pansela route. Currently, there is only one rest area that is in accordance with government regulations on the Pansela route on the Central Java - Yogyakarta Pansela route, namely the Girisubo Swanayasa Rest Area (Itsnaini & Tashandra, 2023). The unavailability of rest areas in accordance with government regulations on the Banten-West Java route shows the imbalance in rest facilities on the Pansela route in the western part of Java. Considering that Pangandaran Regency is passed by homecoming travelers and has a beach tourism attraction, the provision of rest areas or APJ in this regency is very potential. In addition to accommodating the driver's rest needs and eliminating the imbalance in the number of rest areas, rest areas have the potential to become rest areas plus which offer a campground concept with a beach tourism locality.

This study aims to produce a simulation of the design of a rest area plus with a campground concept approach in Pangandaran Regency as an alternative to accommodate the needs of a driver's rest area on the Pansela Banten - West Java route. This rest area plus also aims to optimize the potential of the Pansela route to synergize in development and the economy on the southern route with added value in the form of tourist and recreational attractions.

2. LITERATURE REVIEW

2.1. Anjungan Pelayanan Jalan (Road Service Platform)

In the Guidelines for Planning Rest Areas on Public Roads, Road Service Platforms (Anjungan Pelayanan Jalan/APJ) are places that function to serve road users and local communities built by road organizers with certain service functions. APJ has general provisions that lead to certain types and technical specifications. Based on its type, APJ is divided into 3 types as follows:

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1. APJ Type I or Type A: Type I or type A road service platforms have the highest standards in their service facilities with a distance between the same types, namely a minimum of 50 km and a minimum area of 4 ha and a minimum width of 150 meters.
2. APJ Type II or Type B: Type II or type B road service platforms have specifications below type A with the same distance between types, namely a minimum of 10 km and a minimum area of 2 hectares or a maximum of 4 hectares and a minimum width of 100 meters.
3. APJ Type III or Tipe C: Type III or type C road service kiosks have the minimum specifications in their service facilities with a distance between the same types of at least 10 km and a minimum area of 1 hectare or a maximum of 2 hectares and a minimum width of 5 meters.

Each type must have minimum service facilities, rest areas, and adjustments to needs based on analysis and evaluation of the site. Minimum facility provisions for rest areas according to (Peraturan Menteri Pekerjaan Umum Dan Perumahan Rakyat Republik Indonesia No. 28 Tahun 2021 Tentang Tempat Istirahat Dan Pelayanan Pada Jalan Tol, 2021):

Table 1. Service Facilities by Type according to PUPR Regulation No. 28 of 2021

Type	Minimum Facilities
I	1. ATM machine with toll card refill facility 2. Toilet 3. Health Clinic 4. Workshop for vehicles with minor damage 5. Stall or kiosk 6. Minimarket 7. Prayer Room 8. Public gas station 9. Food court 10. Green open space 11. Parking area 12. Electric fuel filling facilities according to needs 13. Waste processing facility according to needs 14. Sea water waste recycling plant 15. Firefighting facilities include special extinguishers for hazardous materials
II	1. ATM machine with toll card refill facility 2. Toilet 3. Minimarket 4. Prayer Room 5. Public gas station 6. Food court 7. Green open space 8. Parking area 9. Electric fuel filling facilities according to needs 10. Waste processing facility according to needs 11. Sea water waste recycling plant 12. Firefighting facilities include special extinguishers for hazardous materials
III	1. Toilet 2. Stall or kiosk 3. Prayer Room 4. Parking Area 5. Firefighting facilities include special extinguishers for hazardous materials 6. Other temporary supporting facilities

Source: PUPR Regulation of the Republic of Indonesia No. 28 of 2021

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Meanwhile, the minimum facility provisions for each type of APJ according to the Rest Area Planning Guidelines on Public Roads are:

Table 2. Service Facilities by Type according to the Rest Area Planning Guidelines on Public Roads

Type	Minimum Facilities	Additional Facilites
I	1. Parking area 2. Seating area 3. Toilet 4. Prayer room 5. Road post 6. Food court 7. Workshop	1. Emergency post 2. Information area 3. ATM 4. Gas station 5. Health clinic 6. Local product kiosk 7. Security posts
II	1. Parking area 2. Seating area 3. Toilet 4. Prayer room 5. Road post 6. Food court 7. Workshop	1. Emergency post 2. Information area 3. ATM 4. Gas station 5. Health clinic 6. Security post
III	1. Parking area 2. Seating area 3. Toilet 4. Prayer room 5. Road post 6. Food court 7. Workshop	1. Emergency post 2. Information area 3. Security post

Source: Guidelines for Planning Rest Areas on Public Roads (2018)

2.2. Motorhome Park

Recreational vehicle (RV)/trailer or truck camper is a vehicle manufactured for recreational purposes such as traveling, camping, and short and long term accommodation (Emir & Doğantan, 2019). Meanwhile, Motorhome Park, RV Park, trailer park or campground are terms that define an area for parking RV (recreational vehicles) or motorhomes (motorized residences), generally placed on inter-city routes as a recreational resting place, and providing certain facilities and services outside of ordinary camping (Doğantan et al., 2022). Recreational vehicles (RVs) consist of different types that are grouped based on size and needs. An illustration of the RV type classification is as follows:

Figure 1. Truck Camper
Source: https://wisefrontierliving.com/rv-classes-explained-a-beginners-guide-with-cheatsheet/?ref=lucashoward.co

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Each type and shape of RV/truck camper has differences in dimensions/room size, overall weight, passenger capacity and so on. The needs of passengers or drivers affect the specifications of the vehicle. For example, if a family with 6 members chooses the Pansela route, then the type of RV chosen will be adjusted to the capacity and type of vehicle. RV specifications are described in the following table:

Table 3. RV Type Classification

RV Class	Type	Average Price	Size	Sleep/Rest Capacity
Class A	Motorized	$250k-$500k	26-45 ft	6-10 person
Class B	Motorized	$60k-$150k	17-19 ft	2-4 person
Class C	Motorized	$80k-$200k	21-41 ft	4-8 person
Camper Van	Motorized	$40k-$150k	18-24 ft	4-5 person
Bus Conversion	Motorized	$30k-$45k	20-40 ft	8-10 person
Travel Trailer	Non-Motorized	$11k-$35k	12-35 ft	2-10 person
Fifth Wheel	Non-Motorized	$36k-$135k	25-45 ft	4-8 person
Pop-up Trailer	Non-Motorized	$11k-$26k	8-30 ft	5-6 person
Toy Hauler	Non-Motorized	$20k-$150k	10-20 ft	6-8 person
Teardrop Camper	Non-Motorized	$15k-$35k	8-10 ft	1-2 person
Hybrid Trailer	Non-Motorized	$18k-$40k	13-25 ft	6-8 person
Truck Camper	Non-Motorized	$5k-$60k	10-15 ft	4-6 person

Source: https://wisefrontierliving.com/rv-classes-explained-a-beginners-guide-with-cheatsheet/?ref=lucashoward.co

2.3. Campground Concept

The campground concept guidelines used in designing this rest area are sourced from the National Park Service Campground Design Guidelines. The guidelines explain what aspects should be available in a campground as a place of rest and recreation. Based on these guidelines, the stages of campground design are divided as follows:

Table 4. Facilities Guide in Campground Concept

No.	Aspect	Description
1	Online Booking	Online guest ordering service system
2	Information Center	The information center is in the form of physical visual graphics in the arrivals area to make it easier for guests
3	RV driveway	RV/mobile campers require adequate circulation for entry/exit access.
4	Reservation Area	A place to welcome guests in the form of a building, containing a receptionist/receptionist
5	Bus Shelter	The bus shelter is located in the arrivals/lobby area
6	Bicycle facilities and parking	Campgrounds should provide bicycle facilities for guests to ride around and enjoy the natural atmosphere
7	Signage	Signage and road markings are needed in a campground area as information and guidance for safety and comfort for guests.
8	Vehicle and pedestrian circulation	The vehicle and pedestrian circulation system is implemented for safety reasons to prevent accidents, the turning radius and distance between vehicle and pedestrian roads must meet safety requirements
9	Additional facilities	Several additional standard facilities to support activities in the campground area can be added as needed.
10	Design Consideration	Design considerations for campgrounds in an environmental context are based on several specific factors, namely: topography, view, geographical location, noise, camp area, supporting facilities and security guarantee facilities.
11	Campsite Layout	Campsite layout that adapts to vehicle type and number of people camping: • Campsite layout type with vehicles integrated with the campsite, each campsite unit has one parking for vehicles • Large RV type parking type that requires maneuvering into the larger campsite unit area

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No.	Aspect	Description
		• Group type that accommodates several campsites into one and shared parking space for small car types. • Campsite type with units integrated with RV trailer vehicles and horse stables for guests who bring campground horses.
12	Rental capacity	The radius of public facilities and the density of rental housing at the campground can create a comfortable atmosphere for campground guests
13	Water needs	Water distribution at the campground is very much needed in various areas such as drinking, cooking, washing, defecating, bathing and other activities.
14	Comfort station	Comfort stations are needed for at least every 35 people per unit, for people who need public toilets
15	Electricity needs	The need for electrical terminals at each campsite helps several tools to be used during camping activities such as electric stoves, cell phone charging, and other modern tools
16	Lighting	Lighting at the campsite and on the roads in the campground uses small capacity lighting so as not to create light pollution
17	Telecommunication network	Telecommunication network wifi and public telephone
18	Amphitheater	Amphitheater to create an atmosphere and a place to gather, perform or relax
19	Waste management	Campgrounds require an integrated waste management system so as not to disrupt the camping activities of their guests
20	Picnic table	Outdoor furniture as seating
21	Barbecue area	Outdoor cooking facilities
22	Food storage	Food storage facilities
23	Lighting	Artificial lighting is needed at certain times (danger/natural disaster)
24	Toilet and shower	Toilets and showers are shared facilities, divided for men and women
25	Vehicle wash	A vehicle washing area is needed so that when the vehicle leaves the camp area, the vehicle is in a clean condition
26	Laundry	Laundry room for cleaning guests' clothes
27	Electric charging terminal	Charging terminals for electric vehicles at every public parking lot are urgently needed

Source:(National Park Service U.S. Department of the Interior, 2021)

3. RESEARCH METHODS

The research method uses qualitative research, where the research examines social or human issues starting from an assumption (Creswell, 2015). This research began with the idea of the need for a rest area that maximizes the potential of the area to become a rest area plus a campground concept. The data used came from literature studies, government regulations, and field data based on the results of location surveys. The stages of the research carried out were identification of problems and needs, literature studies, analysis and drawing conclusions. The analysis of the rest area design was carried out with a design concept that prioritizes the user's rest needs as the main point.

3.1. Research Location

Judging from the requirements, the placement of APJ with category type B/II, a minimum area of 2 hectares, a minimum width of 100 meters and a minimum distance of 50km from the appropriate city is in Cimerak District, precisely on Jl. Raya Ciparanti which is 50 km from Pangandaran City. Jalan Raya Ciparanti is a primary arterial road in West Java Province, which focuses on promoting non-natural tourism facilities and infrastructure (Peraturan Daerah Kab. Pangandaran No. 3/2018 Tentang Rencana Tata Ruang Wilayah Kabupaten Pangandaran Tahun 2018-2038, 2018). The conditions of the research location are:

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Figure 2. Proposed Location and Photo Spot
Source: Google Earth, 2024


Spot 1


Spot 2


Spot 3


Spot 4


Spot 5


Spot 6

Figure 3. Research Location Photos
Source: Google Earth, 2024

4. RESULTS AND DISSCUSSIONS

The definition of rest area plus refers to the design guidelines for rest areas as road service platforms in regulations. Rest areas plus are built by road organizers, serve road users to rest and the surrounding community with primary services and add tourism/recreational elements, provide UMKM trading space and promote superior local commodities. The design of rest areas plus is related to the site and building, which pays attention to the following criteria:

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4.1. Determination of Main and Additional Functions

The main function of the rest area is as a resting place for road users on the Pansela route with an additional function, namely a campsite as a vehicle parking system that provides flexibility of space and time when resting.

4.2. Determining the Type of Rest Area

The type of rest area based on its classification is determined, namely a road service platform in the form of a campground that leads to type B/type II based on the minimum and additional facilities and the total area of the area.

4.3. Determination of Facilities (Minimum and Additional)

The APJ type that is determined as type II or type B, has standard space requirements, namely ATM outlets, minimarkets, places of worship, fuel stations, restaurants, green open spaces, parking, electric fuel filling, waste processing, sea water waste processing, fire extinguishers, and additional facilities based on general campground criteria.

4.4. Determination of Area and Facility Capacity

The following is a description of Pangandaran Regency's readiness in providing campgrounds as APJ by comparing the general criteria for campgrounds with availability in Pangandaran Regency:

Table 5. General Criteria Analysis of Camping Grounds for Pangandaran Regency

No	Criteria	Supporting tools	Dimensions of space (meter) (L x W x H)	Availability in Pangandaran Regency
1	Booking scenario	Website booking	-	Information management personnel
2	Information center	Information boards	2x2x3	Road marking manufacturers
3	Vehicle circulation	The road meets the requirements	(technical drawing)	Adequate site area
4	Reservation	Reservation building	-	Building materials and skilled labor
5	Bus shelter	Access road	-	City Bus available
6	Bicycle	Parking area	1x2 per 1 unit bicycle	Supplier of goods in the local market
7	Signage	Signage Board	-	Adequate raw materials and skilled labor
8	Vehicle and pedestrian circulation	Median divider and road markings	Minimum pedestrian width 3 meters	Adequate site area
9	Public facilities	1. Entrance 2. Shower 3. Laundry 4. Amphitheater 5. Reservation room 6. Picnic area	1. 1 per campsite 2. 1 per 5 people 3. 1 per 5 people 4. 1 per 10 people 5. Per 1 campground 6. 1 per 1 picnic table	Site area, raw materials and skilled labor
10	Design consideration: a) circulation, b) view, c) topography, d) noise, e) campsite, f) supporting buildings, g) fire protection	-	-	Site area, raw materials and skilled labor
11	*Campsite* layout	-	-	Adequate site area
12	Rental residential capacity	Distance between campsites	-	Building and area management HR
13	Water needs	Water system	-	PDAM water system and drilled wells are available

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No	Criteria	Supporting tools	Dimensions of space (meter) (L x W x H)	Availability in Pangandaran Regency
14	Comfort station/Toilet, washing cutlery	Public toilet building	-	Site area, raw materials and skilled labor
15	Electricity needs	Electricity system	-	Independent Power Grid and Power Generation available
16	Lighting on roads and buildings	Lighting point	-	Supplier of goods in the local market
17	Telecommunication network	Telephone and internet cable network	-	Telephone and internet telecommunication networks are available
18	Amphitheater	-	-	Site area, raw materials and skilled labor avaliable
19	Waste management	Trash box	-	adequate raw materials and skilled labor
20	Picnic table	-	3x3x0,75	
21	Barbercue area	fireplace	1x1x1,2	
22	Bear box/food storage	Storage box	2x1x1,2	
23	Lighting at camp	Lighting point	Light poles	Supplier of goods in the local market
24	Toilet and shower	Public toilet and bathroom building	(technical drawing)	Site area, raw materials and skilled labor avaliable
25	Vehicle washing area	Water system	(technical drawing)	
26	*Laundry*	Water & waste system	-	Supplier of goods in the local market
27	Electric charging terminal	Power grid	-	Power Grid and Power Generation
28	Disposal of communal septic tank waste from RV	Comunal Septictank	Adjusting to needs	Site area, raw materials and skilled labor avaliable

(Source: Analysis, 2024)

4.5. Site Criteria

Site criteria are general criteria and specific site design criteria in rest area plus design. Site conditions affect the implementation and arrangement of rest area plus design. The description of the planned rest area plus site design is:

Table 6. Rest Area Plus Site Criteria

Types of Criteria	Indicator	Criteria	Source
General criteria	Entrance	• Entrance nature is easy to capture and access • Security and safety of vehicle access	*"National Park Service Campground Design Guidelines"*
	Environmental planning	• Building layout towards the environment • Ease of users understanding the rest area area • Arrangement of green areas, shared buildings and supporting utility equipment areas • Road markings • Road signs • Road surveillance cameras in the rest area area	
	Accessibility	• Internet accessibility regarding parking availability • Accessibility of various types of vehicles on the Pansela route to the rest area plus (trucks, cars and motorbikes) that meet the technical requirements of road width, markings, signs, and vehicle turning radius • Pedestrian accessibility to the rest area plus	Perencanaan Tempat Istirahat pada Jalan Umum Nomor: 02/SE/M/2018
	Regional reliability	• Ensure user comfort, security and safety • Provide evacuation routes • Provide gathering points	PP Nomor 16 Tahun 2021

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Types of Criteria	Indicator	Criteria	Source
		• Provide fire prevention equipment • Meet the basic needs of water and electricity • Provide a regional waste disposal network	
	Capacity	• Minimum capacity rest area plus	”Perencanaan Tempat Istirahat pada Jalan Umum” Nomor: 02/SE/M/2018
	Gas station	• Truck fuel filling station • Car fuel filling station • Motorcycle fuel filling station	
	Charging station	• Electric car charging station • Electric motorbike charging station	
Specific Criteria	Rest area plus vehicle parking space	• Minimum parking space for various types of vehicles on the Pansela route • Grouping of parking areas based on vehicle type	*“National Park Service Campground Design Guidelines”*
	Free rest space in vehicle parking	• Provide active electricity flow • Provide active water flow • Provide free rest space	
	Functional vegetation	• Vegetation as a boundary between parking spaces • Vegetation as natural shade	
	Children Playground	• Providing children's play areas • Placement of playgrounds based on the proximity of the space to the parking area and supporting buildings together and far from the threat of accidents due to vehicle traffic.	PP Nomor 16 Tahun 2021

4.6. Building Criteria

Building criteria consist of general criteria and specific criteria for rest area plus building design. Site requirements and building context to the environment are important aspects in formulating building criteria that refer to standards and literature. Rest area plus building criteria are:

Table 7. Rest Area Plus Building Criteria

Criteria	Indicator	Criteria	Source
General criteria	Prayer room	• Prayer room with a certain capacity • Ablution room adjacent to the toilet	PP No. 16/ 2021
	Changing room	Changing room for workers in the rest area plus, providing storage locker boxes and cubicles	
	Lactation room	• Providing a sofa for breastfeeding and a baby table • Wash basin and baby equipment washing	
	Toilet	• Men's toilet • Women's toilet • Disabled toilet	
	Hand wash basin	Available in public toilets and food court areas	
	Shower	Used for building service needs such as cleaning floors, glass and others.	
	Urinoir	Providing for the needs of children and adults	
	Trash bin	• Available at crowded points, small capacity • Communal waste is placed in certain areas	
	Communication and information facilities	Providing internet, telephone and television networks	

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Criteria	Indicator	Criteria	Source
	Waiting room	Provide waiting chairs in a special waiting room	
	Control equipment & supplies	Electrical, water and internet network equipment and supplies	
	Room surveillance camera	Provided at a certain angle with the aim of covering the entire view of the rest area plus area	
Specific criteria	Rest area for equipment rental	• Rental of camping equipment, folding tables and cooking utensils • Receptionist desk	*"National Park Service Campground Design Guidelines"*
	Gallery of superior regional commodities	• Gallery space is close to the food court, toilets and prayer room • Presenting documentation or props	PP No. 7 / 2021
	Local UMKM trading space	• Space of 30% • Filled by local UMKM or UKM tenants • Provided with shared electricity and water service networks	
	Arts and culture performance space	• Amphitheatre-shaped • Committee room and talent room available	Preseden Rest Area Girisubo Swanayasa
	Health Clinic	• Providing patient beds • Doctor on duty • Nurses • Simple medical aids • Patient room • Medicines	"Perencanaan Tempat Istirahat pada Jalan Umum" Nomor: 02/SE/M/2018
Specific criteria	Management room	• Management office space • Management leadership office space • Engineering staff and special equipment room • Service staff room • Special toilet for management	

4.7. Design Implementation

The design implementation takes into account the general criteria and specific criteria of the site and building with the main purpose as a driver's rest area and recreational area. The application/implementation of the rest area plus design at the research location on Jalan Raya Ciparanti, Cimerak District, Pangandaran Regency, follows the regulations of Pangandaran Regency Regional Regulation Number 3 of 2018 in site arrangement. The application of regulations to the site is:

Table 8. Site Data

Area	:	± 30.000 m^2
Road status	:	Primary arterial road
Regulation	:	Regional Regulation of Pangandaran Regency Number 3 of 2018
Area zone	:	Promotion of non-natural tourism facilities and infrastructure
Builiding coverage ratio	:	30%, max. 50%
Floor area ratio	:	Max. 40%
Green coverage ratio	:	Min. 50% max. 70%.
Building setback line	:	As wide as a primary arterial road and 100 meters from sea level

The development of the site into site zoning is described as follows :

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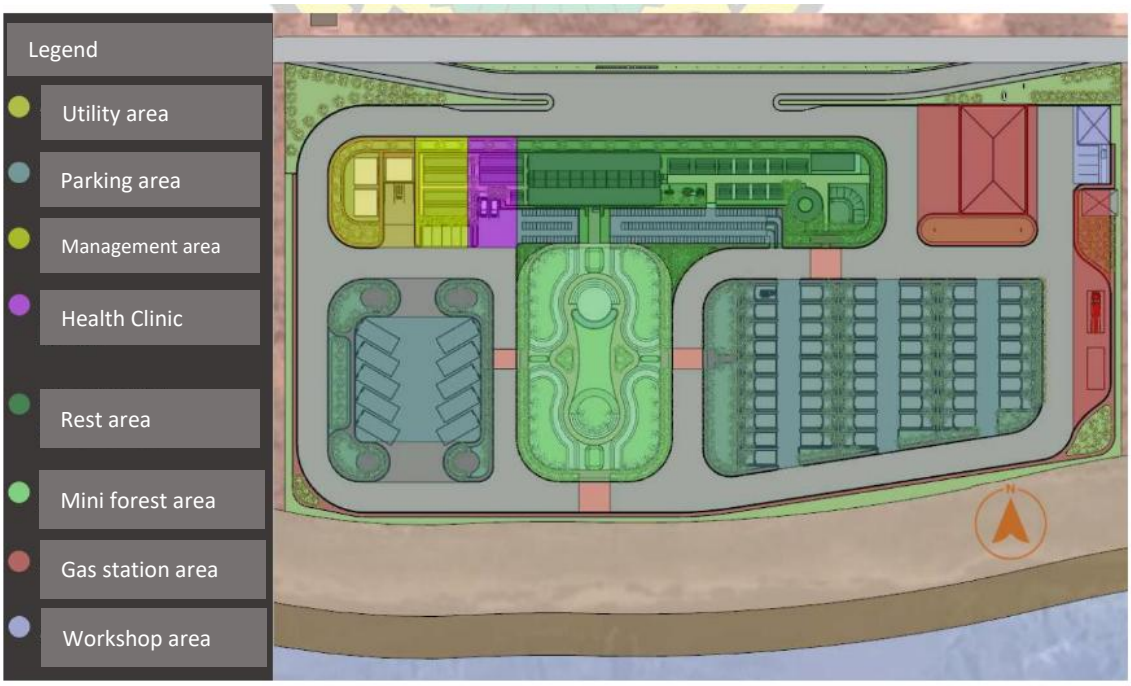

Figure 4. Site Space Zoning
Source: Author Simulation, 2024

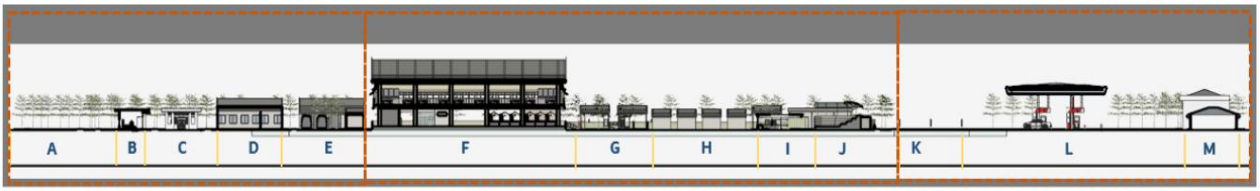

Figure 5. Site Section
Source: Author Simulation, 2024

The entrance angle from the Pansela route to the site is calculated based on the standard, has a length of 70 meters, an acceleration lane of 120 meters, an empty space on the left shoulder of the entrance of 1.5 meters and a right shoulder of 0.5 meters. Gas stations and main service buildings are located near the road for visual identity and ease of access. The main building has a Sundanese architectural theme with the application of the Julang Ngapak form on the roof to present the local wisdom of West Java.

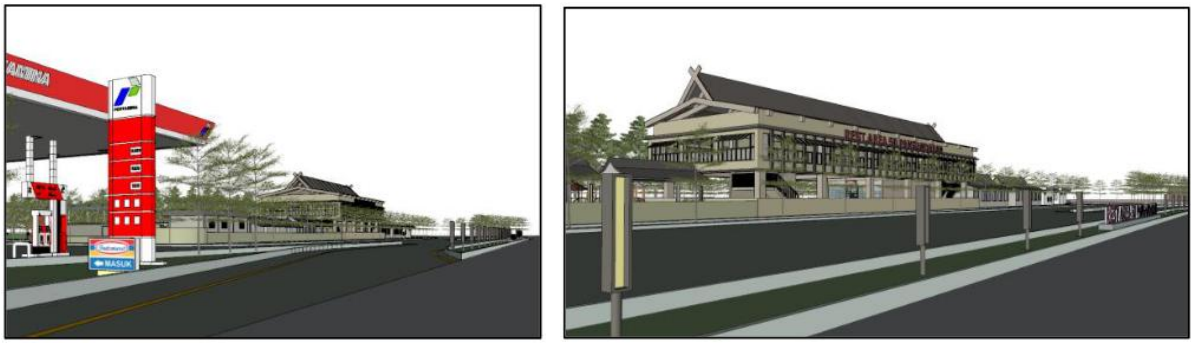

Figure 6. Design Simulation (Entrance)
Source: Author Simulation, 2024

Visitor service zone building that provides food court/tenant and dining area for visitors. Other facilities available are minimarket, toilet, prayer room, ATM Center, playground, gazebo, superior commodity gallery, amphitheater and Mini Forest Park.

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Figure 7. Visitor Service Zone Perspective
Source: Author Simulation, 2024

In the car park, there is an additional area in the form of a free rest area equipped with electricity and water installations to charge electricity and meet user needs while resting. Vegetation becomes an imaginary boundary between the car park. Between the car park and the main service area of the rest area plus is connected by a pedestrian path on the back side of the parking lot.

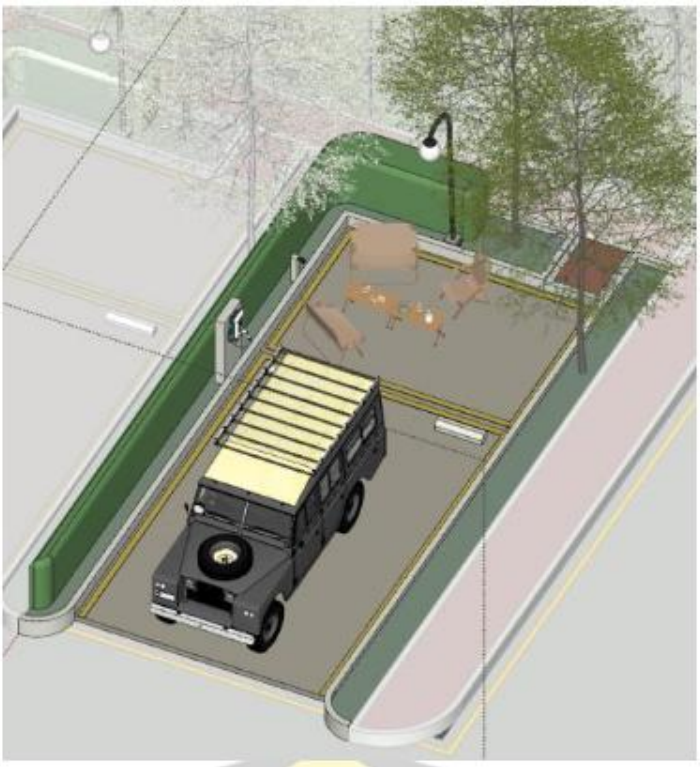

Figure 8. Design Simulation (free rest space in car parking space)
Source: Author Simulation, 2024

The service center area provides commercial space for selling. This area is accommodated in one building mass and outdoor area with tenants. This commercial area for selling provides consumption needs and presents typical Pangandaran cuisine or special cuisine for children/parents/special needs.

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Figure 9. Design Simulation (food court area and UMKM traders)
Source: Author Simulation, 2024

Provision of an Excellent Commodity Gallery as a representative space and promotional tool for superior local products from the Pangandaran area to rest area users, which can indirectly increase regional income through purchases.

Figure 10. Design Simulation (Excellent Commodity Gallery)
Source: Author Simulation, 2024

The provision of an amphitheater aims to be a space for holding regional arts events or performances in Pangandaran Regency. The amphitheater consists of a guest star room, and a committee for small-scale performances. The amphitheater and gallery of superior commodities are both promotional tools for the local government provided in the rest area.

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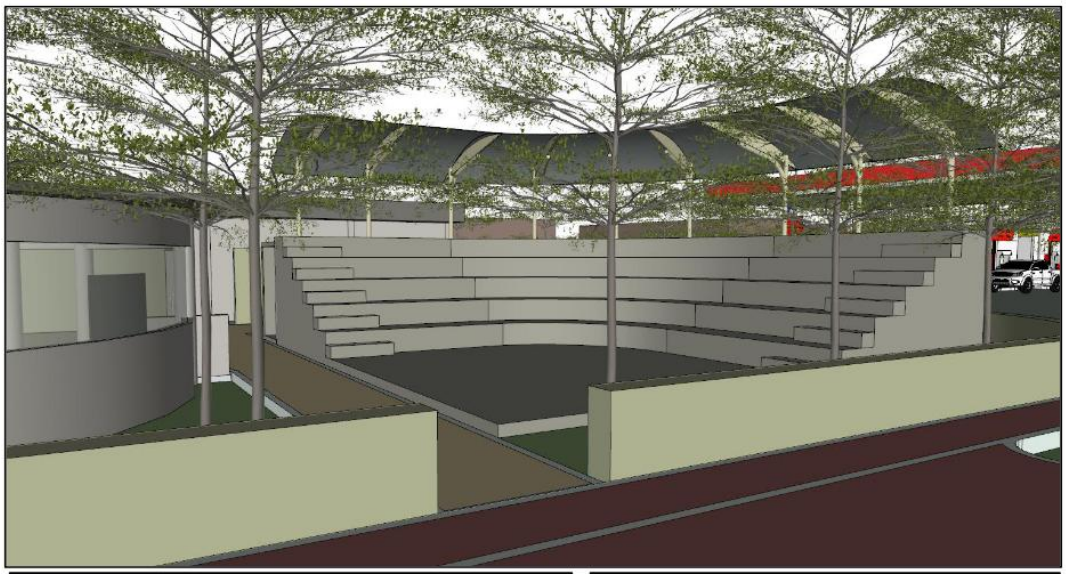

Figure 11. Amphitheater Design Simulation
Source: Author Simulation, 2024

Other facilities available at this rest area plus include gas stations, workshops, electric vehicle charging stations, and control centers for electricity, water and waste management in the area.

Figure 12. Design Simulation (Electricity and Water Network Management Office and Control Center)
Source: Author Simulation, 2024

5. CONCLUSIONS

Road Service Kiosk (Anjungan Pelayanan Jalan/APJ) is a resting place for long-distance drivers to relieve fatigue and reduce the risk of accidents. Long-distance drivers are often found in homecoming activities on big days through the connecting route of Java Island, one of which is the Pansela route which is relatively new and does not yet have adequate and decent rest areas. The Pansela route has the advantage of beach tourism and scenery, so it has the potential to provide APJ/rest areas with a campground concept.

APJ or rest area with campground concept on Pansela route is not only a resting place but also provides added value so that it becomes a rest area plus. The facilities provided include

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green open space zone which is dominant as a resting place with recreational value, utility zone, parking zone, management office zone, clinic zone and lactation room, rest zone, mini forest park zone, gas station zone and workshop. There is provision of food court for commercial and consumption needs in the rest area. The application of economic incubator value is applied to the Superior Commodity Gallery and Amphitheater as a means of promoting tourism, arts and culture of Pangandaran Regency.

The Rest Area Plus building applies the theme of local wisdom of Sundanese architecture with a julang ngapak roof. The main building of the rest area in addition to serving the needs of road users can also be a center for community activities to be productive and beneficial for the surrounding community.

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