



# RESORT HOTEL & AGROWISATA KALIPETE

## KABUPATEN SEMARANG

M. KHOIRUL FADLI  
21020115120040



## DESKRIPSI OBJEK

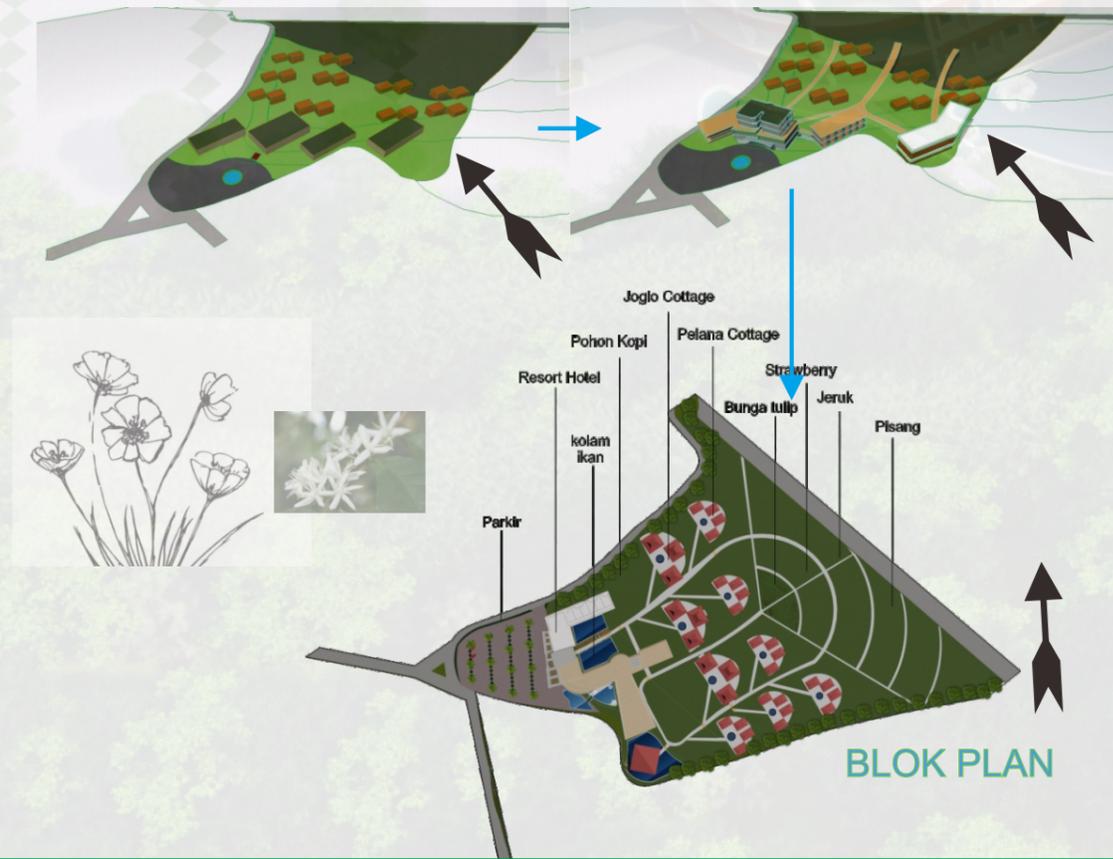
Resort dan agrowisata ini akan dibangun di jalan kalipete, desa kebowan, kecamatan kebowan, kabupaten semarang, Resort dan agrowisata ini akan dibangun diatas lahan milik bapak suryonoseorang pemilik balai budidaya ikan (BBI) di desa tersebut

Adapun Lokasi lahan tersebut berdasarkan peta peruntukan kabupaten semarang merupakan lahan kawan perkebunan serta pertanian hal tersebut selaras dengan rencana pengembangan wisata berbasis agro dengan dilengkapi fasilitas resort,



## MASSING BUILDING

Orientasi Utara menurut teori akan lebih banyak mendapatkan saving energy , namun dalam mempertimbangkan aspek **View to site, view from site** dan aspek Bangunan **entrance yang menyambut** ,maka bangunan utama diputar sedikit kearah barat daya



Orientasi pada gubahan massa **cottage** yang posisinya menghadap utara dan berbaris diubah bagian massa panjangnya menjadi orientasi menghadap timur laut dan terinspirasi dari **bentuk bunga** , orientasi tersebut diharapkan dapat memaksimalkan view

Gubahan massa bangunan utama yang menghadap barat daya **dieksplor, dipecah, ditambahkan over hang** sehingga massa bagian panjangnya terpecah,serta penataan ruangnya dibuat sedemikian rupa agar tidak mendapatkan bukaan ke barat

## KONDISI TAPAK

Adapun kondisi eksisting Lokasi lahan yang akan dibangun resort dan agrowisata adalah sebagai berikut:



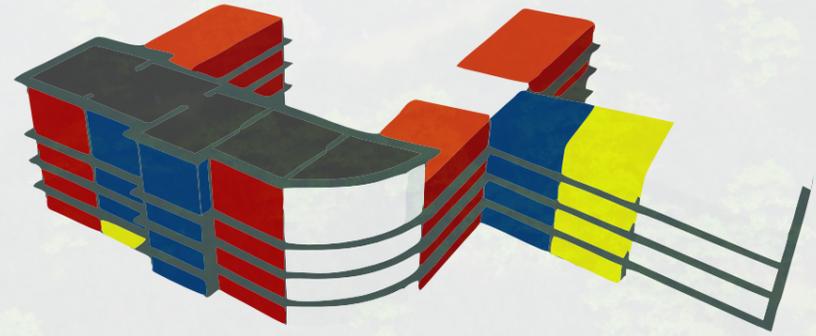
Letak Agrowisata & resort kalipete yang strategis, dikarenakan berada di daerah perbatasan Kabupaten Semarang dengan Kota salatiga, dekat dengan exit tol salatiga, dekat dengan BBI desa kebowan,serta dekat dengan havana horse.

## ATURAN SETEMPAT

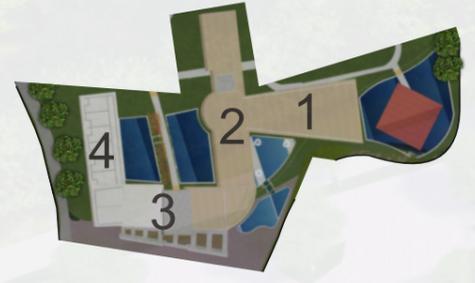
Adapun Peraturan setempat mengenai Lokasi lahan yang akan dibangun resort dan agrowisata adalah sebagai berikut:

Lokasi tapak	= Jl kalipete, desa kebowan, kecamatan suruh,kabupaten semarang
Ordinat Lokasi tapak	=
Luas tapak	= 49.493 m <sup>2</sup>
KDB	= 60% = 29.695m <sup>2</sup>
KLB	= MAKS 4 LANTAI
RTH /lahan infiltran	= 40% = 19.797 m <sup>2</sup>
GSB	= 4m

# ZONING & BUILDING DEPTH



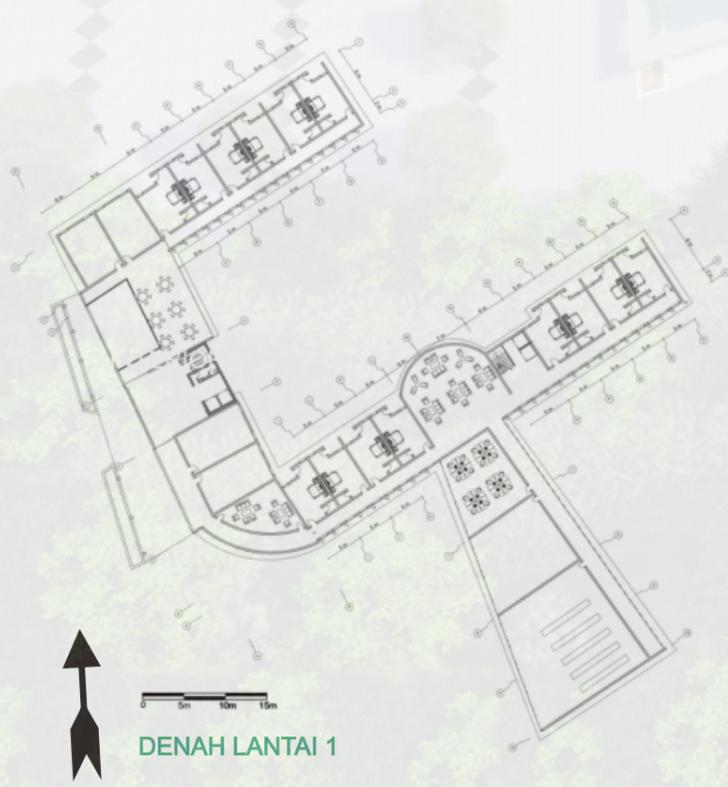
- Kelompok Ruang Resort 2427 m2
  - Kelompok Ruang Restoran dan cafe 367 m2
  - Kelompok Ruang Lobby dan Pengelola 1062 m2
  - Kelompok Ruang Penunjang Market, Lounge, aula 1442 m2
- Jumlah Rekapitulasi Besaran Ruang Resort 5298m2**



massa	orientasi	jumlah lantai	Depth (m2)	a X b (m)
1	south west	3	15	45
2	south	3	11	33
3	south west	4	12	48
4	north	3	11	33
		13		159
				12,23077

Rata-rata Building depth dari ke empat massa tersebut adalah **12.6m**

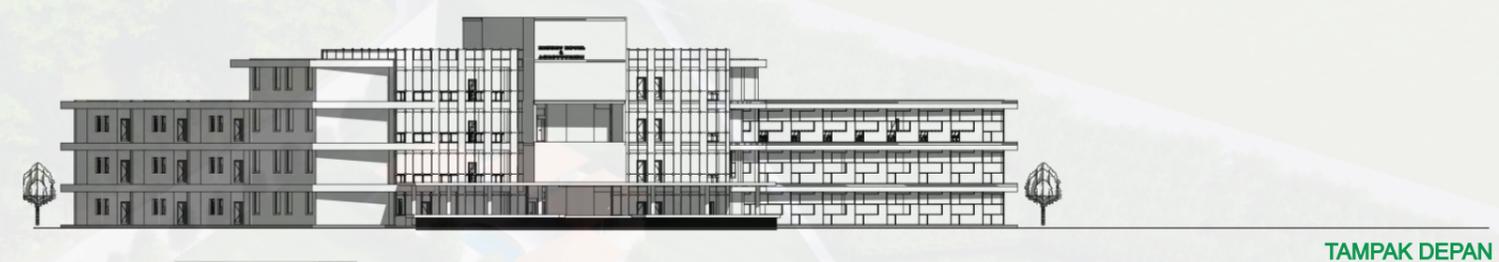
# DENAH



DENAH LANTAI 2

DENAH LANTAI 3

# TAMPAK



TAMPAK DEPAN



TAMPAK SAMPING KANAN

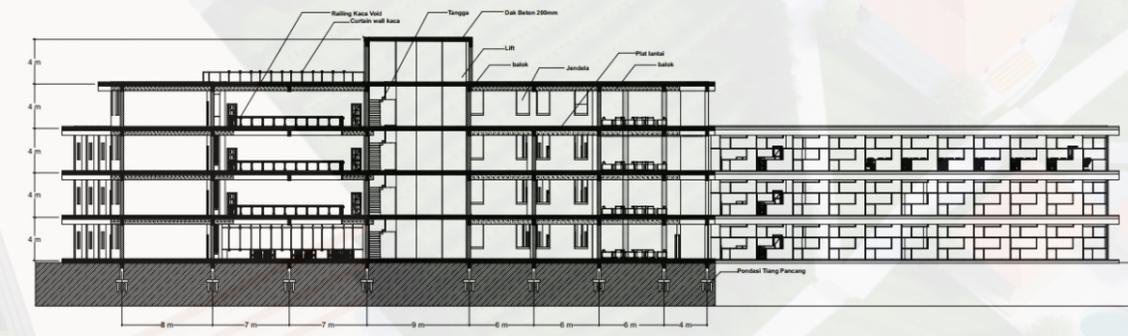


TAMPAK SAMPING KIRI



TAMPAK BELAKANG

# POTONGAN

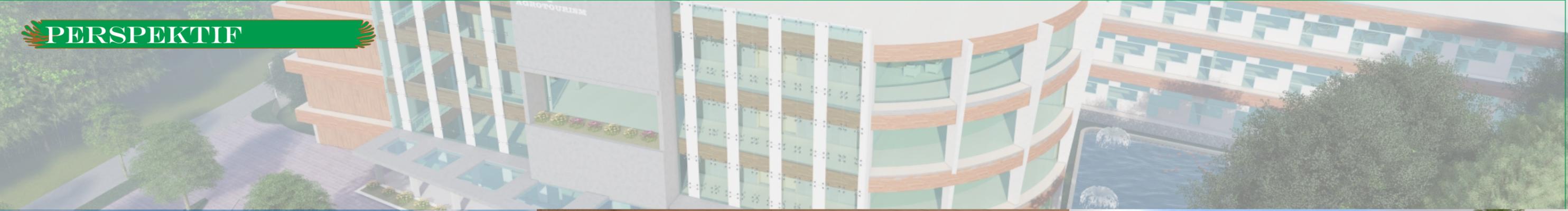


POTONGAN A-A'



POTONGAN B-B'

**PERSPEKTIF**



**perspektif depan**



**office**



**eksterior joglo cottage**



**interior void**



**site plan**



**interior joglo cottage family room**



**aerial view**



**bed room**



**aerial view**

# ENERGY SAVING

## HTE01 WWR

HTE01 - Reduced Window-to-Wall Ratio Calculator

Orientation	Wall Area (m <sup>2</sup> ) Example: 120	Glazing Area (m <sup>2</sup> ) Example: 60	Ratio in %
North	860.00	140.00	20.29
South	945.00	240.00	44.04
East	900.00	285.00	57.00
West	453.00	320.00	70.64

## HTE02 EKSTERNAL SHADING DEVICE

HTE02  External Shading Devices - Annual Average Shading Factor (AASF) of 0.32

AASF

[Upload Document\(s\)](#) | [Calculator](#)

## HTE06 HIGHER FORMAL PERFORMANCE GLASS

HTE06 - Glass Properties Calculator

Calculate the average glass properties if multiple glass types have been used in the project.

Glass Types	External Transparent Glass Area (m <sup>2</sup> ) Example: 258	Solar Heat Gain Coefficient Example: 0.86	U-value (W/m <sup>2</sup> K) Example: 1.39
Type 1	442.00	0.72	0.28
Type 2	864.00	0.88	0.80

## HTE10 AIR CONDITIONER AIR CHILLER

HTE10\*  Air Conditioning with Air Cooled Screw Chiller - COP of 3.2

COP

[Upload Document\(s\)](#) | [Calculator](#)

## HTE28 Lighting Controls for Corridors

HTE28  Lighting Controls for Corridors

[Upload Document\(s\)](#)

## HTE29 Occupancy Sensors in Bathrooms

HTE29  Occupancy Sensors in Bathrooms

[Upload Document\(s\)](#)

## HTE31 Solar Photovoltaics - 10% of Total Energy Demand

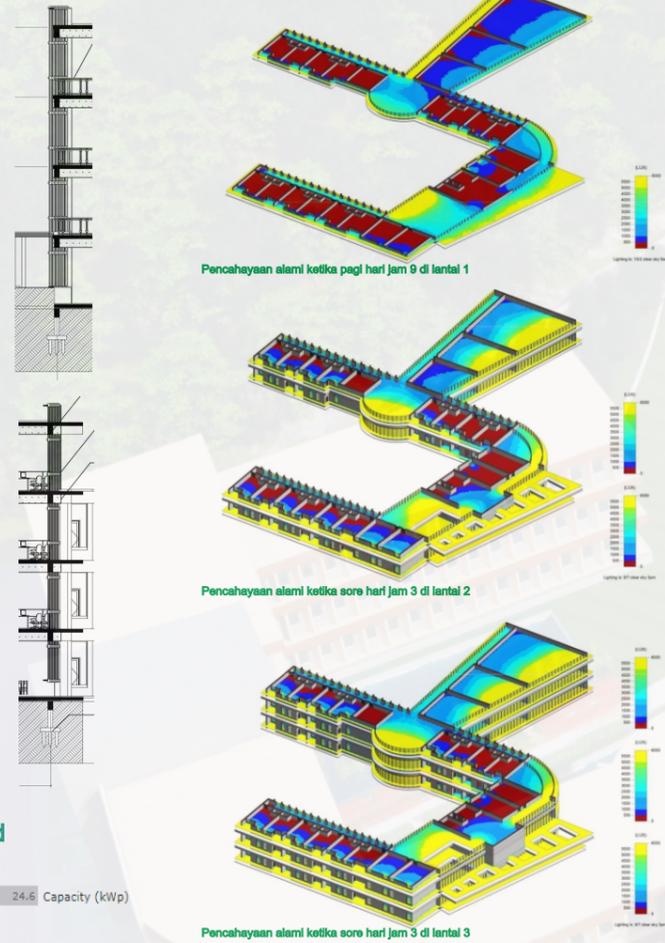
HTE31  Solar Photovoltaics - 10% of Total Energy Demand

% of Annual Electricity Use

24.6 Capacity (kWp)

[Upload Document\(s\)](#)

## Analisa Pencahayaan alami dengan autodesk insight



# WATER SAVING

HTW01\*  Low-Flow Showerheads - 6 L/min

L/min

[Upload Document\(s\)](#) | [Calculator](#)

HTW02\*  Low-Flow Faucets in Guest Rooms/Apartment Area - 2 L/min

L/min

[Upload Document\(s\)](#) | [Calculator](#)

HTW03\*  Single Flush/Flush Valve for Water Closets in Guest Rooms/Apartment Area -5L/flush

Single Flush/Flush Valve

1st - L/flush

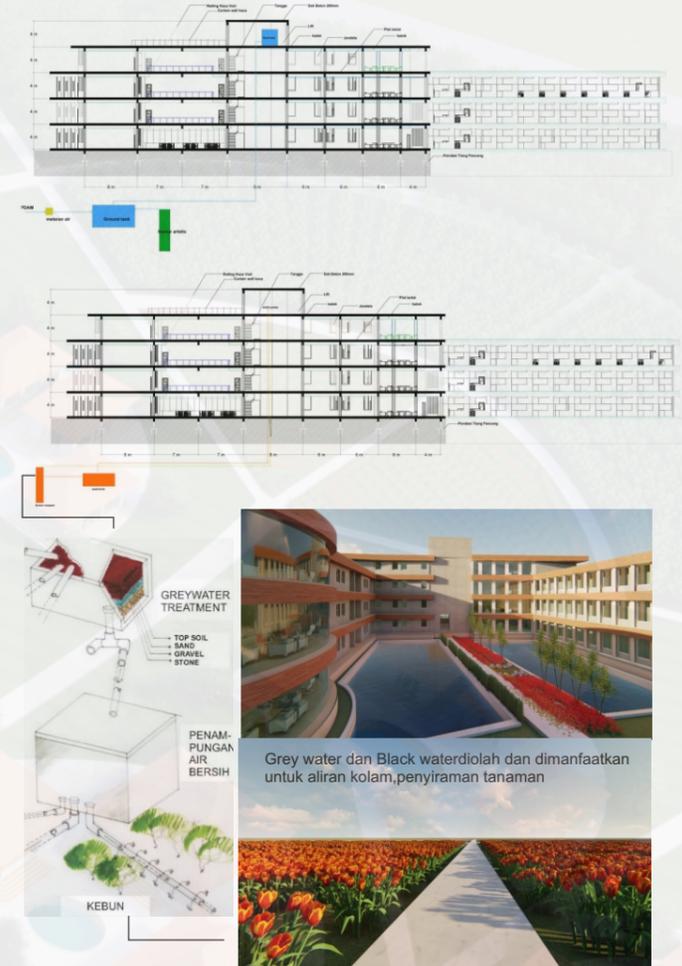
[Upload Document\(s\)](#)

HTW15  Grey Water Treatment and Recycling System

[Upload Document\(s\)](#)

HTW16  Black Water Treatment and Recycling System

[Upload Document\(s\)](#)



# RESULT

# MATERIAL SAVING

## Materials Efficiency Measures

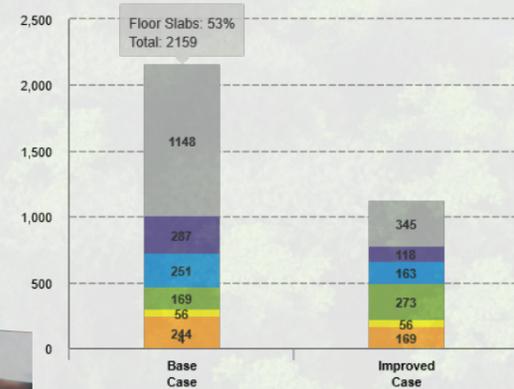
Choose building material options to achieve savings of at least 20%, indicating thickness.

Ref	Building Material	Improved Case Selection	Proportion %	Thickness	Steel Rebar
HTM01*	Floor Slabs <a href="#">Upload Document(s)</a>	Concrete Filler Slab		120 mm	kg/m <sup>2</sup>
HTM02*	Roof Construction <a href="#">Upload Document(s)</a>	Type 1 Concrete Filler Slab	100 %	200 mm	kg/m <sup>2</sup>
HTM03*	External Walls <a href="#">Upload Document(s)</a>	Type 1 Curtain Walling (Opaque Element)	100 %	100 mm	
HTM04*	Internal Walls <a href="#">Upload Document(s)</a>	Type 1 Common Brick Wall with Plaster on Both Sides	100 %	150 mm	
HTM05*	Flooring <a href="#">Upload Document(s)</a>	Type 1 Ceramic Tile	100 %		
HTM06*	Window Frames <a href="#">Upload Document(s)</a>	Type 1 UPVC	100 %	Single Glazing	
HTM08	Roof Insulation	No Insulation			

$U : \sim 1.28 \text{ W/m}^2\text{K}$

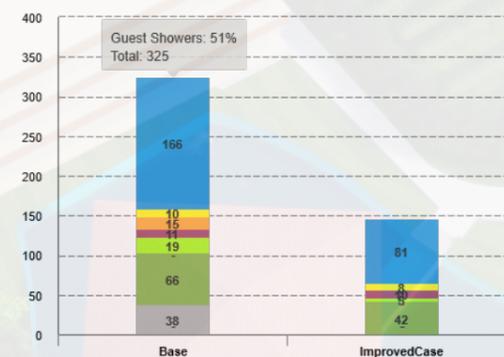


## ENERGY SAVING 45,26%



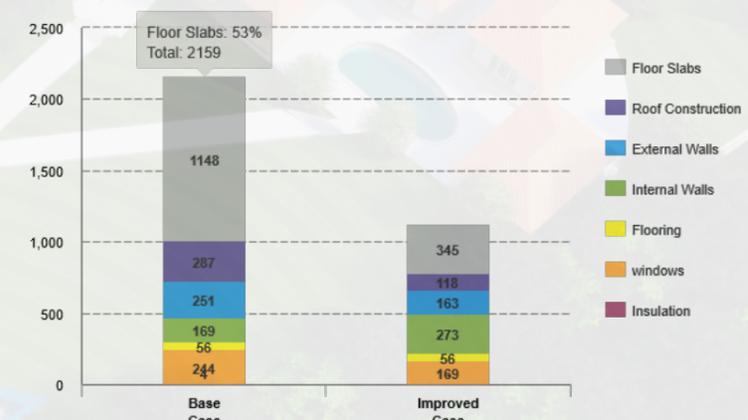
EMBODIED ENERGY(MJ/m<sup>2</sup>)

## WATER SAVING 54,37%



WATER (m<sup>3</sup>/Room/Year)

## MATERIAL SAVING 47,97%



EMBODIED ENERGY(MJ/m<sup>2</sup>)

**PERSPEKTIF**



**eksterior joglo cottage**



**interior joglo cottage  
bed room**



**interior joglo cottage  
family room**



**interior joglo cottage  
family room**

