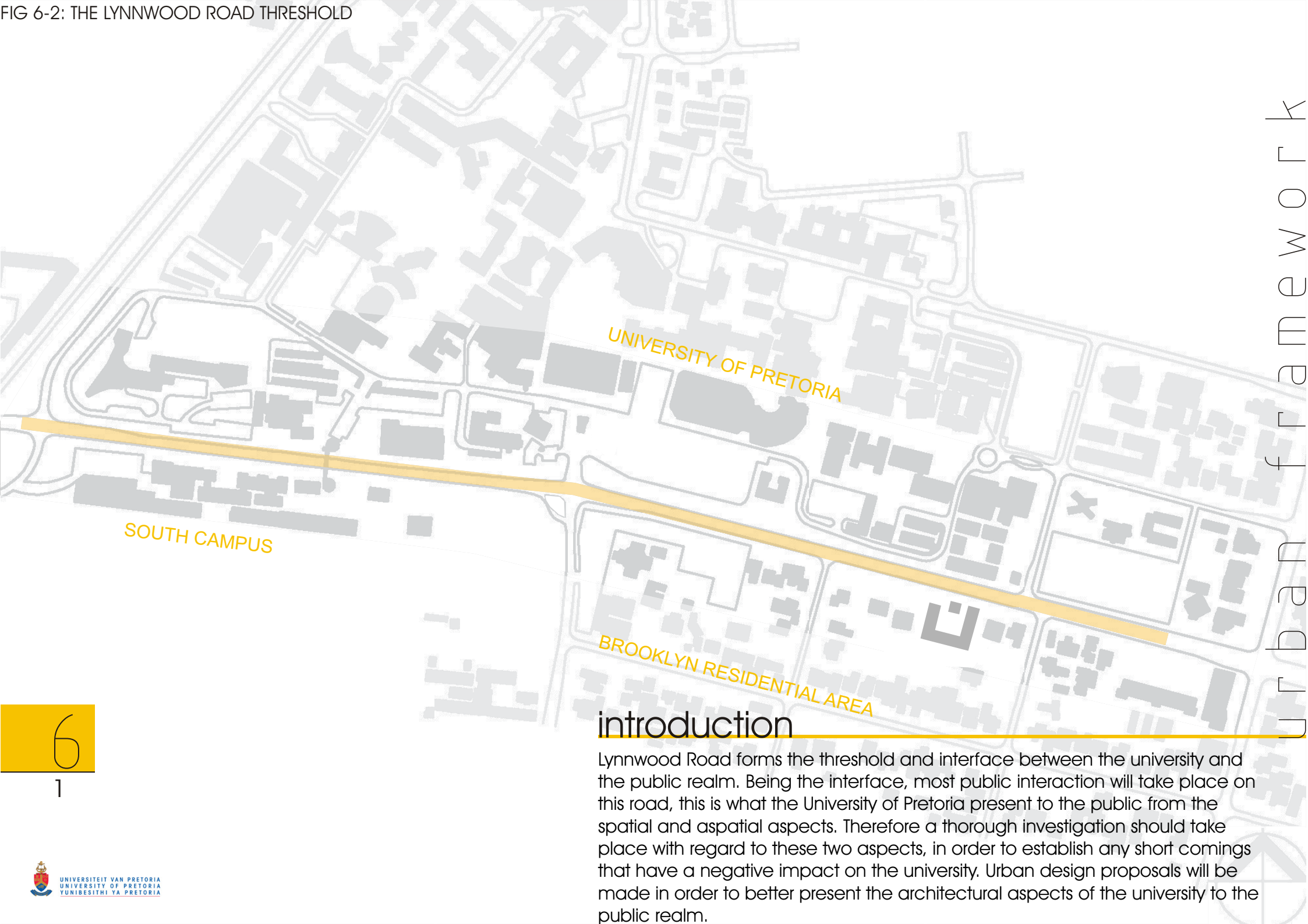


FIG 6-1: SIMONÉ MARINUS/UNIVERSITY OF PRETORIA



URBAN FRAMEWORK

## introduction

Lynnwood Road forms the threshold and interface between the university and the public realm. Being the interface, most public interaction will take place on this road, this is what the University of Pretoria present to the public from the spatial and aspatial aspects. Therefore a thorough investigation should take place with regard to these two aspects, in order to establish any short comings that have a negative impact on the university. Urban design proposals will be made in order to better present the architectural aspects of the university to the public realm.

As a result of the connectivity that Lynnwood Road provide between the N1 highway and Pretoria CBD, there is a high volume of people utilizing the road. There isn't currently a well functioning public transport system. Mini-busses are sometimes not road worthy and people feel unsafe to use them. Busses circulate the areas with no clear indication of the direction or destination and arrive after large time intervals. Therefore the majority of the people making use of the roads as well as Lynnwood Road, utilizes private vehicles which mostly transports only the driver with having no passengers.

As discussed, cars can destroy the social and ecological aspects of an area, and by the rate the petrol price is increasing, it is also busy destroying the economy. This observable fact of cars destroying the social environment of an area, is extremely evident at the university on Lynnwood Road. As a result of the dividing power of the cars, the university is left a desolate island with no social interaction between the university and the Brooklyn residential area to the south of Lynnwood Road. For this problem to be solved, the amount of private vehicles and the speed at which they travel should decrease drastically.

All roads including Lynnwood Road should be dominated by public transport and not by private vehicles. The idea is not to lessen the amount of people that utilize Lynnwood Road, but the amount of private vehicles by introducing a well functioning public transport system. We all know that most private vehicles on the road only transport one person, and when considering that a single level bus can transport at least fifty people at a time. Consequently every thousand cars can be decreased to only twenty busses. Busses are also the most economical vehicular transport there is as it can transport the most people.

## transport

The amount of private vehicles can be decreased by implementing a well managed bus transport system. The busses should be safe with a bus arriving every 15 minutes and should have a completely different in colour such as red, to be easily distinguishable from the other busses. The buss route should run the entire length of Lynnwood Road from the CBD right pass the N1 highway. Through this, the amount of vehicles passing the university would be less than half of the current situation, making the integration of the university to the community to the south of Lynnwood Road possible.

6

2





FIG 6-3: PUBLIC TRANSPORT

LYNWOOD ROAD

N1 HIGHWAY

U R B A N   D E S I G N

6

3

## transport

Urban design principles indicates that 400m is a comfortable distance for people in-general to walk. Therefore every 400m there should be a bus pickup indicated by the circles. The circles also indicate from where in the community people could walk to a bus pickup. The people further than that would need other public transport or use cars to get to the pickup, therefore at every bus pickup there should be secure basement parking provided where cars can be left for a period of time and picked up when returning. There are also bus pickups at the highway where busses from the highway can drop off people.



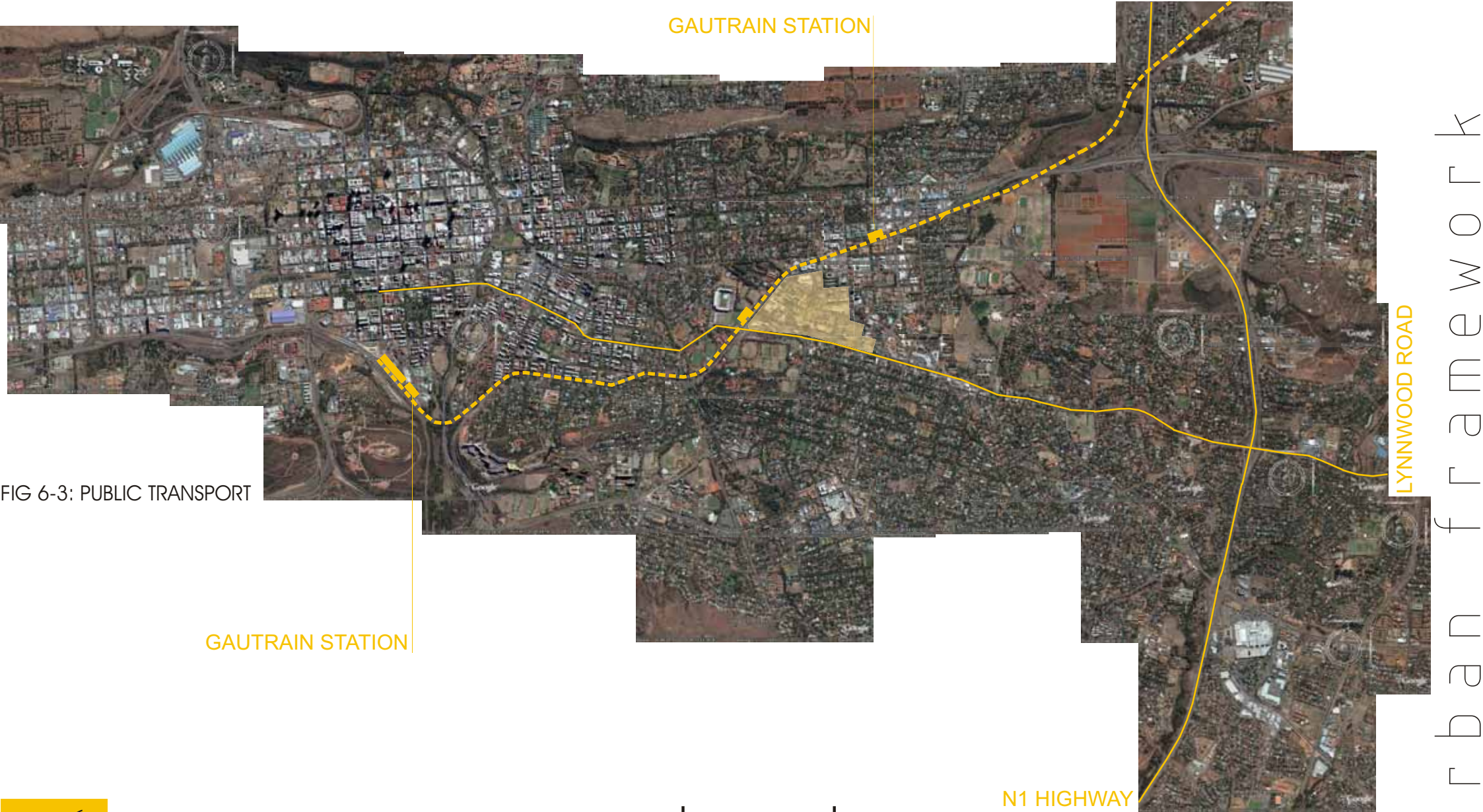


FIG 6-3: PUBLIC TRANSPORT

## transport

The Gautrain, which is a high speed submerged train connecting Johannesburg and Pretoria, is currently under construction and will be finished in the year 2010. There are cars traveling on Lynnwood road, which come from Johannesburg and are on their way to the CBD. Therefore when considering the Gautrain, a lot of the cars from Johannesburg will be eliminated which would again lessen the volume of private vehicles.

LYNWOOD ROAD

Urban framework





FIG 6-4: BUS PICKUPS

## transport

Through this well managed bus transit system, many students making use of this, would no longer need to arrive at the university by car. They would either walk to the nearest bus pickup as explained or would leave their cars at one of the secure basement parking at the particular bus pickup. As can be derived from the previous diagram, which indicates the 400m walking circles, the university would need one bus pickup at the Administration building, one at the main entrance and one at the Incubator of Innovation. The bus pickups should be opposite each other, increasing the social interaction between people.

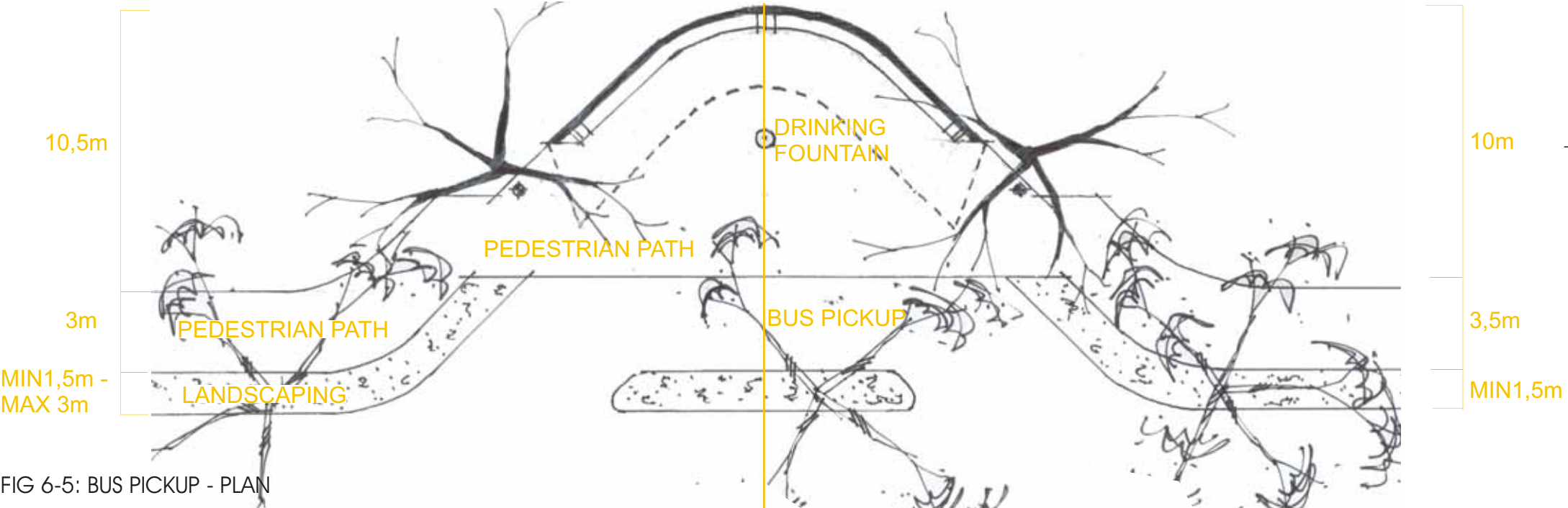


FIG 6-5: BUS PICKUP - PLAN



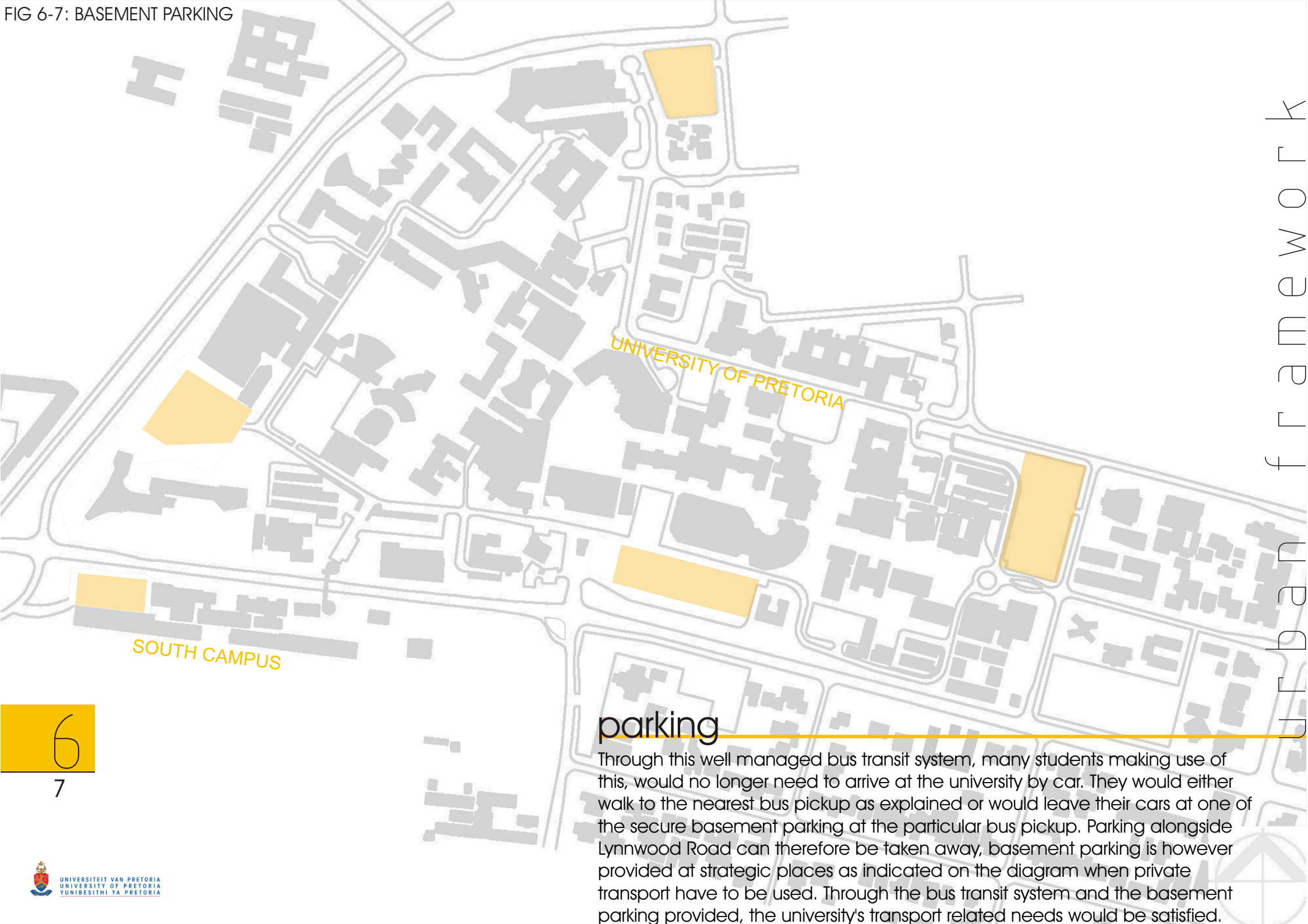
FIG 6-6: BUS PICKUP - SECTION

transport

The bus pickup should be a shelter which shape emphasize a concept of 'pickup' and not 'stop' and should therefore have a fluid form. The shelter should be cross ventilated through adjustable aluminium louvers at the top. The space must be well lit and provided with dustbins and a drinking fountain in the middle of the space.



FIG 6-7: BASEMENT PARKING



6  
7

## parking

Through this well managed bus transit system, many students making use of this, would no longer need to arrive at the university by car. They would either walk to the nearest bus pickup as explained or would leave their cars at one of the secure basement parking at the particular bus pickup. Parking alongside Lynnwood Road can therefore be taken away, basement parking is however provided at strategic places as indicated on the diagram when private transport have to be used. Through the bus transit system and the basement parking provided, the university's transport related needs would be satisfied.



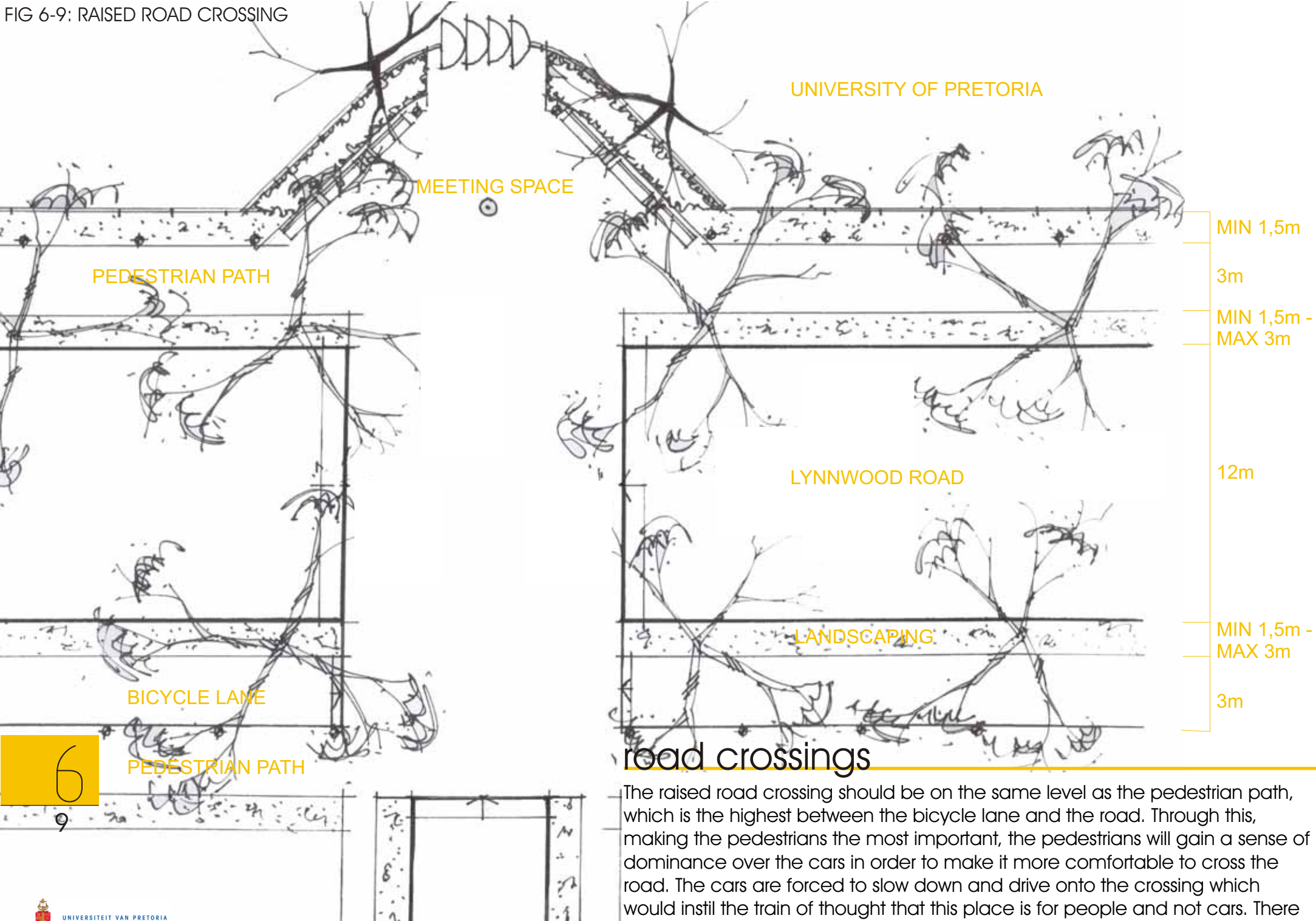


## road crossings

The traffic should be slowed down to make it easier for pedestrians and bicycles to cross Lynnwood Road. Through the implementation of raised road crossings where indicated, traffic would slow down to an inconvenient pace, discouraging the use of private vehicles in order to utilize the public transport system. This place is not for cars, it is for people and the urban environment should reflect the importance of students even if it effects private vehicles. Through the implementation of these crossings the integration of the university with the Brooklyn area and the South Campus is enhanced.



FIG 6-9: RAISED ROAD CROSSING



URBAN FRAMEWORK

6

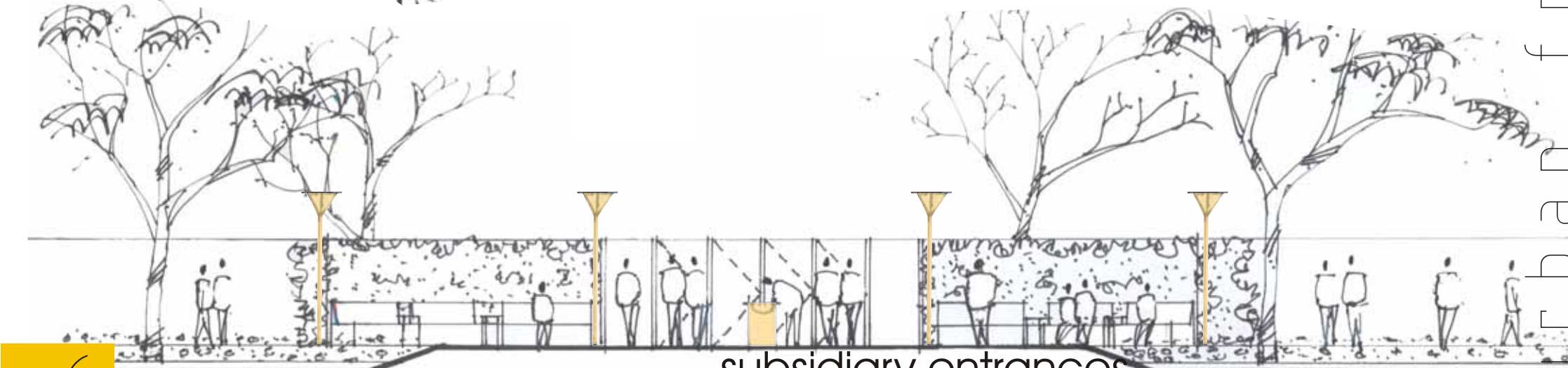
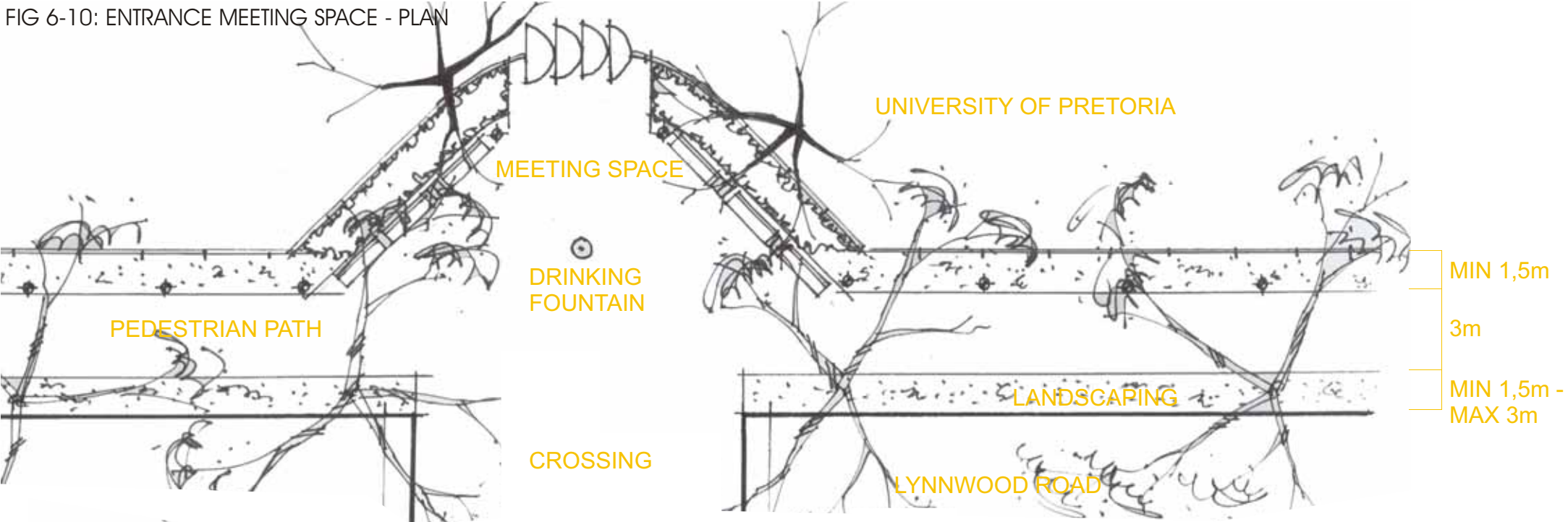
9

### road crossings

The raised road crossing should be on the same level as the pedestrian path, which is the highest between the bicycle lane and the road. Through this, making the pedestrians the most important, the pedestrians will gain a sense of dominance over the cars in order to make it more comfortable to cross the road. The cars are forced to slow down and drive onto the crossing which would instil the train of thought that this place is for people and not cars. There should be a pedestrian and bicycle entrance to the university at these crossings or within close proximity to it, in order to increase the permeability.



FIG 6-10: ENTRANCE MEETING SPACE - PLAN



6  
10

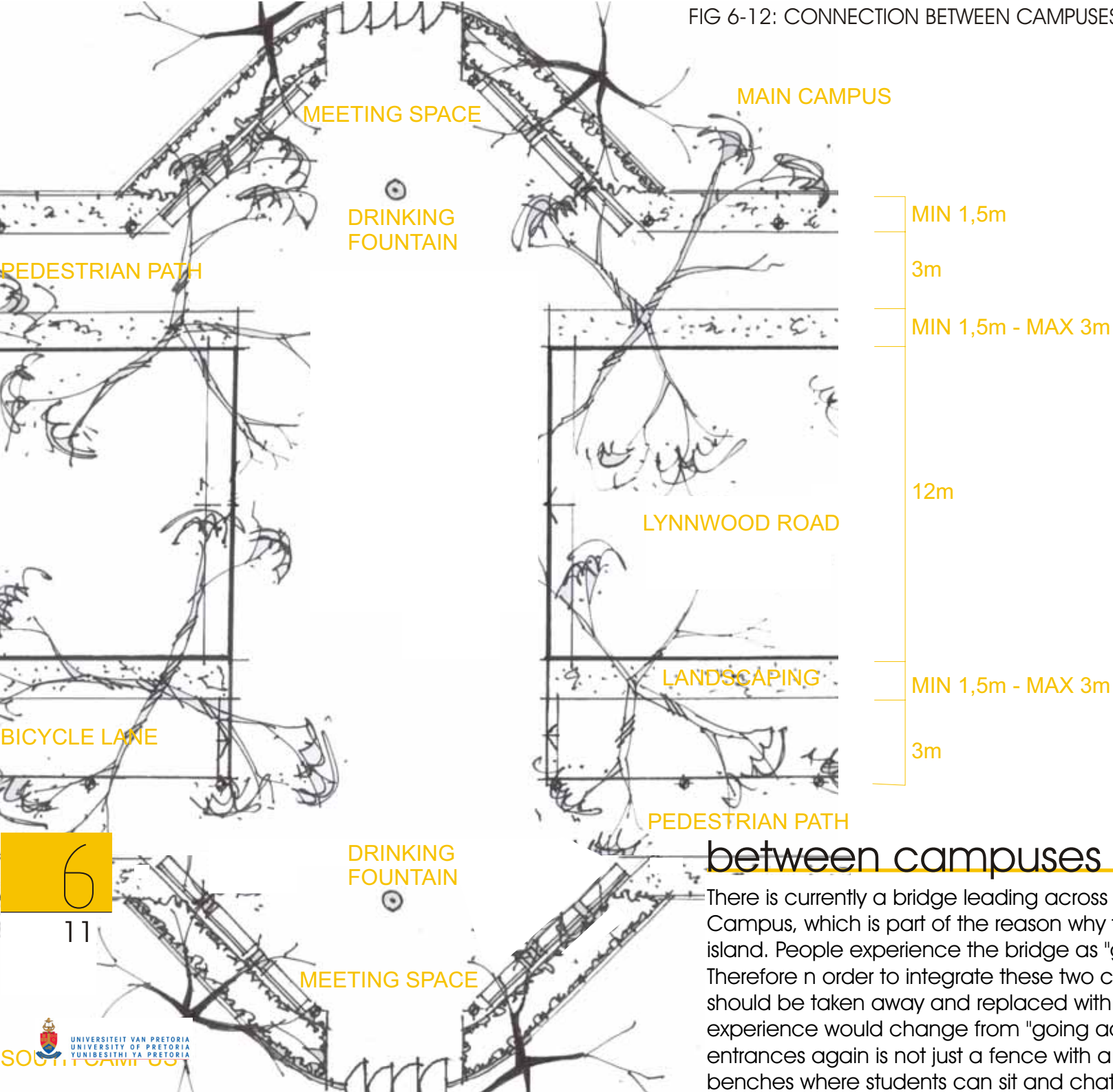
FIG 6-11: ENTRANCE MEETING SPACE - SECTION

### subsidiary entrances

There should be a meeting space in front of these entrances where students could wait for friends or simply rest and read a book. These spaces should be shaded and well lit and provided with dustbins and a drinking fountain.

urban framework

FIG 6-12: CONNECTION BETWEEN CAMPUSES

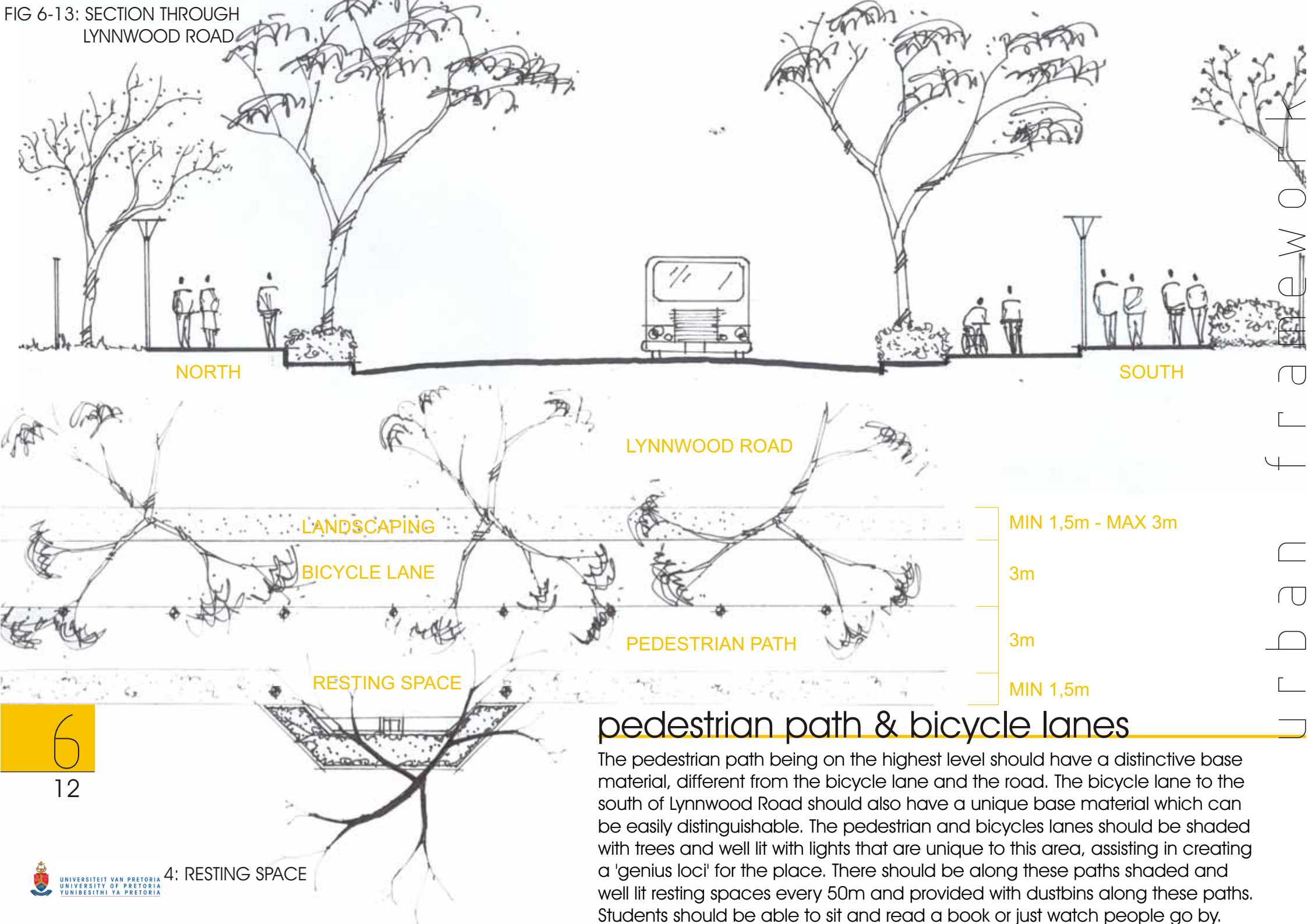


## between campuses

There is currently a bridge leading across the road from Main Campus to South Campus, which is part of the reason why the university feels like a desolate island. People experience the bridge as "going across to the other side". Therefore in order to integrate these two campuses with each other the bridge should be taken away and replaced with a raised road crossing. The experience would change from "going across" to "going next door". The entrances again is not just a fence with a gate, but a shaded well lit space with benches where students can sit and chat or wait for other people.



FIG 6-13: SECTION THROUGH  
LYNNWOOD ROAD



NORTH

SOUTH

LYNNWOOD ROAD

LANDSCAPING

BICYCLE LANE

PEDESTRIAN PATH

RESTING SPACE

MIN 1,5m - MAX 3m

3m

3m

MIN 1,5m

6

12

## pedestrian path & bicycle lanes

The pedestrian path being on the highest level should have a distinctive base material, different from the bicycle lane and the road. The bicycle lane to the south of Lynnwood Road should also have a unique base material which can be easily distinguishable. The pedestrian and bicycles lanes should be shaded with trees and well lit with lights that are unique to this area, assisting in creating a 'genius loci' for the place. There should be along these paths shaded and well lit resting spaces every 50m and provided with dustbins along these paths. Students should be able to sit and read a book or just watch people go by.

URBAN FOR A NEW ORIENT

There is a sense of place created for the student to the north of the university in Hatfield, but that character is not present when considering the southern side which is the most prominent side as well as the public interface with the university. When driving down Lynnwood Road this is what is extremely apparent, there is very little identifiable connection between the university and the Brooklyn area. With the university being on the northern side of Lynnwood Road, there should be a character which describes student life on the south side.

To the south of Lynnwood Road the area is single use residential dwellings with no variety. One can argue that the reason for this is that it is so close to the Hatfield business center as well as the Brooklyn business center. This is true but the edges should be mixed-use to form the threshold between the business centers outside and the residential area inside.

The area has achieved this to an extent on Duncan Road's side with a mixture of houses and businesses alongside the road, but it is still mostly single dwelling houses alongside Lynnwood Road with one mono-functional six storey flat complex. Developers have however just finished a student housing complex alongside the road, but it is single use.

Therefore introduce high density mixed-use buildings alongside the road. It should be four storeys high buildings with student housing on top and shops and coffee shops. Through this increase the variety of the area in order to offer the individual some choice in the area. Through this initiate some quite nightlife, which would serve to create a 'genius loci' where a student can feel comfortable.

## university precinct

The social character of Lynnwood Road is completely lost, there should be high density student housing on top of shops and coffee shops alongside the road. By the implementation of urban principles, the student social culture should be emphasized and restored. This would assist in defining the precinct as a university precinct which would increase the legibility. By creating a student social culture on the southern side of Lynnwood Road, serve to integrate and stitch the university back into the community.





FIG 6-15: AERIAL VIEW OF LYNNWOOD ROAD

RENOVATE - HIGH DENSITY MIXED USE MAKING IT THREE STOREYS WITH COMMERCIAL AT THE BOTTOM

DEMOLISH - HIGH DENSITY MIXED USE SOME ARCHITECTURAL VALUE BUT SINGLE USE

DEMOLISH - HIGH DENSITY MIXED USE NO ARCHITECTURAL OR HISTORICAL VALUE, SINGLE USE AND SINGLE STOREY

REMAIN - ITALIAN EMBASSY



REMAIN - HIGH DENSITY STUDENT HOUSING ARCHITECTURAL VALUE AND HIGH DENSITY

DEMOLISH - HIGH DENSITY MIXED USE NO ARCHITECTURAL OR HISTORICAL VALUE, SINGLE USE AND SINGLE STOREY

RENOVATE - HIGH DENSITY MIXED USE MAKING IT THREE STOREYS WITH COMMERCIAL AT THE BOTTOM

REMAIN - HIGH DENSITY STUDENT HOUSING SOME ARCHITECTURAL VALUE AND HIGH DENSITY

DEMOLISH - HIGH DENSITY MIXED USE SOME ARCHITECTURAL VALUE BUT SINGLE USE

DEMOLISH - HIGH DENSITY MIXED USE NO ARCHITECTURAL OR HISTORICAL VALUE, SINGLE USE

REMAIN - STUDENT ACCOMMODATION ARCHITECTURAL AND HISTORICAL VALUE

REMAIN - STUDENT ACCOMMODATION ARCHITECTURAL AND HISTORICAL VALUE

DEMOLISH - HIGH DENSITY MIXED USE NO ARCHITECTURAL OR HISTORICAL VALUE, SINGLE USE AND SINGLE STOREY

PARKING AREA - HIGH DENSITY MIXED USE BASEMENT PARKING PROVIDED

aerial view of lynnwood road

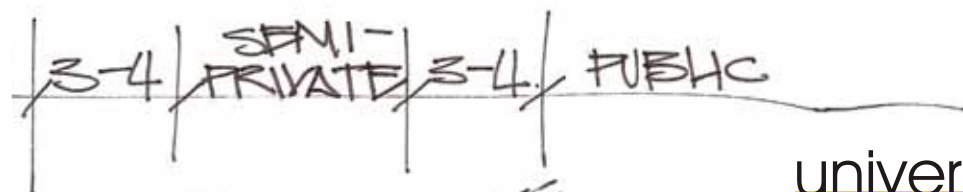


FIG 6-16: SEMI-PRIVATE SPACE BEHIND MIXED-USE BUILDING

FIG 6-17: PUBLIC SEMI-ENCLOSED SPACES



FIG 6-18: SHOPS AND COFFEE SHOPS BELOW RESIDENTIAL UNITS



## university precinct

Space is only created once it is defined through enclosure or semi-enclosure by making use of natural or built-form elements. The created space has the potential to be part of the public realm or the private realm, but it is the specific function that renders it to be public or private. Buildings should be placed at the perimeter of the site in order to create an inside and an outside space. The outside shall act as public fronts and the inside could act as semi private or communal backs, to be used for the housing on top. The inside space with increased permeability could be a public square.



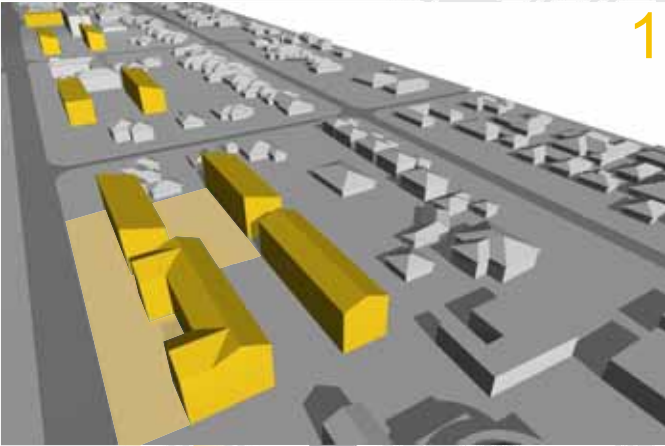


FIG 6-20: FOUR STOREY MIXED-USE BUILDINGS

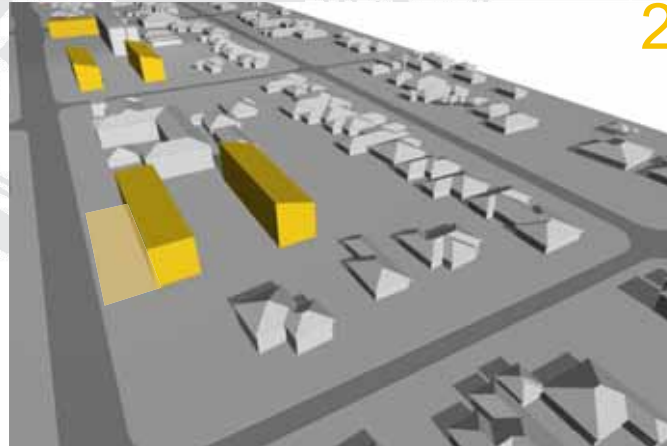


FIG 6-21: FOUR STOREY MIXED-USE BUILDINGS

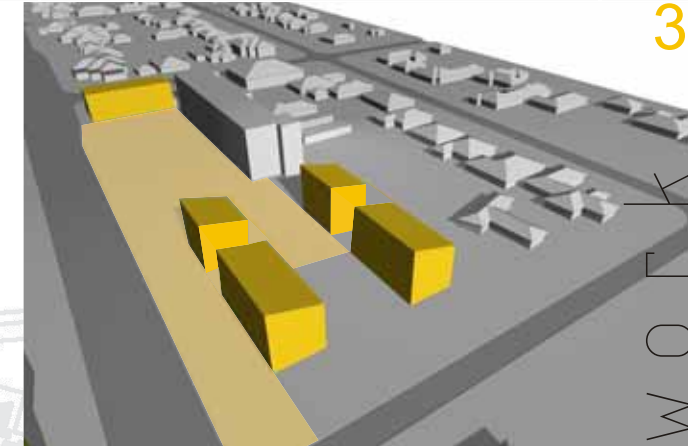


FIG 6-22: FOUR STOREY MIXED-USE BUILDINGS

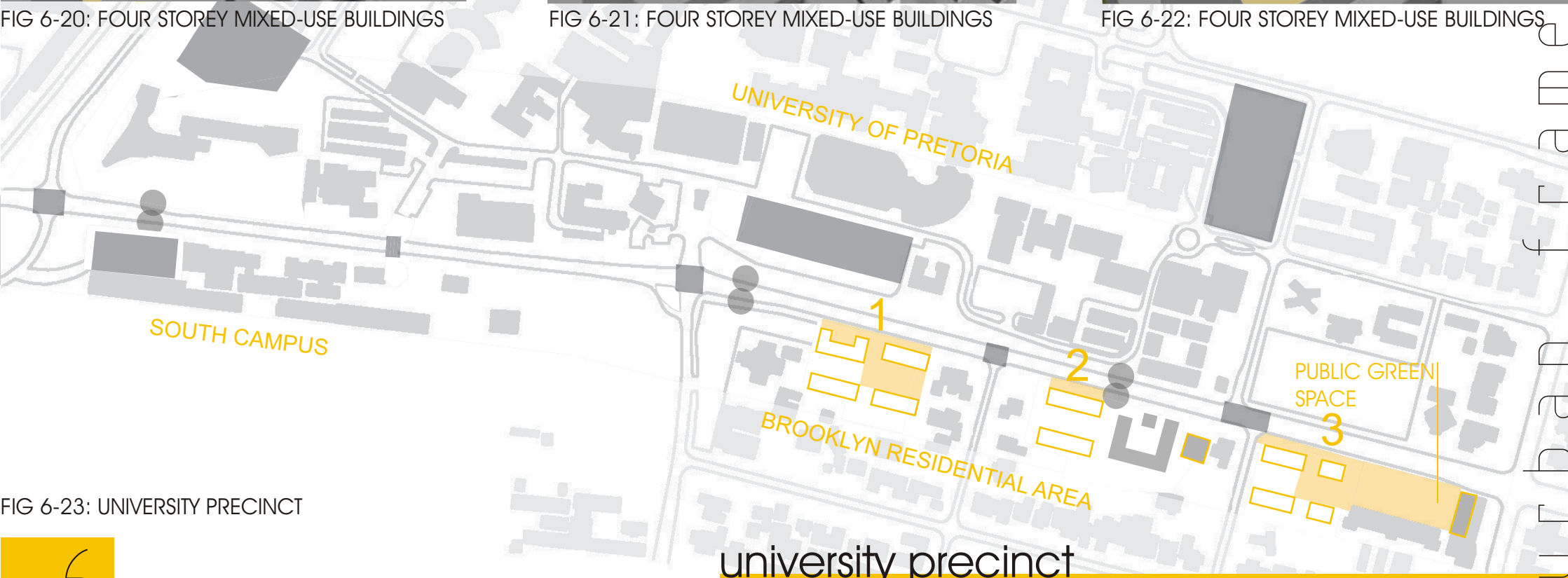


FIG 6-23: UNIVERSITY PRECINCT

## university precinct

Indicated is where the proposed high density mixed use will be situated. The yellow fill indicates the public spaces, which include public squares and green spaces. The spaces behind the buildings in white would be semi-private or for communal use by the students residing there. 360 degrees perimeter buildings have problems with the orientation with regard to the western sun. Therefore the shape of the buildings are rectangular in order for the buildings to be orientated towards north. Through this shape and orientation, spaces are enclosed but there is still a degree of openness on the sides.



FIG 6-24: TYPICAL ELEVATION OF MIXED-USE BUILDINGS

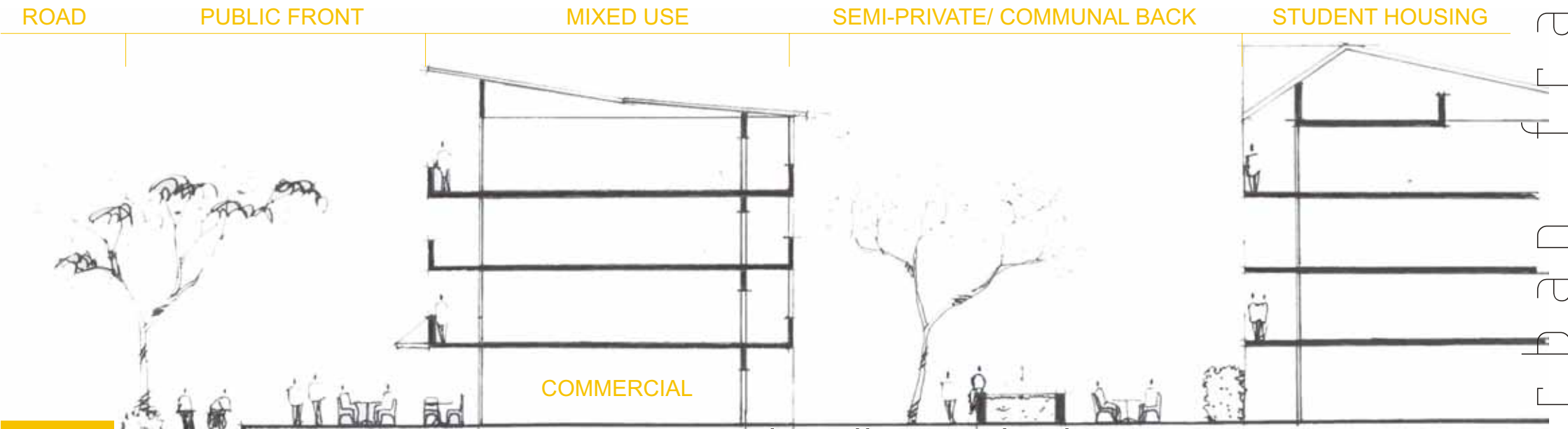


FIG 6-25: TYPICAL SECTION OF MIXED-USE BUILDINGS

## university precinct

High density urban housing should be incorporated with a mixture of other activities in order to sustain a neighbourhood. The success of high-density urban housing is dependant on high quality urban design which determines the arrangement of public and private spaces and how people move from the public to the private space. Through the use of front and back perimeter blocks, the building forms the most apparent threshold between the public and private realm, where the front of the building face the public space and the back opens up onto the communal or semi-private space.





LOST SPACE - FOUR STOREY BUILDINGS IN FRONT OF GREEN SPACE



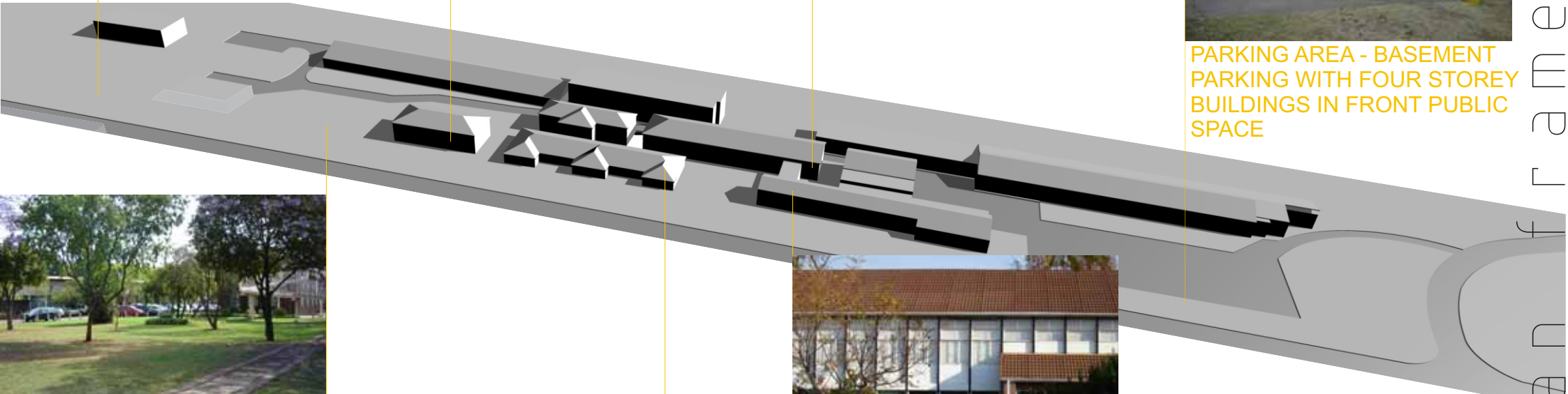
BUILDING 8



BUILDING 4 - GREEN SPACE IN FRONT OF BUILDING



PARKING AREA - BASEMENT PARKING WITH FOUR STOREY BUILDINGS IN FRONT PUBLIC SPACE



GREEN SPACE - FOUR STOREY BUILDINGS IN FRONT OF GREEN SPACE



BUILDING 8



BUILDING 2

FIG 6-26: 3D IMAGE OF EXISTING SOUTH CAMPUS

# south campus

6

18

URBAN NETWORK

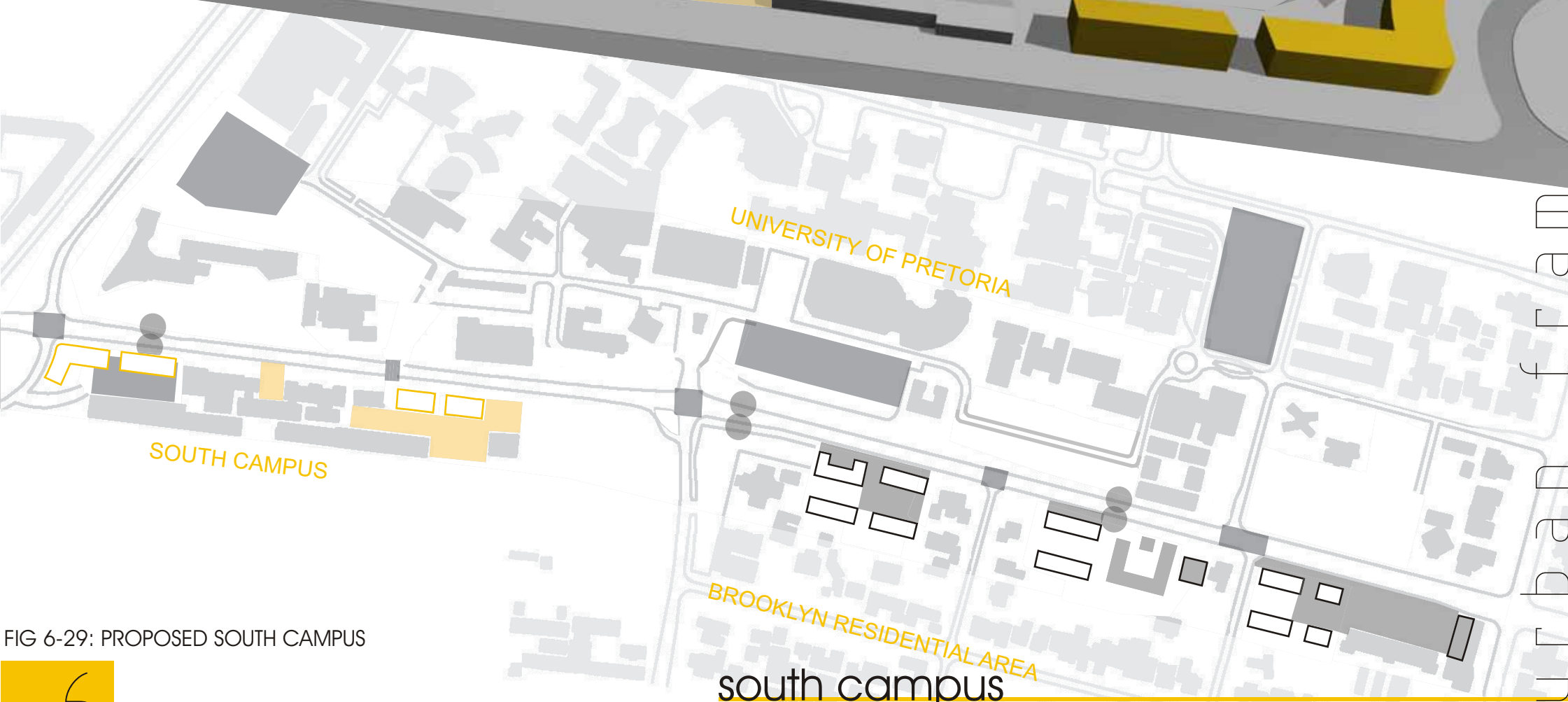
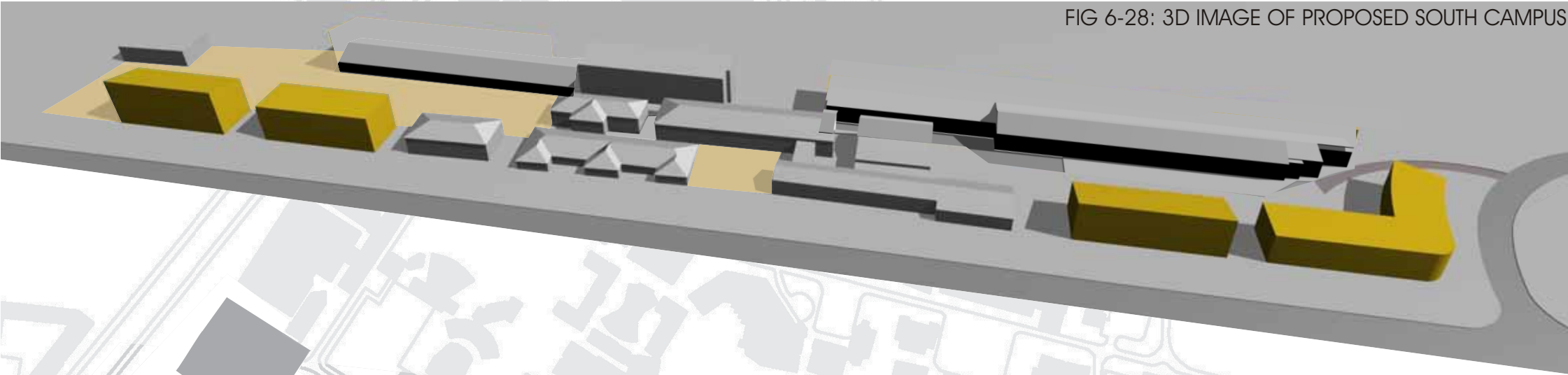


FIG 6-29: PROPOSED SOUTH CAMPUS



## south campus

There are currently areas on South Campus which can be better presented to the public realm. The facade along Lynnwood Road display parking areas at places as well as areas which is lost space. There should be three to four storey buildings defining the edge of the street and providing an attractive image to the public sector. Parking for the entire South Campus is provided by the basement at the entrance of the campus, creating a public square on top. Through the basement the need for parking elsewhere is eliminated, creating more space for green areas which is indicated by the yellow fills.



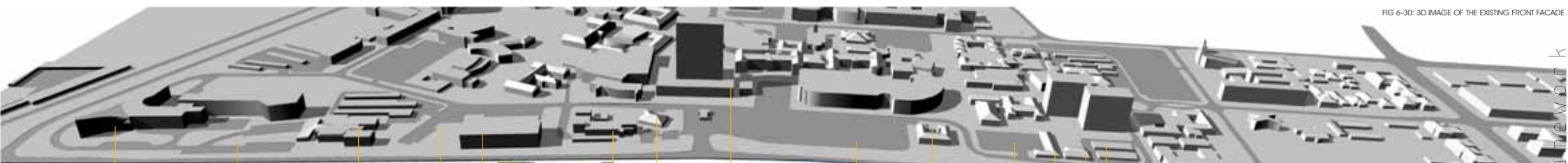


FIG 6-30: 3D IMAGE OF THE EXISTING FRONT FACADE

 <p>ADMINISTRATION</p>	 <p>VISUAL ARTS BUILDING</p>	 <p>SPEECH THERAPY PARKING AREA &amp; LOST SPACE IN FRONT OF BUILDING - GREEN SPACE BASEMENT PARKING PROVIDED</p>	 <p>HUMAN SCIENCE &amp; MAIN ENTRANCE</p>	 <p>DRAMA - GREEN SPACE IN FRONT OF BUILDING</p>	 <p>PARKING AREA - FOUR STOREY BUILDINGS IN FRONT OF GREEN SPACE BASEMENT PARKING PROVIDED</p>	 <p>PARKING AREA - FOUR STOREY BUILDINGS IN FRONT OF GREEN SPACE BASEMENT PARKING PROVIDED</p>	 <p>RENOVATE - SCREEN/DISPLAY WALL IN FRONT OF BALCONIES USED TOILET WINDOWS ARE FACING THE FRONT FACADE</p>	 <p>PARKING AREA - INCUBATOR OF INNOVATION BASEMENT PARKING PROVIDED</p>	 <p>BUILDING SCIENCE</p>	 <p>KYA ROSA PARKING AREA &amp; LOST SPACE IN FRONT OF BUILDING - GREEN SPACE BASEMENT PARKING PROVIDED</p>	 <p>PARKING AREA - BUILDINGS IN FRONT OF BASEMENT PARKING</p>	 <p>DEMOLISH - FOUR STOREY BUILDING NO ARCHITECTURAL OR HISTORICAL VALUE, SINGLE STOREY</p>	 <p>DEMOLISH - FOUR STOREY BUILDING NO ARCHITECTURAL OR HISTORICAL VALUE, SINGLE STOREY</p>
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FIG 6-31: PHOTOGRAPHS OF BUILDINGS FACING LYNNWOOD ROAD

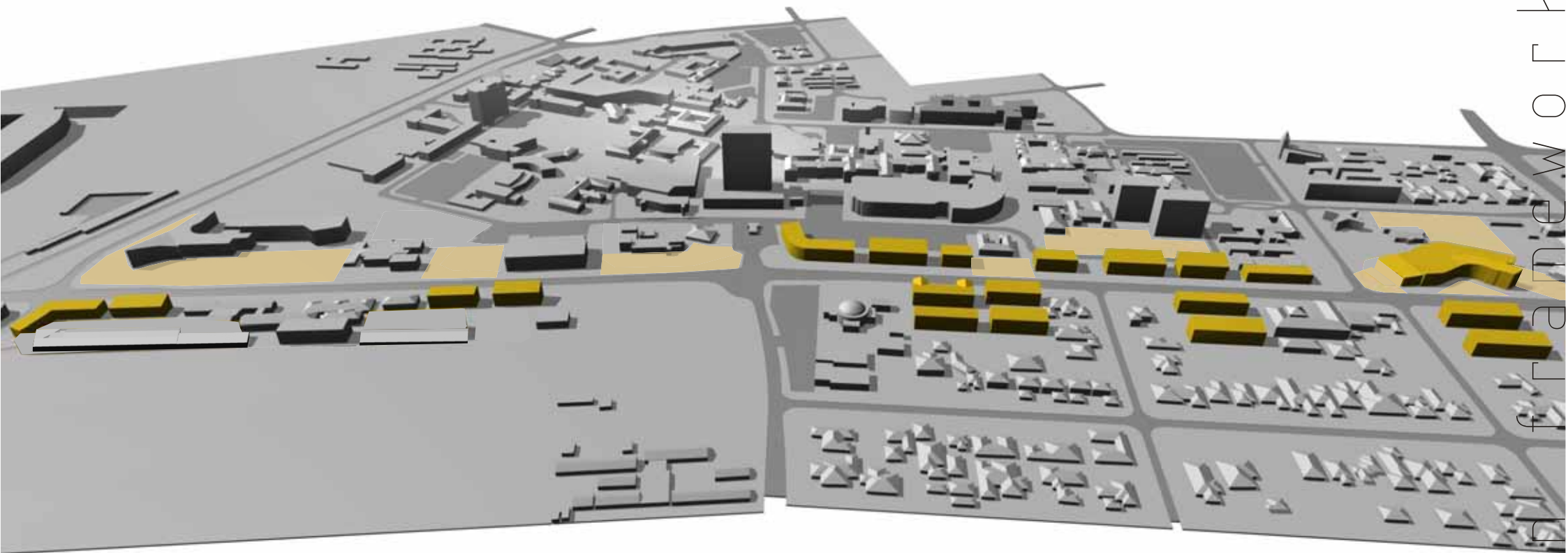


## front facade

Lynnwood Road, as the front facade of the University of Pretoria, is one of the ways the university will be showcasing their character and competency. Therefore from an urban design point of view, there are currently many areas of the facade that can be better presented. The facade is extremely fragmented with large open spaces between buildings. These spaces are either lost space or used for parking areas. The edge of the university should be defined by buildings and green spaces in front or in between the buildings. Potential buildings are indicated with the yellow fills representing green spaces.



FIG 6-32: 3D IMAGE OF PROPOSED FRONT FACADE



front facade

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22

urban  
front facade

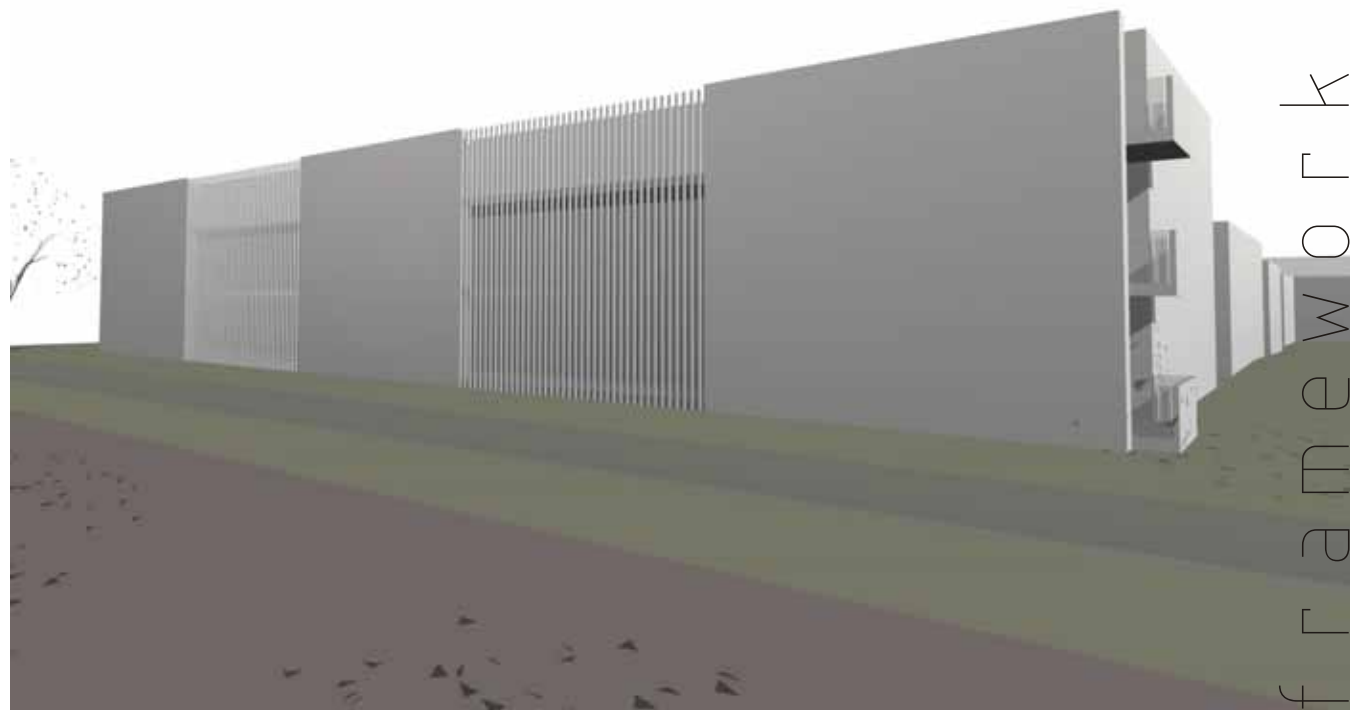


FIG 6-34: 3D MODEL OF PROPOSED RENOVATION OF THE NERINA EXTENTION



FIG 6-33: EXISTING FACADE OF THE NERINA EXTENTION

## front facade

The Nerina extension doesn't contribute to the front facade of the university as there are toilet windows facing Lynnwood Road. Therefore display screens or boards should be constructed in front of protruding balconies for the living units. These screens would serve to inform the public as well as students studying at the university about current and future events which would take place at the university. There would be three screens/display boards with ventilation grills between them, which would serve to hide the toilet windows but still provide for the adequate flow of air.