

Chapter 4

Hatfield Station

4.1 LOCATION

The location of the proposed Hatfield station is explained in figure 4.1.

The section of the route in Pretoria starts at the proposed Pretoria station.

It follows the SARCC rail commuter corridor for much of the route towards the proposed Hatfield station.

The alignment passes over Railway Steet, Andries Street, Tulleken Street, van der Walt street, Nelson Mandela Drive and Joubert Streets East of Joubert Street the route enters a cutting and crosses underneath the existing Metrorail line, entering Mucleneuk.

From there it commences in an open cutting across the north-eastern end of Muckleneuk and passes the northern end of Magnolia Dell.

From this point onwards it follows the existing rail closely.

From here it crosses Lynwood Road, Burnett Street, Festival Street and Hilda Street .(Gauteng Department of Transport, Roads and Works,October 2002,Vol1:22)

Interested and Affected parties gave their input in the decision making process. Alternative routes were debated through a public participation process.An extensive assessment on these alternatives where made that falls outside the scope of this thesis. If References to the route will be applicable on the reference route suggested by the Environmental Impact Assessment.

The route of the Gautrain ends at the proposed Hatfield Station.

The proposed new Hatfield Station for the Gautrain project involves a cut along the north of the already existing railway line between Hartbeesspruit and Rissik railway stations

It will take up the remainder of Erf 717 Hatfield and Portion 1 of Erf 656 .(figure 4.2.)

It was suggested through the results of the environmental assessment process that portion one of Erf 155. Portion 2 of Erf155, Erf 154,portion 1 of Erf 153,remainder of Erf153,remainder of Erf 152 and a portion of Grosvernor street must also be included in the site.(Gautrain Rapid Rail Link,September 2002:9-1)

This was opposed in this thesis, because the rail cutting, already on the edges of the proposed site, would be widened to 33 metres to accommodate the Gautrain , thus making the usable space left over on above said sites unusable for the creation of sufficient vehicular movement.

Furthermore it was suggested that portion one of Erf 717 and portion two of Erf 717 be included in the site for the purpose of this thesis This would result in the demolition of the recently build Barloworld car dealership as well as the SAAB showrooms. The Old School on portion two of Erf 717 will be retained for future development for future development into a tourist information office.

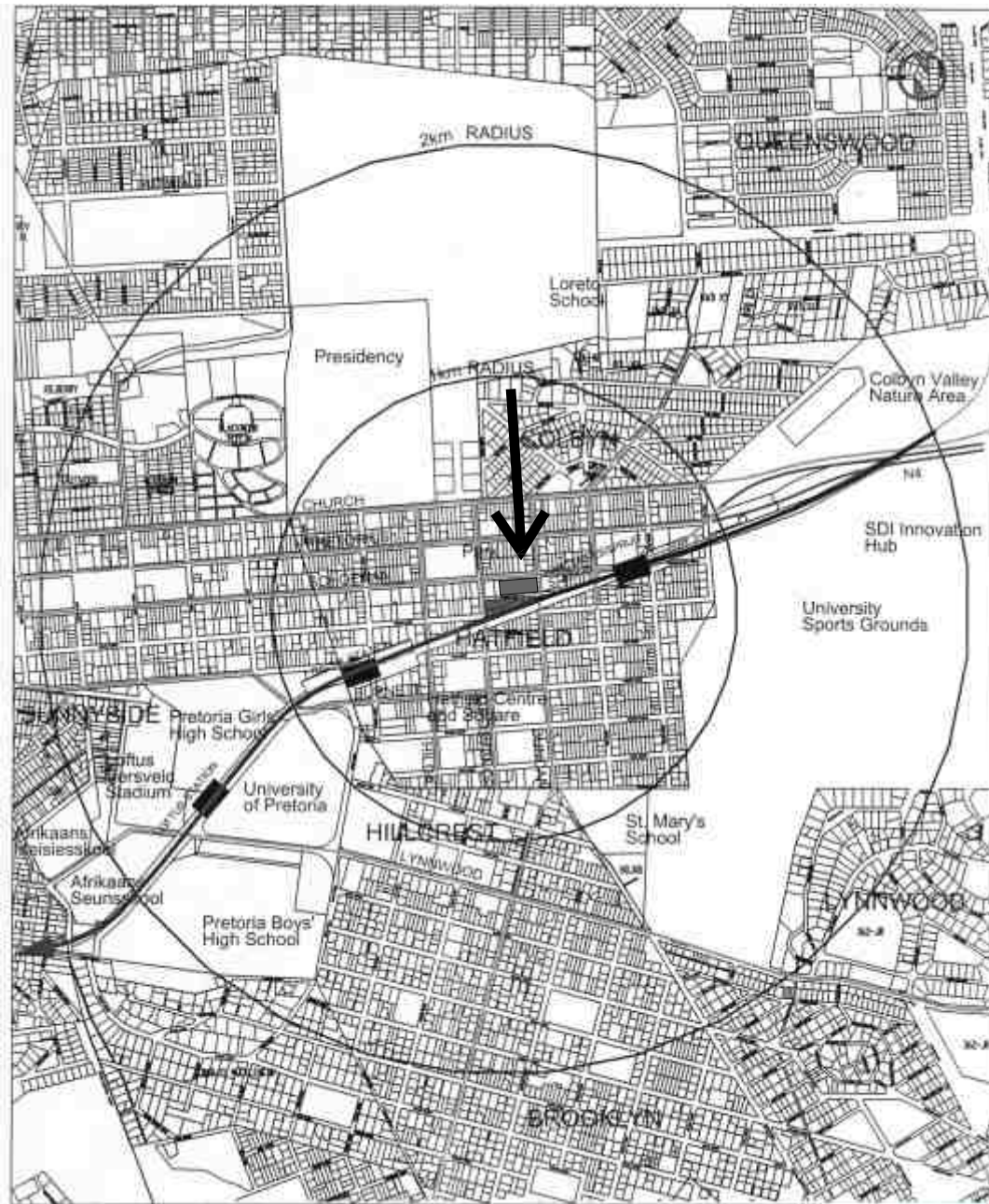


Figure 4.1. An explanation of the location of the proposed Hatfield station. (Gautrain Rapid Rail Link, September 2002:9-6)



Figure 4.2.A Cadastral map of the proposed Hatfield station and surroundings

4.2 BUILT ENVIRONMENT

The visual characteristics of the site and its surrounding built environment is explained by means of field sketches done by the author.

The location of the building as well as the direction of the view are indicated on a thumbnail spatial orientation plan by means of an arrow.

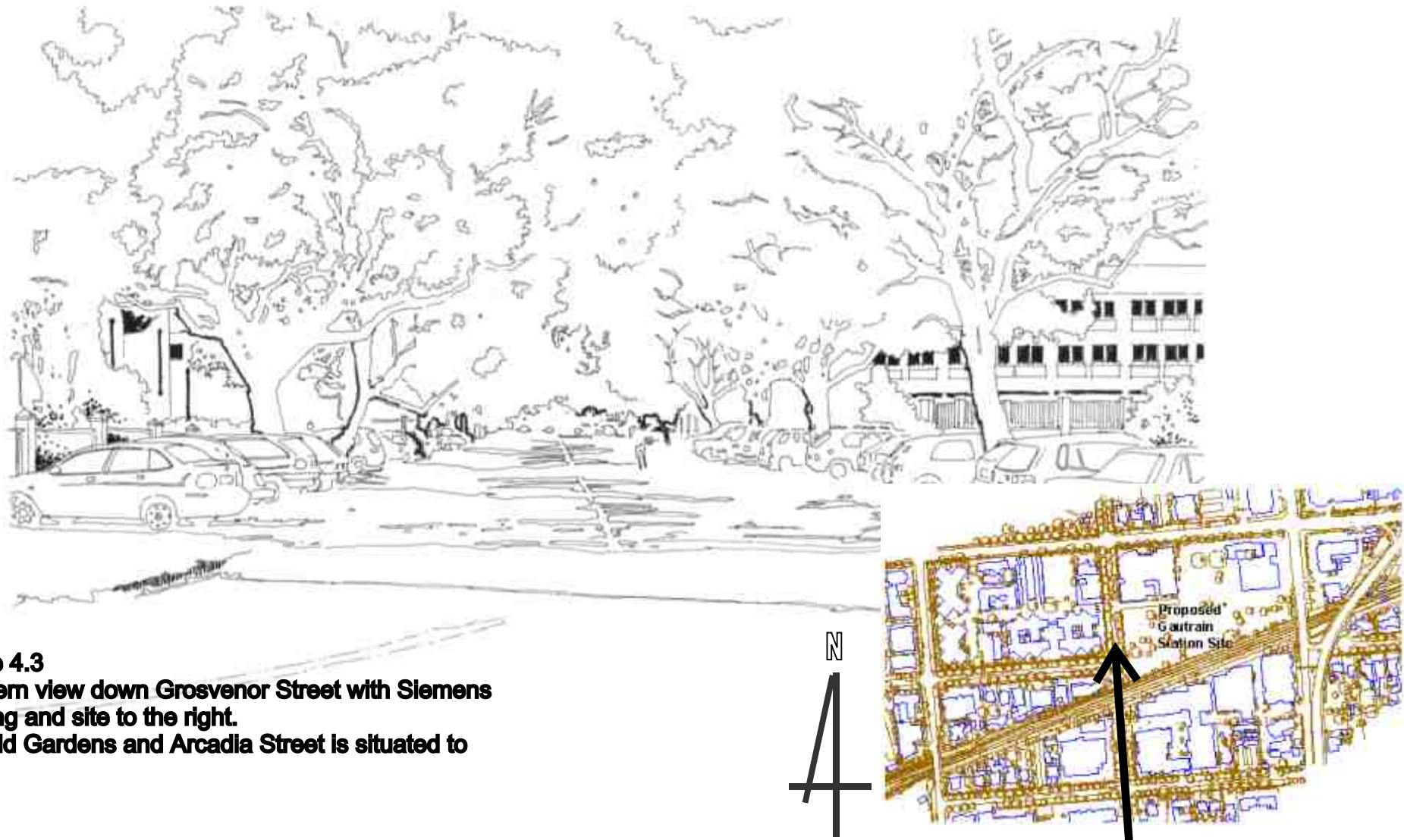


Figure 4.3
Northern view down Grosvenor Street with Siemens building and site to the right. Hatfield Gardens and Arcadia Street is situated to

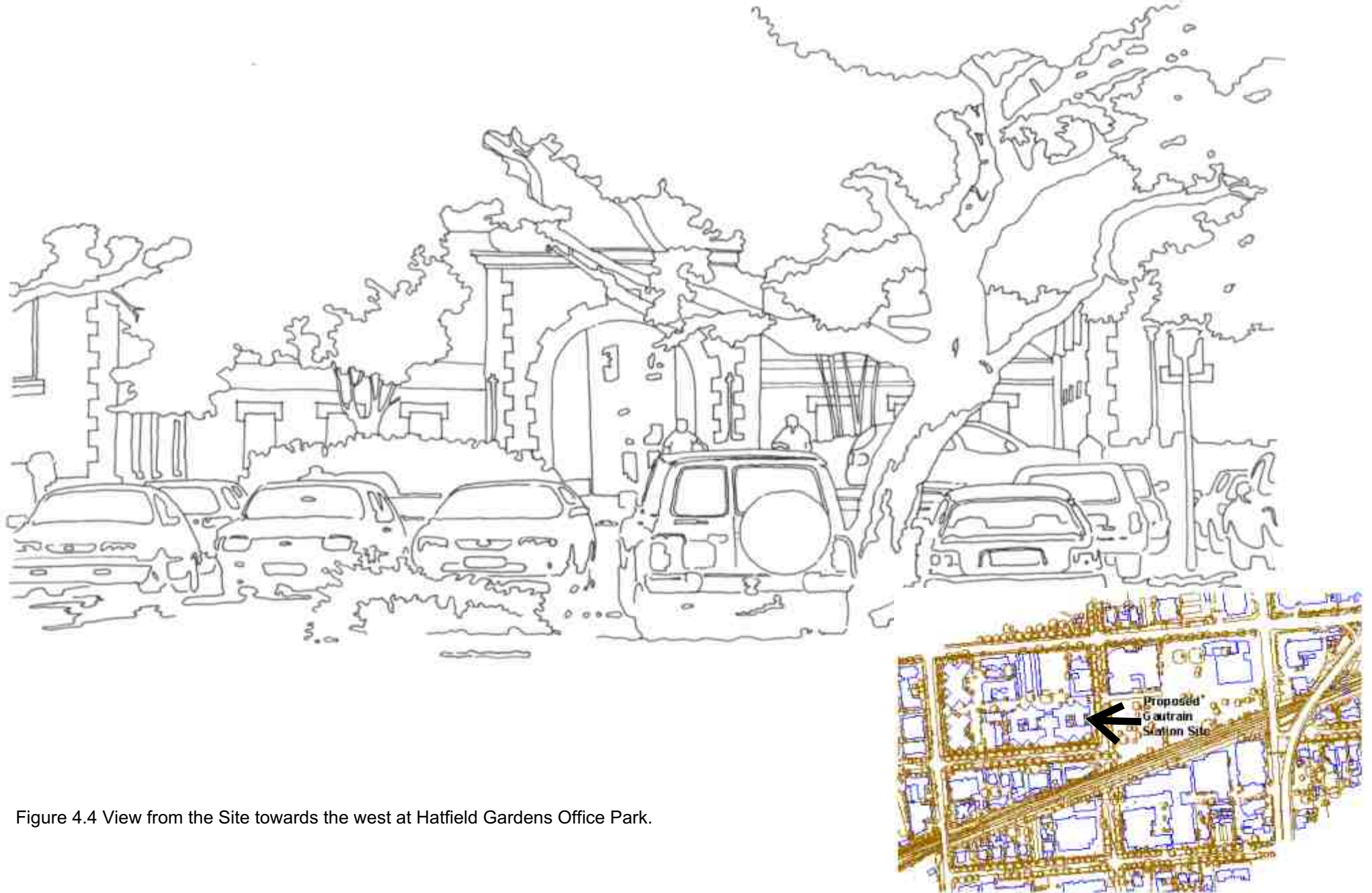


Figure 4.4 View from the Site towards the west at Hatfield Gardens Office Park.



Figure 4.5
Building types in the vicinity of the proposed new Gautrain Station include predominantly low-rise office type buildings and Student Accommodation.

This field sketch shows the Israeli Embassy Building on the right of the picture. The image is directed westward down Arcadia Street with Hilda street in the foreground. Low-rise student accommodation is situated to the left of this image and is not illustrated .

Street scapes in the area are dominated by Pretoria's now controversial exotic tree species namely the Jacaranda Tree, the retention of which would be of cardinal importance to the human acceptance of the urban intervention in the area.



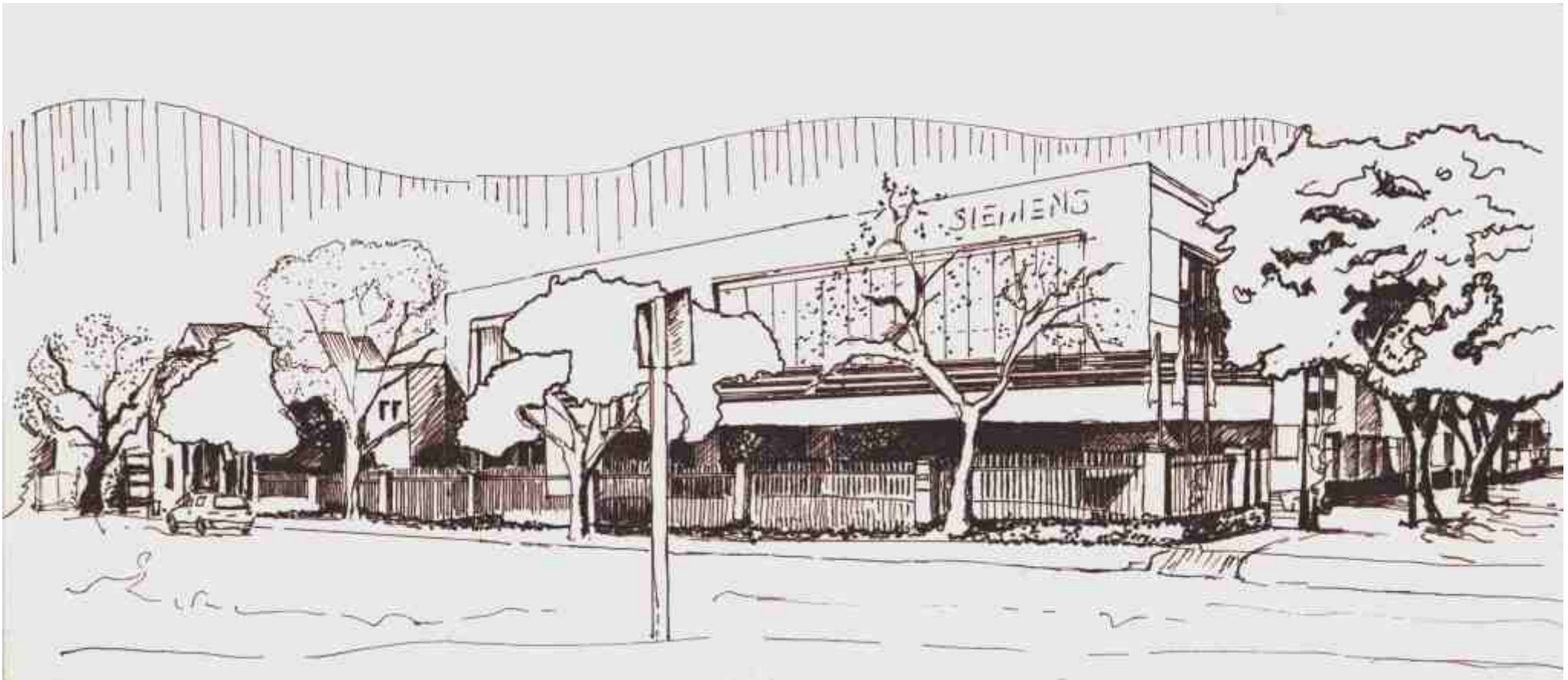


Figure 4.6

The Siemens Building to the northwest of the proposed new Hatfield Station. This building represents a more modern approach to architecture than is prevalent in the area, with clean lines and decoration kept to a minimum.

The building to the left, the SAAB motor showroom will be demolished to make way for the proposed slipway from Schoeman Street leading into the "Super Basement" of the proposed Hatfield Station. This sketch shows the Siemens Building's northern facade and will be an important landmark for orientation towards the New Gautrain Station in Hatfield.





Figure 4.7
The Northern facade of the “Old School Building”, as referred to in the design, on Schoeman Street.

The building is currently occupied by the Barloworld Motor Dealership and used as back offices.

It was built in the early part of the 20th century (1910). It is proposed that this building would be retained and reconstituted to be a Tourist Information Centre.

The Barloworld Dealership, left of the Old School in this sketch, would have to be removed to create a visible axis and link to the site. The permeability of the proposed building would also be adversely affected by the retention of the structure.





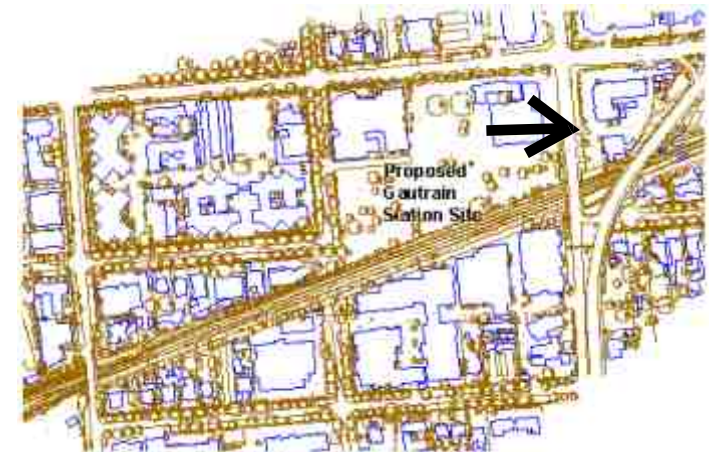
Figure 4.9

Standing on the Site looking East towards Duncan Street, one sees the Sanlam Building to the left and the Drain Surgeon Building to the right.

In this area the creation of a slipway / bridge to access the "Super Basement" would be called for from Gordon Road which passes to the opposite direction from Duncan Street at the back of the Sanlam and Drain Surgeon buildings.

The slipway would utilise the existing slipway from the Gordon Road as can be seen to the right of the picture.

This sketch clearly shows the untenability of the Barloworld Dealership as it cuts of the clear sight and legibility of the proposed new Gautrain Station Building



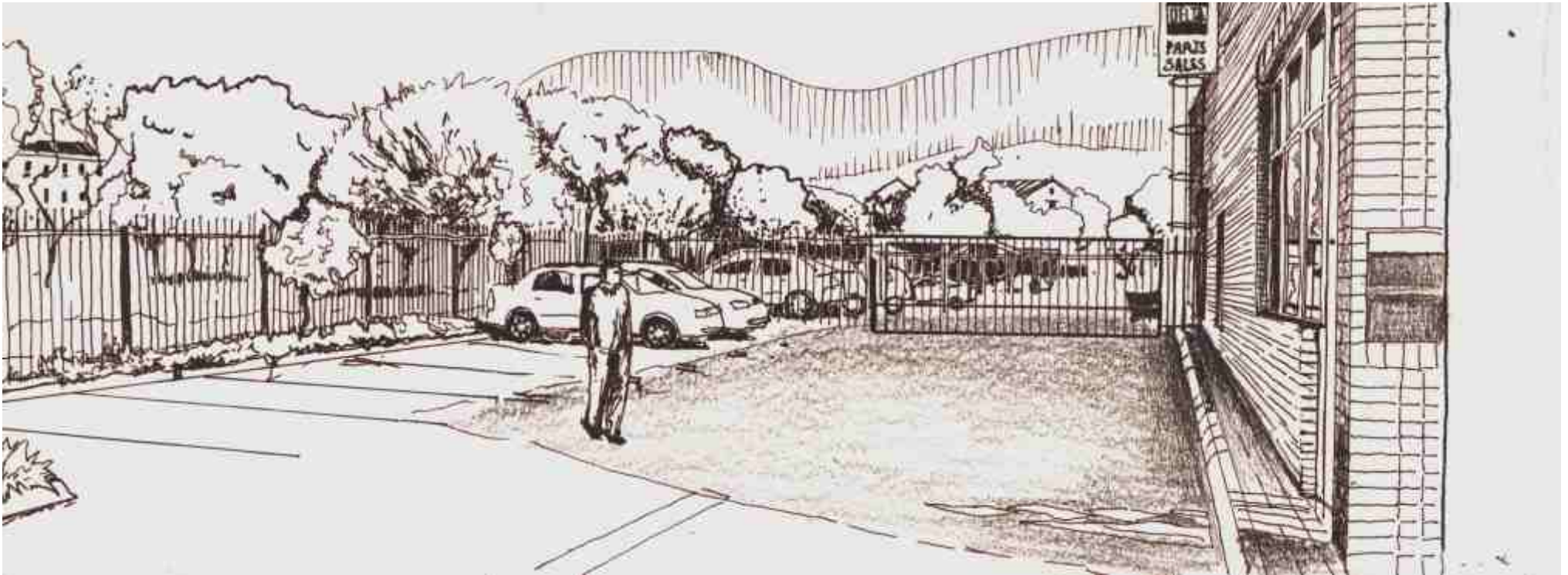


Figure 4.8.
This sketch shows the the Barloworld Motor Dealership showrooms to the right and the site for the proposed new Hatfield station to the left of the picture. The direction is westwards from Duncan Road down School Lane that was closed earlier. Today palacade secured parking for Barloworld Delta personnel is situated where School lane used to be. School Lane needs to be re-opened to support the "kiss-and-drop off" area of the new station.

The Barloworld Delta building cut the site on the left of the visual axis.
The proposed building for this site needs to be clearly visible in order for it to succeed.
Thus, this building will be demolished.





Figure 4.10
The Taiwanese Liaison Offices on the corner of Schoeman Street and Grosvenor Street.

The direction is southward down Grosvenor Street that was cut off due to the railway line. Schoeman Street is in the foreground.

Grosvenor Street will play an integral part in the vehicular access to the site and the working of the "Kiss-and-drop off" area of the building. It will be re-opened by means of a bridge, thus better the movement and accessibility to the station and re-establish the connection with Hatfield South.



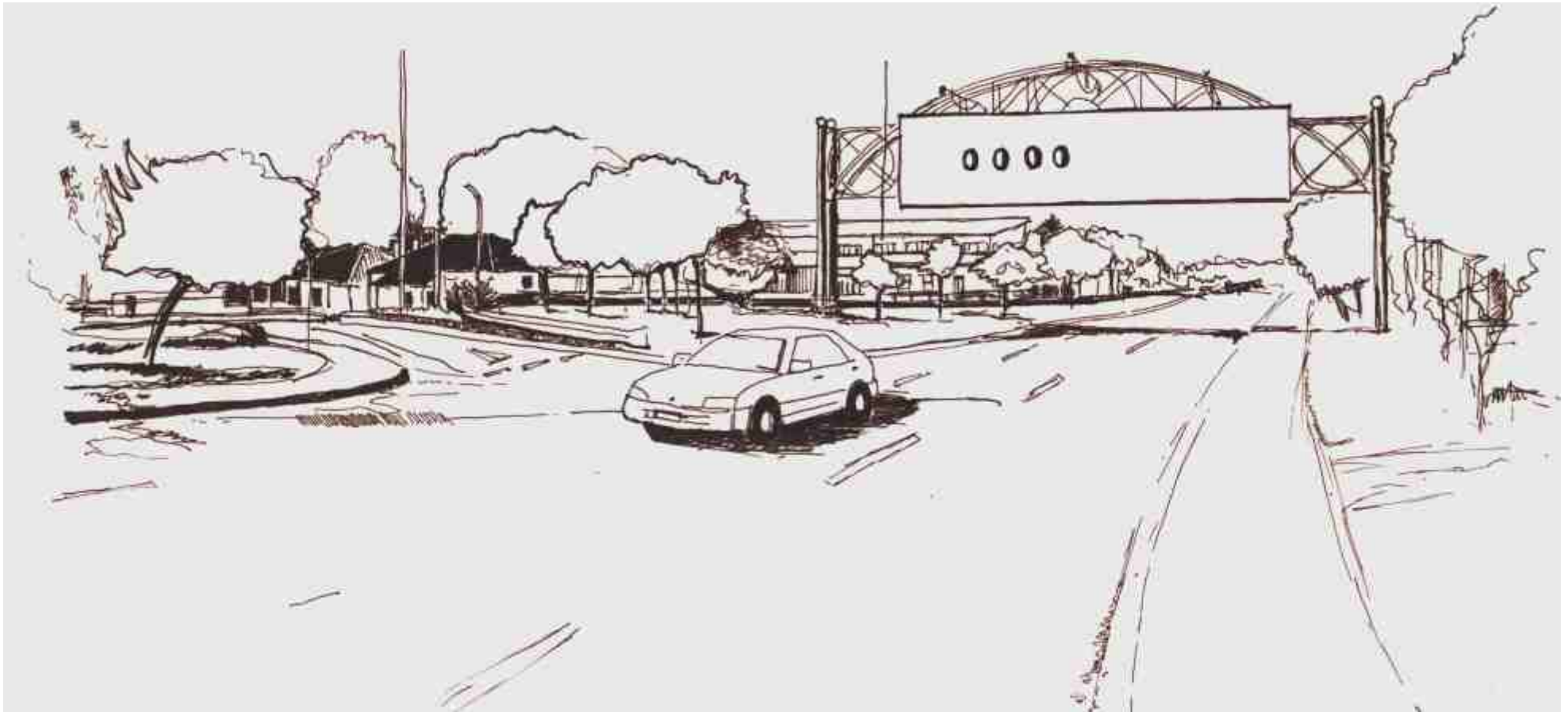


Figure 4.11
The view looking South down Duncan Road with the slipway of Gordon Road to the left. This slipway will be converted to act as a bridge into the "Super Basement" of the proposed Hatfield station.





Figure 4.12

The Student accommodation on the corner of Hilda Street, to the left, and Arcadia Street, to the right of the sketch.

This building is an example of the scale of the urban fabric prevalent in Hatfield.

The density of the accommodation would have to be increased necessitating that the urban scale would have to change to a more vertical scale.





Figure 4.13
Hatfield Gardens Office Park as seen from the corner of Schoeman Steet to the left
and Hilda Street to the right of the sketch.



Figure 4.14.
This sketch shows the the northern façade of the Barloworld Motor Dealership showrooms.

This building cut the proposed site of the visual axis.
The proposed building for this site needs to be clearly visible in order for it to succeed.
Thus, this building will be demolished.



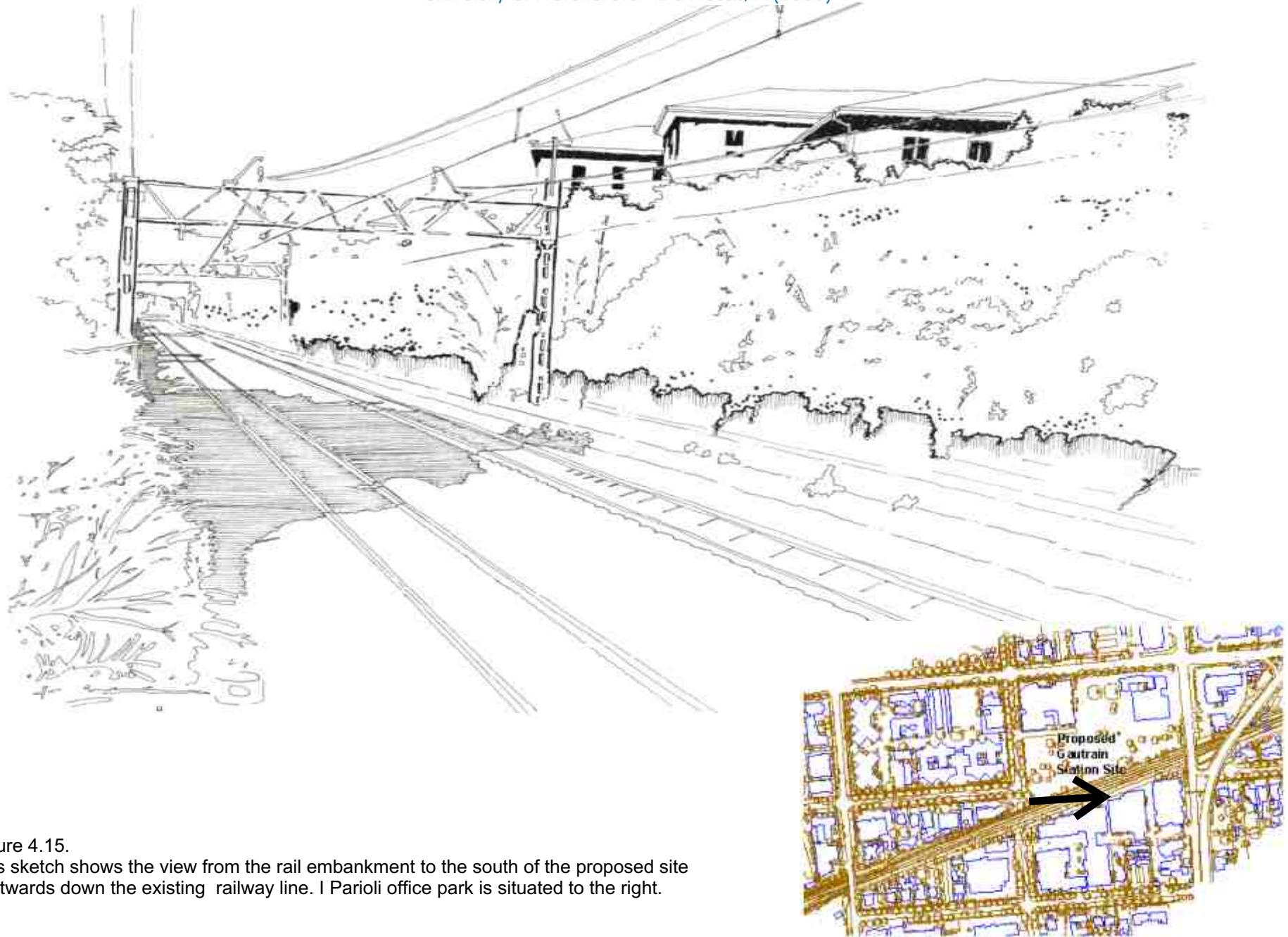


Figure 4.15.
This sketch shows the view from the rail embankment to the south of the proposed site eastwards down the existing railway line. I Parioli office park is situated to the right.

4.3 PROPOSED SITUATION FOR HATFIELD STATION AND SURROUNDINGS

4.3.1 DENSIFICATION

A density assessment was made, and with the vision of the Hatfield station in mind, densification predictions for 100ha around the station were made.

The outcome is stated in table 4.1 .

LAND USE	STATUS QUO			QUANTIFIED FUTURE SCENARIO					
	Total area (m ²)	Current mix (%)	Average height	Future bulk area (m ²)	Future mix (%)	Required bulk (m ²)	Desired height (storeys)	Desired coverage (%)	Required area
Residential	94,337	17.7	2.4	250,000	28.2	121,680	4	50	60,840
Offices	267,130	50.3	4	350,000	39.5	82,870	4	60	34,529
Retail	50,817	9.6	1.7	80,000	9.0	29,183	1	60	48,638
Industry	0	0.0	-	0	0.0	0	-	-	0
Community Fac	17,876	3.4	1	25,000	2.8	7,124	1	50	14,248
Recreation / Parks	60,073	11.3	1	100,000	11.3	39,927	1	-	39,927
Hotel / Conference	11,616	2.2	1	40,000	4.5	28,384	4	60	11,826
Transport / Parking	3,142	0.6	1	42,000	4.7	38,858	3	80	16,191
Vacant	26,534	5.0	0	0	0.0	0	-	0	0
TOTAL	531,525	100	-	887,000	100	348,026	-	-	226,199

Table 4.1 .Density proposals for the functional area around the proposed Hatfield Station (100ha around the station). (Gautrain Rapid Rail Link,

Out of the result, the following deductions can be made.

The current coverage is assumed to be 45% due to the availability of vacant land and potential for densification

Currently there are 472 units @200m² in the node

High-density developments are needed to densify the area.

2500 Dwelling units (du) are needed to obtain the density

of 25du/ha (dwelling units per hectare) , meaning another 2500 units over and above the existing units in the 100ha around the station

Young and upcoming professionals and middle-income families with one or no car will be the expected residents in the node. These people will use dwelling places of 60m²

Coverage of 50% and a height of 4 storeys are assumed for residential buildings when paring and landscaping are taken into account. Thus, 6ha is required over and above the existing high-density residential buildings.

At 25m² 1500 parking bays are required for the station. It is recommended that parking will be spread over three storeys

Other services such as crèches, clinics and schools that go hand in hand with densification should be incorporated in these areas

In the area around the station an extra retail space of

30 000m² with 4 levels above that followed by 1 residential level is recommended. Thus 4.8ha additional land is required if it is assumed that 60% is covered.

There is adequate hotel provision in this area.

4.3.2 FEEDER AND DISTRIBUTION SYSTEM

Private vehicles

At Hatfield Station passengers will mainly use private vehicles for park-and-ride and kiss-and-ride purposes.

The demand modelling process conducted predicts that these car users will come from the northern and eastern suburbs of Pretoria.

The estimated infrastructure needed by the year 2011 will be 37500m² for parkades (1500 bays), for the kiss- and-ride area 400m² (16 bays) and for short term waiting bays 875m² (35 bays) will be needed.

This adds up to a total parking space of approximately 39 000m²

Public transport services and facilities

An extensive system of public transport exists in the Hatfield area (vide 3.7.1)

For taxi and Metrorail services to become a role player in the Ring Rail Link system, it must be upgraded to meet the needs of passengers

4.3.3.URBAN DESIGN POINT OF VIEW.

The approach to urban design of Dewar and Uytenbogaardt, 1991 was studied and used in the context of this project to compile objectives for the station and its surroundings:

- Preconditions for intensity diversity and necessary complexity should be provided in the design, giving people real choices and opportunities
- Integration of different elements, for people benefit more from integrated opportunities than those in isolation
- Create a sense of identity and belonging by providing preconditions for socialization and a reflection of cultural expression in the built form.
- Equity should be promoted in that the place is easily accessible to pedestrians as well as vehicle owners.
- Balance between society and nature should be maintained, allowing people to be part of the totality of the place in which they live.

- Celebrate the natural, cultural and historical uniqueness of the place thus providing a cognitive landmark to the users of the place.
- Providing opportunities for small-scale self generated economic activity for the high number of unemployed people in the city.
- The energies and talents of many people should be used in making a positive environment by allowing freedom for people to act.
- The node should be introduced to more permanent residents. The current student accommodation is seasonal in nature and the station will depend on a more constant flow of users.
- Residential densification must be promoted to provide rider ship for the Gautrain and support additional functions at the station.
- Help fulfilling the objectives of the Gautrain Project. (vide 2.2.1)

In the next chapter, case studies will be analysed and the relevant design solutions that will answer to the objectives stated above pointed out and adopted in the design of the Gautrain Station, Hatfield.

Go to:
Chapter 5: Case studies

