

Fig. 14: Random concept sketches.

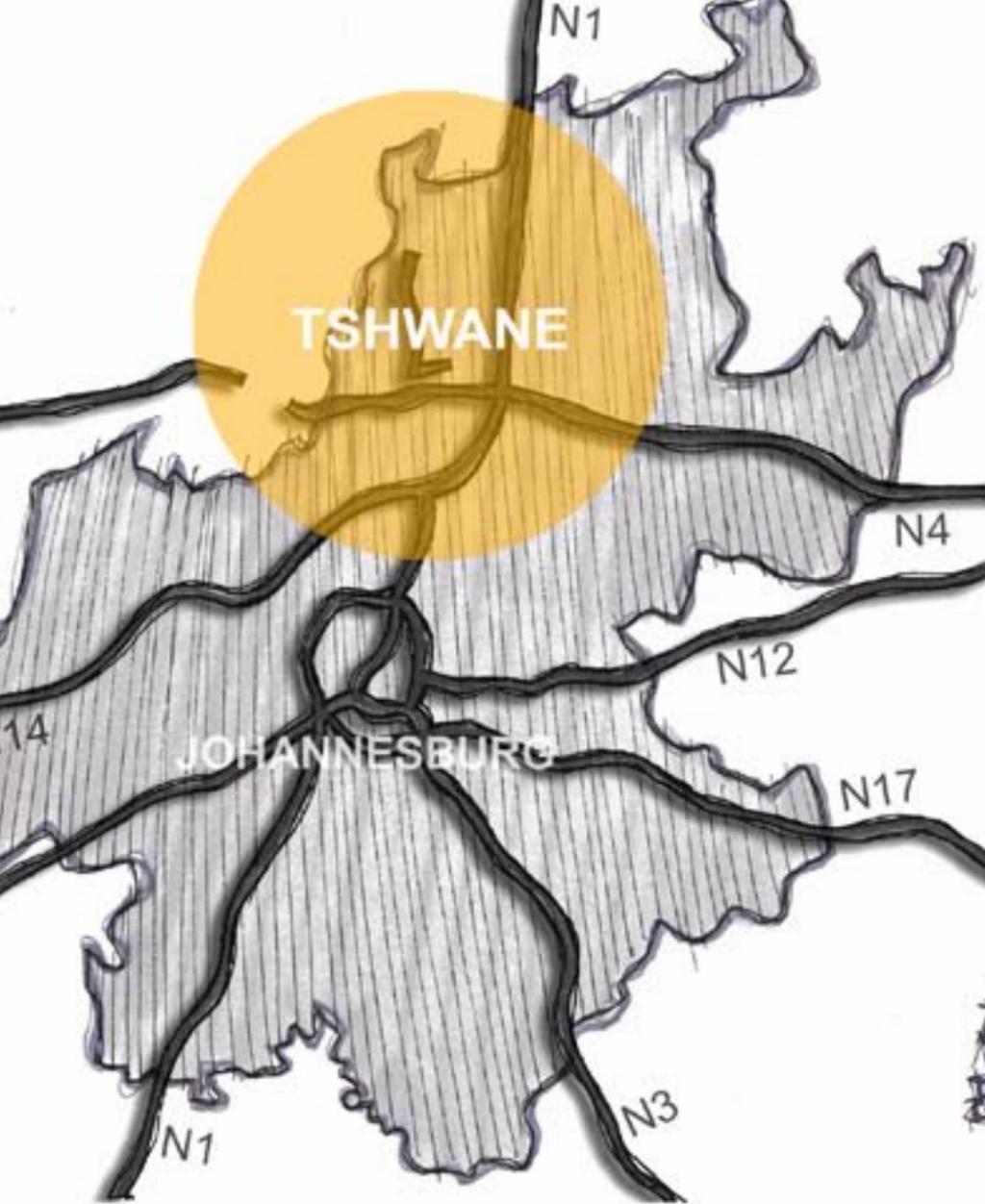


Fig. 15: Gauteng province.

Gauteng province

Gauteng is one of South Africa's nine provinces. The major metros include the City of Johannesburg and the City of Tshwane.

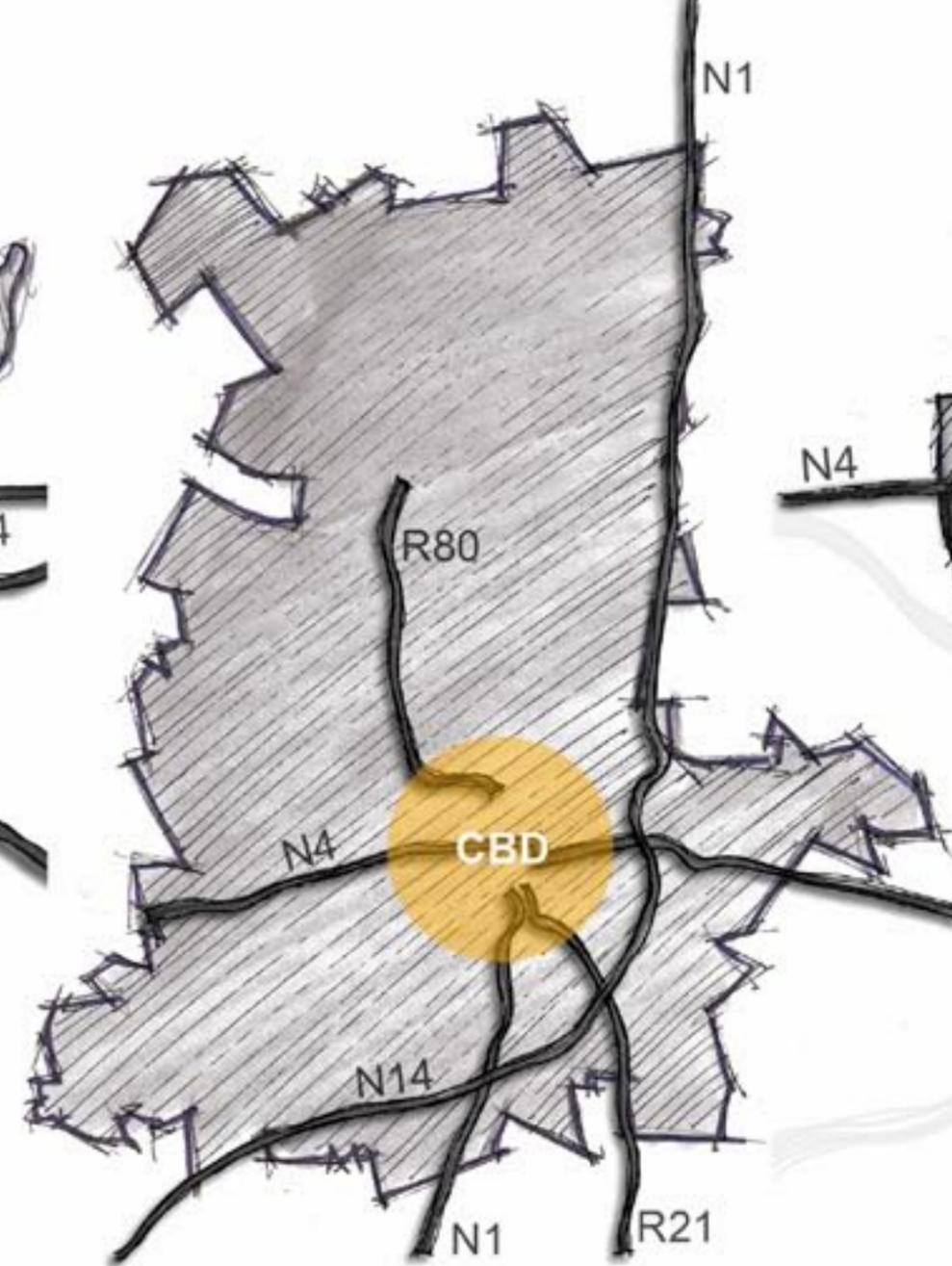


Fig. 16: Tshwane metropolis.

Tshwane metropolis

The city of Tshwane is a collective metropolis with Pretoria situated in the centre.

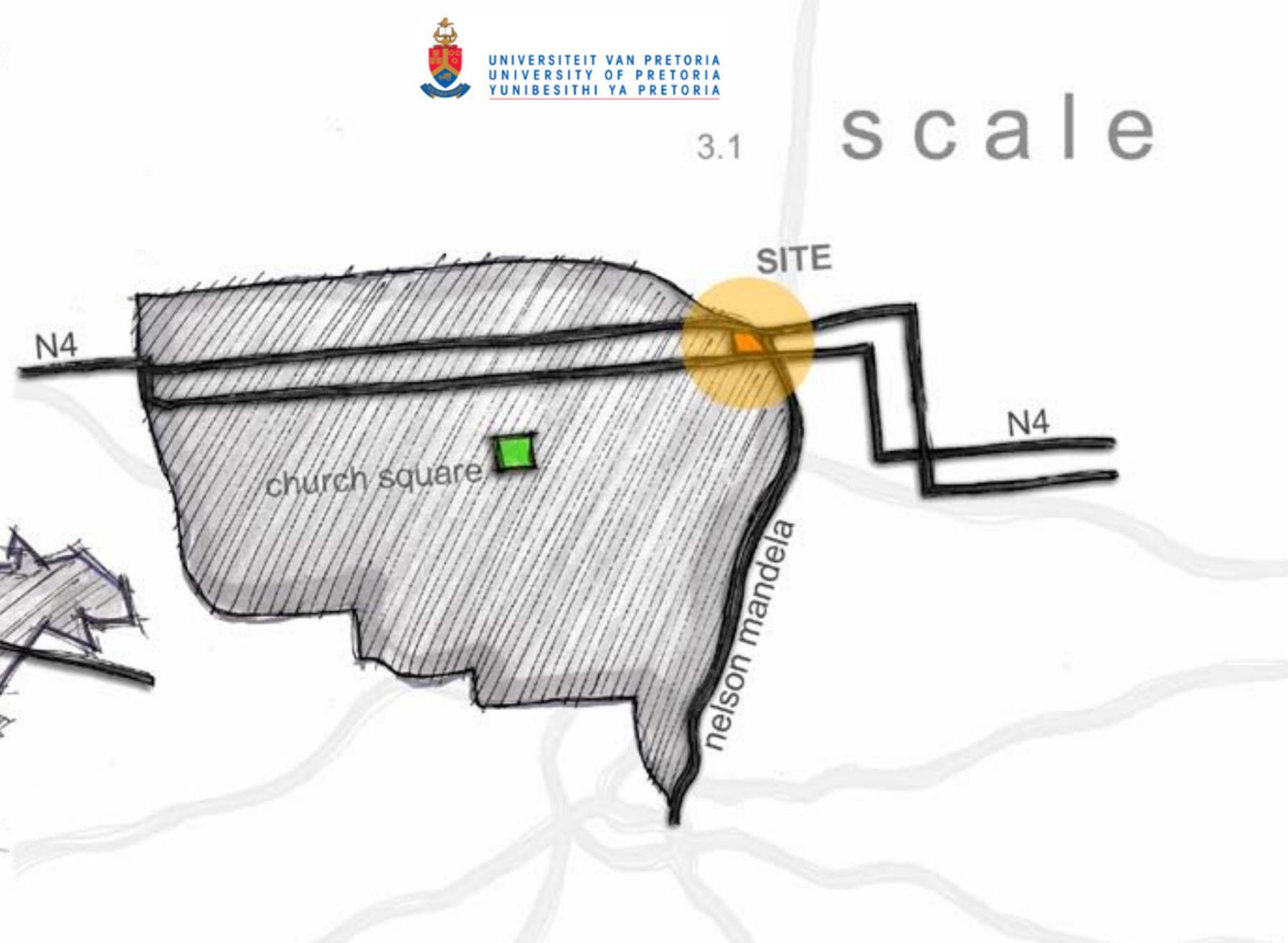


Fig. 17: Pretoria CBD.

Pretoria

Pretoria is the administrative capital of South Africa.

In 2007, an area in the northern part of the Pretoria CBD was identified for analytical purposes to be studied by the respective group of students (Fig. 18). The study area stretched from DF Malan Drive situated on the western border of the Pretoria CBD, to Nelson Mandela Drive situated on the eastern border of the CBD, adjacent to the Apies River. The width of the study area stretched from Boom Street on the northern edge of the CBD to Proes Street on the south, consisting of three parallel roads and including all bordering developments.

The study area has an appearance of obvious neglect (Fig. 19; 20; 21; 22; 23; 24). Physical deterioration of existing infrastructures is evident in all its parts with large groups of people focused in specific spots only, while other parts have none. Upon investigation it became evident that the reasons for these problems are vast and intricate and any one or many solutions will require time if they are to be successful.

The major and obvious problems were identified and condensed to form three major fields of concern. They can be classified as a lack of connectivity, hindrance of flow, and limited accessibility. To improve on these the group investigated three urban proposals that look at the original design for Pretoria in an attempt to re-establish important urban principals that have been lost over many years of change in addition to applying new principles that apply to modern South African cities.



Fig. 18: Aerial photo showing study area.

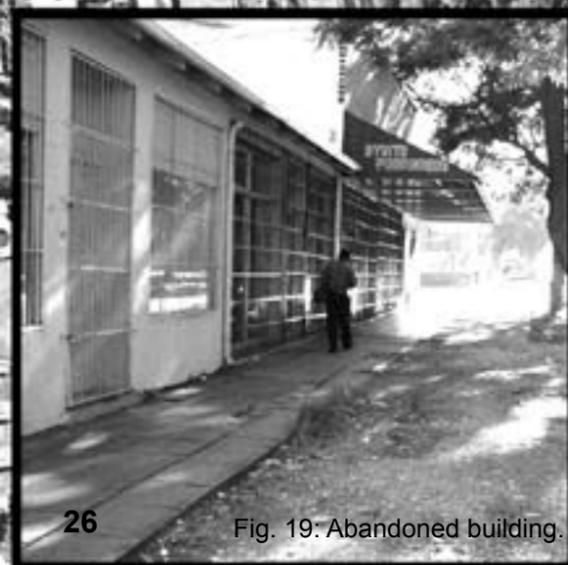


Fig. 19: Abandoned building.



Fig. 20: Barb wire fence surrounding Putco bus depot.



Fig. 21: Vacant land in Pretoria CBD



Fig. 22: Rubbish bins.

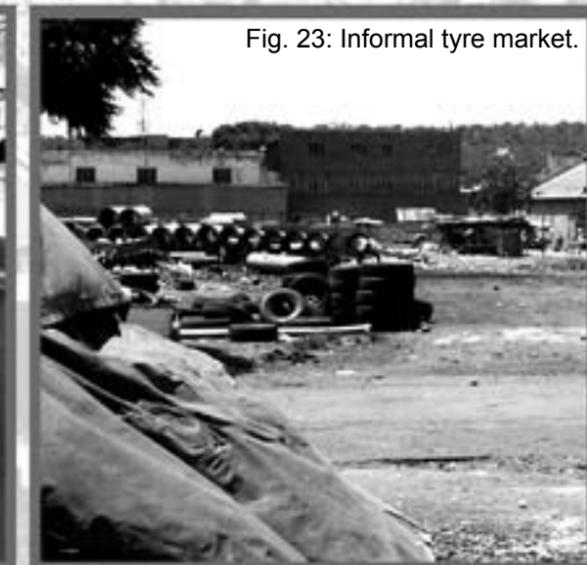


Fig. 23: Informal tyre market.



Fig. 24: Trash heaps.

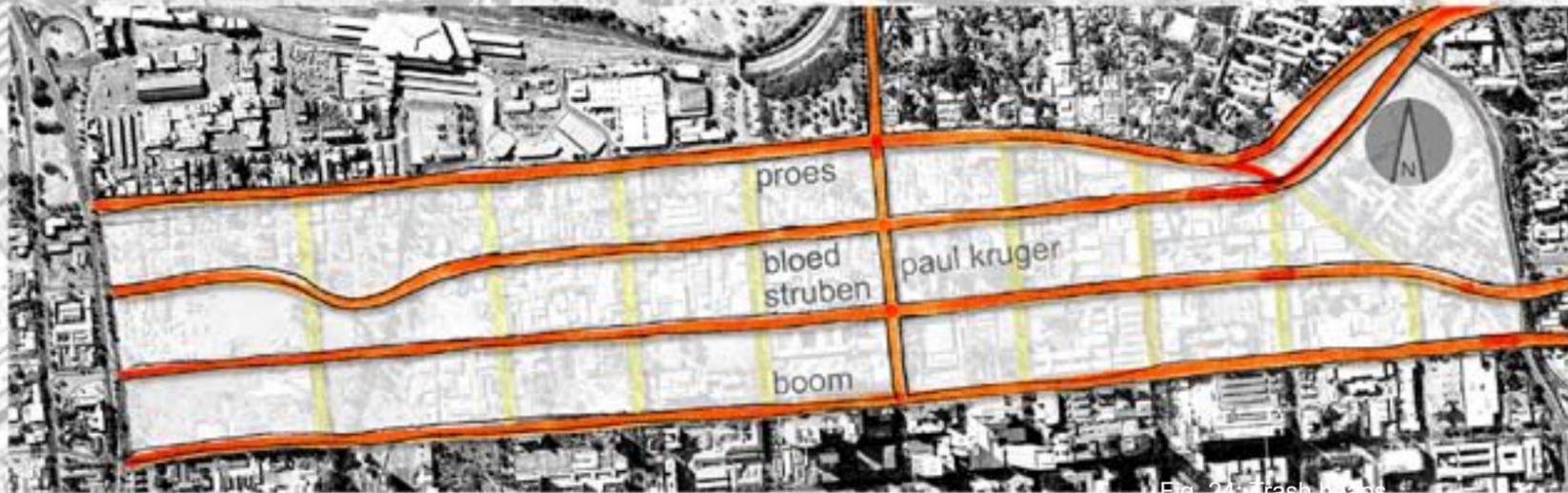


Fig. 25: Vehicular oriented roads.

3.2.1 – Roads

Pretoria CBD has a very strict grid order that is only interrupted upon reaching neighbouring precincts. The grid runs from north to south and is perpendicular from east to west. The scale of these roads differs in that those running from east to west are designed predominantly to carry vehicular traffic, are generally wider with larger sidewalks, whilst those roads running from north to south are generally narrower with smaller sidewalks initially designed with focus towards pedestrians.

The proposal is to re-establish this road hierarchy. Roads running from north to south should be designed with pedestrians in mind and traffic should be decreased (Fig. 26). Retail requirements for pedestrians and sidewalks should be handled in an appropriate manner and buildings should be on a human scale. Roads orientated from east to west should be focused upon vehicular activity and so should the retail (Fig. 25).



Fig. 26: Pedestrian oriented roads.

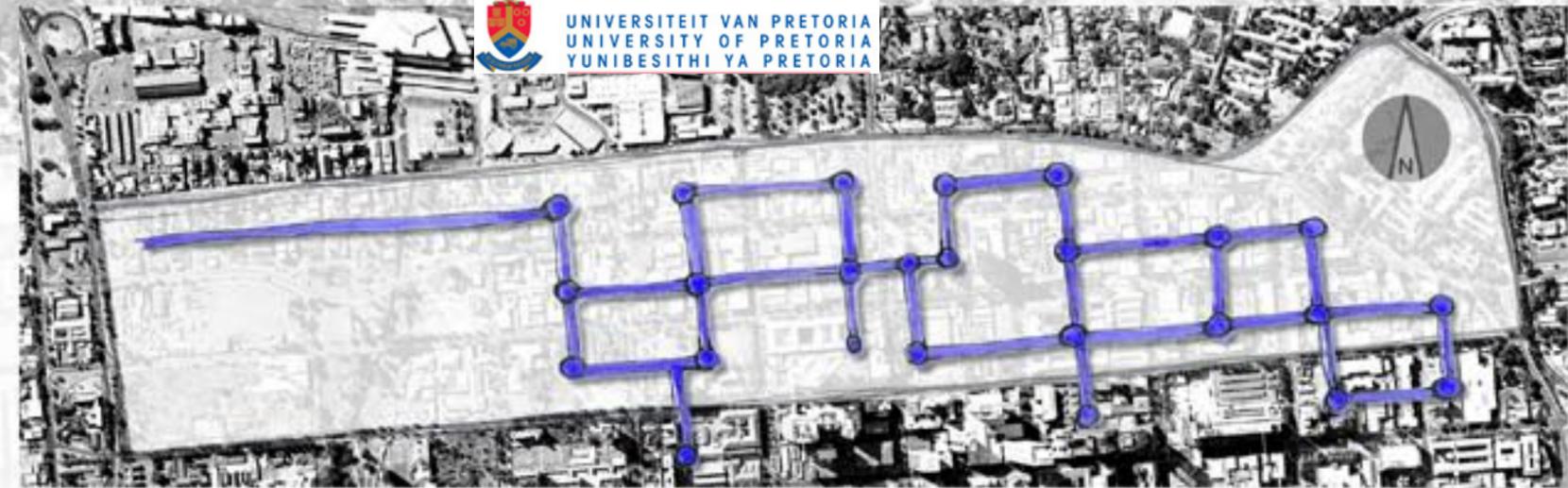


Fig. 27: Arcade system.

3.2.2 – Arcades

The initial design for Pretoria CBD had a second grid that was placed upon the existing road grid. This second grid lies within the city blocks and was designed for north-south pedestrian movement, access and flow. Today these arcades still exist but are mostly disregarded and as a result existing arcades are often barricaded and new buildings do not incorporate them at all. The success of these arcades can only be achieved in their entirety and isolated portions will not assist in any positive manner. Large numbers of people currently use the CBD in a manner that was not originally intended. In addition, it has not changed much physically since the major political changes that occurred more than a decade ago. This proposal is focused upon redeveloping the arcade principal and making the CBD more focused towards pedestrians (Fig.27).

3.2.3 – Tram line

Changing the Pretoria CBD so that it becomes more pedestrian friendly will require an upgraded transport system. This system must decrease the number of taxis inside the CBD in support of the idea that fewer vehicles create safer environments for pedestrians. It is proposed that a tram line run through and around the CBD with regular stops and parking lots (Fig.28). It is a cheaper and safer means of transport over small distances.



Fig. 28: Tram lines and stations.



Fig. 29: Mandela development corridor urban design framework - Holm Jordaan Group

3.2.4 – Mandela development corridor urban design framework – Holm Jordaan Group

The Mandela corridor will attempt to re-establish the Apies River as a historically significant natural landmark of Pretoria. It stretches along the Apies River and Nelson Mandela Drive and stops at Vermeulen Street. It will become a multi-functional civic spine that is visually and physically accessible. Developments adjacent to the river will form a multifunctional urban landscape that promotes business and tourism and offers a safe and friendly environment for pedestrians and cyclists.

The Mandela corridor comes to an abrupt end at Vermeulen Street, therefore it is proposed that a 'green corridor' be added. This would continue along the Apies River and turn west upon reaching Struben Street, follow Boom Street and extend towards the Pretoria Zoo. This corridor will serve as a 'green' buffer between the CBD and the adjacent districts aimed towards creating a pedestrian friendly environment and redefining the original city edge.



Fig. 30: Extended green corridor proposals.

3.3 site analysis

The site is positioned on the northern side of a city block on the north-eastern corner of the Pretoria CBD. It is bordered by Struben Street, Du Toit Street, Proes Street, and Nelson Mandela Drive (Fig: 31; 32).

The site displays little evidence of its past (Fig.11). The infrastructure currently existing on and around the city block contains no original buildings and none of any historical significance. The last building of any importance was a single storey dwelling on the northern side of the city block last documented in 1991. This house has since been demolished (Le Roux and Botes 1991: x).

Traces of the history of the area are instead visible in the surrounding urban layout (Fig: 34; 35). To the east of the city block is a triangular piece of ground free from construction and covered with Jacaranda trees. It is surrounded by Nelson Mandela Drive, Struben Street, and Edward Street. This under-utilised piece of ground is reminiscent of the urban changes made over time and the conflicts facing design and natural barriers, in this case the Apies River. After the construction of Nelson Mandela Drive and the change of orientation to one-ways of many major roads in the Pretoria CBD, this piece of land was caught and lost between three roads. Since then, it has stood vacant serving mostly as an informal parking area for cars and taxis. This has allowed the trees growing on it to flourish.

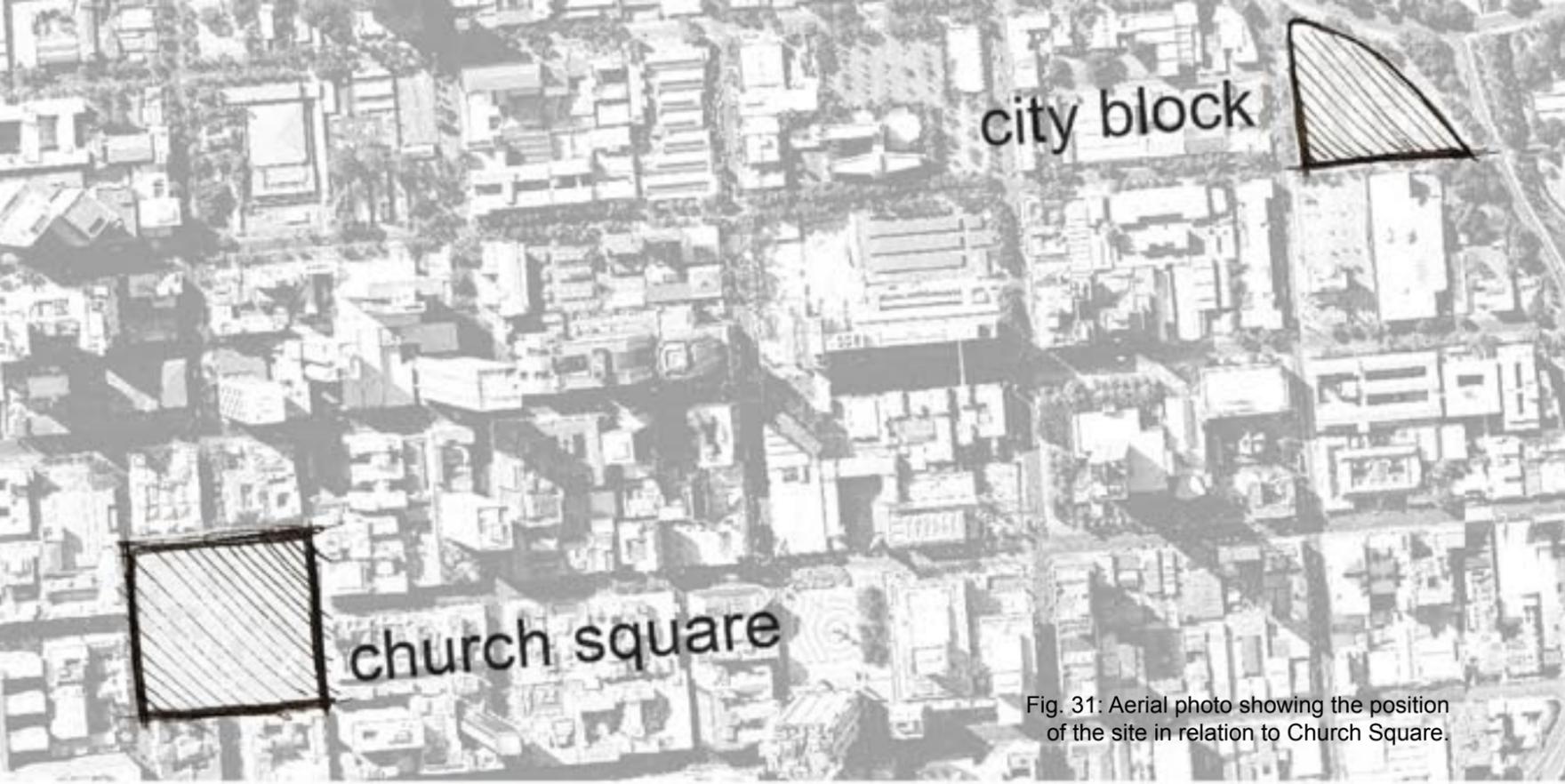


Fig. 31: Aerial photo showing the position of the site in relation to Church Square.

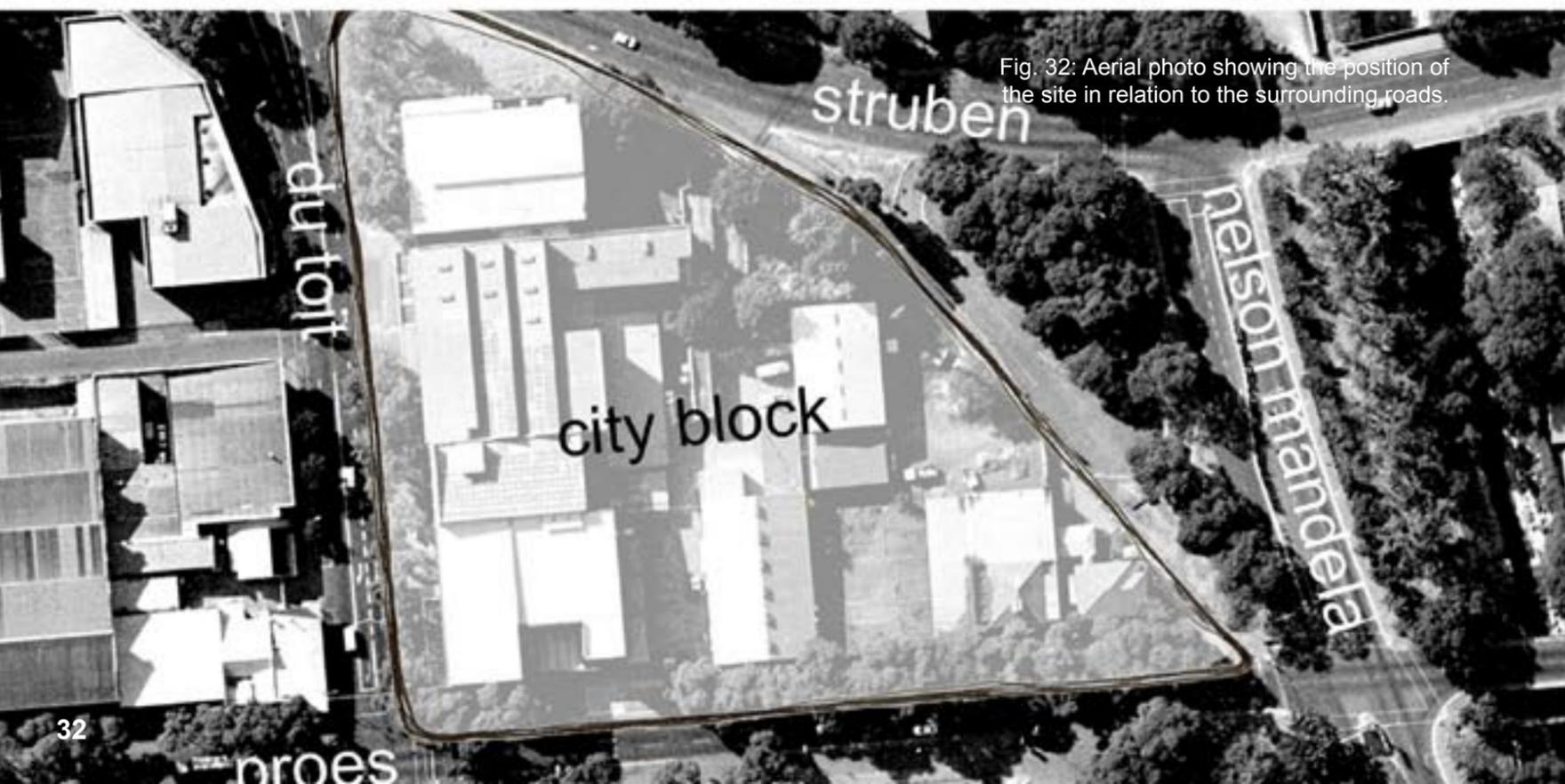


Fig. 32: Aerial photo showing the position of the site in relation to the surrounding roads.

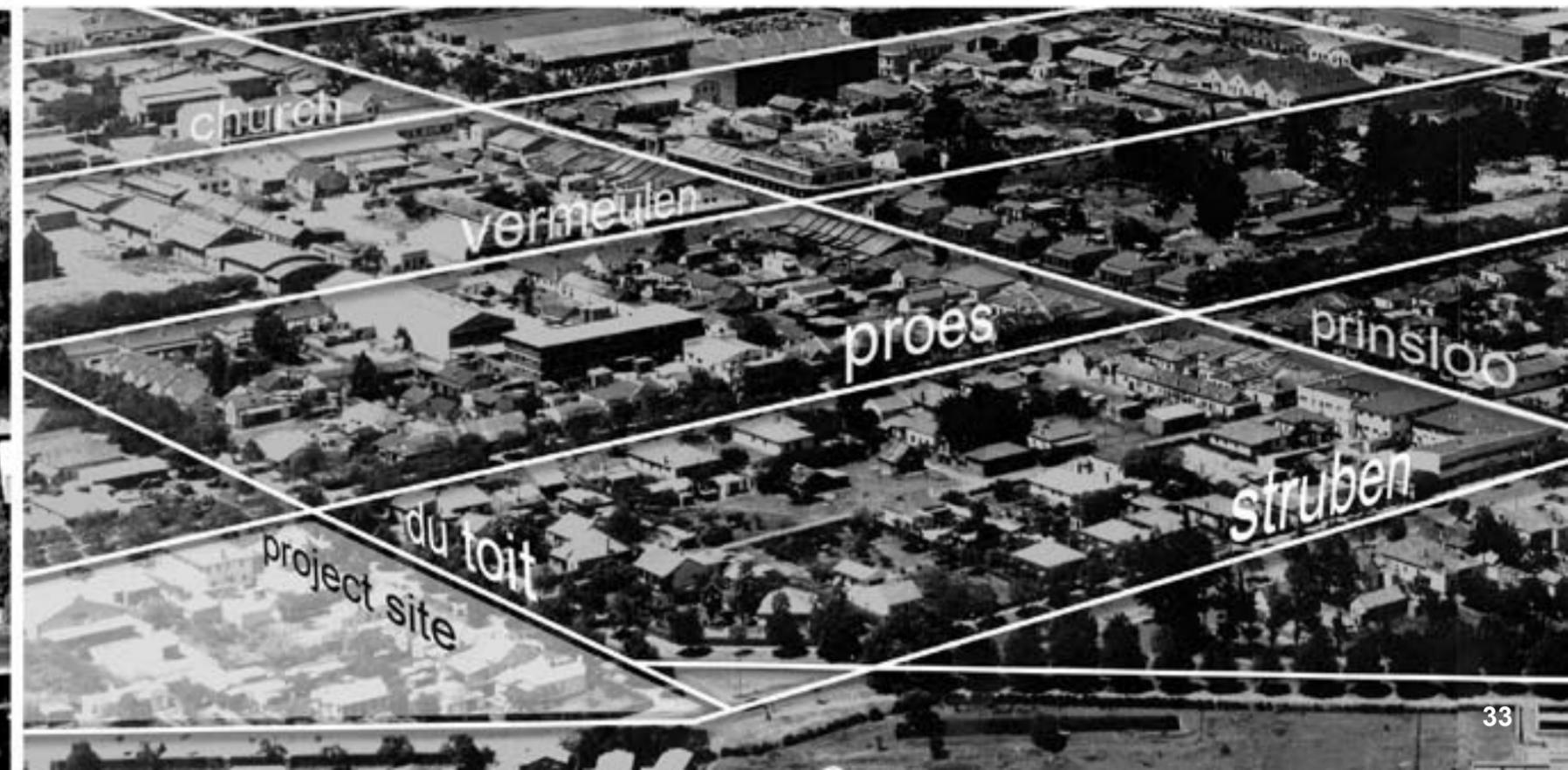


Fig. 33: Photo showing the site in 1948.



Fig. 34: Aerial photo of the site in 1949. Red indicates where Nelson Mandela Drive was constructed in later years. Green indicates current lost piece of land.



Fig. 35: Aerial photo of site in 2005. Orange stipple line indicates proposed extension for Nelson Mandela Road.



Fig. 36: TUT wall facing Struben Street.

3.3.1 – Polemics

The Tshwane University of Technology (TUT) Arts Campus is positioned to the north of the site and separated from it by Struben Street. Being a major tertiary educational institution, this campus is of obvious value to its surroundings. Unfortunately the entire campus is fenced off with a 2,5 meter high pre-cast concrete wall that disrupts both physical and visual interaction between the inside and the outside of the campus (Fig. 36). The result is a non-responsive edge for the TUT campus influencing not only the campus itself and the pedestrian walkway bordering it, but also the visual interaction from the cars passing by on Struben Street and the site to the south.

Struben Street is a four lane one-way positioned north of the site that carries traffic to the east. Running parallel to it is Proes Street which is a four lane one-way carrying traffic west and positioned south of the site. Both these major city arteries intersect with Nelson Mandela Drive east of the block. In addition, the Apies River and the CBD edge join at this point and have resulted in somewhat awkward intersections. This makes it difficult for pedestrians to cross the roads at some points and it is in many ways a deterrent to movement (Fig: 38; 39).

The site has low building density with many of the buildings standing vacant. A fluorescent signage workshop owns approximately half the city block, yet only two single storey sheds and a double storey house cover less than 15% of the entire block leaving large portions of the site vacant. Medium density buildings, of which a large number are vacant, sit on the western side of the block bordering Du Toit Street. The only building on the entire block that is optimally utilised is the ABC Sweets wholesaler on the western side.

Problems existing in and around the city block have caused pedestrians to utilise alternative routes to that of Struben Street (Fig.37). Struben Street offers pedestrians using the taxi rank on the corner of Bloed and Van der Walt Streets a shorter route to Sunnyside and Arcadia. Ironically, the majority typically move south in Van der Walt Street and only start filtering east towards these destinations upon reaching Proes Street hence totally bypassing the site. This is because these routes provide facilities that cater for their needs whereas Struben Street does not (Fig: 40; 41).

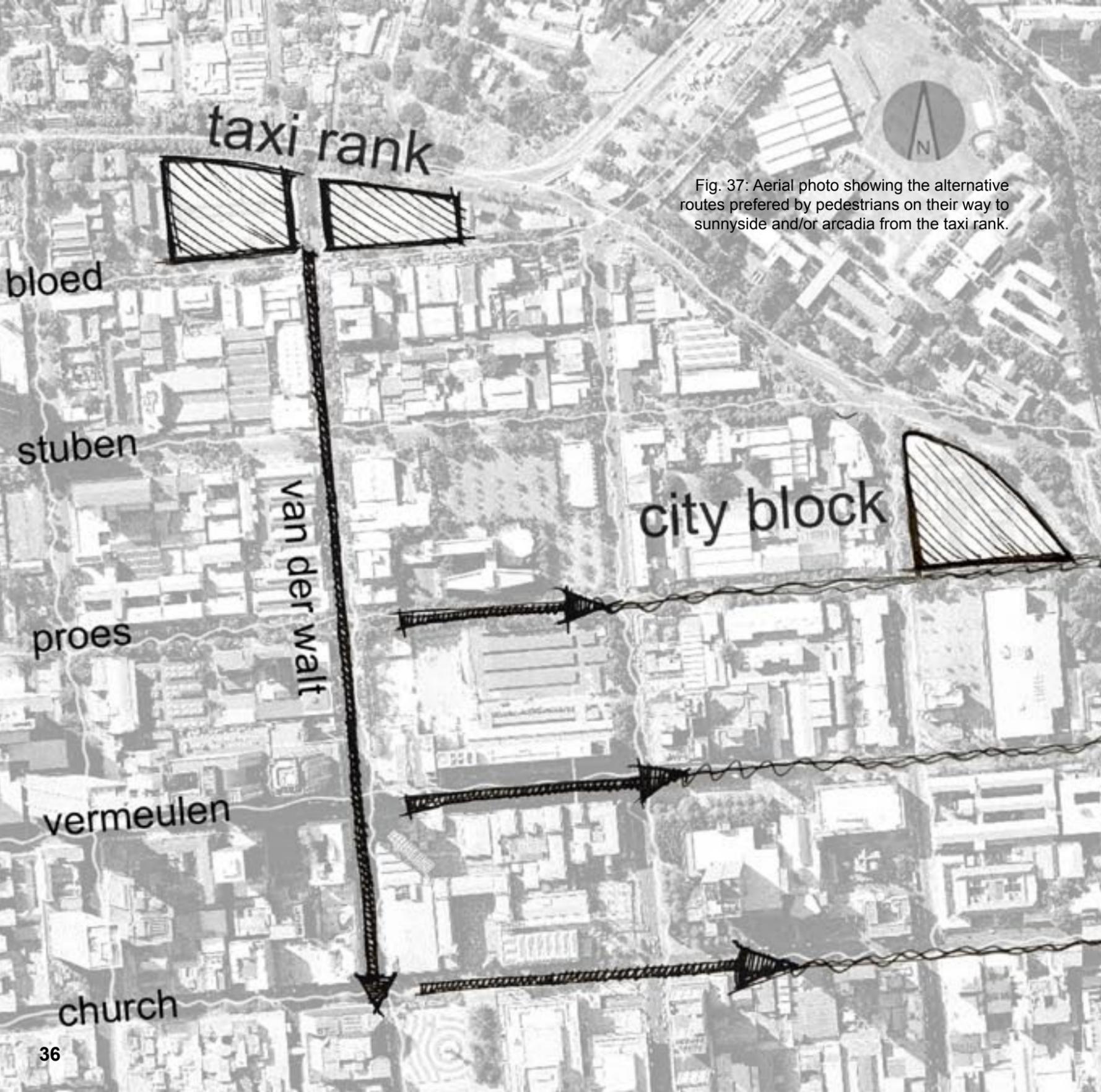


Fig. 37: Aerial photo showing the alternative routes preferred by pedestrians on their way to sunnyside and/or arcadia from the taxi rank.



Fig. 38: Intersection between Nelson Mandela Road and Proes Street from Proes Street.



Fig. 39: Intersection between Nelson Mandela Road and Proes Street from Nelson Mandela Road.



Fig. 40: Informal facilities at taxi rank catering for pedestrians.



Fig. 41: Struben Street not catering for pedestrians.

Fig. 42: Transport system in Pretoria CBD



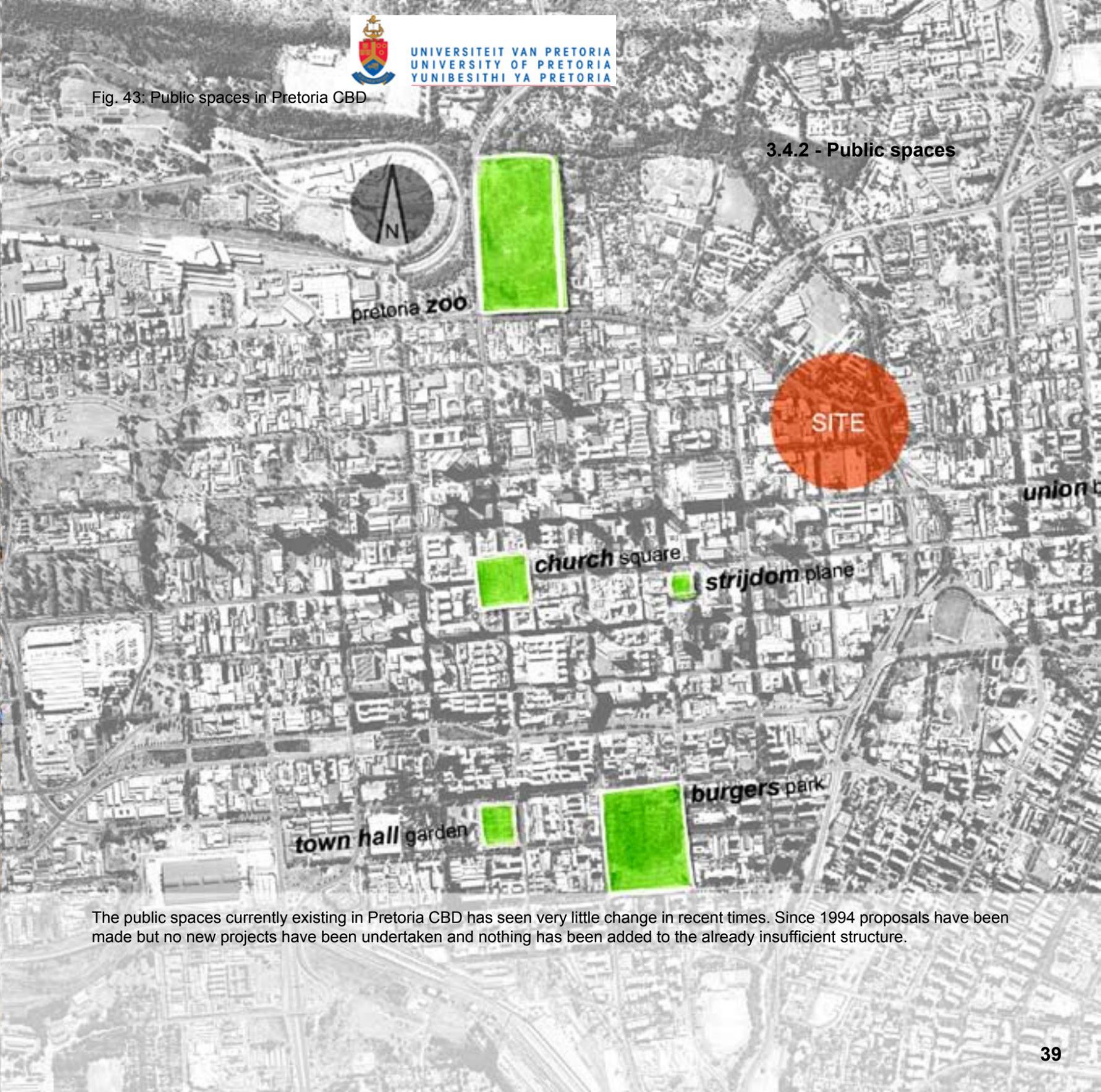
3.4 - Surrounding analysis

3.4.1 - Transport

Vehicular: The road grid in the Pretoria CBD runs perpendicular in a north south and east west orientation with a major ring road on the eastern and northern edges. A taxi rank is situated on the north-eastern border.

Train: The Pretoria Railway Station, south of the CBD, accommodates rail transport to Johannesburg (south), Mamelodi (west), and Atteridgeville (east). The Belle Ombre Railway Station on the northern side accommodates rail transport north and to Soshanguve.

Fig. 43: Public spaces in Pretoria CBD



3.4.2 - Public spaces

The public spaces currently existing in Pretoria CBD has seen very little change in recent times. Since 1994 proposals have been made but no new projects have been undertaken and nothing has been added to the already insufficient structure.



Fig. 44: Movement around the site. Red: Vehicular movement and intensity. Yellow: Pedestrian focus and intensity.

3.4.3 - Movement



Fig. 45: Surrounding uses.
Red: Commercial
Yellow: Industrial
Green: Institutional
Blue: Residential

3.4.4 - Surrounding uses

3.5 - Buildings on site



Fig. 46: Aerial photo showing buildings existing on the city block. Letters indicate buildings to be analysed. Numbers indicate position from where photos were taken.



a. The building on the northern corner of the city block is three storeys high and constructed from brick masonry. It has office space on the first and second floors and retail space on the ground floor. Large parts of the building have been demolished and some parts even destroyed by fire. It is currently standing vacant and is of low economic value.

1

Fig. 47: Non responsive north facing facade.



Fig. 48: Barren piece of land east of the building. Traces of the old building can be seen in the remaining foundations.

2

b. Of all the buildings existing on the city block the building housing the ABC Sweets Company is best utilised. It is three storeys high with a concrete frame construction and brick fill-in. It has retail and storage space on ground level and office space on the first and second levels. It is currently used as a sweets storage facility and wholesaler and is of medium economic value.

3



Fig. 49: Pickups and deliveries take place in du Toit Street.

Fig. 50: The building does not respond to pedestrians that pass by.

4



c. The building on the southwest corner of the city block is three storeys high and constructed from concrete with brick fill-in. The western side has retail space currently utilised by the Early Bird Services TV and Appliances Repair Shop and the southern side has office space, currently vacant. This building is partially utilised and of medium economic value.

5



Fig. 51: Ground floor retail and upper story offices. Offices are standing vacant.

Fig. 52: Southern façade of vacant office building.

6



d. This building is double storey and constructed with brick masonry. The side of the building facing the street is currently used to manufacture number plates and the other side is used by the fluorescent sign manufacturers. Adjacent to the building is a vacant piece of land only used for parking. This building is of low economic value. It is not stated where this building is situated.

7



Fig. 53: Street facing side of the building.

Fig. 54: Large piece of land west of the building. Not well utilised.

8



e. These scattered buildings all form part of a fluorescent signage manufacturing workshop. A double storey face brick house stands on the south-eastern corner of the city block and has been converted into offices. A single storey shed constructed from steel and corrugated iron is positioned on the north-eastern side of the site and this is where production of the fluorescent signs takes place. The buildings are all used, but are of low density and hence of low to medium economic value.

9



Fig. 55: House standing on the corner of Nelson Mandela Drive and Proes Street.

Fig. 56: Production shed with the Reserve Bank in the background.

10



open land covered with trees

building e: fluorescent light manufacturers

photo 1: vacant site

SITE

building a: vacant office block

Fig. 57: Panoramic view of the city block from Struben Street.