



Heritage Statement
**Application for demolition in terms of Section 34 of
the National Heritage Resources Act (Act 25 of 1999)**
Section 34 application and heritage statement Erf 10192, Helliger Lane, BoKaap
submitted to Heritage Western Cape in terms of the
National Heritage Resources Act

**INVESTIGATION & REPORT ON
STATE OF STRUCTURES ADJOINING
ERF 10192, HELLIGER LANE
REGARDING IMPLICATIONS OF THE
PROPOSED DEMOLITION**

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1. INTRODUCTION

HWC Built Environment and Landscape Committee (BelCom) considered the proposed nature and extent of proposed demolition at erf 10192 and expressed concern that demolition may cause structural damage to adjoining properties. In this regard it was requested that a structural engineer's report be compiled. Report is to consider:

- structural integrity of adjoining properties
- demolition plan
- mitigation plan so as to avoid structural damage

ConsulTauri Design (Pty) Ltd, a consulting Structural Engineering consultancy was tasked to undertake this study and compile the required report.

2. THE SITE LOCATION

The image below identifies the site. The site for demolition is ERF 10192, also known as Danny's Auto and is located on Helliger Street between Buitengracht and Rose Streets.



Source: Google Maps

The property for demolition is bounded by the existing Hilton hotel on the East (Buitengracht Street), two residential properties in the West (Rose Street) which are referred to in this report as the Barber Shop and Family Mohidien, and by Atlas Trading Spice Shop on the South (Wale Street). For additional clarification refer to appendix A.



3. SITE INSPECTION

An in depth site inspection was held on Tuesday 6th March 2014 attended by Mr Rael Smith of ConsulTauri Design (Pty) Ltd, Mrs Quahnita Sami of Vidamemoria Heritage Consultants CC and Mr Jim Oldknow of Franki Africa (Pty) Ltd.

Access was obtained to the neighbouring properties in order to ascertain the condition of the properties and to understand the structural stability of the adjoining structures. Discussions were held with the owners in order to engage with the community to appreciate their circumstances and requirements.

4. THE CONSULTING TEAM

ConsulTauri Design (Pty) Ltd

ConsulTauri Design (Pty) Ltd is a Civil and Structural Engineering practise focusing on hands-on engineering for a broad range of clients. With experience ranging from the industrial and mining sector to the commercial and hospitality sectors, CTD provide qualified engineers to each and every project.

The Engineers at CTD were involved in the construction of The Constitutional Court, and interacted with South Africa's rich heritage during both the design and construction thereof. The Fort, Section 4 and 5, The Women's Gaol and the Awaiting Trial Blocks, all had to be protected and incorporated into the design of the Court for posterity.

Vidamemoria Heritage Consultants CC

Vidamemoria is a heritage resources management firm focusing on integrated and interactive systems for the management of heritage resources and the protection, preservation and promotion of such heritage resources. The firm draws on specialist input from various professionals in seeking to fulfil the ambit of the scope of works as defined for heritage resource management within the National Heritage Resources Act (Act 25 of 1999).

Franki Africa (Pty) Ltd

Franki Africa are Geotechnical Engineering Contractors that offers a comprehensive range of services which ensure that its customers benefit from the most cost-effective solutions for their geotechnical requirements.

For the past 60 years Franki Africa operates in sub-Saharan Africa and the Indian Ocean Islands and has the experience, capability and capacity to undertake projects of all sizes.

The "One-Stop Geotechnical Shop" concept at Franki is further enhanced by Franki's in-house geotechnical investigation capability, as well as its Design Department. Being part of Esor (www.esor.co.za) also widens product range, capacity and capability.

Franki employs a rigorous quality assurance programme has been developed by the Company for use in the design and installation of its products, as well as the services that it offers. This programme is also flexible and can accommodate any quality assurance requirements that a client might require on a project.

Franki Africa were involved in the demolition of the site adjacent to Erf 10192, approximately 9 years ago. That was a more substantial structure, than the one under investigation in this report. No adverse effect was noted on any of the adjoining properties



5. FINDINGS AND ANALYSIS

The following section of the report will address the three adjoining properties independently. Each site will be analysed both in terms of;

- a. The condition of the primary structure
- b. The position, nature and condition of the boundary wall
- c. Challenges related to the subsidiary structures against the boundary wall
- d. Mitigation measures to be implemented prior to or during demolition

FAMILY MOHIDIEN

The Mohidiens house was inspected in a cordial manner and photographs were taken with their permission.

The primary residence is to some extent in a state of disrepair. Externally, there is significant spalling of the concrete on the balcony on Rose Street. Internally, the house is showing signs of age, and lack of maintenance.

As can be seen on the survey drawing (Appendix B), the existing boundary wall between between erf 10192 and the Mohidiens is positioned on erf 10192. The wall is a stone wall, that is leaning at the top and is structurally unsound.

There has been a double storey structure constructed in the alleyway between the primary house and the boundary wall, making use of the existing boundary wall. The Mohidiens are currently renovating this structure to incorporate a new loadbearing wall on their site, acknowledging that the boundary wall is unsafe.

Should this construction not be complete at the time of demolition of the boundary wall, a new wall will be built for the Mohidiens on their site. The same applies for the upstairs kitchen. (see photo 9 in Appendix C).

Demolition of the old stone boundary wall and the existing structure will have no adverse effect on the Mohidien's residence.

BARBER SHOP

The Barber Shop was not inspected internally by the Engineer or by the Contractor. The Heritage Consultant was allowed access and photographs were taken with permission.

The residence / shop has been maintained over the years and is in a good state.

As can be seen on the survey drawing (Appendix B), the existing boundary wall between between erf 10192 and the Barber Shop is positioned on erf 10192. The wall is a stone wall, that is cracked and leaning at the top and is structurally unsound.



There has been a double storey structure constructed in the alleyway between the primary structure and the boundary wall, abutting the existing boundary wall. (see photos 13 to 16 in Appendix C) From the photographs it is also evident that there is another wall independent of the boundary wall.

It is unclear if this wall continues through into the out-building. If this wall is found to continue through both storeys of the out-building, demolition of the boundary wall will have no impact on the Barber Shop. If however, the wall does not continue through into the outbuilding, a wall will need to be built by the owner of erf 10192 for the Barber prior to demolition of the boundary wall.

Demolition of the old stone boundary wall and the existing structure on erf 10192 will have no adverse effect on the Barber Shop.

ATLAS TRADING

Atlas Trading was inspected in detail in a cordial manner and photographs were taken with their permission. Mr Cassim Ahmed showed the team around the various structures that comprise Atlas Trading.

At the outset Mr Ahmed expressed displeasure with the lack of response from the Hilton Hotel, who he says caused cracking to his storeroom during construction on the adjacent site. The project manager in charge of the construction of the Hilton has been contacted, and has in turn contacted the owner, both of whom confirm this to be the first time that they have been notified of this outstanding issue. Contact will be made with Mr Ahmed in this regard to rectify any and all such items.

Atlas Trading comprises a double storey concrete frame structure, built approximately 35 years ago after a fire destroyed the original structure, and a double storey out-building where most of the bulk materials (spices) are stored. The suspended floor and the roof of the outbuilding comprise timber beams supported by the boundary wall.

The concrete framed structure, housing the trading floor and some changing areas and office space upstairs is in a good state and has been well maintained. Being “back-of-house”, the out-building has undergone far less maintenance, but is nevertheless structurally sound. Cracks in the wall, originate from the construction of the Hilton, and are addressed above (see photo 22 in Appendix C).

As can be seen on the survey drawing (Appendix B), the existing boundary wall between erf 10192 and Atlas Trading is positioned on erf 10192. The wall is a stone wall, as was confirmed by removing a small amount of plaster. There are no signs of distress visible on the wall.

In order to allow the demolition of the boundary wall, a new independent structure will need to first be built to suspend the first floor and the roof of the store, and make them independent of the boundary wall. This structure could be constructed from brickwork or steel. Detail will be agreed with Mr Ahmed so as to ensure minimum disruption to his trade. During demolition Atlas Trading will be kept informed of critical activities and will be accommodated in terms of their requirements.



Once the necessary precautions have been taken to stabilize the store, demolition of the old stone boundary wall and the existing structure on erf 10192 will have no adverse effect on the Atlas Trading.

6. DEMOLITION OF STRUCTURES ON ERF 10192 AND NECESSARY MITIGATION

Demolition of structures on Erf 10192 will take place in a top-down sequence.

Initially, the roof sheeting and support structure will be removed. This will be a short duration activity, which will have no effect on the adjoining properties.

Thereafter, the internal walls and structures will be demolished. This comprises the mezzanine slab and dividing walls. Here too, due to the proximity from the adjoining properties, no adverse effects are expected.

The perimeter concrete frame will then be demolished with the use of concrete cutting, rather than mechanical breaking. This is to minimise the amount of vibration transferred through the structure.

Simultaneous with activities outlined above, the contractor will be constructing the new walls as required on the neighbouring properties, after which the boundary wall will be demolished. It is expected that these walls are not hard, and will be broken by hand with a hammer and chisel. The wall will be shored with props to ensure that they don't collapse.

Lastly, the surface bed (floor slab) will be broken up and removed.

In order to minimise vibrations through the adjoining structures, use of mechanical breakers will be kept to a minimum. This will be particularly important where the concrete frame on Erf 10192 abuts the walls of the adjoining properties. In these instances, the concrete frame will be cut with blade-saws or wire rope to minimise structure-borne vibrations. Once lowered to the ground, the concrete elements will be broken into smaller more manageable pieces that can be removed from site and disposed of.

Throughout the demolition, the neighbours will be kept informed of activities and will be accommodated where possible.



7. CONCLUSION

The proposed demolition of Erf 10192, Helliger Lane, will have no adverse effect on the adjacent primary structures. Outbuildings, that have been constructed by the neighbours, making use of the boundary wall of Erf 10192, will be modified prior to demolition to ensure their structural integrity and habitability is maintained during and after the demolition.

Inspections and report by:

R M SMITH

Pr Eng (20090267)

Reviewed by:

M J PHILLIPS

Pr Eng (950615)

APPENDIX A: SITE LAYOUT PLAN

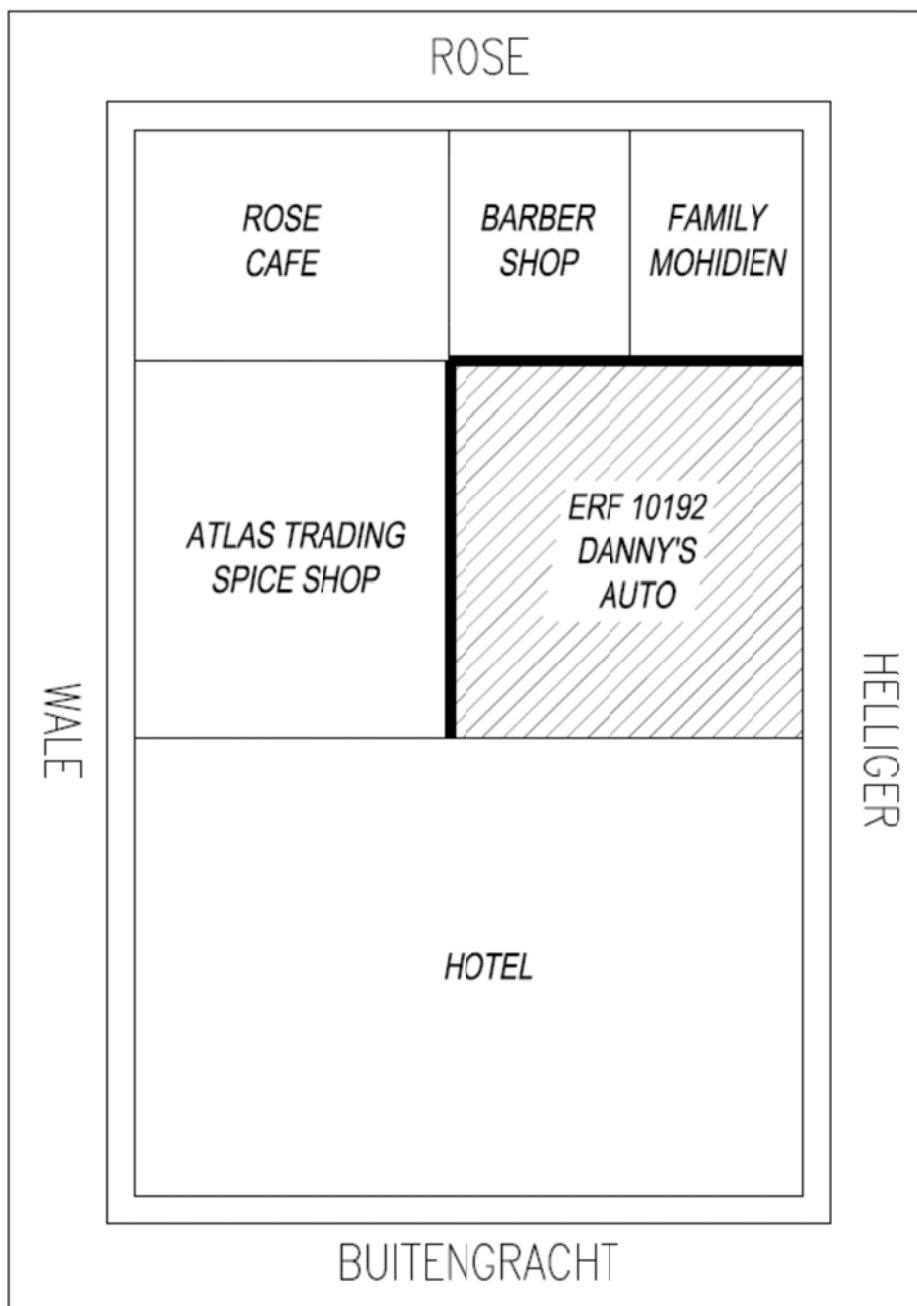
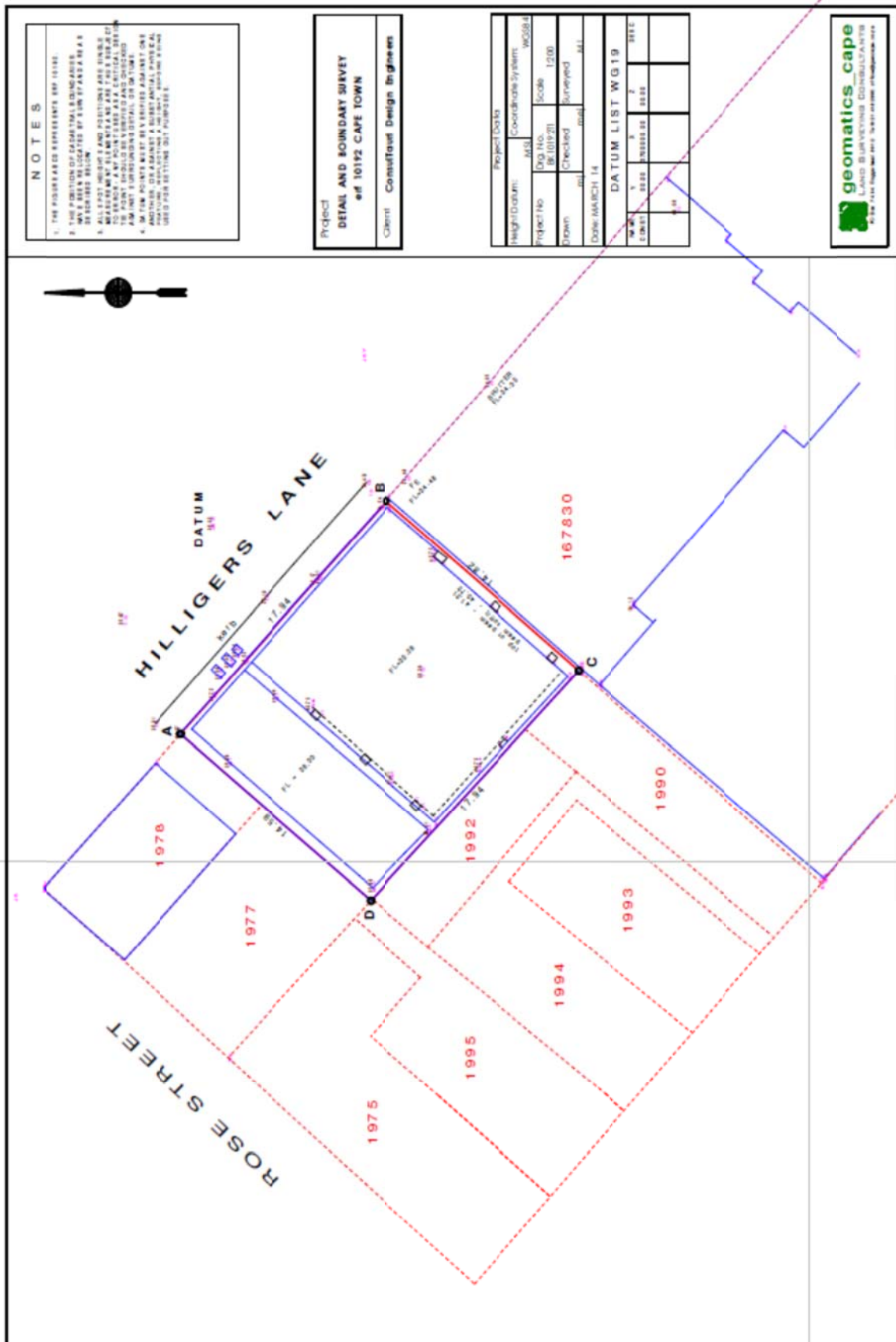


Image 1: Site plan layout. (not to scale – for reference purposes only)



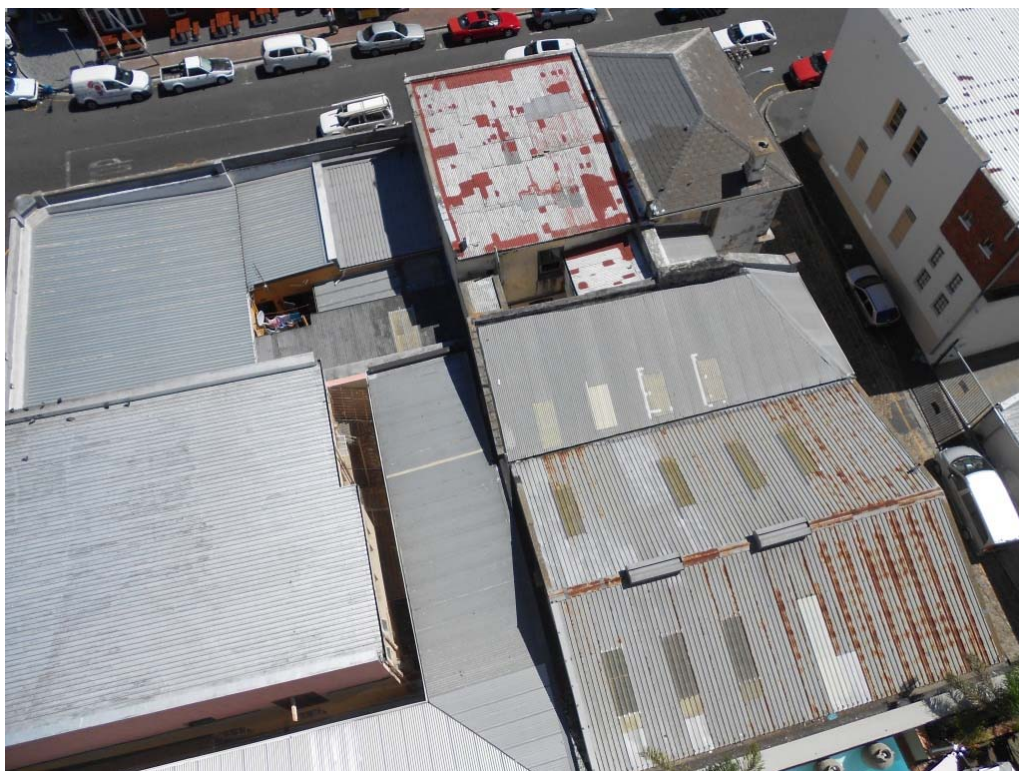
APPENDIX B: SURVEY DIAGRAM



APPENDIX C: GENERAL PHOTOS



Photo 1: View of Danny's Auto (red facebrick) in Helliger Lane, between hotel and Mohidien.



Photos 2: Top view of site, showing Danny's Auto (bottom right) bounded by neighbours.



Photo 3: Internal view of Danny's Auto, showing contemporary concrete frame with brick infill panels.



Photo 4: Internal view of Danny's Auto, showing wall shared with Atlas Trading.



Photo 5: Internal view of narrow portion of Danny's Auto. Wall on right side is shared with Mohidien family and the barber. Wall on far end is shared with Atlas Trading. Wall on the left hand side is internal to Danny's Auto.



Photo 6: Internal wall of Danny's Auto being supported laterally by the concrete frame.



Photo 7: Entrance into Mohidien from Helliger.



Photo 8: View inside Mohidien courtyard of new brickwork as well as existing plastered stone wall.



Photo 9: View inside Mohidien upstairs kitchen. Back wall of kitchen is boundary wall.



Photo 10: View of slab under kitchen. In a state of disrepair, currently being rebuilt by the Mohidiens.



Photo 11: Balcony slab over the butchery entrance in Rose Street. Significant spalling and corroded reinforcement.



Photo 12: As above.



Photo 13: View inside back yard of barber shop. Note new independent wall adjacent stone wall.



Photo 14: View inside back yard of barber shop. Note bad state of boundary wall.



Photo 15: View inside back yard of barber shop. Notes as above.



Photo 16: View inside back yard of barber shop. Notes as above.



Photo 17: Entrance of Atlas Trading. Concrete frame structure constructed approximately 35 years ago.



Photo 18: Inside the first floor of Atlas trading concrete framed building.



Photo 19: View inside ground level storeroom behind Atlas Trading looking towards existing hotel. Left-hand wall backs onto Danny's Auto.



Photo 20: View inside first level storeroom behind Atlas Trading looking away from existing hotel.



Photo 21: View inside upper level storeroom behind Atlas Trading. Right-hand wall backs onto Danny's Auto



Photo 22: View inside upper level storeroom behind Atlas Trading looking towards existing hotel. Left-hand wall backs onto Danny's Auto.