

CTS HERITAGE

HERITAGE SCREENER

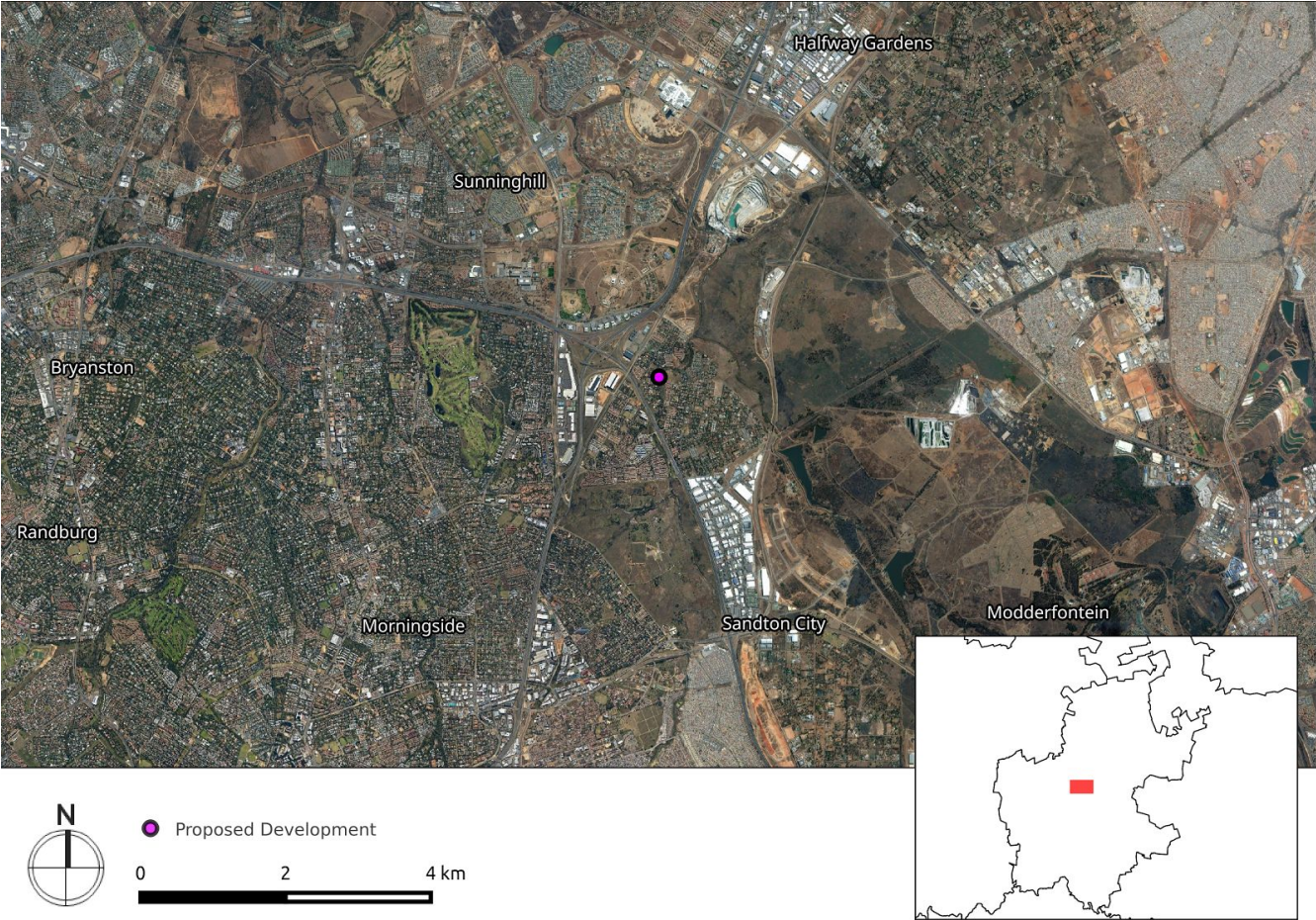
CTS Reference Number:	CTS17_164	
SAHRIS Case ID:		
Client:	Envirolution	
Date:	11 November 2017	
Title:	Bridge Road Replacement and Upgrade of Culverts	

Figure 1a. Satellite Map indicating the location of the proposed development in the Gauteng Province

Recommendation by CTS Heritage Specialists: (Type 1)	RECOMMENDATION: The heritage resources in the area proposed for development are sufficiently recorded See Section 8 for full recommendations.
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1. Proposed Development Summary

The applicant has proposed the replacement of the road and upgrading of the culverts on Bridge Road Bridge, Buccleuch, Sandton in Gauteng Province.

2. Application References

Name of relevant heritage authority(s)	PHRAG
Name of decision making authority(s)	PHRAG

3. Property Information

Latitude / Longitude	-26.050182° / 28.104752°
Erf number / Farm number	Road Reserve, Bridge Road, Johannesburg
Local Municipality	City of Johannesburg Metropolitan Municipality
District Municipality	City of Johannesburg
Previous Magisterial District	Randburg
Province	Gauteng
Current Use	Road
Current Zoning	Road
Total Extent	~75m, actual bridge only 25m

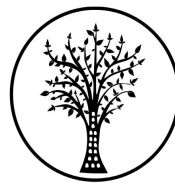
4. Nature of the Proposed Development

Total Surface Area	~75m, actual bridge only 25m
Depth of excavation (m)	Existing footings
Height of development (m)	Ground level & existing bridge
Expected years of operation before decommission	N/A

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5. Category of Development

Triggers: Section 38(8) of the National Heritage Resources Act	
Triggers: Section 38(1) of the National Heritage Resources Act	X
1. Construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier over 300m in length.	
2. Construction of a bridge or similar structure exceeding 50m in length.	X
3. Any development or activity that will change the character of a site-	
a) exceeding 5 000m ² in extent	
b) involving three or more existing erven or subdivisions thereof	
c) involving three or more erven or divisions thereof which have been consolidated within the past five years	
4. Rezoning of a site exceeding 10 000m ²	
5. Other (state):	

6. Additional Infrastructure Required for this Development

NA

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7. Mapping (please see Appendix 3 and 4 for a full description of our methodology and map legends)

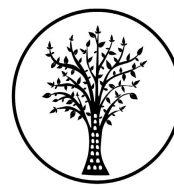


Figure 1b. Overview Map. Satellite image (2017) indicating the proposed development area at closer range.

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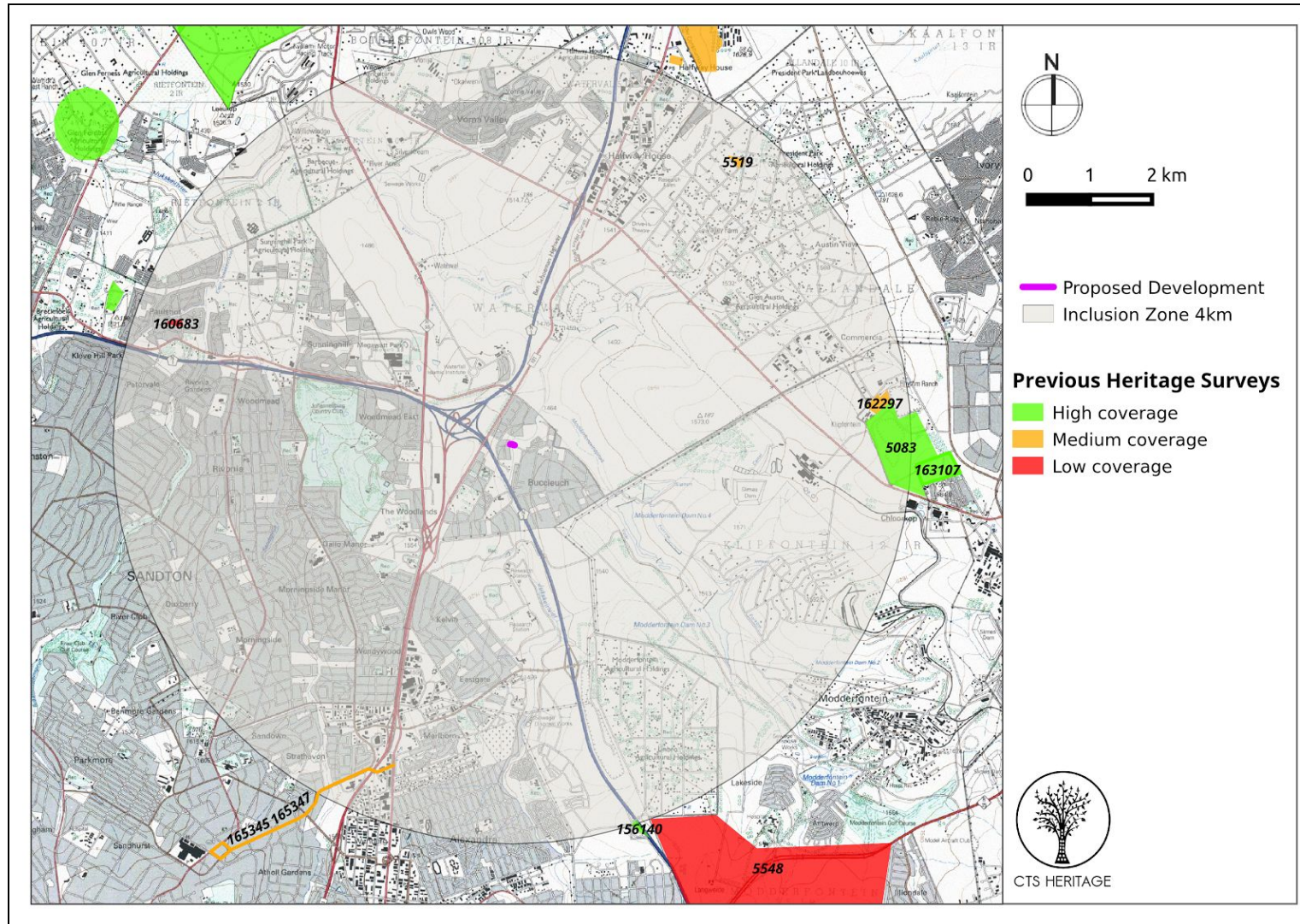
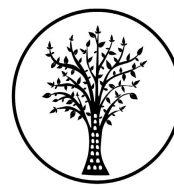


Figure 2a. Previous HIAs map. Previous Heritage Impact Assessments surrounding the proposed development area within 4kms, with SAHRIS NIDS indicated (please see Appendix 2 for full reference list).

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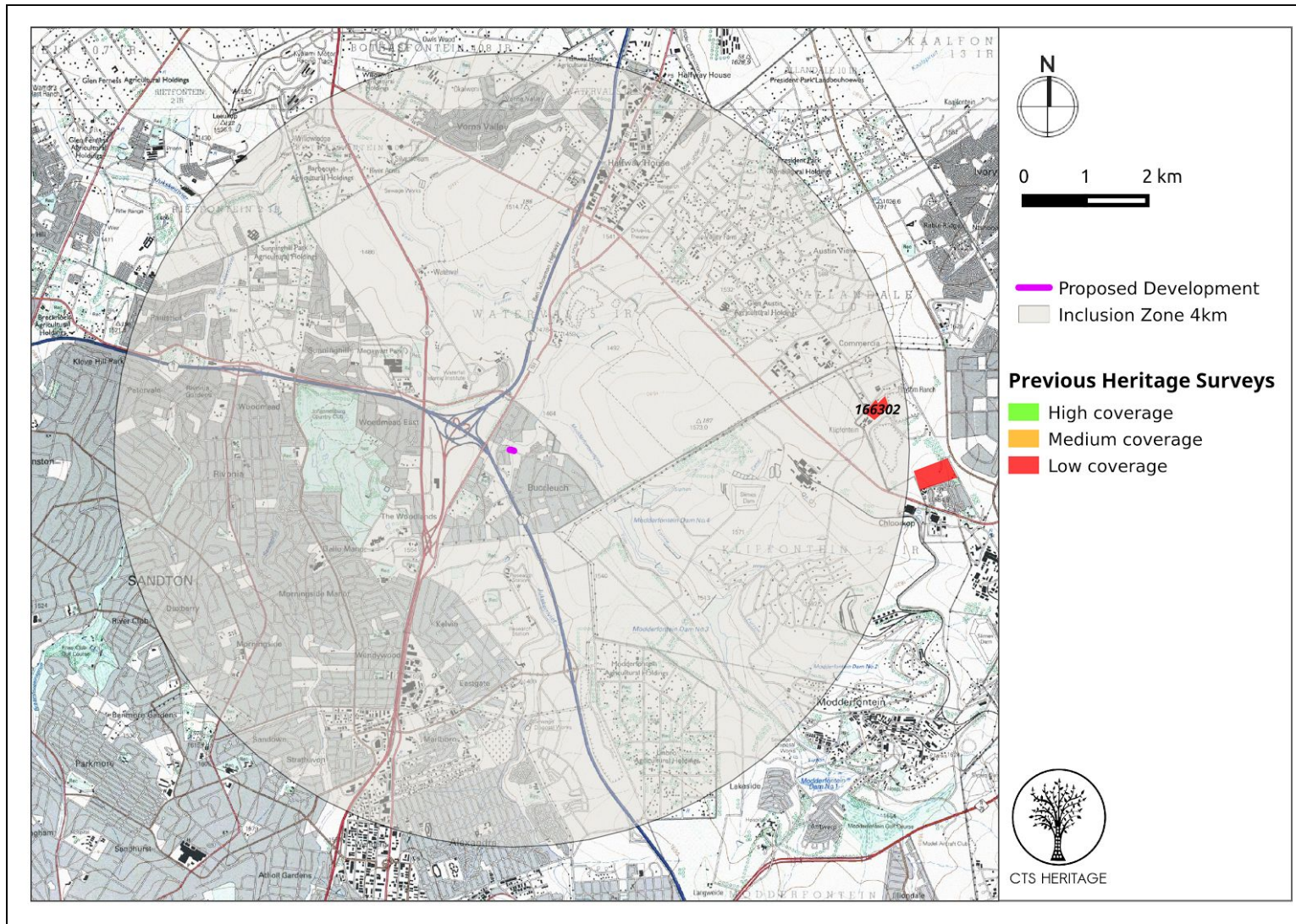
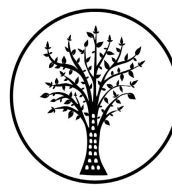


Figure 2b. Previous PIAs Map. Previous Palaeontological Impact Assessments surrounding the proposed development area within 4km, with SAHRIS NIDS indicated (please see Appendix 2 for full reference list).



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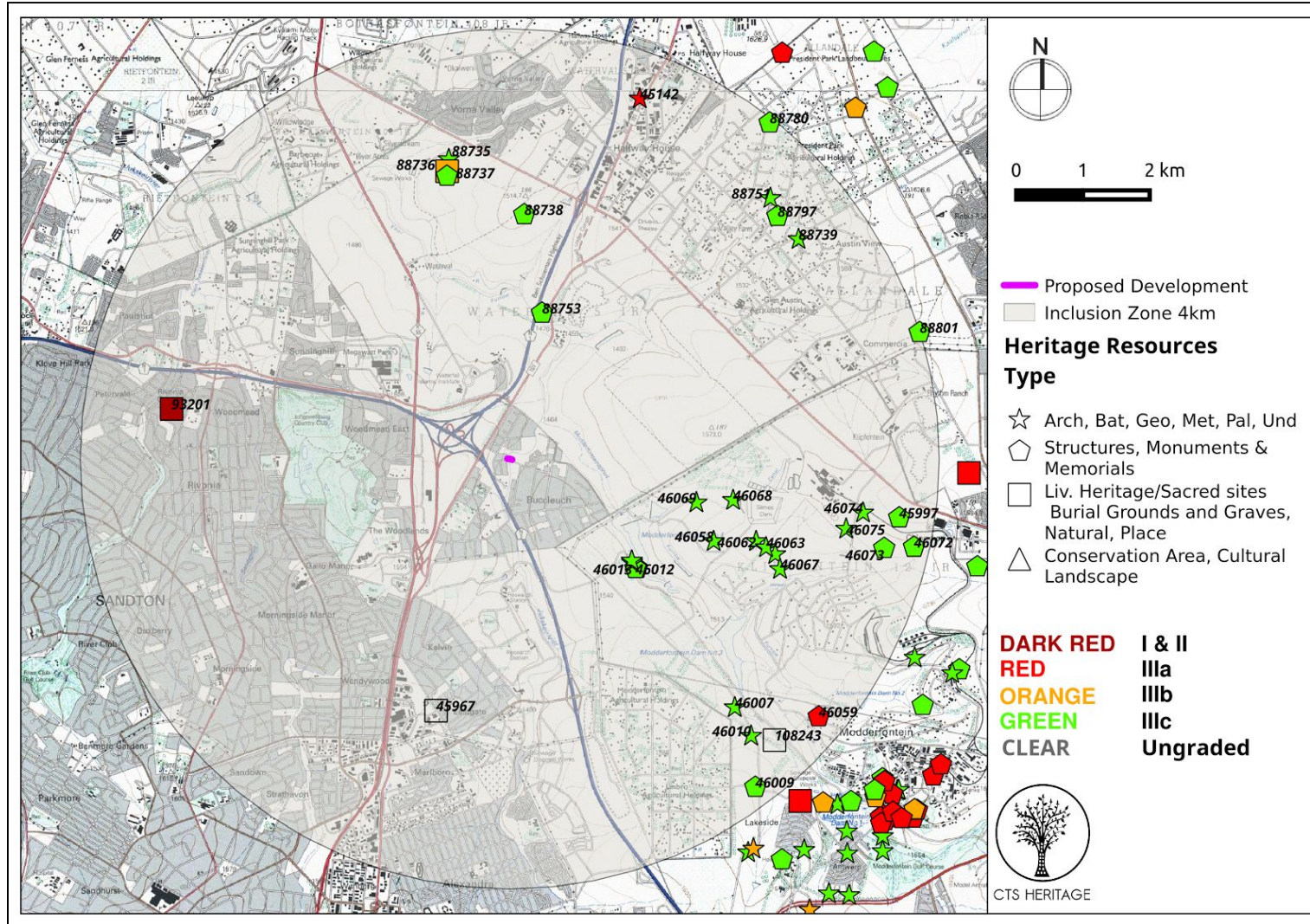
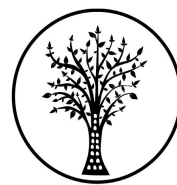


Figure 3. Heritage Resources Map. Heritage resources previously identified in and near the study area, with SAHRIS Site IDs indicated. See Appendix 4 for full description of heritage resource types.

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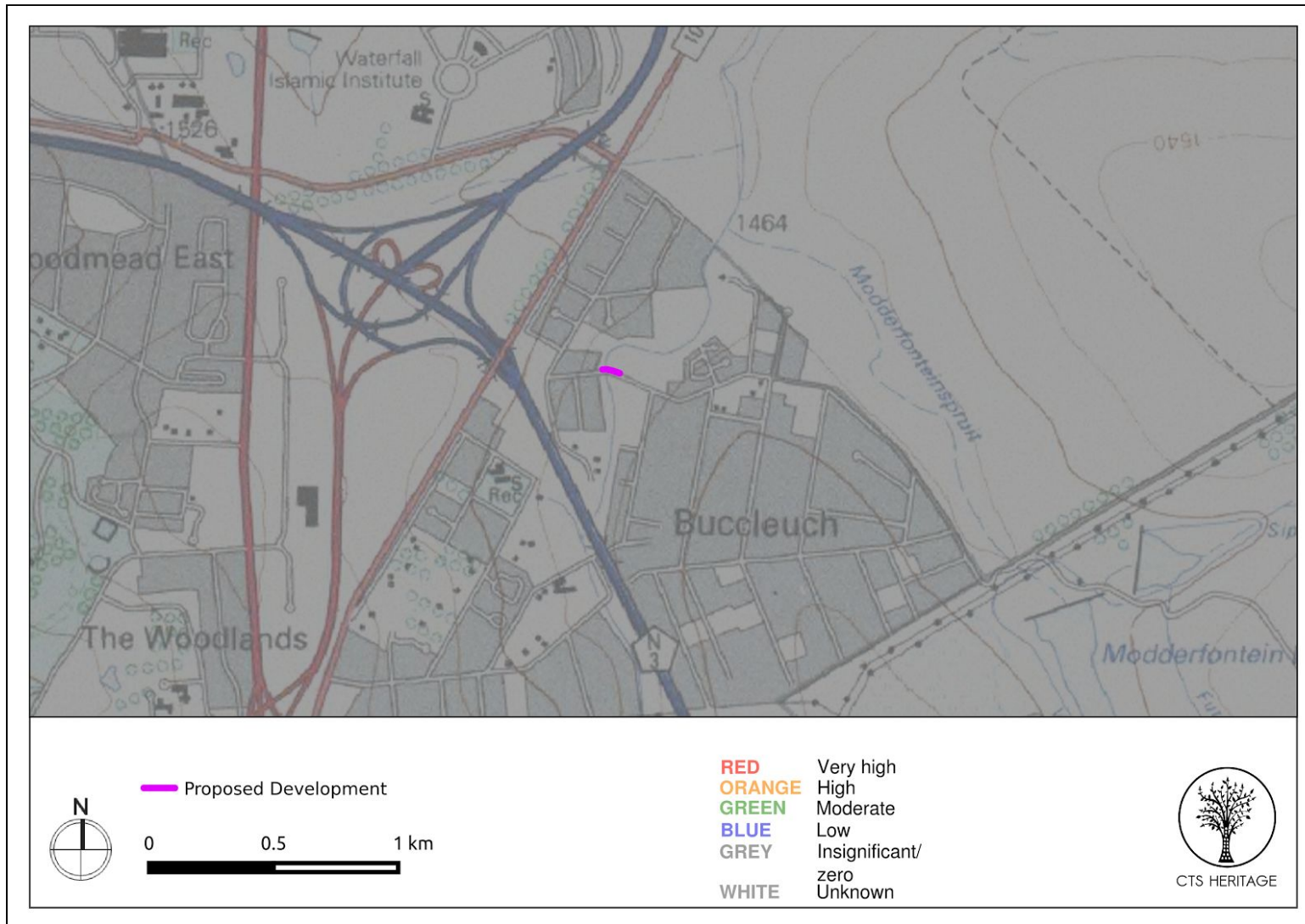


Figure 4. Palaeosensitivity Map, indicating **zero/insignificant fossil sensitivity** underlying the study area. See Appendix 3 for full guide to the legend.

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8. Heritage statement and character of the area

The applicant has proposed the replacement of the road and upgrading of the culverts on Bridge Road Bridge, Buccleuch, Sandton in Gauteng Province (Figures 1a and 1b). Buccleuch was developed on property that had originally formed one of the early Witwatersrand farm grants, Waterfal, and the old road from Johannesburg to Pretoria runs through it. Buccleuch forms part of Sandton, an affluent suburb in Johannesburg, and is characterised by large single residences on smallish plots, as well as gated property developments. The immediate vicinity of Bridge Road Bridge, over the Jukskei River, is built up on the western bank, both north and south of the bridge, but currently undeveloped on the eastern bank, with properties set back from the bank south of the Bridge, and undeveloped land to the north. The bridge itself could be older than 60 years, but is not of heritage significance. The area has been inhabited since the Early Stone Age, with human occupation right through Middle and Later Stone Ages, to the Iron Age, and was historically linked both to the gold rush and the Boer War, but most evidence of this past utilisation has been obliterated by subsequent development and urbanisation.

Eight heritage studies have been undertaken within a 4km radius of the bridge (Figure 2a). Due to the built up nature of the area, only two of these surveys identified any heritage resources. The first (Pistorius 2003, SAHRIS NID 5548) identified the remnants of an historic Boer War shooting range, represented by small earthworks that constituted the range, located on Farm Modderfontein 35IR. The second report included testimony from informants that several unmarked graves were present in the area, but these were not identified in the course of fieldwork (van der Walt 2014, SAHRIS NID 163107).

A single National Heritage Site is located within 4kms of the bridge, namely Liliesleaf Farm (SAHRIS SID 93201) (Figure 3). This site, historically the headquarters of uMkhonto we Sizwe and the arrests that led to the Rivonia Trial, is a crucial site in terms of South African struggle history, and forms part of the Department of Arts and Culture's Liberation Heritage Route. Two Grade IIIa sites occur within the same radius, both structural features related to the Boer War (SAHRIS SIDs 46059 and 46011), while the remaining sites in the vicinity include a Grade IIIb graveyard (SAHRIS SID 88736) and several structures, archaeological sites and examples of Iron Age stone walling, all graded Grade IIIc.

The SAHRIS Palaeosensitivity Map (SAHRA 2014) indicates that the entire area is underlain by geological deposits of insignificant or zero fossil sensitivity. The affected deposits comprise gneisses and migmatites, which are described on the SAHRIS Fossil Sensitivity Browser (SAHRA 2014) as containing no fossils. These deposits are Early to Late Archaean in age (c. 3.6 –2.4 Ga) and represent highly metamorphosed blocks of continental crust. A Palaeontological Impact Assessment conducted within 4km of the bridge (Figure 2b) indicates that "[t]he potential for any fossil materials occurring within this rock unit is nil" (Millstead 2014, SAHRIS NID 166302).

Due to the lack of intrinsic heritage significance in the bridge itself, as well as the transformed nature of the immediate surrounds and unfossiliferous nature of the underlying geology, it is not anticipated that the limited interventions of an upgrade to the bridge will negatively impact any significant heritage resources.

RECOMMENDATION:

The heritage resources in the area proposed for development are sufficiently recorded - There are no known sites which require mitigation or management plans. No further heritage work is recommended for the proposed development.

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APPENDIX 1

List of heritage resources within the 4km Inclusion Zone

Site ID	Site no	Full Site Name	Site Type	Grading	Declaration
45142	BOULDER01	Boulders Shopping Centre Excavation 01	Archaeological, Deposit	Grade IIIa	NA
45967	RFC HQ	Reserve Force Council HQ	Place, Place	NA	NA
45997	MOD/040	Modderfontein 040	Structures	Grade IIIc	NA
46007	MOD/01	Modderfontein 01	Archaeological	Grade IIIc	NA
46009	MOD/03	Modderfontein 03	Structures	Grade IIIc	NA
46010	MOD/04	Modderfontein 04	Deposit	Grade IIIc	NA
46011	MOD/05	Modderfontein 05	Structures	Grade IIIa	NA
46012	MOD/06	Modderfontein 06	Structures	Grade IIIc	NA
46013	MOD/07	Modderfontein 07	Deposit	Grade IIIc	NA
46014	MOD/08	Modderfontein 08	Deposit	Grade IIIc	NA
46058	MOD/27	Modderfontein 27	Stone walling	Grade IIIc	NA
46059	MOD/075	Modderfontein 075	Building	Grade IIIa	NA
46062	MOD/28	Modderfontein 28	Archaeological	Grade IIIc	NA
46063	MOD/29	Modderfontein 29	Stone walling	Grade IIIc	NA
46065	MOD/30	Modderfontein 30	Stone walling	Grade IIIc	NA
46067	MOD/31	Modderfontein 31	Archaeological	Grade IIIc	NA
46068	MOD/32	Modderfontein 32	Archaeological	Grade IIIc	NA
46069	MOD/33	Modderfontein 33	Archaeological	Grade IIIc	NA
46072	MOD/36	Modderfontein 36	Structures	Grade IIIc	NA

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46073	MOD/37	Modderfontein 37	Structures	Grade IIIc	NA
46074	MOD/38	Modderfontein 38	Archaeological	Grade IIIc	NA
46075	MOD/39	Modderfontein 39	Archaeological	Grade IIIc	NA
88735	MIDR001	Midrand 001	Stone walling	Grade IIIc	NA
88736	MIDR002	Midrand 002	Burial Grounds & Graves	Grade IIIb	NA
88737	MIDR003	Midrand 003	Structures	Grade IIIc	NA
88738	MIDR004	Midrand 004	Structures	Grade IIIc	NA
88739	MIDR005	Midrand 005	Artefacts	Grade IIIc	NA
88751	MIDR017	Midrand 017	Artefacts	Grade IIIc	NA
88753	MIDR019	Midrand 019	Bridge	Grade IIIc	NA
88780	MIDR027	Midrand 027	Building	Grade IIIc	NA
88797	MIDR044	Midrand 044	Building	Grade IIIc	NA
88801	MIDR048	Midrand 048	Building	Grade IIIc	NA
93201	9/2/228/0221	Liliesleaf Farm	Place	Grade I	National Heritage Site
108243	Esther Park Extension 38 Phase 2	Grave Site on Portion 221 of Zuurfontein 33IR	Burial Grounds & Graves	NA	NA

APPENDIX 2 Reference List

Heritage Impact Assessments				
Nid	Report Type	Author/s	Date	Title
5083	AIA	Jaco van der	21/02/2008	Heritage Scoping: Proposed Development on Part of Portion 23, Portion 69 and the Remainder of Portion 22 and 36 of the



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		Walt		Farm Klipfontein 12 IR, Ekurhuleni, Gauteng Province
5519	AIA	Udo Kusel	11/10/2007	Cultural Heritage Resources Impact Assessment of Holding 265 President Park Agricultural Holdings Midrand Gauteng
5548	AIA	Julius CC Pistorius	11/01/2003	A Heritage Impact Assessment (HIA) Study for Cell 13 on Portion 66 of the Farm Modderfontein 35 IR in the Gauteng Province of South Africa
5548	AIA	Julius CC Pistorius	11/01/2003	A Heritage Impact Assessment (HIA) Study for Cell 13 on Portion 66 of the Farm Modderfontein 35 IR in the Gauteng Province of South Africa
5548	AIA	Julius CC Pistorius	11/01/2003	A Heritage Impact Assessment (HIA) Study for Cell 13 on Portion 66 of the Farm Modderfontein 35 IR in the Gauteng Province of South Africa
156140	HIA	Natasha Higgitt, Johan Nel	11/02/2014	Notification of Intent to Develop and Heritage Statement for the London Road Petrol Station
160683	HIA	Jaco van der Walt	29/03/2014	Letter of Exemption Provincial Archive Centre on Holding 21 of the Kildrummy AH in Fourways, Gauteng
162297	AIA	Jaco van der Walt	29/03/2014	Archaeological Impact Assessment Industrial Park known as Chloorkop North, Gauteng.
163107	AIA	Jaco van der Walt	15/05/2014	Archaeological Impact Assessment Of the Proposed Industrial Park known as Chloorkop South, Gauteng
165345	HIA	Sidney Miller, Udo Kusel	01/06/2014	Phase 1 Heritage Impact Assessment for proposed BRT routes: Parktown-Alexandra
165347	HIA	Sidney Miller, Udo Kusel	01/06/2014	Phase 1 Heritage Impact Assessment for proposed BRT routes: Sandton-Alexandra

Palaeontological Impact Assessments

Nid	Report Type	Author/s	Date	Title
166302	PIA	Barry Millstead	10/06/2014	Desktop Palaeontological Heritage Impact Assessment Report On The Site Of Two Proposed Industrial Parks Known As Chloorkop North (located On The Remainder Portion 57 And Portion 58 Of The Farm Klipfontein 12 Ir) And Chloorkop South (to Be Located On Por Pia Desktop Bm Geological Services Eco Assessments Desktop Paleontological Study for Chloorkop

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APPENDIX 3 - Keys/Guides

Key/Guide to Acronyms

AIA	Archaeological Impact Assessment
DARD	Department of Agriculture and Rural Development (KwaZulu-Natal)
DEA	Department of Environmental Affairs (National)
DEADP	Department of Environmental Affairs and Development Planning (Western Cape)
DEDEAT	Department of Economic Development, Environmental Affairs and Tourism (Eastern Cape)
DEDECT	Department of Economic Development, Environment, Conservation and Tourism (North West)
DEDT	Department of Economic Development and Tourism (Mpumalanga)
DEDETEA	Department of economic Development, Tourism and Environmental Affairs (Free State)
DENC	Department of Environment and Nature Conservation (Northern Cape)
DMR	Department of Mineral Resources (National)
GDARD	Gauteng Department of Agriculture and Rural Development (Gauteng)
HIA	Heritage Impact Assessment
LEDET	Department of Economic Development, Environment and Tourism (Limpopo)
MPRDA	Mineral and Petroleum Resources Development Act, no 28 of 2002
NEMA	National Environmental Management Act, no 107 of 1998
NHRA	National Heritage Resources Act, no 25 of 1999
PIA	Palaeontological Impact Assessment
SAHRA	South African Heritage Resources Agency
SAHRIS	South African Heritage Resources Information System
VIA	Visual Impact Assessment

Full guide to Palaeosensitivity Map legend

	RED:	VERY HIGH - field assessment and protocol for finds is required
	ORANGE/YELLOW:	HIGH - desktop study is required and based on the outcome of the desktop study, a field assessment is likely
	GREEN:	MODERATE - desktop study is required
	BLUE/PURPLE:	LOW - no palaeontological studies are required however a protocol for chance finds is required
	GREY:	INSIGNIFICANT/ZERO - no palaeontological studies are required
	WHITE/CLEAR:	UNKNOWN - these areas will require a minimum of a desktop study.

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APPENDIX 4 - Methodology

The Heritage Screener summarises the heritage impact assessments and studies previously undertaken within the area of the proposed development and its surroundings. Heritage resources identified in these reports are assessed by our team during the screening process.

The heritage resources will be described both in terms of **type**:

- Group 1: Archaeological, Underwater, Palaeontological and Geological sites, Meteorites, and Battlefields
- Group 2: Structures, Monuments and Memorials
- Group 3: Burial Grounds and Graves, Living Heritage, Sacred and Natural sites
- Group 4: Cultural Landscapes, Conservation Areas and Scenic routes

and **significance** (Grade I, II, IIIa, b or c, ungraded), as determined by the author of the original heritage impact assessment report or by formal grading and/or protection by the heritage authorities.

Sites identified and mapped during research projects will also be considered.

DETERMINATION OF THE EXTENT OF THE INCLUSION ZONE TO BE TAKEN INTO CONSIDERATION

The extent of the inclusion zone to be considered for the Heritage Screener will be determined by CTS based on:

- the size of the development,
- the number and outcome of previous surveys existing in the area
- the potential cumulative impact of the application.

The inclusion zone will be considered as the region within a maximum distance of 50 km from the boundary of the proposed development.

DETERMINATION OF THE PALAEOLOGICAL SENSITIVITY

The possible impact of the proposed development on palaeontological resources is gauged by:

- reviewing the fossil sensitivity maps available on the South African Heritage Resources Information System (SAHRIS)
- considering the nature of the proposed development
- when available, taking information provided by the applicant related to the geological background of the area into account

DETERMINATION OF THE COVERAGE RATING ASCRIBED TO A REPORT POLYGON

Each report assessed for the compilation of the Heritage Screener is colour-coded according to the level of coverage accomplished. The extent of the surveyed coverage is labeled in

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three categories, namely low, medium and high. In most instances the extent of the map corresponds to the extent of the development for which the specific report was undertaken.

Low coverage will be used for:

- desktop studies where no field assessment of the area was undertaken;
- reports where the sites are listed and described but no GPS coordinates were provided.
- older reports with GPS coordinates with low accuracy ratings;
- reports where the entire property was mapped, but only a small/limited area was surveyed.
- uploads on the National Inventory which are not properly mapped.

Medium coverage will be used for

- reports for which a field survey was undertaken but the area was not extensively covered. This may apply to instances where some impediments did not allow for full coverage such as thick vegetation, etc.
- reports for which the entire property was mapped, but only a specific area was surveyed thoroughly. This is differentiated from low ratings listed above when these surveys cover up to around 50% of the property.

High coverage will be used for

- reports where the area highlighted in the map was extensively surveyed as shown by the GPS track coordinates. This category will also apply to permit reports.

RECOMMENDATION GUIDE

The Heritage Screener includes a set of recommendations to the applicant based on whether an impact on heritage resources is anticipated. One of three possible recommendations is formulated:

(1) The heritage resources in the area proposed for development are sufficiently recorded - The surveys undertaken in the area adequately captured the heritage resources. There are no known sites which require mitigation or management plans. No further heritage work is recommended for the proposed development.

This recommendation is made when:

- enough work has been undertaken in the area
- it is the professional opinion of CTS that the area has already been assessed adequately from a heritage perspective for the type of development proposed

(2) The heritage resources and the area proposed for development are only partially recorded - The surveys undertaken in the area have not adequately captured the heritage resources and/or there are sites which require mitigation or management plans. Further specific heritage work is recommended for the proposed development.

This recommendation is made in instances in which there are already some studies undertaken in the area and/or in the adjacent area for the proposed development. Further studies in a limited HIA may include:

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- improvement on some components of the heritage assessments already undertaken, for instance with a renewed field survey and/or with a specific specialist for the type of heritage resources expected in the area
- compilation of a report for a component of a heritage impact assessment not already undertaken in the area
- undertaking mitigation measures requested in previous assessments/records of decision.

(3) The heritage resources within the area proposed for the development have not been adequately surveyed yet - Few or no surveys have been undertaken in the area proposed for development. A full Heritage Impact Assessment with a detailed field component is recommended for the proposed development.

Note:

The responsibility for generating a response detailing the requirements for the development lies with the heritage authority. However, since the methodology utilised for the compilation of the Heritage Screeners is thorough and consistent, contradictory outcomes to the recommendations made by CTS should rarely occur. Should a discrepancy arise, CTS will immediately take up the matter with the heritage authority to clarify the dispute.

The compilation of the Heritage Screener will not include any field assessment.

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