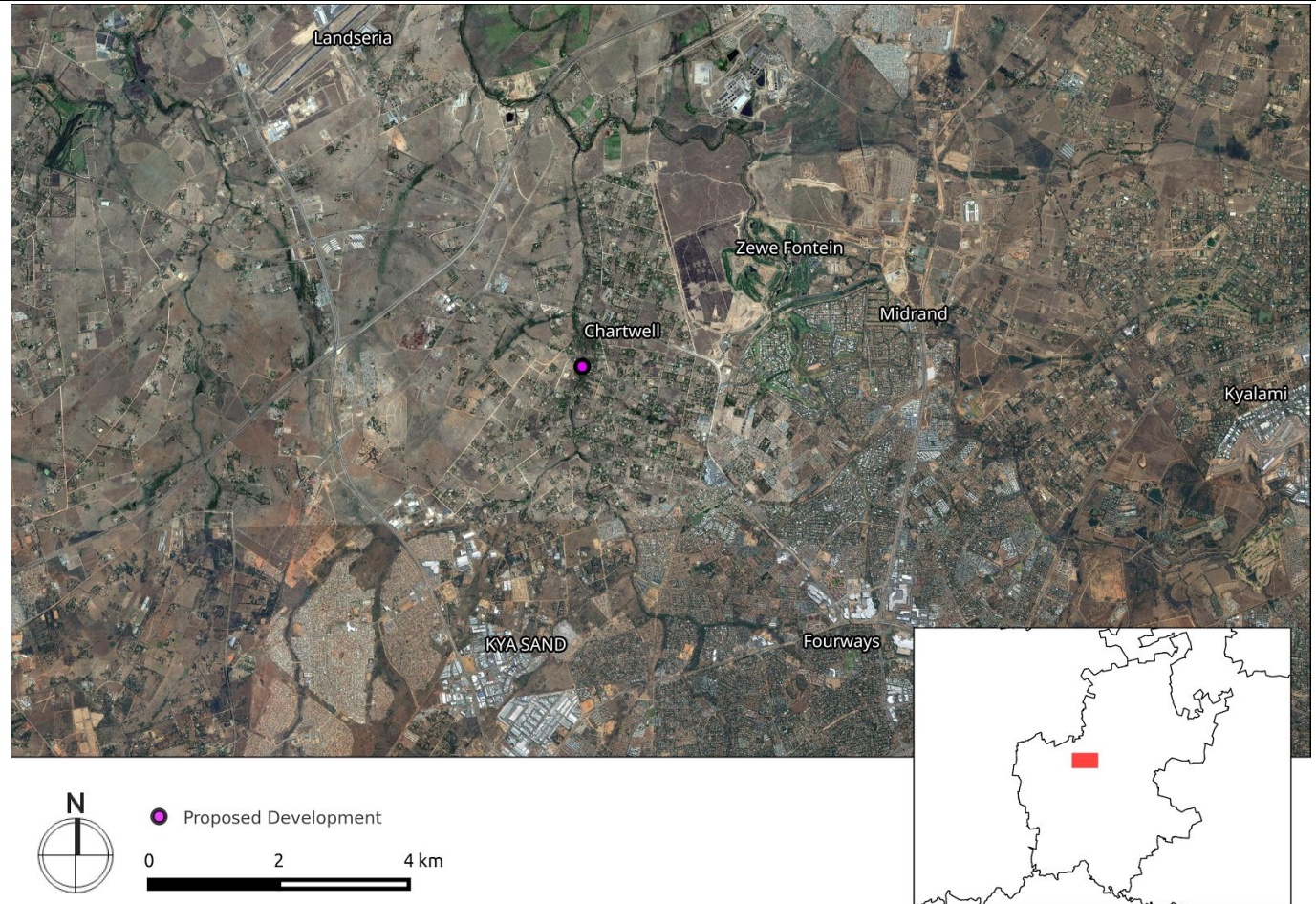


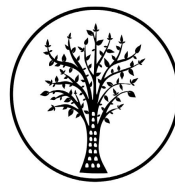
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## HERITAGE SCREENER

CTS Reference Number:	CTS17_164
SAHRIS Case ID:	
Client:	Envirolution
Date:	10 November 2017
Title:	Klein Jukskei River Bridge Rehabilitation and Upgrade
Recommendation by CTS Heritage Specialists: (Type 1)	<p><b>RECOMMENDATION: The heritage resources in the area proposed for development are sufficiently recorded</b></p> <p>See Section 8 for full recommendations.</p>



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



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## 1. Proposed Development Summary

The applicant has proposed the upgrading of the Third Road Bridge, Chartwell, Randburg 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	-25.985758° / 27.963400°
Erf number / Farm number	Road Reserve of Third 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	~155m, actual bridge ~50m

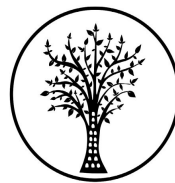
## 4. Nature of the Proposed Development

Total Surface Area	~155m, actual bridge ~50m
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	<b>X</b>
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.	<b>X</b>
3. Any development or activity that will change the character of a site-	
a) exceeding 5 000m <sup>2</sup> 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 <sup>2</sup>	
5. Other (state):	

## 6. Additional Infrastructure Required for this Development

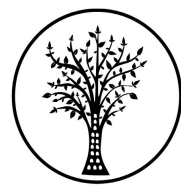
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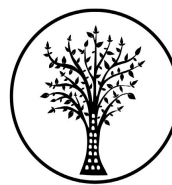


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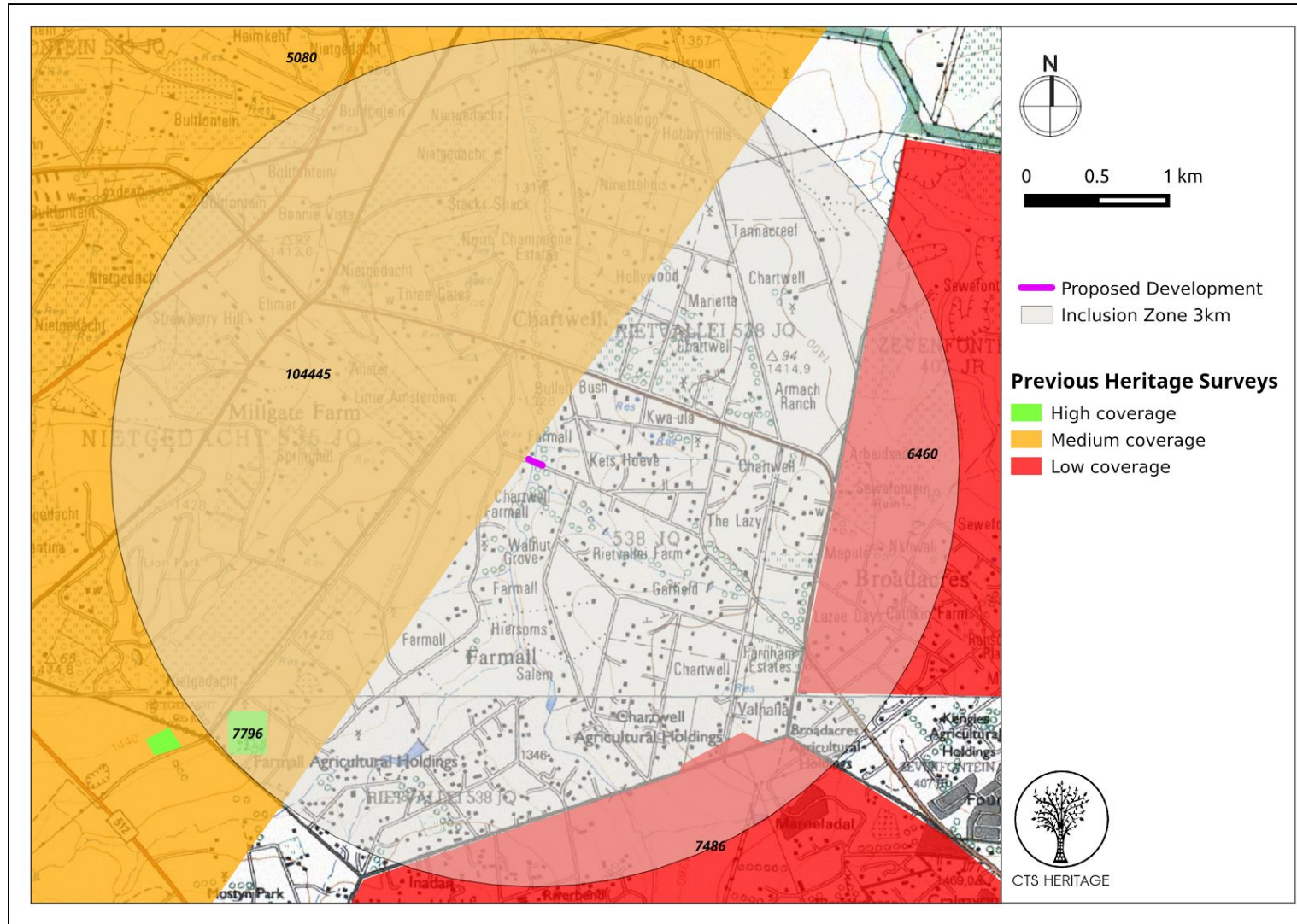
## 7. Mapping (please see Appendix 3 and 4 for a full description of our methodology and map legends)



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



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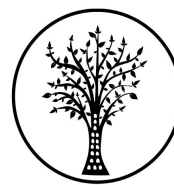
**Figure 2. Previous HIAs Map.** Previous Heritage Impact Assessments surrounding the proposed development area within 5kms, with SAHRIS NIDS indicated (please see Appendix 2 for full reference list). **Note there are no PIAs mapped within the inclusion zone.**

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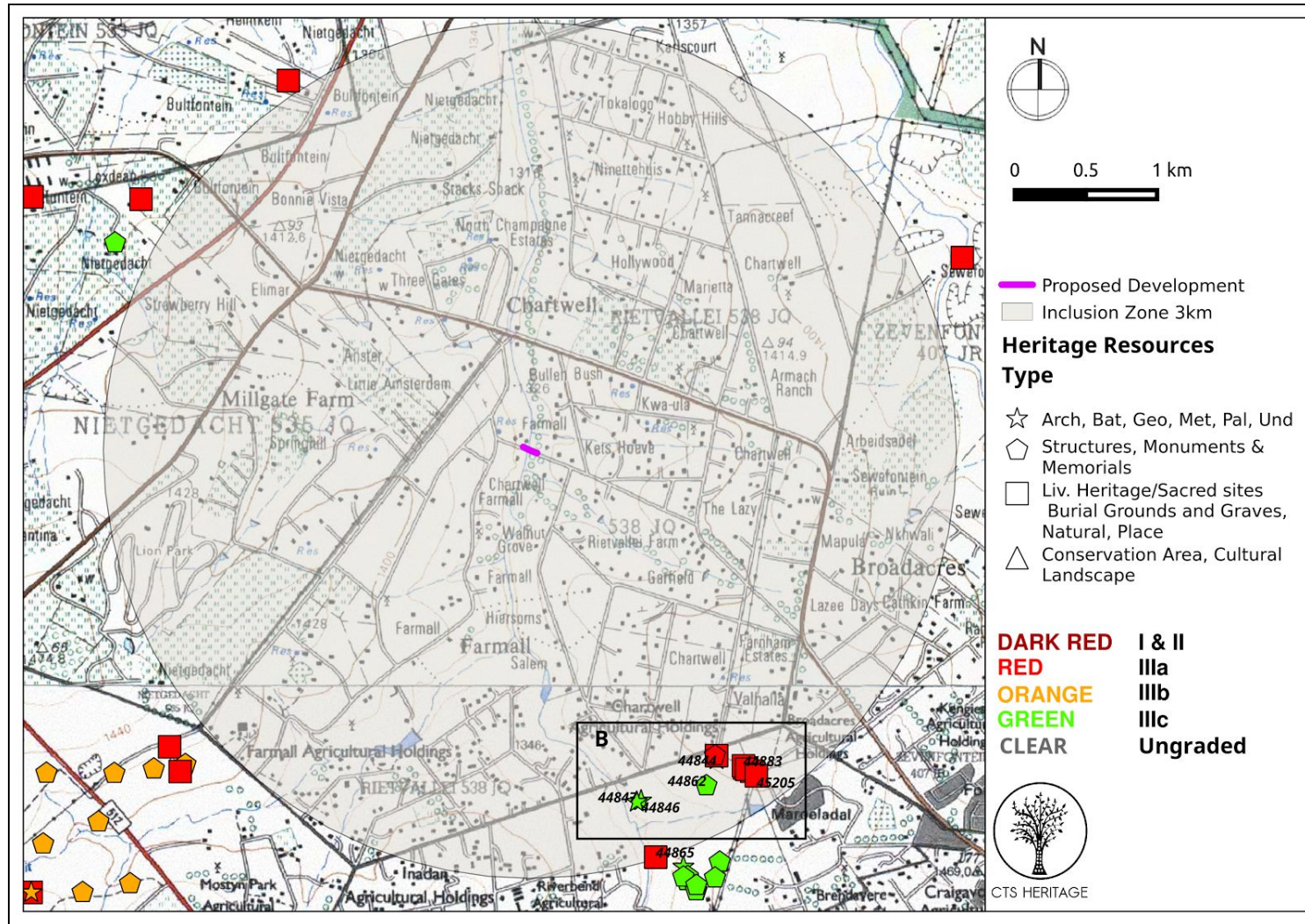
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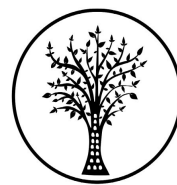


**Figure 3a. Heritage Resources Map.** Heritage resources previously identified in and near the study area, with SAHRIS Site IDs indicated (see Figure 3b for inset). See Appendix 4 for full description of heritage resource types.

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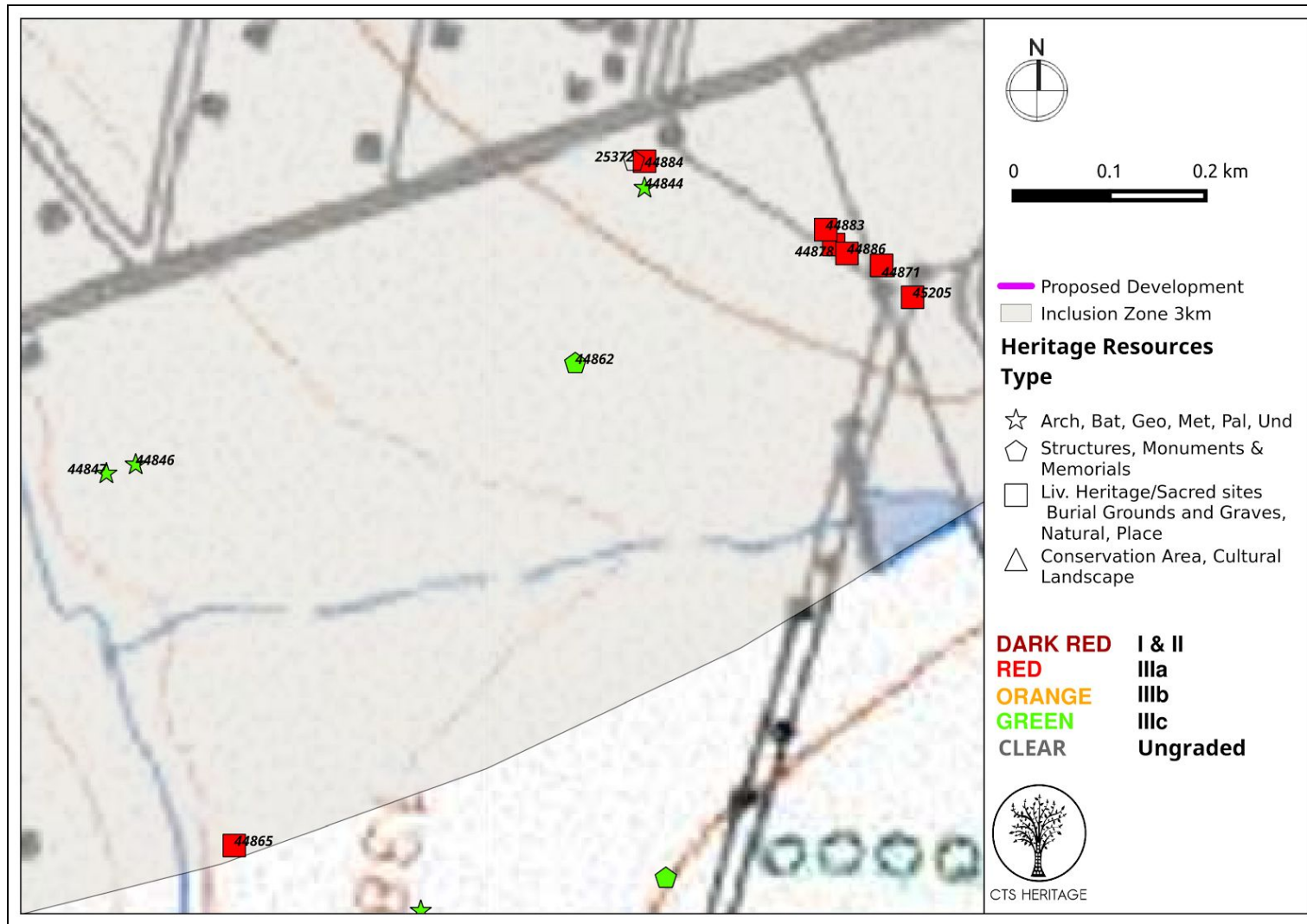


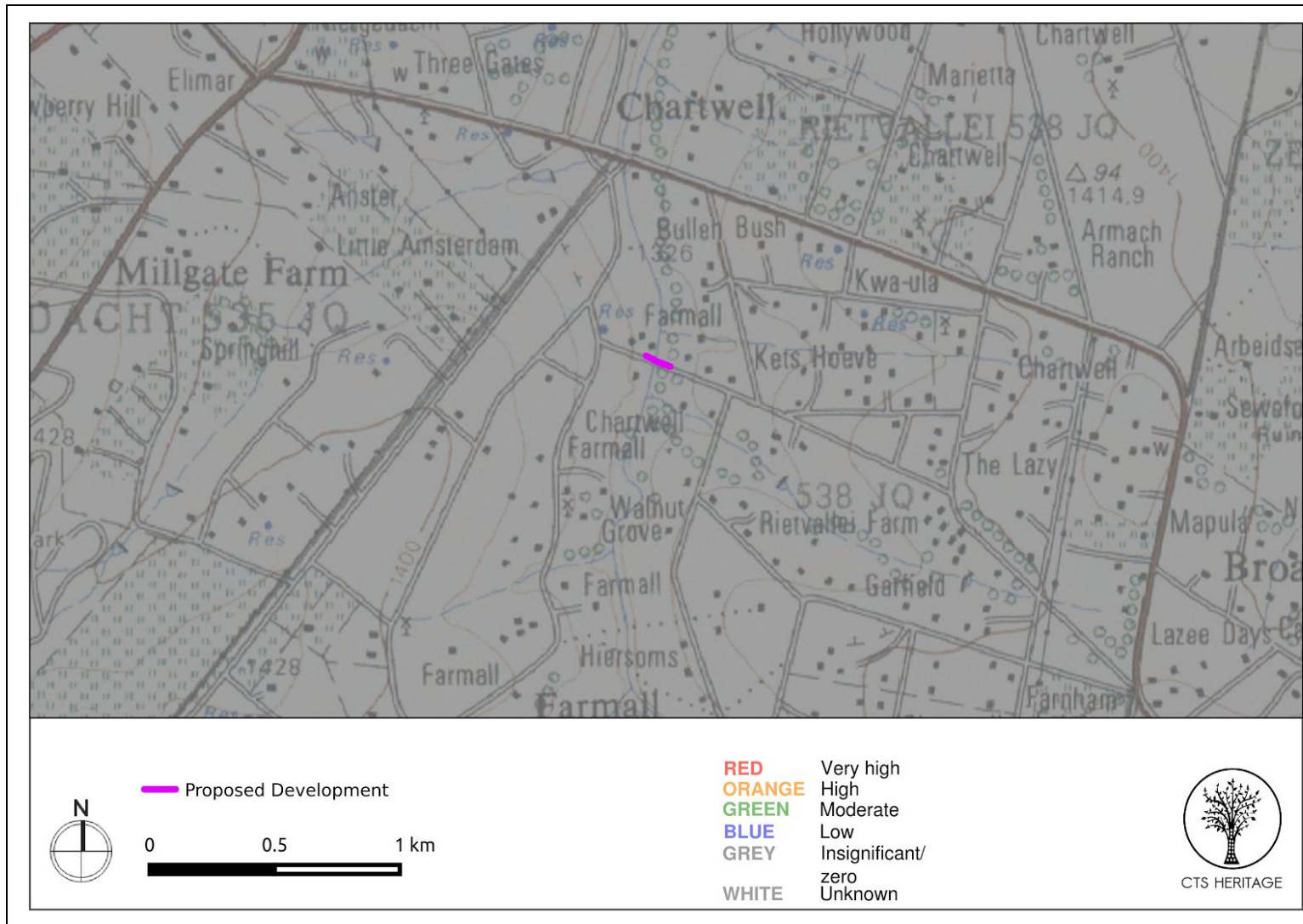
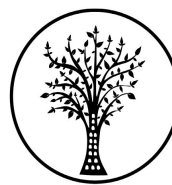
Figure 3b. Inset Map.

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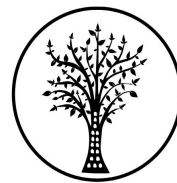
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## 8. Heritage statement and character of the area

The applicant has proposed the upgrading of the Third Road Bridge, Randburg, in the Gauteng Province (Figures 1a and 1b). Randburg was established on land that had originally been granted as extensive farms in the 1850s and 1860s. Plots in Randburg were bought up by English investors as the gold boom made Johannesburg increasingly populated and wealthy, but it was the Great Depression that prompted a massive influx of people to the area. These people were predominantly former farmers who had been forced off their land by the Great Depression and drought of the late 1920s and early 1930s when the relatively open spaces of Randburg were an appealing alternative to urbanised Johannesburg. Further development took place from 1950 onwards. 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. Third Road Bridge, over the Klein Jukskei River, is located within the relatively affluent suburb of Chartwell, an area characterised by single residences on large plots. The banks of the river itself are undeveloped in keeping with the open, semi-rural character of the neighbourhood. The bridge itself could be older than 60 years, but is not of heritage significance.

Six heritage surveys have been conducted within a 3km radius of the bridge (Figure 2). Where these surveys identified heritage resources, these included historic structures, in the form of early to mid-C20th farmhouses (Schoeman and van Doornum, SAHRIS NID 7486; Birkholtz 2007, SAHRIS NID 5080), as well as scatters of varying concentrations of stone tools (Schoeman and van Doornum 2001, SAHRIS NID 7486; Khan, Higgitt and du Piesanie 2012, SAHRIS NID 104445). Several graveyards associated with historic farmsteads were identified, comprising both landowners' and labourers' cemeteries, as well as stone cairns identified as possible graves (Schoeman and van Doornum, SAHRIS NID 7486; Khan, Higgitt and du Piesanie 2012, SAHRIS NID 104445; Higgitt and Nel 2014, SAHRIS NID 157198). A single example of living heritage was identified in the form of an initiation school (Khan, Higgitt and du Piesanie 2012, SAHRIS NID 104445).

There are no Provincial Heritage Sites in the immediate vicinity of the bridge, although seven Grade IIIa graveyards have been identified, four Grade IIIc artefact scatters and two buildings, one ungraded (SAHRIS SID 25372), and the other assessed to be a Grade IIIc site (SAHRIS SID 44862) (Figures 3a and 3b).

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 granite gneisses, which are described on the SAHRIS Fossil Sensitivity Browser (SAHRA 2014) as containing no fossils. These basement rocks are Early to Late Archaean in age (c. 3.6 –2.4 Ga) and comprise highly metamorphosed blocks of continental crust. Although no Palaeontological assessments have been conducted in the immediate vicinity, a PIA conducted on the same substrate, some 5kms away indicates that the underlying deposits are "rocks of the Halfway House Granite suite" and that they are not fossiliferous (Rubidge 2008, SAHRIS NID 8847. Not mapped in this Screener).

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.

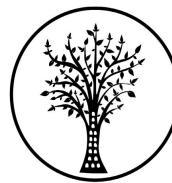
### RECOMMENDATION:

**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 3km Inclusion Zone

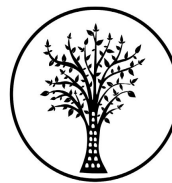
Site ID	Site no	Full Site Name	Site Type	Grading	Declaration
25372	Needwood Extention 5	Witkoppen 194IQ	Building	NA	NA
44844	NEED01	Needwood 01	Artefacts	Grade IIIc	NA
44845	NEED02	Needwood 02	Artefacts	Grade IIIc	NA
44846	NEED03	Needwood 03	Artefacts	Grade IIIc	NA
44847	NEED04	Needwood 04	Artefacts	Grade IIIc	NA
44862	NEED15	Needwood 15	Structures	Grade IIIc	NA
44865	NEED16	Needwood 16	Burial Grounds & Graves	Grade IIIa	NA
44871	NEED17	Needwood 17	Burial Grounds & Graves	Grade IIIa	NA
44878	NEED18	Needwood 18	Burial Grounds & Graves	Grade IIIa	NA
44883	NEED19	Needwood 19	Burial Grounds & Graves	Grade IIIa	NA
44884	NEED20	Needwood 20	Burial Grounds & Graves	Grade IIIa	NA
44886	NEED21	Needwood 21	Burial Grounds & Graves	Grade IIIa	NA
45205	COSMO-08	Cosmo City Development 08	Burial Grounds & Graves	Grade IIIa	NA

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## APPENDIX 2

### Reference List

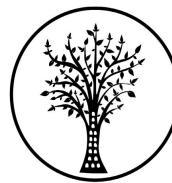
Heritage Impact Assessments				
Nid	Report Type	Author/s	Date	Title
5080	AIA	Polke Birkholtz	02/11/2007	Phase 1 Heritage Impact Assessment Proposed Cedar Park Development Situated on Portions 5 and 64 of the Farm Bultfontein 533 JQ, City of Johannesburg Metropolitan Municipality, Gauteng Province
6460	AIA	Thomas Huffman, MH Alex Schoeman, McEdward Murimbika	01/03/2001	Archaeological Assessment of Proposed Dainfern North
7486	AIA	MH Alex Schoeman, Bronwen van Doornum	01/12/2001	Archaeological Assessment for Needwood Extension 5
7796	AIA	Jaco van der Walt	18/08/2008	Archaeological Impact Assessment for the Proposed Rietvallei Primary School, Rietvallei Extension 1, Gauteng Province
104445	AIA	Shahzaadee Karodia Khan, Natasha Higgitt, Justin du Piesanie	31/08/2012	Heritage Statement for Eskom Transmission Division - Roodepoort Strengthening Project in Support of the Basic Assessment Report (BAR)
157198	HIA	Natasha Higgitt, Johan Nel	20/02/2014	Heritage Impact Assessment for the Roodepoort Strengthening Project, 2527DD, Roodepoort, Gauteng

Palaeontological Impact Assessments (Not mapped)				
Nid	Report Type	Author/s	Date	Title
8847	PIA	Bruce Rubidge	20/06/2008	Palaeontological Impact Analysis, Belairs Drive, North Riding, Gauteng

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## APPENDIX 3 - Keys/Guides

### Key/Guide to Acronyms

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

### Full guide to Palaeosensitivity Map legend

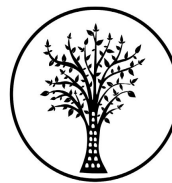
	<b>RED:</b>	VERY HIGH - field assessment and protocol for finds is required
	<b>ORANGE/YELLOW:</b>	HIGH - desktop study is required and based on the outcome of the desktop study, a field assessment is likely
	<b>GREEN:</b>	MODERATE - desktop study is required
	<b>BLUE/PURPLE:</b>	LOW - no palaeontological studies are required however a protocol for chance finds is required
	<b>GREY:</b>	INSIGNIFICANT/ZERO - no palaeontological studies are required
	<b>WHITE/CLEAR:</b>	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 PALAEOONTOLOGICAL 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

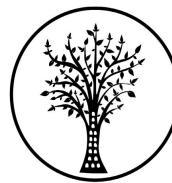
### DETERMINATION OF THE COVERAGE RATING ASCRIBED TO A REPORT POLYGON

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.

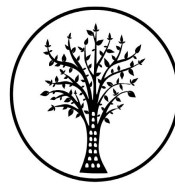
This recommendation is made in instances in which there are already some studies undertaken in the area and/or in the adjacent area for the proposed development. Further studies in a limited HIA may include:

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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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