

Visual Impact Assessment Proposed Low Cost Housing Project, ERF 360, McGregor

FINAL REPORT

***Volume 1 of 2 - Assessment
(To be read in conjunction with VIA Final Volume 2 of 2)***



*Prepared for: Eco Impact Legal Consulting Pty(Ltd)
P.O. Box 45070, Claremont, Cape Town, 7735
Tel: (021) 671 1660*

*Prepared by: Urban Dynamics Architects & Urban Designers Pty(Ltd)
P.O. Box 12427, Die Boord, Stellenbosch, 7613
No. 6 Neethling Street, Stellenbosch, 7600
Tel: (021) 882 9903 Fax:(021) 882 9572*

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Introduction and Background

After several studies were undertaken by the Langeberg Municipality, it was resolved that McGregor needed to be aligned with the principles advocated in the Provincial Spatial Development Framework (PSDF). Proposed extensions to the urban edge line of McGregor, as previously defined in the Spatial Development Framework 2007, addressed demands for land to be acquired in McGregor for the accommodation of families on the municipal housing waiting list and those families currently living in an informal settlement, situated directly east of McGregor, within the Hoekrivier floodplain.

On subsequent review of the proposed extension to the Spatial Development Framework, published in 2010, undertaken by Dave Dewar and Piet Louw, it was suggested that the interpretation of the problem be mis-located and that alternatives needed to be sought (Dewar, D; Louw, P; 2010).

Preliminary studies initially identified various sites, including Erf 360, on which the proposed low cost housing could potentially be built (Ref. Figure 1). Further specialist inputs and viability studies have been conducted by the Langeberg Municipality and it was resolved by the Council to acquire Erf 360 for the proposed low cost housing development. As such, Erf 360, forms the focus of the Visual Impact Assessment (VIA).

In compliance with the provisions of the National Environmental Management Act (no. 107 of 1998), a Basic Assessment Report (BAR) is currently being prepared by EcoImpact Environmental Consultants. Several independent specialists have been appointed to carry out studies for inclusion in this. The Notification of Intent to Develop (NID) form was submitted by EcoImpact to Heritage Western Cape (HWC). Interim assessment of the application by HWC stated their concerns regarding the impact of the proposed development on McGregor's heritage resources. Resultantly, HWC stated that a Heritage Impact Assessment (HIA), of which the VIA forms part, is required in terms of Section 38(2) of the NHRA (Act 25 of 1999).

Urban Dynamics Architects and Urban Designers Western Cape (UDAWC) has been appointed to assess the visual impact of the proposed low cost housing development. In addition to the VIA, sketch plans, layouts and the architectural aesthetics of the unit typologies must be assessed, including comments and concerns raised by all interested and effected parties regarding the potential impact on existing landscape and heritage resources of McGregor.

Methodology

Preceding the development of the Draft VIA, meetings were held with the project team in an effort to ascertain the preliminary impacts and complexity of the proposed development on McGregor. The intention was to "steer", with specialist inputs, the best means of formulating a design approach to the site which would address and minimise the potential impacts of the proposed development on Erf 360. Several site visits were undertaken to ensure familiarity with McGregor and Erf 360's location within this. Further analysis was given to reviewing aerial photographs, baseline data (supplied by UDWC and the Langeberg Municipality), photographs of the site and the broader study area, a 3D survey of the site and its local context was prepared and superimposed on the general cadastral, as well as, the consideration of the various draft documents prepared and supplied by other specialists within the team. The draft VIA forms part of the HIA and environmental assessment process and is independently prepared by Urban Dynamics Architects and Urban Designers.

1. Visual Assessment of the Effected Areas

1.1 Description of the Affected Area and Scenic Resources

This section is a description of the existing environment occurring within the site and its broader study area.

It involves the identification of landscape types, landscape features and scenic resources, which are generally a result of the area's underlying geology. Geology, and its associated pedology, give rise, either directly or indirectly, to landforms, vegetation types and cover, settlement types, land use patterns and architectural fabric. These all combine to give a particular area(s) a landscape character, which is unique.

The scope of this section extends beyond the immediacy of the subject area and the proposed development, low cost housing Erf 360, a parcel of agricultural land (currently zoned as Agriculture 1) located to the south-east of McGregor, flanked by the Hoekrivier to the east and Buitekant Street to the west. The subject area sits outside of the urban edge as defined in the SDP 2007 but has been motivated for inclusion within the urban edge in the May 2010 Spatial Development Framework undertaken by BKS town and Regional Planners for the Langeberg Municipality. The View Catchment is illustrated in Figure 5.

1.1.1 Landscape Types

An analysis of the geology of the broader study area and its resultant landforms illustrates several distinct landscape types. Each of these landscape types possesses particular scenic characteristics and a unique "sense of place" (Lynch, k. 1992).

McGregor lies in a small secondary valley which is part of the larger Breede valley system. Structurally the surrounding mountains partially "enclose" McGregor forming a cul-de-sac. The **4 main landscape types** in the broader study area, illustrated in Figure 2 (Photos 2a + 2b) and described and discussed below, are:

- **Lower valley - riverine corridor and floodplain** - relatively flat, open and extensive; exhibiting perennial and seasonal river tributaries, most notably the intersection of the Hoeksrivier and the Houtbaaisrivier, tributaries of the Breed River; commonly encroached on by agricultural land use.
- **Rolling foothills** - within proximity to the river, gently undulating; good soils historically associated with farming and more intensive settlement patterns.
- **Elevated foothills** - more self-defined; where agriculture has predominantly not occurred; natural and scenic
- **Higher lying mountains** - steep faced mountain slopes; undeveloped; natural and scenic

1.1.2 Landscape Features

Much of the study areas' particular character and scenic value can be attributed primarily to its prominent landscape features. These are visually sensitive and have been mapped, illustrated in Figure 3 and described and discussed below (ref accompanying Photo Series).

- The backdrop of cliffs and ridgelines of the Langeberg Mountain ranges.
- The Hoeksrivier and floodplain, which runs north-south, directly adjacent to Erf 360 on its eastern side,

1.1.3 Scenic Resources

In addition to the natural features mentioned above, there are a range of other factors which contribute significantly to the areas' cultural and scenic resources. These are illustrated in Figure 3 and described and discussed below (ref accompanying Photo Series).

A network of formal and informal tourist and scenic routes provides access to outlying farms, tourist destinations, passive and active recreational opportunities in the valley. The value of these amenities are further heightened by the Krans Nature Reserve to the north-west. Due to the extremely valuable and sensitive status of this area, the natural and scenic resources increase substantially in significance.

Rural landscape elements and McGregor's contained village scale; vineyards, olive groves, orchards, cultivated/ grazing fields, rivers, lei-water irrigation systems, dams and reservoirs, copses of trees, loosely defined treed "avenues and windrows", including buildings (homesteads, labourers cottages and buildings with associated support functions) and settlement patterns of historical significance, together all contribute to the scenic and heritage value of the area.

1.1.4 Landscape Significance

Landscape Significance is determined by the synthesis of landscape types, landscape features and scenic resources, into areas of high, moderate and low significance.

The majority of the broader study area is rated as high and moderate in significance.

Areas of high significance typically include:

patchworks of vineyards, orchards and groves; historic farms and farm-homesteads (+60 years); scenic routes; nature reserves, rivers and kloofs.

Areas of moderate significance typically include:

degraded natural areas, areas which are seasonally cultivated and/or pastures.

The site for the proposed development, low cost housing Erf 360, predominantly falls within an area of high significance. This is due, in part, to the historic significance of Erf 360's agricultural land use (and to a lesser degree its homestead and associated buildings). The farm currently delineates the "edge" of the town and as such forms part of a historical relationship, effectively providing a visual buffer or transitional zone between McGregor's gridiron settlement pattern and the Hoeksrivier to the east. Concomitantly, its location in an intimate valley further exacerbates the above.

The scenic resources and landscape significance of the site are described in 1.1.5 following.

1.1.5 Description of the Site's Scenic Resources and Landscape Significance

The site for the proposed low cost housing development, Erf 360, currently a vineyard with homestead, is situated on the south-eastern boundary of McGregor's compact village settlement pattern and directly abuts Buitekant Street to the west and the Hoekrivier corridor and floodplain further to the east.

Buitekant Street, running adjacent to Erf 360, forms a portion of its western most boundary interface. Two existing formalised access gates to the site are situated directly opposite the approach of Kerk and Van Reenen Streets. Buitekant Street was part of the original 8 x 4 grid as laid out in 1862. As the name implies, it was and still is the eastern most boundary of McGregor. Development of McGregor was slow and until recently (1990's) the southern most portion of the land closest to Erf 360 remained underdeveloped. Today while retaining, to a degree, its characteristic Georgian and Victorian architectural village appearance, it has become home to a wealthy lifestyle community.

Erf 360 occupies approximately 17.41ha of land. Over the decades the vast original holdings of McGregor's once large land allotments have been significantly sub-divided, a process which has continued into the 21st Century. Despite the increase in development the rigid gridiron settlement pattern and its village-like appearance have remained largely intact. This can be largely attributed to sensitive restorations, additions and newer, historically sympathetic developments. Cognisance of the unique architectural character of McGregor has been largely due to the McGregor Heritage Society, which in 2005 published a building guidelines booklet assisting new residents who wish to maintain and respect McGregor's urban-architectural heritage.

Given the above, Erf 360, situated "outside" of the urban edge line, sits in contrast to McGregor's robust settlement grid. While increased development has occurred on the site's western boundary, it is almost entirely exposed to the more open, gently descending, natural and cultivated areas to the east. With exception of a school, creche and denser, suburban middle to lower income triangle of housing, built in the 1970's, to the north-east of the site. In contrast to this newer and denser residential fabric, Erf 360 is still rural and cultural in character. Extensive vineyards, partially defined by an "avenue" of *Eucalyptus sp.* to the south and directly adjacent to Buitekant Street, informally define both the outer limits of McGregor and the more extensive agricultural land uses on its south-eastern edge. To the south-west of Erf 360 is a farm which produces olives.

Some of the more notable remnants of the original farm can be found in the form of two smaller labourers' cottages, a small functional dam, reservoir, pump house, vineyards and the farmstead. However, several modern additions over the years have compromised the heritage value of these buildings to a large degree (Aikman, H. 2013).

Erf 360's eastern boundary interface sits directly parallel to the Hoekriver and its associated floodplain. The riverine corridor is sparsely vegetated with signs of degraded and eroded banks. The proximity of an informal settlement to the north-east of Buitekant Street, first established 20 years ago, has resulted in an increase in vehicular and pedestrian traffic transversing the river. This new "ease" of access by residents of the informal settlement and their need to source firewood, combined with the seasonal fluctuations in water flows have all contributed to the general deterioration of the riverine corridor. The Hoeksrivier corridor and floodplain have been identified as a Critical Biodiversity Area (CBA).

The scenic resources of the site are of highly rural and natural value, characterised by:

- A patchwork of vineyards
- A cluster of farm buildings and workers cottages,
- Associated view cones of these buildings, particularly, unbroken views to the eastern and south-eastern mountains and ridge lines (although 360 degree views are afforded to the site)

- Rural elements including two entrance gates, a sizeable dam, reservoir, loosely defined windbreaks and avenues, etc.
- The vegetated Hoeksrivier riverine corridor

1.2 Visibility of The Proposed Development

Varied criteria are explored to determine the visibility of the site and the proposed development, low cost housing Erf 360, from the surrounding area. These include the View Catchment area, the Zone of Visual Influence, Visual Exposure and Receptors.

Due to the cultural and historic significance of the farm itself, this section is concerned equally with the visibility of the proposed development from within the site, as well as, the broader proposed development framework of which it might be part (ref. municipal criteria/ scope of assessment) and the area beyond the “sites” boundary, understood in its broader sense. In particular, site lines and view cones from existing established historic buildings, urban and scenic routes and view thresholds will be assessed.

1.2.1 View Catchment

View Catchment: the geographic area defined by the context’s topography, broader area from which the project will be visible (CSIR in Oberholzer, 2005)

The geographical area from which the project will be theoretically visible is dictated primarily by topography and is known as the view catchment area.

As previously stated, McGrigor sits within a smaller, secondary valley of the larger Breed River valley system. It is bounded by elevated foothills to the south, east and west. Furthermore, two smaller tertiary valleys, defined by the Houtbaaisrivier, to the north-west, and the Hoeksrivier, to the east, hold and define the extent of McGregors settlement grid. Erf 360 sits on the south-eastern facing slope of the Hoeksrivier valley and floodplain. The above description of the broader topography in which McGregor and Erf 360 sit and the rural landscape character of the general area have the resultant effect of substantially limiting the visual impact of the proposed low cost housing beyond that of the valley’s immediacy.

Aside from the highly exposed properties sitting directly adjacent and opposite Erf 360, the View Catchment is particularly restricted to the north-west due to the site being located in a valley flanking the Hoeksrivier. In addition, the low-lying foothills to the north-west rise to create a “plateau” which is sporadically occupied by the buildings and trees comprising McGregors gridiron settlement pattern and infill fabric. Visibility is further reduced as the grid gradually descends again into a smaller valley defined by the Houtbaaisrivier to the north-western extent of McGregor. The south-western extent of McGregor is defined by, comparatively, more elevated foothills. Those closest to McGregor offer particularly good vantage points of McGregor’s settlement pattern receding into the north-eastern distance. As one proceeds further south however, proximity and localised topographical conditions limit the extent to which the town, in its entirety, are visible.

1.2.2 Zone of Visual Influence (ZVI)

Zone of Visual Influence: the actual zone of visual influence of the project may be small because of screening by existing trees and buildings.

This also relates to the number of receptors:

- *High visibility - visible from a large area (e.g. several square kilometers)*
- *Moderate visibility - visible from an intermediate area (e.g. several hectares)*
- *Low visibility - visible from a small area around the project (CSIR in Oberholzer, 2005)*

The ZVI is restricted by the foothills and ridge lines to the south, west and east. Erf 360 and the proposed low cost housing development are visible from the higher lying mountain slopes of the immediate valley particularly to the south and east. The valley “spills out” towards Robertson to the north. As such, distance, landform, vegetative cover and built fabric combine to reduce significantly the zone of visual influence to the north. On approach to McGregor Erf 360 is highly visible. One can only surmise that visibility of the proposed development will increase as the informal settlement, currently obscuring a portion of Erf 360 from view, is removed and residents relocated. Vegetative rehabilitation of this area with the appropriate riverine species after relocation of residents could mitigate the visual impact of the development on approach.

The site’s location in the valley flanking the Hoeksrivier, with its low topographical prospect and riverine corridor, have the resultant effect of further limiting, to a large degree, visual penetration from the north-west. The integrity of the riverine vegetation is at current degraded and poorly maintained. “Windbreaks/ avenue planting” (to the east), on the north-western banks of the river adjacent to the Bonnivale Road, are inconsistent but do, at particular points, supply limited amelioration of the visual impact of the proposed development. Further, selectively located, tree planting could result in the formalisation and consolidation of this tree line and would assist in mitigating the visual intrusion of Erf 360 opposite. It is important to note that this road also supplies residents and visitors with unbroken panoramic views across the river towards the gradually ascending eastern edge of McGregor. Tree planting along the road to Bonnivale in addition to the vegetative management of the CBA, identified along the riverine corridor and floodplain, would substantially assist in screening those units closest to the river. At current visibility of the development from this edge is high to moderate.

The proposed development is ideally located, from a visual point of view, adjacent to an olive farm to the south. While olive groves are modest in height the interface condition they provide with the site is nonetheless mature and well vegetated, limiting, to a degree, visual penetration from further south in the valley. Visibility on this edge is low to moderate.

A capped reservoir and pump house on a low-lying foothill to the south (affectionately referred to as the “look-out”), is significantly higher and the proposed development would be more visible from this vantage. However, on further analysis, the foreshortening of multiple intersecting “windbreaks” and the sporadic placement of *Eucalyptus sp.* significantly reduces visibility of the proposed development. Visibility from this vantage point is moderate.

The creche and residents located to the north of the site boundary do much to indirectly hide the proposed development, limiting the visibility of the Erf 360 from residents located further north-

east. As such, the creche and residents located directly adjacent to the site's boundaries are the most affected. The creche is accessed via Buitekant street. The building is located on its erven in such a manner which allows close to 270 degree views extending from the north to the south-east. An addition to Tindall Street, intersecting Buitekant and extending further south-east, provides the primary means of accessing residential erven to the north of the site. As a result these houses tend to turn their "backs" onto Erf 360. It must be noted, however, that residents on this edge make extensive use of vacant land within their erven, either in the form of vegetable patches, storage or formal and informal extensions to their primary residence. The boundary interface between these properties and the site in question is informally defined. Pedestrian permeability between houses and the gravel road adjacent is resident defined. Desire lines would indicate that the gravel road on the sites northern boundary forms an equally important point of pedestrian access for these residents to their houses and the river further east. Visibility, in the context of this section, of the proposed development for these residents and users of the creche is low to moderate.

Residents located on the north-western edge of Buitekant Street and directly opposite Erf 360, are also highly affected by the proposed development. They are predominantly orientated to the south-east, maximising the sweeping views across the river valley, vineyards and olive groves below. These erven are typically characterised by a single house, or a cluster of small houses, located close to or on the street edge. Walls are used scarcely, and when used, demarcate cadastral boundaries. these walls, if solid, are usually low or alternatively wire strung. Houses, while still significant in size, typically occupy a small portion of their total site area, giving the rest over to a combination of garden, vineyard and vegetable patches. Given the above description, these houses, while screening to a large degree the proposed development from residents behind them, do not do so entirely. However, shortly behind these erven, to the north-west, the land begins to descend gradually, limiting the ZVI to approximately mid block. Visibility on this edge is low to moderate.

1.2.3 Visual Exposure

Visual Exposure is based on distance from the project to selected viewpoints. Exposure or visual impact tends to diminish exponentially with distance

- *High exposure - dominant or clearly visible*
- *Moderate exposure - recognisable to the viewer*
- *Low exposure - not particularly noticeable to the viewer (CSIR in Oberholzer, 2005)*

The visual exposure is assessed from the following selected viewpoints (Ref. Figure 7 and accompanying Photo Series):

- 7a - Road to Bonnievale - View on approach to McGregor facing south
- 7b - Road to Bonnievale - View towards the south-west
- 7c - Road to Bonnievale - View towards the north-west
- 7d - Road intersecting Bonnievale Road (access to outlying farms and scenic resources) - View towards the north-west
- 7e - On return to McGregor via valley "loop" - View towards the north-east
- 7f - Buitekant Street - View towards the east (Erf 360 is directly opposite)
- 7g - "The Look-out" - elevated reservoir and pump station - view towards the north-east

The resultant visual exposure from all of the above selected viewpoints is a combination of high to moderate. The proposed development would be minimally visible from greater McGregor village, located to the north-west. This must be interpreted within the context of an area which is endowed with significant scenic resources often attracting many visitors and tourists who utilise not only McGregor but its associated environs.

1.2.4 Visual Receptors

The level of visual impact considered acceptable is dependent on the type of receptors

- *High sensitivity - e.g. residential areas, nature reserves and scenic routes or trails*
- *Moderate sensitivity - e.g. sporting or recreational areas, or places of work*
- *Low sensitivity - e.g. industrial or degraded areas (Oberholzer, 2005)*

The following receptors are within the ZVI of the proposed development:

- Residents, particularly those residents located directly along Buitekant Street and the northern edge of the site, visitors and tourists to neighbouring farmsteads, the abutting largely residential fabric to the north and north-west, and the Hoeksrivier active and passive recreational areas (predominantly to the east). These are all highly sensitive receptors.
- Children and teachers attending the creche directly to the north of the site. These are moderately sensitive receptors
- Users (residents and tourists) of McGregor. These are highly sensitive receptors

There are a number of receptors within the site's broader context and include residents, employees, visitors and tourists. Reference boundary/ interface conditions of the site and the proposed development, low cost housing Erf 360- Figure 8 (and accompanying Photo Series)

1.2.5 View Thresholds, View Cones and View Corridors within the Site

Due to the cultural and historic significance of McGregor itself, the visibility of the proposed development from within the site itself is of equal importance to the visibility from beyond the site's boundary. In particular, site lines and view cones from historic buildings, routes and view thresholds will be assessed.

A photographic survey was taken from various points illustrated in Figure 9

Of these viewpoints, certain points of significance were identified, i.e. visual thresholds. These are illustrated in Photo Series 9a - 9i.

1.3 Inherent Visual Sensitivity of the Site

Landscape is usually determined by a combination of topography, landform, vegetation cover, settlement pattern and special features. This translates into visual sensitivity.

- *High visual sensitivity - highly visible and potentially sensitive areas in the landscape*
- *Moderate visual sensitivity - moderately visible areas in the landscape*
- *Low visual sensitivity - minimally visible areas in the landscape (CSIR in Oberholzer, 2005)*

At a localised level, the mid to lower lying slopes, lack of indigenous vegetative cover, prominent landforms, proximity to the Hoeksrivier, primary and secondary access routes, historic buildings and cultural landscape character all combine to make the site moderately to highly visually sensitive.

The foot of the slope closest to the river is less visible from the North-west, but still has a moderate visual sensitivity as a result of the natural and broader cultural landscape in which it is situated. Conversely, views towards Erf 360 from the east are highly visually sensitive as a result of the elevated road from which the development would typically be viewed and the presence of little vegetative cover flanking the river banks.

The site, Erf 360, therefore has an inherently low to moderate visual sensitivity, with a moderate to high visible and potentially sensitive areas when viewed from the broader landscape context of McGregor village and surrounding environs.

The overlay of the proposed development, proposed low cost housing Erf 360, on the visual sensitivity layer is illustrated on Figure 10.

1.4 Visual Absorption Capacity

Visual Absorption Capacity is the potential of the landscape to conceal the proposed project.

- *High VAC - e.g. effective screening by topography and vegetation*
- *Moderate VAC - e.g. partial screening by topography and vegetation*
- *Low VAC - e.g. little screening by topography and vegetation (CSIR in Oberholzer, 2005)*

Visual Absorption Capacity (VAC) is the capacity of the landscape to conceal the proposed development, low cost housing Erf 360. The VAC of the landscape depends on its topography and on the type of vegetation that occurs in the landscape. The existing landscape also plays a role as well as the size and type of development proposed.

The potential of the existing site's landscape and topography to visually absorb the development is low. The elevated dam, adjacent to Buitekant Street, and the existing homestead (with mature perimeter tree planting) will partially conceal views of the units from inside the site itself. This, comparative to the scale of the proposed development, would be minimal.

The proposed scale of the development (approximately 17.41ha), urban layout and quantity of proposed units (extensive residential, 447 subsidy housing units and 17 GAP housing units and approximately 50 Council Rental units on the lowest section of the site) sits in direct contrast to McGregor's historical settlement pattern and current unit density. The location of the proposed development, on the perimeter, outside of the historical gridiron, alters the nature and visual reading of McGregors historical relationship with the river. It could be argued that existing similar developments have in the past taken place, namely the 1970's residential fabric to the north-east of Buitekant Street (on the site's northern boundary), however, the visual appropriateness of this precedent remains questionable.

A degree of continuity has been retained on the site's north-western edge with the provision of extensive residential subdivisions and newly proposed road side tree planting. The proposed tree planting along Buitekant Street, while "holding" the extent of the historical grid to the south-east, will do very little to mitigate against the visual impact of the proposed development for residents located directly adjacent. It will significantly reduce the ZVI of residents located north and west of this interface, while also retaining the visual integrity of the historic village grid. The scale and layout of these erven finds resonance with the current character of the residential units opposite. The retention of the two existing labourer cottages and a portion of the existing vineyards could assist in further ameliorating the visual impact of these units, further strengthening the visual compatibility with the existing land uses currently on this edge. It is, ironically, the very nature of this continuity in landscape and architectural character that limits the ability of these new units to mitigate entirely the development further beyond. However, the inclusion of a second line of densely planted trees and a farmers market and recreational facilities (on the proposed infilled surface of the existing dam), behind these units, will contribute significantly to limiting visual penetration further east and south-east, over the remaining proposed units.

Van Reenen, Bree, Kerk and Hartzenberg Streets, and concomitantly their respective view corridors, have been extended by varying degrees directly into the proposed development. Kerk Street forms the central public access spine with secondary access roads to new low cost housing units intersecting it. By extending Kerk Street, structural and visual continuity with the historic grid of McGregor is retained. A datum is set against which a new, evolving visual dialogue between old and new can evolve. Business and community facilities are located at the point at which the Kerk Street extension perpendicularly intersects Buitekant Street creating a gateway to the proposed development. An avenue of trees flanks either side of Kerk street extension framing views back towards Long Street and down towards the river and terminating on the newly created public open space on its banks. Penetrating obliquely, Kerk Street extension sits at odds with the newly proposed settlement pattern. As a result of this "conflicting" geometry the newly proposed avenue of trees, if well maintained, will substantially mitigate the visual impact of the units to the south-west and north-west of the site and assists in increases the visual absorption capacity of the site.

The south-eastern edge of the proposed development has a low visual absorption capacity. Proposed units on this edge and those higher up, towards the western edge of the site, are highly visible. The topography on which the proposed development sits and the parallel placement of housing units in sympathy with the contours of the river furthers the visual impact of the proposal. Mitigation could be effected in the way of further tree planting and due to the proximity of the development on the edge of the CBA buffer, the selection of tree species, if deemed environmentally appropriate, would have to be in sympathy with the long-term rehabilitation, maintenance and protectionist agendas of the Municipality. As such, mitigation measures on this edge are inconclusive and would require additional research and assessment.

The provision of food gardens and the associated fresh produce and farmers market on the southern boundary of the site creates a visual buffer between the proposed development and neighbouring olive farm. Views towards the south, from the interior of the site, connect the foregrounded food gardens with the hinter land beyond. Visual absorption capacity on this edge is moderate to high.

Proposed GAP erven and units, while smaller in size, are visually compatible with the larger erven and residential fabric on the site's northern edge. Visual absorption capacity on this interface is moderate to high. It is the intention of the urban designers, Urban Dynamics Architects and Urban Designers Western Cape, that all proposed units adhere, to the best of their ability, to the historical architectural vernacular of McGregor. On a localised level it is the intention of the urban design team that through the inclusion of "typical" historic urban and architectural elements, which resonate with the unique historical character of McGregor, that units over time will visually integrate into the fabric of McGregor. The design of which would have to be further assessed by the appointed heritage impact assessor. The scale of the proposed subsidy housing units and the size of their allotted erven are substantially smaller than the predominating typology and settlement pattern in McGregor. The size of the units, the units placement within its erf, the typological variations between units and the proximity of units to each other will to a large degree determine the visual impact of the proposed development. By selectively placing trees sporadically within the fabric of the proposed development, the potential visual impact of the monotony of the units and the proposed urban layout maybe be diminished. However, further variations in unit typologies and historical character, in conjunction with selective breaking of the rigidity of the urban layout would go further towards mitigating the current monotony of the proposed subsidy housing area.

Considering the above descriptions of the existing site and development proposals, low cost housing, Erf 360, is determined to be of low visual absorptive capacity. The inclusion of the above stated mitigating factors (tree planting, adherence to historic urban and architectural guidelines, unit typology variations, etc.) may significantly assist in reducing the visual impact of the proposed development.

1.5 Visual Intrusion

Visual intrusion is defined as the level of compatibility or congruence of the project with the particular qualities of the area, or its "sense of place" (Lynch, K. 1992). This is related to the idea of context and maintaining the integrity of the the landscape or townscape.

- *High visual intrusion - results in noticeable change or is discordant with the surroundings*
- *Moderate visual intrusion - partially fits into the surrounding but is clearly noticeable*
- *Low visual intrusion - minimal change or blends in well with the surroundings (CSIR in Oberholzer, 2005)*

The potential of the development, Low cost housing Erf 360, and the sites' capability to absorb future development can be stated as moderate to high, depending on the type of development and scale thereof.

The cultural landscape, which has heritage and aesthetic significance, has a threshold both in terms of extent, form, scale and density. If this threshold is crossed, the value of the scenic resources will be significantly changed. To keep the visual intrusion low, there must be minimal change of the existing land use and character of the site. The proposed development must, as far as is possible, blend in seamlessly with the surroundings. The proposed interface conditions to the north, north-west and south achieve this to a high degree. The visual "depth" of these buffering compatibilities and coherencies, that is, the proposed "extension" of adjacent, existing land uses and characters (in the form of extensive residential, GAP units and food gardens) is limited. The

majority of the proposed units are dedicated to the provision of low cost housing. These are small in scale and height, therefore, if independently assessed, they should be of little visual consequence - however, their density (the visual proximity between individual units on erven) and location on a sloping site increases their visual intrusion, particularly when viewed from the north-east, east and south-east .

The visual intrusion ranges from moderate to highly visible.

1.6 Assessment

In the context of the foregoing investigations the visual impact assessment is judged to be as follows:

- The **visual sensitivity** of the proposed development ranges from **moderate**, in context of the surrounding rural environment of McGregor, and **high**, in context of its localised environment.
- The **visual intrusion** ranges from **moderate** (into abutting and adjoining streets and immediate neighbours) to **high** (from the broader cultural and scenic landscape in which it sits).
- The **visual absorption** of the context for the proposed development is **low** i.e. the ability of the landscape to conceal the proposed development at a local and the broader rural context of McGregor is low.

1.7. Significance of Impacts

The proposed development of Erf 360 will impact on the sense of place particularly in respect of the existing property and its direct neighbours but also on the cultural-historic context of McGregor at large. The loss of a large portion of Erf 360's characteristic vineyards, proposed infill of the dam, demolition of its smaller labourers' cottages and its proximity to the Hoekrivier riverine corridor and floodplain (running north-south on the eastern edge of the proposed development) will irrevocably alter the visual reading of McGregor and certainly the site on which it sits. Taking into account that Erf 360's location is "within" the urban edge line (under review) and that, immediately adjacent to two of its existing boundaries, development has already taken place, the significance of the visual intrusion is somewhat diminished. Mitigating measures, if tested and adhered to, will to a degree ameliorate the extent of the visual impact both in its immediate context and when viewed from further beyond. Maintenance and management of these landscape and urban-architectural mitigating measures will improve their effectiveness over time.

1.8 Recommendations

The impacts can be successfully mitigated from the assessed "high" visual intrusion to a mitigated "moderate" if the mentioned mechanisms of mitigation are adopted and maintained. These are:

- 1 - A tree line along Erf 360's boundary with Buitekant Street. Spacing of approximately 15m
- 2 An avenue of trees along the length of the Kerk Street extension as shown on the Site Development Plan in Volume two of this VIA report.
- 3 Groups of trees at intersections of the two pedestrian axis as shown on the SDP.
- 4 The inclusion of the second pedestrian link to break the long lines of homes to the north of the Kerk Street extension as shown on the SDP in volume 2 of the VIA.

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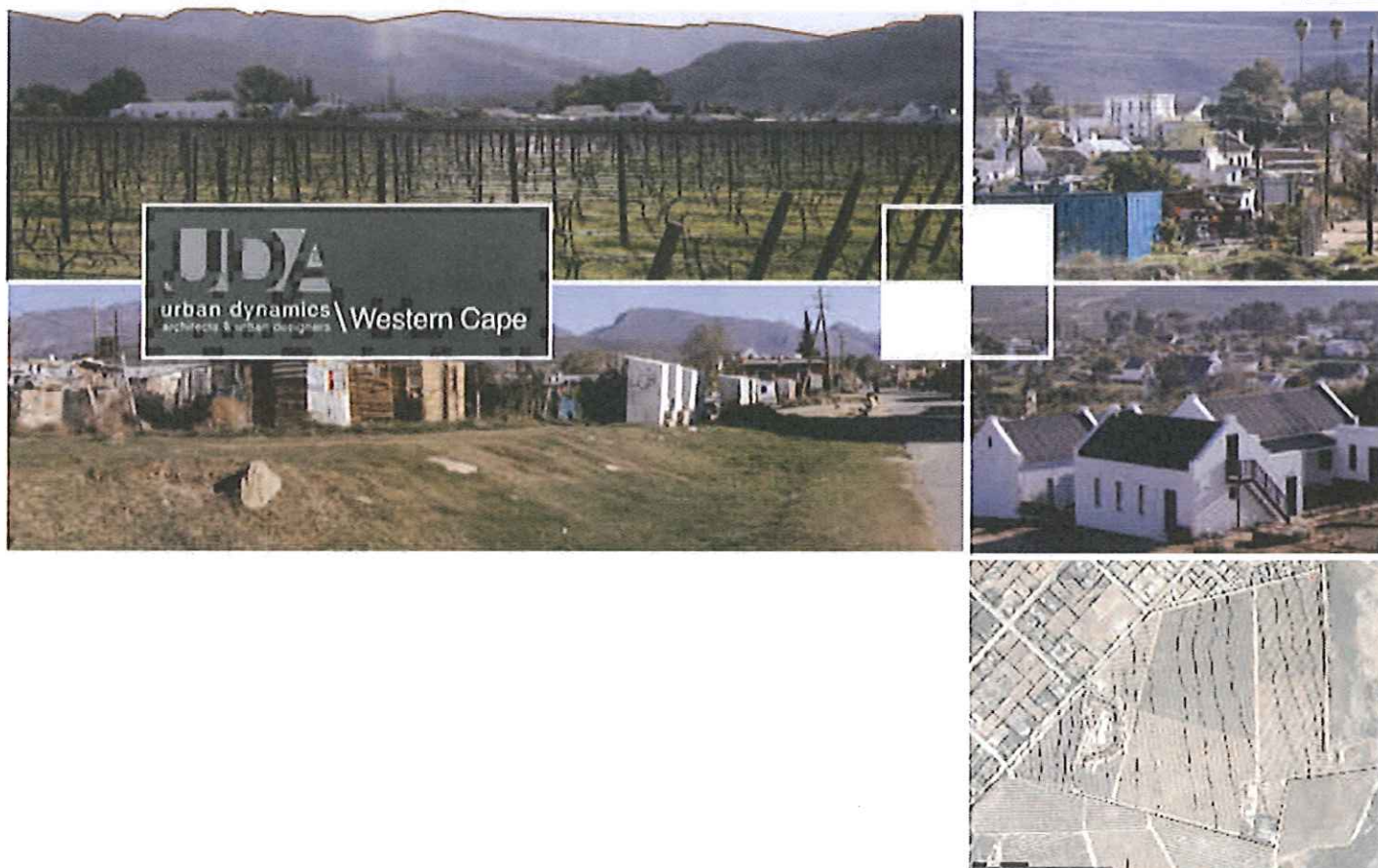
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***Visual Impact Assessment
Proposed Low Cost Housing Project, ERF 360, McGregor***

FINAL REPORT

***Volume 2 of 2 - Figures and Reference Images
(To be read in conjunction with VIA Final Volume 1 of 2)***



***Prepared for: Eco Impact Legal Consulting Pty(Ltd)
P.O. Box 45070, Claremont, Cape Town, 7735
Tel: (021) 671 1660***

***Prepared by: Urban Dynamics Architects & Urban Designers Pty(Ltd)
P.O. Box 12427, Die Boord, Stellenbosch, 7613
No. 6 Neethling Street, Stellenbosch, 7600
Tel: (021) 882 9903 Fax:(021) 882 9572***

Figure 1 : Sites initially identified in preliminary studies for the development of low cost housing

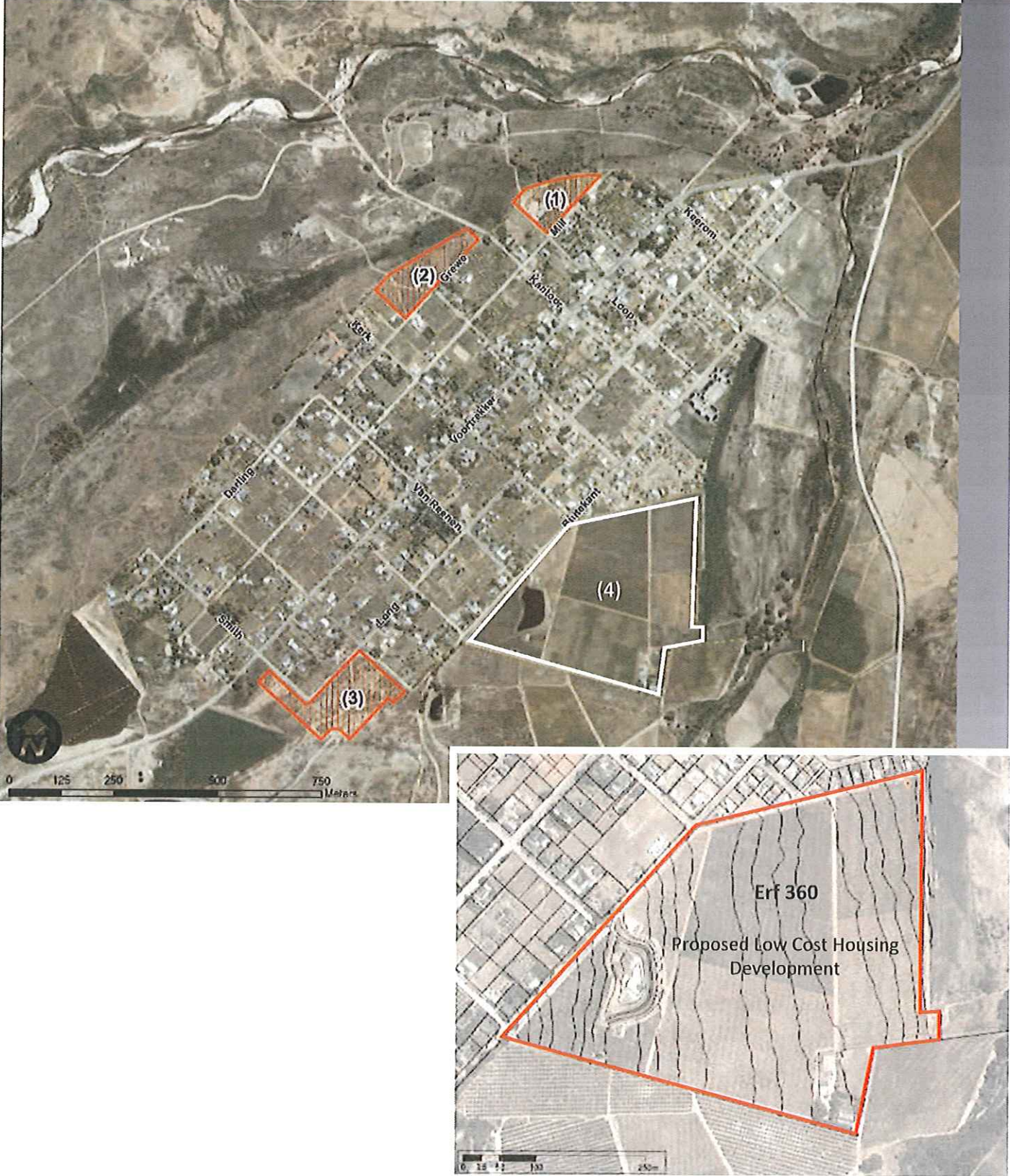
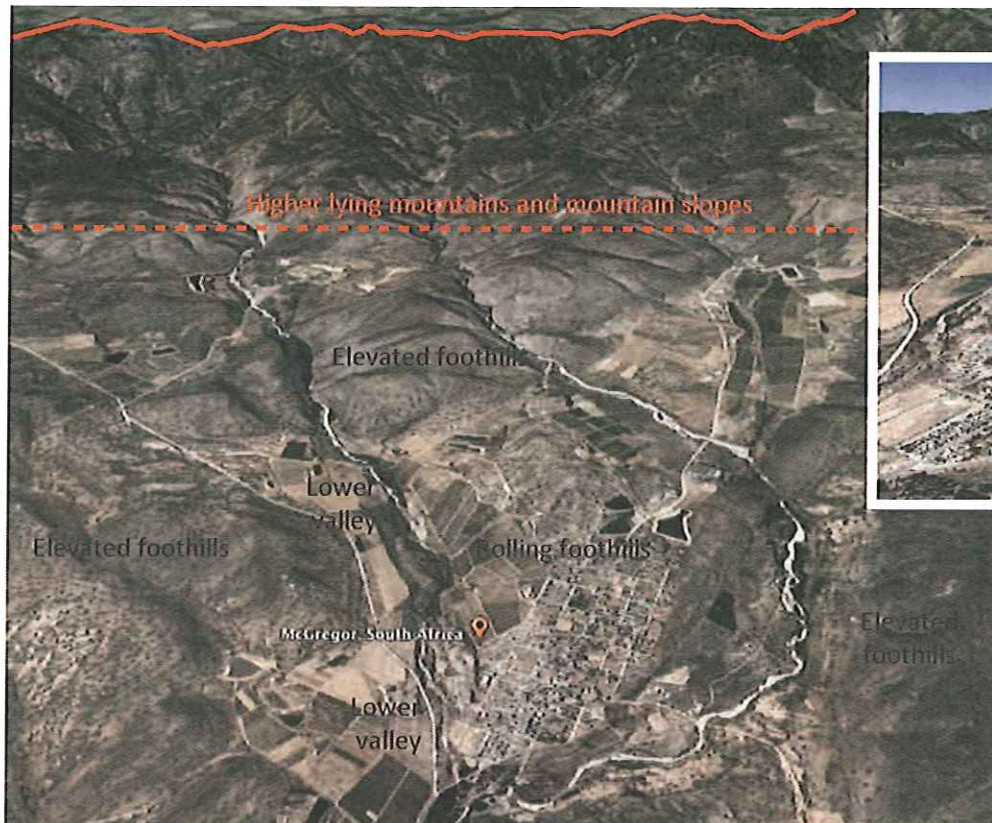


Figure 2: Landscape Types (NTS)



"Photo" 2a: landscape Types

- Lower valley
- Rolling foothills
- Elevated foothills
- Higher lying mountains

McGregor - view to the south (NTS)



"Photo" 2b: landscape Types

- Lower valley
- Rolling foothills
- Elevated foothills
- Higher lying mountains

McGregor and environs - north (towards Robertson) (NTS)

Figure 3: Landscape Features and Scenic Resources within the broader study area



Photo Series:

Scenic panoramic views, rural-agricultural landscape elements, buildings of historical significance, riverine corridors and vegetation, Krans Reserve, active and passive recreational opportunities, etc.

Figure 4: Landscape Significance within the study area (NTS)

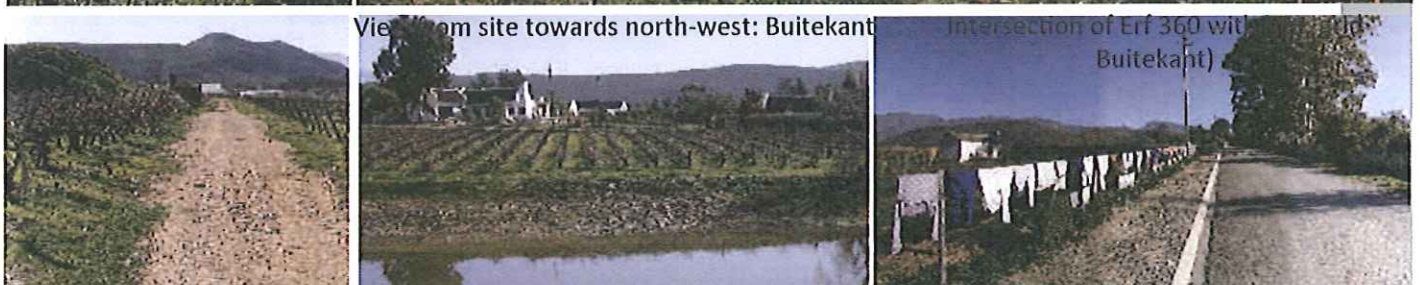
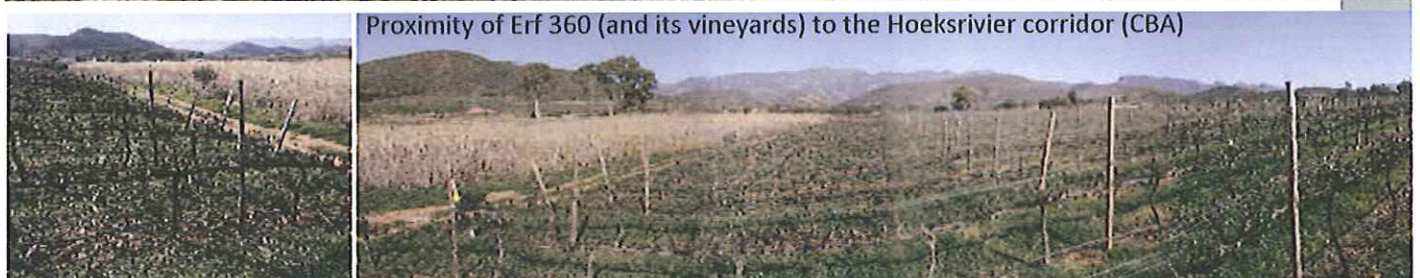
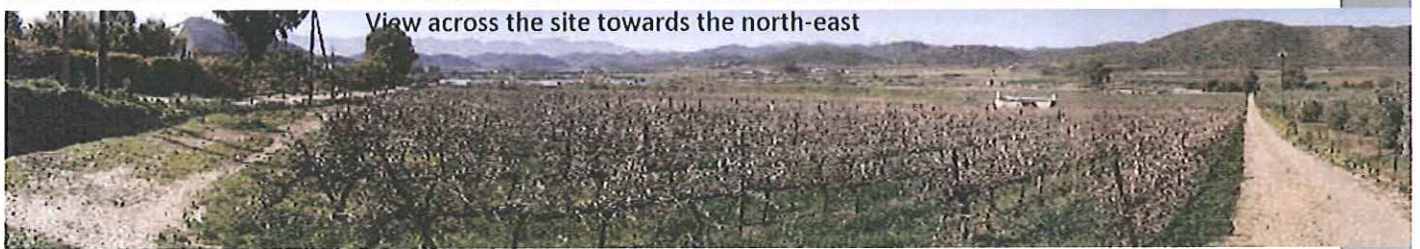
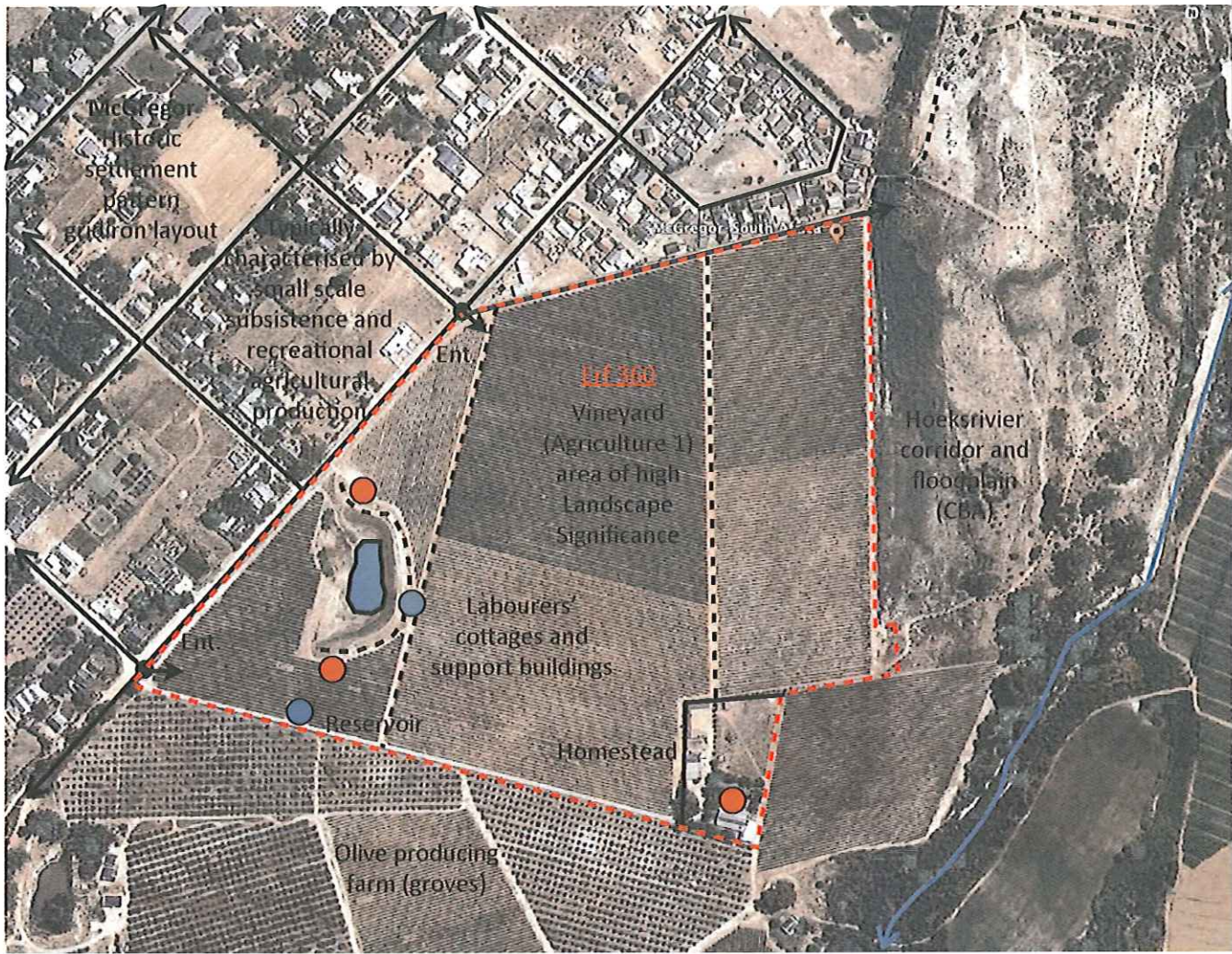


Photo Series 3: Graphic depiction of the site's scenic resources and landscape significance

Figure 5: The theoretical view catchment of the study area (NTS)

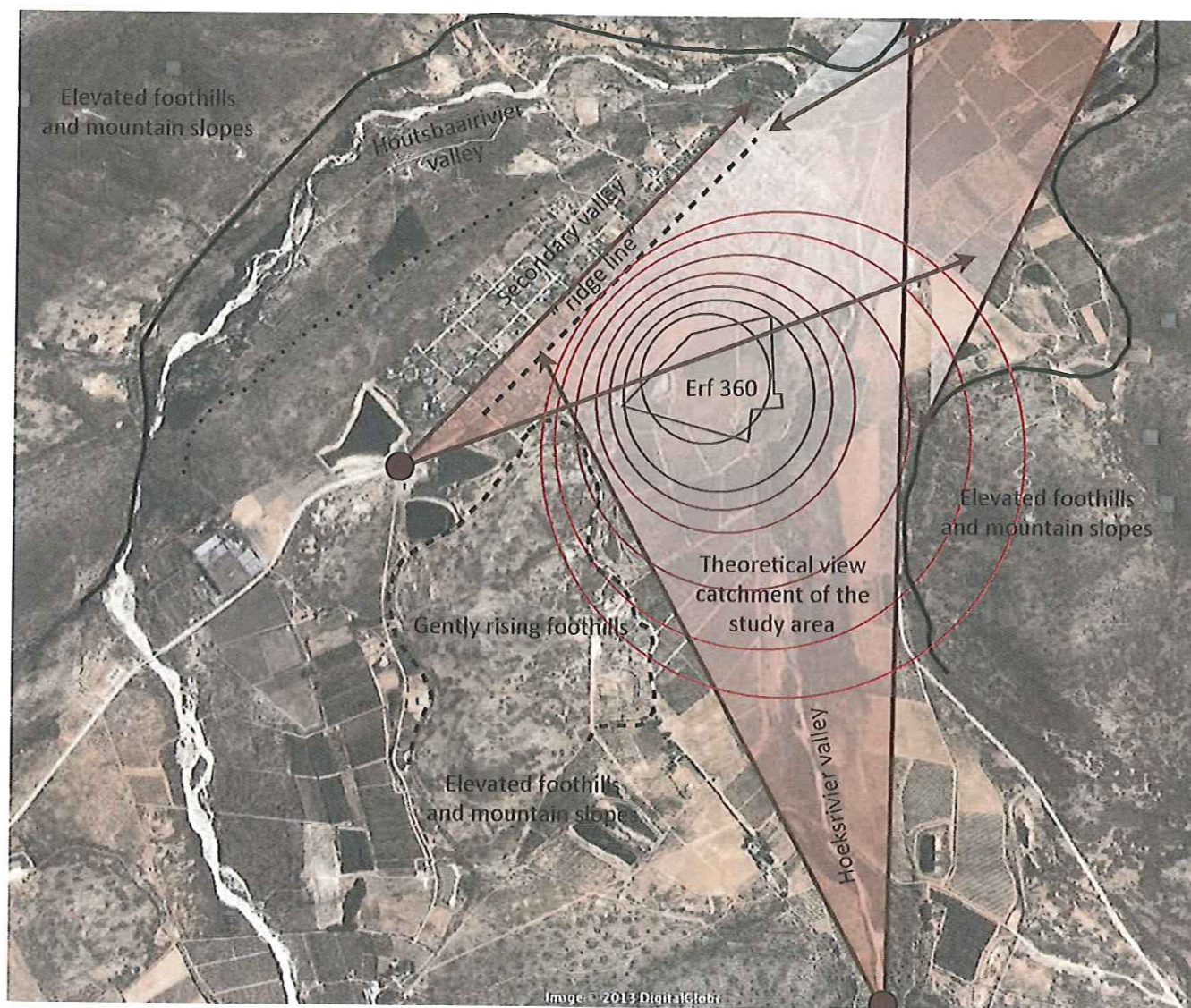


Figure 6: ZVI analysis (NTS)

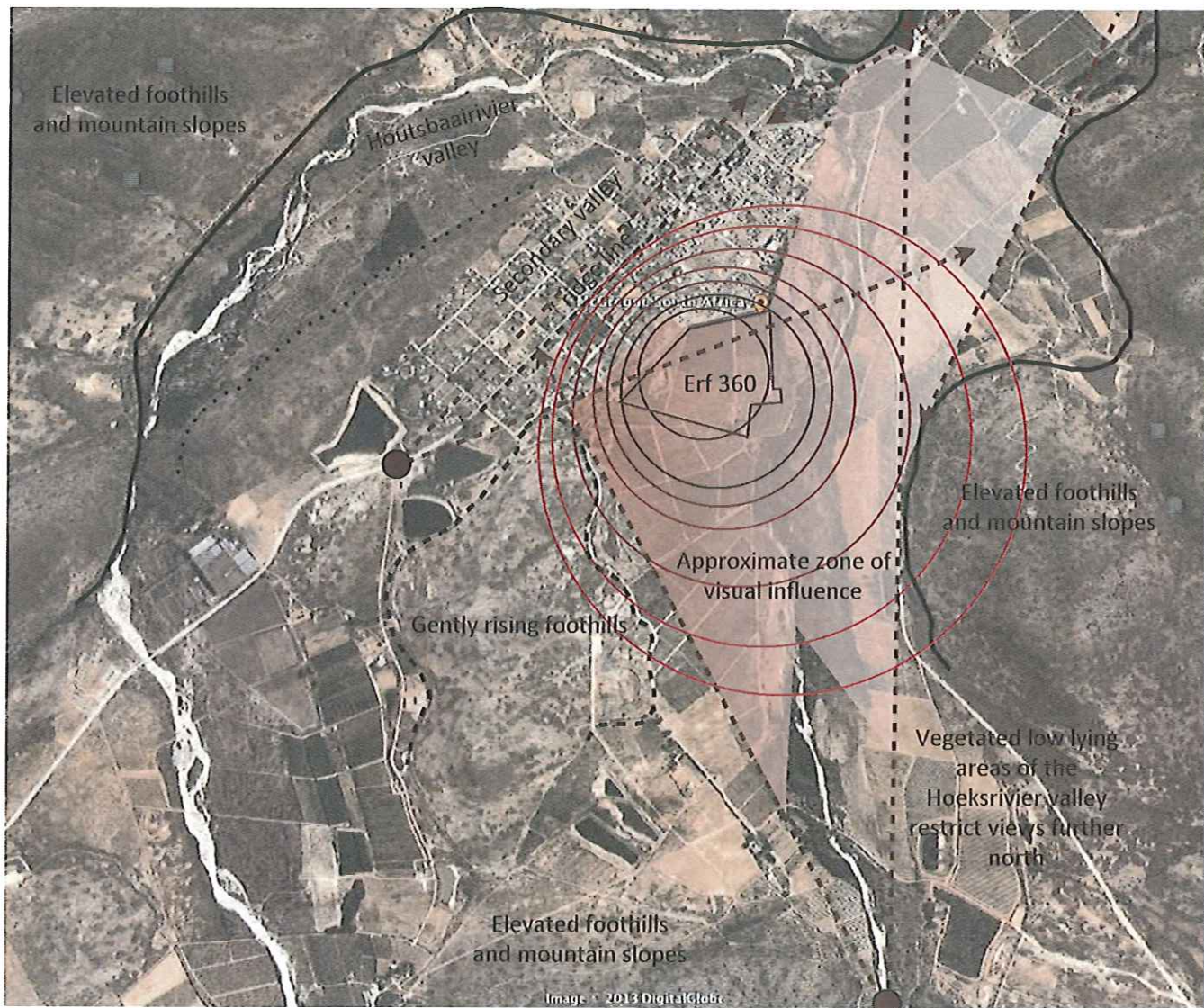


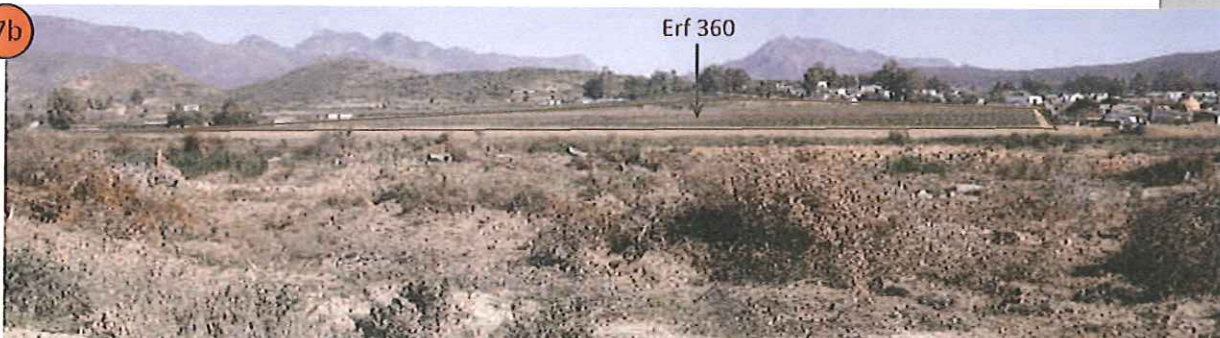
Figure 7: Visual Exposure and selected viewpoints (NTS)



7a



7b



Visual Exposure and selected viewpoints

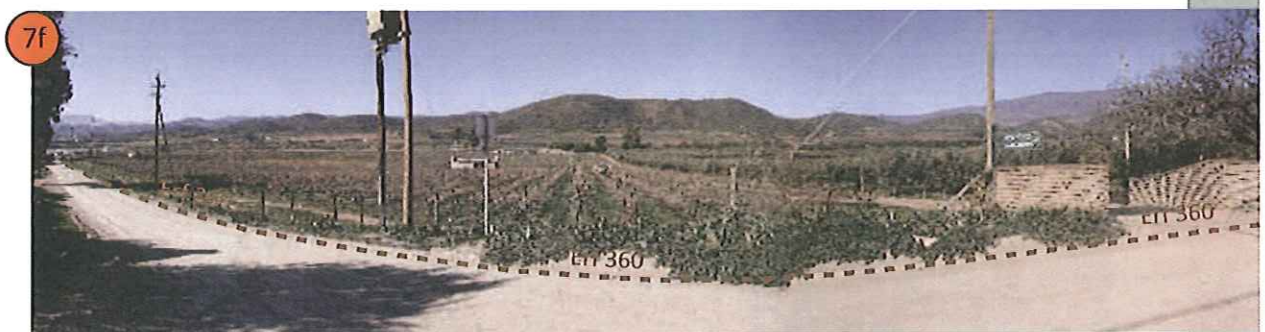


Figure 8: Location of external receptors

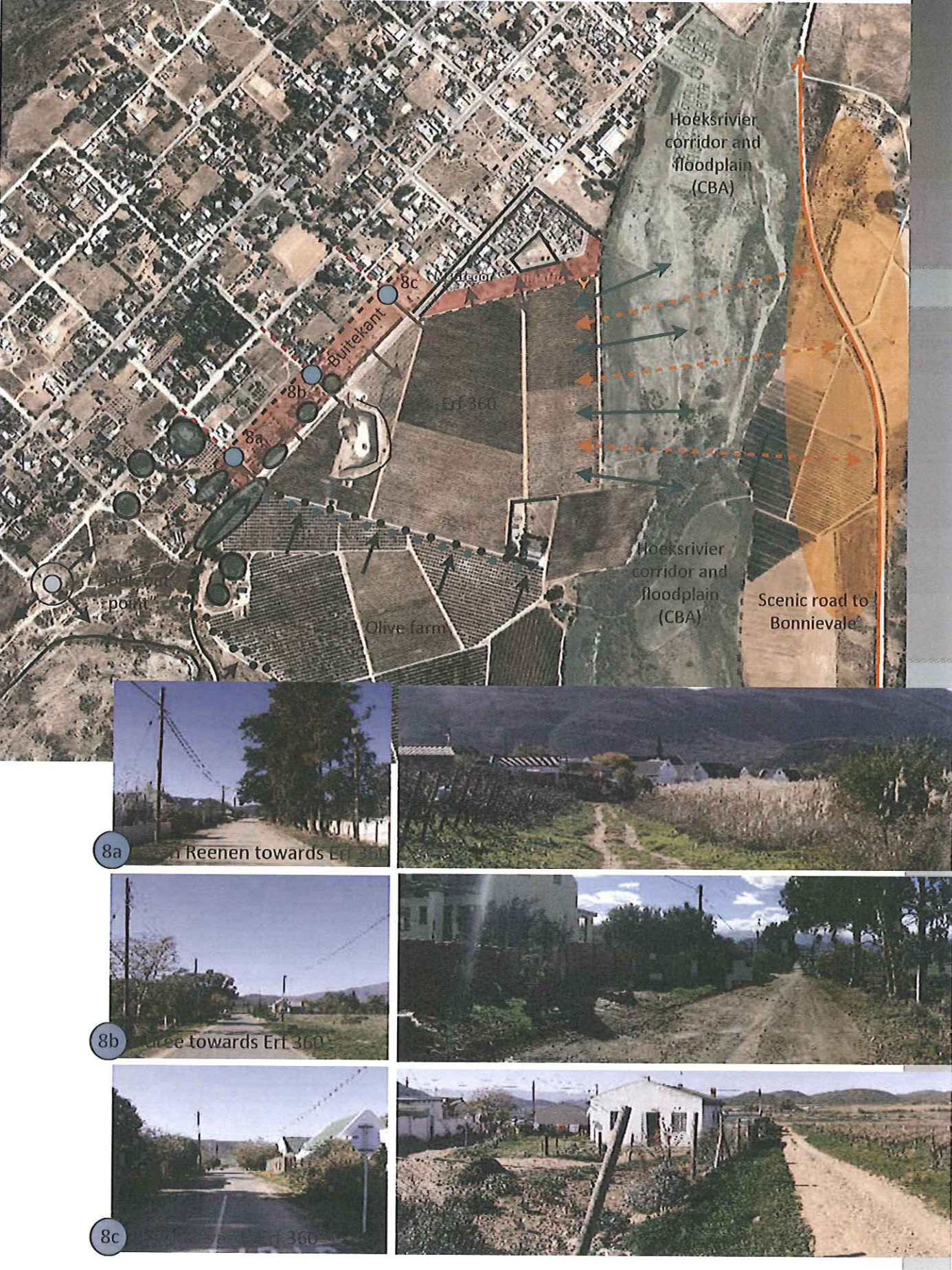
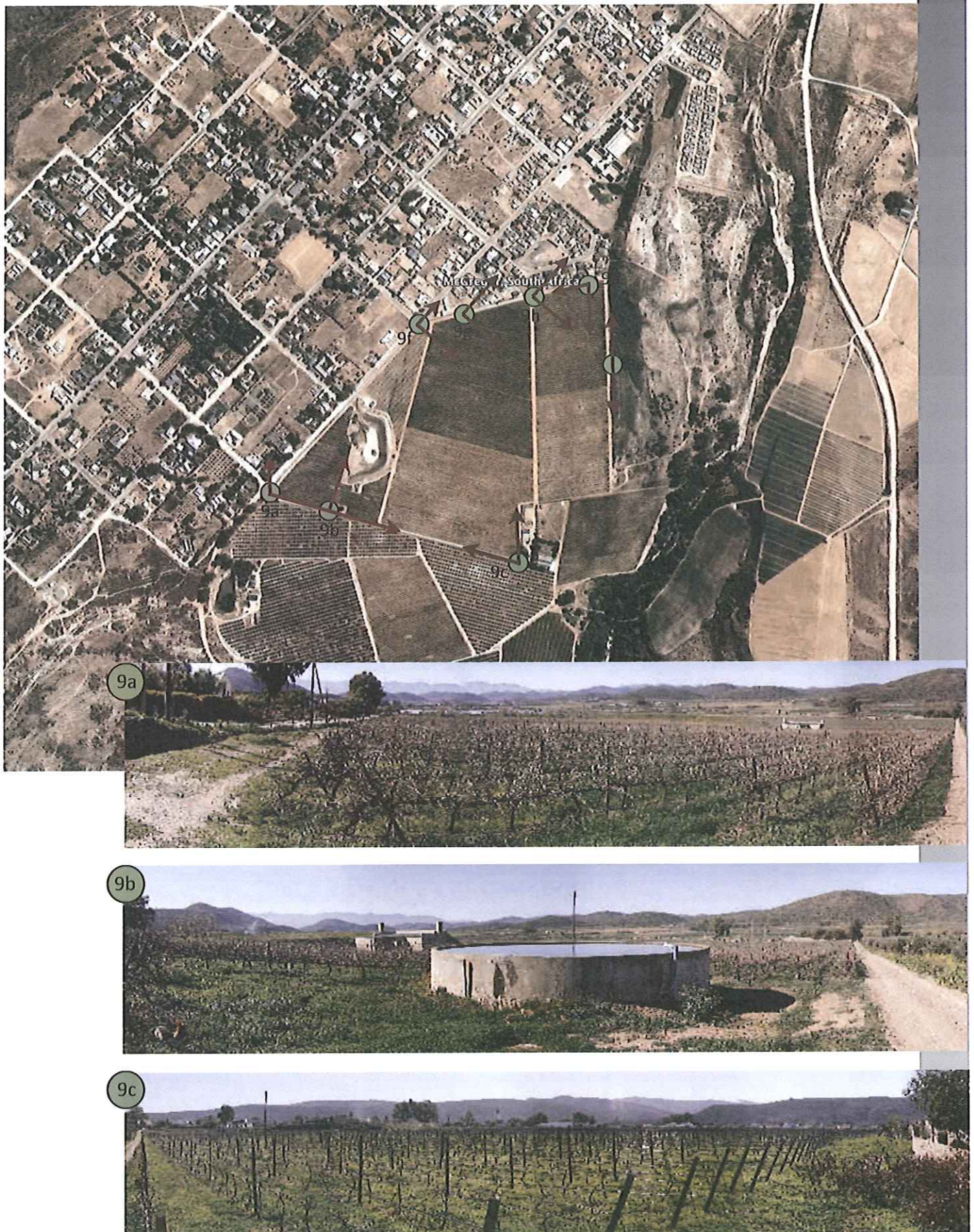


Figure 9: Location of internal viewpoints (NTS)



Location of internal viewpoints (NTS)

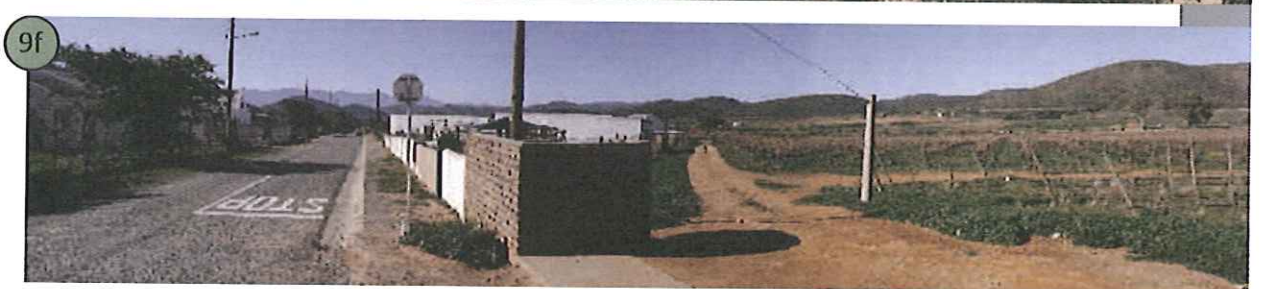


Figure 10: Diagram indicating the site's Inherent Visual Sensitivity (NTS)

