

Draft Environmental Management Programme

Proposed Mixed-Use Development on Erf 2187, Three Anchor Bay, Green Point

PREPARED IN COMPLIANCE WITH THE REQUIREMENTS
OF THE EIA REGULATIONS, GN 326 OF 2017 AND THE
NATIONAL ENVIRONMENTAL MANAGEMENT ACT, ACT
NO. 107 OF 1998

REF NO. 16/3/3/6/7/1/A7/30/3025/26

VERSION: DRAFT

DATE: JUNE 2026

APPLICANT

City of Cape Town Property Development Branch



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REPORT DETAILS

PROPOSED MIXED-USE DEVELOPMENT ON ERF 2187, THREE ANCHOR BAY: DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME

APPLICANT

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Internal Review

T Solomon, (Reg. E.A.P. # 2019/1671)

Report purpose

This Environmental Management Programme is prepared as part of a Basic Assessment in terms of the Environmental Impact Assessment Regulations, 2014 (as amended). It prescribes control methods to mitigate and manage negative environmental impacts and enhance positive impacts associated with the construction and operation of the development and provides a programme for monitoring the performance of personnel in applying such methods.

DOCUMENT CONTROL

| Date | Version |
|--------------|---------|
| 18 June 2026 | Draft 1 |
| | |

DECLARATION OF EAP'S INDEPENDENCE

I, Tarryn Solomon, appointed by the City of Cape Town Property Development Branch as Environmental Assessment Practitioner for the Draft Environmental Management Programme, hereby declare that the information provided in this report and supporting documentation is complete and correct to the best of my knowledge; that other than fair remuneration for work performed in terms of this application I have no business, financial, personal or other interest in the activity or application and that there are no circumstances that may compromise my objectivity; that I have disclosed, to the Applicant, the specialist(s), the Competent Authority and registered interested and affected parties all material information that have or may have the potential to influence the decision of the Competent Authority; that I have ensured that information in respect of the application was distributed or was made available to registered interested and affected parties and that participation will be facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments; and that I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations.

T Solomon, (Reg. E.A.P. # 2019/1671)

Infinity Environmental (Pty) Ltd: Director & Principal EAP

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1. INTRODUCTION

This Environmental Management Programme (EMPr) has been prepared for the proposed mixed-use development on erf 2187, Three Anchor Bay, Green Point. The preparation of an EMPr is a requirement of the National Environmental Management Act (107 of 1998 as amended, NEMA) and the Environmental Impact Assessment Regulations, 2014 (as amended). This EMPr will be submitted to the Western Cape Department of Environmental Affairs and Development Planning (DEA&DP) as part of an application for environmental authorisation for the proposed development referred to above. The project applicant is the City of Cape Town Property Development Branch which owns the erf/property wherein the mixed-use development will occur.

Following a decision on the application for environmental authorisation, this EMPr is intended as a "living" document and should continue to be updated regularly, as needed. Importantly, the management actions can and should be reviewed regularly to ensure that the management outcomes defined in the BAR are still being effectively met by these actions.

The purpose of an EMPr is defined in the Integrated Environmental Management (IEM) Guideline Series (Department of Environmental Affairs and Development Planning, 2005) as "*an environmental management tool used to ensure that undue or reasonably avoidable adverse impacts of the construction, operation and decommissioning of a project are prevented; and that the positive benefits of the projects are enhanced*".

1.1 Objective

The overarching objective, from which the detail contained in this EMPr flows, is to construct and operate the project in a manner that –

- Reduces the risk of pollution or damage to ground and surface water, ecosystems, soils and air;
- Minimises nuisance and disruption to people residing in, working in or commuting through the area;
- Adheres to all relevant environmental legislation.

The objectives of this EMPr are therefore:

- to prescribe the best practicable control methods to mitigate and manage negative environmental impacts; and
- to enhance positive impacts associated with the construction and operation of the development; and
- to provide a programme for monitoring the performance of personnel in applying such methods.

1.2 Authors of the EMPr

This EMPr has been compiled by the Environmental Assessment Practitioner (EAP) based on best practice environmental management requirements. Details of the EAP who prepared the EMPr are as follows:

Table 3: Authors of the EMPr

| Authors | Qualification | Professional registrations | Years of experience | Relevant expertise |
|----------------|---|--|---------------------|--------------------|
| Tarryn Solomon | BSc. Environmental and Water Sciences | Registered E.A.P. 2019/1671 Member of IAIAsa | 19+ | 100+ |
| Kelly Gilmour | MSc. Biological Sciences | Candidate E.A.P. 2024/8037 Member of IAIAsa | 2+ | 3+ EIAs or EMPrs |
| Jenay Titus | B.A. Hons Geography & Environmental Studies | Candidate E.A.P. #2026/20884 Member of IAIAsa | 1+ | 1+ |

Tarryn Solomon has worked in environmental management since 2009 and has managed multiple EIAs and Basic Assessment processes. She holds a BSc in Environmental and Water Science and is a registered Environmental Assessment Practitioner. Refer to Appendix 1 for Tarryn Solomons CV.

Specialist studies informing this EMPr were conducted by the professionals listed in Table 1.

Table 1: Specialist professionals

| Specialist Study | Specialist | Company |
|----------------------------------|-----------------------------------|--|
| Heritage Impact Assessment | Lize Malan and Cindy Postlethwayt | Lize Malan Planner and Heritage Consultant |
| Visual Impact Assessment | David Gibbs | David Gibbs |
| Transport Impact Assessment | Annebet Krige Lize Neethling | Innovative Transport Solutions |
| Socio-economic Impact Assessment | Alex Kempthorne Talia Aliber | Urban Econ Development Economists |
| Stormwater Management Plan | Kerina Naicker | EAS Infrastructure Engineers |
| Urban Design Concept | Sean Meyer Melcolm Campbell | ACG Architects & Urban Design |
| Landscape Report | Ilham Gabier | ACG Architects & Urban Design |

1.3 Project Background

The applicant, the City of Cape Town Property Development Department, is proposing a high-intensity mixed-use development on erf 2187, Three Anchor Bay. The site is approximately 4.5 hectares in size, municipal-owned and currently zoned as Public Open Space (OS2). The site is bounded by Sea Point Main Road (M61) to the south, Helen Suzman Boulevard and Beach Road (M6) to the north, and Three Anchor Bay Road to the west (Figure 1). These roads contribute to good connectivity in an east-west direction to and from the site. MyCiti and Golden Arrow bus services are available within walking distance to the site.



Figure 1: Site locality

Notwithstanding the site's prime location, the site is currently underutilised. The bowling clubs that used to occupy significant land on the site are no longer active and the club houses are now being leased for various other low-intensity community uses or stand vacant. There are various sport and public recreational facilities in the vicinity of the site and the City's Spatial Development Framework earmarks the site for infill development that would ensure better utilisation of this well-located land parcel close to the City's CBD and regional community and recreational facilities.

Council's in-principle approval to transfer the site was obtained in March 2026 in terms of the 2008 Municipal Asset Transfer Regulations (MATR). The intention is for the site to be disposed of via a competitive bidding process. The release of the site will take place before the statutory process is complete; however, the transfer of the site to the successful bidder will only take place after the conclusion of statutory approvals in terms of NEMA and the Municipal Planning By-law (MPBL). The successful bidder will therefore be bound by the conditions of the Environmental Authorisation, including this EMPr.

1.4 Project Description

The proposed concept design provides a framework to guide future development, establishing principles, structure, and parameters within which future development can occur. The actual design of the site will be undertaken by the future developers of the site.

The purpose of the development concept is to establish the technical feasibility of a maximised development envelope. This conceptual envelope will ultimately inform the approval of a flexible basket of mixed-use rights which the developer can interpret in a manner that best resonates with their understanding of the market. While the City's minimum requirements for the development will be fixed in the conditions of approval, it is not the City's intention to be overly prescriptive in terms of the design, spatial orientation land-use mix or bulk take-up of the development. **Future development will have to comply with prescribed mandatory requirements such as height & massing, setbacks, facade articulation, access, urban structure and structural landscaping.**

The proposed development of the site for mixed-use aligns with the municipal and local frameworks and responds directly to the increasing need for residential housing in and around the central business district. The inclusion of retail offerings is intended to enhance the connectivity and continuity of the site with the surrounding retail character, activating the Main Road street interface. The proposed concept design also intends to not only retain but enhance the capacity and functionality of the existing civic node on the site.

The proposed concept design has undergone an iterative design process and the various elements, as shown in Figure 2, are described below:

- 1) Civic node and Crèche
 - Sea Point Civic Centre and Hall
 - Existing Sea Point Public Library with a proposed extension and additional development bulk envisaged above the existing building footprint (design subject to heritage, structural, visual impact and architectural specialist input at Precinct Plan stage, consistent with the conditions set out in the Heritage Impact Assessment).
 - Above ground parking bays and access to basement parking
 - New location for a crèche
- 2) Retail Activation along Main Road

- Retail space on the ground-floor and first floor
- 3) Residential Placement
- Residential (including affordable, middle- and high-income housing)
 - Potential for office space
- 4) Hotel Placement
- Hotels are proposed at either end of the development

The proposed concept design also accommodates potential office and other business land uses via the rezoning application process which is to include General Business zoning (GB6).

Additionally, the proposed concept design includes basement parking (three levels), internal roadways and green space. The green space includes:

- Hard and soft landscaping internal to the site along access roads and internal pedestrian routes,
- Retention and preservation of eucalyptus trees on the eastern side of the site,
- Retention and preservation of the trees bordering the site along Sea Point Main Road forming part of the extended Cape Town Fan Walk.

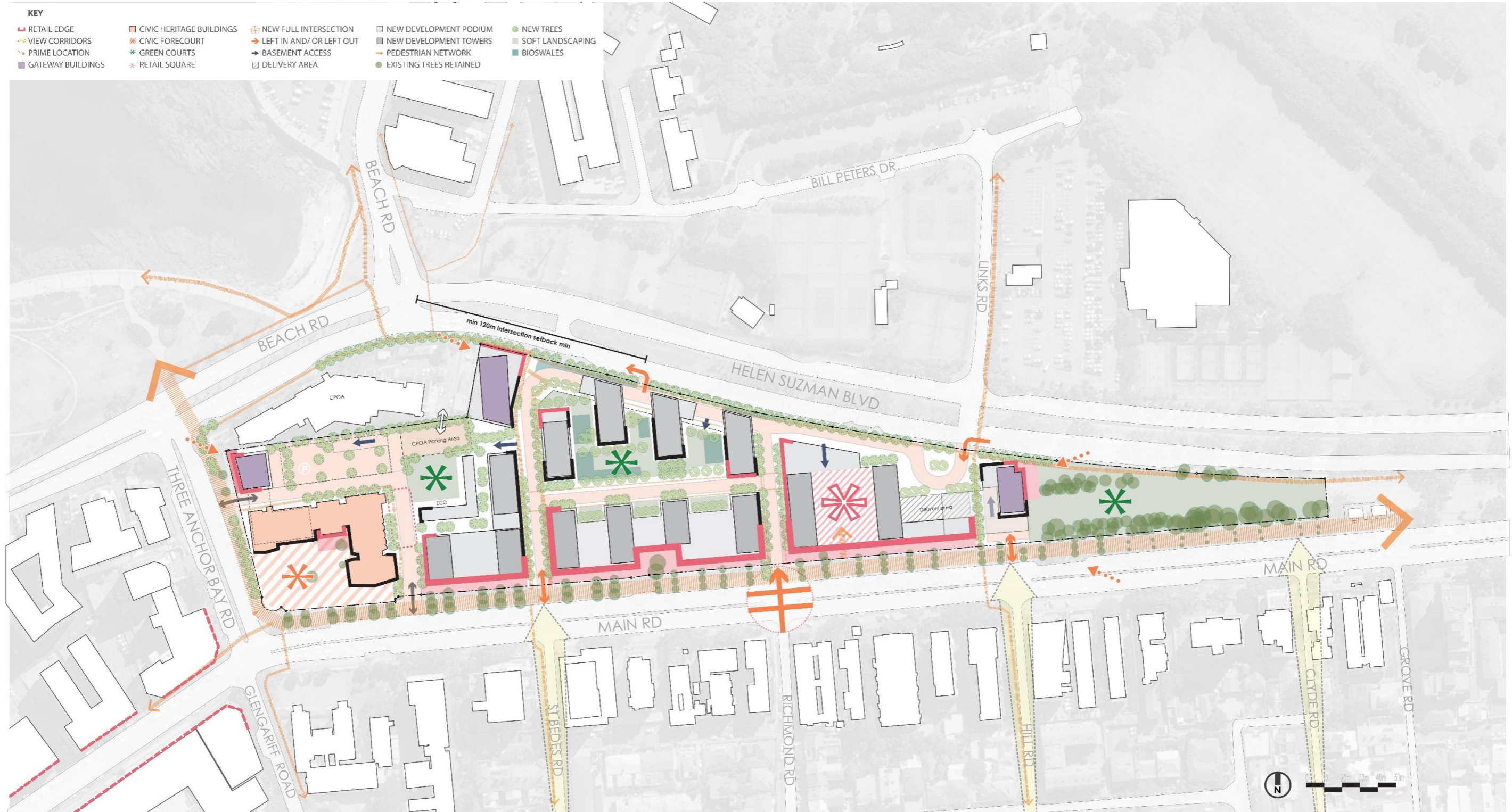


Figure 2: Overall concept design (ACG Architects, 2026)

1.4.1 Alternatives

The proposed concept design has undergone various iterations informed by public and specialist input which during activity alternatives were considered. Due to the location of the site within the urban area, surrounded by mixed-use developments and destination places, the proposed mixed-use development is considered an appropriate activity for the site. Based on the context of the site and surrounding land uses, the proposed activity for a residentially led mixed-use development is the only alternative considered in this report.

Other design or layout alternatives may include more bulk and therefore more residential or commercial space but would then be at risk overlooking important heritage and visual aspects. Conversely, a smaller overall bulk may have reduced impacts (particularly visual) but would then be at risk of not meeting the residential and commercial needs of the surrounds. The proposed concept design takes consideration of the surrounding land uses and unique retail character, and prioritisation of the preservation and enhancement of the civic node on the site. The proposed preferred activity – the mixed-use development of the site – provides an opportunity for infill development, avoiding urban sprawl, enhancing connectivity with surrounding areas, integrating the site with the surrounding urban environment, and supporting the City's community and economic needs.

1.4.2 No-Go Alternative

The no-go alternative provides a baseline against which other alternatives have been compared to and considered during the EIA Phase. The no-go alternative assumes that the proposed project will not go ahead and is the status quo with minor to no changes. That would mean that the proposed mixed-use development would not occur on the site. There is an increasing need for residential space in the City, and the opportunity to use the proposed site to address this issue would be missed in the no-go alternative was implemented. Although this alternative would not result in various identified potential negative impacts on the site or surrounding local area, it would also limit the use of the site and would result in missed socio-economic benefits. As stated in the Socio-economic Impact Assessment, "the positive impacts of the proposed development are expected to outweigh the negative effects, the construction and operation of the project is preferred over the 'no-go' alternative."

1.5 Environmental Sensitivities

An assessment of the site sensitivity was undertaken in December 2025 and included the following activities:

- Review of the extensive existing data and information from previous site assessments;
- Generation of a Screening Tool Report (<https://screening.environment.gov.za/screeningtool/>);
- Site visit (12 November 2024); and
- A desktop review, including:
 - » Satellite imagery using Google Earth Pro, including imagery from 2000 to present,
 - » Aerial imagery from 1926 onward available via the City of Cape Town's GIS; and
 - » The City of Cape Town's Biodiversity Network dated 2025.

1.5.1 Terrestrial biodiversity

According to the National Screening Tool the proposed site is mapped as **Very High** sensitivity for terrestrial biodiversity in the Screening Tool Report due to the presence of the Peninsula Shale Renosterveld (PSR). However, the site is almost entirely transformed with no remnant historical vegetation and there is no terrestrial biodiversity of concern on the site. The proposed development

on erf 2187 does not fall within a Critical Biodiversity Area (CBA) (Figure 3) (Western Cape Spatial Plan, 2023).



Figure 3: Biodiversity Network surrounding the proposed site

There are no terrestrial or aquatic ecosystems, nor plant or animal species of environmental concern on the site. It is noted, however, that several trees on the southeastern portion of the site are to be retained due to their heritage significance.

1.5.2 Ocean and coast

The site is located within 100m of the coast and Atlantic Ocean and naturally slopes towards Helen Suzman Boulevard (south to north). The site is located landward of Beach Road and the Sea Point Promenade which reduces the extent of direct physical interface between the site and the shoreline and ocean. This EMPr includes construction-related mitigation measures to reduce the associated risk to surrounding areas during the construction phase, and long-term impacts associated with stormwater runoff have been considered in the Stormwater Management Plan. There are areas that drain stormwater to existing inlet structures and underground pipe networks within the site and along the surrounding roads, discharging into the ocean. Attenuation of stormwater on site is not required due to the site's close proximity to the ocean, and the focus of the stormwater management plan is to improve the quality of stormwater. Refer to section 4 and 8 of this EMPr and the Stormwater Management Plan (**Appendix L3** of the draft BAR) for more details.

1.6 Impact assessments

The impact assessments undertaken to inform the Basic Assessment and provide recommendations and mitigation measures incorporated into this EMPr are described below.

1.6.1 Heritage Impact Assessment

A heritage impact assessment was undertaken by Lize Malan in collaboration with Cindy Postlethwayt, 2026 based on the response to the notification of intent to develop by the heritage authority.

The following existing heritage sites/sensitivities are located on the proposed development site (Figure 4), including the Colin Eglin Sea Point Public Library (Grade IIIA), Sea Point Civic Centre and Hall (Grade IIIA), and the Eucalyptus trees found on the site are historic (Grade IIIB) and part of the larger Green Point cultural landscape. The electric substation is considered to have some architectural significance (Grade IIIB), but the building is not regarded as of sufficient significance to warrant its retention at the cost of efficient development of the site. None of the other structures on site are of heritage significance.

| Resource | Grading/Proposed Grading | Nature of Significance |
|---|--------------------------|--|
| Colin Eglin Library & Sea Point Civic Centre | IIIA | Architectural and social |
| Eucalyptus Tree Avenue | IIIB | Historical |
| Electrical Substation | IIIB | Architectural |
| Clubhouses | NCW | NA |
| Contribution to Context | IIIB | Green space, views over site, interface with Main Road |

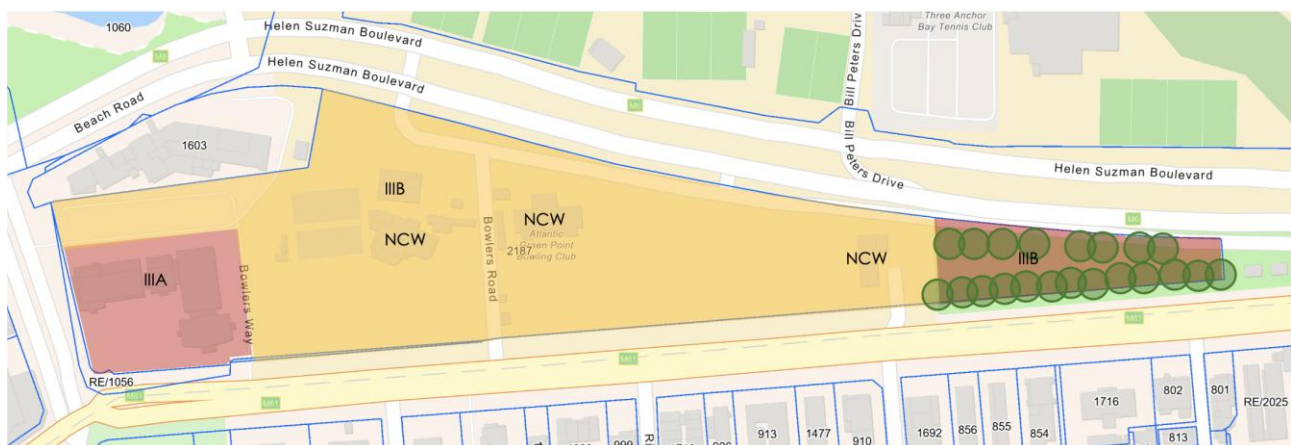


Figure 4: Heritage sensitivities on the proposed site

Other significant heritage sites adjacent to the development are the Green Point Common and Sea Point Promenade (Grade IIIA). The site itself does not fall within a declared or proposed Heritage Protection Overlay Zone (HPOZ), but there are three such areas in close proximity to the site, namely the Sea Point HPOZ (southwest of the site), Saint Bedes HPOZ (south of the site), and Green Point HPOZ (southeast of the site).

Heritage indicators have informed the concept design, and existing buildings of heritage significance in the civic node on the proposed development site will be retained and sensitively restored and upgraded to enhance functionality while maintaining their cultural and architectural integrity. The eucalyptus trees to the east of the site are also noted as a heritage resource for its aesthetic significance and will also be retained.

Overall, the proposed development is regarded as conforming sufficiently to the heritage and visual indicators to be supported at this high-level conceptual stage. Given the relatively limited heritage significance of the bulk of the site and the undertaking to retain the Library and Civic Centre

Complex largely as is, the overall impact on heritage resources is considered to be of medium significance reducing to low significance with mitigation.

1.6.4.1 Eucalyptus Tree Avenue

The open area situated to the east of the site and lined by rows of eucalyptus trees on either side of the proposed development has been identified as a heritage resource. These trees formed part of an extensive double tree belt planted along the northern side of Somerset/Main Road, extending from Ebenezer Road in the east to Three Anchor Bay Road in the west. This tree avenue historically defined the southern boundary of the Green Point Common.

While the exact date of planting remains uncertain, the trees are clearly depicted on the Wilson Survey of 1878, indicating that they were already established by that time. Although the original purpose of the avenue has not been conclusively determined, its age and deliberate planting pattern which are possibly associated with the historical use of the Common for horse racing, represent an important remnant of the late eighteenth- and nineteenth-century development pattern of this part of the city.

A Tree Survey undertaken by ACG Architects (2026) as part of their landscape plan identified and assessed the trees present on the site, including their species type, size, age and condition. The survey recorded a total of 239 trees within the proposed development area and along the street edges. Accordingly, mature trees defined as those planted more than 16 years ago, should be retained and protected wherever feasible as part of the development.

Based on the information gathered each tree was assigned a recommended Tree Protection Zones (TPZ's). The TPZ, also referred to as the critical root zone, is generally located beneath the tree canopy/dripline. It is typically calculated using the tree's Diameter at Breast Height (DBH), measured 1.4 m above the ground and the canopy spread. Full TPZ calculations are provided in **Appendix L5** (Landscape Report, 2026).

The TPZ aligns with the need to preserve the trees identified in the Heritage Impact Assessment undertaken which are considered resources of historical significance. The mature eucalyptus trees possess aesthetic and cultural value and make an important contribution to the green character and sense of place associated with the Common. As such, the trees have both historical and contextual significance within the broader heritage landscape of the area, and the proposed TPZ helps ensure their preservation.

The critical root zones (CRZs) of the surveyed trees have been identified on the Tree Plan, with an average setback of approximately 6 m from each tree stem, depending on the species and size of the tree. Figure 5 shows an example of a cross section demonstrating a 6 m TPZ from the site boundary and existing treeline, pushing the development back to the location indicated by the orange line. The identified TPZ's have been incorporated into the proposed draft Concept Design and landscape plan. In areas where larger protection zones are required to safeguard retained trees, the building and basement footprints have been stepped back accordingly and may not extend beyond the indicated development boundary.

The TPZ establishes a protected buffer around each tree within which construction-related activities are restricted in order to safeguard tree health, structural stability, and long-term survival.

Protection measures include:

- » No development, excavation, paving or trenching should occur within the TPZ;

- » Where possible, all construction-related activities are to be kept outside of the dripline of the tree;
- » The following activities should be avoided within the TPZ:
 - » Soil compaction,
 - » Parking of heavy machinery beneath trees,
 - » Storage of construction materials,
 - » Alteration of existing soil levels around trees,
 - » Installation of hard surfacing close to tree trunks, and
 - » Trenching through root zones.

Alternatives to Tree Removal (transplanting and retention options):

1. Tree transplanting:

- » Transplanting should be prioritised as an alternative to removal where feasible,
- » A qualified arborist or skilled tree worker should be consulted to assess suitability and advise on appropriate transplanting methods.

2. Retention and ecological value:

- » Mature and significant trees should be retained wherever possible, given their ecological, cultural, and aesthetic importance,
- » Even mature exotic trees may contribute significantly to cultural landscapes and local character and should therefore not be removed by default,
- » Trees should only be removed where they pose an unmanageable risk to public safety, property, or infrastructure;

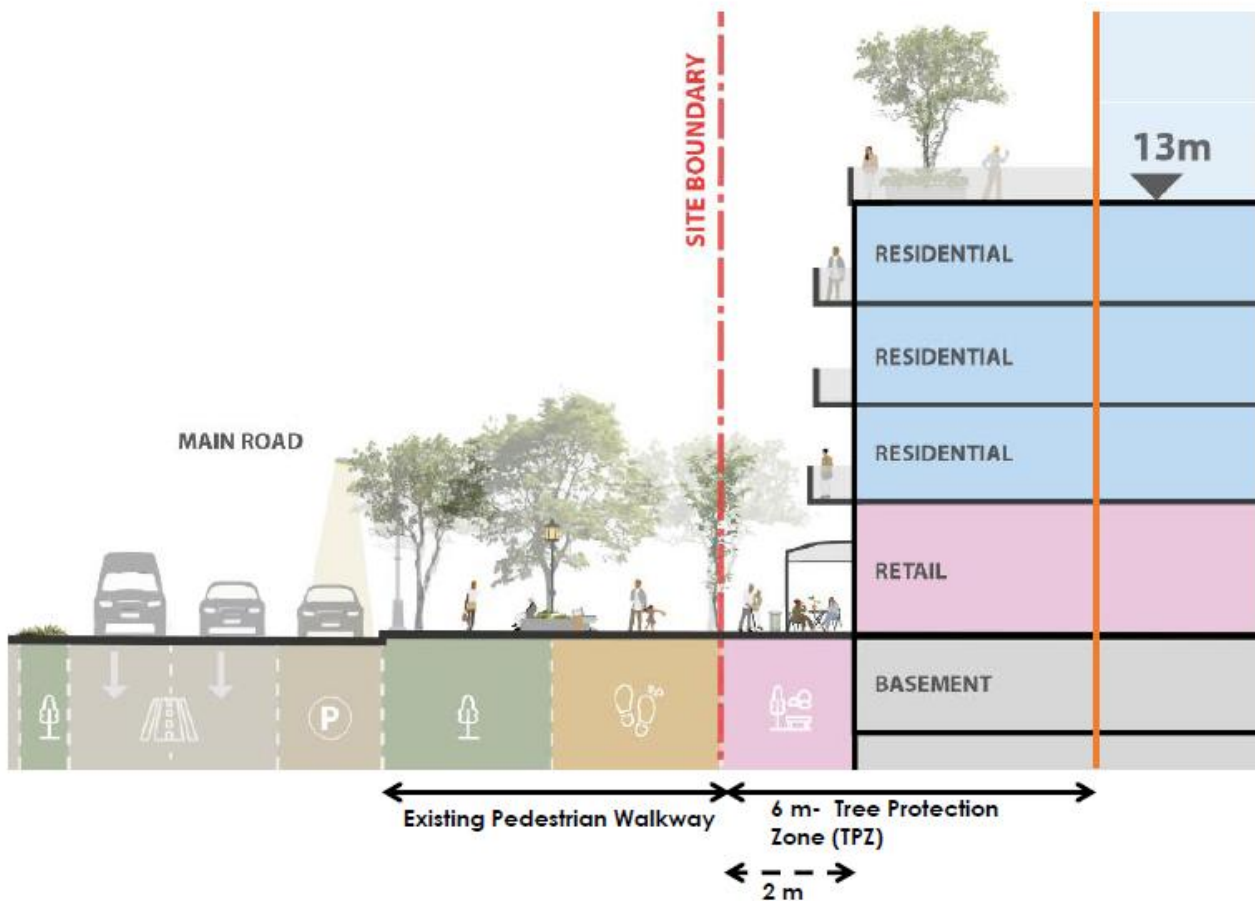


Figure 5: Example of a tree protection zone (Extracted from Tree Survey: ACG, 2026). Note that the orange line represents the recommended location of the proposed development in relation to the site boundary and treeline.

1.6.2 Visual Impact Assessment

A Visual Impact Assessment (VIA) was conducted by David Gibbs (PrLArch) and the visual indicators identified in the VIA have informed the proposed concept design. These include urban integration, height strategy, corridor protection, relationship to the common, and skyline composition. The VIA assessed the impact of the proposed concept design on these indicators in terms of the magnitude of change expected as a result of the development. The recommendations and mitigations in the VIA pertain largely to the building height strategy and ensure that future development responds appropriately to the identified visual indicators.

The proposed concept design represents a contextually responsive form of urban intensification within an established metropolitan landscape and does not introduce development of a scale or form that is inconsistent with the surrounding Atlantic Seaboard urban fabric. The VIA concludes that the proposed development can be accommodated within the Three Anchor Bay landscape without unacceptable visual impact, provided that the visual indicators and recommendations are implemented. The proposal demonstrates a strong response to the visual characteristics of the receiving environment and establishes a coherent urban edge to the Green Point Common. The recommendations from the VIA are included in the Design Phase of this EMPr. Refer to **Appendix G2** of the draft BAR for the Visual Impact Assessment.

1.6.3 Transport Impact Assessment

A Transport Impact Assessment (TIA) was undertaken by Innovative Transport Solutions (ITS), to assess the potential impact of the proposed mixed-use development on traffic and transport operations on the surrounding road network. The TIA notes that the site is located in close proximity to numerous established commercial, industrial and mixed-use economic nodes of the City. Opportunities for employment and economic development are therefore easily accessible from the site, and well-established road networks link these nodes, playing an important role in reinforcing transit-oriented corridors. Additionally, the existing road network is well developed with a full hierarchy of road classes in the site vicinity including Helen Suzman Boulevard, Main Road, Three Anchor Bay Road, Beach Road, Vlei Road, Granger Bay Boulevard, Portsood Road, Bill Peters Drive, St Bedes Drive, Richmond Road, Hill Road, St Georges Road, Clyde Road, Grove Road, Pine Road, Wigtown Road, Varneys Road and York Road.

The following intersections are overall operating at unacceptable levels of service (LOS E/F) or have approaches operating at unacceptable LOS during both peak hours:

- Three Anchor Bay Road/Main Road,
- Three Anchor Bay Road/Beach Road,
- Helen Suzman Boulevard/Beach Road
- Main Road/ York Road

However, by optimising the signal phasing and timings, it is possible to improve the traffic operations at the above-mentioned four intersections to be able to achieve acceptable LOS with minimal average delays during both peak hours. All other study intersections are operating at acceptable LOS during the a.m. and p.m. peak hours. Some increase in congestion and delays may occur during peak periods as a result of the proposed development, but the TIA states that the surrounding road network is expected to continue operating acceptably overall.

The proposed vehicular network is intended to enhance connectivity and permeability between the site and its surrounds. To the south of the site, St Bedes Road and Richmond Road are proposed to extend across Main Road into the development, reinforcing existing movement patterns and improving accessibility. The intersection of Richmond Road and Main Road is envisioned as the primary entrance to the development and is proposed to be signalised to ensure safe and efficient access. Along the northern edge of the site, adjacent to Helen Suzman Boulevard, access points are proposed as left-in and left-out movements to minimise disruption to the existing traffic flow. All proposed intersections will comply with the required intersection setbacks as determined by the transport engineer. The new internal streets are envisioned as pedestrian-focused environments, incorporating wide sidewalks, landscaping, and active building edges to create a high-quality public realm. Carriageway dimensions will align with Class 5B and 5C road standards.

Parking has been accommodated within the proposed concept design within a three-level super basement structure. According to the TIA, preliminary investigations indicate that the proposed super basement can accommodate up to approximately 1895 parking bays, and additional 80 bays on the ground level, totalling 1975 bays. The mixed-use nature of the development will also facilitate shared parking opportunities, reducing overall parking demand. Accordingly, the proposed parking provision is considered adequate to support the development. See **Appendix G4** of the draft BAR for further information.

1.6.4 Socio-Economic Impact Assessment

The proposed mixed-use development on Erf 2187, Three Anchor Bay, Green Point, through its construction and post-construction, is anticipated to result in both positive and negative socio-economic impacts (Urban Econ, 2026). According to the SEIA, **the net positive impacts associated**

with the proposed project would outweigh the net negative impacts. The positive impacts include significant economic benefits, such as increases in GDP and creation of employment opportunities, as well as socio-economic benefits such as increased housing availability and enhanced civic activity. The negative impacts associated with the proposed development are primarily local in nature, including effects on traffic flow, sense of place for nearby residents and recreational activity on the site. These impacts would affect a significantly smaller number of people than the net benefits that would be derived from the proposed development.

The table below summarises the socio-economic gains and losses that are expected to result from both the construction and the operation of the proposed development:

| | Positive | Negative |
|--------------------------|--|---|
| Construction | <ul style="list-style-type: none"> • GDP and production • Employment • Household income • Government revenue • Skills development | <ul style="list-style-type: none"> • Traffic congestion • Sense of place (visual) • Noise, dust and pollution • Access to civic activities & services • ECD centre |
| Post-construction | <ul style="list-style-type: none"> • GDP and production • Employment • Household income • Government revenue • Skills development • Access to civic activities & services • Housing availability and affordable housing • ECD care | <ul style="list-style-type: none"> • Traffic flow • Sense of place (visual) • Recreational activity |

1.6.4.1 Construction-related Impacts

The comparison of gains and losses associated with the construction phase of the project indicate that economic indicators i.e., GDP, employment, household income and government revenue are expected to experience positive effects. This indicates that from a purely economic standpoint, the project's construction would be beneficial to the local and regional economies. The main trade-offs during the construction phase would be the social impacts experienced by the surrounding community, particularly with regards to traffic congestion, visual disturbance and noise, dust and air pollution, as well as temporary disruption to civic facilities. Overall, the positive impacts on the economy are seen to outweigh the negative social effects in relation to the construction of the proposed development.

1.6.4.2 Postconstruction-related Impact

The post-construction phase of the proposed development will also result in benefits to the local and regional economies. Though not to the same scale as the construction phase, it will have positive impacts on GDP, employment, household income and government revenue. Additionally, it will improve housing availability in the area – including of affordable housing – and enhance existing civic activities. These benefits will be long-term. As is the case for the construction phase, the negative impacts of the operational phase will be limited to the immediate surroundings of the site, with the potential exception of the cumulative impacts of increased traffic. Overall, the positive impacts associated with the proposed development exceeds the negative effects.

1.7 Other studies

Other technical reports informed the Concept Design and Basic Assessment, with recommendations and mitigation measures included in this EMPr, where appropriate.

1.7.1 Engineering Services

Engineering services reports were compiled by EAS Engineers (civil) and BVi Consulting Engineers (electrical). The sewer line on the western side of the site is to be removed and relocated to the roadway. The proposed sewer line is to run in the center of the road in the service corridors connecting directly to the relocated sewer pipeline. The existing sewer line crossing the northern side of the site is to be removed. The City's capacity check is still pending at this stage and therefore there is no confirmation yet whether there will be upgrades to the existing sewer infrastructure. The development will discharge to the Green Point Wastewater Treatment Plant, which has confirmed capacity.

The existing sewer line located on the western side of the site is to be removed and relocated to the roadway. The new proposed sewer line is to run in the center of the road in the service corridors connecting directly to the relocated sewer pipeline. In addition, the existing sewer line crossing the northern side of the site is to be removed. Based on the formal capacity letter issued by the City of Cape Town on 8 June 2026, the proposed development is confirmed feasible from a water and sewer services perspective. The assessment confirms that:

- The water supply system has sufficient capacity in terms of resource availability, treatment. Storage and conveyance to accommodate the estimated potable water demand of approximately 1045kl/day.
- The water reticulation network has adequate pressure and flow capacity to supply the development without requiring bulk upgrades.
- The wastewater treatment system (Green Point outfall) has sufficient spare capacity to accommodate the estimated sewer flows.
- The 900 mm diameter bulk sewer system has sufficient capacity to convey the development flows.
- The 150mm diameter sewer (feeding the 225mm diameter pipeline along Bay Road) has insufficient capacity to convey the full development sewer flow. However, capacity can be achieved either by upgrading the small 150mm pipeline to the 900mm system or distributing flows across two sewer connections, subject to City approval.

Based on preliminary development parameters, the estimated maximum electrical demand for the site is approximately 6.7 MVA, and the development concept accommodates three new mini substations (6m × 4m each) and one primary substation (20m × 10m). Key electrical infrastructure requirements include:

- A new substation to accommodate the development load,
- New 3-feeder-group of underground cables from Mouille Point 132/11kV substation,
- Relocation and/or protection of existing buried services including medium and high voltage cables and dedicated feeds to the SABC studios,
- Internal medium- and low-voltage reticulation systems.

The proposed Three Anchor Bay development, with an estimated demand of approximately 6.7 MVA, is considered feasible from an electrical engineering perspective. Implementation will be subject to confirmation of supply capacity, statutory approvals, and detailed design. With appropriate planning and coordination, the required infrastructure can be successfully implemented. The proposed electrical infrastructure strategy assumes that the site will remain as a single development entity and that implementation will occur in phases. Continued coordination between electrical, civil and planning disciplines will be required to accommodate future stormwater infrastructure, service diversions and servitude requirements.

1.7.2 Stormwater management

A Stormwater Management Plan for the concept design has been compiled by EAS Engineers. The site naturally slopes towards Helen Suzman Boulevard (south to north), and there are areas that drain stormwater to existing inlet structures and underground pipe networks within the site and along the surrounding roads, discharging into the ocean. Attenuation of stormwater on site is not required due to the site's close proximity to the ocean, and the focus of the stormwater management plan is to improve the quality of stormwater. The appropriate stormwater management includes a combination of source controls, local and downstream controls. The proposed stormwater strategy includes water sensitive urban design (WSUD) measures such as podium bioretention systems and grass-lined swales. The selected sustainable urban drainage systems (SUDS) controls include green rooves, rainwater harvesting, conveyance swales with impermeable base, engineered podium bioswales lined with underdrain, and sand filters. These measures have been recommended to meet the municipality's pollutant removal performance outcomes ($\geq 80\%$ TSS, $\geq 45\%$ TP for brownfield sites).

Due to the proposed concept including a full-footprint basement, natural infiltration is not possible, and engineered bioswales/bioretention planters remain effective in this context. When a bioswale is placed over a slab the system functions as a podium bioretention unit and the stormwater is filtered through engineered media undergoing pollution adsorption, microbial activity and plant uptake. The stormwater is then conveyed via underdrains to grid inlet manholes (which also serve as overflow chambers during major storm events), discharging into the existing stormwater network.

The proposed development requires the relocation of existing municipal stormwater infrastructure to accommodate the proposed building footprint. The affected stormwater infrastructure are to be realigned and reconstructed to ensure the capacity, functionality and downstream conveyance of the network is preserved. A 825mm diameter pipeline will need to be relocated with two options available: Option 1 is moving the pipeline slightly away from the proposed building footprint and retaining its original crossing across the site in the Proposed Open Space 3 area. Option 2 is relocating the pipeline to run parallel along the existing stormwater pipeline along Main Road and then deviating to the nearest access road to tie back onto the 750mm diameter pipeline. Option 2 can be considered if there are any developable constraints that may be envisioned in future where the pipeline crossing the site may not be possible in the future development. However, if option 1 is preferred then this pipeline that will traverse the portion of land proposed for rezoning to Open Space 3 will require formal registered servitude.

There are various maintenance guidelines recommended to ensure long-term SUDS functionality including the inspection of stormwater infrastructure, and these have been included in section 8 of this EMP.

1.8 Impacts identified

Based on the findings of the specialist studies, a range of potential direct impacts have been identified (refer to the table below). All proposed mitigation measures and management actions are set out in Section I of the draft BAR. All mitigation and management measures proposed by the specialists, including those additional impacts and management measures identified by the EAP have also been incorporated into an Environmental Management Programme (this report) which will be used during implementation of the proposed activity to manage impacts and monitor compliance. Specialist reports are included in **Appendix G** of the BAR. Impacts associated with the proposed development have been identified and assessed as indicated in Table 2 below.

Given the nature of the proposed concept design, impacts are assessed in the BAR in two phases: construction and post-construction. The post-construction phase includes impacts related to the

physical form of the completed development (such as heritage and visual impacts), as well as operational impacts arising from the functioning of the development.

During the construction phase, the proposed activity is expected to result in both short-term negative and positive impacts on the receiving environment. These impacts are generally temporary and can be mitigated and managed through the implementation of measures outlined in the EMP.

In the post-construction phase, the development is anticipated to generate long-term positive socio-economic benefits. These include employment opportunities associated with the retail and commercial components, as well as the provision of affordable housing in close proximity to the City's CBD. The activation of a currently underutilised site through a mixed-use development comprising residential, commercial and retail uses, alongside the retention and upgrading of civic community spaces, is expected to enhance the vitality and functionality of the surrounding area.

The table below summarises the key negative impacts identified by the EAP and specialists during the EIA process, as described in the BAR¹, that require mitigation:

Table 2: Summary of impacts identified in the Basic Assessment Report

| Impact | Description |
|---------------------|--|
| Transport | <p>Construction phase</p> <ul style="list-style-type: none"> • Construction-related transport impacts are anticipated associated with heavy vehicles and other construction traffic accessing and leaving the site via Helen Suzman, Main Road and the wider road network. These impacts include increased traffic in the surrounding area and restricted access to the site. • Potential increased travel times and costs for commuters, including workers travelling between residential areas and employment nodes such as the CBD, Green Point and Sea Point. • Impact on public transport reliability, given the shared use of these corridors by buses and minibus taxis. • Temporary disruptions may also impact local businesses and service providers through reduced accessibility, as well as affect pedestrians and non-motorised users due to increased construction activity and vehicle movements <p>Post-construction phase</p> <ul style="list-style-type: none"> • Additional traffic created by the proposed development is likely to contribute to incremental increases in congestion, delays and travel times along these already busy corridors. |
| Noise and vibration | <p>Construction Phase</p> <ul style="list-style-type: none"> • Noise generated by construction machinery and equipment, while vibration is likely during bulk earthworks, demolition of structures and installation of pile foundations. These factors will affect visitors to the surrounding area, as well as the residents adjacent to the site. This includes residents of the CPOA and those living along Main Road. |
| Dust | <p>Construction Phase</p> <ul style="list-style-type: none"> • Dust generation associated with construction activities on the site, including the demolition of existing infrastructure, transport and storage of building materials (including stockpiles), and construction of new development. |

¹ refer to section H of the BAR for detailed impact tables

| | |
|----------------|---|
| | <ul style="list-style-type: none"> Dust can result in discomfort and nuisance to neighbours and surrounding land users. |
| Visual | <p>Construction phase</p> <ul style="list-style-type: none"> Construction will create a temporary disturbance to visual sense of place, due to site establishment activities, earthworks, erection of cranes and scaffolding, temporary lighting, stockpiling of materials and increased construction-related traffic. <p>Post-construction phase</p> <ul style="list-style-type: none"> Visual impacts on visual corridors, green point common interface, streetscape, infrastructure viewpoints, distance view viewpoints, and the visual character of the civic node. |
| Heritage | <p>Post-construction phase</p> <ul style="list-style-type: none"> Potential impact on the heritage significance and integrity of the Colin Eglin Library and Sea Point Civic Centre Complex Loss of a long-standing open space (the former bowling greens) Potential impact on the heritage significance of the surrounding urban landscape |
| Socio-economic | <p>Construction phase</p> <ul style="list-style-type: none"> During construction access to the library and civic centre may be partially constrained, with the potential for reduced operating capacity, temporary service interruptions or short-term closures of specific sections of the facility. The proposed development will require the demolition of the building currently occupied by the Pinocchio Crèche, which will result in a temporary disruption to the operation of an established ECD facility on the site. <p>Post-construction phase</p> <ul style="list-style-type: none"> Cessation of certain current recreational activities on the site, including a private sports club and bridge centre Visual impact on sense of place, particularly for surrounding residents |

Additional to the above table of impacts, this EMPr includes the following impacts and recommended mitigation measures:

- Waste generation and management
- Stormwater management

Appropriate waste and stormwater management are necessary to reduce potential risk to the adjacent coast and ocean.

1.9 Mitigation of impacts

This EMPr gives effect to the mitigation measures prescribed in the environmental impact assessment that are relevant to the construction phase of this project. Recommended mitigation measures prescribed by the specialists and EAP are set out in the tables below to avoid, reduce or minimise adverse impacts and enhance positive outcomes.

Table 3: Key mitigation measures prescribed by specialists

| Specialist study | Summary of specialists' mitigation measures |
|-----------------------------------|--|
| Heritage Impact Assessment | <p>Given the nature and significance of the heritage resources identified the following mitigation measures have been identified (see section 6 of Appendix G1- HIA for more details):</p> <ul style="list-style-type: none"> • The Colin Eglin Library and Sea Point Civic Centre: <ul style="list-style-type: none"> » Retaining the library and civic centre is regarded as a non-negotiable for the proposed redevelopment of the site. » Maintenance and the resolution of issues such as rainwater drainage is required and this should be undertaken under the supervision of a heritage architect with suitable experience in modernist buildings. » The conversion of the minor hall into a different kind of public space must be undertaken by a heritage architect with suitable experience in modernist buildings. It is important that the underlying structure of the building is respected. » The separation of the reading room from the library is not supported as this space is regarded as an integral part of the library. » Any extension should be accomplished by the use of light-weight gasket structures, using a simple contemporary architectural language that will not compete with the original buildings. As above any such work should be undertaken by a heritage architect with suitable experience in modernist buildings. » Only lightweight new structures should be allowed in the forecourt. The design of such structures should be cognisant of the original landscaping design and should not compete with the building complex. Low, unroofed structures are preferred with the use of removable structures for shelter (e.g., umbrellas). • Conservation of Built and Cultural Heritage Elements: <ul style="list-style-type: none"> » The electrical substation should be recorded as an example of an industrial building of its period. » Where possible all memorabilia of the bowling clubs should be preserved and handed over to remaining clubs in the area, that have absorbed the members of these clubs. • Retention of the eucalyptus trees and tree lines: <ul style="list-style-type: none"> » The proposal includes the retention and protection of the eucalyptus tree avenue on the eastern portion of the site, recognising its heritage significance and ensuring its conservation as a key historical landscape element. » Tree loss should be minimised as far as possible and offset through the implementation of a comprehensive landscaping plan, aimed at softening the visual impact of the proposed development. • Additional mitigation measures include: <ul style="list-style-type: none"> » Retaining key view lines through the site and adjusting the placement and orientation of the proposed hotel building to accommodate and preserve these views. |

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| | <ul style="list-style-type: none"> » Ensuring an appropriate built form, scale and massing that responds to the surrounding context, with building heights aligned to the area and architectural articulation reflecting the existing urban grain. » Incorporation of active street frontages along Main Road to enhance streetscape vitality and pedestrian engagement. » Protection and retention of the existing contemporary tree landscape along Main Road. » Provision of a landscaped interface along Helen Suzman Boulevard to soften the infrastructural edge and improve visual integration. |
| Transport Impact Assessment (Traffic Impacts) | <p>The transport impact assessment recommended the following mitigation measures:</p> <ul style="list-style-type: none"> • Improved intersection operation by optimising signal phasing and timings at key intersections, including Three Anchor Bay Road/Main Road, Three Anchor Bay/Beach Road, Helen Suzman Boulevard/Beach Road and Main Road/York Road, to improve the traffic flow and operations at these intersections. No capacity constraints are expected once the traffic signals have been optimised and spare capacity will be available. • Retention of the existing two left-in/left-out (LILLO) access points along Three Anchor Bay Road and Main Road to continue to provide access to the public library, the civic centre and the crèche. • Provision of three access points along Main Road, located opposite Richmond Road, St Bedes Road and Hill Road. • Signalisation of the Richmond Road access, with one lane per direction, while the St Bede's Road and Hill Road accesses will be stop-controlled on the development side, also with one lane per direction. The Hill Road access will be restricted to provide access to the hotel component of the development only. • Reconfiguration of the two existing access points along Helen Suzman Boulevard into a left-in-only access and a left-out-only egress, with improved spacing to enhance safety and traffic flow. • Ensuring that all access gates remain open during operational hours of the facilities, to minimise congestion and delays. • Provision for increased public transport demand, in line with the site's location within a PT2 Zone. • The layout of the proposed development must promote the inclusion of non-motorised transport (NMT), with the internal road network incorporating dedicated pedestrian and cycling infrastructure/facilities. • Sidewalks must be provided along the frontage of the site and tie into the existing sidewalks. • Pedestrian and cycle facilities should be provided along the internal road network. • Application of PT1 Zone parking rates to the development, despite its location within a PT2 Zone, where most land uses are not required to provide on-site parking. |
| Visual Impact Assessment | <p>It should be noted that the mitigation measures identified in the visual impact assessment are largely embedded within the development concept itself in order to reduce visual impacts. Mitigation measures include:</p> <ul style="list-style-type: none"> • Retention of the four identified visual corridors (St Bede's Road Corridor, Hill Road Corridor, Clyde Road Corridor and Wigtown Road Corridor). Corridors which should: <ul style="list-style-type: none"> ○ Remain visually open; ○ Maintain a minimum visual width of approximately 10m; ○ Align with the surrounding street network; and ○ Remain free of continuous built form. |

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| | <ul style="list-style-type: none"> • Articulated building massing, ensuring that the built form remains fragmented, visually permeable and compatible with the surrounding scale, while avoiding continuous megastructure-type developments. • A graduated building height strategy, with heights generally ranging between 30-45m along Main Road and the Common, and up to 45m along Helen Suzman Boulevard. Selective height accents may be permitted at appropriate locations, while uniform building heights should be avoided. • Sensitive interface with the Green Point Common, including landscaped edges, limited enclosure, maintained visual openness and articulated building forms. • Active and pedestrian-oriented Main Road interface, incorporating active frontages, articulated façades, pedestrian-scale elements and well-defined human-scaled public spaces. • Where development interfaces directly with retained civic or heritage buildings, the following visual indicators should apply. <ul style="list-style-type: none"> » Retained civic buildings must remain visually legible as primary heritage elements, rather than being visually subordinated by new additions; » Additional bulk above retained heritage structures should read as visually recessive, lightweight, understated, and subordinate to the host structure; » Where feasible, additional floors should be materially setback from principal façades and roof edges to reduce visual dominance and preserve the original architectural reading; » Interventions should avoid reading as arbitrary or heavy rooftop additions; » Development should not compromise the legibility or openness of the civic forecourt, public gathering spaces, or key spatial relationships between civic buildings; » Compatibility does not require mimicry, but requires coherent proportional, material, and compositional dialogue; » Comparable precedent should be drawn from interventions where contemporary additions are demonstrably recessive and spatially integrated, rather than visually dominant or formally alien; » Where architecturally significant internal volumes or roof forms exist, interventions requiring structural compromise should be approached with caution. |
|--|---|

Table 4: Key mitigation measures prescribed by the project team

| Additional impacts | Summary of recommended mitigation measures |
|---------------------------|--|
| Stormwater Impacts | <p>The following overarching stormwater management mitigation measures were recommended:</p> <ul style="list-style-type: none"> • The redevelopment of Erf 2187, Three Anchor Bay requires a treatment-focused stormwater strategy since the attenuation of storms greater than 1 year is not required due to the site's immediate proximity to the Atlantic Ocean which was confirmed during discussions with the City of Cape Town. • The existing municipal stormwater pipelines transversing the site must be relocated into the surrounding road reserves to protect the infrastructure and accommodate the proposed building footprint. • The proposed conceptual stormwater strategy combines the use of green roofs, rainwater harvesting, pretreatment zones, lined grassed swales, and engineered podium bioretention/bioswales area which also meets the municipality's pollutant removal performance outcomes ($\geq 80\%$ TSS, $\geq 45\%$ TP for brownfield sites). |

| | |
|----------------------------|--|
| | <ul style="list-style-type: none"> • If any part of the stormwater infrastructure is maintained by the City of Cape Town, servitudes and formal access rights will be required in accordance with the Stormwater Management By-law (2005). • All invert levels, freeboard, grades and hydraulic connectivity need to be confirmed during detailed design. • The City of Cape Town requires all brownfield developments to plan and design stormwater systems using Water Sensitive Urban Design (WSUD) and Sustainable Urban Drainage Systems (SUDs) to improve runoff quality, control quantity and encourage groundwater recharge where appropriate. • The following stormwater maintenance guidelines needs to be implemented to ensure the long-term functionality of Sustainable Urban Drainage (SUDs): <ul style="list-style-type: none"> » Each grid inlet needs to be inspected and cleared of any buildup of silt, litter, or rubble that may impede the clear flow of water into the inlet. » Piped systems need to be checked in a systematic way to ensure they are clear of any obstructions and are able to flow at their full capacity. Any buildup of silt or other obstruction is to be removed by hand or by jetting. » Grassed swales are to be inspected every three months and mowed if required. » Green roofs are to be inspected on a monthly basis during the first year and thereafter quarterly inspections. » Quarterly inspections to clean gutters, screens and remove sediment build-up in the tank sump if visible. <p>Monthly gravel inspections for the first year and thereafter quarterly inspections.</p> |
| Dust impacts | <ul style="list-style-type: none"> • Compliance with the National Dust Control Regulations (GN No. R827 of 1 November 2013), promulgated in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) by ensuring that construction activity does not produce dust more than stipulated thresholds to the detriment of the environment and human health. • Restriction of working hours during weekdays in line with municipal and provincial requirements. • The use of non-potable water for dust stabilisation. • Stockpiles of sand and stone must be effectively stabilised and must be covered or sealed if dust generation is apparent. • Excavation, handling, and transportation of erodible materials must be avoided under high wind conditions. • The compiling of a Dust Method Statement to be reviewed by the ECO. |
| Noise and vibration | <ul style="list-style-type: none"> • Compliance with policies regarding noise and vibration regulation methods close to roads and residential areas. • Restriction of working hours during weekdays in line with municipal and provincial requirements. • Use of machinery in good working order. • No amplified music on site. • Machinery to be fitted with silencers when noise levels are excessively high on site. • Maintaining complaints register on site |
| Waste impacts | <ul style="list-style-type: none"> • Effective implementation of appropriate waste management methods statements and monitoring for compliance during construction (refer to section 5 for detailed recommendations) |

2. APPROACH AND STRUCTURE

2.1 Structure of EMPr

The EMPr is structured as a set of nested environmental management plans, as shown in Figure 4. Aspects of these will be supplemented by more detailed levels of planning as and when the proposed development is implemented, as indicated:

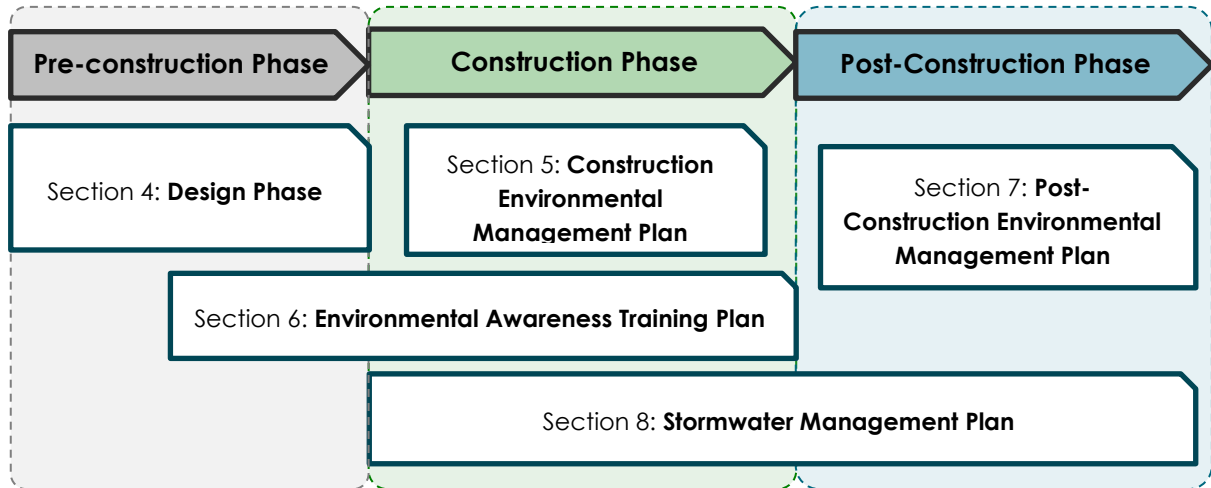


Figure 4: Schematic of EMPr content and structure

Important to note:

- The Pre-construction Design Phase includes key recommendations made by various specialists and professionals pertaining to the physical design of the development and form part of the parameters within which future development of the site should occur.
- The specialist recommendations and Urban Design Guidelines are expected to inform the ultimate design and development of the site.
- The implementation of these recommendations is expected to mitigate the potential negative impacts of the development and enhance the positive impacts.
- In this EMPr, the Post-Construction Phase impacts and mitigation measures relate to the operation of the development, as proposed in the Concept Design, namely socio-economic and transport related impacts.

2.2 Legislative compliance

A key objective of the EMPr is to satisfy the requirements of Appendix 4 of the amended NEMA EIA Regulations published in Government Notice No. R 326 of 7 April 2017. These regulations prescribe the content of the EMPr and specify the type of supporting information that must accompany the submission of the report to the competent authority. An overview of where the requirements are addressed in this EMPr is presented in Table 4.

Table 4: Compliance with EIA Appendix 4 Requirements

| Appendix 4 of EIA Regulations | |
|---|---|
| 1. An EMPr must include- (a) details of- (i) the EAP who prepared the EMPr; and (ii) the expertise of that EAP to prepare an EMPr, including a curriculum vitae; | Section 1.2 |
| (b) a detailed description of the aspects of the activity that are covered by the EMPr as identified by the project description; | Section 1.3 to Section 1.8 |
| c) a map at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffers; | Figures 3 (no environmental sensitivities) |
| (d) a description of the impact management outcomes, including management statements, identifying the impacts and risks that need to be avoided, managed and mitigated as identified through the environmental impact assessment process for all phases of the development including- (i) planning and design; (ii) pre-construction activities; (iii) construction activities; (iv) rehabilitation of the environment after construction and where applicable post closure; and (v) where relevant, operation activities; | Section 4, 5, and 7; 2 nd column of the table |
| e) a description of proposed impact management actions, identifying the manner in which the impact management outcomes contemplated in paragraph (d) will be achieved, and must, where applicable, include actions to (i) avoid, modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation; (ii) comply with any prescribed environmental management standards or practices; (iii) comply with any applicable provisions of the Act regarding closure, where applicable; and (iv) comply with any provisions of the Act regarding financial provision for rehabilitation, where applicable; | Sections 4, 5, and 7; 3 rd column of the table |
| (f) the method of monitoring the implementation of the impact management actions contemplated in paragraph (f); | Sections 4, 5 and 7; 4 th column of table |
| g) the frequency of monitoring the implementation of the impact management actions contemplated in paragraph (f); | Sections 4, 5 and 7; 5 th column of table |
| (h) an indication of the persons who will be responsible for the implementation of the impact management actions; | Sections 4, 5 and 7; 6 th column of table |
| (i) the time periods within which the impact management actions contemplated in paragraph (f) must be implemented; | Sections 4, 5 and 7; 5 th column of table |
| j) the mechanism for monitoring compliance with the impact management actions contemplated in paragraph (f); | Sections 4, 5 and 7; 4 th |

| | column of table |
|--|---|
| (k) a program for reporting on compliance, taking into account the requirements as prescribed by the Regulations; | Sections 4, 5 and 7; responsible parties noted in Section 3 |
| l) an environmental awareness plan describing the manner in which— (i) the applicant intends to inform his or her employees of any environmental risk which may result from their work; and (ii) risks must be dealt with in order to avoid pollution or the degradation of the environment; and | Section 6 |
| m) any specific information that may be required by the competent authority | N/A |

2.3 Content of the EMPr

Where applicable, each section of the EMPr is divided into two phases of the project life cycle, namely:

- The **Design Phase**, which will partly coincide and follow the Basic Assessment process
- The **Construction Phase**, which begins with commencement of physical activities on site and ends when the development has been fully constructed; and
- The **Post-Construction Phase**, which includes the impacts associated with the physical form of the development once construction has been completed (e.g. heritage and visual), as well as operational impacts anticipated with the operation of different elements of the concept design (e.g. traffic and commercial use).

There is likely to be overlap between the two phases. A decommissioning phase is not included, as it is not anticipated that water and sewer infrastructure will be decommissioned.

The EMPr includes the findings and recommendations of the EIA Process and specialist studies and or compliance statements. The EMPr may be updated with additional information or actions during the construction, and post-construction phases if applicable. A standardised approach is followed, in which outcomes are set, followed by management actions aimed at achieving the objectives. Management actions are accompanied by monitoring requirements, responsibilities, and targets where applicable. A tabular format is used for ease of reference.

Key terms used in the EMPr include:

- **Impact:** The potential positive or negative impact of the development that needs to be enhanced, mitigated or eliminated (as appropriate) to a desired state.
- **Outcomes (objectives):** The desired state after mitigation or management.
- **Management Actions:** The actions needed to achieve the objectives of enhancing, mitigating or eliminating impacts; taking into consideration factors such as responsibility, methods, frequency, resources required and prioritisation.
- **Monitoring:** The key monitoring actions required to check whether the outcomes are being achieved, taking into consideration methodology, frequency and responsibility.

2.4 Overarching objective

The overarching objective, from which the detail contained in this EMPr flows, is **to construct and operate the project in a manner that -**

- **Reduces** the risk of pollution or damage to ground or surface water, ecosystems, soils and air.
- **Minimises** nuisance and disruption to people residing in, working in or moving through the area.
- **Adheres** to all relevant environmental legislation.

2.5 Amendment of this EMPr

- Amendments shall be made as and when required to keep this EMPr up to date, and to provide for adaptive management in support of the management outcomes set out in the approved EMPr and the EIA.
- The EMPr may be amended due to:
 - » Legislative changes;
 - » Changes to the roles and organisational structure set out in chapter 3;
 - » Amendments to the environmental authorisation;
 - » Audits of the EMPr carried out in terms of the EIA Regulations;
 - » Based on the annual reviews as set out below; or
 - » Whenever deemed necessary by the competent authority.
- Amendments will be numbered sequentially (e.g. Amendment 001, Amendment 002, Amendment 003 etc.). The status of a particular page shall be reflected in the appropriate space of each page. Each amendment shall also have an effective date (the date on which the amendment was made).
- Amendments to the impact management **actions** may be effected immediately by the authorisation holder and must be reflected in the next environmental audit report submitted to the competent authority in terms of regulation 34 of the EIA Regulations. The record of revisions must be updated accordingly, and the revision number and status of a particular page shall be reflected in the appropriate space of each page.
- Amendments to the impact management **outcomes** stipulated in this EMPr are subject to an application for amendment to the competent authority, which must be submitted for approval by the authorisation holder and may require public participation. Such an amendment shall only become effective once approved by the competent authority.

2.6 Review of this EMPr

- The EMPr should be reviewed if and when deemed necessary.
- The Authorisation Holder will keep a record of all dates of review, even if review did not necessitate an amendment to the EMPr.
- The review may take the form of an internal audit or may form part of the external audit conducted in terms of regulation 34 of the EIA Regulations.
- The main aims of a review of the EMPr for purposes of a revision will, among other things, be to determine the following:
 - » Ability of the EMPr to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity on an ongoing basis
 - » Conformity and adherence to the minimum legislative requirements;
 - » Simplicity and clarity of the content and text; or
 - » The incorporation of practical experience gained during implementation

3. PROJECT ROLES AND STRUCTURE

The general roles to be defined are those of the:

- Authorisation Holder
- Environmental Control Officer (ECO)
- Contractor (Principal Contractor / Project Manager); and
- Environmental Auditor

The specific titles referred to may vary, but the intent of this section is to broadly define expectations and responsibilities for key role players in the implementation of the EMPr.

3.1 Authorisation Holder

The Applicant, the City of Cape Town Property Development Branch will be the holder of the Environmental Authorisation (EA), should it be issued, will therefore be responsible for ensuring that the conditions of such authorisation are fully adhered to. It is expected that the authorisation holder will appoint the Environmental Control Officer (ECO) and Contractor during the construction phase.

The authorisation holder remains ultimately responsible for the implementation of all environmental management actions and shall implement such management systems and agreements as may be necessary to provide for oversight, and assurance of compliance during all phases of the development. Commonly, responsibilities borne by the Authorisation Holder are delegated to a project manager.

Key responsibilities include ensuring that:

- The ECO is provided with the necessary information in order to adequately undertake their responsibilities;
- This EMPr is included in the contractual agreements with all contractors and subcontractors,
- Method Statements requested by the ECO are provided timeously;
- Corrective action is implemented as required; and
- Appropriate records and information regarding compliance with the EMPr requirements are maintained and made available to the ECO.

3.2 Environmental Control Officer

An independent Environmental Control Officer (ECO) must be appointed for the duration of the construction phase of the development to ensure compliance with the EMPr and conditions of the EA. The ECO's role also includes monitoring compliance with other environmental legislation, the monitoring of environmental impacts, and the keeping of accurate records.

The ECO shall update the EMPr when necessary and shall compile a monitoring checklist or protocol based on the EMPr. The ECO's role includes the following aspects:

- Periodic environmental audits during the construction phase of the proposed project to monitor and record environmental impacts and nonconformances, and to monitor site activities to ensure adherence to the specifications contained in the EMPr, using a monitoring checklist.
- Maintain a record of site visits and audits, a copy of the environmental authorisation (should it be granted) and other permits and licenses, a register of non-conformances, and a copy of previous environmental audits.
- Prior to construction commencement, the ECO must meet on site with the Contractor representative to confirm designated development and no-go areas and to confirm the method statements required.

- Request, review and approve Method Statements from the contractor and sub-contractors prior to the commencement of the activities concerned.
- Ensure that the contractors and sub-contractors and their employees have received the appropriate environmental awareness training.
- Meet with the contractors and sub-contractors to discuss the implementation of this document.
- Identify appropriate corrective measures if transgressions occur.
- Keep a register of monitoring activities and results
- Assist in finding environmentally acceptable solutions to implementation problems.
- Identify and make amendments to the EMPr where appropriate.
- Conduct an environmental inspection on completion of the implementation period and prepare a close-out report.

The Contractor and individual contractors may designate Environmental Officers to liaise with the ECO on environmental matters.

3.3 Contractor

The role of the contractor is as follows:

- The Contractor shall ensure that all employees, contractors and sub-contractors are made aware of the EMPr and their responsibilities.
- Prior to construction commencement, the Contractor must meet on site with the ECO representative to confirm designated development and no-go areas and to confirm the method statements required.
- Liaise with the ECO and Authorisation Holder (or representative) and ensure that works on site are conducted in an environmentally sensitive manner in accordance with this EMPr.
- Maintain on site a copy of this EMPr and all environmental authorisations and licenses pertinent to the development on site.
- Ensure that all appointed contractors and sub-contractors repair, at their own cost, any environmental damage because of a contravention of the specifications contained in the EMPr, to the satisfaction of the Project Owner's ECO.
- Ensure that all employees (permanent and temporary) and all sub-contractors that work on the site for longer than two days, receive environmental awareness training within one week of being on site.
- Designate an Environmental Officer (or employ a designated suitably qualified individual to fulfil the role of an Environmental Officer) to monitor and report on the daily activities on-site during the construction period.

3.4 Environmental Auditor

The Environmental Auditor is an independent environmental auditor appointed by the Authorisation Holder in compliance with Regulation 34 of the EIA Regulations at a frequency specified in the conditions of the environmental authorisation.

It is recommended that the auditing frequency be as follows:

- Three months after the commencement of construction activities;
- Every six months thereafter; and
- At the end of the construction phase.

An Environmental Auditor must be appointed for the duration of the construction phase of the development responsible for assessing the ECO's and subsequently the Contractor's compliance

with environmental regulations, policies, and standards as stipulated in the EMPr and ECO Reports. The auditor shall be independent from both the EAP and the ECO and shall not have any financial or other interest in the activities being audited, other than fair remuneration. The primary objective is to audit compliance with the EA and associated EMPr.

Key requirements for an audit report would typically include:

- Verifiable findings on the level of compliance with the authorisation conditions;
- Findings on the ability of the EMPr to provide for avoidance, management and mitigation of impacts; and
- Recommendations for corrective actions to rectify any shortcomings that may be identified.

The Environmental Auditor shall:

- Review the environmental authorisation, EMPr, and assessment reports contained in the Contractor's file to obtain an understanding of potential impacts, assessed significance and proposed avoidance, management and mitigation measures.
- Prepare an audit checklist against which audit findings can be determined, based on the conditions of the EA, the EMPr, and any other considerations relating to potential impacts.
- Conduct a site inspection to verify physical compliance during implementation.
- Conducting follow-up audits to ensure that corrective actions have been implemented and to verify ongoing compliance.
- Audit construction-related documentation including ECO monitoring reports, the Contractor's environmental site records and files, and photographic records to identify any non-compliances and/or shortcomings.
- Prepare an audit report in line with the requirements of Appendix 7 of the EIA Regulations of 2014 (as amended) and the specific requirements of the environmental authorisation

4. DESIGN PHASE

The Urban Design Guidelines and Development Requirements Report, required for the land use management process and town planning application, is expected to incorporate the various specialists' recommendations. The report will establish urban design principles and guidelines, development requirements and parameters, additional design and land release guidelines, and illustrative test diagrams, all of which will respond to the identified indicators and sensitivities relating to the site. Therefore, the implementation of the Urban Design Guidelines and Development Requirements Report is expected to ensure that the ultimate development of the site minimises impacts associated with the design of the development.

The Basic Assessment Report (BAR) and associated appendices describe the design indicators and mitigation measures in detail.

Impact on heritage resources

The following recommendations are described in the HIA (Appendix G1) and are included in the BAR as conditions of approval:

- Any work to the Civic Centre and Library building complex – maintenance, repairs, alterations and additions are to be undertaken by, or with the input and monitoring of a heritage architect with suitable experience in modernist buildings and any alterations and additions should be subject to a further assessment, public consultation and approval by HWC.
- The future repair, upkeep and maintenance of the Civic Centre and Library building complex, be specifically set as a condition of the EA approval (to be provided in the agreement with a successful bidder for the property)
- The submission of urban design guidelines, to be presented to HWC for endorsement at SDP stage, and prior to any building plan approval. All further site development plan development or building plans should be substantially in accordance with the urban design guidelines or otherwise referred to HWC for approval.
- Further detailed plans based on the Landscape Master Plan prepared by a suitably qualified landscape architect with the urban design guidelines for endorsement by HWC at SDP stage.

Impact on trees of heritage and landscape significance

- A detailed Landscape Master Plan is to be provided at Precinct Plan level and should, inter alia, provide details of tree protection.
- Development is to be setback from the Main Road boundary, as per the Landscape Master Plan.
- The recommendations of the tree survey (Appendix L5 of the BAR) should be implemented.

Impact of basement parking on groundwater

The depth to groundwater is mapped to be 7.55 mbgl according to CapeFarmMapper3. The proposed concept design is intended as a framework from which the final development is to be determined. Depending on the final development design and extent of basement parking included, a hydrogeological specialist may be required and relevant water use application undertaken (dewatering activities between 50 to 100 cubic metres a day requires a General

Authorisation for the water use, and anything exceeding 100 cubic metres a day requires a Water Use Licence Application in terms of GN 665 of 2013).

Ultimately, the future development of the site should align with the recommendations made by the specialists and be designed within the set of parameters determined by the proposed concept design. Given the iterative design process, if the development falls within the framework described in the draft BAR, the various negative impacts identified by the specialists and EAP are expected to be adequately mitigated and the positive impacts maximised. The development should provide residential opportunities (including market-led affordable housing), retail, hotel, other commercial uses and improved civic services that benefit the surrounding communities

5. CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

The outcomes, management measures, and monitoring requirements detailed in this section are applicable only to the construction phase of the proposed development, defined as including any and all phases of the development during which land clearing, bulk earthworks, the installation of civil services, and the construction of temporary structures and construction works occur.

| Environmental aspect or impact | Impact Management Outcomes | Impact Management Actions | Monitoring Actions | | |
|--|--|---|--|--|----------------------|
| | | | Method | Frequency | Responsibility |
| 5.1 Site establishment | » To ensure that the site camp and laydown areas are situated at an appropriate location with minimal visual impact. | 5.1.1 Select site office, camp and laydown areas on sections of the site which minimise unnecessary disturbance. | » Site establishment method statement and site layout plan to be prepared and approved by ECO prior to commencement of construction. » Check that demarcation is in place during inspection. » Monitor the placement of the site camp via visual inspections, and record and report any noncompliance. | » Once off prior to commencement | » Contractor and ECO |
| | | 5.1.2 Site camps, laydown area and stockpiling must be placed within the site boundary. | | | |
| | | 5.1.3 Pre-commencement inspection to be undertaken by ECO to identify suitable areas for the site camp and laydown areas. | | | |
| | | 5.1.4 Environmental Awareness Training for Contractor's representatives to ensure that all the requirements of this EMP are understood. | | | |
| | | 5.1.5 Site camp complies with the Occupational Health and Safety Act, including the provision of first aid and firefighting equipment and external display of emergency contact numbers. Name of responsible person in terms of safety must be included in the Method Statement. | | | |
| | » Minimisation of impacts and disturbance to surrounding areas and users. | 5.1.6 Compile Site Establishment Plan, which contains a layout sketch of the site area for approval by ECO | » ECO Inspection Checklist to ratify layout plan with photographic records of site layout | » Layout reviewed once-off during establishment, » Ongoing monitoring of compliance | » Contractor and ECO |
| | | 5.1.7 Provide screened portable toilets, waste collection facilities, and secure storage for hazardous material | | | |
| | | 5.1.8 Install spill kits and bunded fuel storage areas before equipment is used on site | | | |
| | | 5.1.9 Ensure signage, fencing and controlled access are in place to restrict unauthorised entry on site | | | |
| 5.2 Construction phase fulfilment of the performance criteria | » Contractor compliance with EMP and | 5.2.1 Contractor to maintain an Environmental File at the construction camp, which should include all relevant | » Contractor should keep a thorough record of any incidents and inform | » Ongoing throughout construction | » Contractor and ECO |

| Environmental aspect or impact | Impact Management Outcomes | Impact Management Actions | Monitoring Actions | | |
|--|--|---|--|---|----------------------------------|
| | | | Method | Frequency | Responsibility |
| <p>to avoid any surrounding habitat degradation, non-compliance with legislation and/or delays</p> | <p>Environmental Authorisation (EA) conditions to minimise environmental risk to acceptable thresholds and to correct performance where necessary.</p> | <p>5.2.2 authorisations/permits, monitoring records, training logs and incident reports.</p> <p>5.2.3 Contractor must undertake regular toolbox talks on performance expectations and corrective measures.</p> <p>5.2.3 Monitor construction work and ensure that contractors adhere to the guidelines in respect of littering, sanitation, spills of toxic substances and general behaviour.</p> <p>5.2.4 ECO to issue Non-Compliance Fines and require corrective action plans, if criteria are not met in accordance with Section 9 of the EMPr.</p> | <p>Authorisation holder and ECO of any anticipated delays in construction performance.</p> <p>» Contractor must regularly train and educate personnel of the implications of non-compliance with performance criteria (i.e. during toolbox talks).</p> <p>» ECO to monitor construction performance and issue fines for non-compliance to Contractor, where necessary.</p> | <p>phase (Contractor to supervise worker behaviour via weekly toolbox talks and daily monitoring)</p> <p>» Monthly ECO inspections and ad-hoc monitoring after any incidents occur.</p> | |
| <p>5.3 Manage and inform construction personnel to prevent and/or minimise adverse impacts on the environment</p> | <p>» Instil environmental awareness in construction workforce to ensure compliance with site rules, protection of vegetation from unauthorised access or disturbance and appropriate conduct on site to minimise impacts</p> | <p>5.3.1 Conduct Environmental Awareness Training (induction) and toolbox talks for all personnel before starting work and more regularly, if needed, to ensure regular training and education of personnel on the implications of actions on the environment and inform personnel of measures to minimise and prevent environmental harm.</p> <p>5.3.2 Retain attendance register for environmental induction as well as complaints register, and any record of disciplinary action undertaken within the Environmental File to be kept on site.</p> <p>5.3.3 Ensure sufficient toilets (at least one toilet per 15 construction personnel), potable water, and waste disposal facilities are provided and maintained on site.</p> <p>5.3.4 Restrict access on site to authorised personnel only; enforce Personal Protection Equipment (PPE) and safety requirements.</p> | <p>» Routine toolbox talks to educate workers.</p> <p>» ECO Site Inspections to monitor compliance and inform contractor of any misconduct, where such arises.</p> | <p>» Weekly toolbox talks and daily oversight of workers</p> <p>» Monthly site inspections</p> | <p>» Contractor</p> <p>» ECO</p> |

| Environmental aspect or impact | Impact Management Outcomes | Impact Management Actions | Monitoring Actions | | |
|---|---|--|--|---|--|
| | | | Method | Frequency | Responsibility |
| | | 5.3.5 Engage Authorisation Holder (an/or other communication liaison officer, if appointed) to address complaints or grievances quickly. | | | |
| 5.4 Impacts of Stormwater runoff | <ul style="list-style-type: none"> » Prevent discharge of sediment-laden water into the stormwater system » Prevent polluted stormwater from the site discharging into the ocean | 5.4.1 All stockpiles must be protected from erosion and stored on flat areas where runoff will be minimised. 5.4.2 Emergency plans must be in place to deal with potential spillages. 5.4.3 Ensure any sediment-laden water is not directly discharged into the stormwater system. Refer to Section 8 of this document for details regarding stormwater system maintenance. | <ul style="list-style-type: none"> » Monitor the excavations and stockpiling process throughout the construction phase via visual site inspections. Record non-compliance and incidents. | <ul style="list-style-type: none"> » During site inspections | <ul style="list-style-type: none"> » Contractor and ECO |
| 5.5 Waste Management | <ul style="list-style-type: none"> » Manage waste in accordance with legislation and best practice methods. » Minimise the production of general waste. » Prevent pollution or contamination due to improper waste handling or storage » Prevent construction-related waste | 5.5.1 Contractor is to prepare and implement a detailed waste management plan, for the construction phase of the development, based on the principles of waste minimisation and incorporating waste reduction, recycling, reuse and appropriate disposal methods where applicable. 5.5.2 Designate a waste management area, which should be an area of hardstanding with a roof and sides or consist of separate bins and skips. 5.5.3 The contractor shall provide scavenger and weatherproof bins with lids, of sufficient number and capacity to store the solid waste produced on a daily basis. The lids shall be kept firmly on the bins at all times. 5.5.4 Bins are not allowed to become 'overfull' and shall be emptied regularly, at least once a week. 5.5.5 The construction site should be kept near and clean at all times with strict prohibitions to littering. 5.5.6 Litter and construction waste should be collected on site by the end of each day and stored in bins, skips or other suitable storage area. | <ul style="list-style-type: none"> » Waste removal and disposal to be monitored. Monitor via site audits and record non-compliance and incidents. » Monitor waste disposal slips and waybills via site audits and record non-compliance and incidents. | <ul style="list-style-type: none"> » Weekly » Compliance monitoring with monthly site inspections | <ul style="list-style-type: none"> » Contractor and ECO |

| Environmental aspect or impact | Impact Management Outcomes | Impact Management Actions | Monitoring Actions | | |
|--------------------------------|---|--|--|---|-----------------------------|
| | | | Method | Frequency | Responsibility |
| | from reaching the ocean and coast | <p>5.5.7 Food waste must be stored in bins or skips that are covered and cannot be accessed by flies or rodents.</p> <p>5.5.8 Waste should be separated into hazardous, general, and recyclable waste streams, with clearly designated bins and skips for each waste type.</p> <p>5.5.9 Hazardous wastes, including materials contaminated with oils and hydrocarbons must be removed from site by a suitably licensed contractor and manifests provided.</p> <p>5.5.10 Other non-hazardous solid waste (e.g., refuse) to be disposed of at a licensed landfill.</p> <p>5.5.11 A suitable waste contractor must be appointed to collect waste from site on a regular basis for correct disposal. Proof of disposal (waybills or waste disposal slips) must be retained and kept on file for auditing purposes.</p> <p>5.5.12 If the volumes of waste stored exceed 80m³ for hazardous waste and/or 100m³ for general waste the National Environmental Management: Waste Act (NEM:WA) National Norms and Standards for the Storage of Waste in terms of Government Notice (GN) No. 926 of 29 November 2013 must be adhered to.</p> <p>5.5.13 All rubble and waste are to be removed from site regularly and completely removed from site at the end of the construction phase.</p> <p>5.5.14 A method statement for the management of waste should be prepared by the Contractor and reviewed by the ECO.</p> | | | |
| 5.6 Visual Impacts | » Minimise visual disturbance during construction | <p>5.6.1 Eucalyptus and other mature trees identified for retention must be clearly demarcated and appropriately fenced off to prevent storage, stockpiling, dumping, or any other activities that may cause damage or intrusion within these protected areas. A setback of approximately 6 m from each tree stem should be maintained, subject to variation</p> | <p>» Review method statement for site camp establishment for locational and visual management measures</p> <p>» Monitor by visual inspections.</p> <p>» Complaints register to be maintained on site</p> | <p>» Prior to construction</p> <p>» Monthly</p> | <p>» Contractor and ECO</p> |

| Environmental aspect or impact | Impact Management Outcomes | Impact Management Actions | Monitoring Actions | | |
|--------------------------------|--|--|---|---|----------------------|
| | | | Method | Frequency | Responsibility |
| | | depending on the species and size of the individual tree. 5.6.2 Screen site camps and laydown areas with shade cloth or similar, where possible and appropriate. 5.6.3 Manage stockpile and laydown areas for cleanliness and appearance. 5.6.4 Maintain good housekeeping practices. 5.6.5 Roof and screen waste areas. 5.6.6 Avoid unnecessary signage or advertisement on site. 5.6.7 Restrict the activities and movement of construction workers and vehicles to the immediate construction site as much as possible. 5.6.8 Ensure that rubble, litter and disused construction materials are removed regularly. 5.6.9 The site camp must be kept neat and tidy, and free of litter at all times. 5.6.10 The site camp, storage facilities, stockpiles, waste bins, and any other temporary structures on site should be located in such a way that they will present as little visual impact to surrounding residents and road users as possible. | | | |
| 5.7 Noise and vibration | » Noise disturbance is minimised or avoided » Avoid unnecessary noise generation » Avoid causing a nuisance to adjacent landowners | 5.7.1 All construction and maintenance equipment utilised, and activities undertaken must be compliant with the Western Cape Noise Control Regulations P.N. 200/2013. 5.7.2 Use of serviced and well-maintained machinery in good working condition. 5.7.3 Noise levels must comply with the relevant health & safety regulations and South African National Standards (SANS) codes and should be monitored by the Health & Safety Officer as necessary and appropriate. 5.7.4 No unnecessary noise should be allowed on site, such as music, unnecessary shouting and similar. 5.7.5 Restrict construction activities generating noise outputs of 85 dB (A) or more to the working hours of | » Monitor activities, and record and report non-compliance with management actions » Maintain complaints register on site. If two or more noise complaints are received, the ECO must investigate whether the noise generated on the site exceeds the thresholds outlined in the Western Cape Noise Control Regulations (P.N. 200/2013). | » Noise complaint register updated as needed throughout construction phase. » Inspection by ECO monthly or as needed (whichever is more frequent). | » Contractor and ECO |

| Environmental aspect or impact | Impact Management Outcomes | Impact Management Actions | Monitoring Actions | | |
|---|--|---|---|---|-----------------------------|
| | | | Method | Frequency | Responsibility |
| | | <p>08h00 to 17h00 Mondays to Saturdays. Should the Contractor need to conduct work outside of these hours, the approval of the ECO must be obtained, and surrounding communities must be informed prior to the work taking place.</p> <p>5.7.6 Restriction of working hours in line with municipal and provincial requirements.</p> <p>5.7.7 No amplified music shall be allowed on site. The use of audio equipment shall not be permitted unless the volume is kept sufficiently low to be unobtrusive. The Contractor shall not use sound amplification equipment on Site, unless in emergency situations.</p> <p>5.7.8 If excessive noise is expected on the boundary of the site, neighbouring properties must be informed in writing and in advance of when the high noise levels will occur and for how long they will occur.</p> <p>5.7.9 If noise levels at the site boundary are excessively high (i.e., above 70 dBA during the day, as stipulated in SANS 10103), machinery must be fitted with silencers.</p> <p>5.7.10 Silencers must be installed and mounted on machinery, vehicles and earth-moving equipment</p> <p>5.7.11 The Contractor must post signage indicating contact details of the Contractor and/or ECO on the site to allow for reporting of complaints.</p> <p>5.7.12 A complaints register should be available on site, to note any noise complaints received from neighbouring properties or community members.</p> | | | |
| <p>5.8 Traffic related impacts</p> | <p>Minimise traffic congestion, especially along Helen Suzman Boulevard and Main Road where construction vehicles will access site during peak hours</p> | <p>5.8.1 Contractor to prepare a traffic accommodation plan or method statement for approval by the City of Cape Town prior to any works impacting on the public road network.</p> <p>5.8.2 Communication regarding potential access limitations must be issued to potentially affected parties prior to works occurring in the area.</p> | <p>» Review Transport Management Plan, if applicable</p> <p>» Observe traffic congestion and monitor complaints register during construction.</p> | <p>» During construction, monthly ECO inspections</p> | <p>» Contractor and ECO</p> |

| Environmental aspect or impact | Impact Management Outcomes | Impact Management Actions | Monitoring Actions | | |
|--------------------------------|--|---|---|--------------------------------------|----------------------|
| | | | Method | Frequency | Responsibility |
| | | 5.8.3 Use a flag person to direct traffic when construction vehicles are moving. 5.8.4 The contractor must provide a traffic marshal for situations where heavy construction traffic may impede normal traffic flows on any roads adjacent to the site. 5.8.5 A traffic marshal should be posted at the entrance to the site to assist with the safe and smooth flow of vehicles on the road whilst heavy construction traffic is entering and existing the site. 5.8.6 All drivers and machinery operators must be sensitised to the fact that they are working in an area with a potentially high volume of vehicle traffic and must exercise due caution when entering/exiting the site. 5.8.7 All vehicles travelling on site will adhere to the specified speed limits. 5.8.8 No construction transport may access the site after normal working hours as defined by the local authority. 5.8.9 Contact information for Contractor and ECO to be posted in a manner visible to road users to facilitate reporting of complaints and incidents. | | | |
| 5.9 Dust impacts | Prevent dust generation due to construction activities, i.e., the movement of machinery resulting in the emission of dust during bulk earthworks | 5.9.1 Dust generated from all activities related to the proposed construction activities must comply with the National Dust Control Regulations (GN No. R. 827 of 1 November 2013), promulgated in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) by ensuring that construction activity does not produce dust in excess of stipulated thresholds to the detriment of the environment and human health. 5.9.2 Adherence to the City of Cape Town Air Quality Management By-law (2016) adopt the best practical environmental option to the satisfaction of the | » Review dust management method statement prior to construction commencing » ECO to monitor activities and record and report any non-compliances | » Ongoing through construction phase | » Contractor and ECO |

| Environmental aspect or impact | Impact Management Outcomes | Impact Management Actions | Monitoring Actions | | |
|--------------------------------|----------------------------|---|--------------------|-----------|----------------|
| | | | Method | Frequency | Responsibility |
| | | <p>authorised official to prevent and abate dust emissions.</p> <p>5.9.3 Building materials that may generate dust, such as dry stockpiled dredged material or other (where stockpiling is required), must be covered or regularly moistened during windy conditions to prevent dust emissions.</p> <p>5.9.4 The movement of site personnel and machinery over exposed soil should be minimised particularly in proximity to high-use roads.</p> <p>5.9.5 Exposed surfaces should be stabilised immediately. Area left bare for longer than two weeks must be covered to reduce windblown dust.</p> <p>5.9.6 Work should be staged to minimise the area of disturbed ground at any given time, before working on other areas.</p> <p>5.9.7 Screening and/or temporary fencing to control the movement of sand on the site should be installed if necessary.</p> <p>5.9.8 Non-potable water should be used for short-term dust stabilisation. Where possible, waterless methods should be investigated for dust suppression and stabilisation purposes.</p> <p>5.9.9 Excavation, handling, and transportation of erodible materials must be avoided under high wind conditions.</p> <p>5.9.10 Stockpiles of sand and stone must be effectively stabilised and must be covered or sealed if dust generation is apparent.</p> <p>5.9.11 All vehicles transporting sand and spoil must have tarpaulins covering their loads to reduce spillage and windblown dust.</p> <p>5.9.12 Off-road vehicle and plant movements within the site must be avoided as far as possible, and strict speed limits must be enforced to reduce dust generation.</p> <p>5.9.13 Dust fallout monitoring in terms of the National Dust Regulations should be undertaken should it become</p> | | | |

| Environmental aspect or impact | Impact Management Outcomes | Impact Management Actions | Monitoring Actions | | |
|---|--|--|--|---|--|
| | | | Method | Frequency | Responsibility |
| | | <p>evident that the dust mitigation measures are not effectively and efficiently managed and controlled during the construction phase.</p> <p>5.9.14 Should the need arise; the City's Air Quality Officer will call for the implementation of a Dustfall Monitoring Programme, which will require the holder of the Environmental Authorisation to submit monitoring reports at his discretion. The dustfall rates must prove compliance with the prescribed dustfall rates. Should dustfall results show dustfall rates to be above permissible standards, the Dust Management Plan may need to be amended and submitted to the City's Air Quality Officer for review, approval and authorisation.</p> <p>5.9.15 Site screening methods, if deemed necessary, may be implemented to minimise potential dust nuisances.</p> | | | |
| 5.10 Water Consumption | » Minimise water usage | <p>5.10.1 The use of potable water for construction purposes is to be avoided, with alternative sources including treated effluent or rainwater to be prioritised.</p> <p>5.10.2 Hoses, tanks and water trucks are to be regularly checked for leaks and repaired immediately.</p> <p>5.10.3 The Contractor is to monitor quantities of water used for construction purposes and report on this aspect during site meetings.</p> | <p>» Monitor water use documentation</p> <p>» Check for leaks and misuse of water during site walkthroughs</p> | » Monthly ECO site inspections | » Contractor and ECO |
| 5.11 Handling of concrete and cement | » To control concrete and cement batching activities in order to reduce spillages and resulting in the contamination of soil and/or groundwater. | <p>5.11.1 A method statement for the handling, storing and mixing of cement must be compiled by the Contractor and reviewed by the ECO for approval.</p> <p>5.11.2 If any concrete mixing takes place on site, this must be carried out in a clearly marked, designated area on the site camp on an impermeable surface (such as on boards or plastic sheeting and/or within a bunded area with an impermeable surface).</p> <p>5.11.3 Bagged cement must be stored in an appropriate facility.</p> | » Monitor via monthly site inspections and record non-compliance and incidents. | <p>» Ongoing during the construction phase</p> <p>» Monthly</p> | <p>» Contractor and ECO</p> <p>» ECO</p> |

| Environmental aspect or impact | Impact Management Outcomes | Impact Management Actions | Monitoring Actions | | |
|--------------------------------|--|---|--------------------|-----------|----------------|
| | | | Method | Frequency | Responsibility |
| | » Prevent construction-related waste from reaching the ocean and coast | <p>5.11.4 A washout facility must be provided for washing of concrete associated equipment. Water used for washing must be restricted and should be collected for re-use and/or offsite disposal at an appropriate facility.</p> <p>5.11.5 Water containing cement should under no circumstances be discharged on site or into stormwater drains.</p> <p>5.11.6 Cement contaminated equipment is to be washed so that contaminated water does not enter stormwater or groundwater.</p> <p>5.11.7 Hardened concrete from the washout facility or concrete mixer can either be reused or disposed of at an appropriate licensed disposal facility. Proof of disposal (i.e., waste disposal slips or waybills) should be retained on file for auditing purposes.</p> <p>5.11.8 Empty cement bags must be secured with adequate binding material if these will be temporarily stored on site. Empty cement bags must be collected from the construction area at the end of every day. Sand and aggregates containing cement must be kept damp to prevent the generation of dust.</p> <p>5.11.9 Any excess sand, stone and cement must be removed from site at the completion of the construction period and disposed at a licensed waste disposal facility.</p> | | | |

| Environmental aspect or impact | Impact Management Outcomes | Impact Management Actions | Monitoring Actions | | |
|--|--|---|--|--|----------------------|
| | | | Method | Frequency | Responsibility |
| 5.12 Handling of Hazardous substances | » To control and eliminate fuel and oil spillages which may result in soil, groundwater and surface water contamination. » Prevent construction-related waste from reaching the ocean and coast | 5.12.1 Ensure that adequate containment structures are provided for the temporary storage of liquid dangerous goods and hazardous materials on site (i.e., chemicals, oil, fuel, hydraulic fluids etc). appropriate bund areas must be provided for the storage of these materials at the site camp. Bund areas should contain an impervious surface in order to prevent spillages from entering the ground. Bund areas should have a capacity of 110% of the volume of the largest tank in the bund (tanks include storage of fuel/diesel). | » Monitor the storage and handling of dangerous goods and hazardous materials on site via site audits and record non-compliance and incidents. | » Ongoing throughout the construction phase » Monthly during site inspections | » Contractor and ECO |
| | | 5.12.2 Monitor and inspect construction equipment and vehicles to ensure that no fuel spillage takes place. Ensure that drip trays are provided for construction equipment and vehicles as required. | | | |
| | | 5.12.3 Contractor to compile a Method Statement for refuelling activities under normal and emergency situations. If on-site servicing and refuelling is required in emergency situations, a designated area must be created at the construction site camp for this purpose. Drip trays or similar impervious material must be used during these procedures. | | | |
| | | 5.12.4 Spilled fuel, oil or grease must be retrieved and contaminated soil removed, cleaned and replaced. | | | |
| | | 5.12.5 Contaminated soil to be collected by the Contractor (under observation of the ECO) and disposed of at a registered waste facility designated for this purpose. Proof of disposal (i.e. waste disposal slips or waybills) should be retained on file for auditing purposes. All material used to clean hazardous material spills must be considered as hazardous waste, together with contaminated soil. Moreover, if hazardous waste is mixed with general waste, the entire content of waste | | | |
| | | | » Monitor the construction equipment and vehicles and monitor the occurrence of spills and the management process thereof. | » Daily and during spill events | |
| | | | » Verify if a Method Statement is compiled by reviewing approved and signed off reports. | » Once-off prior to commencement of construction | |
| | | | » Monitor the refuelling/servicing process and record the occurrence of any spillages. | » During emergency refuelling and servicing activities | |

| Environmental aspect or impact | Impact Management Outcomes | Impact Management Actions | Monitoring Actions | | |
|--------------------------------|----------------------------|--|---|---|----------------|
| | | | Method | Frequency | Responsibility |
| | | <p>must be seen as hazardous and therefore be disposed at a licenced hazardous disposal facility.</p> <p>5.12.6 A Spill Response Method Statement must be compiled by the Contractor for the construction phase in order to manage potential spill events.</p> <p>5.12.7 The Contractor must ensure that adequate spill containment and clean-up equipment are provided on site for use during spill events.</p> <p>5.12.8 Portable bioremediation kit (to remedy chemical spills) to be held on site and used as required.</p> <p>5.12.9 Any event resulting in the spill or leak of fuels or any other hazardous solvents into the ground , surface water or ocean (e.g., chemicals, oil, fuel, hydraulic fluids, lubricating oils, etc) must be reported to all relevant authorities, including DEA&DP Directorate: Pollution and Chemicals Management, as well as the Department of Water and Sanitation, within fourteen days.</p> <p>5.12.10 In case of a spillage of hazardous chemicals where contamination of soil occurs, depending on the degree and level of contamination, excavation and removal to a hazardous waste facility could be necessary. If the spillage is widespread and the soil is considered to be significantly contaminated, a specialist will need to be immediately appointed to address the spillage. This will usually entail the collection of samples of the contaminated soil followed by analysis in terms of the 2014 National Norms and Standards for the Remediation of Contaminated Land and Soil Quality (i.e. GN 331). If the soil is determined to be significantly contaminated, then compliance with Part 8 of the NEMWA should be achieved by the Applicant,</p> | <p>» Monitor the handling and storage of fuels and oils via site audits and monitor if spillages have taken place and if so, are removed correctly.</p> <p>» Monitor waste disposal slips and waybills via site audits and record non-compliance and incidents.</p> | <p>» Weekly</p> <p>» Monthly</p> | |
| | | | <p>» Monitor the correct removal of contaminated soil. Monitor waste disposal slips and waybills via site audits and record non-compliance.</p> <p>» Compile a Spill Response Method Statement.</p> <p>» Audit signed and approved Spill Response Method Statement.</p> <p>» Monitor via site audits and record incidents and non-compliance.</p> | <p>» After spill events</p> <p>» Once-off prior to commencement</p> <p>» Throughout construction phase</p> <p>» Monthly</p> | |

| Environmental aspect or impact | Impact Management Outcomes | Impact Management Actions | Monitoring Actions | | |
|--------------------------------|----------------------------|---|---|--|----------------|
| | | | Method | Frequency | Responsibility |
| | | <p>including notifying the Minister of Environmental Affairs of the significant contamination.</p> <p>5.12.11 The Contractor must record and document all significant spill events.</p> | <p>» Ensure that a well-maintained bioremediation / appropriate spill kit is available on site and that construction personnel and contractors are aware of its location and instructions.</p> <p>» Notify ECO and authorities and keep copies of written notification.</p> | <p>» Monthly</p> <p>» After events</p> <p>» After events</p> <p>» After events</p> | |

| Environmental aspect or impact | Impact Management Outcomes | Impact Management Actions | Monitoring Actions | | |
|---|--|--|--|---|--|
| | | | Method | Frequency | Responsibility |
| 5.13 Demolition of existing buildings | » Minimise dust, waste, asbestos, and noise pollution. | 5.13.1 Building rubble is to be disposed of at a licensed facility | » Method statement to be provided to ECO regarding demolition methodology » Waste disposal slips are to be placed in Environmental File on site | » Prior to commencement of construction » During the demolition stage | » Contractor and ECO |
| | | 5.13.2 Dust suppression measures implemented, as described above in this table | | | |
| | | 5.13.3 Noise pollution measures to be implemented as described above in this table | | | |
| | | 5.13.4 The electrical substation should be recorded as an example of an industrial building of its period. 5.13.5 Where possible all memorabilia of the bowling clubs should be preserved and handed over remaining clubs in the area, that have absorbed the members of these clubs. | » Record of the substation as an example of an industrial building to made | » Prior to demolition commences | » Authorisation holder (a heritage specialist should prepare the record of the substation) |
| 5.13.6 Should any roof or portion of any existing buildings contain asbestos, the Department of Labour, as the competent authority must be informed of and approve any works related to the said asbestos. Furthermore, such asbestos work is to be conducted in accordance with the 2020 Asbestos Abatement Regulations, R1196, as amended by Notice R11435 of 2022. | » The demolition work should be conducted by a registered asbestos contractor as required by the Asbestos Abatement Regulations. | » Determine the presence of asbestos in buildings to be demolished prior to construction commencement. | » Authorisation holder and Contractor | | |
| 5.14 Preservation of existing eucalyptus tree glade and tree line along Main Road | » Trees protected using Tree Protection Zones | 5.14.1 No changes to existing soil levels should occur within the TPZ. | » Tree Protection Zones (TPZ's) should be demarcated around identified eucalyptus trees, as defined in the Tree Survey, » No excavation, trenching, paving, stockpiling, vehicle parking or any construction-related activities should occur within the TPZ. » Soil compaction within the TPZ should be avoided. | » Prior to the commencement of construction activities » Ongoing throughout construction phase | » Authorisation holder, Contractor, Arborist and ECO |
| | | 5.14.2 Where tree removal is proposed, transplanting should first be investigated as a feasible alternative. | | | |
| | | 5.14.3 Trees should only be removed where they pose an unmanageable risk to public health, property or infrastructure | | | |
| | | 5.14.4 Although relatively few other trees on the site will be lost, the effective replacement of these through a comprehensive landscaping plan for the site will be important to soften the impact of the relatively intense urban development and create a pleasant environment. | | | |

| Environmental aspect or impact | Impact Management Outcomes | Impact Management Actions | Monitoring Actions | | |
|--------------------------------|----------------------------|---------------------------|--|-----------|----------------|
| | | | Method | Frequency | Responsibility |
| | | 5.14.5 | <ul style="list-style-type: none"> » Construction materials, equipment, and waste should not be stored beneath the tree canopies or within the TPZ. » A qualified arborist should be consulted regarding any tree pruning, transplanting or removal. | | |

6. ENVIRONMENTAL AWARENESS TRAINING PLAN

This section outlines the training by which the authorisation holder (via its appointed contractor during the construction phase) will inform its employees of environmental risks and the manner in which risks must be dealt with to avoid pollution or degradation of the environment. It may be adapted as needed to suit the circumstances in which it is implemented.

| Course | Required attendees | Presented by | Course content | Timing | Records to be kept |
|--|---|---|--|---|---|
| 6.1 Construction phase Environmental Awareness Training for manager | <ul style="list-style-type: none"> » Project Manager appointed by the authorisation holder » Principal contractor's contract manager, site agents, and assistant site agents (as applicable) » Contractor's designated environmental officer or Safety, Health and Environment or SHE representative | » ECO | 6.1.1 Overview of environmental authorisations and permits granted 6.1.2 Basic environmental law 6.1.3 Roles of the ECO, authorisation holder, project manager, and contractor 6.1.4 Purpose and content of method statements 6.1.5 Site sensitivities, including locations and sensitivity of wetland areas and conservation areas (if applicable) 6.1.6 Management actions and measures for the construction phase as detailed in this EMPr 6.1.7 Record keeping requirements 6.1.8 Emergency procedures 6.1.9 Reporting and compliance monitoring | » Prior to commencement of construction | <ul style="list-style-type: none"> » Declaration of adherence to Construction phase EMPr, signed by Contractor's representative; and » Register of attendance |
| 6.2 Environmental Awareness Training for site personnel | <ul style="list-style-type: none"> » All site staff and personnel, including temporary staff and visitors to site » Maximum of 20 attendees at any one session | » Contractor's designated environmental officer | Environmental do's and don'ts, including: 6.2.1 Access to work areas, location and identification of no-go areas 6.2.2 Smoking and fires 6.2.3 Storing and handling fuels and oils 6.2.4 Storing and handling chemicals | » Before any staff member begins work on site | » Register of attendance, identifying all attendees by name and ID number, the topics covered, the presenter, and the date and time. |

| Course | Required attendees | Presented by | Course content | Timing | Records to be kept |
|--------|--------------------|--------------|--|--------|--------------------|
| | | | 6.2.5 Management of cement, cement bags, slurry, and wash water 6.2.6 Dust and noise 6.2.7 Water wastage 6.2.8 Waste management and litter 6.2.9 Waste site management 6.2.10 Ablution facilities 6.2.11 Plant and machinery maintenance and load management 6.2.12 Accident and incident reporting | | |

7. POST-CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

The outcomes, management measures, and monitoring requirements detailed in this section are applicable only to the post-construction phase of the proposed development. The impacts associated with the physical form of the development once construction has been completed (e.g. heritage and visual) have been included in the design phase. The impacts associated with the operation of different elements of the concept design (e.g. socio-economic and transport impacts) are described below:

| Environmental aspect or impact | Impact Management Outcomes | Impact Management Actions |
|-----------------------------------|--|---|
| 7.1 Socio-economic impacts | » Sustained impact on GDP and production (Permanent increase in GDP and production due to operation of the proposed development) | 7.1.1 Operators of the development should prioritise local procurement practices for the sourcing of materials as well as the hiring of staff and contracting of services as far as feasible to maximise local economic benefits |
| | » Sustained impact on employment (Creation of permanent employment opportunities due to the ongoing operation and maintenance of the proposed development) | 7.1.2 Efforts should be made to sub-contract to local companies, particularly SMMEs and BBBEE compliant enterprises, where feasible |
| | » Sustained impact on household income (Permanent increase in household income for those employed at the proposed development) | 7.1.3 Operators of the development should hire employees from local communities where feasible to create maximum benefits for local workers |
| | » Sustained impact on government revenue (Sustained increase in government revenue) | |
| | » Sustained impact on skills development (Opportunities for skills development in retail, hospitality and facilities management) | |
| | » Sustained impact on traffic flow (Increased traffic volumes resulting in increased traffic congestion in the surrounding area) | 7.1.4 Development should be well integrated with public transport and non-motorised transport infrastructure 7.1.5 Optimisation of signal phasing and timings at surrounding intersections, as per traffic impact assessment |

| Environmental aspect or impact | Impact Management Outcomes | Impact Management Actions |
|--|---|---|
| | | 7.1.6 All access gates to remain open during operating hours of retail, hotel, office and community land uses to prevent queuing during peak hours, as per traffic impact assessment |
| | » Sustained impact on sense of place (visual) (Visual impact on sense of place, particularly for surrounding residents) | 7.1.7 Maintain compliance with VIA design guidelines (height gradation, visual corridors, permeability) 7.1.8 Consider shading and visual interface treatment along sensitive edges (e.g. Main Road) |
| | » Sustained impact on land values (Increase in land values of surrounding properties due to rezoning and development of underutilised land) | 7.1.9 Not applicable |
| | » Sustained impact on ECD care (Provision of a purpose-built ECD facility as part of the development) | 7.1.10 Ensure that the ECD facility is purpose-built and designed to meet current operational and regulatory requirements, including adequate indoor and outdoor space. |
| | » Sustained impact on access to civic facilities and services (Improved access, functionality and quality of civic facilities (library and civic centre)) | 7.1.11 Ensure that facility upgrades are aligned with needs of the community and serve to improve the functioning and longevity of the civic infrastructure |
| | » Sustained impact on recreational activity (Cessation of certain current recreational activities on the site) | 7.1.12 Not applicable |
| | » Sustained impact on housing availability and affordable housing (Increase in housing availability in the Three Anchor Bay/Green Point area) | 7.1.13 Inclusion of a requirement for development of affordable housing within the development rights/conditions, ideally at 20% as per the development concept |
| 7.2 Anticipated transport impacts | » Optimise signal phasing and timing at identified intersections: Three Anchor Bay Road/Main Road, Three Anchor Bay Road/Beach Road, Helen Suzman Boulevard/Beach Road, and Main Road/York Road | 7.2.1 Recommended changes must be reviewed, approved, designed, and implemented through the City's Urban Mobility Directorate |

8. STORMWATER GENERAL MAINTENANCE/MANAGEMENT GUIDELINES

The redevelopment of Erf 2187, Three Anchor Bay requires a treatment-focused stormwater strategy since the attenuation of storms greater than 1 year is not required due to the site's immediate proximity to the Atlantic Ocean which was confirmed during discussions with the City of Cape Town.

- The existing municipal stormwater pipelines transversing the site must be relocated into the surrounding road reserves to protect the infrastructure and accommodate the proposed building footprint.
- The proposed conceptual stormwater strategy combines the use of green roofs, rainwater harvesting, pretreatment zones, lined grassed swales, and engineered podium bioretention/bioswales area which also meets the municipality's pollutant removal performance outcomes ($\geq 80\%$ TSS, $\geq 45\%$ TP for brownfield sites).
- If any part of the stormwater infrastructure is maintained by the City of Cape Town, servitudes and formal access rights will be required in accordance with the Stormwater Management By-law (2005).
- All invert levels, freeboard, grades and hydraulic connectivity need to be confirmed during detailed design.

The City of Cape Town requires all brownfield developments to plan and design stormwater systems using Water Sensitive Urban Design (WSUD) and Sustainable Urban Drainage Systems (SUDs) to improve runoff quality, control quantity and encourage groundwater recharge where appropriate. The following stormwater maintenance guidelines needs to be implemented to ensure the long-term functionality of Sustainable Urban Drainage (SUDs): To ensure that the effective functioning of the stormwater management system on the proposed site and to prevent flooding, erosion and blockages during storm events, routine inspections and maintenance of all recommended stormwater infrastructure must be undertaken. The following maintenance guidelines set out by the Stormwater Management Plan prepared by EAS Engineers (2026) are recommended as part of the Environmental Management Programme:

| Stormwater urban drainage control type: | Maintenance/management action | Inspection frequency | Corrective action | Responsibility |
|---|---|--|---|---|
| 8.1 7.1 Grid Inlets | » Each grid inlet needs to be inspected and cleared to ensure free flow of stormwater and prevent blockages. Remove any buildup silt, litter, vegetation or rubble. | » Regular inspections, particularly before and after storm events. | » Remove any debris or sediment that may obstruct the inlet and impede the flow of water. | » Public infrastructure: municipality » Private infrastructure: property owner / property management |
| 8.2 7.2 Piped Stormwater System | » Inspect piped system to ensure pipes are unobstructed and functioning at full capacity. | » Periodic and systematic inspections. | » Remove sediment or obstructions manually (by hand) or through jetting where necessary. | |
| 8.3 7.3 Grassed Swales | » Inspect grass and ensure that swales are litter free. Mow grass if required to ensure effective drainage. | » Quarterly inspections. | » Mow grass when necessary and remove litter or debris during inspections. | |
| 8.4 7.4 Green roofs | » Inspect vegetation and drainage components to ensure functionality. | » Monthly inspections for the first year after installation, thereafter quarterly inspections. Additional inspection after major storm events. | » Clear downpipes and overflow channels if blocked and address any drainage issues. | |
| 8.5 7.5 Rainwater Harvesting Systems | » Inspect gutters, inlet screens and storage tanks to ensure proper operation. | » Quarterly inspections | » Clean gutters and screens and remove visible sediment buildup in the tank sump. | |
| 8.6 7.6 Gravel Diaphragm | » Inspect the structure of gravel diaphragm to ensure stability and effective drainage. | » Monthly inspections for the first year, thereafter quarterly. Additional inspection after major storm event. | » Repair any scour or damage observed. | |
| 8.7 7.7 Bioswales / Bioretention Facilities | » Sediment management – maintain vegetation and ensure systems remain free of litter and excessive sediment. Monitor drainage performance. | » Monthly inspections during the first year, thereafter quarterly inspections to remove litter and maintain vegetation. | » Remove litter, manage vegetation, remove accumulated sediment and flush the underdrain if drainage performance decreases. | |

9. TOLERANCE FOR NON-COMPLIANCE(S)

The tolerance section is included in this EMPr to ensure that non-compliances with the EMPr, conditions of the EA and/or other statutory requirements are addressed in a fair, transparent, and enforceable manner. Where transgressions occur, the Authorisation Holder and/or the ECO has the authority to impose fines on the responsible Contractor and/or Sub-contractors, in addition to any remedial costs incurred for such incident. This process ensures accountability, prevents repeated infringements, and secures compliance with contractual and environmental obligations by deducting fines directly from monies due under the contract.

Guiding Principles

- » All contractors and construction personnel must comply with the EMPr.
- » Non-compliance will be recorded by the ECO in the Environmental Inspection Checklist and reported to the Authorisation Holder as well as the relevant authority, if serious.
- » The Contractor is contractually liable for fines imposed for non-compliances as well as for any costs incurred as a result of the non-compliance/transgression/knock-on(related) incidents.

Tolerance and Escalation for non-compliance(s)

1. **First instance non-compliance** must be noted and handled via verbal warning to the Contractor from the ECO. The verbal warning must explain where in the EMPr/EA condition/other statutory requirement the non-compliance has occurred and involve agreement on corrective action within a specific timeframe.
2. **Second instance non-compliance** must be addressed via written warning with a deadline and key indicators for rectification.
3. **Third instance non-compliance** must involve a monetary fine imposed on the Contractor or relevant Sub-contractor, as per the fine schedule presented in section 7.3 below.
4. **Persistent or severe non-compliances** must involve a stoppage of implementation works should the non-compliance involve major consequences for the environment. Costs incurred for the delay in performance due to stoppage of works must fall on the implicated Contractor and/or sub-contractor. Works must be stopped only until such time that the non-compliance can be rectified.

Fine Schedule

The following non-compliances will incur the corresponding fine should non-compliance persist a third occurrence (in alignment with the Environmental Management Specification forming part of the Contractor contractual obligations).

- Vehicles, plant or materials related to the Contractor's operations, parked or stored outside the demarcated boundaries of the Site: R2 000.00 per incident.
- Persons, vehicles, plant or materials related to the Contractor's operations, found within the designated boundaries of a "no go" area: R4 000.00 per incident.
- Littering, poor housekeeping (including poor maintenance of toilets), or unauthorised waste disposal: R 1 000.00 per incident.
- Persistent and unrepaired oil leaks from machinery/not using a drip tray to collect waste oil and other lubricants/not using specified absorbent material to encapsulate hydrocarbon spillage/using inappropriate methods of refuelling (the use of a funnel rather than a pump): R3 000.00 per incident.

- Failure to provide spill kits, firefighting equipment, or sanitary facilities: R1 000.00 per incident.
- Nuisance factors such as excessive dust and/or noise emanating from site: R 1 000.00 per incident.
- Refuelling in areas not approved by the Employer's Agent: R 3 000.00 per incident.
- Individual not making use of the Site ablution facilities: R 1 000.00 per incident.
- Unwarranted erosion of the intertidal banks of the lower Milnerton lagoon: R5 000.00 per incident put rectification costs.
- Hydrocarbon or other spillage of water contaminated with pollutants such as cement, concrete, fuel etc., without adequate containment or reporting: R2 000.00 per incident plus clean-up costs.
- Deliberate lighting of illegal fires on site: R 5 000.00 per incident.
- Damage to trees not specified to be removed: R 5 000.00 per incident.
- Destruction of protected species, heritage resources, or significant environmental damage: R20 000.00 minimum, subject to legal action.
- Commencement of Works without an approved Method Statement: R 4 000.00 per incident.

Fine Administration

The ECO must identify any on-compliance instances on site and initiate the escalation for such non-compliance(s) as outlined above.

The Contractor and/or Sub-contractor implicated for any non-compliances during the implementation phase must pay any fines issued to them due to the escalation of non-compliance to the third occurrence. Fines must be paid to the Authorisation Holder, who, together with the ECO, is responsible for monitoring the corrective actions to ensure the non-compliance is properly addressed.

The Authorisation Holder is responsible to enforce fines through contractual agreement(s), where necessary, and comply with any escalation consequences and for adhering to any escalation measures or other processes prescribed by the Competent Authority.

Fines must be deducted from the implicated Contractor and/or Sub-contractor's payment schedule. The payment of any fines does not absolve the implicated Contractor and/or Sub-contractor from the costs and actions required to correct and account for the non-compliance nor does the settlement of fines rectify the need for, or initiation of, any legal action under environmental or related legislation by any third party.

10. LIST OF METHOD STATEMENTS TO BE PREPARED PRIOR TO COMMENCEMENT

In line with the 2017 Environmental Impact Assessment Regulations (as amended), this EMP utilises an outcomes-based approach of specific objectives and targets allows the Contractor to propose its own methods for achieving them. Outcomes based conditions allow the Contractor to innovate; draw on company expertise; consider site specific conditions when planning how task/activity specific methods shall be undertaken in order to achieve the outcome. Consequently, greater emphasis shall be upon Employers Agent (with support from the ECO) to review and approve Contractor's method statements and ECO verification whether actions proposed provide suitable mitigation to achieve desired outcome. The Contractor shall submit method statements to the Employers Agent for approval prior to the commencement of related activities.

The method statement shall be submitted to the ECO and/or Employers Agent for approval at the agreed timeframe prior to the commencement of the activity. Should the Employers Agent ascertain that the detail of the method statement is not sufficient, the method statement shall be returned to the Contractor for review and re-submission.

Upon acceptance of the method statement, both the Employers Agent and the Contractor shall sign the method statement denoting mutual agreement that the contents thereof meet the minimum requirements to successfully complete the activity. By signing the method statement, the Contractor commits to working in accordance with the agreed method. **The list is non-exhaustive as additional method statements may be requested during the construction phase:**

10.1 Site Camp Establishment

The Contractor's Camp and Materials Storage Area must be located in consultation with the ECO. The Contractor must submit a Method Statement for this Site Camp placement, at least 5 (five) working days before establishing the Site Camp. The contents of this Method Statement must include a layout plan showing any offices, stores, vehicle parking, equipment, fuel, oil storage areas, toilet placement, equipment, and materials stockpile.

10.2 Waste Management

Expected solid waste types and quantities must be provided. Provide details regarding how solid and liquid waste generated on the construction site and site camp will be collected, stored, transported, and disposed of. Details of any service provider(s) appointed to manage this task must also be provided.

10.3 Cement handling

Location of cement storage area and layout must be illustrated on site camp layout. How the area will be prepared, managed, and maintained must be provided. Mixing methods must be explained and how cement/concrete will be handled. Containment of runoff water from areas within which cement/concrete works is being undertaken must be provided. Transportation and handling methods of cement/concrete must be provided

10.4 Dust and Noise Control

Details and methodology of dust and noise control measures that will be undertaken during the construction phase.

10.5 Traffic Management

Details of traffic safety measures must be provided. This includes details (or drawings) showing where and how access points and routes will be located and managed.

During construction, public traffic and construction traffic shall be managed using an approved traffic plan, which includes speed controls. This may be included in the Method Statement required. This should be approved by the appropriate traffic authority to ensure adherence and compliance with all necessary legislation. Additional method statements may be requested by the ECO if and when necessary.

10.6 Site clean up and rehabilitation

The Contractor shall ensure that all temporary structures, equipment, materials, wastes, and facilities used are removed upon completion of the contract. The site clean-up must be to the satisfaction of the ECO. A site closure checklist will only be given once the site has been closed

10.7 Hazardous substances

Details of how hazardous substances or materials to be used, and the transportation, storage, handling and disposal of these substances or materials. The location, layout, and fuel storage area is to be provided. This includes potential service areas, and fuel handling areas (dispensing purposes) and management of drip trays and spill kits.

10.8 Demolition of buildings

Detailed description of how existing buildings on site will be demolished, and measures implemented to minimise dust, waste, and noise pollution emanating from this. In addition, asbestos management measures will need to be implemented when demolition is taking place.

10.9 Access management

Detailed access plan must be provided for existing facilities during the construction phase to minimise disturbance, including the library and civic centre.

11. LIST OF APPENDICES

| Appendix No. | Contents | Revision date | Revised by | Effective Date |
|--------------|----------|---------------|----------------|----------------|
| 1 | EAP CV | June 2026 | Tarryn Solomon | June 2026 |
| | | | | |

TARRYN SOLOMON

Environmental Assessment Practitioner | Director

Contact

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Collingwood Building
 Black River Park
 Observatory 7925

Professional body

EAPASA
 IAIAAsa

Reg. No.

Reg. E.A.P 2019/1671
 IAIAAsa 5838

Years' experience

Eighteen years

Education and

Certifications

- B.Sc., Environmental and Water Science (UWC)
- Quality Management Systems and Audit
- Safety Management Systems
- Train the Trainer (Facilitator)
- ISO 14001 EMS Lead Implementer
- ISO 14001 EMS Lead Auditor

Nationality

South African

Languages

English, Afrikaans

Tarryn Solomon is a founding director of Infinity Environmental. With more than 18 years' experience in the built environment sector, she has diverse experience in all aspects of integrated environmental management and has steered several large-scale projects for public- and private-sector clients in the infrastructure and housing sectors.

She is responsible for project management and business development, including consulting services associated with:

- Advising public and private-sector clients on environmental feasibility, legislation, and risks
- Managing Environmental Impact Assessment (EIA) and Basic Assessment (BA) processes for environmental authorisation
- Development of environmental policy and analyses for strategic and spatial planning instruments
- Planning for construction- and operation-phase environmental management, including preparation of site-specific environmental management programmes (EMPr)
- Management of permitting and licensing processes for air emissions, water uses, waste management, and mining
- Monitoring and auditing of environmental compliance as an Environmental Control Officer (ECO) or independent auditor
- Lifespan environmental compliance, including the management of decommissioning and contaminated land processes
- Public participation and stakeholder engagement, including planning and facilitation of consultation
- Facilitates Environmental Awareness Training.
- Provides independent external review of environmental assessments
- Operational environmental management auditing

Tarryn is passionate about the development and advancement of young professionals in the built environment sector and continues to mentor graduates.

PROJECT EXPERIENCE

DATE

CLIENT

Environmental Impact Assessments

| | | |
|---|-------------------|----------------------------------|
| Environmental Baseline and Feasibility, Environmental Impact Assessment for the Redevelopment of Mowbray Golf Course | 2024 – current | City of Cape Town |
| Environmental Baseline and Feasibility, Environmental Impact Assessment for the Redevelopment of Three Anchor Bay, Greenpoint | 2024 – current | City of Cape Town |
| Environmental Impact Assessment for the proposed re-development of Stikland North and South Hospital Precinct, in Stikland | 2022 - current | Western Cape Government |
| Amended to Environmental Authorisation for the Upgrade of Gwaing River Bridge along N2, Section 7, George Local Municipality | March – June 2026 | SANRAL |
| Environmental Impact Assessment for the proposed Development of the Granger Bay Precinct and Reclamation of Land at the V&A Waterfront in Cape Town | 2024 – Current | V&A Waterfront |
| Environmental Impact Assessment for the proposed Strandfontein Coastal Urban Node Development | 2023-2024 | City of Cape Town |
| Environmental Basic Assessment and facilitator for the Muizenberg Beachfront Upgrades, in Muizenberg | 2022-2023 | City of Cape Town |
| Environmental Set-back line adoption for the Refurbishment of Strandfontein Pavilion | 2025 | City of Cape Town |
| Project Co-ordinator and Public Facilitator for the Heritage Screening in pursuit of investigating National Heritage Resource Act Exemptions Areas | 2022-2023 | City of Cape Town |
| Environmental and stakeholder engagement component of a masterplan for the Athlone Central Business District in Cape Town | 2022 | City of Cape Town |
| Environmental and stakeholder engagement component of a masterplan for the Diep River area in Cape Town | 2022 | City of Cape Town |
| Environmental and stakeholder engagement for the Foreshore Masterplan Precinct, Cape Town | 2021 | City of Cape Town |
| Scoping and EIA for an urban development framework on the 500-ha Swartklip site, Khayelitsha, Cape Town | 2019 -current | Airports Company of South Africa |
| Environmental Assessment for the Prefeasibility investigation of the land making up the Foreshore Freeways Precinct | 2021 | City of Cape Town |
| Environmental Assessment for the Belhar Emergency Housing Programme on Erf 17030, Belhar | 2022 | Western Cape Government |
| Environmental Lead for the Feasibility Bridging Study for Breede-Berg (Mitchell's Pass) Water Transfer Scheme | 2022 | Dept of Water and Sanitation |
| Environmental aspects of a local area spatial development framework for the Adam Tas Corridor in Stellenbosch | 2021 | Stellenbosch Municipality |
| Basic Assessment for the Hout Bay Road Infrastructure and Maintenance Depot in Hout Bay | 2021- 2023 | City of Cape Town |

PROJECT EXPERIENCE

| | DATE | CLIENT |
|--|------------|---------------------------|
| Environmental Screening for the Brankenfell Nature Reserve Environmental Education Centre, Brankenfell | 2022 | City of Cape Town |
| Environmental Screening for the Zandvlei Nature Reserve Environmental Education Centre in Zandvlei | 2022 -2023 | City of Cape Town |
| Environmental Screening for the Edith Stephens Environmental Education Centre in Philippi | 2022 | City of Cape Town |
| Environmental Screening for the Westridge Environmental Education Centre in Westridge Mitchells Plein | 2022 - | City of Cape Town |
| Environmental Screening for the Atlantis Road Infrastructure and Maintenance Depot in Atlantis | 2022 - | City of Cape Town |
| Basic Assessment for a proposed high-density social housing and mixed-use development on a 3.2 hectare development in Salt River, Cape Town (high density 250 units per hectare) | 2020-2021 | City of Cape Town |
| Basic Assessment for a proposed new medical depot at the Tygerberg Hospital, Cape Town | 2020-2021 | WCG Dept of Health |
| Independent review of a Basic Assessment for a pharmaceutical production facility in Atlantis, Cape Town | 2019-2020 | Canopy Growth |
| Environmental aspects of a local area spatial development framework for the Adam Tas Corridor in Stellenbosch | 2021 | Stellenbosch Municipality |
| Environmental component of the Stellenbosch Municipal Spatial Development Framework, 2018-2023 | 2018 | Stellenbosch Municipality |
| Environmental, GIS and stakeholder engagement components of the Drakenstein Municipality Local Spatial Development Framework for the Paarl CBD, Arboretum, and Klein Drakenstein Road area | 2017 | Drakenstein Municipality |
| Environmental and GIS components of the Cape Agulhas Municipality Spatial Development Framework 2017-2022. | 2017 | Cape Agulhas Municipality |
| Environmental and stakeholder engagement components of the Drakenstein Municipality Local Spatial Development Framework for the Paarl CBD, Arboretum, and Klein Drakenstein Road area | 2017 | Drakenstein Municipality |
| Environmental component of the Cape Agulhas Municipality Spatial Development Framework 2017-2022. | 2017 | Cape Agulhas Municipality |
| Environmental feasibility study for the Paradyskloof precinct, Stellenbosch | 2017 | Stellenbosch Municipality |
| Environmental assessment for the design and construction of in-fill housing developments in Bonteheuwel | 2018-19 | City of Cape Town |
| Scoping and environmental impact assessment for a 200-hectare agro-industrial and mixed-use development in Klappmuts North | 2017-18 | Distell |
| Environmental Impact Assessments (Basic Assessments) for the proposed Integrated Rapid Transit Phase 2A West Trunk Routes in Cape Town | 2016 | City of Cape Town/SMEC |

PROJECT EXPERIENCE

| | DATE | CLIENT |
|---|---------|----------------------------------|
| Environmental Impact Assessment (Basic Assessment) for a proposed filling station in Bellville, Cape Town | 2016 | City of Cape Town |
| Statutory applications for the upgrade of the Sir Lowry's Pass Road Bridge, associated with the rehabilitation and upgrade of Old Sir Lowry's Pass Road | 2016 | City of Cape Town |
| Co-ordination and management of a Freshwater Baseline Report, Environmental Management Programme and Water Use Licence Application for the Replacement of culverts within a tributary of the Eerste River, crossing the R44, Stellenbosch | 2015/16 | Western Cape Government/ SMEC |
| Basic Assessment for the upgrade of the administration office for the Paarl Taal Mounument, Paarl | 2015 | Department of Public Works |
| Co-ordination and management of the Environmental Assessments associated with Sir Lowry's Pass Housing Development Projects | 2015 | City of Cape Town |
| Co-ordination and management of the Basic Assessment process for the upgrade of the N1 from Plattekloof to the R300 Interchange | 2015 | Western Cape Government |
| Compilation of the Environmental Management Plan for the exploration and restoration of the Wooden Bridge cross the Diep River at Woodbridge Island, Cape Town | 2015 | City of Cape Town |
| Environmental Management Programme for the replacement of the water distribution system at Klawer Valley, Simonstown Cape Town | 2015 | Department of Public Works |
| Review work for an EIA of a bioethanol plant in Cradock, Eastern Cape | 2014 | Private |
| An Environmental Basic Assessment for the proposed Mfuleni Urban Node Development in Mfuleni | 2013 | City of Cape Town |
| Environmental Impact Assessment for the Amendment of the Environmental Authorisation for the Commercialisation of the Cape Town Stadium | 2013 | City of Cape Town |
| Environmental Basic Assessment for a new water reservoir at Cape Town International Airport | 2013 | Airports Company SA |
| Co-ordination and management of the Environmental Basic Assessment and Air Emissions Licence for Fuel Tank 7 at Cape Town International Airport | 2013 | Airports Company SA |
| Environmental Basic Assessment and Waste Management Licence for the Beaconvale Waste Drop-off Facility, Parow | 2013 | City of Cape Town |
| Environmental Impact Assessment and Atmospheric Emissions License for a proposed fish meal plant, Saldanha Bay | 2013 | City of Cape Town |
| Environmental investigation for the installation of backup diesel generators for I&J at both their Waterfront and Woodstock offices, in Cape Town | 2013 | I&J |
| Five Basic Assessment Reports for the Drakenstein Municipality for the "Upgrade of Informal Settlements" Programme | 2012 | Drakenstein Municipality |

| PROJECT EXPERIENCE | DATE | CLIENT |
|--|------------|-----------------------------------|
| Environmental Impact Assessment for the Boulevard Precinct Package Plan at the Bram Fischer International Airport, Bloemfontein | 2012 | Airports Company SA |
| Environmental Impact Assessment and Waste Management License for a proposed sewerage treatment Plant at the Bloemfontein Airport | 2012 | Airports Company SA |
| Environmental Impact Assessment for the upgrade of port facilities at the Port of Port Elizabeth | 2012 | Transnet National Ports Authority |
| Environmental Impact Assessments undertaken for several places of worship in Khayelitsha, Langa and Gugulethu | 2012 | City of Cape Town |
| Basic Assessment for the upgrade of a bridge and road in Dysselsdorp, Oudsthoorn | 2012 | Western Cape Government |
| Environmental Impact Assessment for the proposed upgrade of the Vygekraal Cemetery in Vygekraal | 2011-2014 | Private |
| Basic Assessment for the upgrade of Philippi Station in Philippi | 2011-2012 | PRASA |
| Basic Assessment for the upgrade of Bellville Station in Bellville | 2011-2012 | PRASA |
| Basic Assessment for the upgrade of Stellenbosch Arterial (M177) between Range road and Polkadraai road | 2011 | Western Cape Government /RHDHV |
| Water use license application for boreholes at the Vodacom Commercial Park in Midrand, Gauteng | 2011 | Vodacom |
| Water use license application for the development of the National South African Police Service's headquarters in Maitland | 2011 | Department of Public Works |
| Basic Assessments for proposed Infill Housing Development in Manenberg | 2009-2010 | City of Cape Town |
| Basic Assessment for the proposed development of Phases 5a & 5b of the Emergency Housing Project in Mfuleni, as well as for the proposed upgrade of Khwezi Avenue | 2009 | City of Cape Town |
| Assisted with an Environmental Impact Assessment for the proposed additional diesel generators, Koeberg | 2009 | ESKOM |
| Basic Assessment for the proposed North Access Link in Pinelands, Cape Town | 2009 | Old Mutual |
| Environmental Impact Assessment for a proposed 20MVA Substation, 132kV loop in line and a 22kV transmission line in Schmidtsdriff, Northern Cape | 2009-2010 | ESKOM |
| Basic Assessment for the Golden Oaks Housing Development in Kuilsriver | 2008-2009 | Private |
| Environmental Impact Assessment for a proposed mixed-use development on Erf 1901, Blue Downs | 2008 -2011 | JV ABSA Standard Bank |
| Environmental Impact Assessment for a private developer for the proposed construction of a mixed use residential development (approximately 2000 residential units), Bardale Village, Kuilsriver | 2008 | Private |

PROJECT EXPERIENCE

| | DATE | CLIENT |
|--|------|---------------------------|
| Basic Assessment for a proposed residential development on erf 521/1 in Kuilsriver | 2008 | Private |
| Basic Assessment for Remote Car Rental Facilities (Precinct 5) at Cape Town International Airport | 2008 | Airports Company SA |
| Basic Assessment for the installation of a 5.5km 66kV feeder route Cable from the Golf Course Substation to Markötter Substation to the University Substation, in Stellenbosch | 2008 | Stellenbosch Municipality |
| Basic Assessment for the upgrade of the stormwater system at Cape Town International Airport | 2008 | Airports Company SA |

Stakeholder Engagement and Public Participation

| | | |
|--|---------------------------|---|
| Regeneration of Harrington Square and Surrounds | March 2026 - Current | City of Cape Town |
| Hartelyvale Sports Precinct Development (<i>Contextual Framework</i>) | July 2025 – March 2026 | City of Cape Town |
| Strandfontein Pavilion Cultural Mapping (<i>Concept and Design</i>) | July 2025 – February 2026 | City of Cape Town |
| Three Anchor Bay Redevelopment (<i>Feasibility, Concept and Statutory</i>) | January 2025 – Present | City of Cape Town |
| Mowbray Golf Course Redevelopment (<i>Feasibility, Concept and Statutory</i>) | January 2025 – Present | City of Cape Town |
| Strand Street Living Heritage Project & Strand Street Quarry Vision and Concept (<i>Concept, Design and Statutory</i>) | October 2023 – March 2024 | City of Cape Town |
| Strandfontein Coastal Node Development (<i>Design and Statutory</i>) | Sept 2023 – November 2024 | City of Cape Town |
| Provincial Pavement Testing Labs Development (<i>Concept, Design and Statutory</i>) | July 2023 – June 2024. | Western Cape Government: Infrastructure |
| NHRA Exemptions (<i>Feasibility and Statutory</i>) | Feb 2022 – Sept 2023 | City of Cape Town |
| Stikland Hospital North and South Redevelopment | Jun 2022 to Nov 2025 | Western Cape Government: Infrastructure |

STRATEGIC AND POLICY PROJECTS (other)

| | | |
|---|------|---------------------------|
| Environmental status quo investigation for the draft Urban Design Framework for Masiphumelele | 2016 | City of Cape Town / AECOM |
| Environmental Baseline Investigation for the proposed upgrading of Elizabeth Park, Bellville | 2015 | City of Cape Town/AECOM |

| PROJECT EXPERIENCE | DATE | CLIENT |
|---|-----------|---|
| Environmental Baseline Investigation for the construction of a 9-kilometre sewer line for the Wolwerivier Housing Development | 2014 | City of Cape Town |
| Environmental Baseline Investigations of 16 sites in the Western Cape for disposal and human settlements purposes | 2013-2014 | Western Cape Government/ AECOM |
| Co-ordination and management of the Environmental Baseline Investigation undertaken for the Farm 101-5 housing development in Wolwerivier | 2013-2014 | City of Cape Town/AECOM |
| Provided environmental input into the conceptual plans for the regeneration of Mfuleni Urban Node | 2013 | City of Cape Town |
| Environmental Feasibility Assessment for several housing developments in Sir Lowry Pass Village | 2013 | City of Cape Town/ AECOM |
| Environmental Feasibility Assessment for the proposed mixed-use development on the Swartklip site, Khayelitsha | 2011 | City of Cape Town |
| Phase 1: Status Quo for the Environmental Management Framework for the Central Karoo District Municipality | 2010-2012 | Central Karoo District Municipality |
| Assisted with the research and compilation of a Status Quo report for several housing developments in the Manenberg area | 2009 | City of Cape Town |
| Environmental feasibility for the Development Framework Plan for Cape Farm 759, Ottery | 2016 | Western Cape Government / NM & Assoc |
| Environmental baseline investigation for proposed roundabouts, Kimberley | 2016 | SANRAL/ SMEC |
| Environmental status quo investigation for the Development Framework Plan for Cape Farm 759, Ottery | 2016 | Western Cape Government / NM & Assoc |
| Environmental Review of several 'Quality Open Spaces' undertaken for the 2010 World Cup | 2008 | City of Cape Town |

ENVIRONMENTAL MANAGEMENT, MONITORING AND AUDITING

| | | |
|---|---------------|------------------------------------|
| ECO services for the slope stabilisation on National Route 7 Section 7 from km 18.3 to km 20.3: Garies, Northern Cape | 2022- present | South African National Road Agency |
| ECO services for the slope stabilisation on National Route 7 Section 3 from km 72.5 to km 74.5: Piekenierskloof Cutting, Western Cape | 2022- present | South African National Road Agency |
| ECO services for the Replacement of structures on DR1218, DR1252 and OP4032, Stanford | 2022- present | Western Cape Government |

| PROJECT EXPERIENCE | DATE | CLIENT |
|---|---------------|-------------------------------|
| Maintenance Management Plan for road maintenance works for MR535, Verlorensvlei | 2022- present | Western Cape Government |
| ECO services for the upgrading of Main Road 535 between Laaiplek and Elandsbaai, West Coast | 2019-2021 | Western Cape Government |
| ECO services for harbour maintenance works at the Lamberts Bay harbour | 2018-2019 | National Dept of Public Works |
| ECO services for harbour maintenance works at the St Helena Bay harbour | 2018-2019 | National Dept of Public Works |
| Maintenance Management Plan for road maintenance works in watercourses along the TR2501, Western Cape | 2020-present | Western Cape Government |
| Maintenance Management Plan for road maintenance works in watercourses along the DR01123, Western Cape | 2020-present | Western Cape Government |
| Maintenance Management Plan for road maintenance works in watercourses along the MR0174, Western Cape | 2020-present | Western Cape Government |
| Independent environmental compliance audit of construction and operation of the Touwsrivier CPV 1 Concentrated Photovoltaic solar plant | 2020 | CPV 1 |
| ECO services for the upgrade of the N1 between Platteklouf and R300 | 2016-2017 | Western Cape Government |
| ECO services for the upgrade of the 40 ton slipway to a 90 ton ship hoist at the Port of Port Elizabeth | 2015-2016 | National Ports Authority |
| ECO services for the reconstruction of the north and south lead-in jetties at the Port of Port Elizabeth | 2015-2016 | National Ports Authority |
| ECO services for the exploration phase of the restoration of the Wooden Bridge in Woodbridge Island, Milnerton | 2015-2016 | City of Cape Town |
| ECO services for Michigan and Tower Roads upgrades at the Cape Town International Airport | 2015-2016 | Airports Company SA |
| ECO services for the Azure, Big Bay Housing Development in Big Bay Cape Town | 2015 | Private |
| ECO services for the reconstruction and rehabilitation of the stormwater ponds at the Jack Muller Park, Bellville | 2015 | City of Cape Town |
| ECO services for emergency slope repairs along Franschoek Pass | 2014-2015 | Western Cape Government |
| ECO services for the construction of Heritage Park, Somerset West | 2014 | Private |
| ECO services for the construction of the Hout Bay Toll Plaza, Chapman's Peak Drive, Hout Bay | 2014 | Western Cape Government |
| ECO services for construction of Nuutgevonden Residential Development in Stellenbosch | 2013-2015 | Private |
| ECO services for the upgrade of Philippi Station | 2013-2014 | PRASA |

PROJECT EXPERIENCE

| | DATE | CLIENT |
|---|-----------|----------------------------|
| ECO services for the Western Cape Government Shared Services Office Building in Khayelitsha, Cape Town | 2013-2014 | Western Cape Government |
| ECO services for construction of a residential development in Pelikan Park | 2013 | City of Cape Town |
| ECO services for bulk infrastructure installation at Bram Fischer International Airport, Bloemfontein | 2013 | Airports Company SA |
| ECO services for the upgrade of Main Road 559, between Langebaan and Saldahna Bay | 2013 | Western Cape Government |
| ECO services for the upgrade of Stellenbosch Arterial between Range Road and Polkadraai, Kuilsriver | 2012-2015 | Western Cape Government |
| ECO services for the construction of Phase 3 of Joe Slovo housing development, Langa | 2011-2017 | Western Cape Government |
| Environmental monitoring and implementation of the Chapman's Peak Drive Environmental Management System | 2010-2017 | Western Cape Government |
| ECO services for the construction of the Khayelitsha District Hospital | 2009-2011 | Western Cape Government |
| ECO services for construction of Cape Town Film Studios, Faure | 2007-2010 | Cape Town Film Studios |
| ECO services for Bardale Village Phase 2, installation of bulk services | 2007-2008 | Private |
| ECO services for construction of two hotels, residential units and commercial units at the Roggebaai Canal Tourism Precinct | 2007-2008 | Private |
| ECO services for reinforcement of the factory wall and parking area along the coastline in Lamberts Bay | 2007 | Department of Public Works |
| Basic Assessment for a proposed mixed-use development in Philippi, Cape Town | 2007 | Private |

COMPLIANCE AND RECTIFICATION

| | | |
|---|------|-------------------------|
| Maintenance Management Plan for rehabilitation works along the Plankenbrug River at Nuutgevonden, Stellenbosch | 2014 | Private |
| Rehabilitation Plan for wetlands affected by illegal dumping in Eerste River | 2015 | Western Cape Government |
| The compilation of an Environmental Action Plan as well as the development of an Operational Environmental Management Plan and site remediation for a Spoornet site being utilised for boiler-making activities in Foreshore, Cape Town | 2014 | Private |
| Soil and groundwater quality assessment on a site in Bellville for the company Blastec. | 2007 | Private |

PROJECT EXPERIENCE

DATE

CLIENT

PUBLIC AND STAKEHOLDER ENGAGEMENT

| | | |
|---|-----------|--------------------------------------|
| Drakenstein Municipality Local Spatial Development Framework for the Paarl CBD, Arboretum, and Klein Drakenstein Road area | 2017/18 | Drakenstein Municipality |
| Public Participation Facilitation for the Robertson CBD Transport Plan | 2015 | Cape Winelands District Municipality |
| Public Participation Facilitation for the Ceres CBD Transport Plan | 2014 | Cape Winelands District Municipality |
| Public Participation Facilitation for the updating of the Overberg District Municipality Integrated Transport Plan | 2014 | Overberg District Municipality |
| Public Participation Facilitation for the updating process of the Stellenbosch and Franschhoek Integrated Transport Plan | 2013 | Western Cape Government |
| Public Participation Facilitation for the updating process for the Eden District Municipality Integrated Transport Plan | 2012 | Western Cape Government |
| Facilitation of the Environmental Management Committee for the Construction phase of Chapmans Peak Hout Bay Toll Plazas | 2012 | Western Cape Government |
| Public Participation Facilitation for the Cape Winelands District Municipality Integrated Transport Plan | 2010 | Western Cape Government |
| Assisted with public participation for two proposed residential developments in Sweet Valley and Firgrove, Constantia | 2009 | Western Cape Government |
| Assisted with public participation for a proposed residential development in Bo-Kaap | 2007 | Private |
| Assisted with public participation for proposed sustainable neighbourhood (residential development) at Oude Molen Village at the Valkenburg East Site | 2007-2008 | Western Cape Government |
| Assisted with public participation for the proposed Mupine residential in Pinelands | 2008-2009 | Old Mutual Life |