



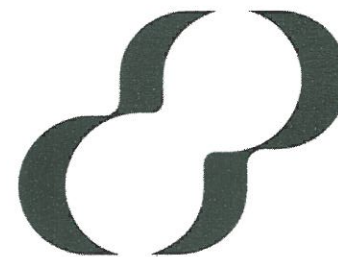
**1221-1249 Centre Road & 22 Talbot Avenue, Oakleigh South**

**Presentation to Planning Panels Victoria**

**Presented by:**

Glen Slimmon of Sinclair Brook

**Date: 8 August 2017**



SinclairBrook



---

## **CONTENTS**

- 01 Introduction
- 02 Project Chronology – Engagement with Council & Stakeholders
- 03 Project Chronology – Environmental & Geotechnical Investigations
- 04 Subject Site
- 05 Locational & Strategic Context
- 06 Proposed Comprehensive Development Plan - Principles
- 07 Environmental Conditions
- 08 Geotechnical Conditions
- 09 Development Strategy / Sequencing
- 10 Proposed Staging of Remediation / Geotechnical Works
- 11 Remediation Cost Estimate

---

## 1. INTRODUCTION

- Sinclair Brook is a Melbourne based development and project management firm.
- Sinclair Brook has been actively involved in all aspects of the Huntingdale project as development and project manager since the site was acquired in 2012, including:
  - development strategy.
  - engagement of consultants and environmental auditor.
  - co-ordination of planning, master planning, infrastructure assessment, environmental and geotechnical investigations and audit.
  - engaging with Council, authorities and key stakeholders.
  - managing tender processes for site works.
  - undertaking feasibility studies for the project.



## 2. PROJECT CHRONOLOGY – ENGAGEMENT WITH COUNCIL & STAKEHOLDERS

Date	Action
10 October 2013	Proponent, SB, Coffey and Auditor meet with the EPA (Southern Metro Office) for a Project briefing.
7 November 2013	Presentation to Monash Council officers on development proposal, vision, principles, team, environmental & geotechnical conditions and proposed planning & environmental approvals process.
14 January 2014	Site visit of Cavanagh St Cheltenham project is conducted with Monash Council officers and attended by Urbis, Coffey, SB & Proponent. The Cavanagh St project involved the use of a former landfill for sensitive use. More than 200 houses have been built and occupied.
17 January 2014	Meeting with Monash Council officers to discuss planning and environmental approval process proposed by Urbis. Attended by Urbis, SB & Proponent.
17 February 2014	Workshop with Monash Council officers to discuss site context and analysis, site access / transport context, urban structure and built form, planning regime. Attended by Urbis, dKO Architecture, traffic consultant, SB & Proponent.
6 May 2014	Meeting with Monash Council officers to present planning scheme amendment options prepared by Urbis.
13 June 2014	Council issued letter to Proponent outlining concerns with deferred audit and Site Environmental Strategy Plan (SESP) approach.
27 June 2014	Meeting with EPA (Southern Metro Office) to discuss SESP approach. Attended by Coffey, Auditor, Urbis, SB & Proponent. EPA expressed in principle support for deferral of audit and regarded the SESP as providing a level of surety to Council.
8 July 2014	Urbis issues letter to Sue Wilkinson (Monash Council) regarding merits of the SESP approach.
11 July 2014	Meeting with EPA and Monash Council (Sue Wilkinson & Peter Panagakos) to discuss the merits of whole-of-site SESP approach. Attended by Coffey, Auditor, Urbis, SB & Proponent.
19 September 2014	Pre-application meeting with Monash Council officers regarding Backfilling and Stockpiling permit.
6 October 2014	Pre-application meeting with Monash Council officers (Council's Strategic Planning, Statutory Planning, Traffic and Drainage Engineers) regarding section 96A applications.
8 October 2014	EPA Meeting (Melbourne Office) to discuss staged audit and CUTEP process. Attended by Auditor, Coffey, SB & Proponent. Resulted in EPA issuing email (dated 17 October 2014) supporting staged audit process for the site.



## 2. PROJECT CHRONOLOGY – ENGAGEMENT WITH COUNCIL & STAKEHOLDERS

Date	Action
13 October 2014	<b>Lodgement of Backfilling and Stockpiling works planning permit application (rehabilitation of quarry pit).</b>
15 October 2014	Meeting with VicRoads and Monash Council to discuss traffic analysis. Attended by SB and Cardno (Traffic Consultant).
21 October 2014	Meeting with the Huntingdale Golf Club to discuss the proposed redevelopment of the site. Attended by SB & the proponent.
27 November 2014	Information Session held at Clayton Community Centre to inform the local community on the future development vision for the site and proposed rehabilitation works contemplation under the backfilling and stockpiling permit application. Attended by Monash Council, Urbis, Coffey, SB, the Proponent and members of the local community.
4 December 2014	<b>Lodgement of Planning Scheme Amendment / Section 96A applications A &amp; B (rezoning to General Residential) accompanied by a copy of the SESP and the auditor endorsement letter.</b> Submitted on the basis of pre-application discussions with Council and their agreement to consider the SESP approach.
Early January 2015	Section 96A applications forwarded to Hansen for peer review.
13 January 2015	Urbis requests meeting to discuss current Section 173 Agreement.
20 January 2015	Draft of proposed replacement Section 173 lodged with Council.
19 February 2015	Meeting with the Huntingdale Golf Club to discuss the acquisition of part of the Club's land to facilitate the upgrade of the intersection at Huntingdale & Centre Road. Attended by SB & the Proponent. The meeting resulted in the Club issuing a letter generally supporting the redevelopment of the site and confirming its preparedness to proactively work with the Proponent to agreeing an outcome that would make its land available for the upgrade of the intersection.
19 February 2015	Golder Associates Geotechnical Peer Review of the Backfill Design Report commissioned by Monash Council completed.
27 February 2015	Meeting with Monash Council to seek feedback on Section 96A applications. Attended by Urbis, SB and the Proponent.
12 March 2015	Meeting with the Huntingdale Golf Club to discuss development water initiatives that would enable the Club to continue to use water for irrigation. Attended by Dalton Consulting Engineers, SB and the Proponent.
16 March 2015	Meeting with Monash Council to their discuss concerns with SESP approach with Council's legal advisers.



## 2. PROJECT CHRONOLOGY – ENGAGEMENT WITH COUNCIL & STAKEHOLDERS

Date	Action
6 May 2015	Meeting with Monash Council to discuss formation of Consultative Committee for backfilling works.
4 June 2015	Meeting with Monash Council to seek update on status of section 96A application.
<b>5 June 2015</b>	<b>Council issues permit for Backfilling and Stockpiling works.</b>
13 August 2015	Meeting with Monash Council to discuss backfilling and stockpiling documents and SESP.
18 August 2015	Workshop with Monash Council officers to discuss conditions of the backfilling and stockpiling permit.
30 September 2015	Community Consultation Meeting held at Clayton Community Centre to discuss formation of consultative committee required under the backfilling permit.
<b>2 November 2015</b>	<b>Council issues endorsed document pursuant to the Backfilling and Stockpiling permits.</b>
8 December 2015	Meeting with Monash Council regarding legal position on audit.
28 January 2016	Meeting at Monash Council to discuss Senversa peer review and questions posed by Council for discussion. Attended by Senversa, Coffey, Auditor, Urbis and the Proponent.
18 March 2016	Meeting at Monash Council with Steve Dunn of VPA to discuss way forward. Attended by Urbis, SB and Proponent.
13 May 2016	Meeting at Monash Council with VPA to discuss Urbis draft schedule to Comprehensive Development Zone.
31 May 2016	Meeting at Monash Council with VPA to discuss form and content of CDZ and documents for submission.
29 August 2016	Meeting at Monash Council to discuss draft CDZ documents.
<b>July 2016</b>	<b>Lodgment of Planning Scheme Amendment to rezone the site to Comprehensive Development Zone.</b>
27 September 2016	Monash Council endorses the application to rezone the Site to a Comprehensive Development Zone and subsequently writes to the Minister for authorization to prepare and exhibit the amendment.
12 January 2017	Drop-in session regarding the planning scheme amendment application submitted in held at the Clayton Community Centre attended by Monash Council, Urbis, SB, the Proponent and member of the local community.



### 3. PROJECT CHRONOLOGY – ENVIRONMENTAL & GEOTECHNICAL INVESTIGATIONS

2013	2014	2015	2016	2017
Engagement of Coffey Environment & Coffey Geotechnics	Workplan for Environmental Site Assess for <u>Zone 4</u>	Workplan for Supplementary Environmental Site Assessment	Ongoing environmental testing and monitoring as part of the Workplan	Ongoing environmental testing and monitoring as part of the Workplan
Environmental Issues Summary Report	Initial Site Investigation Report (Enviro)	Auditor endorsement of Workplan	Geotechnical Design for Preloading of Zone 1,2,3 & 5	Commencement of stockpiling works under minor works agreement with Lantrak
Environmental Remediation Options Report	Zone 4 Environmental Site Assessment – Soil, Sediment and Surface Water	Zone 4 Backfill Design Report (Geotech)		
Ken Mival appointed as independent EPA Auditor. Site becomes subject of a Section 53X Environmental Audit.	Zone 4 Environmental Site Assessment – Soil, Groundwater and Landfill Gas Assessment	Construction Environmental Management Plan – Backfilling Works		
Conceptual Site Model (Geotech)	Fill Assessment Report in Zone 2	Zone 4 Site Backfilling Protocol (Enviro)		
Report on Geotechnical Investigations	Site Environmental Strategy Plan	Quality Assurance Plan for Backfilling Works (Geotech)		
	Environmental Auditor Endorsement Letter of the Site Environmental Strategy Plan			



## 4. SUBJECT SITE

- 18.79 Ha site located on the corner of Huntingdale & Centre Rd, Oakleigh South.
- Pre 1950s: Pastoral land, agriculture and market gardens.
- Sand Quarry between 1950s until late 1990s.
- Progressively backfilled since 1970s.
- The majority of the site has previously been reclaimed. Part of the site (Zone 4) remains as an open quarry pit that is still to be reclaimed.



IMAGE 1  
AERIAL PHOTOGRAPH



## 5. LOCATIONAL & STRATEGIC CONTEXT

- 14kms southeast of the Melbourne CBD.
- Abutting conventional residential.
- Significant frontage to Huntingdale Rd.
- Book-ended by two local open space areas.
- Neighbouring Huntingdale Golf Club.
- Located on Melbourne Principal Public Transport Network with strong links to rail stations.
- Access to Princes Hwy, Monash Fwy, Warrigal Rd, Dingley Bypass and Centre Rd.
- In the Monash Employment Cluster.
- Within immediate catchment of major regional education and health nodes (Monash University and Monash Hospital).
- Access to retail and community amenity (Clayton MAC, Oakleigh MAC, Chadstone PAC).
- Walking distance to Clarinda Primary School, Oakleigh South PS and South Oakleigh Secondary School.



IMAGE 2  
LOCATIONAL CONTEXT



## 6. PROPOSED COMPREHENSIVE DEVELOPMENT PLAN - PRINCIPLES

- Contemplates general components of a master planned community.
- Wide diversity of housing types including detached dwellings, townhouses and apartments contemplated.
- Higher density along Huntingdale Rd and fronting amenity.
- Being respectful to adjacent residential.
- Future mixed use node to accommodate local convenience retail to provide amenity.
- A green link connecting Talbot Park and Davies Reserve providing pedestrians with active and passive recreational facilities.
- Significant areas of public open space / wetland spaces improving local drainage/stormwater storage capacity and providing green views and active and passive recreation zones for residents.
- Main vehicle access points from Huntingdale Rd and Centre Rd.
- No physical link to north and east community for traffic reasons.

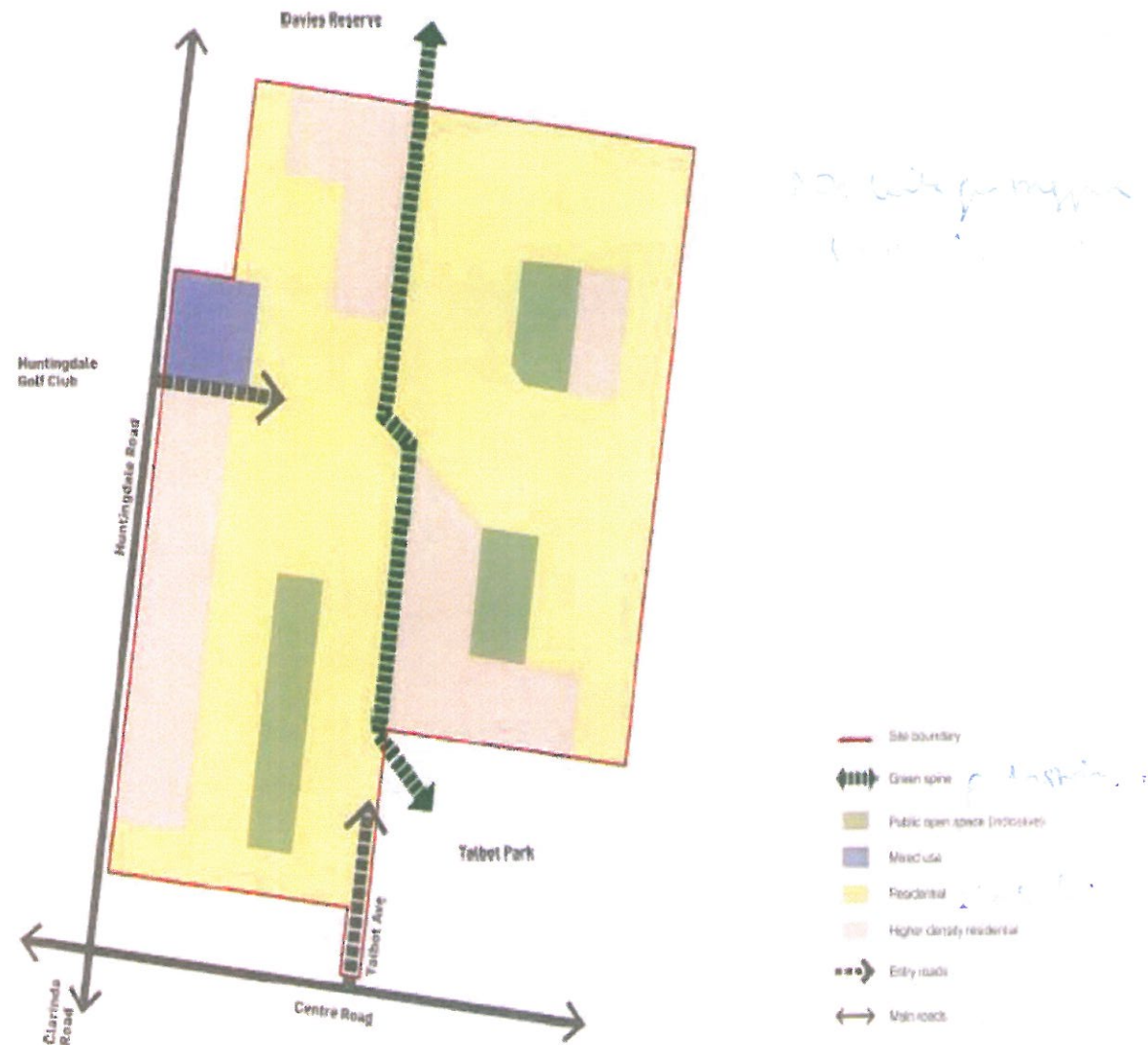


IMAGE 3  
**PROPOSED COMPREHENSIVE DEVELOPMENT PLAN**



## 7. ENVIRONMENTAL CONDITIONS

Existing site conditions:

- ZONE 1: Former municipal landfill (North West Quadrant)
- ZONE 2: Uncontrolled fill over slimes (South East Quadrant)
- ZONE 3: Uncontrolled fill over slimes (North East Quadrant)
- ZONE 4: Quarry void with slimes disposal (South West Quadrant)
- ZONE 5: Former concrete batch plant and sand production area (North East Quadrant)
- Talbot Park (offsite): Former municipal landfill

Key environmental considerations:

- Landfill gas management from Zone 1, Zone 2 and Talbot Park
- Groundwater contamination from leachate generation in Zone 1
- Soil quality across the site being suitable for future residential use
- Surface water and sediment disposal from the quarry during backfilling



IMAGE 4  
**SITE ZONES**

Existing quarry void: requires dewatering and backfilling



## 8. GEOTECHNICAL CONDITIONS

Former Municipal Landfill: Potential differential settlement issues and foundation construction issues

Existing Quarry Void, requires dewatering and filling – Batter stability Management Plan, Management of uncontrolled fill including “slimes”, Settlement of the engineered fill compacted to Australian Standards (AS3798).



Variable Thickness of 'slimes' across the area, differential settlement and foundation construction issues

Variable Thickness of 'slimes' across the area, differential settlement and foundation construction issues

IMAGE 5  
**SITE ZONES**




---

## 9. DEVELOPMENT STRATEGY / SEQUENCING

Development Phase	Key Activities
<b>Phase 1 – Rezoning, Quarry Backfilling and Environmental Site Assessments</b>	<ul style="list-style-type: none"><li>• Rezoning of the entire Site to Comprehensive Development Zone.</li><li>• Backfilling of the remaining quarry void situated on the western portion of the Site in Zone 4.</li><li>• Completion of Environmental Site Assessments.</li></ul>
<b>Phase 2 – Staged Subdivision, Civil and Building Works</b>	<ul style="list-style-type: none"><li>• Staged planning permit for use, subdivision and building works.</li><li>• Staged Part IXD environmental audit across the Site.</li><li>• Staged Issue of Statement of Environmental Audit.</li><li>• Staged Civil Works and Mitigation/Remediation Works.</li><li>• Staged Building and Mitigation Works.</li><li>• Staged Settlements.</li></ul>



## 10. PROPOSED STAGING OF REMEDIATION / GEOTECHNICAL WORKS

ZONE	PROPOSED REMEDIATION ACTIVITIES	PROPOSED GEOTECHNICAL ACTIVITIES
ZONE 4	<ul style="list-style-type: none"> <li>• Surface water disposal.</li> <li>• Clay slimes removal, drying, sampling and analysis prior to being re-used as backfill.</li> <li>• Boundary landfill gas venting system (where adjoining landfill gas producing areas) after completion of backfilling.</li> <li>• Leachate treatment wells (if required).</li> <li>• Other measure as required by audit.</li> <li>• Clean Up To The Extent Practicable (CUTEP) &amp; Completion of 53X Environmental Audit.</li> </ul>	<ul style="list-style-type: none"> <li>• Backfilling of the quarry with engineered fill under Level 1 supervision and period for settlement monitoring (under Major Works Contract).</li> </ul>
ZONE 1	<ul style="list-style-type: none"> <li>• CUTEP and completion of 53X Environmental Audit.</li> <li>• Remedial works including landfill capping (under Civil Works Contract).</li> <li>• Boundary gas venting system (under Civil Works Contract).</li> <li>• Landfill gas barriers under buildings (under Building Works Contract).</li> <li>• Other measures required by audit.</li> <li>• Auditor Validation.</li> </ul>	<ul style="list-style-type: none"> <li>• Surcharging/Preloading and controlled settlement monitoring (under Major Works Contract).</li> <li>• Engineered fill to support roads and services. (under Civil Works Contract).</li> <li>• Piling of dwellings (under Building Contract).</li> </ul>
ZONE 2, 3 & 5 	<ul style="list-style-type: none"> <li>• CUTEP and completion of 53X Environmental Audit.</li> <li>• Remedial works including landfill capping in Zone 2 (under Civil Works Contract).</li> <li>• Boundary gas venting system in Zone 2 (under Civil Works Contract).</li> <li>• Landfill gas barriers under buildings in Zone 2 (under Building Works Contract).</li> <li>• Other measures required by audit.</li> <li>• Auditor Validation.</li> </ul>	<ul style="list-style-type: none"> <li>• Surcharging/Preloading and controlled settlement monitoring in Zone 2 and 3 (under Major Works Contract).</li> <li>• Engineered fill to support roads and services in Zone 2 and 3 (under Civil Works Contract).</li> <li>• Piling of dwellings in Zone 2 and 3 (under Building Works Contract).</li> </ul>



## 11. REMEDIATION COST ESTIMATE

<b>BUDGET ITEM</b>	<b>\$ (ex. GST)</b>
Environmental & Geotechnical Site Assessments	\$1,300,000
EPA Audit	\$500,000
Zone 4 Rehabilitation (Quarry Backfilling)	\$13,000,000
Geotechnical Preloading (Zones 1,2,3,5)	\$900,000
Zone 1 Remediation	\$4,200,000
Zone 2 Remediation	\$4,200,000
Zone 3 & 5 Remediation	\$2,500,000
Contingency (15%)	\$4,000,000
<b>TOTAL</b>	<b>\$30,600,000</b>
<b>Costs to Date</b>	<b>~\$3,000,000</b>



