Contaminated Site Management Plan (CSMP)

Asphalt Plant Upgrades – Aerodrome Road

Prepared for Allied Asphalt Limited
Prepared by Beca Limited

6 April 2023

Contents

Revision History

Revision Nº	Prepared By	Description	Date
1	Declan Fisher	Draft	04/04/2023
2	Curtis Blyth	Final for Resource Consent	06/04/2023

Document Acceptance

Action	Name	Signed	Date
Prepared by	Declan Fisher		06/04/2023
Reviewed by	Curtis Blyth & Sarah Shepherd (CEnvP SC)		06/04/2023
Approved by	Jandre van Zyl		06/04/2023
on behalf of	Beca Limited		

This report has been reviewed by Sarah Shepherd, CEnvP Site Contamination Specialist. Sarah is a suitably qualified and experienced practitioner (SQEP) with over 17 years of experience managing and delivering a wide variety of environmental investigation works in New Zealand, Asia and the United Kingdom. She is experienced in regulatory compliance, oversight of environmental investigations, monitoring and risk assessment, contractor management, preparation and review of technical reports, as well as consultation with stakeholders and regulatory bodies. Sarah has been a Certified Environmental Practitioner Site Contamination Specialist since 2016.

1 Introduction

Beca Limited (Beca) was commissioned by Allied Asphalt Limited (Allied Asphalt) to prepare a Contaminated Site Management Plan (CSMP) for earthworks planned during the replacement and upgrade works of their asphalt plant at Aerodrome Road, Mt Maunganui. Allied Asphalt intend to construct a new asphalt plant and aggregate storage areas which will require soil disturbance of up to an estimated 1500 m^3 associated with re-grading the existing hardfill surface, shallow structure foundations, and trenching for service connections.

Beca prepared a Preliminary Site Investigation[1] (PSI) in November 2022 which is summarised in Section 1.4. This PSI recommended that a discretionary activity consent for soil disturbance under Regulation 11 of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2012 (NESCS) was required. As no soil sampling had been undertaken to assess the presence of contaminants in soils, the PSI recommended consent as a restricted discretionary activity under DW R25 (Rule 35) of the Regional Natural Resources Plan (RNRP) for the disturbance of contaminated land be applied for.

Since the PSI was prepared, a limited investigation of soil and groundwater was undertaken, as detailed in the Contamination Assessment report[2]. This investigation was to inform the potential implications of per- and polyfluoroalkyl substances (PFAS), on construction dewatering management, as well as inform standard contaminated site management procedures. The findings of this contamination assessment have been used to inform procedures within this CSMP.

This CSMP has been prepared based on the findings on the PSI and Contamination Assessment to support the resource consent applications.

1.1 Site Location and Setting

The site is located on a property owned by Fulton Hogan Ltd, at 54 Aerodrome Road, Mount Maunganui. It encompasses Lot 2 DPS 36408, accessible from Aerodrome Road. The land parcel is zoned for industry. **Figure 1** and **Figure 2** below show the location of the site within the wider property.

The site consists of the asphalt plant infrastructure, two large open aggregate storage sheds, site offices, outside aggregate storage areas and several shipping containers used for storage of miscellaneous product or samples from the asphalt making process. A single access point through the front Fulton Hogan yard allows access to the site for all vehicles. The current asphalt plant is situated in the central to north-eastern quarter of the site. The site is predominantly surfaced with asphalt, with smaller areas of concrete and compacted hardfill.

The site is flat with the majority of stormwater onsite being either captured and reused in site processes, dust control, or discharged via a stormwater treatment interceptor at the eastern edge of the site (**Figure 3**). Stormwater is then discharged to the TCC stormwater network running through Aerodrome Road, prior to discharging to the Tauranga Harbour approximately 800 m to the west. There is also an overland flow path running along the site's northern boundary which collects a small catchment along the northern boundary and discharges in an open swale eastward, connecting to the stormwater network running down Aerodrome Road.

[1] *Preliminary Site investigation (Contaminated Land) – Allied Asphalt, Aerodrome Road - Asphalt Plant Upgrades*; 17 November 2022; Beca Ltd.

[2] *Contamination Assessment – Allied Asphalt Plant*; April 2023; Beca Ltd

Figure 1. Allied Asphalt Mount Maunganui Asphalt Site Location within Fulton Hogan property – local context (source: Bay of Plenty Regional Council Maps).

Figure 2. Approximate site extent (outlined red) of Allied Asphalt Site within Fulton Hogan property (outlined yellow) (Source: Google Earth).

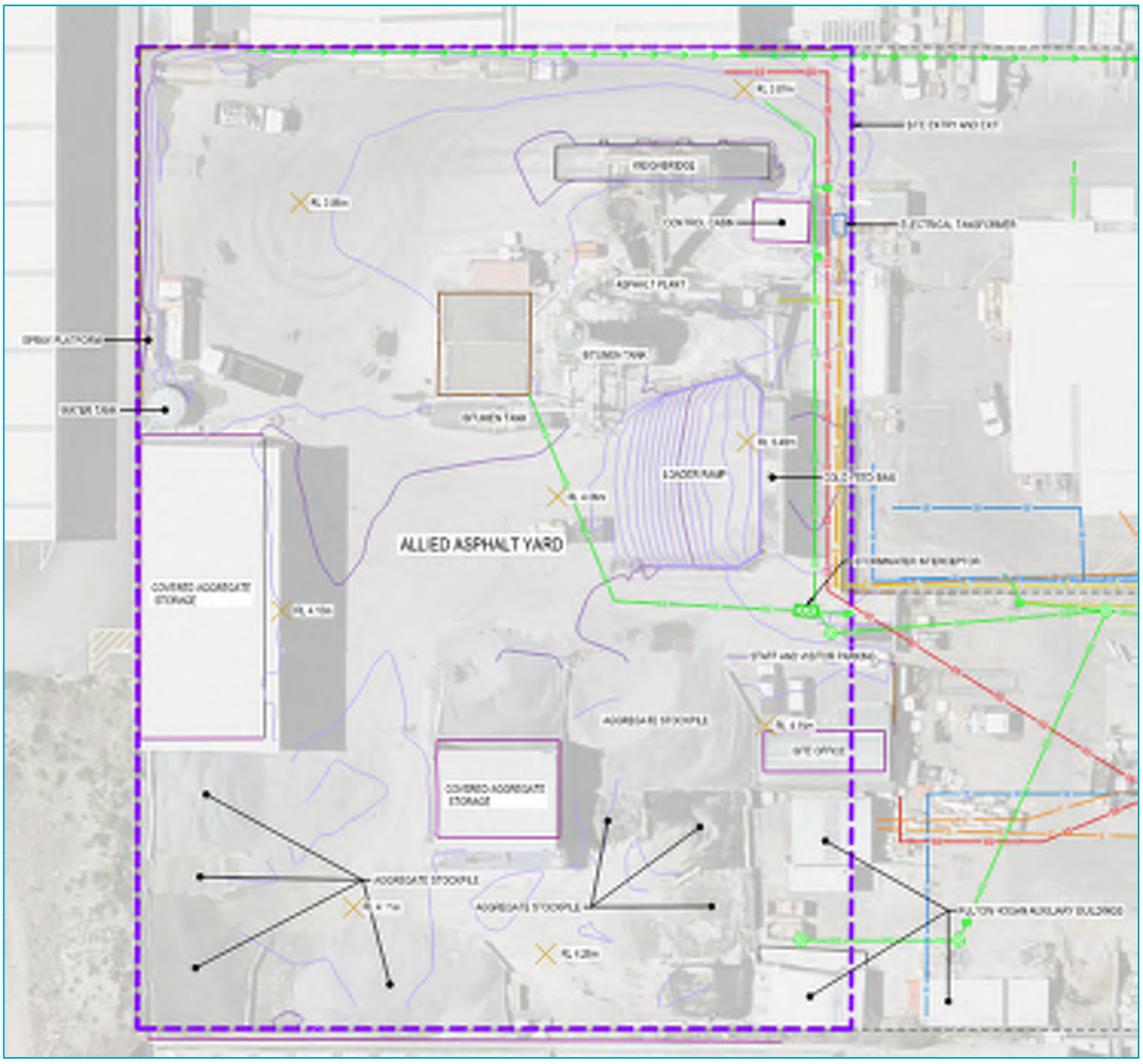


Figure 3. Indicative site extent (dashed purple) with internal site stormwater infrastructure and northern overland flow path (Beca Consenting Phase Design DWG-3936244).

The neighbouring Fulton Hogan yard consists of activities associated with road construction and maintenance, including hazardous good storage, traffic management equipment, road marking equipment, general equipment, vehicle storage/parking, an engineering workshop, a geotechnical laboratory for pavement testing and general offices and car parking. The site is located within an Industrial zone of the Tauranga City Plan and is surrounded by industrial and transport land uses.

1.2 Geology and Hydrogeology Summary

A Preliminary Geotechnical Appraisal[3] was prepared by Beca which was reviewed and summarised here for geological context.

[3] Mt Maunganui Asphalt Plant - Preliminary Geotechnical Appraisal; 17 November 2022; Beca Ltd.

Geology

The New Zealand Institute of Geological and Nuclear Science indicates the area is underlain by beach sand, gravel, and shell of the modern coastal plain; young marine terrace cover beds comprising gravel, sand, peat, and mud.

- Fill comprising imported gravel and asphalt mix is present from the ground surface to ~0.9m depth.
- Buried original topsoil approximately 300 mm in thickness is expected to be found variably between depths of 1.1m to 1. 7m at this site.
- Tauranga Group coastal beach deposits, comprising loose to dense (typically medium dense) fine to coarse sand with beds of sandy silt/silt, are expected to be between depths of 0.6m to 12m. These sands then transition to deeper Holocene Swamp Deposits and the Matua Subgroup from ~12m.

It is anticipated that only the existing hardfill surface will be disturbed, with discrete areas of deeper excavation needed for service connections that may encounter sandy soils beneath.

1.2.1 Hydrogeology

Based on the available geotechnical information, groundwater at this site can be expected to range from 1.5m to 2.5m below ground level (bgl). Groundwater was encountered at 2.1m bgl in an excavated borehole completed by Golder Associates in 2008 within the wider 48 Aerodrome property (immediately adjacent the site). The Contamination Assessment (Section 1.5) undertaken for this site in 2023 found groundwater to be 1.60m bgl and 1.90m bgl on two occasions over differing tidal cycles, indicating no tidal fluctuation.

1.3 Proposed Works

Allied Asphalt propose to construct and commission a new asphalt plant to the south of the existing one, switch production to the new plant, then decommission the old plant and realign site laydown and parking arrangements. The proposal will also include a variety of yard layout changes to provide safer vehicle movements within the site and improve vehicle movement efficiencies.

Earthworks associated with the project are minimal and will be restricted to the re-grading of the site (up to 200mm deep) and excavations required for the new plant and building foundations and services. These works are expected to involve soil disturbance up to 1500m^3, of which will primarily be the existing hardfill surface which will be retained onsite and reused as recycled asphalt product.

Due to the shallow water table, it is expected that some excavations associated with new service connections (namely stormwater infrastructure) will require temporary dewatering onsite to enable construction. This dewatering will be temporary only and is intended to be from sumps in the base of excavations, with groundwater being discharged onsite, away from the works area, in a temporary excavated dewatering sump. This dewatering system will be managed to prevent any offsite discharges.

1.4 PSI Summary

Beca completed a PSI in November 2022. The PSI showed that the asphalt production and general road maintenance yard activities have occurred since at least the 1970s. Prior to this the site was used for the stockpiling of timber and likely livestock grazing.

The PSI showed that several HAIL activities have occurred, or are currently occurring, on site:

- A17 - Storage tanks or drums for fuel, chemicals or liquid waste.
- A18 – Wood treatment or preservation including the commercial use of anti-sapstain chemicals during milling, or bulk storage of treated timber outside.
- E2 - Asphalt or bitumen manufacture or bulk storage (excluding single-use sites used by a mobile asphalt plant)

Key contaminants associated with the above activities are:

- Heavy metals
- Petroleum hydrocarbons
- Polycyclic aromatic hydrocarbons (PAHs)
- Solvents

Exposure of contaminants in soil via dermal contact, ingestion and inhalation to construction workers during the project earthworks is the primary exposure pathway identified. The second potentially complete exposure pathway identified is sediment in runoff discharging into the nearby stormwater swale or stormwater infrastructure, ultimately discharging downgradient of the site to Taranga Harbour.

Due to no sampling having been conducted at the time of preparing the PSI, the presence of contaminants in soils was unknown. It was therefore recommended that a CSMP be in place to reduce the risk of construction workers being exposed to the potentially contaminated soils and provide procedures associated with the management of groundwater.

1.5 Contamination Assessment Summary

An investigation was undertaken by Beca at the site to identify potential contamination and inform potential management requirements. The wider Mount Maunganui industrial area has known PFAS contamination within groundwater and it was unknown whether PFAS had migrated from neighbouring land uses. This Contamination Assessment report[4] can be provided on request.

The investigation comprised the installation of two shallow piezometers within the site screened from 1.5m to ~4.8m below ground level (bgl). The location of these bores is provided as **Appendix A**. Geology of the site was observed to be hardfill to ~0.5m, transitioning to predominantly sand layers to depth.

Soil samples were collected during installation, with four samples (two from each borehole) being analysed for PFAS, heavy metals, benzene, toluene, ethylbenzene, and xylenes (BTEX), PAH and total petroleum hydrocarbons (TPH). In summary, soil analysis showed:

- Detectable concentrations of heavy metals at concentrations below published regional background criteria.
- Two soil samples contained low concentrations of TPH below the adopted assessment criteria.
- BTEX, PAH and PFAS were below laboratory detection limits in all four soil samples.

Two rounds of groundwater sampling were undertaken after installation, on 21 February and 2 March 2023. Sampling was undertaken involving a ‘clean hands-dirty hands’ methodology for PFAS sampling. Each sampling event was undertaken near an opposing tidal cycle, however both sampling events found the groundwater table to be consistent at 1.68m bgl and 1.9m bgl indicating minimal or no tidal fluctuation. All four samples were scheduled for the analysis of PFAS, heavy metals, BTEX, PAH and TPH. Quality samples including duplicates, rinsate samples and blanks were also collected. In summary, groundwater analysis showed:

- Concentrations of heavy metals below the adopted guidelines.
- One of the two samples from BH02 contained a low concentration of perfluorooctanoic acid (PFOA), however this result was below the adopted assessment criteria. BH01 had non-detectable concentrations of PFAS in both sampling rounds.
- BTEX, PAH and TPH were below laboratory detection limits in all four groundwater samples.

[4] *Contamination Assessment – Allied Asphalt Plant*; April 2023; Beca Ltd

No contaminants assessed in this investigation were identified in soil and groundwater at concentrations that would present a risk to human health or the environment during the construction of the project.

2 Management Procedures

This section sets out general management procedures and requirements.

It is recommended that implementation of this CSMP is contractually enforced throughout the duration of the site construction works.

- This CSMP applies to the Allied Asphalt leased site that is the subject of consent application, which includes the area of land owned by Fulton Hogan and legally described as Lot 2 DPS 36408, as defined in **Figure 2**.
- All personnel involved in the site construction works are to be familiar with this CSMP and ensure that the requirements of this CSMP are being followed for all earthworks within the site.
- A copy of this CSMP is to remain available onsite so that reference can be made to it when undertaking any site works.
- The CSMP is intended to assist the site Contractor in meeting their legal obligations related to potentially contaminated soils with respect to health, safety, and the environment. It is not intended to cover the general site safety procedures required for typical excavation and construction activities at the site. The CSMP is not intended to relieve the Contractor of their legal responsibilities.
- Excavation, demolition, and construction activities at the site may be subject to other controls/rules/policies under the relevant district and regional plans, including but not limited to, the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011. Any conditions imposed by the regulatory authorities must be adhered to, as outlined in the consent. It is expected that this CSMP will be incorporated into any permit process involving excavation/disturbance work at the site to ensure the risks associated with contaminated soils are managed appropriately.
- Overall responsibility for the implementation of this CSMP shall be held by Allied Asphalt. However, the specific requirements and provisions of the management plan will be under the control of the site Contractor (if not Allied Asphalt).

3 Site Management

3.1 Pre-development Site Set-up

A site meeting shall be held and attended by the Allied Asphalt, the Contractor and any other personnel involved with the earthworks (e.g. sub-contractor, if any) to discuss the risks and site procedures for handling any identified contaminated soils at the site. The Contractor shall prepare a site-specific Contractor's Health & Safety Plan (CHSP), or similar, for the earthworks which shall cover potential exposure to contaminated soil and groundwater.

Procedures specific to this CSMP that address the management of dust, stormwater and soil stockpiling shall be detailed in the Contractor's Construction Management Plan (CMP) and shall be implemented by the Contractor. All procedures shall comply with the relevant Council bylaws and conditions of applicable consents.

Prior to works commencing, the Contractor shall establish adequate controls to aid in the management of aspects of site safety and environmental compliance. Procedures relating to the management of dust, sediment, stormwater, and stockpiling are detailed below and shall be implemented by the Contractor.

Note that the limited site investigation undertaken identified a low human health exposure risk and no additional sampling pre-works is considered necessary.

3.1.1 Site Contacts and Responsibilities

Contact details of those responsible for site management and implementation of this plan are to be provided in the Contractor's CMP, once known.

Key contact details are:

• Operations Manager, Allied Asphalt:	Brian Palmer	0272 732 335
• National Resource Consents Planner, Fulton Hogan:	Helen Caley	027 224 5409
• Environmental Representative, Beca:	Curtis Blyth	027 309 4526
• Environmental Verifier (SQEP), Beca:	Sarah Shepherd	021 304 320

3.1.2 Dust Control Procedures

Standard good practice for dust controls shall be implemented by the Contractor including the following, as determined in conjunction with the Engineer:

- Timing of works including prevalent wind direction.
- Dampening any exposed soils during dry and windy conditions through use of a water truck or portable water sprays. Water shall be applied at a rate that does not generate run-off.
- Covering any stockpiles.
- Reduction of vehicle speeds on site.
- Minimising drop heights from loaders.

3.1.3 Stormwater and Sediment Control Procedures

Erosion and sediment controls shall be installed by the Contractor prior to earthworks commencing and shall be designed for the treatment of surface water runoff in accordance with Bay of Plenty Regional Council's Environmental Guideline 2010/01 – Erosion and Sediment Control Guidelines for Land Disturbing Activities.

The project works will be undertaken in accordance with the project Erosion and Sediment Control Plan[5], or any recently prepared Contractor site-specific ESCP.

In summary, stormwater runoff will be preferentially maintained onsite and allowed to infiltrate wherever possible to reduce the volume of water and material discharged. Cesspit protection measures such as filter socks and sandbags will be used to trap any sediment from collected runoff. Sediment captured from the excavation of potentially contaminated material shall be managed in the same manner as soils requiring off-site disposal, as described in Section 3.2.2. Due to the majority of works being restricted to the surface hardfill materials it is considered unlikely that the proposed works will generate a sediment discharge risk that cannot be adequately managed with isolated controls and staging.

3.1.4 Stockpile Procedure

Where soil stockpiles are required, they shall be maintained at a low level (no more than 3m in height). Stockpiles shall not be placed in an area where runoff cannot be controlled.

The stockpiling of potentially contaminated soil may be necessary for these works. The stockpiles shall be managed by the Contractor as follows:

- Stockpiles shall be sited within an area away from the main working area to minimise potential contact by site workers.
- Stockpiled materials shall be placed on suitable material (e.g., polythene sheet) to prevent contaminants leaching into clean soils; and
- Where adverse weather is forecast, the stockpiled material shall be covered by a suitable material (such as polythene) to prevent the ingress of rainwater into the material and therefore minimise the potential for generation of leachate or sediment in stormwater.

Soil removal procedures are outlined in Section 3.2.2.

3.1.5 Piezometer Protection or Decommissioning

The two piezometers installed onsite either need to be protected during the works or decommissioned. Decommissioning needs to be in accordance with Section 4 of Schedule 14 (Standards for the Construction, Reconstruction, Maintenance or Decommissioning of Holes, Bores, Wells and Infiltration Galleries) of Regional Plan.

3.2 Soil Excavation/Disturbance Procedures

The majority of excavated hard fill material will be reused for reforming the site surface or reprocessed into an asphalt product. Any soils excavated must be stockpiled and tested to determine contaminant concentrations if intended for disposal offsite. These results will determine a suitable offsite disposal location.

3.2.1 Unexpected Contamination Discovery

The procedures outlined below provide the Contractor with protocols to identify potential contamination if suspected contaminated soils or hazardous materials are discovered during the excavation works other than contaminated soils already identified in this CSMP. These protocols will enable the appropriate action to avoid exposure of contaminants to site workers or the dispersion of contaminants into the surrounding environment.

Contamination indicators or hazardous materials may include but are not limited to the following:

- Unusual odours

[5] Erosion and Sediment Control Plan – Aerodrome Road Asphalt Plant Upgrades; 17 November 2022; Beca Ltd.

- Discoloured or stained water seeps and soils
- Petroleum hydrocarbon contaminated soil and/or free product
- Liquid waste, putrescible waste, household refuse and any material that normally would be sent to a licensed landfill
- Suspected Asbestos Containing Material (ACM)
- Intact or broken drums and containers.

During the earthworks on site, the Contractor shall actively monitor for the conditions/materials specified above. If one of these is identified, the Contractor should take the following actions:

- Stop all earthworks within a 5m radius of the area where the suspected material/emission/discharge has been recorded
- Immediately notify the site supervisor
- Cordon off the area as practicable with a suitable barrier.
- Work shall not resume or commence within a 5m radius of the area unless authorised by the Engineer's Representative.

The site supervisor shall contact the Engineer's Representative who will consult with the SQEP and advise on the appropriate course of action. The SQEP or delegated Environmental Representative shall:

- Notify the regulatory authorities (TCC), if required, that contamination has been discovered and contingency action is being implemented.
- Characterise the contamination by collecting samples for chemical laboratory analysis.
- If appropriate, advise the Contractor to excavate the suspected contaminated material and stockpile, or place in a covered container to allow works to continue with minimum delay.
- If stockpiling/containerising is inappropriate, advice construction work to proceed to an area clear of contamination indicators until material testing, as necessary, defines the material characteristics.
- When the material characteristics have been established, advise the site supervisor as to whether the materials may remain on site or what remedial measures are required to manage this material on-site, or the options available to disposal of this material off-site (as per Section 3.2.2).
- Instruct relevant staff so that all appropriate information such as location and quantity of material and off-site weighbridge dockets are recorded.

Should asbestos be observed or suspected during the earthworks, all work shall cease within a 5m buffer of the discovery and Health & Safety at Work (Asbestos) Regulations (2016) will be followed. Works can recommence once asbestos has been removed safely. Any such asbestos works (assessment, delineation, removal and verification) shall be undertaken by a specialist asbestos contractor.

3.2.2 Off Site Soil Disposal

Offsite disposal of contaminated soil may be required and must be to a facility licensed to accept such material. Approval shall be obtained by the disposal site prior to transportation.

The excavation, handling and off-site removal of the material shall be managed by the Contractor as follows:

- Soil requiring excavation for disposal offsite, or reuse shall be excavated and stockpiled for testing prior to moving offsite, subject to the necessary approvals being obtained from the disposal facility. One sample shall be collected per ~50m^3 of excavated soil. The testing suite should include heavy metals, total petroleum hydrocarbons and polycyclic aromatic hydrocarbons.
- All trucks shall be covered before leaving site and any soils brushed off wheels to avoid tracking onto public roads. Should the site become wet and material adheres to wheels a wheel wash facility should be considered.

- The Contractor shall maintain a register of soil testing, disposal location, quantity of material and off-site weighbridge documents. The Contractor must retain all disposal receipts/documentation and provide to Fulton Hogan.

3.3 Post-Earthworks Procedures

Upon completion of earthworks, all plant and equipment shall be cleaned and decontaminated prior to leaving site. This cleaning should be, at a minimum, sweeping all machinery and equipment to remove loose soil and debris. Any water involved in washing machinery or equipment should be contained onsite and allowed to seep into site soils.

3.4 Imported Materials

Material imported to the site for the purposes of filling and landscaping shall be certified cleanfill. Records must be provided by the Contractor to demonstrate that any imported material is obtained from a quarry or other certified source. Material shall not be imported from any site that is, or would be considered, a Hazardous Activities and Industries List (HAIL) site (MfE, 2011), unless sampled by a suitably qualified environmental practitioner to show that it is suitable for the intended land use and is acceptable to the client.

3.5 Groundwater Procedures

Groundwater levels are expected to be in the region of 1.5 – 2.5m bgl and therefore the service installation works and potentially structure foundation installations may encounter groundwater. The majority of earthworks associated with re-grading the site's surface are unlikely to encounter groundwater.

Should groundwater require management during the excavation and piling works, the Contractor shall:

- Contain groundwater within the excavation or pile hole and not allow it to discharge across the site surface.
- If dewatering is required, the pumped groundwater discharge can be discharged to an onsite dewatering sump located away from the works to allow the passive recharge of the aquifer.
- Groundwater can be discharged to the existing tradewaste network on site with approval from TCC. Consent may be required for discharging to tradewaste, likely requiring the analysis of groundwater throughout dewatering activities and the assessment of discharge rates. Any required sampling must be undertaken by a suitably qualified environmental practitioner.
- In no instance shall groundwater be disposed of to stormwater without an assessment of contamination levels.

The Contamination Assessment undertaken identified a low risk of contamination exposure from groundwater contact. As such, health and safety protocol outlined below are appropriate for staff coming into contact with groundwater and no extra provisions are considered necessary for the management of potential PFAS impacted water.

Any dewatering of groundwater will be required to meet relevant Regional Plan requirements.

4 Health and Safety Procedures

Given the land use activities that have occurred at the site, there is the potential to encounter contaminated soils and/or groundwater as part of the proposed site works. Prior to work being undertaken, a Job Safety and Environment Analysis (JSEA) will be carried out by the Contractor that will identify the appropriate personal protective equipment (PPE) and behaviours to reduce the exposure risk. Note the contaminants identified at this site potentially pose a low health risk to construction workers.

Workers may be exposed to contaminants via the accidental ingestion or inhalation, or skin contact with soil and/or groundwater. To prevent this exposure, procedures should be followed by workers who are likely to encounter contaminated soil and/or water, including the following:

- Wear cloth overalls (for potential soil contact workers).
- All staff physically involved in works likely to result in hand contact with contaminated materials should wear gloves.
- Wear a P2 dust mask if conditions generate dust.
- Minimise hand to mouth contact.
- Wash hands and face prior to eating, drinking or smoking.
- No eating or drinking within the excavation area.
- Wash any skin abrasions immediately and treat to prevent infections.
- Follow any additional requirements in the Contractor (Site Specific) Health and Safety Plan (CHSP).

Further hazards may be identified during the works. The Contractor is responsible for reviewing any new work element and assessing whether there are any new associated hazards, and whether these can be eliminated, isolated or minimised. The Contractor shall then instruct all staff on the health and safety procedures associated with the new hazard and update the site CHSP.

5 Summary

- This CSMP has been informed by the Contamination Assessment and PSI undertaken for the project and is to be provided to support resource consent application.
- No contaminants assessed in the investigation were identified in soil and groundwater at concentrations that would present a risk to human health or the environment during the construction of the project. Despite this low risk, this CSMP has been prepared on a precautionary basis given on the limited scope of the investigation and inability to fully characterise the site's contamination status.
- Accidental discovery protocol has been incorporated in this CSMP and a suitably qualified and experienced practitioner (SQEP) in the contaminated land field is to be available during project works.
- This CSMP is intended to be a live document and will be updated in the event of any new discoveries or changes in project design and methodology.
- Based on the low volume of earthworks and results of the contamination assessment, no additional soil sampling pre-works is considered necessary.
- Dewatering will likely involve an onsite discharge sump removed from the dewatering (excavation) area. Monitoring of dewatering is required, however no additional sampling of groundwater is considered necessary. No dewatering discharges will be directed to stormwater.
- Basic PPE requirements for workers involved in soil or groundwater contact works include disposable coveralls, dust masks (if conditions produce dust), water resistant gloves, and standard good hygiene and cleaning requirements.
- Soil sampling and analysis is required for soil disposal offsite. This sampling and analysis can be undertaken pre-works if excavation areas are known. Or, alternatively, from spoil stockpiles that will require management through works.

6 Limitations

This report has been prepared by Beca Ltd solely for Allied Asphalt Ltd (Client). Beca has been requested by the Client to provide a Contaminated Site Management Plan (CSMP) in relation to the Asphalt Plant upgrades at the Allied Asphalt 54 Aerodrome Road property. This report is prepared solely for the purpose of the management of contaminated soils encountered during this project. The contents of this report may not be used by the Client for any purpose other than in accordance with the stated scope.

This report is prepared solely for the Client. Beca accepts no liability to any other person for their use of or reliance on this report, and any such use or reliance will be solely at their own risk.

Unless specifically stated otherwise in this report, Beca has relied on the accuracy, completeness, currency and sufficiency of all information provided to it by, or on behalf of, the Client or any third party, and has not independently verified the information provided. Beca accepts no responsibility for errors or omissions in, or the currency or sufficiency of, the information provided.

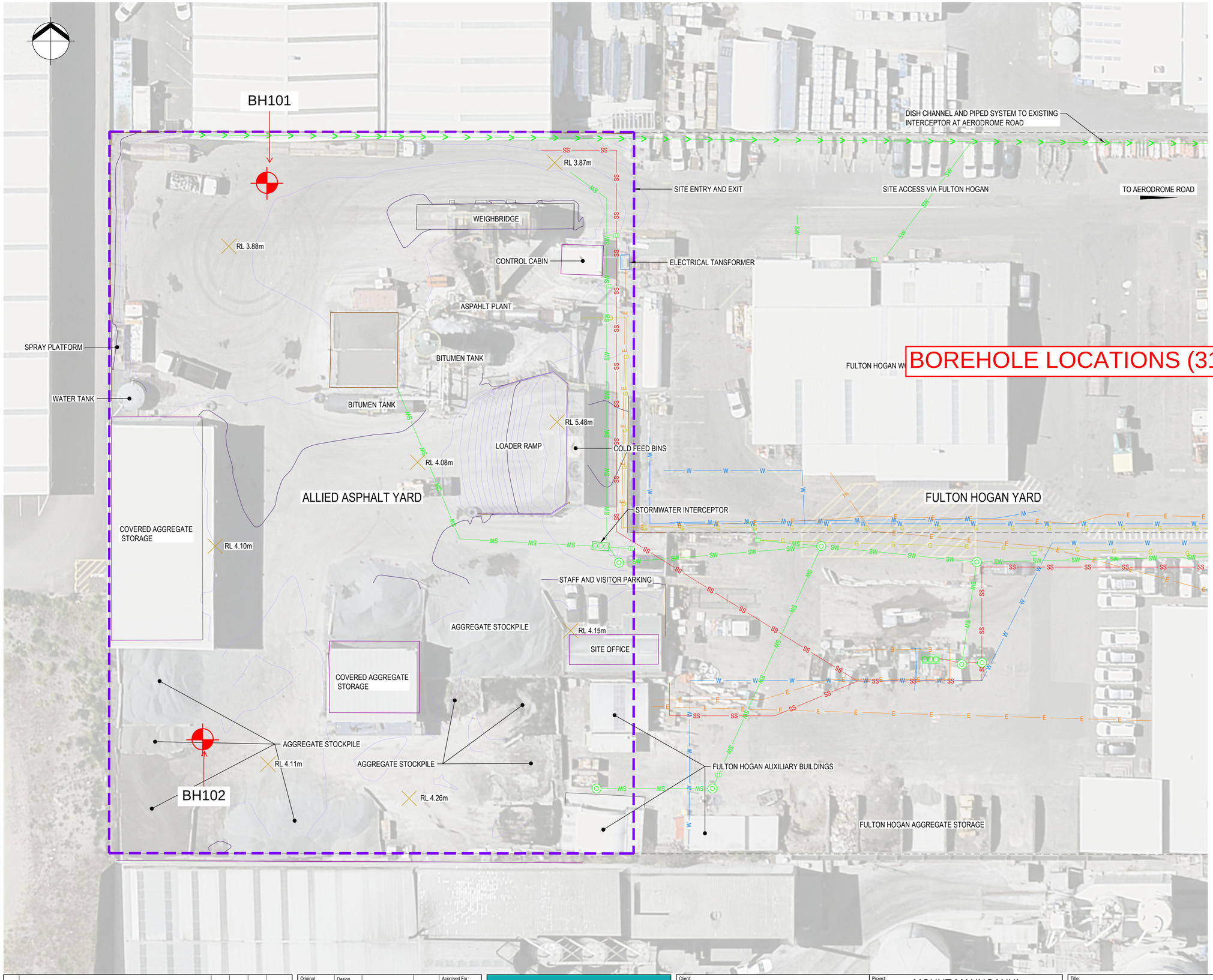
The contents of this report are based upon our understanding and interpretation of current legislation and guidelines (“Standards”) as consulting professionals, and should not be construed as legal opinions or advice. Unless special arrangements are made, this report will not be updated to take account of subsequent changes to any such Standards.

This report should be read in full, having regard to all stated assumptions, limitations and disclaimers.

A

Appendix A – Piezometer Location Plan

Drawing Plotted: 23 Nov 2022 11:45 am



LEGEND

- CADASTRAL SITE BOUNDARY
- REDVELOPMENT SITE BOUNDARY
- MAJOR CONTOURS (1m)
- MINOR CONTOURS (100mm)

EXISTING SERVICES

- SS — SEWER LINE
- W — WATER LINE
- G — GAS
- E — POWER
- SW — STORMWATER LINE
- STORMWATER CHANNEL
- STORMWATER MANHOLE
- STORMWATER SUMP

NOTES

1. REFER TO DRAWING 3936244-CA-001 FOR GENERAL NOTES.

BOREHOLE LOCATIONS (31ST JAN)

No.	Revision	By	Chk	Appd	Date
B	FOR RESOURCE CONSENT	JS	JVZ	JVZ	18.11.22
A	DRAFT FOR CLIENT REVIEW	JS	KW	JVZ	07.07.22

Original Scale (A1) 1:250
Reduced Scale (A3) 1:500

Design | Drawn | Dsg Verifier | Drg Check | Approved For Construction* Date

* Refer to Revision 1 for Original Signature

Client: ALLIED ASPHALT

Project: MOUNT MAUNGANUI ASPHALT PLANT CONSENTING

Title: EXISTING SITE PLAN

Discipline: CIVIL

Drawing No.: 3936244-CA-010

Rev.: B

RESOURCE CONSENT
NOT FOR CONSTRUCTION

Document No. 3936244-CA-010.DWG

DO NOT SCALE FOR SET OUT DIMENSIONS