



Former Hoovers Site, Merthyr Tydfil.

Construction Environmental Management Plan

Quality control

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Contents

1.0	Introduction.....	1
1.1.	Terms of reference	1
1.2.	Purpose of document	1
1.3.	Roles and Responsibilities	1
2.0	Summary of the Proposed Development.....	3
3.0	Scope of the Works	5
4.0	Programming and Phasing of the Works.....	6
5.0	Pre-construction surveys.....	7
5.1.	Ecology	7
5.2.	Contaminated land	7
5.3.	Environmental	7
6.0	Site Clearance	8
6.1.	Sequencing	8
6.2.	Maintenance and retention of reptile-proof fencing and adjacent vegetation	
	Error! Bookmark not defined.	
6.3.	Topsoil retention	8
6.4.	Invasive Species	8
7.0	Fencing.....	10
7.1.	Tree protection fencing	10
7.2.	Invasive Species Fencing	10
7.3.	Reptile Exclusion Fencing.	
	Error! Bookmark not defined.	
8.0	General construction and environmental management.....	11
9.0	Key Environmental Issues.....	13
9.1.	Site Hours	13
9.2.	Site Security and Compound	13
9.3.	Fuel Storage	13
9.4.	Temporary Lighting	14
9.5.	Site Traffic	14
9.6.	Wheel-washing Facilities	15
9.7.	Asbestos	15
9.8.	Contamination	17
9.9.	Protected Species	19
9.10.	Tree Protection	19

9.11. Invasive Species	19
9.12. Watercourses & surface water management, protection of waterways	20
9.13. Noise	20
9.14. Air Quality – Dust	20
9.15. Air Quality – Odour and Vapours	21
9.16. Environmental Monitoring	21
9.17. Imported Materials	24
10.0 Training and Performance monitoring	25
10.1. Staff training	25
10.2. Weekly inspections	25
10.3. Quarterly audits	25
10.0 Training and Performance Monitoring	25

Appendices

Appendix A

Walters team organogram

Appendix B

Preliminary Ecological Appraisal

Appendix C

Site Waste Management Plan

Appendix D

Surface Water Management Plan

Appendix E

Remediation Strategy

Appendix F

Construction Method Statement

Appendix G

Invasive Species Method Statement

Appendix H

WRAP Protocol

Appendix I

Weekly Environmental Inspection Proforma

Appendix J

Environmental Monitoring Method
Statement

Appendix K

Sustainability and Environmental Site Induction

1.0 Introduction

1.1. Terms of reference

1.1.1. Walters Land Ltd has appointed Walters UK Ltd to provide construction advice and to discharge planning conditions for the enabling works including demolition, remediation, earthworks and Section 278 infrastructure works associated with the former Hoovers Site Pentrebach, Merthyr Tydfil. It is expected that Walters UK Ltd will become Principal Contractor for these works.

1.1.2. The housebuilders will discharge all Planning Conditions relating to the housebuilding works. When the housebuilding works start the housebuilders will be Principal Contractor for the site.

1.1.3. This Plan has been prepared by Walters UK Ltd for the enabling works only.

1.2. Purpose of document

1.2.1. The purpose of this document is to describe the management arrangements that will be put in place to safeguard the environment during the enabling works that form part of this phase of the development. The main aim of the document is to set out the commitments made by Walters to protect and enhance the environment during the works, in accordance with our industry-leading commitment to best practice.

1.2.2. This document is a requirement in accordance with Condition 10 of Merthyr Tydfil County Borough Outline Planning Permission No. P/25/0165, which states:

No development, including site clearance, shall commence until a final version of a site wide Construction Environmental Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority. The CEMP should include:

- Construction methods: details of materials, how waste generated will be managed.
- General Site Management: details of the construction programme including the timetable and details of any site clearance; details of site construction drainage, containments areas, appropriately sized buffer zones between storage areas (of spoil, oils, fuels, concrete mixing and washing areas) and any watercourse or surface drainage.
- Soil Management: details of topsoil strip, storage and amelioration for re-use.
- CEMP Masterplan: details of the extent and phasing of development.
- Resource Management: details of fuel and chemical storage and containment; details

of waste generation and its management; details of water consumption, wastewater and energy use.

- Traffic Management: details of site deliveries, plant on site, wheel wash facilities.
- Pollution Prevention: demonstrate how relevant Guidelines for Pollution Prevention and best practice will be implemented, including details of emergency spill procedures and incident response plan.
- Details of the persons and bodies responsible for activities associated with the CEMP and emergency contact details.
- Landscape/ecological clerk of works to ensure construction compliance with approved plans and environmental regulations.
- A scheme for the retention and storage of original features within the site and on the building (including the Hoover signage), which can be re-used and incorporated into the development as part of a wider heritage strategy.

The CEMP shall be implemented as approved during the site preparation and construction phases of the development.

Roles and Responsibilities

1.2.3. Walters UK has been appointed as Principal Contractor ("PC") to carry out enabling works at the Site. The PC is required to develop a Construction Environmental Management Plan ("CEMP") that meets the requirements of ISO 14001, as part of an Environmental Management System for the scheme ("EMS").

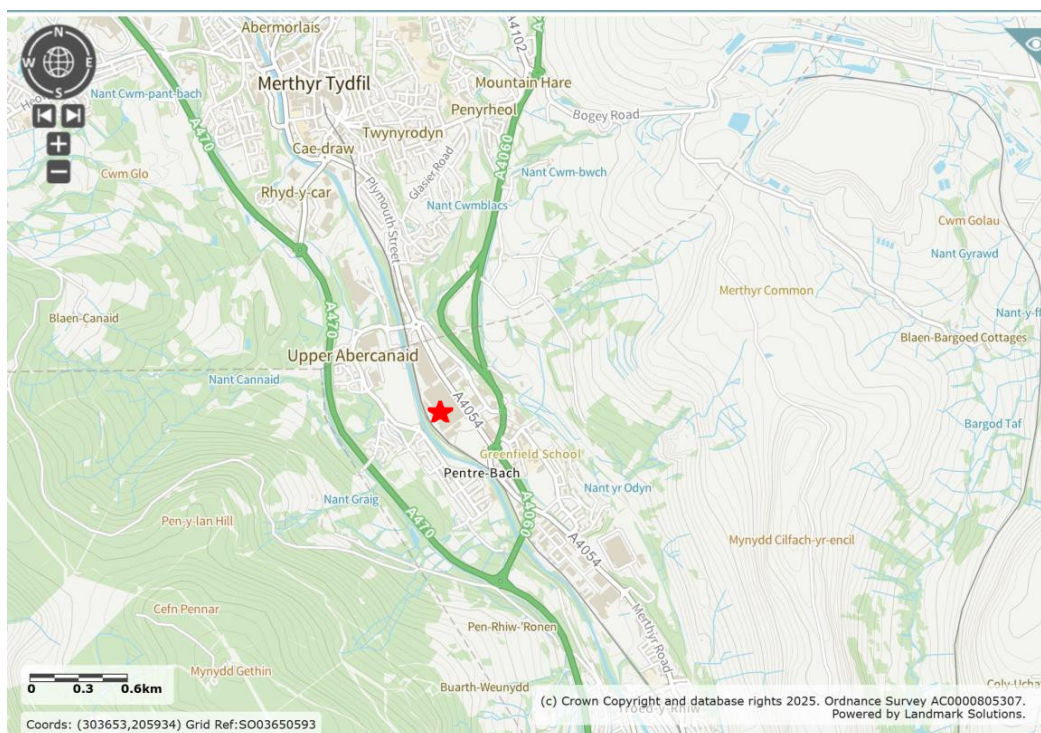
1.2.4. The collation, updating and implementation of this CEMP is the responsibility of the Walters Project Manager.

1.2.5. A copy of the scheme organisational chart is enclosed at **Appendix A** and includes detail of the roles and responsibilities of the scheme.

2.0 Summary of the Proposed Development

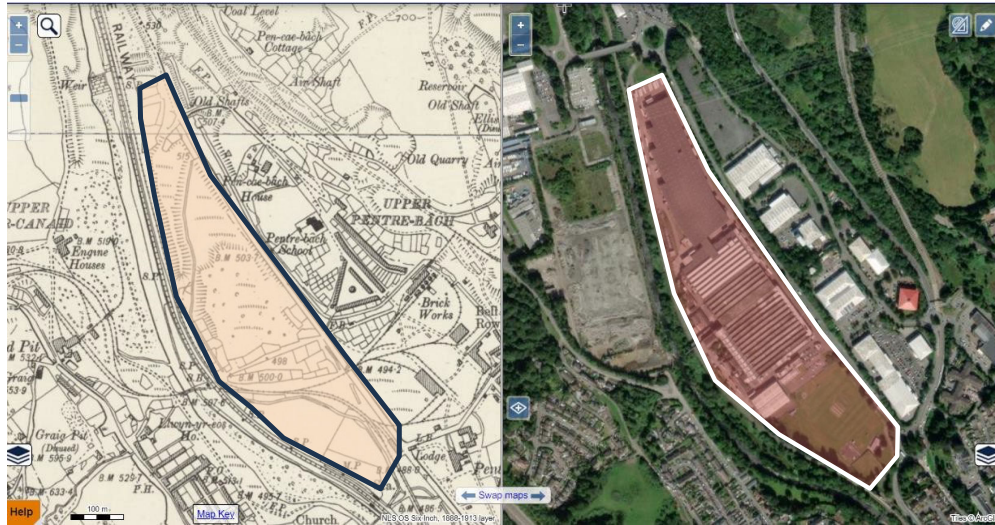
2.1. Site Location and Description

2.1.1. The site is located on the west of Merthyr Road, the site centre coordinates being 305701mE; 204213mN and the nearest postcode being CF48 4TU. It covers an area of approximately 13.66ha and is the former Hoover manufacturing plant opened in 1948 with production finishing in 2009 after which it was primarily used as a warehouse and distribution centre.



2.1.2. The site is bounded to the east by the A4054 (Merthyr Road) and a live Network Rail line to the west which in turn lies adjacent and east of the River Taff. It is primarily hard surfaced with buildings, service yards and highway infrastructure although a cricket pitch and bowls green occupy approximately 3.38ha of the lower half; a treelined verge forms the eastern boundary immediately adjacent Merthyr Road.

2.1.3. The site is relatively flat in nature with pronounced terracing stepping down in a southerly direction from 159m AOD to 149m AOD.



2.1.4. The site will deliver new residential development supported by a community hub and employment development area. A minimum of 1.79 ha is allocated to green infrastructure and open spaces and indicative areas for play, heritage interpretation and SuDS attenuation features.



3.0 Scope of the Works

3.1.1. The enabling works will broadly consist of the following works;

- ➔ Ecological mitigation works;
- ➔ Site clearance;
- ➔ Treat Japanese knotweed, and any other invasive plant species;
- ➔ Strip topsoil & stockpile for re-use;
- ➔ Strip bituminous surfacing & stockpile;
- ➔ Break up concrete slabs and foundations to min depth of 2m, process for reuse as general fill;
- ➔ Excavate made ground to max depth of 2m and re-compact to earthworks profile;
- ➔ Bio-remediate contaminated soils for re-use on site as necessary;
- ➔ Treat contaminated groundwater as necessary;
- ➔ Dispose off site of any contamination, which after treatment exceeds the Site Specific Acceptance Criteria as necessary;
- ➔ Soil validation testing;
- ➔ Groundwater validation testing; and
- ➔ Section 278 works to create two new access junctions off A4054 Merthyr Road.

4.0 Programming and Phasing of the Works

4.1.1. The enabling works will commence as soon as the pre-commencement planning conditions are discharged. It is hoped that this will be achieved to enable remediation works to commence in the summer of 2026. The works are expected to take 40 weeks.

4.1.2. The improvements to the site accesses and service diversions will run concurrently to the remediation works.

5.0 Pre-construction surveys

5.1. Site features

5.1.1. Prior to demolition, a survey will be carried out to identify any features within and on the exterior of the existing buildings, such as the Hoover signs, can be reused, retained and incorporated into the development.

5.1.2. Any features to be retained and reused will be stored in the construction compound while demolition works are taking place.

5.2. Ecology

5.2.1. Ecological surveys were undertaken to support the outline planning application. Prior to the enabling works, the scheme ecologist will carry out a survey to verify that nothing has materially changed. If anything has changed, the Ecological Method Statement will be amended accordingly, with the agreement of Merthyr Tydfil County Borough Council.

5.3. Contaminated land

5.3.1. Testing and monitoring will be carried out during the proposed works as stated within the Remediation Strategy within **Appendix E**.

5.4. Environmental

5.4.1. Prior to the commencement of works, a baseline survey shall be undertaken to define baseline environmental conditions on the site, including;

- ➔ noise;
- ➔ dust and particulates;
- ➔ odour and vapour;
- ➔ ground gas (methane, carbon dioxide, carbon monoxide, hydrogen sulphide; and
- ➔ asbestos fibres.

5.3.2. Surface-water and groundwater monitoring will be undertaken.

5.3.3. Air baseline surveys will be undertaken in accordance with the Environmental Monitoring Method Statement, which forms **Appendix J** to this document.

6.0 Site Clearance

6.1. Sequencing

- 6.1.1. Prior to site clearance, protective fencing will be installed around environmentally sensitive areas and trees as required.
- 6.1.2. With regards to timings, all above ground vegetation clearance will be undertaken between October and February/early March inclusive where practicable so as to avoid the bird nesting season. Should vegetation clearance be required prior to this, then such works will be carried out under ecological supervision/guidance.
- 6.1.3. Vegetation removal thereafter, or within areas of negligible ecological value, will be undertaken through use of excavators and/or chainsaws, with arisings loaded into articulated dump-trucks for storage on site for degrading prior to eventual reuse.
- 6.1.4. Vegetation will be kept short through regular maintenance to prevent reptiles from re-entering the area via tall or unmanaged vegetation that could create a bridge over cleared areas.

6.2. Topsoil retention

- 6.2.1. Most of the site is covered by hard-standings and topsoil is limited generally to the southern boundary of the site. Topsoil shall be carefully stripped, handled and stored for re-use in the development. Most of the site is covered by hard-standings and topsoil is limited generally to the southern boundary of the site. In most areas, topsoil will be stored and re-used as close to its point of origin as possible.

6.3. Invasive Species

- 6.3.1. Japanese knotweed, Himalayan balsam are present within the site, but not in the area of the proposed remediation zones. The extent and type of invasive species is indicated in the Invasive Species Eradication Plan (Appendix G)
- 6.3.2. Prior to commencement of the enabling works all areas supporting invasive species, to include a 7m radius specific to Japanese knotweed, will be demarcated through use of high visibility marking so as to avoid accidental disturbance and spread. Above ground stems will be cut and dried prior to their licensed disposal off site. Soil contaminated with rhizomes and roots will be excavated by a tracked excavator, loaded into an articulated dump-truck and hauled to the southwestern end of the site where it will be placed in a bund for further treatment with appropriate herbicides prior to eventual removal from site. All works in relation to invasive species will be carried out in

accordance with the Invasive Species Method Statement in **Appendix G** and in accordance with the Knotweed Code of Practice by the Environment Agency. Treatment of Himalayan balsam will be carried out as detailed within Invasive Species Method Statement.

7.0 Fencing

7.1. Tree protection fencing

7.1.1. A series of temporary fences are required during the construction phase in order to protect the environment within which the works will be taking place.

7.1.2. Tree protection fencing shall be erected in accordance with the Preliminary Ecological Appraisal. The purpose of this fencing is to prevent encroachment of the works into the valuable woodland habitat, and to protect important trees. Tree protection fencing shall be constructed in accordance with the specification and shall be maintained for the duration of the construction works.

7.2. Invasive Species Fencing

7.2.1. High visibility fencing and warning signs will be installed around any areas contaminated by invasive species to ensure that growth of the plants is not spread in other areas of the site. Staff will be briefed during induction of the presence of the invasive species.

8.0 General construction and environmental management

8.1.1. This section details the sequence of general construction activities required to deliver the enabling works. In each case, the required environmental management requirements are detailed, cross-referencing method statements that form appendices to this CEMP where necessary. This section provides a ready-reference for use by site operatives to ensure they are delivering the works with due consideration of environmental matters:

Table 8-1

No .	Construction operation	Environmental requirements	More detail
1	Topsoil stripping	- the management of soil shall be undertaken in accordance with the Defra guidance document "Construction Code of Practice for the Sustainable Use of Soils on Construction Sites". - topsoil will be stripped using a tracked excavator fitted with a grading bucket and loaded into articulated dump-trucks for stockpiling for re-use. - topsoil stockpiles will be no deeper than 2m and will be confined to within the centre of the site and away from all vegetated boundaries/features. - topsoil will be stripped in a progressive manner, commencing from the site entrance head in a N – S direction. - topsoil to be stockpiled on down-slope side of road construction alignment, thus providing a barrier to down-slope water and silt run-off in rainfall events.	Defra guidance Appendix B,C,H & I
2	Removal and Processing of Hard Materials	Tarmac will be stripped from the surface using an excavator and loaded into articulated dump-trucks for stockpiling for later reuse. Concrete slabs and foundations will be broken out using and excavators fitted with breakers and munchers. Reinforcement will be separated for recycling. Concrete will be processed using a crusher to create a general fill material. Concrete will be fed into the crusher using an excavator or loading shovel. Processed concrete will be loaded into dump-trucks and used as general fill or for geotechnical conditioning of the existing ground or used in the infrastructure works.	Appendix C,&E
3	Contamination	Areas of contaminated soils will be demarcated and excavated using an excavator and loaded into articulated dump-trucks and hauled to the designated bio-remediation pad, created on existing concrete slabs in the south of the site. The material will be tipped and formed into windrows using an excavator. The material will be remediated by	Appendix E & H

No .	Construction operation	Environmental requirements	More detail
		adding ameliorants and by turning using a tractor towed turner. When tests indicate that the material meets the Site Specific Acceptance Criteria it will be excavated using a tracked excavator and loaded into articulated dump-trucks for hauling to a fill area, where it will be tipped and spread using a bulldozer and compacted using a compactor.	
4	Turn and Compact	After the surface concrete has been broken out and removed, the made ground across the site will be excavated typically to a depth of 1m but could be up to 2m if required by a tracked excavator. All material will be loaded into articulated dump-trucks. The first material will be stockpiled locally until enough has been excavated to create a suitable area for filling. Then the material will be hauled a short distance to the fill area, where it will be tipped and spread using a bulldozer and compacted using a compactor.	Appendix E
5	Creation of attenuation Ponds	- The attenuation pond will be constructed in the south of the site - The pond will be lined using a HDPE Liner. - Terram lined bales will be used to remove suspended solids from discharging into existing watercourses. - Monitoring of water quality to be carried out.	Appendix H
6	Highway Works	- Realignment of existing kerb lines to create vision splays. - Upgrading and installations of new kerbs.	Appendix F
7	Service diversions & Installations	- New Sub-station and connection of new electric main. - Connection of new gas main. - Installation of Telecom Supply. - Installation of Water Supply.	Appendix F

9.0 Key Environmental Issues

9.1. Site Hours

9.1.1. It is proposed to work generally in daylight hours but restricted to:

- ➔ Mon to Fri 08.00am to 18.00pm
- ➔ Sat 08.00am to 13.00pm

10.1.2 All deliveries and removal of plant, equipment, machinery and waste from site will only take place during these hours.

10.1.3 No emergency deviation to the times listed above are envisaged for the project. In the event of an emergency Merthyr Tydfil County Borough Council would be consulted and approval sought, prior to works being carried out.

9.2. Site Security and Compound

9.2.1. The existing site boundary is currently secure, consisting largely of a concrete post and wire fence around the perimeter, with locked gated access to enter the site from Merthyr Road Pentrebach. Any gaps in the fence will be made good to provide a secure perimeter fence.

9.2.2. In the daytime, security will be provided by a gateman or site staff who will control access to the site, with all visitors having to report to the site office and sign in. Everyone leaving site will have to report to the office and sign out. This will include a vehicle check whether the vehicle needs to be cleaned before using the public highway. Outside working hours, the site access will be locked and site security will be provided based in the offices and compound area.

9.2.3. The location of the initial compound and storage areas will be in the South of the site on existing hard standings. Staff and operatives will park their vehicles on the designated car parking area on existing hardstanding areas in the compound. This is shown on Walters Sketch included with the Construction Method Statement, contained in **Appendix F**.

9.3. Fuel Storage

9.3.1. Fuel will be stored in the compound area. Storage tanks will either be double skinned or contained in bunded areas with 110% capacity of the tank. Fuel bowsers will be used to distribute fuel around the site. Fuelling will be undertaken in designated areas located at least 10m away from sensitive areas, including watercourses. The fuel bower, all operated plant and foreman will have spill kits in their cabs. Further spill kits will be kept in the storage containers in the

compound.

9.4. Temporary Lighting

9.4.1. The programme for the works has been determined assuming work in daylight hours only and we therefore do not anticipate the need for temporary lighting on site.

9.4.2. Some lighting will be required within and around the compound area. The location for the compound (in the area of existing car park in the South of the site) has been chosen as it is located sufficiently away from woodland and streams, and so will minimise any disturbance to wildlife. Notwithstanding this, the lighting requirements will be arranged to minimise light spill into adjacent areas.

9.4.3. If for any reason task lighting is required in hours of darkness, this will be set up facing away from, light-sensitive ecological corridors.

9.5. Site Traffic

9.5.1. The heavy goods vehicle movements to and from the site will utilise the existing access of A4054 Merthyr Road. The majority of vehicles are expected to connect to the A470 and A4054.

9.5.2. The remediation and earthworks have been designed to minimise vehicle movements to and from the site.

9.5.3. The only materials currently anticipated to be removed from site are limited to:

- any soils excavated from the site deemed not suitable for re-use on site, following assessment for hydrocarbon and asbestos content in accordance with the Remediation Strategy.
- Asbestos removed during demolition phase to a licenced facility.

9.5.4. During the enabling works, no permanent materials will be brought to site. Deliveries to the site will therefore just be plant, materials and equipment to carry out the works, which would generally be brought to site early in the project and removed from site towards the end.

9.5.5. All deliveries and materials leaving or entering the site will be carried out using road wagons that are sheeted. All heavy goods vehicle drivers will be given a "lorry drivers induction" on arrival, in which the requirements for sheeting loads will be explained. All suppliers will be informed of the sheeting requirements for the site prior to delivering to the site.

9.6. Wheel-washing Facilities

9.6.1. The existing on-site road network will be maintained as much as possible so that vehicles don't pick up mud on their wheels.

9.6.2. As the enabling works progress, new stone roads will be constructed, which will be used by vehicles.

9.6.3. All staff and operatives' light vehicles will be kept to the compound areas when on site. These areas will be kept in a clean state by road-sweepers and the like, as necessary.

9.6.4. Similarly, low-loaders and delivery vehicles will unload their loads in clean areas of the site on existing hard standings or stoned areas, which will be kept clean.

9.6.5. Vehicle cleaning and wheel washing facilities will be available. All people leaving the site will have to report to the site offices and have their vehicle checked for cleanliness. If necessary, they will be required to use the wheel washing facilities before using the public highway.

9.6.6. A dedicated wheel wash area will be created just before the exit from the site. A jet wash will be used for cleaning vehicles and wheels. This area will be drained and run off will be collected in a settlement lagoon.

9.6.7. A jet-washer will also be used to clean vehicles down within a designated area utilised specifically for those vehicles leaving a demarcated contaminated area within the site, such as a Japanese Knotweed area, so as to stop cross contamination.

9.6.8. The public highway will also be regularly inspected and cleaned by road-sweepers as necessary.

9.7. Asbestos

Background

9.7.1. Previous investigation indicates that generally levels of asbestos within the Made Ground of the site do not exceed 0.001% w/w. However, in some isolated locations within the site, asbestos may be present typically in the following forms:

- ➔ Asbestos Containing Materials (e.g. cement bound asbestos).
- ➔ Asbestos fibres within soils.

9.7.2. The procedure for dealing with material that has been identified as potentially containing asbestos, the hazards which may be encountered from material containing asbestos and the

procedure necessary to minimise risks of injury or dangers to health are based on the following published guidance:

- ➔ Health and Safety Executive Asbestos Essentials Website (<http://www.hse.gov.uk/asbestos/essentials/>); specifically:
- ➔ A11 Removing asbestos cement debris.
- ➔ A38 Making safe and collect fly tipped asbestos waste.
- ➔ EM9 Disposal of asbestos waste.
- ➔ Work with materials containing asbestos – Control of Asbestos Regulations 2012 – Approved Code of Practice and guidance (ACOP).
- ➔ HSE OC 282/28 Fit Testing (www.hse.gov.uk/news/2009/fit-testing-poster.pdf).

Asbestos Management

9.7.3.If any asbestos is encountered, determination of asbestos type and condition by appropriate testing, ACM material volumes and duration of working times will determine the category of asbestos work. This will form part of the pre-works risk assessment and on-going review during the project, which will determine if the work is licensable or non-licensable and in the latter case, notifiable or non-notifiable (NB. Licensable work is always notifiable). Where necessary, competent HSE licensed contractors will be employed.

9.7.4.Detailed method statements for the assessment and handling of asbestos related works will be produced as part of the Site Specific Health and Safety Plan, as required.

Disposal of Asbestos Waste

9.7.5.If larger pieces of ACM (cement bound asbestos) are encountered during the excavation works, these will be hand-picked and managed under appropriate duty of care to prevent spread of such materials within the site.

9.7.6.Where visible asbestos that cannot remain on site or ACM is recorded that is likely to exceed the 0.001% w/w target, material will be stockpiled and be subjected to asbestos identification analysis. If confirmed as ACM or asbestos fibres, quantification will be undertaken to determine the percentage of ACM/ asbestos. Active monitoring of stockpiles or work areas will also be undertaken to demonstrate that the legal control limit of 0.1 asbestos fibres/cm³ of air is not exceeded.

9.7.7.Material containing asbestos that cannot remain onsite, will be disposed offsite under appropriate duty of care.

9.7.8. Prior to disposal, asbestos containing material will be quarantined in a fenced area of the site either in marked covered stockpiles (impacted soils) or double bagged and placed in lockable storage depending on the nature of the materials encountered.

9.7.9. As appropriate, registration with the Natural Resources Wales as producers of hazardous waste will be undertaken before starting works involving Hazardous Class waste.

9.7.10. Asbestos containing materials will be disposed of as hazardous contaminated waste at an appropriately licensed facility. Transport containers will be designed to prevent escape of any waste. A Hazardous Waste Consignment Note will be issued for removal off-site along with a signed chain of custody ticket for each load.

9.8. Contamination

9.8.1. The Remediation Strategy has been approved by the outline planning application. Condition 24 of the consent sets out the need for the remediation works to be in accordance with the information approved by the outline planning permission, which includes the following works;

- ➔ Earthworks in areas of made ground, monitored by a qualified geo-environmental engineer to visually identify “hot spots” of contamination such as hydrocarbons and asbestos;
- ➔ Segregation and treatment (remediation) of contaminated materials exceeding the SSTLs;
- ➔ Disposal off site to licensed facilities any contaminated materials that cannot be remediated to meet the SSTLs;
- ➔ Treatment and collection of any free product encountered;
- ➔ Treatment of any contaminated perched water within the made ground;
- ➔ Removal of unacceptable material such as metal, wire, cloth, timber, visually identifiable asbestos;
- ➔ Boundary air monitoring; and
- ➔ Asbestos monitoring.

9.8.2. The key potential contaminant types requiring consideration for treatment and disposal are:

- ➔ Volatile Organic Compounds (VOCs)
- ➔ Petroleum Hydrocarbons (VPH/EPH)
- ➔ Polycyclic aromatic hydrocarbons (PAH)
- ➔ Metals
- ➔ Polychlorinated Biphenyls (PCBs)
- ➔ Asbestos

9.8.3. An options appraisal has identified that the key remedial options for addressing contamination issues at the site are:

- ➔ Delineation, Testing and Verification of material for direct re-use following excavations;
- ➔ Bio-physical treatment; and
- ➔ Offsite Disposal.

9.8.4. Where possible, material will be treated for re-use onsite to minimise offsite disposal. The treatment applies to contamination within the made ground including perched water.

Delineation, Testing and Verification of Materials

9.8.5. For general excavation of made ground soils, as the excavations proceed soils will be assessed on a visual and olfactory basis together with PID head space testing. Material will be classified based on these observations on the following basis.

- ➔ Clean material suitable for direct turnover and validated as clean by the existing site data.
- ➔ Materials requiring assessment which will be quarantined and tested for reuse if suitable, or sent for processing.
- ➔ Obviously contaminated materials requiring disposal, or treatment to retain onsite.
- ➔ Geotechnically or chemically unsuitable material, which requires offsite disposal and/or other processing e.g. wood, metal, plastic or asbestos (see Section 11.5).

Previously Unidentified Contamination

9.8.6. Should contamination be identified that is significantly different from that anticipated from the site history, investigation data and scope of the remedial strategy, the work in the vicinity of the contamination will stop and the area demarcated until agreement has been reached with the LPA on how the contamination should be addressed.

Disposal/Treatment

9.8.7. Material deemed, under the waste management hierarchy, unsuitable for retention within the permanent works either directly or following treatment on site will be removed from the site. Such materials will be handled under an appropriate duty of care. All materials will be transported offsite using an approved licensed waste carrier to appropriately licensed disposal facilities.

9.8.8. Records of all material and volume of material disposed offsite will be recorded including the disposal/treatment location. Haulage and gate tickets will be available for review during the works and the final volume and destinations will be presented in the verification report.

Recovery and Treatment of Perched Waters

9.8.9. Perched waters may be encountered during the works. Significant contamination of these water is not anticipated, but should free product (oils or similar) be encountered this will be recovered and be sent offsite for off-site disposal or re-use at a licensed facility under appropriate duty of care.

9.9. Protected Species

9.9.1. The protected species identified as requiring due care and attention on site during the works are;

- ➔ Nesting birds
- ➔ Bats
- ➔ Reptiles/Invertebrates

9.9.2. The Ecological protection works will be carried out under the supervision of the scheme ecologist and as contained within the Preliminary Ecological Appraisal, included at **Appendix B**.

9.9.3. A pre-works survey for protected species is to be undertaken by the scheme ecologist. If the status of these species has altered since the time of the previous survey, the Ecological Appraisal shall be amended accordingly, with the agreement of Merthyr Tydfil County Borough Council's ecologist.

9.9.4. Tree protection measures and lighting controls are to be implemented to protect the site's value as a foraging and resting place for bats, in accordance with Section 7.1 of this document.

9.9.5. Vegetation has been cleared ahead of these works to prevent the interaction of nesting birds and the required works. The ecologist shall review all work areas prior to commencement to ensure that there remains a lack of interaction.

9.10. Tree Protection

9.10.1. Tree protection fencing shall be constructed prior to all works commencing, to protect both trees, woodlands and bats that rely upon them. The details of this fencing are set out in Section 7.1 of this document.

9.11. Invasive Species

9.11.1. Invasive species (Japanese knotweed, Himalayan balsam) are to be eradicated from the works

area as part of the works. Measures are to be implemented to prevent the works further spreading these invasive plants. Full details on the works to be undertaken are provided in Section 6.3 and **Appendix G** of this document, in accordance with the Invasive Species Method Statement

9.12. Watercourses & surface water management, protection of waterways

9.12.1. The development slopes from north to south, a series of drainage ditches will be formed to intercept site runoff. This will be collected in a settlement lagoon at the south of the site prior to discharge in the existing outfall in the area.

9.12.2. Measures to be incorporated into the works to protect watercourses are set out in the Surface Water Management Plan, which forms **Appendix D** to this CEMP. All works associated with the lagoon construction of works must be undertaken in accordance with the relevant Ordinary Watercourse Consents.

9.13. Noise

9.13.1. The works are located within a relatively isolated plot of land. There are neighbouring industrial and retail properties to the east of A4054 and residential properties to the west separated by the Cardiff to Merthyr train line and river Taff.

9.13.2. The site works are not anticipated to make noise in excess of that already created by the existing highway network, or the adjacent Industrial Units. For the majority of the site, no special measures are therefore considered necessary. Notwithstanding this, the works shall be undertaken in accordance with best practice to minimise noise generation. Many of these measures are also important to help maximise the sustainability of the works, including;

- ➔ A no-idling policy, with engines to be turned off when vehicles are at rest, being loaded or awaiting loading;
- ➔ Use of plant fitted with quiet, silenced or low-noise engines; and
- ➔ Use of plant that is suitable and proportional to the work being undertaken.

9.14. Air Quality – Dust

9.14.1. Generation of dust is to be minimised by utilising the following series of controls. These controls are listed in a hierarchy of importance, with those at the top to be implemented fully before resorting to those measures lower down:

- ➔ Traffic existing site roads/hard surfaces as much as possible for as long as possible.

- ➔ Use of tractor-towed bowser with spray attachment to damp down working areas.

9.15. Air Quality – Odour and Vapours

9.15.1. Odour and vapours will be monitored daily in accordance with the Method Statement in **Appendix J**. This will be daily during working days on the tip excavation works. It is not anticipated that the works will give rise to unacceptable levels of odour or vapour, however, should unacceptable levels of odour or vapour be generated, contingency measures will be implemented to mitigate the levels.

9.16. Environmental Monitoring

9.16.1. Environmental Monitoring at the site will be split into various elements.

- ➔ Site-wide air and noise monitoring for the enabling works;
- ➔ Site-wide surface and groundwater monitoring for the enabling works; and
- ➔ Asbestos in-air monitoring as necessary determined by risk assessment.

9.16.2. The site wide monitoring will be undertaken on the boundary of the site. Proposed monitoring locations are presented in the Method Statement in **Appendix J**.

9.16.3. The site-wide monitoring will be agreed with Merthyr Tydfil County Borough Council. The surface and groundwater monitoring requirements will be agreed with Natural Resource Wales.

9.16.4. In outline, the following monitoring is proposed for agreement with the regulators.

Noise

9.16.5. The site is generally already quite well screened with trees. Surrounding the site are:

- ➔ Residential properties to the south and west; and
- ➔ Commercial retail and industrial premises to the east.

9.16.6. We will liaise with Merthyr Tydfil County Borough Council's Environmental Health Officer (EHO) to agree reasonable noise limits and agree a noise monitoring plan including monitoring points around the perimeter and at certain properties.

9.16.7. Onsite workers will be provided with suitable PPE. Trigger levels for noise are set in compliance with The Control of Noise at Work Regulations 2005 (the Noise Regulations) which came into force on 6 April 2006.

9.16.8. Background noise will be measured at the site boundary. Baseline monitoring of all the

monitoring parameters will be undertaken prior to the beginning of the remediation and earthworks.

9.16.9. Monitoring using a hand-held calibrated sound level meter will be carried out daily during active turning works at nominated monitoring points. Noise will be monitored over a 5 minute period at each location with the average and peak level recorded. After the collation and interpretation of the initial data the monitoring frequency will be reviewed and either increased or decreased as deemed necessary.

Vibration

9.16.10. No vibrations produced should be sufficient to cause any nuisance or structural damage to adjacent properties.

9.16.11. We will liaise with Merthyr Tydfil's EHO as to any requirements to monitor any vibrations and will liaise with and reassure local residents and businesses.

Air Quality – Dust

9.16.12. We will generally mitigate dust being produced and becoming airborne by continually damping the site down by spraying water from bowzers and other specialist suppression equipment such as dust bosses. This will include stockpile areas.

9.16.13. A letter drop will be carried out prior to works commencing with contact details for the site management team and Merthyr Tydfil's EHO department. Should a resident who has a particular susceptibility to airborne pollutants raise concerns action will be carried out to mitigate their concerns. These could entail additional resources deployed to damp down the site, targeted damping down using dust bosses, or moving plant to work in another part of the site until environmental conditions improve.

9.16.14. We will liaise with Merthyr Tydfil Council's EHO to monitor air quality around the perimeter of the site. Monitoring will use a combined Frisbee Dust Deposition and Directional Adhesive Strip Gauge.

9.16.15. Samples will be analysed for:

- ➔ mass of dust deposited
- ➔ assessment of direction
- ➔ examination under SEM for asbestos fibres as necessary

9.16.16. Additionally, we will specifically monitor air quality for asbestos fibres as necessary determined by appropriate risk assessment. This will be localised monitoring for the protection of the workforce.

Odour

9.16.17. Odour monitoring will be undertaken on a daily basis during active turning works. Odour monitoring will be undertaken using a subjective assessment of the presence and strength of character of an odour. During the time of assessment, a record of the meteorological conditions will also be noted. After collation and interpretation of the initial information this frequency may be increased or decreased as deemed necessary.

9.16.18. The categories of intensity, extent and sensitivity are noted below as outlined in the DEFRA Code of Practice on Assessment and Control of Odour Nuisance from Waste Water Treatment Works.

- ➔ Intensity
- ➔ 1 No detectable odour
- ➔ 2 Faint odour (barely detectable, need to stand still and inhale facing into the wind)
- ➔ 3 Moderate odour (odour easily detected while walking & breathing normally, possibly offensive)
- ➔ 4 Strong odour (bearable, but offensive odour)
- ➔ 5 Very strong odour (very offensive, possibly causing nausea)
- ➔ Extent (assuming odour detectable, if not then 0)
- ➔ 1 Local & transient (only detected on installation or at installation boundary during brief periods when wind drops or blows).
- ➔ 2 Transient as above, but detected away from installation boundary.
- ➔ 3 Persistent, but fairly localised.
- ➔ 4 Persistent and pervasive up to 50 m from plant or installation boundary.
- ➔ 5 Persistent and widespread (odour detected >50 m from installation boundary).

9.16.19. Action levels are to be set at 3 for both Intensity and Extent at which point odour reduction measures will be put into place i.e. covering of stockpiles, limiting area of open excavation, deodorising sprays.

9.16.20. Stop work levels are to be set at 4 for both Intensity and Extent at which point site works will cease until the odour problem can be rectified.

Vapour Monitoring (PID)

9.16.21. A PID is a versatile and robust instrument ideal for daily monitoring on site. It is sensitive to several hundred different VOCs. However, it cannot differentiate between VOC contaminants in air. Within the confines of the site itself this instrument is very useful in the context of worker-protection and as an early-warning for potential site-boundary or off-site receptor issues.

9.16.22. 'Real time' VOC monitoring will also be undertaken within the site as necessary at excavation faces and within work areas.

9.16.23. For monitoring within the areas of excavation, HSE document EH40 defines Workplace Exposure Limits (WELs) which have been set in order to protect the health of workers. These WELs are expressed as an 8-hour Time Weighted Average (TWA) and as a Short Term Exposure Limit (STEL) which is based on 15-minute reference period. For TCE the 8-hour TWA exposure limits is 15 ppm and benzene 1 ppm. A permitted working area exposure concentration will be adopted for the enabling works. Should the recorded average value exceed this limit over a 5-minute period additional monitoring for 15 minutes will be undertaken. If this limit is still exceeded mitigation measures will be put into place.

Monitoring Records

9.16.24. All sampling and monitoring will be undertaken in line with this document or site specific method statements. Any equipment required to undertake these tasks will be calibrated on a daily basis or as appropriate and maintained in accordance with manufacturer's instructions. Information pertaining to these actions will be recorded on site specific monitoring pro-forma and kept in the site files. This information will then be forwarded to the relevant parties within the timeframes agreed with the regulators.

9.17. Imported Materials

9.17.1. No imported topsoil or subsoil are required for the enabling works.

10.0 Training and Performance monitoring

10.1. Staff training

10.1.1. All site operatives will undergo an induction prior to being permitted to commence work on the Site. This induction shall include sustainability and environmental matters. A copy of the presentation for this aspect of the induction is provided in **Appendix K** to this CEMP.

10.2. Weekly inspections

10.2.1. During the works, a programme of weekly inspections shall be undertaken in order to monitor adherence to this document. These inspections shall be undertaken by the Walters Site Manager, EM or Walters PM. These inspections are designed to be an aid to the Site Manager and operative in delivering the aims and requirements of the environmental mitigation aspect of the works, with a focus on the physical delivery of the works on the ground.

10.2.2. An inspection proforma is included in **Appendix I** of this document. This is intended to be a live document, and as such will be amended and augmented as necessary in response to developments during the works.

10.2.3. As a minimum, the inspections shall include;

- ➔ A walk of the full length of tree protection fencing, inspecting for defects or issues;
- ➔ Inspection of all temporary swales, silt traps and other water management features, inspecting for defects or issues;
- ➔ Inspection of stockpiles to ensure they are suitably placed and sealed, with any run-off suitably controlled;
- ➔ Inspection of all monitoring locations (air, surface water, groundwater) to ensure they remain intact and operable;
- ➔ Review of environmental monitoring results, identifying any areas requiring action in order to maintain the good environmental performance of the works; and
- ➔ Inspection of fuel storage and refuelling locations and apparatus, including spill kits.

10.2.4. The primary aim of the inspection proforma is as an aide memoire during the inspection process. They will also be stored on site for reference and record-keeping purposes.

10.3. Quarterly audits

10.3.1. In addition to the weekly inspections, the EM will undertake quarterly environmental audits of the works. The aim of these audits will be to review the systems, processes and record keeping

with respect to environmental matters, thus feeding into the EMS for the scheme. These audits will also be used to collate and review

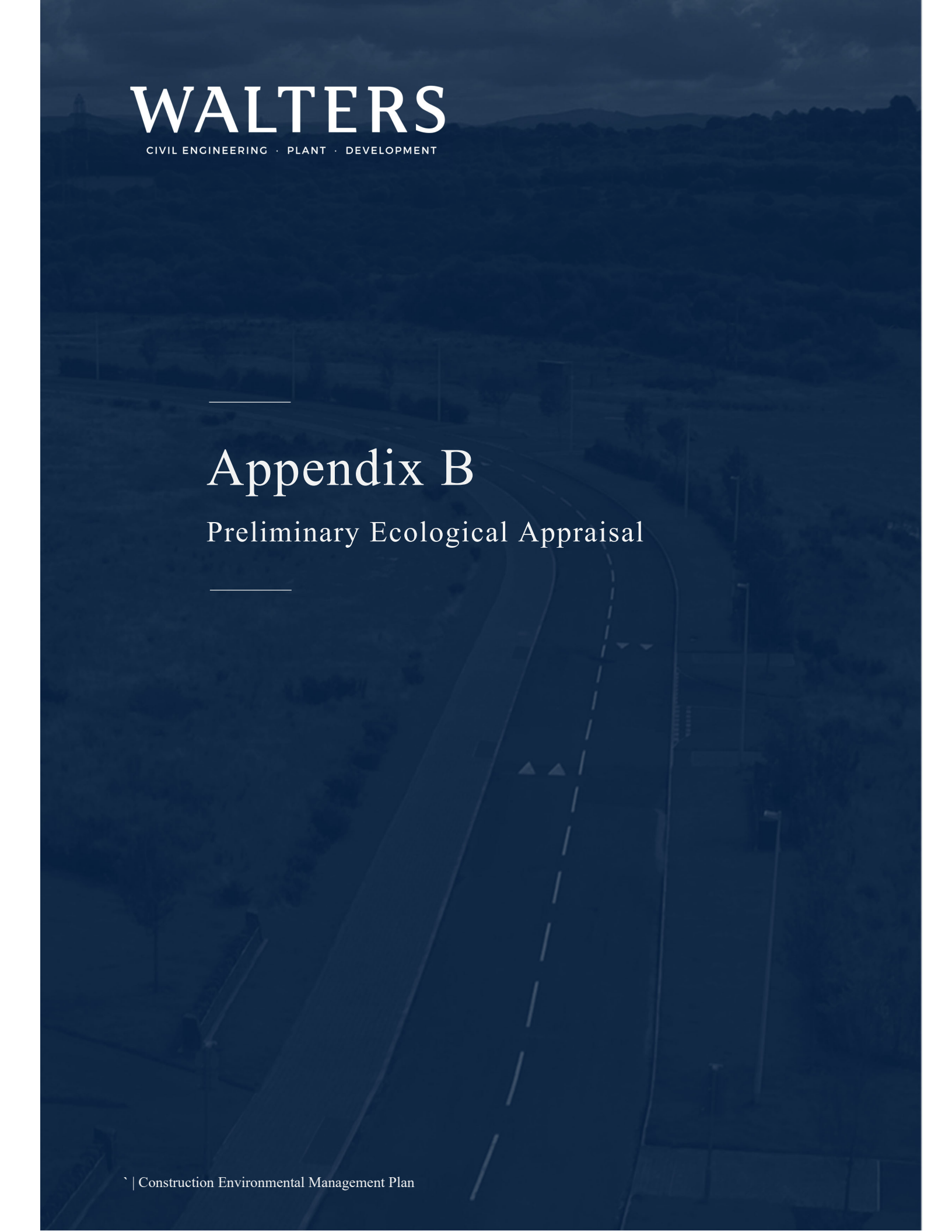


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Appendix A

Walters team organogram

The background of the entire page is a dark, blue-tinted aerial photograph. It shows a two-lane road with a dashed white center line, curving through a landscape of rolling hills and dense trees. In the distance, a small building with a steeple is visible on the left. The overall mood is serene and natural.

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Appendix B

Preliminary Ecological Appraisal

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Appendix C

Site Waste Management Plan

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Appendix D

Surface Water Management Plan

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Appendix E

Remediation Strategy

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Appendix F

Construction Method Statement

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Appendix G

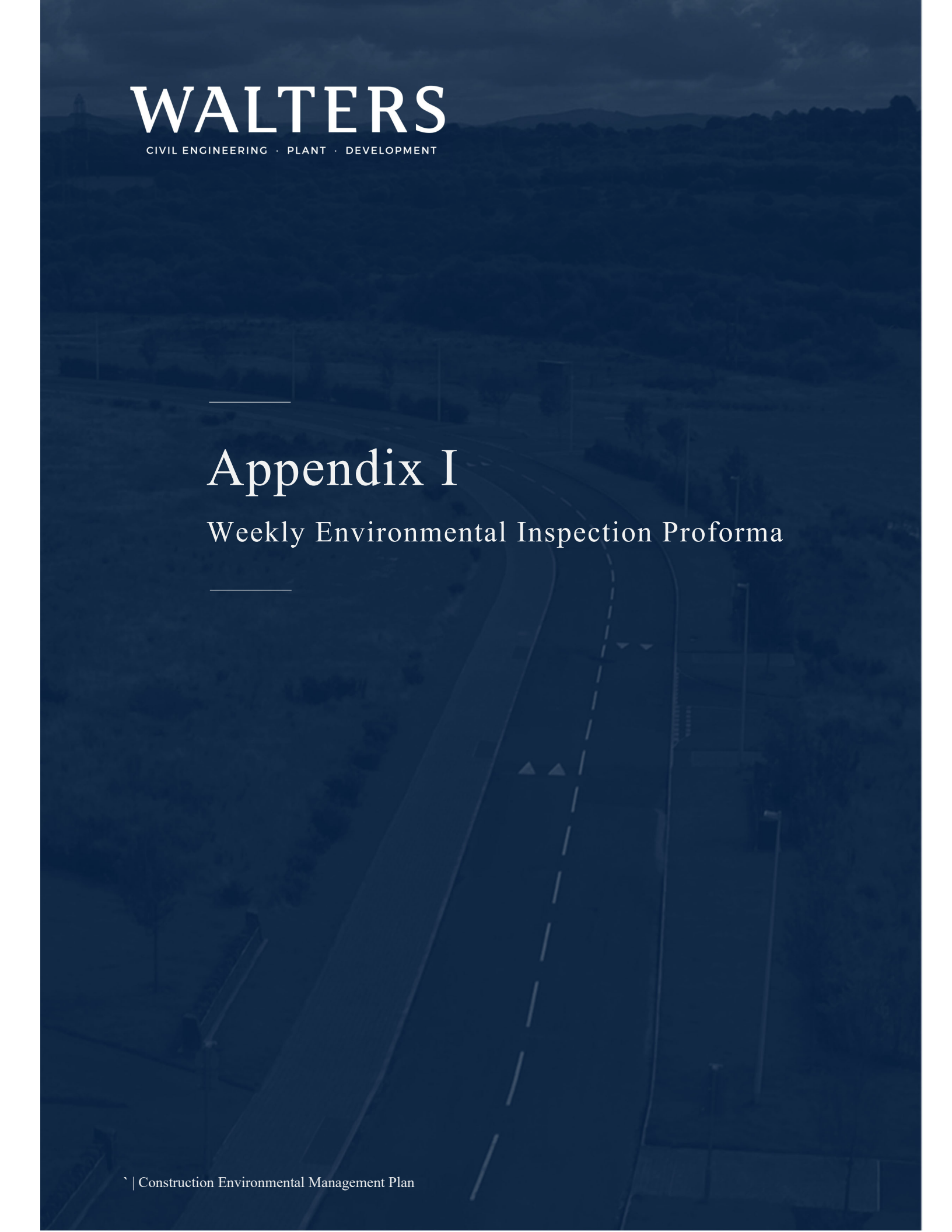
Invasive Species Method Statement

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Appendix H

WRAP Protocol

An aerial photograph of a road winding through a hilly, wooded landscape. The road has a dashed white line down the center and solid white lines on the edges. There are some trees and a small building visible on the right side of the road. The overall tone is dark and moody.

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Appendix I

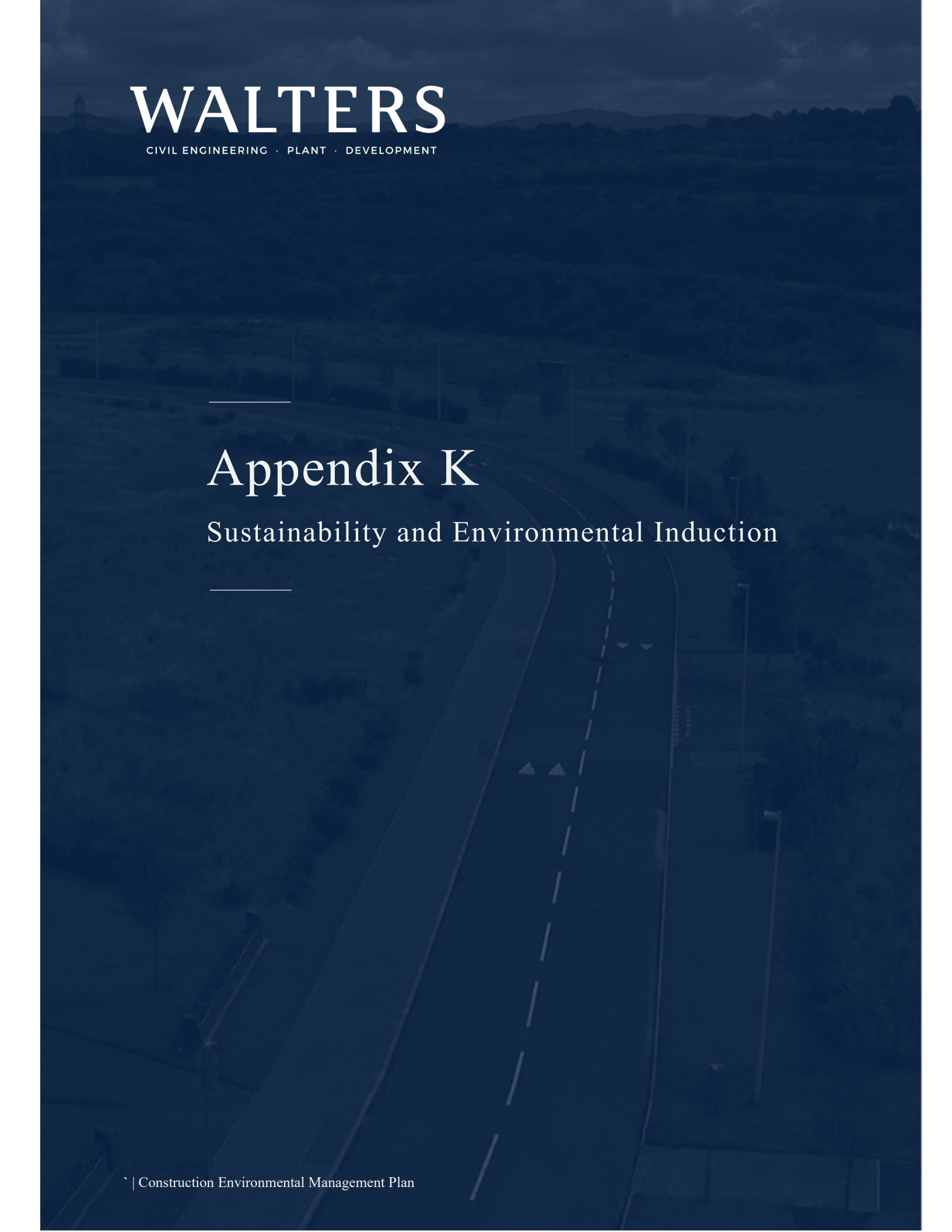
Weekly Environmental Inspection Proforma

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Appendix J

Environmental Monitoring Method Statement

An aerial photograph of a road winding through a landscape, overlaid with a dark blue tint. The road has dashed white lines and some road markings. The surrounding area includes trees and some structures in the distance.

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Appendix K

Sustainability and Environmental Induction
