

PART D

SCOPE OF WORKS OR SERVICES

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D1. INTRODUCTION

Rail Corporation New South Wales (RailCorp) owns property located on the corner of Bong Bong Street and Manning Street, Kiama (refer Appendix D2). The property is identified as Lot 1 DP 1073158, covering an area of 5,488 m² (refer Appendix D3). The property is zoned 3(d) Business (Tourist Related) under the Kiama Local Environment Plan (LEP) 1996.

The property is under consideration for divestment by RailCorp Property for mixed uses, including residential land use. The property forms part of the larger redevelopment site, which also incorporates the adjacent RailCorp property identified as Lot 1 within the proposed subdivision of Lot 2 DP 1073158, covering an area of approximately 5,000 m² (refer Appendix D4).

Historically the property has been utilised for various purposes since being acquired by the Railways in 1892, including commercial/industrial, railway and residential uses. However the majority of the property has remained vacant for many years, with the exception of the north-east portion which was leased and operated by Meghaven Hire (and more recently by Rentquip) for general equipment hire until late 2006.

The majority of aboveground infrastructure across the property, including all buildings, structures and pavements, was removed in July 2007, such that the property is now a cleared, vacant lot. The only infrastructure known to remain at the property includes an abandoned underground storage tank (UST), above and below ground services, several small retaining walls and the boundary fences (refer Appendix D5).

Previous environmental investigations undertaken at the property include the following (included in Appendix D7):

- *Phase 1 Environmental Contamination Assessment* – CH2M Hill Australia (May 2000);
- *RailCorp Property Located at the Corner of Bong Bong and Manning Streets, Kiama, Preliminary and Detailed Site Investigation (CSI)* – GHD (November 2005); and
- *Asbestos Clearance Inspection (Report No. 2302/CLR 2), 28 Bong Bong Street, Kiama* – A.D. Envirotech Australia Pty Ltd (June, 2007).

Based on the results of the investigations, the following contamination issues have been identified:

- The north-west portion of the property was formerly occupied by a residential building that was destroyed by fire in 1998. Lead contamination in excess of the “low density” residential assessment criteria has been identified within the surface soils in this area, together with fragments of fibro-cement sheeting that contains asbestos. The contamination is likely to be derived from hazardous building materials contained within the former residential building.
- A hydrocarbon contamination “hot-spot” was identified along the western property boundary, where TPH concentrations in the surface soils were reported to exceed the adopted site assessment criteria. The source of the contamination is unknown, though likely to have originated from a surface spill of fuel or oil.
- An underground storage tank (UST) is located within the south-east portion of the property that has been abandoned for many years. The UST contains oily water, though no fuel. No soil contamination has been identified within the vicinity of the UST, although it is likely that some hydrocarbon contamination may be present in the backfill sands surrounding the tank.

- Various hazardous building materials (including asbestos and lead based paints) were identified in the former buildings at the property. Details of the location, quantities and condition of the hazardous building materials are contained within a Hazardous Materials Register that forms part of the GHD (2005) investigation report. These hazardous materials were removed prior to the building demolition, as documented in the A.D. Envirotech Australia (2007) report.

Due to the presence of contamination across the property, a Remedial Action Plan (RAP) was prepared by GHD in 2006 to enable the property to be remediated to a standard suitable for “low density” residential land use (GHD, 2006)¹. The RAP identified the extent of remediation required, including five (5) key contamination issues and remediation strategies, as follows:

1. Asbestos in surface soils (north-west portion): Surface pick of asbestos fragments from across the ground surface;
2. Lead in surface soils (north-west portion): Delineation of contamination extent using XRF technology, followed by excavation and off-site disposal of contaminated soils;
3. Hydrocarbon ‘hot spot’ (western boundary): Excavation and ex-situ, on-site bioremediation (landfarming), followed by reuse on-site;
4. UST (south-east portion): Removal of the UST and ex-situ, on-site bioremediation (landfarming) of any contaminated backfill sands, followed by reuse on-site; and
5. Uncertainties / Data Gaps: Validation (visual inspection and/or sampling) of the former building footprints.

In addition to these contamination issues that are further discussed in the RAP (GHD, 2006), a former waste water/oil sump was identified at the property during the building demolition works that contains a small volume of oily water. Removal and validation of this sump will also be required as part of the site remediation.

To enable the property to be made suitable for divestment for “low density” residential land use, the Environmental Projects Unit (EPU) requires the assistance of a suitably experienced Contractor to undertake remediation and validation works in accordance with the RAP (GHD, 2006), relevant Department of Environment and Climate Change (DECC) guidelines and this Tender Brief.

Please note that a NSW EPA Accredited Site Auditor (Mr Graeme Nyland, Environ Australia) has been appointed to review all works and to prepare a Site Audit Statement / Site Audit Report (SAS/SAR) following successful remediation and validation of the property. RailCorp requires that the SAS declares the property suitable for “Residential, with gardens and accessible soil” (NEHF A) land use. The Site Auditor has reviewed and approved the implementation of the RAP.

Tenderers should note that organisations involved in previous environmental investigations on this property may be invited to provide a quotation for works in accordance with this tender brief. All tenderers will be given equal access to information held by RailCorp pertaining to previous environmental investigations.

¹ Remedial Action Plan (Final) : Report for Kiama, Bong Bong and Manning Street – GHD (April, 2006).

D2. OBJECTIVES

The objectives of the project are to:

- Remediate the property in accordance with the Remedial Action Plan (GHD, 2006);
- Validate and reinstate the property, such that it may be declared suitable for “Residential Land Use with Gardens and Accessible Soils” (NEHF A); and
- Minimise disruptions and impact to surrounding property owners, the local community and the environment.

The remediation and validation works must allow a Site Audit Statement / Site Audit Report (SAS/SAR) to be prepared by a NSW EPA Accredited Site Auditor that declares the property suitable for Residential Land Use with Gardens and Accessible Soils (NEHF A), as defined by the “National Environment Protection (Assessment of Site Contamination) Measure” (NEPC, 1999).

D3. SCOPE OF WORK

The scope of work required under the Contract is detailed within the Remedial Action Plan (GHD, 2006), with specific requirements listed in Part D of this tender brief.

All aspects of the work must be of sufficient scope and quality to allow endorsement by the appointed NSW EPA Accredited Site Auditor. In particular the scope of work shall include, but not be limited to, the following:

- Review and interpret background information pertaining to the site, including the previous investigation reports and RAP (refer Clause D4);
- Determine requirements, and obtain all permits, approvals and licences required for the works (refer Clause D5);
- Perform and fulfil the role of Principal Contractor as defined by the OHS Regulations 2001 and OHS Act 2000 (refer Clause C12) **and as per Appendix D8 (RailCorp Safety Specifications for Principal Contractors)**;
- Prepare and submit a Site Specific Safety Plan (SSSP) for endorsement prior to commencement of works (refer Clause C12);
- Prepare and submit an Environmental Management Plan (EMP) for endorsement prior to commencement of works (refer Clause C12.4);
- Prepare and submit a Remediation and Validation Plan (RVP) to detail the remediation methodology for endorsement prior to commencement of works (refer Clause D6.2);
- Complete underground service searches for non-rail infrastructure and manage the services throughout the works (refer Clause D6.3);
- Establish all required equipment and amenities on site (refer Clause D6.4);
- Undertake remediation, validation and reinstatement works in accordance with the RVP and RAP;
- Perform a survey of the site and produce a registered survey drawing showing the location of site boundaries and site features. Survey the excavations and validation sample locations upon completion of the validation works (refer Clause D6.9); and
- Prepare a validation report that concludes that the site has been remediated to a standard suitable for “Residential Land Use with Gardens and Accessible Soils” (NEHF A), and certifies appropriate completion of the works (refer Clause D7).

D4. SITE HISTORY AND AVAILABLE INFORMATION

The following reports have been prepared for the site:

- *Phase 1 Environmental Contamination Assessment* – CH2M Hill Australia (May 2000);
- *RailCorp Property Located at the Corner of Bong Bong and Manning Streets, Kiama, Preliminary and Detailed Site Investigation (CSI)* – GHD (November 2005);
- *Remedial Action Plan (Final) : Report for Kiama, Bong Bong and Manning Street* – GHD (April, 2006); and
- *Asbestos Clearance Inspection (Report No. 2302/CLR 2), 28 Bong Bong Street, Kiama* – A.D. Envirotech Australia Pty Ltd (June, 2007).

Copies of all reports are included in Appendix 7.

D5. STATUTORY APPROVALS

The Contractor shall be responsible for determining and obtaining all permits and approvals that are required by Kiama Council, WorkCover NSW, Department of Environment and Climate Change (DECC), Department of Water and Energy (DWE), Roads and Traffic Authority (RTA), Heritage Office, and any other regulatory authorities.

The RAP (GHD, 2006) includes an assessment of the approvals requirements for the remediation works under State Environmental Planning Policy No. 55 (SEPP 55) and Kiama Council Development Control Plan No. 37 (Contaminated Land). A summary of the assessment is as follows:

- The remediation works are likely to be classified as Category 2 works under SEPP 55, on the condition that all works are completed in accordance with Section 8 of Kiama DCP No. 37. If works are not/can not be completed in accordance with Section 4, then the works would be classified as Category 1 works;
- For Category 2 works, Kiama Council are to be provided with 30 days notification of commencement of the works;
- Copies of the previous investigation reports, RAP and contact details of the Principal Contractor are to be provided to Kiama Council at least 14 days prior to commencing works;
- A copy of the Remediation and Validation report is to be provided to Kiama Council following completion of the works;
- Community consultation is required, including notification of the works to the adjoining landowners and landowners across the roads, at least 2 days prior to commencing works;
- Specific requirements relating to the hours of operation, soil and waste management, stockpiles management, site access and removal of USTs are included in Kiama Council DCP No. 37 (refer Appendix D6);
- Removal, destruction and disposal of the UST is to be completed in accordance with WorkCover NSW requirements;
- A trade-waste agreement with Sydney Water would be required to dispose of any water from the site that is to be discharged to sewer; and
- All soils to be disposed of are to be classified for waste disposal purposes in accordance with the requirements of the *Protection of the Environment Operations Act 1997*, the *Protection of the Environment Operations (Waste) Regulation 2005* and the NSW DEC (2004) *Environmental Guidelines: Assessment, Classification & Management of Liquid & Non-liquid Wastes*.

D6. REMEDIATION AND VALIDATION WORKS

D6.1 Remediation Areas

Remediation works required at the site shall include the following areas, as documented in the RAP (GHD, 2006):

1. **Visual validation of building footprints and pavement:** Due to large areas of the site covered with buildings and/or pavement at the time of the contamination investigation, a number of uncertainties were identified regarding potential contamination in inaccessible areas. To ensure that these areas of uncertainty are adequately addressed during remediation/validation of the site, visual validation of the building footprints and pavement is required to ensure that the areas are free from any gross contamination and/or asbestos materials.

The RAP states that “if the visual assessment demonstrates that the potential for significant contamination issues to be present in these areas is low” then “this would be appropriate validation.” “However, should a visual assessment demonstrate that potential for significant contamination to be present exists, further investigation and or delineation of such contamination would be necessary prior to proceeding with remediation of the site.”
2. **Asbestos Surface Pick:** Fragments of fibro-cement sheeting that has been confirmed to contain asbestos in a bonded matrix (asbestos-containing materials – ACM) have been identified on the ground surface in the north-west portion of the site. It is understood that the ACM are limited to the surface soils, with no asbestos fibres identified in the surrounding soils. The RAP therefore recommends remediation of the asbestos contamination by removal of the ACM via a visual surface pick and subsequent disposal.
3. **Lead Remediation:** Lead contamination has been identified in surface soils across the north-west portion of the site, although the depth of contamination has not been determined. However given the source of the contamination is likely to be derived from lead-based paints used on the former residential dwelling, the vertical extent of contamination is considered to be limited. Remediation of the contamination is to be undertaken via excavation and lawful off-site disposal, with the extent of remediation to be assessed via field screening of soils using an X-Ray Fluorescence Analyser (XRF).
4. **TPH “Hot Spot” Remediation:** A hydrocarbon contamination “hot-spot” has been identified in the surface soils along the western site boundary (BH1/MW1). The extent of remediation required is estimated to comprise a maximum volume of 50 m³ (based 10m radius and depth of 0.15m). The RAP recommends remediation of the contamination via excavation and ex-situ, on-site bioremediation (landfarming). Following successful remediation and validation of the landfarmed materials, the soils are to be reused at the site for reinstatement.
5. **UST Removal:** An abandoned UST is located in the south-east portion of the site. The size of the UST has not been determined, though is understood to be no larger than a T20 (20,000 litre capacity). The UST is partially filled with oily water, with a reported TPH concentration of 42.7 ug/L. This area is to be remediated by removal and lawful destruction and disposal of the UST and associated pipework, followed by ex-situ, on-site bioremediation (landfarm) of any identified contaminated soils surrounding the UST excavation. Following successful remediation and validation of the landfarmed materials, the soils are to be reused at the site for reinstatement.

6. **Waste Water / Oil Sump Removal:** A small waste water/oil sump was identified adjacent to the former wash-bay area during the site demolition works. The sump is constructed of concrete and is approximately 2 metres long, 1 metre wide and 2 metres deep. The sump is half-filled with oily water (ie. approximate volume of 2,000 litres). As part of the remediation works the sump (and contents) are to be removed and lawfully disposed. It is not known whether the sump is connected to the sewerage system, though if so, the sump is to be disconnected with the pipe appropriately capped. Any potentially contaminated soils surrounding the sump are to be excavated, stockpiled and sampled/characterised to assess the suitability of the material for reuse at the site. If the material is not considered to be suitable, it shall be remediated via on-site, ex-situ bioremediation (landfarming) or lawfully disposed to landfill (as appropriate). If the material is to be remediated, following successful validation of the landfarmed materials, the soils are to be reused at the site for reinstatement.

D6.2 Remediation and Validation Plan (RVP)

D6.2.1 General Requirements

A Remediation and Validation Plan (RVP) is to be prepared prior to commencement of the remediation works. The objective of the RVP is to document the remediation work methodologies and other information pertaining to how the works will be performed.

The RVP is required to comply with all applicable Development Control Plans (DCP's), Local Environment Plans (LEP's) and Regional Environment Plans (REP's) made or approved by Kiama Council or other regulatory authorities.

The Contractor will be required to submit a draft plan for review by RailCorp and the Site Auditor, followed by a final plan incorporating/addressing all comments. The Contractor should allow two weeks for review of the draft document.

D6.2.2 Visual Validation & Asbestos Surface Pick

Information regarding the visual validation and asbestos surface pick work procedures to be employed under the Contract must be provided in the RVP. The information should include, but not be limited to:

- Methodology of works;
- Validation plans and criteria;
- Waste classification and disposal procedures;
- Environmental monitoring requirements;
- Compliance with relevant legislation; and
- Contingency plans in the event that the initial validation fails.

It is noted that where the visual inspection or asbestos surface pick fails the initial validation, further investigation and/or remediation works may be required as discussed in the RAP (GHD, 2006). The RVP is to document the contingency plans for any such additional works. Additional investigation / remediation works required following from failure against the initial validation shall be completed in accordance with the Schedule of Rates provided under Clause B1.3

D6.2.3 Civil Works

Information regarding the civil works procedures to be employed under the Contract must be provided in the RVP. The information should include, but not be limited to:

- Staging procedures;
- Work methodologies for each stage;
- Tracking and management of excavated materials;
- Types and sizes of machinery / plant to be used;
- Details of required environmental controls and monitoring;
- Characterisation / waste classification assessment procedures; and
- Waste disposal procedures and locations (including UST destruction).

The Contractor should consider the load limits on roads / access ways surrounding the site in order to select appropriate machinery and access routes.

Also refer to Safety Specifications for Principal Contractors.

D6.2.4 Sampling, Analysis and Quality

A sampling, analysis and quality plan (SAQP) is to be included within the RVP and shall consider the validation of remediation areas and excavations, waste classification of materials and validation of remediated soils and imported fill materials. The information should include:

- Data Quality Objectives (DQOs);
- Detailed description of the field screening protocols (including XRF calibration and validation);
- Rationale for the selection of the sampling pattern, density, locations, depths, analytes and analytical methods;
- Description of the sampling methodology, including sample containers, equipment, decontamination procedures, sampling handling procedures and sample preservation methods; and
- Adopted site validation criteria.

All site works, including sampling and analysis, are to be performed in accordance with the following documents (as a minimum):

- Contaminated Sites: Guidelines for Assessing Service Station Sites” (NSW EPA, December 1994);
- “Contaminated Sites: Sampling Design Guidelines” (NSW EPA, September 1995);
- “Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites” (NSW EPA, November 1997);

- “Contaminated Sites: Guidelines for the NSW Site Auditor Scheme” (NSW EPA, April 2006); and
- “National Environment Protection (Assessment of Site Contamination) Measure” (NEPC, 1999).

Classification of waste materials for disposal shall be in accordance with the DEC (2004) *Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes*.

Remediation and validation of the site shall be to “Residential Land Use with Gardens and Accessible Soils (NEHF A)”, as defined by the “National Environment Protection (Assessment of Site Contamination) Measure” (NEPC, 1999).

The use of any field equipment must be in accordance with industry standards, including calibration, quality control procedures and operator training.

The Contractor shall consider aesthetic quality, odours and environmental/phytotoxicity criteria in the validation sampling program.

D6.3 Service Searches and Protection

Site works cannot commence until appropriate searches and clearances are received for ALL underground services, including but not be limited to: gas, electricity, water, sewer, stormwater, telecommunications and rail industry services.

The Principal will complete **rail industry service searches** on behalf of the Contractor, including telecommunications, low voltage electricity, high voltage electricity, signals and civil services. The rail industry service searches will also identify regional engineering contacts (with regard to service operation and maintenance) and any site specific requirements. All costs incurred in completing railway service searches shall be borne by the Principal, however the Contractor may be required to liaise with the regional engineering contacts regarding the works.

It is important that the Contractor notes that railway service searches can take up to **six weeks** to complete, however in most cases RailCorp will initiate the searches prior to engaging the Contractor. The Contractor should also note that railway service plans are valid for **one month** only, from the date of issue. Between one and six months from the date of issue, a service plan validation will be required. Service searches which are dated greater than six months from the date of issue, are considered expired.

The Contractor is responsible for completing searches for all non-rail services.

In addition, the Contractor shall use a portable cable locator to check each sampling location prior to excavating to a depth greater than 300mm.

If a railway service is damaged the Contractor is required to immediately notify the Rail Management Centre on (02) 9379 1743 (24 hours).

If a service is damaged the Contractor must also notify the Principal's Representative as soon as practical.

The Contractor shall be liable for the costs associated with damage to any services, and associated delays and re-establishment, if the services were identified through the service searches or on-site inspections/checks. The Contractor shall also be liable for the costs

associated with damage to any services if it is determined that all due care has not be taken to ensure that the services are located prior to work commencing.

The Contractor will be required to protect or temporarily disconnect/cap all underground services located within the remediation area for the duration of the project. All services must be reconnected/reinstated during the landscaping of the property.

D6.4 Site Establishment

The Contractor shall provide all equipment and amenities required for the works, including but not limited to machinery, tools, personnel decontamination areas and toilets facilities. The amenities shall be sufficient to meet WorkCover requirements. The Contractor shall make appropriate allowances for maintaining these amenities for the duration of the project.

The Contractor shall be responsible for ensuring that security measures are implemented for the site, including plant, equipment and materials, for the duration of the works.

Specific site establishment works shall include, but not be limited to:

- Establishment of amenities;
- Installation of environmental controls (as required by the EMP and Kiama DCP No.37);
- Signage (as per Council & WorkCover requirements); and
- Identification and protection of any above and underground services.

D6.5 Excavation Works

Excavation of contaminated soil is to be undertaken in accordance with the procedures outlined in the RVP.

The extent of excavation is to be based on the results from the previous site investigation (GHD, 2005), in conjunction with on-site field screening protocols (i.e. visual observations, PID readings and XRF results). The RVP is to document the field screening protocols. The final extent of remediation shall be confirmed by validation sampling and laboratory analysis.

All works must be supervised by the Principal Contractor at all times for the duration of the project.

Tenderers should make appropriate, conservative allowance for the excavation (and disposal) of contaminated soils, based on the information provided in the investigation report (GHD, 2005) and RAP (GHD, 2006). However it is noted that payment for this item (as detailed in Clause B1.2) shall be based on the actual works completed (tonnage of material disposed), calculated from the specified rates and substantiated by Contractor field log sheets and landfill weighbridge dockets.

D6.6 Soil Management

Excavated contaminated soils are to be stockpiled on-site and managed in accordance with the EMP and segregated based on contamination type. Following stockpiling of the excavated soils, characterisation sampling is to be completed in accordance with the RVP to:

- Classify the lead contaminated soils for waste disposal purposes; and
- Characterise and/or validate the soils excavated from the TPH "hot spot", UST excavation and sump excavation, to assess the suitability of the material for reuse on

the site.

Where excavated hydrocarbon impacted soils are assessed to be unsuitable for reuse, the materials are to be landfarmed on-site in accordance with the RVP. The Contractor should make appropriate allowance for subsequent landfarming and soil characterisation events, which may be required prior to validation of the remediated soils.

The Contractor should make suitable provision for any odour mitigation controls required for the landfarming activities.

D6.7 Transport and Disposal

Any excavated contaminated materials requiring off-site disposal is to be classified in accordance with the NSW DEC (2004) *Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes* and transported and disposed to a suitably licensed landfill.

Written evidence shall be received from the landfill facility to confirm that it is appropriately licensed to accept the waste, **prior to** off-site disposal. Such documentation should be included in the Validation report.

Disposal dockets from the landfill and waste tracking documentation are to be provided to RailCorp to substantiate the disposal quantities, and shall also be included in the Validation report.

The Contractor must ensure that all haulage vehicles/operators are appropriately licensed for transport of the contaminated soils (as per Clause D5).

D6.8 Validation Works

Validation sampling and analysis of the remediation areas must be performed by the Contractor to demonstrate effective removal of the contamination. The sampling and analysis must be conducted in accordance with the approved RVP.

Validation procedures, including source inspection, sampling and classification, shall be applied to all materials used to reinstate the site, including validated landfarmed soils and any imported fill materials (VENM).

D6.9 Detailed Survey

The Contractor shall utilise a Registered Surveyor to produce a survey plan of the site. The survey plan is required to detail the locations/positions of all site boundaries and major site features relative to defined benchmarks, as well as spot levels (to mAHD) across the property. The survey drawing shall also show the positions of all fencelines relative to the legal property boundaries.

Upon completion of the excavation works, and confirmation of validation, the excavated areas must be surveyed to detail the location, depth and dimensions of the excavations and the location of validation samples.

The survey plans will be used in the preparation of the SAS/ SAR for the site.

D6.10 Reinstatement

Reinstatement works shall be conducted at the site as soon as possible following successful validation. Reinstatement works shall be in accordance with the RVP and shall include, but not be limited to:

- Filling of all excavated areas to the original ground surface level with validated landfarmed soils and/or validated imported fill materials (VENM);
- Compaction of the backfilled materials in the UST excavation to a 95% compaction standard; and
- Compaction of the backfilled materials in other areas (where excavation depth is no greater than 1 metre) to a nominal density.

D7. REPORTING REQUIREMENTS

D7.1 Validation Report

The Contractor shall produce a validation report for the property in accordance with the following:

- “Guidelines for Consultants Reporting on Contaminated Sites” (NSW EPA, February 1998);
- “National Environmental Protection Measure (Assessment of Site Contamination)” (NEPC, 1999); and
- “Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (2nd Edition)” (NSW EPA, April 2006).

The validation report must detail the completed remediation works, validation of remediated soils and imported fill materials, classification and disposal of contaminated soils and waste, and must demonstrate validation of the entire site to the appropriate land use criteria.

The report shall be of a quality to allow endorsement by a NSW EPA Accredited Site Auditor and preparation of a SAS/SAR.

The Contractor will be required to submit a draft report for review by RailCorp and the Site Auditor, followed by a final report incorporating/addressing all comments. The Contractor should allow two weeks for review of the document.

Two copies of the draft report and five hard copies of the final report (one unbound) are required. All copies are to be printed single sided only.

D7.2 Executive Summary

The Executive Summary shall be a brief and accurate overview of the project objectives, scope, results and conclusions. The Executive Summary shall generally not be more than two pages and shall be written from a non-technical perspective. It shall be designed such that the suitability of the site for future use is clearly defined and can easily understood, including any land use restrictions, particularly when read in isolation from the remainder of the report.

D7.3 Graphic Requirements

The validation report shall include the following plans as a minimum:

- Site location plan (based on a topographical map);
- Site layout (in plan view);
- Site Plan illustrating remediation areas and validation sample locations; and
- Site Survey Plan.

Site plans must include, but not be limited to, the following features/information:

- North arrow.
- Scale bar.

- Site gradient.
- Drainage infrastructure.
- Surrounding land uses.
- Sensitive receptors.
- Photograph positions and directions.
- Surface conditions.
- Site dimensions.
- Underground and aboveground infrastructure.

D7.4 Photographs

Photographs should contain a detailed reference and have a cross-reference number to the site sketch markings (see above).

The photographic package should contain an overview of the remediation and validation works completed in each area of the site.

D7.5 Calibration Certificates

Calibration certificates shall be provided for all equipment utilised in completing the remediation and validation works, including PID and XRF.

D7.6 Electronic copy of the Report

RailCorp requires that a copy of each final report be provided in electronic form. The report should be provided in “Adobe Acrobat” or “Portable Document Format” (PDF) Version 5.0 or later files are acceptable. The files should be created with the intention of being able to be viewed on-line and printed with reasonable quality.

The report text, figures, tables, borehole logs, photographs and all other appendices shall be compiled into a single, correctly ordered PDF file. The pages in the PDF files shall be correctly oriented for screen viewing. In the case that the single file is too large to be sent by email, it shall be saved to a CD and sent by courier or post.

The Consultant should note that CAD drawings are often created with different coloured lines. The lighter coloured lines become an ill-defined grey when converted to PDF. Care should be taken to ensure the PDF is created in a form equivalent to a hardcopy print.

Checks should be undertaken on the final presentation/detail of the electronic report to ensure any PDF conversion errors can be identified and rectified.

D8. PROJECT MANAGEMENT TASKS

On Contract initiation, the Contractor will be required to provide RailCorp with a project schedule detailing deadlines for completion of tasks relevant to the project milestones. The schedule must be in the form of a Gantt chart.

The Contractor will be responsible for holding regular team meetings on site with the Principal and key subcontractors. Items to be discussed include health and safety, environmental management, complaints, scope variations and status of works.

The Contractor shall produce meeting minutes to be supplied to all parties prior to the subsequent meeting.

APPENDIX D1

SAFETY PROFORMA & INSPECTION CHECKLIST

APPENDIX D2

SITE LOCATION PLAN

APPENDIX D3

SITE LAYOUT PLANS

APPENDIX D4

TITLE PLANS

APPENDIX D5

SITE PHOTOGRAPHS

APPENDIX D6

KIAMA COUNCIL DCP NO. 37

APPENDIX D7

**INVESTIGATION REPORTS
(CD FORMAT)**

APPENDIX D8

**SAFETY SPECIFICATION FOR
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