Loch Kemp Storage - EIA Report

Appendix 16.1: Transport Assessment

November 2023

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Loch Kemp Storage Scheme

Transport Assessment

November 2023

106616

Report Ref.		**Document1**				
File Path		**Document1**				
Rev	**Suit**	**Description**	**Date**	**Originator**	**Checker**	**Approver**
V1		Transport Assessment – Draft for Client Comment	04/09/2023	E Moran	G Buchan	G Buchan
V2		Transport Assessment	19/09/2023	E Moran	G Buchan	G Buchan
V3		Final	19/10/2023	E Moran	G Buchan	G Buchan

Ref. reference. Rev revision. Suit suitability.

Prepared for

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1 Introduction

1.1 Purpose of the Report

Pell Frischmann (PF) has been commissioned by ASH design+assessment and Statera Energy (UK) Limited (SEL) ("the Developer"), on behalf of Loch Kemp Storage Ltd. (the Applicant), to undertake a Transport Assessment (TA) for the development of the up to 600 Megawatt (MW) Loch Kemp Pumped Storage scheme (the Proposed Development).

The Site is located within Dell Estate, approximately 13 km to the north-east of Fort Augustus within The Highland Council (THC) administrative area.

The report identifies the key transport and access issues associated with the Proposed Development, including the route for abnormal loads. The TA identifies where the Proposed Development may require mitigation works to accommodate the predicted traffic; however, the detailed design of these remedial works is beyond the agreed scope of this report.

1.2 Report Structure

Following this introduction, the TA report is structured as follows:

- Chapter Two describes the Proposed Development;
- Chapter Three reviews the relevant transport and planning policies;
- Chapter Four sets out the methodology used within this assessment;
- Chapter Five describes the baseline transport conditions;
- Chapter Six describes the trip generation and distribution of traffic in the study area;
- Chapter Seven summarises the traffic impact assessment;
- Chapter Eight considers mitigation proposals for development related traffic within the study network; and
- Chapter Nine summarises the findings of the TA and outlines the key conclusions.

2 Proposed Development

2.1 Site Location

Loch Kemp is situated within the Dell Estate to the south of Loch Ness, approximately 13 km to the north-east of Fort Augustus. The location of the site in shown in Figure 1.

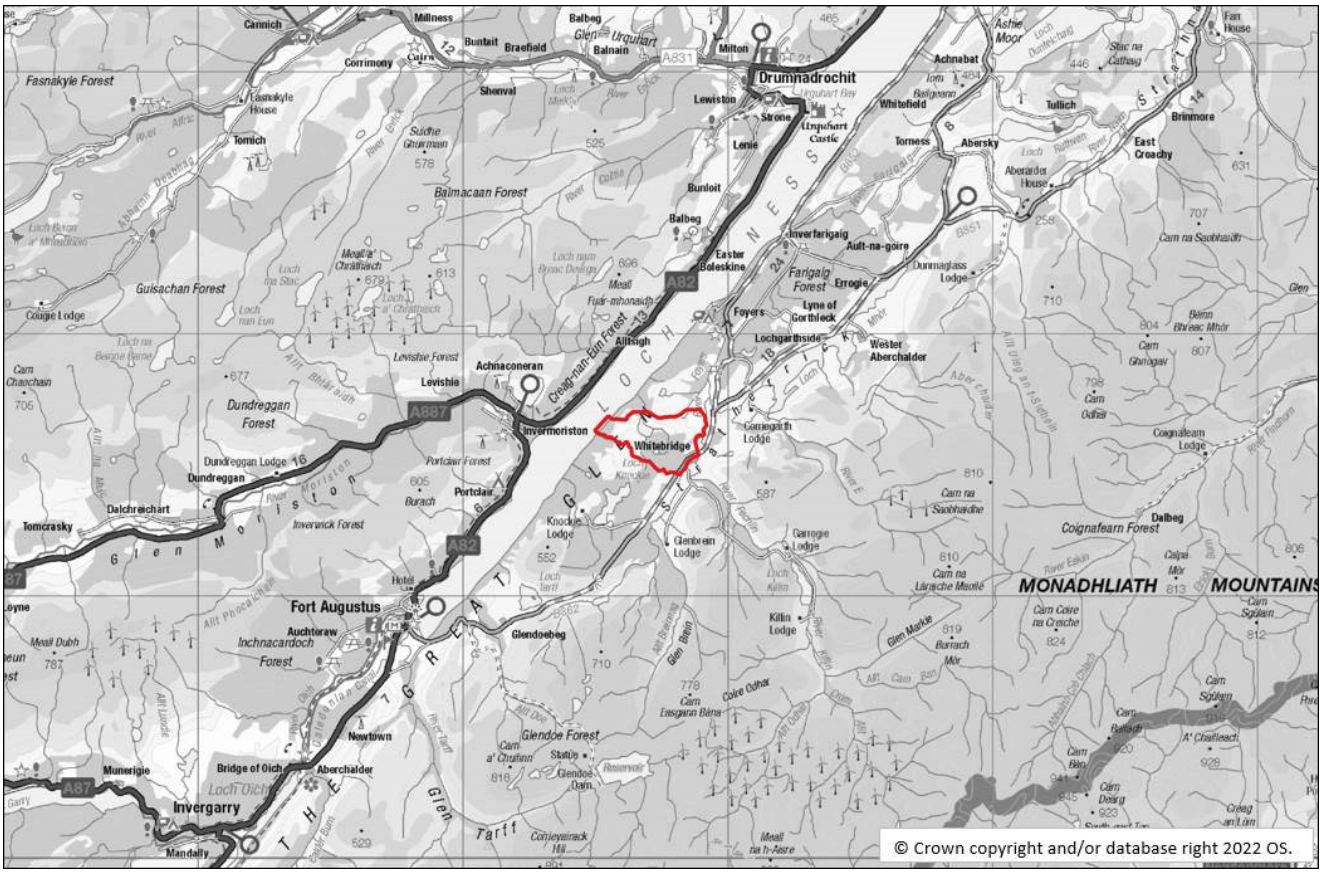

Figure 1 Site Location

2.2 Proposed Development

The Proposed Development is to comprise the construction and operation of a new up to 600 MW pumped storage scheme utilising the existing Loch Kemp as the upper storage reservoir and Loch Ness as the lower reservoir. The layout of the Proposed Development is shown in Figure 2.

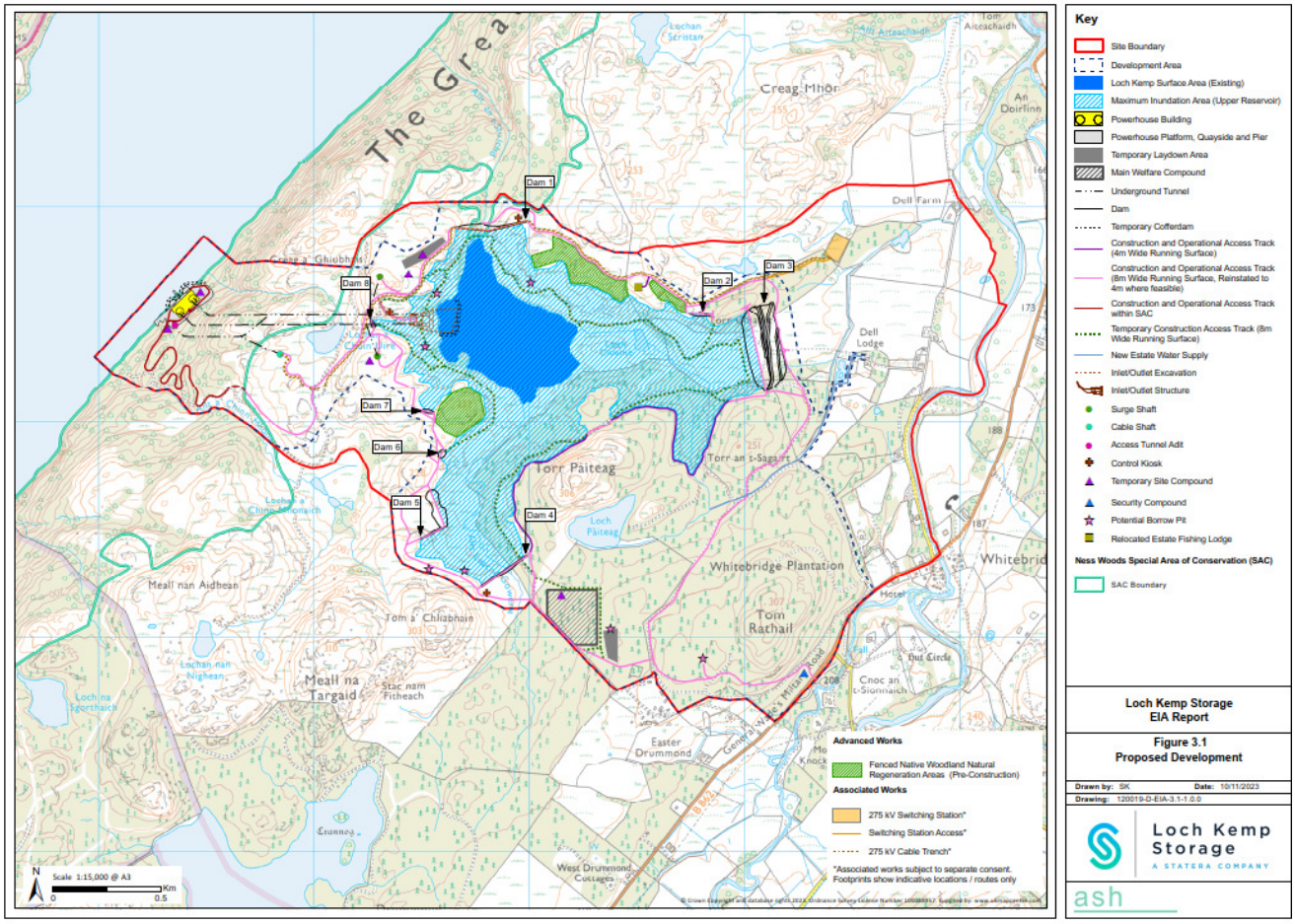

Figure 2 Site Layout

The principal components of the Proposed Development would comprise:

- **Dams and Upper Reservoir** – Four new saddle dams between 16 – 34 m high and four, minor cut-off dams, would be constructed around Loch Kemp to enable the storage of water by increasing the size of the existing Loch Kemp to form the upper reservoir. The loch would be raised by approximately 28 m from its existing 177 m AOD elevation to approximately 205 m AOD;
- **Underground Waterway System** – Screened intakes would supply an underground tunnel system carrying water between the upper and lower reservoirs, through to the powerhouse. The underground waterway system may require two surge shafts located on a local high point between Loch Kemp and Loch Ness, dependent on results of hydraulic analyses during detailed design.;
- **Powerhouse Platform Area and Access Tunnels** - The onshore elements of the tailrace area and the powerhouse building would be located on a large area of hardstanding over two levels, referred to as the powerhouse platform area. The upper and lower level would be connected by an access track to the rear (east) of the powerhouse building.
- Access tunnels would be constructed from the powerhouse platform (via a tunnel adit) to facilitate access to the underground waterway system. These tunnels would be accessed from the upper powerhouse platform works;
- **Powerhouse Building** – A series of shafts with a surface building located on the shore of Loch Ness would contain reversible pump turbines and motor generators together with associated equipment such as transformers. The powerhouse building would also house administration and visitor facilities. Also located within the powerhouse building would be a 275 kV gas insulated switchgear (GIS) substation, firefighting equipment and an emergency diesel generator;
- **Tailrace Area** - A tailrace structure would be located on the shore of Loch Ness integral with the powerhouse building;

- **Quayside and Pier** - A quayside would also be constructed adjacent to the powerhouse building and outlet area. This would allow the delivery of larger items by boat during construction, such as the electrical and mechanical (E&M) equipment, as well as access to the powerhouse from the loch during the operating phase (including access by members of the public to the visitor centre);
- **Cable Tunnel and Vertical Cable Shaft –** A short cable tunnel would extend from the access tunnel connecting to a vertical cable shaft to facilitate the grid connection from the powerhouse building. The electricity cables (the subject of a separate consenting process), would be housed within this section of tunnel and would resurface outwith the Ness Woods SAC, to connect by buried underground cable to a new switching station near Loch Kemp (which is also the subject of a separate consenting process); and
- **Access Tracks** – A series of temporary and permanent access tracks would be provided for the construction of the Proposed Development and for operational and emergency access. Existing estate access and forestry tracks would be upgraded where feasible but new access tracks would also be required. Tracks used for construction would generally be 8 m in width but would be reinstated to 4 m post construction for operation and emergency access.

Also provided within the site boundary will be borrow pits, site establishment and laydown areas, as well as a workers' camp, which would include accommodation, and a security compound at the site entrance.

A development platform for an associated switching station is included for in the development. The actual development of the switching station (building, switch gear, etc) is subject to a separate planning application and as such is excluded from this assessment.

Most of the rock from the excavated tunnels and shafts would be removed via the shafts and tunnel portals near the powerhouse on the shore at Loch Ness. The excavated rock from the underground works would be reused within the site wherever feasible.

3 Transport Policy Review

3.1 Introduction

This chapter of the report provides an overview of relevant national and local transport planning policy.

3.2 National Policy and Guidance

3.2.1 National Planning Framework 4 (2023)

The Revised Draft National Planning Framework 4 (RDNPF4) was laid in Parliament on 08 November 2022. The National Planning Framework 4 (NPF4) was approved by Scottish Parliament on 11 January 2023 and it is now passed to Scottish Ministers to be adopted. The NPF4 was approved by Scottish Parliament and was adopted on 13 February 2023.

Policy 11: Energy within the NPF4 notes that:

"Development proposals for all forms of renewable, low-carbon and zero emissions technologies will be supported. These include:

- *Wind farms including repowering, extending, expanding and extending the life of existing wind farms; and*
- *Energy storage, such as battery storage and pumped storage hydro.*

In addition, project design and mitigation will demonstrate how the following impacts are addressed:

- *Impacts on communities and individual dwellings, including, residential amenity, visual impact, noise and shadow flicker;*
- *Public access, including impact on long distance walking and cycling routes and scenic routes;*
- *Impacts on road traffic and on adjacent trunk roads, including during construction; and*
- *Cumulative impacts."*

The NPF4 was approved by Scottish Parliament and is expected to be adopted on 13 February 2023.

3.2.2 Transport Assessment Guidance (2012)

Transport Scotland's (TS) Transport Assessment Guidance was published in 2012. It aims to assist in the preparation of Transport Assessments (TA) for development proposals in Scotland such that the likely transport impacts can be identified and dealt with as early as possible in the planning process. The document sets out requirements according to the scale of development being proposed.

The document notes that a TA will be required where a development is likely to have significant transport impacts but that the specific scope and contents of a TA will vary for developments, depending on location, scale and type of development.

3.2.3 Planning Advice Note (PAN) 75 (2005)

Planning for Transport aims to create greater awareness of how linkages between planning and transport can be managed. It provides good practice guidance which planning authorities, developers and others should carry out in their policy development, proposal assessment and project delivery.

3.3 Guidance

3.3.1 Highland-wide Local Development Plan (2012)

The Highland-wide Local Development Plan (LDP) was adopted by The Highland Council (THC) in April 2012 and is the established planning policy for the Highlands. It sets out a settlement strategy and spatial framework for how the Council foresees development occurring in the forthcoming twenty-year period.

The LDP does not contain any specific policy guidance for the proposed development. However, Policy 56 is relevant with regards to general transport policy. The relevant transport elements from this policy are:

"Development proposals that involve travel generation must include sufficient information with the application to enable the Council to consider any likely on- and off- site transport implications of the development and should:

- *incorporate appropriate mitigation on site and/or off site, provided through developer contributions where necessary, which might include improvements and enhancements to the walking/cycling network and public transport services, road improvements and new roads; and*
- *incorporate an appropriate level of parking provision, having regard to the travel modes and services which will be available and key travel desire lines and to the maximum parking standards laid out in Scottish Planning Policy or those set by the Council.*

When development proposals are under consideration, the Council's Local Development Strategy will be treated as a material consideration.

The Council will seek the implementation and monitoring of Green Travel Plans in support of significant travel generating developments."

The LDP outlines the vision for West Highland and Island by 2030 and notes that in relation to the West Highland and Islands area being better connected that:

"*…better facilities for ferry, rail, inter-modal freight transfer (particularly at Corpach), Caledonian Canal freight movements and marine access will have helped economic growth."*

3.3.2 The Highland Council Local Transport Strategy (LTS) (2010)

The LTS refers to the road network across rural areas being characterised by *"winding single carriageway roads with passing places".* Reference is also made to the additional pressure that can be placed on sub-standard roads. The LTS also notes that in terms of timber transport, there are initiatives such as tyre pressure moderation which are reducing the damaging effect of forestry lorries on rural roads.

The LTS also mentions the many bridges which are subject to weight restrictions in the Local Authority area. The LTS states that *"where possible, the Council, through its Lifeline Bridges programme will invest in the bridges to maintain access either by removing weight restrictions or reducing the weight restriction effect of HGV vehicles."* The aim of the Lifeline Bridges programme is to assist the economy of the area by allowing the efficient transport of essential goods and services, as well as providing for industries that are heavily dependent on large vehicle transport.

The LTS set out the strategy for the Highland Council are from 2010 – 2014, however the LTS has not been updated.

3.3.3 Guidance on the Preparation of Transport Assessments (2014)

THC has prepared guidance on how Transport Assessments should be prepared for development sites within The Highlands. The guidance was published by THC in November 2014.

3.4 Policy Summary

The Proposed Development aligns with the stated policy objectives and the design of the Site and proposed mitigation measures will ensure compliance with national and local objectives.

4 Study Methodology

4.1 Introduction

There are two phases of the life of the Proposed Development. Both phases have been considered in this assessment and are as follows:

- The Construction Phase; and
- The Operational Phase.

4.2 Project Phases – Transport Overview

Of the two phases, the construction phase is considered to have the greatest impact in terms of transport. Construction plant and bulk materials will be transported to Site and may potentially have a significant increase in traffic on the study area network.

The operational phase is restricted to occasional maintenance and general operational review of the Site which generate significantly lower volumes of traffic that are not considered to be in excess of daily traffic variation levels on the road network. It is estimated that at most, the operational phase would generate three car / LGV trips per day.

With proper maintenance, it is anticipated that the Proposed Development will remain functional indefinitely. Therefore, the effects of the decommissioning phase have been scoped out of the assessment.

It should be noted, however, that construction traffic effects will be temporary and transitory in nature.

4.3 Scoping Discussions

The Applicant submitted a Scoping Report to the Scottish Ministers in respect of the Environmental Impact Assessment (EIA) which included a section considering traffic and transport. A full review of the EIA scoping opinion and responses from stakeholders is provided in Table 16.1 of Chapter 16: Traffic, Access and Transport of the EIA Report.

5 Baseline Conditions

5.1 Access Arrangement

Access during the construction and operation of the Proposed Development would utilise the existing B862 public road and Dell Estate forestry tracks, which will be upgraded and extended, as well as the creation of a new access track to the powerhouse site on the eastern shore of Loch Ness.

It is proposed that access will be taken from a new access junction from the existing B862 public road, approximately 700 m south-west of the Whitebridge Hotel. An indicative site access layout is presented in Appendix A.

Further access will be taken from the existing Dell Estate forestry track through Dell Plantation. This will be upgraded and extended to facilitate use by construction vehicles, along with site establishment and site accommodation area within the plantation.

Access around the site will feature a combination of widening existing tracks around Loch Kemp to connect the plantation access with existing estate tracks and new access tracks to allow access to the dam sites and other working areas. A new track from Loch Kemp to the surge shaft and down to the powerhouse site on the eastern shore of Loch Ness will also be provided. The internal access tracks will be private and not open to general public use.

During construction, the Caledonian Canal system would be used for the delivery of some larger pieces of equipment and materials for the project. It is not proposed to bring Abnormal Indivisible Loads associated with the water turbines or transformers by road, with these loads being transported by barge on the canal and Loch Ness.

During operation it is proposed that boats, such as the organised tourist boats, would be able to dock at the jetty so that visitors are able to access the proposed viewing platform proposed within the powerhouse building.

5.2 Study Area Determination

The study area includes local roads that are likely to experience traffic flows resulting from the Proposed Development. The geographic scope was determined through a review of Ordnance Survey (OS) plans and an assessment of the potential origin locations of construction staff and supply locations for construction materials.

The Study Area comprises:

- The A82(T) (between Inverness and Fort William);
- B852, between its junction with the B862 Bailebeag and B862 Dores;
- B862, between Fort Augustus and Holm Roundabout;
- B851, between its junction with the B862 and the A9; and
- The A9(T) between Inverness and Aviemore.

Also included in the Proposed Development's study area is the Caledonian Canal which will be used to transport equipment and materials from either Inverness or Corpach harbours to the site.

The Caledonian Canal is approximately 60 miles in length and connects Corpach to Inverness. The Caledonian Canal is managed by Scottish Canals. The canal is controlled by locks along its length, which comprises 29 locks in total.

The Study Area is shown in Figure 3.

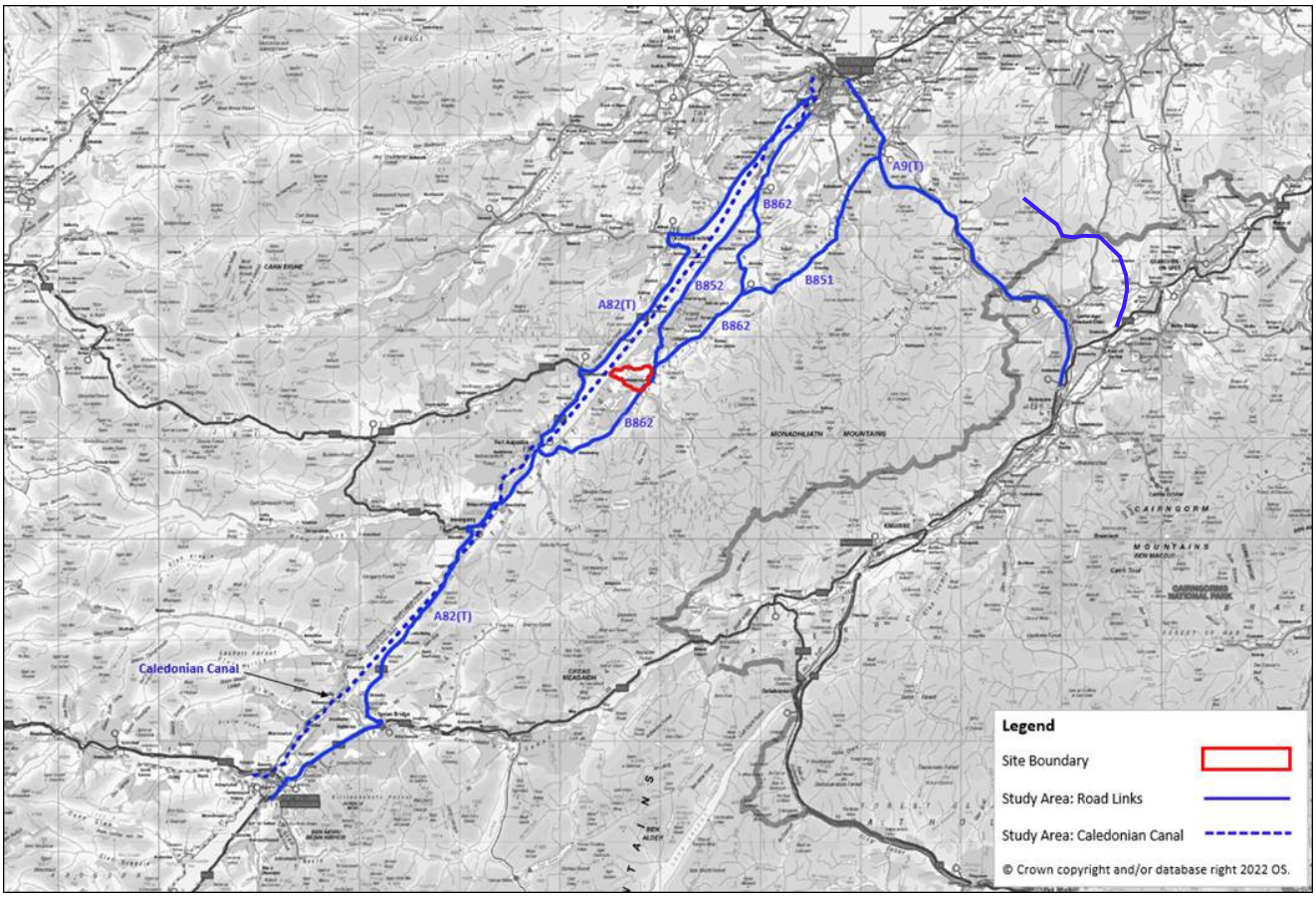

Figure 3 Study Area Road Links

5.3 Active Travel Networks

The Highland Council's Core Paths interactive map[1] indicates that there are no Core Paths located within the Development Area for the Proposed Development, although the Dell Lodge – Foyers (IN25.01) Core Path, which runs along Dell Estate road, would be routed through the site boundary. The Dell Lodge – Foyers Core Path commences at Dell Estate's Keeper's Cottage and continues northbound for 4.20 km.

A review of Sustrans' National Cycle Network (NCN) map[2] shows that while there are no National Cycle Routes (NCRs) in the vicinity of the site, the section of the B862 between Fort Augustus and B862 / B852 junction and the B852 is designated as on-road route not on the NCN.

The Great Glen Way is a 127 km waymarked route between Inverness and Fort William on the opposite (western) side of Loch Ness to the Proposed Development. The Great Glen Way is mainly traffic-free, however there are sections in Drumnadrochit, Invermoriston, Fort Augustus and Invergarry where pedestrians use the footways beside the highway and at these locations cyclists and horse riders travel along the road.

[1] Core Paths in Highland Council area (2022) Available at: https://highland.maps.arcgis.com/apps/webappviewer/index.html?id=2fd3fc9c72d545f7bcf1b43bf5c8445f
[2] Sustrans' National Cycle Network (2022) Available at: https://highland.maps.arcgis.com/apps/webappviewer/index.html?id=2fd3fc9c72d545f7bcf1b43bf5c8445f

The Great Glen Canoe Trail is 96 km in length and runs between Corpach and Clachnaharry. Facilities along the trail for users include low-level pontoons and Trailblazer rest sites.

5.4 Road Access

Access to the site will be taken from a newly formed junction from the B862. The B862 comprises a single carriageway which narrows to a single track in some locations. Passing places are located along the B862 and the road is maintained by THC. The B862 appears to be deteriorated in locations along the road. The road is mainly subject to the national speed limit.

The B851 and B852 both comprise a combination of single carriageways and single track sections with passing places and are maintained by THC. The roads are mainly subject to the national speed limit.

The A9(T) is the main trunk road in the area which links Perth to Scrabster. Within the study area, the A9(T) comprises sections of two-lane dual carriageway and sections of two-way single carriageway. The road is operated by BEAR Scotland on behalf of Transport Scotland and within the study area is mainly subject to 50 mph for HGVs.

The A82(T) is a two-way single carriageway which forms part of the trunk road network and provides a connection between Glasgow and Inverness, via Fort William. The A82(T) is maintained by Bear Scotland and is generally subject to the national speed limit, which reduces when travelling through towns and villages. An advisory speed limit of 40 mph is recommended along this route for vehicles which are 7.5 T and over.

5.5 Existing Traffic Conditions

Automatic Traffic Count (ATC) surveys were undertaken along B862 over a seven-day period between 5th and 11th July 2022. While these dates are outside of the school holiday period, they are deemed acceptable as the pupil roll numbers at nearby primary schools Aldourie Primary School and Foyers Primary School are 31 and 10, respectively, and trips associated with these pupil roll numbers are not considered significant in terms of overall traffic flows. Also, it should be noted that a lower baseline will result in a greater impact of construction traffic producing in a more robust assessment.

The ATC surveys were complemented with existing traffic data obtained from the Transport Scotland (TS) database, the Department for Transport (DfT) database and planning documents, where vehicle classifications could be calculated.

Existing traffic data from 2019 was used to estimate existing traffic flows, as this data was not affected by Covid 19 travel restrictions. National Road Traffic Forecasts (NRTF) high growth factors were applied to the 2019 data to estimate 2022 flows. The high growth factor for 2019 to 2022 is 1.042.

The traffic surveys locations are as presented in Figure 4 and are described as follows:

1. B862, south of Holm Roundabout (ATC survey);
2. B862, Dores (ATC survey);
3. B852, Bailebeag (ATC survey);
4. B851, Inverarnie (planning documents);
5. B862, north of Errogie (planning documents);
6. B862, at Site Access (planning documents);
7. B862, east of Fort Augustus (planning documents);
8. A9(T), between Longman Rbt and Raigmore Interchange (DfT Count Point 80012)[3];

[3] While there is a live TS count point (ATC01008) near this location, a review of the TS database shows that there is no information available on the different vehicle classes and therefore a split between Cars & Lights and HGVs cannot be calculated. For this reason, traffic flows were obtained from the DfT database.

9. A9(T), south of Inshes Wood (DfT Count Point 90024)[4];
10. A9(T), east of Moy (TS Count Point JTC00367);
11. A9(T), south of A9(T) / A938 (TS Count Point ATC01005)[5];
12. A82(T), south of Lochybridge (TS Count Point ATC01035)[6];
13. A82(T), west of Aberchalder (DfT Count Point 10760)[7];
14. A82(T), south of Drumnadrochit (TS Count Point JTC00145)[8]; and
15. A82(T), south of Kirkton (DfT Count Point 20765)[9].

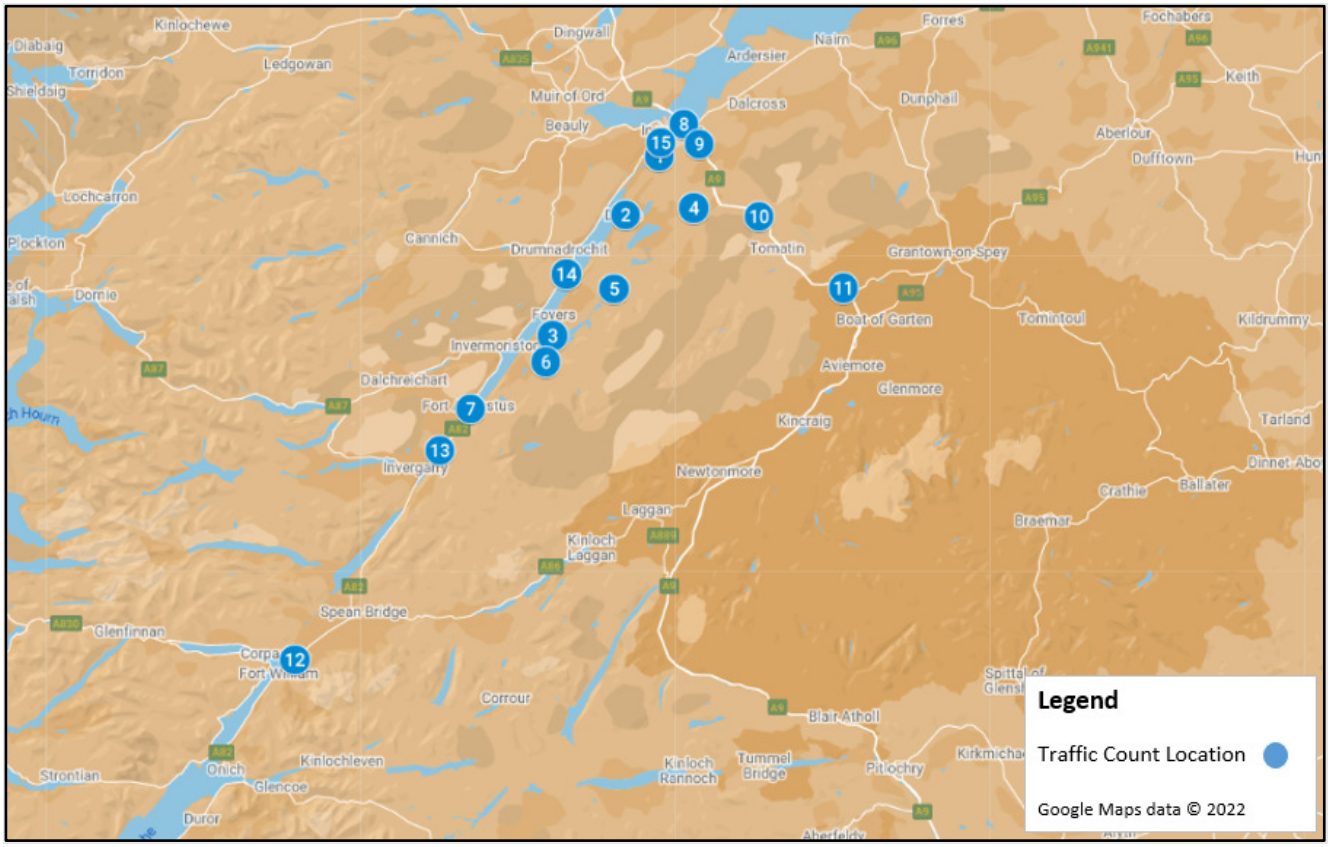

Figure 4 Traffic Survey Locations

These traffic count sites were identified as being areas where sensitive receptors on the access route would be located. A full receptor sensitivity and effect review is prepared in Chapter 16 of the EIAR.

[4] While there is a live TS count point (ATCNW001 or ATC01007) near this location, a review of the TS database shows that there is no information available on the different vehicle classes and therefore a split between Cars & Lights and HGVs cannot be calculated. For this reason, traffic flows were obtained from the DfT database.
[5] 2019 traffic information available between 13 March and 31 December 2019. It is considered that this is sufficient to estimate Average Daily Volumes for 2019 flows.
[6] Approximately six months of data available between 25 June and 31 December 2019, however, it is considered that this is sufficient to estimate Average Daily Volumes for 2019 flows.
[7] While there is a live TS count point (ATC01037) near this location, a review of the TS database shows that there is no information available on the different vehicle classes and therefore a split between Cars & Lights and HGVs cannot be calculated. For this reason, traffic flows were obtained from the DfT database.
[8] 2019 traffic information available between 06 March and 31 December 2019. It is considered that this is sufficient to estimate Average Daily Volumes for 2019 flows.
[9] While there is a live TS count point (ATCN01040) near this location, a review of the TS database shows that there is no information available on the different vehicle classes and therefore a split between Cars & Lights and HGVs cannot be calculated. For this reason, traffic flows were obtained from the DfT database.

The traffic count data allowed the traffic flows to be split into vehicle classes and the data have been summarised into cars/ light goods vehicles (Lights) and heavy goods vehicles (HGVs) (buses and all goods vehicles >3.5 tonnes gross maximum weight).

Table 1 summarises the 24-hour average daily traffic data collected at the count sites in 2022.

Table 1 24-hour Average Traffic Data (2022)

No.	Survey Locations	Data Source	Survey Year	Cars & LGV	HGV	Total
1	B862, south of Holm Rbt	ATC	2022	2,009	355	2,364
2	B862, Dores	ATC	2022	312	104	416
3	B852, Bailebeag	ATC	2022	270	67	337
4	B851, Inverarnie	Available Online Information	2022	908	246	1,154
5	B862, north of Errogie	Available Online Information	2022	489	204	692
6	B862, at site access	Available Online Information	2022	579	186	765
7	B862, east of Fort Augustus	Available Online Information	2019	616	226	842
8	A9(T), between Longman Rbt and Raigmore Interchange	DfT	2019	36,735	2,570	39,304
9	A9(T), south of Inshes Wood	DfT	2019	12,317	1,101	13,419
10	A9(T), east of Moy	TS	2019	9,426	1,533	10,959
11	A9(T), south of A9(T) / A938	TS	2019	6,822	1,934	8,756
12	A82(T), south of Lochybridge	TS	2019	7,487	524	8,011
13	A82(T), west of Aberchalder	DfT	2019	2,591	243	2,834
14	A82(T), south of Drumnadrochit	TS	2019	3,061	790	3,851
15	A82(T), south of Kirkton	DfT	2017	6,224	728	6,952

Please note minor variances due to rounding may occur.

The two-way seven-day average and 85th percentile speeds observed as the count sites are summarised below in Table 2.

Table 2 Speed Summary (2022)

No.	Survey Locations	Mean Speed (mph)	85th %ile Speed (mph)	Speed Limit (mph)
1	B862, south of Holm Roundabout	46.0	53.5	60.0
2	B862, Dores	34.5	43.6	60.0
3	B852, Bailebeag	27.4	34.9	60.0
4	B851, Inverarnie	30.5	38.5	40.0
5	B862, north of Errogie	40.9	48.5	60.0
6	B862, at site access	47.1	57.7	60.0
7	B862, east of Fort Augustus	19.7	24.1	60.0
8	A9(T), between Longman Rbt and Raigmore Interchange	No Data Available		70.0
9	A9(T), south of Inshes Wood	No Data Available		70.0
10	A9(T), east of Moy	53.5	59.0	70.0
11	A9(T), south of A9(T) / A938* **	54.7	59.6	60.0
12	A82(T), south of Lochybridge	No Data Available		60.0

13	A82(T), west of Aberchalder	No Data Available		60.0
14	A82(T), south of Drumnadrochit	48.0	55.8	60.0
15	A82(T), south of Kirkton	No Data Available		60.0

* Trial 50 mph speed limit for HGVs
** From available 2022 speed information sourced 12/12/2022

The speed information shown in Table 2 indicates that there is compliance with posted speed limits at the survey locations within the study area.

5.6 Accident Review

Road traffic accident data along the B851, B852 and B862, within the Study Area, for the five-year period commencing 1st January 2017 through to the 31st December 2021 was reviewed. This information was sourced from the online resource CrashMap.co.uk which uses data collected by police about road traffic crashed occurring on British roads where an accident occurred and a casualty is recorded.

A summary analysis of the incidents indicates that:

- A total of 12 accidents were recorded along the B851, B852 and B862 within the five-year period;
- Of the 12 accidents, two were recorded as serious, one as fatal and the remainder being slight (damage only);
- The fatal accident occurred on the B851 and involved two vehicles, one of which was driven by a young driver;
- HGV traffic was involved in two accidents, one involving a young driver. Young drivers were involved in a further five accidents;
- No pedal cycles and only one motorcycle accidents were recorded; and
- No accident was recorded in the vicinity of the proposed site access.

The data from CrashMap does not suggest any apparent trends in relation to accidents on the local road network.

5.7 Baseline Traffic Conditions

Construction of the project could commence in 2025 if consent is granted and is anticipated to take up to 49 months depending on weather conditions and ecological considerations.

To assess the likely effects during the construction and typical operational phase, base year traffic flows were determined by applying a National Road Traffic Forecast (NRTF) high growth factor to 2022 traffic flows.

The NRTF high growth factor for 2022 to 2025 is 1.037. These factors were applied to the 2022 flows to estimate the 2025 Baseline traffic flows as shown in Table 3. This will be used in the Construction Peak Traffic Impact Assessment.

Table 3 24-hour Average Traffic Data (2025)

No.	Survey Locations	Cars & LGV	HGV	Total
1	B862, south of Holm Roundabout	2,083	368	2,451
2	B862, Dores	324	108	431
3	B852, Bailebeag	280	69	349
4	B851, Inverarnie	942	255	1,197
5	B862, north of Errogie	507	212	718
6	B862, at site access	600	193	793
7	B862, east of Fort Augustus	639	234	873
8	A9(T), between Longman Rbt and Raigmore Interchange	38,094	2,665	40,758

No.	Survey Locations	Cars & LGV	HGV	Total
9	A9(T), south of Inshes Wood	12,773	1,142	13,916
10	A9(T), east of Moy	9,775	1,590	11,364
11	A9(T), south of A9(T) / A938	7,074	2,006	9,080
12	A82(T), south of Lochybridge	7,764	543	8,307
13	A82(T), west of Aberchalder	2,687	252	2,939
14	A82(T), south of Drumnadrochit	3,174	819	3,993
15	A82(T), south of Kirkton	6,454	755	7,209

Please note minor variances due to rounding may occur.

5.8 Committed Developments

A review of online planning applications was undertaken to identify consented developments, including onshore wind farm developments, within the vicinity of the Proposed Development which could share the same study area as the Proposed Development during construction, and for which there could be combined traffic flows on the local road network.

5.8.1 Onshore Wind Farms, Substation and Hydro Schemes

The consented onshore wind farm developments are as follows:

- Millennium South Wind Farm (14/02055/FUL) is to comprise ten wind turbines with a tip height of up to 132 m. It is anticipated that Millennium South Wind Farm will be constructed prior to the construction of the Proposed Development.
- Bhlaraidh Extension Wind Farm (21/04080/S36) is to comprise of up to 18 wind turbines with a tip height of up to 180 m tip height. It is anticipated that construction traffic associated with Bhlaraidh Extension Wind Farm will impact on the Proposed Development's study area.
- Aberarder Wind Farm (15/00737/FUL) is to comprise of 12 wind turbines with a tip height of 130 m. It is anticipated that the construction traffic associated with Aberarder Wind Farm will impact on the Proposed Development's study area. Aberarder Wind Farm could be completed by November 2024[10], however, this will be included in further assessment in case there are any unforeseen delays in the construction of the wind farm.
- Dell Wind Farm (14/02879/FUL) is to comprise 14 wind turbines with a tip height of 130.5 m. It is anticipated that construction traffic associated with Dell Wind Farm will impact on the Proposed Development's study area. In March 2022, scoping for a revised scheme was submitted which comprises up to nine wind turbines with a maximum tip height of 200 m.

In August 2019, THC decided to grant planning permission to extend the Auchterawe Substation (18/00760/FUL) in Fort Augustus. A review of the planning application documents available on the planning portal did not show any information regarding trip numbers associated with construction traffic. Condition Tracker information, published date 27 September 2022, did note that no further abnormal loads are anticipated as well as local road upgrades being complete.

A review THC's Highland Hydroelectric Power webpage[11] (https://highland.maps.arcgis.com/apps/MapJournal/), Energy Consents Unit (ECU) site (https://www.energyconsents.scot/ApplicationSearch.aspx) and THC's planning portal shows that construction traffic associated with Red John Hydro (18/05427/S36) will impact on the Proposed Development's study area.

A review of THC's planning portal shows that the Revised Coire Glas Pumped Storage Scheme (18/01564/S36) was consented and planning documents note that the peak of the scheme would occur in 2026.

[10] SSE (24 October 2022), SSE Renewables acquires 49.9MW Aberarder onshore wind farm project, Available at: https://www.sse.com/news-and-views/2022/10/sse-renewables-acquires-49-9mw-aberarder-onshore-wind-farm-project/
[11] As of January 2022

It is therefore expected that the Revised Coire Glas Pumped Storage Scheme will be constructed at the same time as the Proposed Development, if granted consent. Construction traffic associated with the Revised Coire Glas Pumped Storage Scheme will impact on the Proposed Development's study area.

Traffic flows associated with the consented schemes (Bhlaraidh Extension Wind Farm, Aberarder Wind Farm, Dell Wind Farm, Red John Hydro and the Revised Coire Glas Pumped Storage Scheme) have not been included in the 2025 Baseline Flows as these are transitory in nature and the inclusion of these flows in the baseline will dilute the potential impact that the Kemp Pumped Storage proposals will have. The approach taken is therefore considered to be an overly robust assessment.

In order to inform the planning authorities of possible issues if the consented onshore wind farm and hydro sites were to be constructed concurrently with the Proposed Development and have overlapping peak construction timescales, a combined assessment has been undertaken as part of the cumulative assessment in Chapter 16 of the EIA Report.

It should be noted that any crossover of traffic with the Proposed Development flows would be addressed via the CTMP, secured by planning condition on the Proposed Development consent.

5.8.2 Other Consented Developments

In relation to other consented developments, a review of THC's planning portal showed that trips associated with the proposed Centre for Health Science 2 (CfHS2) development at Inverness Campus (18/04829/FUL) will impact on the Proposed Development's study area. The construction of the CfHS2 is currently underway and it is anticipated that the facility will be occupied prior to the construction of the Proposed Development.

A review of the Transport Assessment for the CfHS2 indicated that the study area for this development is centred around the THC road network leading from the A9(T) slip roads at Culloden Road corridor and did not consider wider area access. As such, the likely impact on the Proposed Development study area is unlikely to be significant, with the majority of CfHS2 traffic being focused on the A9(T).

With up to 130 trips associated with the AM peak hour, the likely level of significance to the Proposed Development by the CfHS2 proposals is not considered significant at this location and as such, this has not been included in the baseline traffic flows.

The review determined that the Mixed-Use Development at Drum Farm, Drumnadrochit (Planning Ref. 19/02762/FUL and 19/02761/FUL) will impact on the Proposed Development's study area. The AM trips comprise a total of 115 trips which are considered significant at this location, therefore the proposed daily trips associated with the Mixed-Use Development at Drum Farm will be included in the committed development as these are expected to be permanent trips on the road network.

The 2025 Baseline Traffic + Committed Development flows are shown in Table 4. This will be used in the Construction Peak Traffic Impact Assessment.

Table 4 2025 Baseline Traffic + Committed Development Flows

No.	Survey Locations	Cars & LGV	HGV	Total
1	B862, south of Holm Roundabout	2,083	368	2,451
2	B862, Dores	324	108	431
3	B852, Bailebeag	280	69	349
4	B851, Inverarnie	942	255	1,197
5	B862, north of Errogie	507	212	718
6	B862, at site access	600	193	793
7	B862, east of Fort Augustus	639	234	873
8	A9(T), between Longman Rbt and Raigmore Interchange	38,094	2,665	40,758
9	A9(T), south of Inshes Wood	12,773	1,142	13,916

No.	Survey Locations	Cars & LGV	HGV	Total
10	A9(T), east of Moy	9,775	1,590	11,364
11	A9(T), south of A9(T) / A938	7,074	2,006	9,080
12	A82(T), south of Lochybridge	8,272	543	8,815
13	A82(T), west of Aberchalder	3,195	252	3,447
14	A82(T), south of Drumnadrochit	3,682	819	4,501
15	A82(T), south of Kirkton	7,779	755	8,534

Please note minor variances due to rounding may occur.

5.8.3 Associated Development

A 275 kV air insulated switchgear (AIS) switching station is to be provided at the site. This development is the subject to a separate planning application to be made in the future by Scottish & Southern Electricity Networks Transmission (SSEN Transmission).

The proposed switching station is required to enable the operation of proposed pumped storage scheme and as such is considered as Associated Development. The proposed switching station is proposed to be constructed between months 30 and 48 of the construction programme, although this has yet to be confirmed.

The traffic generation associated with the Associated Development is not yet known as the assessment has yet to be undertaken by SSEN Transmission. An estimate of traffic has been made from similar schemes and will assume that peak traffic for the site would comprise of 20 Car & LGV and 16 HGV movements at its peak.

The distribution and assignment of Associated Development traffic will be made using the same assumptions as per the Proposed Development.

6 Trip Generation and Distribution

6.1 Construction Phase

6.1.1 Trip Derivation

During the up to 5 year construction period, the following traffic will require access to the site:

- Staff transport, in either cars or staff minibuses;
- Import of material to produce concrete and to a lesser extent shotcrete;
- Import of fuel for construction plant;
- Import of material to create the initial stages of the access;
- Daily movements associated with servicing a large construction site and compound; and
- Occasional delivery of larger items of plant.

The primary traffic movements within the site will be the transportation of rock in the form of tunnel spoil, which will be used to construct the dams around Loch Kemp.

Average daily traffic flow data were used to establish the construction trips associated with the site based on the assumptions detailed in the following sections. The calculations assume that there are 50 working weeks per year, and work will take place six days per week. Daily construction work practices at the tunnels and shafts will be over 24-hours.

6.1.2 Construction Staff

It is estimated that 80% of the staff will live in staff accommodation onsite and 20% of staff will travel from outside the site daily. Site staff are assumed to work on a shift rota of ten days working and four days not working.

Staff travelling to the site would arrive in non-HGV vehicles and where possible will be encouraged to car share. The workforce onsite will depend on the activities undertaken, however it is estimated that the maximum number of staff expected onsite could be around 102 per day, although this will vary considerably through the construction programme and may not coincide with the peak of construction traffic movements.

A construction residential camp is proposed as part of the development and will be located in close proximity to the site. Minibuses will shuttle staff to and from the site to promote sustainable travel on site.

6.1.3 Abnormal Load Deliveries

Any abnormal loads travelling to the site will comprise plant deliveries. Escort vehicles would accompany any abnormal load deliveries to support the traffic management measures.

6.1.4 Concrete Volumes

The total volume of concrete required is expected to be approximately 192,128 m³.

The breakdown of estimated quantities that need to be imported for concrete operations is shown in bold in Table 5.

Table 5 Concrete Volumes

	Concrete m³	Shotcrete m³	Aggregate (tonne)	Cement (tonne)	Sand (tonne)
Dams	93,487	0	92,552	30,850	91,617
Upper Control Works	16,800	10,600	27,126	9,042	26,852
Tunnels	776	40,631	40,992	13,664	40,578
Powerhouse	75,170	0	74,418	24,806	73,666

	Concrete m^3	Shotcrete m^3	Aggregate (tonne)	Cement (tonne)	Sand (tonne)
Lower Intake	5,895	0	5,836	1,945	5,777
Total	**192,128**	**51,231**	**240,925**	**80,308**	**238,491**

Assuming that the above weights of sand are transported to site by HGV with a payload of approximately 22 tonnes and cement is also transported to site in 20 tonne deliveries.

These vehicle movements have been distributed to reflect the anticipated concrete requirements throughout the works programme presented in Appendix B.

6.1.5 Fuel Deliveries

It is expected that there will be up to 50 items of plant at the start and end of the construction period and this will increase to 131 items of plant during the main construction period. This will initially require over 38,000 litres of fuel day, increasing to 78,000 litres at the height of the construction.

6.1.6 Site set up and mobilisation

The initial access junction and track works are estimated to require the import of 4,800 tonnes of processed rock over the initial two months. This will require approximately 42 deliveries per day using 8-wheeled rigid HGVs. Further deliveries of site accommodation and infrastructure will be required at the site set up phase, with their removal during the end months of the programme.

6.1.7 Peak Construction Traffic

The maximum traffic effect associated with construction of the Proposed Development is predicted to occur in Month 16 of the programme. During this month, an average of the following vehicle movements are predicted per day:

- Cars: 184 vehicles (92 inbound / 92 outbound);
- Camp Minibuses: 12 vehicles (6 inbound / 6 outbound);
- LGV: 120 vehicles (60 inbound / 60 outbound); and
- HGV: 68 vehicles (34 inbound / 34 outbound).

6.2 Trip Distribution

Materials for the construction of the access tracks will come from local quarries, the closest of which is located near Scatraig, via the B851 (although for the purposes of a worst case assessment, this has also assumed delivery from the A9).

Sand and cement for the onsite concrete requirements will be sourced from local concrete plants, the nearest of which is also located near Scatraig, via the B851 (although for the purposes of a worst case assessment, this has also assumed delivery from the A9).

The construction supply contracts have not yet been let and the Applicant will confirm exact sources of material with the Council prior to construction works commencing.

It is proposed that any construction staff which are not using the on-site accommodation staff will be based locally to the Site, with 80% assumed to be staying in Inverness and 20% in Fort Augustus.

Deliveries of abnormal load electrical & mechanical equipment will be delivered to the site via the Caledonian Canal.

It is anticipated that all of construction material deliveries will be from the A9(T), the B851 and the B862 route as shown.

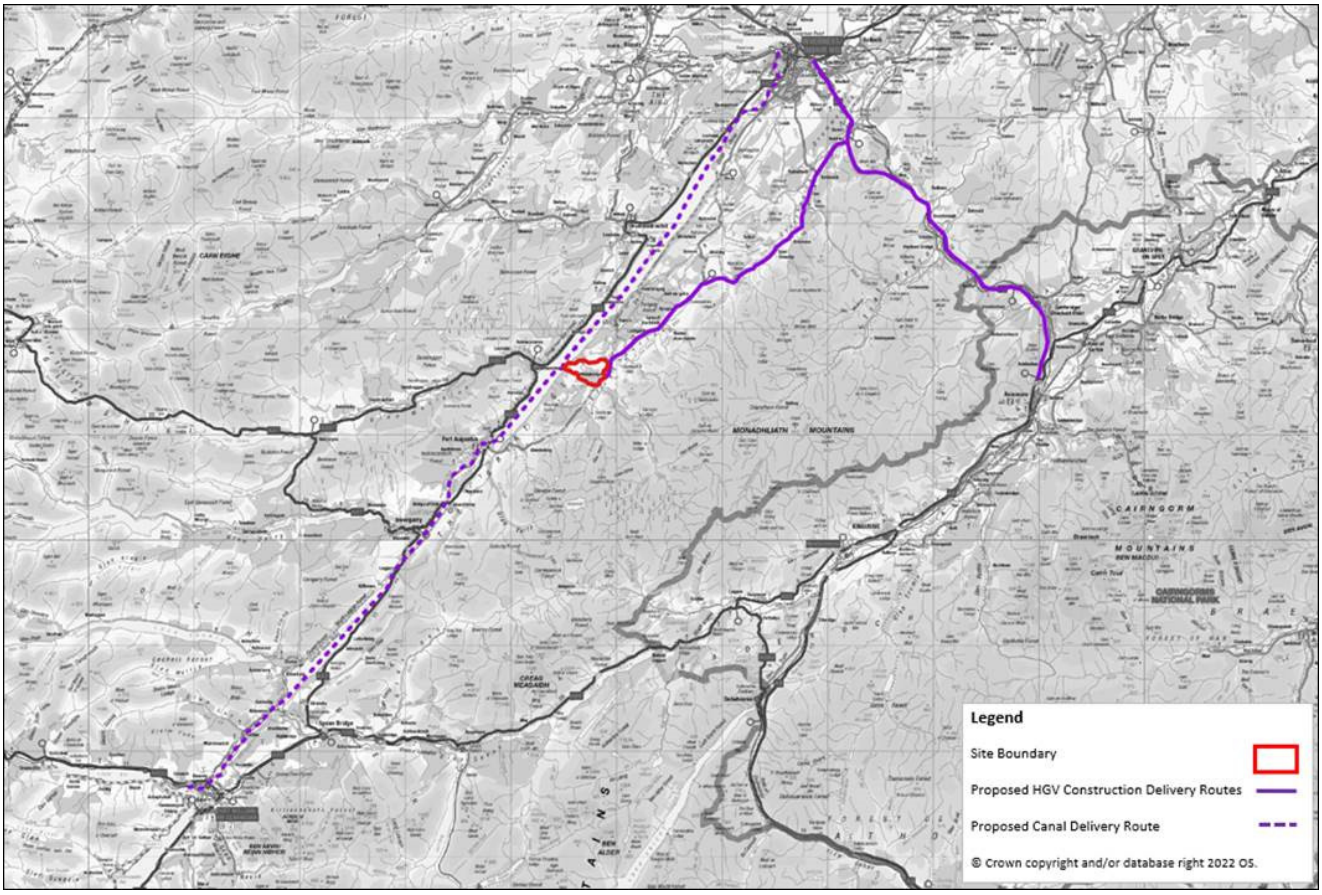

Figure 5 Construction Delivery Routes

While it is anticipated that materials will be delivered from the nearest available source along the Proposed Construction Delivery Routes. All HGV construction traffic will travel along the B851 and B862 between the A9 and the site access junction. Construction staff and LGV traffic would access the site from the north or south. 80% of car based trips are assumed to originate in Inverness and would access the site via the B862 (90%) or B852 (10% due to relative conditions between the B862 and B852).

Light Goods Vehicle would access the site via the A82 and B862, with northern access only permitted to use the A9, A851 and B862. This would be set through the agreed routes in a future Construction Traffic Management Plan (CTMP) and contractual arrangements with contractors.

The resulting development trips are summarised in Table 6.

Table 6 Peak Construction Traffic

No.	Survey Locations	Cars & LGV	HGV	Total
1	B862, south of Holm Roundabout	147	0	147
2	B862, Dores	132	0	132
3	B852, Bailebeag	15	0	15
4	B851, Inverarnie*	60	68	128
5	B862, north of Errogie*	193	68	261
6	B862, at site access*	316	68	384
7	B862, east of Fort Augustus	97	0	97
8	A9(T), between Longman Rbt and Raigmore Interchange*	0	60	60
9	A9(T), south of Inshes Wood*	60	60	120
10	A9(T), east of Moy*	0	8	8
11	A9(T), south of A9(T) / A938*	0	8	8
12	A82(T), south of Lochybridge	200	0	200
13	A82(T), west of Aberchalder	20	0	20
14	A82(T), south of Drumnadrochit	40	0	40
15	A82(T), south of Kirkton	40	0	40

Please note minor variances due to rounding may occur.

7 Traffic Impact Assessment

7.1 Proposed Development Construction Impact

The peak month traffic data was combined with the future year (2025) traffic data to allow a comparison between the baseline results to be made. The increase in traffic volumes is illustrated in percentage increases for each class of vehicle. This is illustrated in Table 7.

Table 7 Peak Construction Traffic Impact

No.	Survey Locations	Cars & LGV	HGV	Total	Cars & LGV % Increase	HGV % Increase	Total % Increase
1	B862, south of Holm Roundabout	2,231	368	2,599	7.07%	0.00%	6.00%
2	B862, Dores	456	108	564	40.95%	0.00%	30.71%
3	B852, Bailebeag	295	69	364	5.26%	0.00%	4.21%
4	B851, Inverarnie	1,002	323	1,325	6.37%	26.66%	10.70%
5	B862, north of Errogie	700	280	979	38.06%	32.14%	36.37%
6	B862, at site access	916	261	1,177	52.63%	35.25%	48.41%
7	B862, east of Fort Augustus	736	234	970	15.15%	0.00%	11.09%
8	A9(T), between Longman Rbt and Raigmore Interchange	38,094	2,725	40,818	0.00%	2.25%	0.15%
9	A9(T), south of Inshes Wood	12,833	1,202	14,036	0.47%	5.26%	0.86%
10	A9(T), east of Moy	9,775	1,598	11,372	0.00%	0.50%	0.07%
11	A9(T), south of A9(T) / A938	7,074	2,014	9,088	0.00%	0.40%	0.09%
12	A82(T), south of Lochybridge	8,472	543	9,015	2.42%	0.00%	2.27%
13	A82(T), west of Aberchalder	3,215	252	3,467	0.63%	0.00%	0.58%
14	A82(T), south of Drumnadrochit	3,722	819	4,541	1.09%	0.00%	0.89%
15	A82(T), south of Kirkton	7,819	755	8,574	0.51%	0.00%	0.47%

Please note minor variances due to rounding may occur.

The total traffic movements are not predicted to increase by more than 48.4% on all of the study network, the maximum impact being experienced on the B862 at the site access. Total traffic increases along the trunk road network are all below 2.3%.

It should also be noted the construction phase is transitory in nature and the peak of construction activities is short- lived.

A review of existing road capacity has been undertaken using the Design Manual for Roads and Bridges, Volume 15, Part 5 “The NESA Manual”. The theoretical road capacity has been estimated for each of the road links for a 12-hour period that makes up the study area. The results are summarised in Table 8.

Table 8 2025 Daily Traffic

No.	Survey Locations	2025 Baseline Flow	2025 Base + Development Flows	Theoretical Road Capacity (12hr)	Spare Road Capacity %
1	B862, south of Holm Roundabout	2,451	2,599	21,600	87.97%
2	B862, Dores	431	564	3,360	83.22%
3	B852, Bailebeag	349	364	3,360	89.16%
4	B851, Inverarnie	1,197	1,325	21,600	93.87%
5	B862, north of Errogie	718	979	3,360	70.87%
6	B862, at site access	793	1,177	19,200	93.87%
7	B862, east of Fort Augustus	873	970	21,600	95.51%

No.	Survey Locations	2025 Baseline Flow	2025 Base + Development Flows	Theoretical Road Capacity (12hr)	Spare Road Capacity %
8	A9(T), between Longman Rbt and Raigmore Interchange	40,758	40,818	81,600	49.98%
9	A9(T), south of Inshes Wood	13,916	14,036	81,600	82.80%
10	A9(T), east of Moy	11,364	11,372	28,800	60.51%
11	A9(T), south of A9(T) / A938*	9,080	9,088	28,800	68.44%
12	A82(T), south of Lochybridge	8,815	9,015	21,600	58.26%
13	A82(T), west of Aberchalder	3,447	3,467	28,800	87.96%
14	A82(T), south of Drumnadrochit	4,501	4,541	21,600	78.97%
15	A82(T), south of Kirkton	8,534	8,574	28,800	70.23%

Please note minor variances due to rounding may occur.

The results indicate there are no road capacity issues with the Proposed Development and ample spare capacity exists within the trunk and local road network to accommodate construction phase traffic.

7.2 Proposed Development & Associated Development Impact

A review of the impact that construction the Associated Development would have on the network if it is constructed concurrently to the peak of the Proposed Development traffic has been undertaken and is summarised in Table 9.

Table 9 Combined Proposed Development & Associated Development Traffic Impact

No.	Survey Locations	Cars & LGV	HGV	Total	Cars & LGV % Increase	HGV % Increase	Total % Increase
1	B862, south of Holm Roundabout	2,243	368	2,611	7.64%	0.00%	6.49%
2	B862, Dores	468	108	576	44.66%	0.00%	33.49%
3	B852, Bailebeag	307	69	376	9.54%	0.00%	7.65%
4	B851, Inverarnie	1,016	339	1,355	7.86%	32.93%	13.20%
5	B862, north of Errogie	714	296	1,009	40.82%	39.71%	40.55%
6	B862, at site access	936	277	1,213	55.96%	43.55%	52.94%
7	B862, east of Fort Augustus	742	234	976	16.09%	0.00%	11.77%
8	A9(T), between Longman Rbt and Raigmore Interchange	38,106	2,725	40,830	0.03%	2.25%	0.18%
9	A9(T), south of Inshes Wood	12,835	1,202	14,038	0.49%	5.26%	0.88%
10	A9(T), east of Moy	9,777	1,598	11,374	0.02%	0.50%	0.09%
11	A9(T), south of A9(T) / A938	7,076	2,014	9,090	0.03%	0.40%	0.11%
12	A82(T), south of Lochybridge	8,474	543	9,017	2.44%	0.00%	2.29%
13	A82(T), west of Aberchalder	3,217	252	3,469	0.69%	0.00%	0.64%
14	A82(T), south of Drumnadrochit	3,724	819	4,543	1.14%	0.00%	0.93%
15	A82(T), south of Kirkton	7,821	755	8,576	0.54%	0.00%	0.49%

Please note minor variances due to rounding may occur.

The maximum impact across the network occurs on the B862 at the site access, this being 52.9%. Total traffic increases along the trunk road network are all below 2.3%.

It should also be noted that it would be unlikely that the peaks of both the Proposed and Associated Developments would coincide and that the Applicant would ensure that this scenario would not occur in practice.

8 Proposed Traffic Mitigation Measures

8.1 Construction Phase

The Construction Traffic Management Plan (CTMP) would be agreed with The Highland Council prior to construction works commencing. The measures to be included in the CTMP are provided below.

The following measures would be implemented through the CTMP during the construction phase:

- Where possible the detailed design process would minimise the volume of material to be imported to site to help reduce HGV numbers;
- A site worker transport and travel arrangement plan, including transport modes to and from the worksite (including pick up and drop off times);
- A Traffic Management Plan;
- All materials delivery lorries (dry materials) should be sheeted to reduce dust and stop spillage on public roads;
- Specific training and disciplinary measures should be established to ensure the highest standards are maintained to prevent construction vehicles from carrying mud and debris onto the carriageway;
- Wheel cleaning facilities may be established at the site entrance, depending the views of The Highland Council;
- Normal site delivery hours would be limited to between 0700 and 1900 (Monday to Saturday) and 07.00 to 15.00 hours (Sundays);
- Appropriate traffic management measures would be put in place on the B862 to avoid conflict with general traffic, subject to the agreement of the roads authority. Typical measures would include HGV turning and crossing signs and/ or banksmen at the site access and warning signs;
- Provide construction updates on the project website and or a newsletter to be distributed to residents within an agreed distance of the site.
- Adoption of a voluntary speed limit of 15 mph for all construction vehicles through Dores, Inverarnie, Gorthleck and Errogie;
- Adoption of a voluntary HGV speed limit of 10 mph when passing schools such as Farr Primary School and Stratherrick Primary School and wherever possible for bulk materials not to be delivered during school drop off and pick up times;
- All drivers would be required to attend an induction to include:
    - A tool box talk safety briefing;
    - The need for appropriate care and speed control;
    - A briefing on driver speed reduction agreements (to slow site traffic at sensitive locations through the villages); and
    - Identification of the required access routes and the controls to ensure no departure from these routes.

THC may require an agreement to cover the cost of abnormal wear and tear on the B862 within 500 m of the site access junction.

Video footage of the pre-construction phase condition of the abnormal loads access route and the construction vehicles route would be recorded to provide a baseline of the state of the road prior to any construction work commencing. This baseline would inform any change in the road condition during the construction stage of the proposed development. Any necessary repairs would be coordinated with the Roads Authority. Any damage caused by traffic associated with the proposed development, during the construction period that would be hazardous to public traffic, would be repaired immediately.

Any damage to road infrastructure caused directly by construction traffic would be made good, and street furniture that is removed on a temporary basis would be fully reinstated.

There would be a regular road edge review and any debris and mud would be removed from the public carriageway to keep the road clean and safe during the initial months of construction activity, until the construction junction and immediate access track works are complete.

8.2 Abnormal Load Mitigation Works

An abnormal load Route Survey Report (RSR) highlights a number of constraint points which have been assessed within the report using swept path assessment software. The locations of the constraint points and the swept path drawings are included Appendix C.

The RSR identifies key points and issues associated with the route that require mitigation works. These works are to be agreed with THC and other relevant stakeholders.

The abnormal loads mitigation works can be designed to be temporary in nature to enable the restoration to their original condition, if required by THC.

8.3 Abnormal Load Management Plan

Before the abnormal loads traverse the route, the following tasks would be undertaken to ensure load and road user safety:

- Ensure any vegetation which may foul the loads is trimmed back to allow passage;
- Confirm there are no roadworks or closures that could affect the passage of the loads;
- Check no new or diverted underground services on the proposed route are at risk from the abnormal loads; and
- Confirm the police are satisfied with the proposed movement strategy.

There are a number of traffic management measures that could help reduce the effect of abnormal load convoys.

All abnormal load deliveries would be undertaken at appropriate times (to be discussed and agreed with the relevant roads authorities and police) with the aim to minimise the effect on the local road network. It is likely that the abnormal load convoys would travel in the early morning periods, before peak times while general construction traffic would generally avoid the morning and evening peak periods.

The majority of potential conflicts between construction traffic and other road users will occur with abnormal load traffic. General construction traffic is not likely to come into conflict with other road users as the vehicles are smaller and road users are generally more accustomed to them.

Potential conflicts between the abnormal loads and other road users can occur at a variety of locations and circumstances. The main potential conflicts are likely to occur:

- On the A9(T) or A82(T) where the loads may straddle the centre line, where fast moving oncoming traffic may be encountered, etc.;
- Where loads turn from the A9(T) onto the B851 or from the A82(T) onto the B862;
- Where traffic turns at a road junction, requiring other traffic to be restrained on other approach arms; and
- In locations where high speeds of general traffic are predicted.

Advance warning signs would be installed on the approaches to the affected road network. Information signage could be installed to help assist drivers and an example is illustrated in Figure 6. Flip up panels (shown in grey) would be used to mask over days where convoys would not be operating. When no convoys are moving, the sign would be bagged over by the Traffic Management contractor.

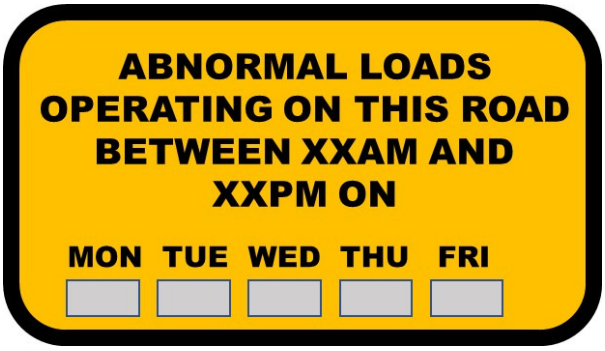

Figure 6 Example Information Sign

This signage will assist in helping improve driver information and allow other road users to consider alternative routes or times for their journey (where such options exist).

The location and numbers of signs would be agreed post consent and would form part of the wider Traffic Management Proposal for the project.

The Abnormal Load Transport Management Plan would also include:

- Procedures for liaising with the emergency services to ensure that police, fire and ambulance vehicles are not impeded by the loads. This is normally undertaken by informing the emergency services of delivery times and dates and agreeing communication protocols and lay over areas to allow overtaking;
- A diary of proposed delivery movements to liaise with the communities to avoid key dates such as local events;
- A protocol for working with local businesses to ensure the construction traffic does not interfere with deliveries or normal business traffic; and
- Proposals to establish a construction liaison committee to ensure the smooth management of the project / public interface with the applicant, the construction contractors, the local community, and if appropriate, the police forming the committee. This committee would form a means of communicating and updating on forthcoming activities and dealing with any potential issues arising.

8.4 Canal Management Plan

Canal Management Plan would be produced in collaboration with Scottish Canals to manage the Proposed Development's construction traffic which will be delivered to the site via the Caledonian Canal. This would include:

- Advertising the proposed canal traffic movements on a monthly basis on the Scottish Canals website;
- Providing an information pack to canal users, local clubs and businesses which provides details of the proposed construction traffic movements along the canal, as well as directing users to the project website;
- Details of maximum permitted speeds along sections of the canal;
- Measures to ensure that both construction canal traffic and other canal users can use the canal simultaneously during the construction period;
- Operating barge lookouts to detect other users along the canal;
- Providing signage along the canal's bank in order to alert other canal users of the presence of barges along the canal at the Applicant's expense;
- The use of enhanced barge navigation lighting;
- Designating route paths along Loch Lochy and Loch Ness which will aim to avoid the paths of other canal users; and
- Setting up a Canal Liaison Group in collaboration with Scottish Canals which would include other interested stakeholders.

8.5 Public Information

Information on the turbine convoys would be provided to local media outlets such as local papers and local radio to help assist the public.

Information would relate to expected vehicle movements from the port of entry through to the site access junction. This will assist residents becoming aware of the convoy movements and may help reduce any potential conflicts.

The Applicant would also ensure information was distributed through its communication team via the project website, local newsletters and social media.

8.6 Public Road Improvements

Improvements to the single carriageway section of the B851 and B862 from the A9 to the development access could be made to improve access to the site for HGV traffic, noting that the impact is temporary and only associated with the construction phase.

THC has previously noted a strategy for the improvements of the road network in the South Loch Ness area, however this document is still in draft (from 2014), has not been approved by committee nor approved as supplementary planning guidance.

In the absence of approved policy, it is proposed that additional passing places and limited road widening works are provided as part of the mitigation proposals for the project. In addition, works to enhance the pedestrian facilities in Gorthleck and potentially Whitebridge are suggested.

It is proposed that a financial contribution for such works would be made to THC. All works would be located within the limits of the adopted road boundary and would not be located in areas of a sensitive ecological value. The Council would then be responsible for the delivery of the necessary works, following receipt of the funds, the value of which would be set via discussion with the Applicant and agreed through the planning process.

8.7 Operational Phase Mitigation

Site entrance roads will be well maintained and monitored during the operational life of the development. Regular maintenance will be undertaken to keep the site access track drainage systems fully operation and to ensure there are no run-off issues onto the public road network.

9 Summary & Conclusions

Pell Frischmann (PF) has been commissioned by ASH design+assessment, on behalf of Loch Kemp Storage Ltd. (the Applicant), to undertake a Transport Assessment (TA) for the development of the up to 600 Megawatt Loch Kemp Pumped Storage scheme (the Proposed Development).

The Site is located within Dell Estate, approximately 13 km to the north-east of Fort Augustus within The Highland Council administrative area.

Existing traffic data established a base point for determining the impact during the construction phase and was factored to future levels to help determine the effect of construction traffic on the local road network.

The construction traffic would result in a temporary increase in traffic flows on the road network surrounding the Proposed Development. The maximum traffic effect associated with construction of the Proposed Development is predicted to occur in Month 16 of the programme. During this month, an average of 68 HGV movements is predicted per day and it is estimated that there would be a further 316 car and light van movements per day to transport construction workers to and from the site.

A series of mitigation measures and management plans have been proposed to help mitigate and offset the impacts of both the construction and operational phase traffic flows.

No link capacity issues are expected on any of the roads assessed due to the additional movements associated with the proposed development. The effects of construction traffic are temporary in nature and are transitory.

Appendix A Indicative Access Junction

NOTE:

1. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATION FOR HIGHWAY WORKS AND THE TURBINE MANUFACTURERS STANDARDS AND ALL RELEVANT DRAWINGS WITHIN THE PROJECT DESIGN PACKAGE.
2. ALL WORKS TO BE EXECUTED IN ACCORDANCE WITH THE DMRB, THE MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS, DESIGN MANUAL FOR ROADS AND BRIDGES, AND TRAFFIC SIGNS MANUAL.
3. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE. ALL LEVELS ARE IN METRES AND RELATE TO ORDNANCE DATUM.
4. DO NOT SCALE FROM ANY DRAWING. WORK TO FIGURED DIMENSIONS ONLY. ANY DISCREPANCIES IN DIMENSIONS ARE TO BE REFERRED TO THE DESIGNER BEFORE WORK IS PUT TO HAND.
5. ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE BY THE CONTRACTOR PRIOR TO PREPARING ANY WORKING DRAWINGS OR COMMENCING ON SITE.
6. ALL WORKS BY THE CONTRACTOR MUST BE CARRIED OUT IS SUCH A WAY THAT ALL REQUIREMENTS UNDER THE HEALTH AND SAFETY AT WORK ACT ARE SATISFIED.
7. ALL WORKS ARE TO BE CARRIED OUT IN COMPLIANCE WITH THE REQUIREMENT OF THE STATUTORY AUTHORITIES AND CONSTRUCTION DESIGN MANAGEMENT REGULATIONS.

KEY:

Access Track

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Tel: +44 (0)131 240 1270
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Client

ASH design+assessment

Project

Loch Kemp Storage

Drawing Title

Access Junction
General Arrangement

	Name	Date	
Designed	TO	10.10.2023	File: Site Access Junction
Checked	CN	09.11.2023	Drawing Status: DRAFT

Scale: 1:250 @ A1

Drawing No.: SK01

Revision: P2

NOTE:

1. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATION FOR HIGHWAY WORKS AND THE TURBINE MANUFACTURERS STANDARDS AND ALL RELEVANT DRAWINGS WITHIN THE PROJECT DESIGN PACKAGE.
2. ALL WORKS TO BE EXECUTED IN ACCORDANCE WITH THE DMRB, THE MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS, DESIGN MANUAL FOR ROADS AND BRIDGES, AND TRAFFIC SIGNS MANUAL.
3. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE. ALL LEVELS ARE IN METRES AND RELATE TO ORDNANCE DATUM.
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6. ALL WORKS BY THE CONTRACTOR MUST BE CARRIED OUT IS SUCH A WAY THAT ALL REQUIREMENTS UNDER THE HEALTH AND SAFETY AT WORK ACT ARE SATISFIED.
7. ALL WORKS ARE TO BE CARRIED OUT IN COMPLIANCE WITH THE REQUIREMENT OF THE STATUTORY AUTHORITIES AND CONSTRUCTION DESIGN MANAGEMENT REGULATIONS.

KEY:

- Access Track
- 215x2.5m Visibility Splay
- 160x2.5m Visibility Splay

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Project

Loch Kemp Storage

Drawing Title

Access Junction
Visibility Splay

	Name	Date		
			Scale	1:1500 @ A1
Designed	TO	10.10.2023	File	Site Access Junction
Checked	CN	09.11.2023	Drawing Status	DRAFT
Drawing No.				Revision
SK02				P2

Appendix B Construction Traffic Profile

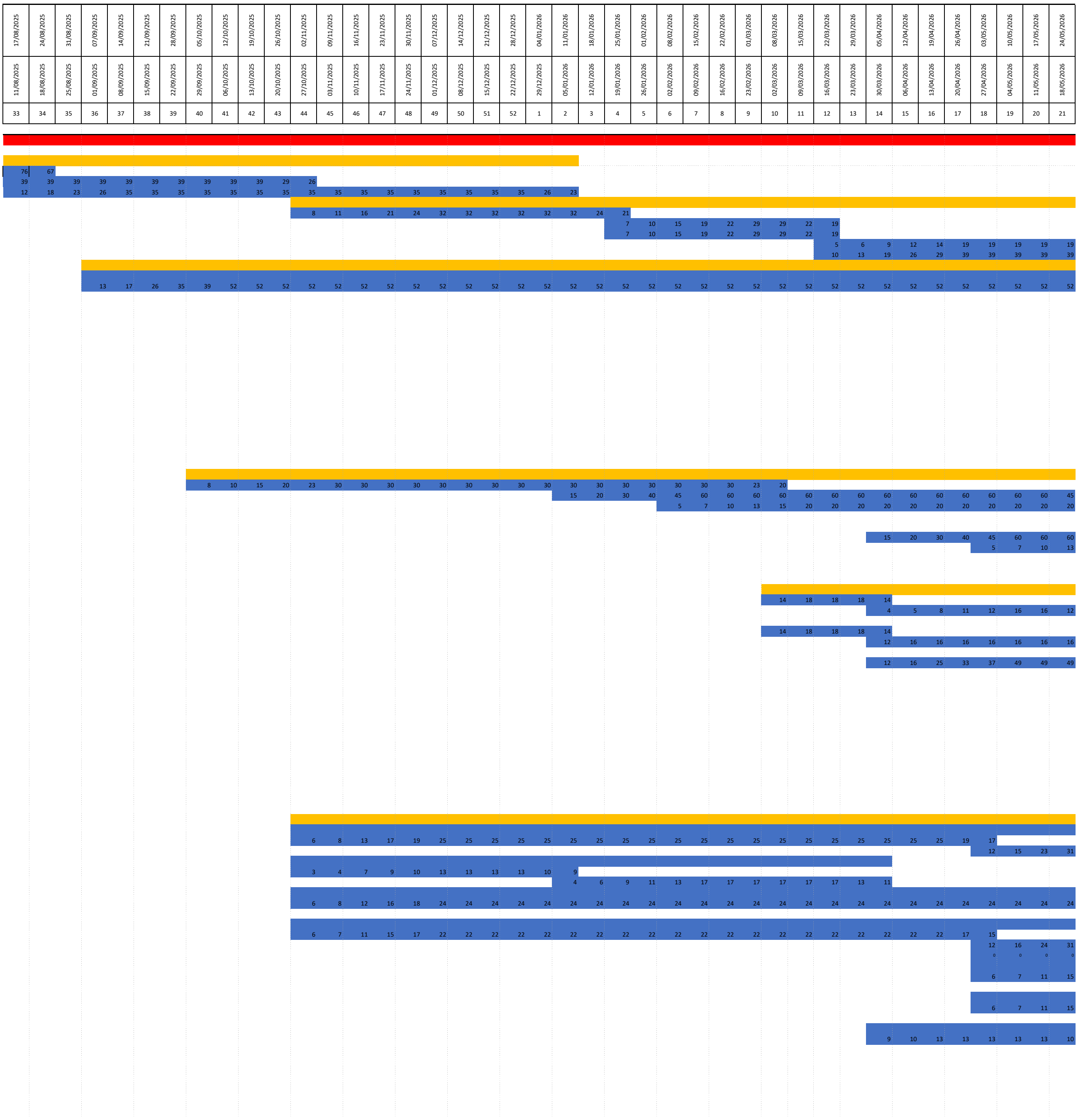
KEMP HIGH LEVEL CONSTRUCTION PROGRAMME WITH TRAFFIC VOLUMES

Note: Phased build up

ID	Project Duration	Date Start	Date End	Total Days	Calendar Week/ Year From	Calendar Week/ Year To	Total Weeks	Sundays	18/05/2025	25/05/2025	01/06/2025	08/06/2025	15/06/2025	22/06/2025	29/06/2025	06/07/2025	13/07/2025	20/07/2025	27/07/2025
								Mondays	12/05/2025	19/05/2025	26/05/2025	02/06/2025	09/06/2025	16/06/2025	23/06/2025	30/06/2025	07/07/2025	14/07/2025	21/07/2025
									20	21	22	23	24	25	26	27	28	29	30
	1 Kemp 600MW HIGH LEVEL CONSTRUCTION PROGRAMME	12/05/2025	29/03/2030	1,782	20/2025	13/2030	256												
	1.1 Contract Award & Mobilisation	12/05/2025	07/07/2025	57	20/2025	28/2025	9												
	1.2 Initial Works	12/05/2025	06/01/2026	240	20/2025	2/2026	35												
1.2.1	Form Junction & initial access, establish Camp & open initial BPs	12/05/2025	07/07/2025	57	20/2025	28/2025	9		25	34	51	67	76	101	101	101	101	101	101
1.2.2	Track Works - Access Formed to all work areas	08/07/2025	28/10/2025	113	28/2025	44/2025	17										10	13	20
1.2.3	Forming platform at powerhouse, incl access tunnel portal, blasting and clear to +19m level	05/08/2025	06/01/2026	155	32/2025	2/2026	23												
	1.3 Intake Loch Kemp	29/10/2025	04/08/2026	280	44/2025	32/2026	41												
1.3.1	Intake excavation and Support	29/10/2025	20/01/2026	84	44/2025	4/2026	13												
1.3.2	Tunnel 1 Portal	21/01/2026	17/03/2026	56	4/2026	12/2026	9												
1.3.3	Tunnel 2 Portal	21/01/2026	17/03/2026	56	4/2026	12/2026	9												
1.3.4	Gate shaft 1	18/03/2026	04/08/2026	140	12/2026	32/2026	21												
1.3.5	Gate Shaft 2	18/03/2026	04/08/2026	140	12/2026	32/2026	21												
	1.4 Tunnels and drop shaft	03/09/2025	14/06/2029	1,381	36/2025	24/2029	198												
1.4.1	**Access Tunnel**	03/09/2025	26/05/2027	631	36/2025	22/2027	91												
1.4.1.1	MAT Excavation & shotcrete lining + 2,5 month for portal and crossing widening	03/09/2025	23/11/2026	447	36/2025	48/2026	65												
1.4.1.2	Access Tunnel Invert Concrete	24/11/2026	08/01/2027	46	48/2026	2/2027	8												
1.4.1.3	MAT Access to cable shaft	11/01/2027	26/05/2027	136	3/2027	22/2027	21												
1.4.2	**Tunnel #1**	08/02/2027	29/05/2029	842	7/2027	22/2029	121												
1.4.2.1	Tunnel # 1 Excavation towards powerhouse + 3 months for manifold excavation (280m from MAT) + 1 month buffer to Tunnel #2	08/02/2027	08/11/2027	274	7/2027	46/2027	40												
1.4.2.2	Tunnel # 1 Excavation towards intake (from MAT)	08/02/2027	16/02/2028	374	7/2027	8/2028	55												
1.4.2.3	Installation Steel Lining 2,4m / day + buffer for bifurcation 3 months	09/11/2027	12/07/2028	247	46/2027	29/2028	36												
1.4.2.4	Installation Concrete Lining 2,5m / day + 1 month for bend to pressure shaft	17/02/2028	29/05/2029	468	8/2028	22/2029	68												
1.4.3	**Tunnel #2**	11/01/2027	06/03/2029	786	3/2027	10/2029	113												
1.4.3.1	Tunnel # 2 Excavation towards powerhouse + 3 months for manifold excavation (280m from MAT)	11/01/2027	11/10/2027	274	3/2027	42/2027	40												
1.4.3.2	Tunnel # 2 Excavation towards intake (from MAT)	11/01/2027	24/12/2027	348	3/2027	52/2027	51												
1.4.3.3	Installation Steel Lining 2,4m / day + buffer for bifurcation 3 months	12/10/2027	14/06/2028	247	42/2027	25/2028	36												
1.4.3.4	Installation Concrete Lining 2,5m / day + 1 month for bend to pressure shaft	27/12/2027	06/03/2029	436	53/2027	10/2029	63												
1.4.4	**Drop Shaft**	27/12/2027	14/06/2029	536	53/2027	24/2029	78												
1.4.4.1	Drop Shaft 1 (south) excavation	17/02/2028	14/12/2028	302	8/2028	51/2028	44												
1.4.4.2	Drop Shaft 2 (north) excavation	27/12/2027	23/10/2028	302	53/2027	44/2028	44												
1.4.4.3	Drop shaft 1 lining 1m / d	15/12/2028	14/06/2029	182	51/2028	24/2029	27												
1.4.4.4	Drop Shaft 2 lining 1m / d	24/10/2028	23/04/2029	182	44/2028	17/2029	27												
	1.5 Powerhouse	01/10/2025	13/10/2028	1,109	40/2025	42/2028	160												
1.5.1	Form sheet piles / cofferdam in Loch Ness	01/10/2025	03/03/2026	154	40/2025	10/2026	23												
1.5.2	Shaft 1 excavation	07/01/2026	29/05/2026	143	2/2026	22/2026	22												
1.5.3	Impermeabilization, grouting works shaft 1	04/02/2026	23/06/2026	140	6/2026	26/2026	21												
1.5.4	Concrete lining to shafts 1	24/06/2026	13/11/2026	143	26/2026	46/2026	22												
1.5.5	Concreting in shafts 1	28/06/2027	18/08/2028	418	27/2027	34/2028	61												
1.5.6	Shaft 2 Excavation	01/04/2026	21/08/2026	143	14/2026	34/2026	22												
1.5.7	Impermeabilization, grouting works shaft 2	29/04/2026	15/09/2026	140	18/2026	38/2026	21												
1.5.8	Concrete lining to shaft 2	16/09/2026	05/02/2027	143	38/2026	6/2027	22												
1.5.9	Concreting in shafts 2	23/08/2027	13/10/2028	418	35/2027	42/2028	61												
1.5.10	Superstructure Installation	08/02/2027	03/09/2027	208	7/2027	36/2027	31												
	1.6 Tailrace	04/03/2026	02/04/2027	395	10/2026	14/2027	58												
1.6.1	Excavation Intake Loch Ness 1	04/03/2026	31/03/2026	28	10/2026	14/2026	5												
1.6.2	Excavation Intake vertical shaft 1	01/04/2026	26/05/2026	56	14/2026	22/2026	9												
1.6.3	Excavation TRT Bifurcation 1	01/06/2026	21/08/2026	82	23/2026	34/2026	13												
1.6.4	Excavation Intake Loch Ness 2	04/03/2026	31/03/2026	28	10/2026	14/2026	5												
1.6.5	Excavation Intake vertical shaft 2	01/04/2026	26/05/2026	56	14/2026	22/2026	9												
1.6.6	Excavation TRT Bifurcation 2	24/08/2026	13/11/2026	82	35/2026	46/2026	13												
1.6.7	Concreting Intake Loch Ness 1	01/04/2026	21/07/2026	112	14/2026	30/2026	17												
1.6.8	Concreting Intake vertical shaft 1	16/11/2026	08/01/2027	54	47/2026	2/2027	9												
1.6.9	Concreting TRT Bifurcation 1	24/08/2026	13/11/2026	82	35/2026	46/2026	13												
1.6.10	Concreting Intake Loch Ness 2	27/05/2026	15/09/2026	112	22/2026	38/2026	17												
1.6.11	Concreting Intake vertical shaft 2	08/02/2027	02/04/2027	54	7/2027	14/2027	9												
1.6.12	Concreting TRT Bifurcation 2	16/11/2026	05/02/2027	82	47/2026	6/2027	13												
	1.7 E&M Installation	03/05/2027	29/03/2030	1,062	19/2027	13/2030	153												
1.7.1	E&M Shaft 1 (Unit 1 & 2)	03/05/2027	01/02/2030	1,006	19/2027	5/2030	145												
1.7.1.1	Embedded parts (draft tube & spiral case)	03/05/2027	31/03/2028	334	19/2027	14/2028	49												
1.7.1.2	Main Installation E&M Equipment	21/08/2028	14/09/2029	390	35/2028	37/2029	57												
1.7.1.3	Comissioning	17/09/2029	01/02/2030	138	38/2029	5/2030	21												
1.7.2	E&M Shaft 2 (Unit 3 & 4)	28/06/2027	29/03/2030	1,006	27/2027	13/2030	145												
1.7.2.1	Embedded parts (draft tube & spiral case)	28/06/2027	26/05/2028	334	27/2027	22/2028	49												
1.7.2.2	Main Installation E&M Equipment	16/10/2028	09/11/2029	390	43/2028	45/2029	57												
1.7.2.3	Comissioning	12/11/2029	29/03/2030	138	46/2029	13/2030	21												
	1.8 Dams	29/10/2025	06/06/2028	952	44/2025	24/2028	137												
1.8.1	**Dam 1 RCC**	29/10/2025	05/01/2027	434	44/2025	2/2027	63												
1.8.1.1	Foundation Preparation incl grouting	29/10/2025	28/04/2026	182	44/2025	18/2026	27												
1.8.1.2	Dam Fill (59600m³ at 500m³ / day) + 3 months for structures	29/04/2026	05/01/2027	252	18/2026	2/2027	37												
1.8.2	**Dam 2 Rockfill, Asphalt face**	29/10/2025	31/03/2026	154	44/2025	14/2026	23												
1.8.2.1	Foundation preparation incl grouting	29/10/2025	06/01/2026	70	44/2025	2/2026	11												
1.8.2.2	Dam Fill (Rock fill plus asphalt face, plinth)	07/01/2026	31/03/2026	84	2/2026	14/2026	13												
1.8.3	**Dam 3 Rockfill, Asphalt face**	29/10/2025	06/06/2028	952	44/2025	24/2028	137												
1.8.3.1	Foundation preparation incl grouting	29/10/2025	13/10/2026	350	44/2025	42/2026	51												
1.8.3.2	Dam Fill (378700 at 2000m³/day plus 12 Months plinth and asphalt face)	14/10/2026	06/06/2028	602	42/2026	24/2028	87												
1.8.4	**Dam 4 RCC**	29/10/2025	08/09/2026	315	44/2025	37/2026	46												
1.8.4.1	Foundation preparation incl grouting	29/10/2025	28/04/2026	182	44/2025	18/2026	27												
1.8.4.2	Dam Fill (including structures 17300m³ at 500m³/day) + 3 months for galerie and pump system, diversion	29/04/2026	08/09/2026	133	18/2026	37/2026	20												
1.8.5	**Dam 5 (L shape combined RCC - AFRD)**	29/04/2026	14/12/2027	595	18/2026	51/2027	86												
1.8.5.1	**Dam 5 Rockfill, Asphalt face**	29/04/2026	14/12/2027	595	18/2026	51/2027	86												
1.8.5.1.1	Foundation preparation incl grouting (CFRD)	29/04/2026	13/10/2026	168	18/2026	42/2026	25												
1.8.5.1.2	Dam Fill Rockfill, Asphalt face (59900m³ at 2000m³/day plus 12 months for plinth & asphalt face	02/12/2026	14/12/2027	378	49/2026	51/2027	55												
1.8.5.2	**Dam 5 RCC**	29/04/2026	01/12/2026	217	18/2026	49/2026	32												
1.8.5.2.1	Foundation preparation incl grouting	29/04/2026	18/08/2026	112	18/2026	34/2026	17												
1.8.5.2.2	Dam Fill (including structures 7800m³ at 500m³/day) + 3 months for connection block to Dam 5 Rockfill section	19/08/2026	01/12/2026	105	34/2026	49/2026	16												
1.8.6	**Dam 6 Rockfill, Asphalt face**	01/04/2026	18/08/2026	140	14/2026	34/2026	21												
1.8.6.1	Foundation preparation incl grouting	01/04/2026	26/05/2026	56	14/2026	22/2026	9												
1.8.6.2	Dam Fill (Rock fill plus concrete face, plinth)	27/05/2026	18/08/2026	84	22/2026	34/2026	13												
1.8.7	**Dam 7 Rockfill, Asphalt face**	19/08/2026	05/01/2027	140	34/2026	2/2027	21												
1.8.7.1	Foundation preparation incl grouting	19/08/2026	13/10/2026	56	34/2026	42/2026	9												
1.8.7.2	Dam Fill (Rock fill plus concrete face, plinth)	14/10/2026	05/01/2027	84	42/2026	2/2027	13												
1.8.8	**Dam 8 Rockfill, Asphalt face**	06/01/2027	25/05/2027	140	2/2027	22/2027	21												
1.8.8.1	Foundation preparation incl grouting	06/01/2027	02/03/2027	56	2/2027	10/2027	9												
1.8.8.2	Dam Fill (Rock fill plus concrete face, plinth	03/03/2027	25/05/2027	84	10/2027	22/2027	13												

									1	2	3	4	5	6	7	8	9	10	11
Public Road Vehicle Movements (weekly) (Traffic volumes are presented in terms of vehicle movements, this is considering the same vehicle completing a complete round trip.)																			
Overall Workforce on site (average weekly personnel)				Max:	611	Total:	90,761		33	49	66	83	95	120	124	124	137	144	151
Cars	Max Daily:	98		Max:	587	Total:	87,255		32	48	64	80	92	116	120	120	132	139	145
Minibus	Max Daily:	9		Max:	56	Total:	5,465		11	16	22	27	31	39	40	40	44	47	49
Light goods vehicles				Max:	384	Total:	57,176		62	31	43	55	61	74	80	80	86	92	98
HGVs	90.19607843	1		Max:	217	Total:	23,000		35	9	9	28	46	50	45	54	45	23	23
Abnormal Loads		0.5		Max:	13	Total:	149		4	0	0	0	0	0	0	0	12	0	0
Total vehicle movements on Public Road				Max:	1148	Total:	173045		144	104	138	190	230	279	285	294	319	301	315
Canal Movements (weekly)																			
Canal movements				Max:	8	Total:	397						2	2	2				
Onsite Vehicle Movements (weekly)																			
4x4 movements on Site Roads. Initial Track Works				Max:	491	Total:	9,508		130	157	210	264	291	371	371	371	402	412	433
4x4 movements on Site Roads. Compound to Powerhouse				Max:	1449	Total:	174,447		0	0	0	0	0	0	0	0	0	0	0
4x4 movements on Site Roads. Compound to Dams				Max:	504	Total:	42,045		0	0	0	0	0	0	0	0	0	0	0
4x4 movements on Site Roads. Total				Max:	1585	Total:	226,000		130	157	210	264	291	371	371	371	402	412	433
Dam construction HGV movements (Compound to Dams) (Equipment)				Max:	128	Total:	13,348		11	11	11	11	11	11	11	11	41	41	41
Dam construction HGV movements (Compound to Dams) (spoil and conc)				Max:	1822	Total:	154,347		0	0	0	0	0	0	0	0	1	1	1
Dam construction HGV movements (Compound to Dams) Total				Max:	1931	Total:	167,695		11	11	11	11	11	11	11	11	42	42	42
HGV Movements associated with SAC access track construction (into and out of SAC)				Max:	264	Total:	5,016		0	0	0	0	0	0	0	0	0	264	264
HGV Movements between powerhouse platform and Loch Kemp area				Max:	1989	Total:	225,035		0	0	0	0	0	0	0	0	0	0	0
Total SAC Movements (4x4 movements Comp to PH and HGV movements (Access track Construction and PH to LK Area)				Max:	3066.730852	Total:	404498.1		0	0	0	0	0	0	0	0	0	264	264
Total HGV movements in SAC									0	0	0	0	0	0	0	0	0	264	264
Annual average daily trips (HGV)				Max:	192				169.1	171.8	174.5	177	178.5	180.1	181.6	183.3	185.1	187	188.1
									0	0	0	0	0	0	0	0	0	0	0

Basic Assumptions
50 week working year
6 days a week
24 hour working at tunnels and shafts



14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
164	161	104	124	137	157	165	181	204	209	212	240	231	250	270	279	308	308	308	308	296
158	155	100	120	132	151	159	174	196	201	204	231	222	240	260	268	296	296	296	296	285
53	52	34	7	8	9	9	10	11	12	12	13	13	14	15	15	17	17	17	17	16
104	104	67	86	92	104	110	122	134	134	141	153	153	159	171	177	195	195	195	195	189
23	46	15	13	27	27	36	30	67	67	85	76	76	164	164	173	169	169	169	169	182
0	0	3	2	0	0	0	2	0	0	0	3	3	0	0	0	0	0	0	0	0
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312	278	303	299	320	351	359	369	395	375	384	346	397	384	413	436	482	495	521	525
300	267	291	288	308	337	345	355	380	360	369	333	382	369	397	419	463	476	501	504
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201	177	195	189	201	226	226	232	250	238	244	220	250	244	262	275	305	311	329	329
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695	632	680	657	697	752	767	780	831	800	820	795	855	820	864	935	988	1008	1045	1075

451	441	248	257	285	285	285	285	285	285	254	244	161	161	161	161	161	161	161	161	134
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1921	1921	1921	2047	2141	2141	2141	2205	2253	2253	2253	2253	2253	2253	2253	1989	1989	1989	1989	1989	852.2
187.4	183.3	179.2	175.2	170.9	166.3	161.8	157.4	152.8	148.1	143.3	138.6	133.9	129.2	124.4	119.3	114.7	109.9	105.1	100.4	95.63
0	0	0	0	0	0	0	0	0	0	0	81.86	163.7	122.8	163.7	122.8	163.7	122.8	163.7	122.8	81.86

124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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258	239	247	254	258	268	268	268	268	268	268	258	276	250	258	228	306	255	313	363
818	666	739	726	789	878	902	933	1011	950	978	867	1015	980	1065	1139	1263	1311	1379	1382
101	81	99	95	95	95	95	95	102	99	105	73	105	87	87	87	128	109	109	109
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1302	786.5	786.5	786.5	786.5	786.5	786.5	786.5	833.7	869.2	981.7	1066	1019	983.5	983.5	983.5	983.5	983.5	983.5	983.5
1738	1213	1278	1258	1317	1396	1420	1451	1577	1551	1692	1675	1758	1713	1790	1894	1940	2039	2049	2002
1302	786.5	786.5	786.5	786.5	786.5	786.5	786.5	833.7	869.2	981.7	1066	1019	983.5	983.5	983.5	983.5	983.5	983.5	983.5
93.49	90.58	90.44	90.54	90.65	90.7	92.52	94.7	96.88	98.93	100.9	102.5	104	105.5	107.1	108.6	110.2	111.8	113.3	114.9
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25/05/2026	01/06/2026	08/06/2026	15/06/2026	22/06/2026	29/06/2026	06/07/2026	13/07/2026	20/07/2026	27/07/2026	03/08/2026	10/08/2026	17/08/2026	24/08/2026	31/08/2026	07/09/2026	14/09/2026	21/09/2026	28/09/2026	05/10/2026	12/10/2026
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19/10/2026	26/10/2026	02/11/2026	09/11/2026	16/11/2026	23/11/2026	30/11/2026	07/12/2026	14/12/2026	21/12/2026	28/12/2026	04/01/2027	11/01/2027	18/01/2027	25/01/2027	01/02/2027	08/02/2027	15/02/2027	22/02/2027	01/03/2027
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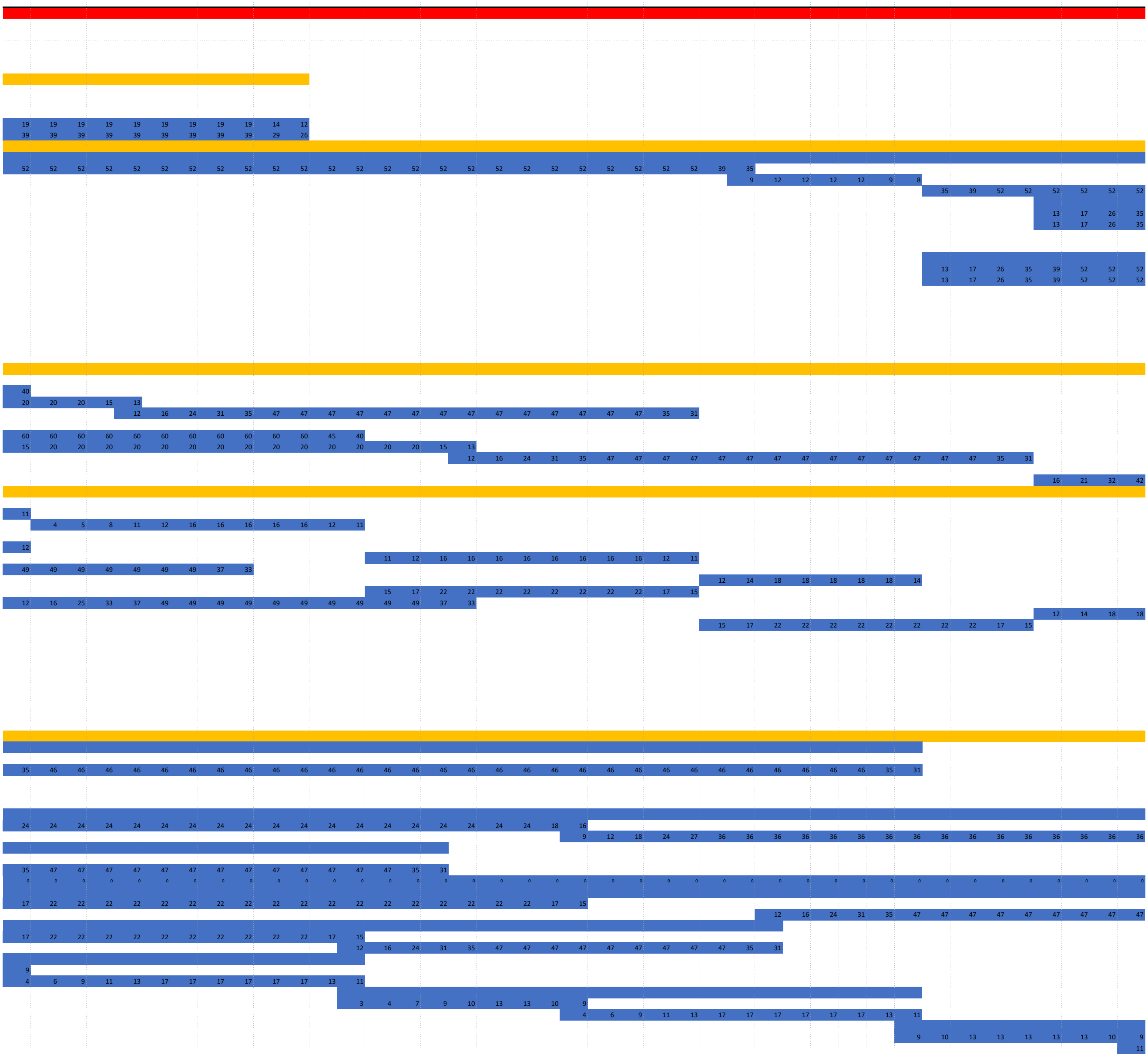

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522	500	512	520	538	546	557	553	553	519	514	451	456	411	412	411	391	365	373	366	378
29	28	29	29	30	31	31	31	31	29	29	26	26	23	23	23	22	21	21	21	21
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737	749	731	735	676	677	673	597	611	625	599	666	616	640	662	712	720	784	840	897

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401	470	477	484	488	499	499	499	499	499	499	474	504	450	446	461	394	432	432	394	416
1431	1352	1387	1411	1466	1489	1524	1511	1511	1406	1391	1196	1207	1078	1083	1075	1026	938	962	947	981
128	112	112	112	117	117	117	117	117	106	106	98	109	84	84	84	77	66	66	66	95
1769	1387	1387	1387	1435	1470	1470	1470	1470	1470	1453	1440	1451	1458	1458	1410	1374	1374	1374	1374	1254
1897	1499	1499	1499	1552	1587	1587	1587	1587	1576	1559	1538	1560	1542	1542	1494	1451	1440	1440	1440	1349
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918.5	552.4	556.4	556.4	620.4	668.4	668.4	668.4	636.4	612.4	499.8	415.4	411.4	459.4	471.4	471.4	503.4	527.4	527.4	527.4	527.4
1948	1434	1466	1483	1598	1658	1693	1680	1648	1519	1392	1137	1114	1087	1108	1085	1135	1033	1057	1080	1092
918.5	552.4	556.4	556.4	620.4	668.4	668.4	668.4	636.4	612.4	499.8	415.4	411.4	459.4	471.4	471.4	503.4	527.4	527.4	527.4	527.4
116.5	117.9	120.1	122.2	124.4	126.3	129.1	132	134.9	138	141	144.4	148.1	151.7	155.2	158.5	160.7	162.8	164.9	166.9	169
423.6	568.8	426.6	568.8	426.6	568.8	426.6	568.8	426.6	568.8	426.6	568.8	431.6	578.8	434.1	554.9	398.3	531.1	398.3	531.1	338.2

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326	349	372	383	417	387	407	337	357	377	346	385	281	289	289	289	289	289	281	307
926	949	908	899	804	798	753	683	703	723	683	706	719	765	804	839	888	1012	1100	1209
72	72	72	72	66	67	72	65	65	65	65	71	70	70	70	70	108	108	108	116
1164	1164	1164	1138	983	821	786	810	810	810	578	441	133	133	133	133	1138	1305	1305	1303
1236	1236	1236	1210	1049	888	858	875	875	875	643	512	203	203	203	203	1246	1413	1413	1419
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1127	1127	1063	1015	790.4	709.7	598	598	598	598	409	561	1170	1302	1341	1352	2050	2306	2402	2485
527.4	527.4	527.4	499.4	403.4	298.7	252	252	252	252	72	240	732.2	826.2	826.2	802.2	1451	1583	1583	1583
170.6	172.1	173.6	175	176.1	177.3	178.8	180.4	182	183.7	185.2	185.4	187.9	189.1	190	190.9	191.8	191	190.2	189.9
410.8	308.1	410.8	308.1	410.8	308.1	440.6	331.2	441.6	331.2	220.8	148.4	75.91	56.93	75.91	56.93	75.91	56.93	75.91	55.89

14/03/2027	21/03/2027	28/03/2027	04/04/2027	11/04/2027	18/04/2027	25/04/2027	02/05/2027	09/05/2027	16/05/2027	23/05/2027	30/05/2027	06/06/2027	13/06/2027	20/06/2027	27/06/2027	04/07/2027	11/07/2027	18/07/2027	25/07/2027	01/08/2027	08/08/2027	15/08/2027	22/08/2027	29/08/2027	05/09/2027	12/09/2027	19/09/2027	26/09/2027	03/10/2027	10/10/2027	17/10/2027	24/10/2027	31/10/2027	07/11/2027	14/11/2027	21/11/2027	28/11/2027	05/12/2027	12/12/2027	19/12/2027
08/03/2027	15/03/2027	22/03/2027	29/03/2027	05/04/2027	12/04/2027	19/04/2027	26/04/2027	03/05/2027	10/05/2027	17/05/2027	24/05/2027	31/05/2027	07/06/2027	14/06/2027	21/06/2027	28/06/2027	05/07/2027	12/07/2027	19/07/2027	26/07/2027	02/08/2027	09/08/2027	16/08/2027	23/08/2027	30/08/2027	06/09/2027	13/09/2027	20/09/2027	27/09/2027	04/10/2027	11/10/2027	18/10/2027	25/10/2027	01/11/2027	08/11/2027	15/11/2027	22/11/2027	29/11/2027	06/12/2027	13/12/2027
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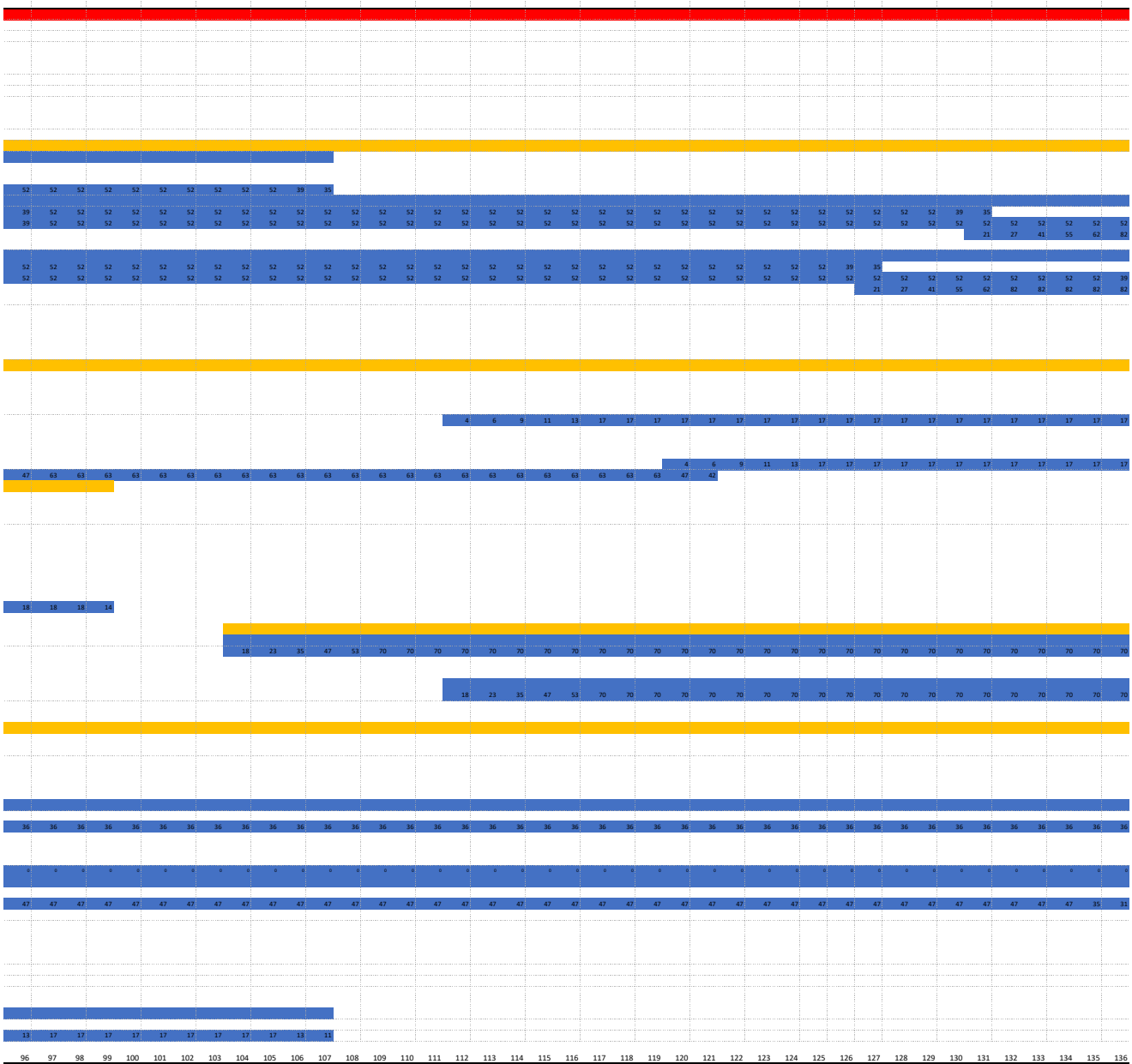

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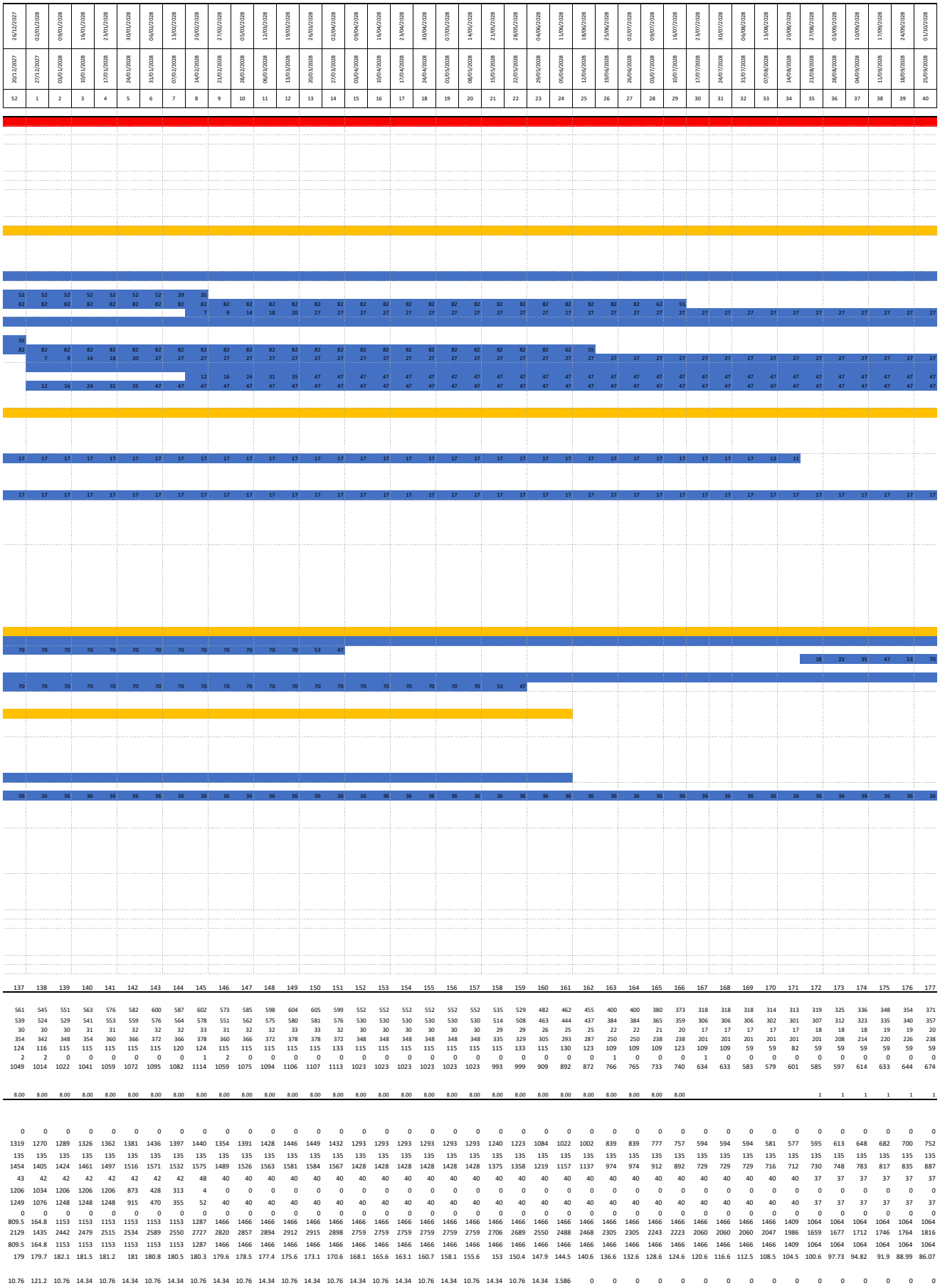
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Appendix C Route Survey Report

Pell Frischmann

Loch Kemp Storage Scheme

Abnormal Indivisible Load Route Survey

November 2023

106616

Report Ref.		**231012 Loch Kemp Rsr**				
File Path		**https://pellf.sharepoint.com/sites/EdinburghOfficeTeam/Shared Documents/General/Projects/106616 ASH Kemp Pumped Storage/01 - WIP/Reports/231012 Loch Kemp RSR.docx**				
Rev	**Suit**	**Description**	**Date**	**Originator**	**Checker**	**Approver**
01		Draft	18/10/2023	T Lillywhite	G Buchan	G Buchan
02		Final	07/11/2023	T Lillywhite	G Buchan	G Buchan

Ref. reference. Rev revision. Suit suitability.

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ash

Loch Kemp Storage
A STATERA COMPANY

Pell Frischmann

Contents

Figures

Tables

Appendices

1 Introduction

1.1 Purpose of the Report

Pell Frischmann (PF) has been commissioned by ASH design+assessment and Statera Energy (UK) Limited (SEL) ("the Developer"), on behalf of Loch Kemp Storage Ltd. (the Applicant), to undertake a route survey report for the Abnormal Indivisible Load (AIL) delivery route for construction plant loads associated with the construction and development of the up to 600 Megawatt (MW) Loch Kemp Pumped Storage scheme (the Proposed Development).

The Route Survey Report (RSR) has been prepared to help inform the Applicant on the likely issues associated with the development of the site with regards to off-site transport and access for AIL traffic. This report identifies the key issues associated with AIL deliveries and notes that remedial works, either in the form of physical works or as traffic management interventions will be required to accommodate the predicted loads.

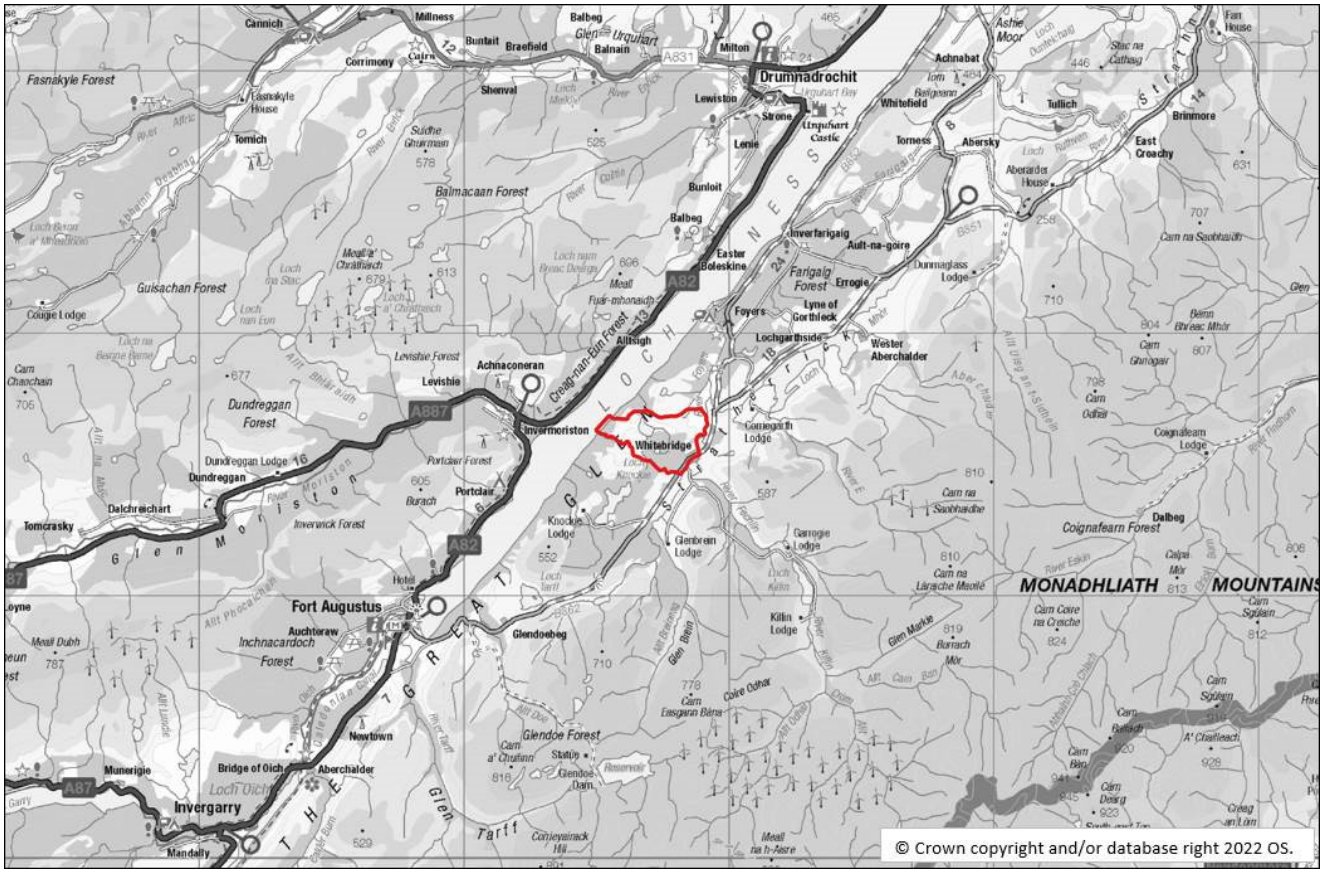
The detailed designs of any remedial works are beyond the agreed scope of works between PF and the Applicant at this point in time.

2 Site Background

2.1 Site Location

Loch Kemp is situated within the Dell Estate to the south of Loch Ness, approximately 13 km to the north-east of Fort Augustus. The location of the site in shown in Figure 1.

Figure 1: Site Location Plan



2.2 Proposed Loads

The Applicant's engineers have advised that the worst case loads will be those associated with the movement of construction plant, namely articulated dumper trucks and the crane boom.

The details of the components are provided in Table 1.

Table 1: AIL Summary

Component	Length (m)	Width (m)	Height / Min Diameter (m)	Weight (t)
Volvo Dump Truck	11.263	3.403	3.546	30.700
Crane Boom	17.000	2.5	2.5	20.000

2.3 Proposed Delivery Equipment

To provide a robust assessment scenario based upon the known issues along the access route, it has been assumed that all load would be carried on a rear wheel steer, step frame trailer to reduce the need for mitigation in constrained sections of the route.

Figure 2: Indicative Dump Truck Transport

All High Voltage (HV) electrical and turbine equipment for the site will be delivered by barge from the Caledonian Canal. As such, the only AIL associated with the project will be delivery of the construction plant.

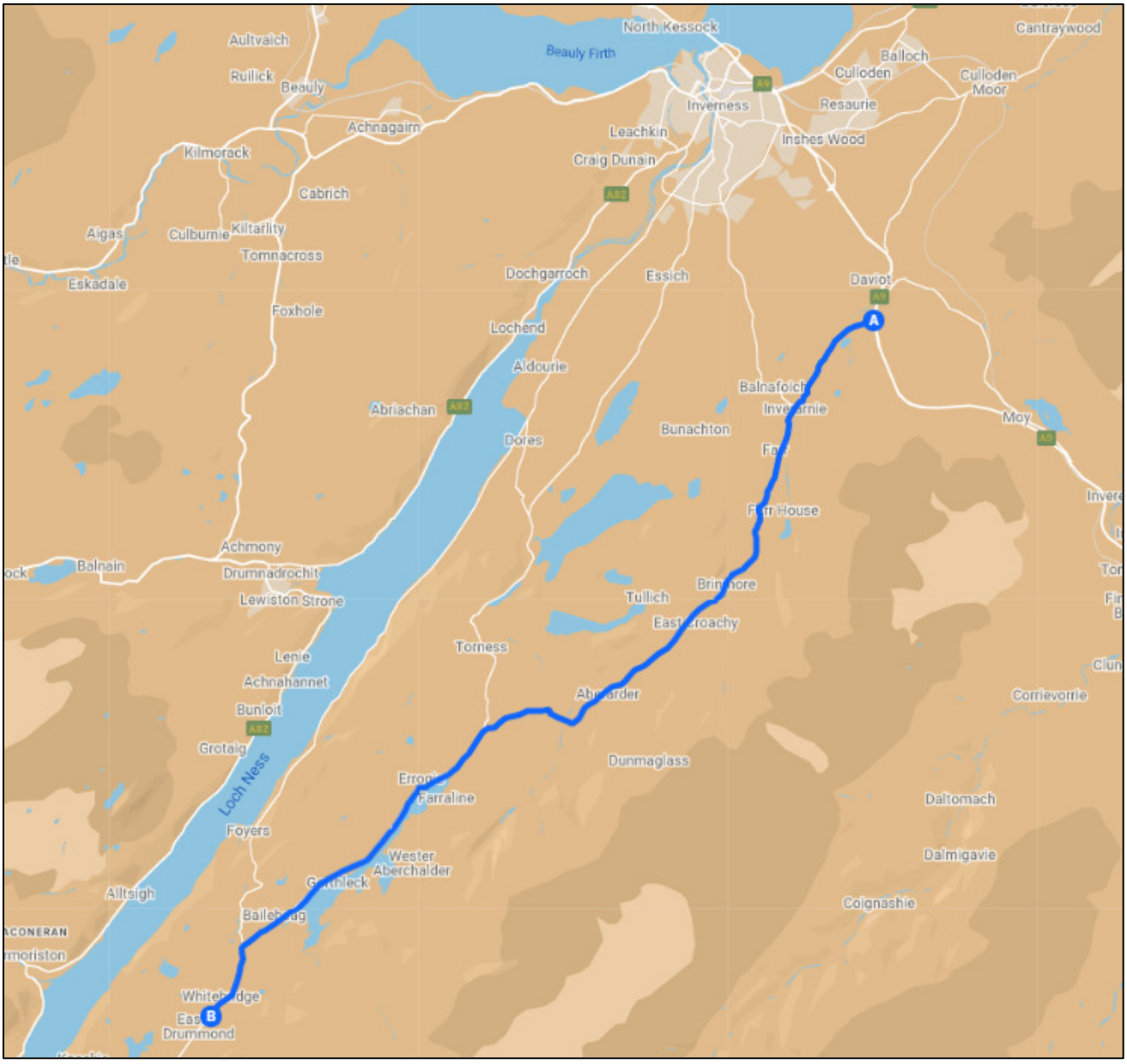
3 Access Route Review

3.1 Proposed Access Routes

This study has been undertaken following a site visit. All plant equipment would originate from the A9 with access taken from either the north or south. The proposed access route has been identified and is described below and in Figure 3.

- Loads would turn either right or left from the A9 onto the B851;
- Loads would continue south on the B851 before turning left onto the B862; and
- Loads will continue south on the B862 through the hamlet of Whitebridge to the proposed site access junction.

Figure 3: Proposed Access Route



3.2 Route Constraints

The constraints noted on the routes from the A9 are detailed in Table 2. These cover constraints identified during the review of the route from the port through to the proposed site access junction. No consideration of the transport issues within the development site have been undertaken.

Plans illustrating the location of the constraints are provided in Appendix A.

Table 2: Constraint Points and Details

POI	Key Constraint	Details
1	**A9 / B851 Junction** 	Loads will turn either right or left from the A9 onto the B851. The swept path analysis from both directions has been undertaken. No physical mitigation measures are required in either direction to accommodate the proposed loads.
2	**B851 South of the A9 Junction** 	Loads will continue south west on the B851. The B851 narrows at this location. The road varies in width from this location to the proposed site entrance. Loads will require access to the full road width through this section, however no physical mitigation is required.
3	**B851 Mains of Faille** 	Loads will continue south west on the B851. Loads will require access to the full road width through this section and minor verge oversail is predicted on both sides of the road. No physical mitigation is however required. The road surface was noted to be in a poor state of repair at this location. It is recommended that discussions are held with the roads authority to ensure repairs are completed prior to deliveries.
4	**B851 North of Dell Farm Bends** 	Loads will continue south west on the B851. Loads will require access to the full road width through this section, however no physical mitigation measures are required.

POI	Key Constraint	Details
5,6, 7	**B851 Dell Farm Bends**   	Loads would proceed south on the A851. The swept path assessment indicates loads will be able to pass through this location without the requirement for physical mitigation works.
8	**B851 North of Tombreck Bends** 	Loads will continue south on the B851 through the bends. A swept path assessment has been undertaken and this indicates that loads will be able to pass through this location without the requirement for physical mitigation interventions.
9, 10	**B851 North of Tombreck Bends**  	Loads will continue south on the B851 through the bends. A swept path assessment has been undertaken and this indicates that whilst loads will be able to pass through this location without the requirement for mitigation. Oncoming traffic should be held in advance of the section to allow loads access to both sides of the road.

POI	Key Constraint	Details
11	**B851 Dalvourn**  	Loads will continue south through Dalvourn. A swept path assessment has been undertaken and this indicates that loads will be able to pass through this location without the requirement for physical mitigation works.
12	**B851 Inverarnie** 	Loads will occupy the entire carriageway and oversail the verge on the inside of the bend. Throughout the route, the tree canopy needs to be trimmed to provide a clear 4.5m head height. Trimming of the tree canopy can be subject to ecological constraints and it is suggested that early consultation with The Highland Council is undertaken to agree cutting times and permits.
13	**B851 South of Inverarnie** 	Loads will continue south on the B851 through the bends. Oncoming traffic should be held in advance of the section to allow loads access to both sides of the road.
14	**B851 Farr** 	Suspension settings should be raised at this location to improve ground clearances, however there is a power line following the hump and as such, the suspension should be lowered to normal running heights immediately afterwards.

POI	Key Constraint	Details
15	**B851 South of Farr** 	Throughout the route, the tree canopy needs to be trimmed to provide a clear 4.5m head height. Trimming of the tree canopy can be subject to ecological constraints and it is suggested that early consultation with The Highland Council is undertaken to agree cutting times and permits.
16	**B851 South of Farr** 	Loads will continue south on the B851 through the bends. A swept path assessment has been undertaken and this indicates that loads will be able to pass through this location without the requirement for physical mitigation works.
17	**B851 Milton Wood** 	Loads will continue south on the B851 through the bends. Throughout the route, the tree canopy needs to be trimmed to provide a clear 4.5m head height. Trimming of the tree canopy can be subject to ecological constraints and it is suggested that early consultation with The Highland Council is undertaken to agree cutting times and permits.
18	**B851 Milton Wood** 	Throughout the route, the tree canopy needs to be trimmed to provide a clear 4.5m head height. Trimming of the tree canopy can be subject to ecological constraints and it is suggested that early consultation with The Highland Council is undertaken to agree cutting times and permits. Loads can transit the section without the need for physical mitigation works.

POI	Key Constraint	Details
19, 20, 21	**B851 Achnabechan Bends**  	Loads will continue south on the B851 through the bends. A swept path assessment has been undertaken and this indicates that loads will be able to pass through this location without the requirement for physical mitigation works.
22, 23	**B851 Achnabechan Bends** 	Loads will continue south on the B851 through the left bend. A swept path assessment has been undertaken and this indicates that loads will be able to pass through this location without the requirement for physical mitigation works.
24	**B851 Druim Dubh Bends**  	Loads will continue south on the B851 through the bends. A swept path assessment has been undertaken and this indicates that loads will be able to pass through this location without the requirement for physical mitigation works.

POI	Key Constraint	Details
25, 26	**B851 Stepping Stones Bends**  	Loads will continue south on the B851 through the bends. A swept path assessment has been undertaken and this indicates that loads will be able to pass through this location without the requirement for physical mitigation works.
27	**B851 Flichity Lodge** 	The tree canopy at this location should be trimmed to allow for a 4.5m clear head height. Trimming works can be subject to seasonal restrictions and early engagement with the road authorities is recommended. The vertical profile of the road at this location is pronounced. Loads should be set on a higher suspension setting to avoid the need for physical road profile works.
28	**B851 Flichity Bends** 	Loads will continue south west on the B851 through the right bend over the river bridge. A swept path assessment has been undertaken and indicates that loads will be able to pass through this location without the requirement for mitigation.
29	**B851 Flichity Bends** 	Loads will proceed ahead through the bends. A swept path assessment has been undertaken and shows that loads will be able to pass through this location without the requirement for physical mitigation works. Oncoming traffic should be held in advance of the section to allow loads access to both sides of the road.

POI	Key Constraint	Details
30	**B851 Croachy Bends** 	Loads will continue south west on the B851 through the chicane section. A swept path assessment has been completed and indicates that loads will be able to pass through this location without the requirement for mitigation.
31	**B851 Bridge over Allt a Ghlinne Bhig** 	The vertical profile of the road at this location is pronounced. Loads should be set on a higher suspension setting to avoid the need for physical road profile works.
32	**B851 Carn Ban** 	Loads will straddle the centre line of the carriageway through the section. Throughout the route, the tree canopy needs to be trimmed to provide a clear 4.5m head height. Trimming of the tree canopy can be subject to ecological constraints and it is suggested that early consultation with The Highland Council is undertaken to agree cutting times and permits.
33	**B851 Carn Ban** 	Loads will occupy the entire carriageway width through the section. Escorts to provided advanced warning to oncoming vehicles. A swept path assessment has been completed and indicates that loads will be able to pass through this location without the requirement for physical mitigation works.
34	**B851 Old School House** 	Loads will occupy the entire carriageway width through the section. Escorts to provided advanced warning to oncoming vehicles. The clearances to overhead power lines at this location should be reviewed with the utility provider prior to loads moving to ensure that there is sufficient head height and flashover protection for all temperature ranges.

POI	Key Constraint	Details
35	**B851 Dunmaglass Bends** 	Loads will straddle the centre line of the road through the section. Escorts to provided advanced warning to oncoming vehicles. A swept path assessment has been undertaken and indicates that loads will oversail the eastern verge where verge vegetation should be trimmed. The road edge was noted to be in a poor state of repair at this location. It is recommended that discussions are held with the roads authority to ensure repairs are completed prior to deliveries.
36	**B851 Dunmaglass Bends**  	Loads will proceed ahead through the bend at Dunmaglass. A swept path assessment has been completed and indicates that loads will be able to pass through this location without the requirement for physical mitigation works.

POI	Key Constraint	Details
37, 38, 39	**B851 West of River Farigaig Bridge**   	Loads will cross the bridge over the River Farigaig. A swept path assessment has been undertaken and indicates that loads will oversail the bridge parapet on the southern verge. It is suggested that the dump truck wheels are removed prior to delivery to reduce the load width near the parapets. Loads should be set to the highest suspension setting in order to oversail the bollards on the southern verge. Loads will require access to the whole road width at this location and the advance escort should hold oncoming traffic in advance of this location.
40	**B851 Milton Bends**  	Loads will proceed west on the B851 after crossing a bridge over Feith Ghlas. A swept path assessment has been undertaken and indicates that loads will marginally oversail both bridge parapets.

POI	Key Constraint	Details
41, 42	**B851 Carn Bad-Earbaig Bends**  	Loads will proceed west on the B851. A swept path assessment has been undertaken and indicates that loads will be able to pass through this location without the requirement for physical mitigation works.
43, 44	**B851 / B862 Junction** 	Loads will turn left onto the B862. A swept path assessment has been undertaken and indicates that loads will be able to pass through this location without the requirement for mitigation. .
45, 46	**B862 Torr Shelly**  	Loads will require access to the whole road width beyond this narrowing and the advance escort should hold oncoming traffic in advance of this location. The vertical profile of the road at this location is pronounced. Loads should be set on a higher suspension setting to avoid the need for physical road profile works.

POI	Key Constraint	Details
47	**B862 North of Errogie** 	Loads will require access to the whole road width beyond this narrowing and the advance escort should hold oncoming traffic in advance of this location.
48, 49	**B862 Errogie Bends**  	The vertical profile of the road at this location is pronounced. Loads should be set on a higher suspension setting to avoid the need for physical road profile works. Throughout the route, the tree canopy needs to be trimmed to provide a clear 4.5m head height. Trimming of the tree canopy can be subject to ecological constraints and it is suggested that early consultation with The Highland Council is undertaken to agree cutting times and permits. Minor oversail of the verge is predicted to the west of the section.
50	**B851 South of Errogie Bends** 	Loads will process south west on the B851 through the Errogie Bends. A swept path assessment has been undertaken and indicates that loads will be able to pass through this location without the requirement for physical mitigation works.
51	**B862 Dhuhallow** 	The road surface was noted to be in a poor state of repair at this location. It is recommended that discussions are held with the roads authority to ensure repairs are completed prior to deliveries.

POI	Key Constraint	Details
52	**B862 Dhuhallow** 	Loads will require access to the whole road width beyond this narrowing and the advance escort should hold oncoming traffic in advance of this location. The road surface was noted to be in a poor state of repair at this location. It is recommended that discussions are held with the roads authority to ensure repairs are completed prior to deliveries. The vertical profile of the road at this location is pronounced. Loads should be set on a higher suspension setting to avoid the need for physical road profile works. Throughout the route, the tree canopy needs to be trimmed to provide a clear 4.5m head height. Trimming of the tree canopy can be subject to ecological constraints and it is suggested that early consultation with The Highland Council is undertaken to agree cutting times and permits.
53	**B862 North of Gorthleck** 	Loads will require access to the whole road width beyond this narrowing and the advance escort should hold oncoming traffic in advance of this location.
54	**B862 Gorthleck** 	The road surface was noted to be in a poor state of repair at this location. It is recommended that discussions are held with the roads authority to ensure repairs are completed prior to deliveries. Throughout the route, the tree canopy needs to be trimmed to provide a clear 4.5m head height. Trimming of the tree canopy can be subject to ecological constraints and it is suggested that early consultation with The Highland Council is undertaken to agree cutting times and permits. Loads should proceed at caution through Gorthleck.
55	**B862 Gorthleck Bends** 	Loads will proceed south west on the B862. Loads should proceed at caution through Gorthleck. Oncoming traffic should be held in advance of the village to ease access.

POI	Key Constraint	Details
56	**B862 Lochgarthside** 	The clearances to overhead power lines at this location should be reviewed with the utility provider prior to loads moving to ensure that there is sufficient head height and flashover protection for all temperature ranges.
57	**B862 Lochgarthside** 	The vertical profile of the road at this location is pronounced. Loads should be set on a higher suspension setting to avoid the need for physical road profile works.
58	**B862 Bailebeag** 	Loads will occupy the entire carriageway through the section and escorts should hold oncoming vehicles in advance of the section. Loads will be able to pass through this location without the requirement for physical mitigation works.
59	**B862 South West of Bailebeag** 	Loads will occupy the entire carriageway through the section and escorts should hold oncoming vehicles in advance of the section. Loads will oversail the northern verge at this location. No physical mitigation works are however required.

POI	Key Constraint	Details
60, 61	**B862 An Doirlinn**  	Loads will proceed ahead on the B862. A swept path assessment has been undertaken and indicates that loads will be able to pass through these bends without the requirement for physical mitigation works.
62	**B862 South of An Doirlinn** 	Loads will proceed ahead on the B862. The road surface was noted to be in a poor state of repair at this location. It is recommended that discussions are held with the roads authority to ensure repairs are completed prior to deliveries.
63	**B862 Whitebridge** 	Loads will continue south on the B862. The swept path assessment indicates that loads will oversail the verge at this location. No physical mitigation measures are however required.

POI	Key Constraint	Details
64	**B862 Whitebridge**  	Loads will proceed ahead on the B862. A swept path assessment has been undertaken and indicates that loads will be able to pass through this location without the requirement for physical mitigation works.
65	**Site Access Junction** 	Loads will turn right into the site access junction and will continue ahead to the designated offloading area.

3.3 Route Summary

This report provides a review of the proposed access option from the A9 to the south of Inverness. The route is considered feasible assuming that the outlined mitigation and associated third party land agreements are in place.

3.4 Swept Path Assessment Results and Summary

The detailed swept path drawings for the locations assessed are provided in Appendix B for review. The drawings in Appendix B illustrate tracking undertaken for the worst case loads at each location.

The colours illustrated on the swept paths are:

- Grey / Black – OS / Topographical Base Mapping;
- Green – Vehicle body outline (body swept path);
- Red – Tracked pathway of the wheels (wheel swept path); and
- Purple – The over-sail tracked path of the load where it encroaches outwith the trailer (load swept path).

Where mitigation works are required, the extents of over-run and over-sail areas are illustrated on the swept path drawings.

Please note that where assessments have been undertaken using Ordnance Survey (OS) base mapping, there can be errors in this data source.

Where provided by the client, topographical data has been utilised. Please note that PF cannot accept liability for errors on the data source, be that OS base mapping or client supplied data. It is recommended that fresh topographical surveys should be completed and ensure that these are georeferenced for use within CAD assessments.

3.5 Land Ownership

The limits of road adoption can vary depending upon the location of the site and the history of the road agencies involved. The adopted area is generally defined as land contained within a defined boundary where the road agency holds the maintenance rights for the land. In urban areas, this usually defined as the area from the edge of the footway across the road to the opposing footway back edge.

In rural areas the area of adoption can be open to greater interpretation as defined boundaries may not be readily visible. In these locations, the Highland Council has confirmed that the area of adoption is between established fence / hedges lines or a maximum 3m from the road edge. A request for adoption details from Transport Scotland for the details of road adoption on the trunk road have also been made however no reply has yet been received.

3.6 Weight Review

A weight review has been undertaken via the ESDAL (Electronic Service Delivery for Abnormal Loads) contacts database using the Highways Agency website www.esdal.com.

All of the relevant ESDAL contacts are noted in Table 3 and all have been contacted to ascertain if there are any relevant constraints that should be noted.

Table 3: ESDAL Contacts

Organisation	Email Address
Transport Scotland	AbnormalLoads@transport.gov.scot
Bear North West	NWAbnormalLoad@bearscotland.co.uk
The Highland Council	abnormal.loads@highland.gov.uk

The responses from the ESDAL search are contained in Appendix C.

3.7 Summary Issues

It is strongly suggested that following a review of the RSR, the following actions should be undertaken:

- Undertake any required topographical surveys and repeat the necessary swept path assessments;
- A review of axle loading on structures along the entire access route with the various road agencies is undertaken;
- A review of clear heights with utility providers and the transport agencies along the route to ensure that there is sufficient space to allow for loads plus sufficient flashover protection (to electrical installations);
- That any verge vegetation and tree canopies which may foul loads is trimmed prior to loads moving;
- That a review of potential roadworks and or closures is undertaken once the delivery schedule is established in draft form;
- That a condition survey is undertaken to ascertain the extents of road defects prior to loads commencing to protect the developer from spurious damage claims.

4 Summary

4.1 Summary of Access Review

PF has been commissioned by the Applicant to prepare a Route Survey Report to examine the issues associated with the transport of AIL plant deliveries to the development site.

This report identifies the key points and issues associated with the proposed routes and outlines the issues that will need to be considered for successful delivery of components.

Various road modifications and interventions are required to successfully access the site via the proposed routes. If these are assessed, approved and undertaken, access to the development site is considered feasible.

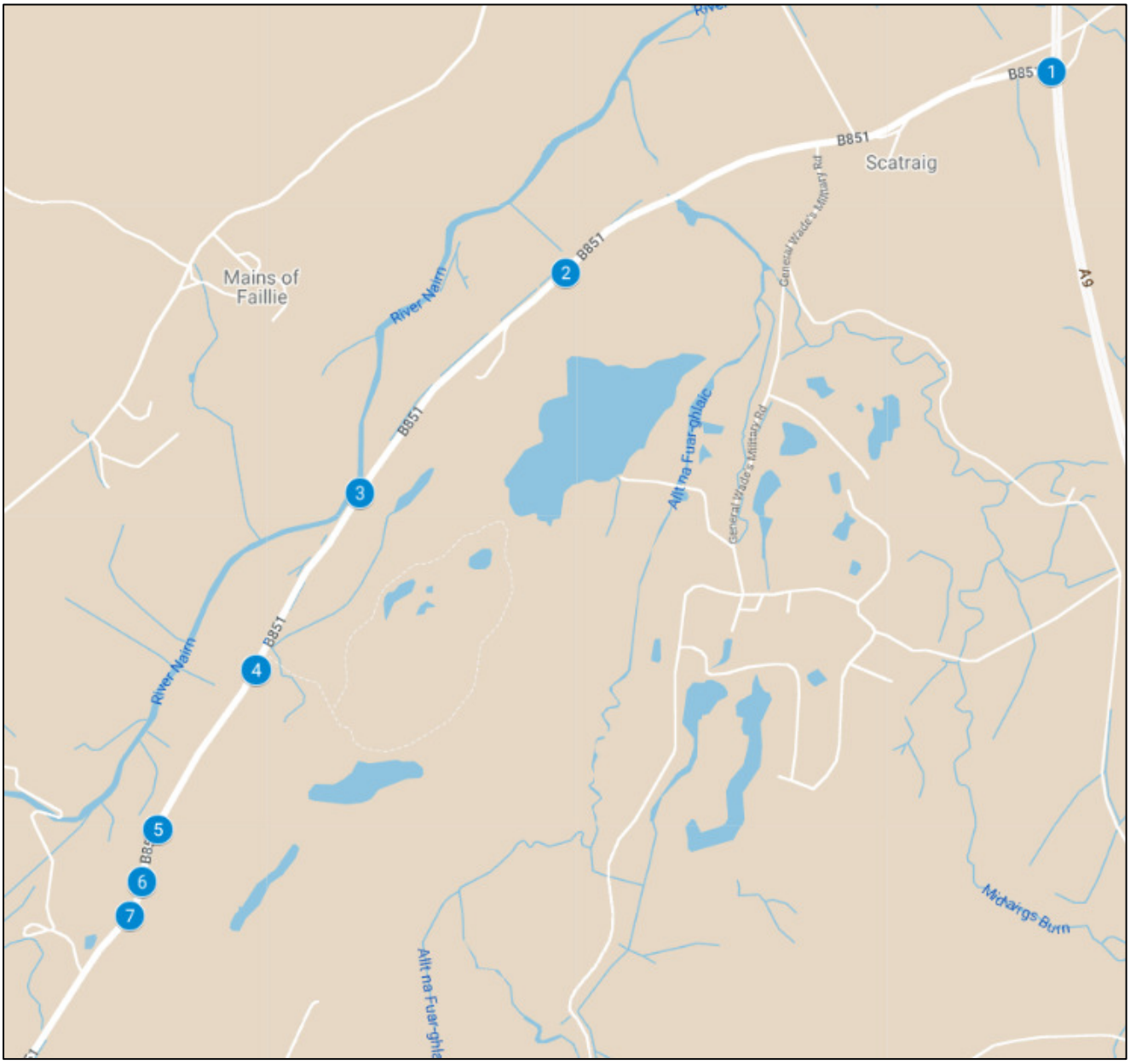
4.2 Further Actions

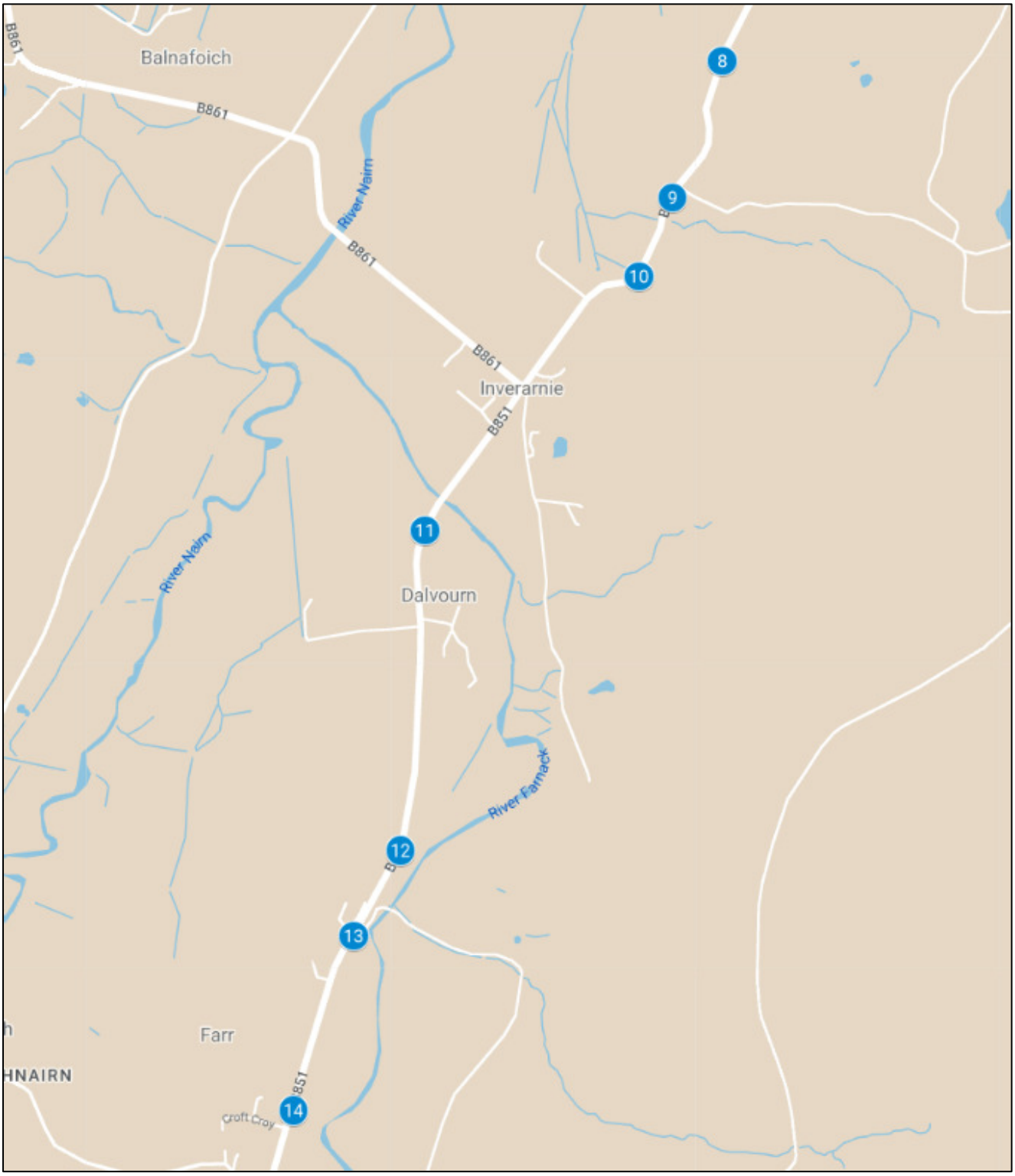
The following actions are recommended to pursue the transport and access issues further:

- Prepare detailed mitigation design proposals to help inform the land option / consultee discussions;
- Obtain the necessary land options;
- Undertake discussion with the affected utility providers and roads agencies;
- Obtain the necessary statutory licences to enable the mitigation measures; and
- Develop a detailed operational Transport Management Plan to assist in transporting the proposed loads.

Appendix A Points of Interest

An electronic version of the POI plans can be found here:
https://www.google.com/maps/d/edit?mid=1Cctrv4NU6wpTb913ULwDn4fOhLbdLKU&usp=sharing




Balnafoich
B861
B861
River Nairn
B861
B861
Inverarnie
B851
8
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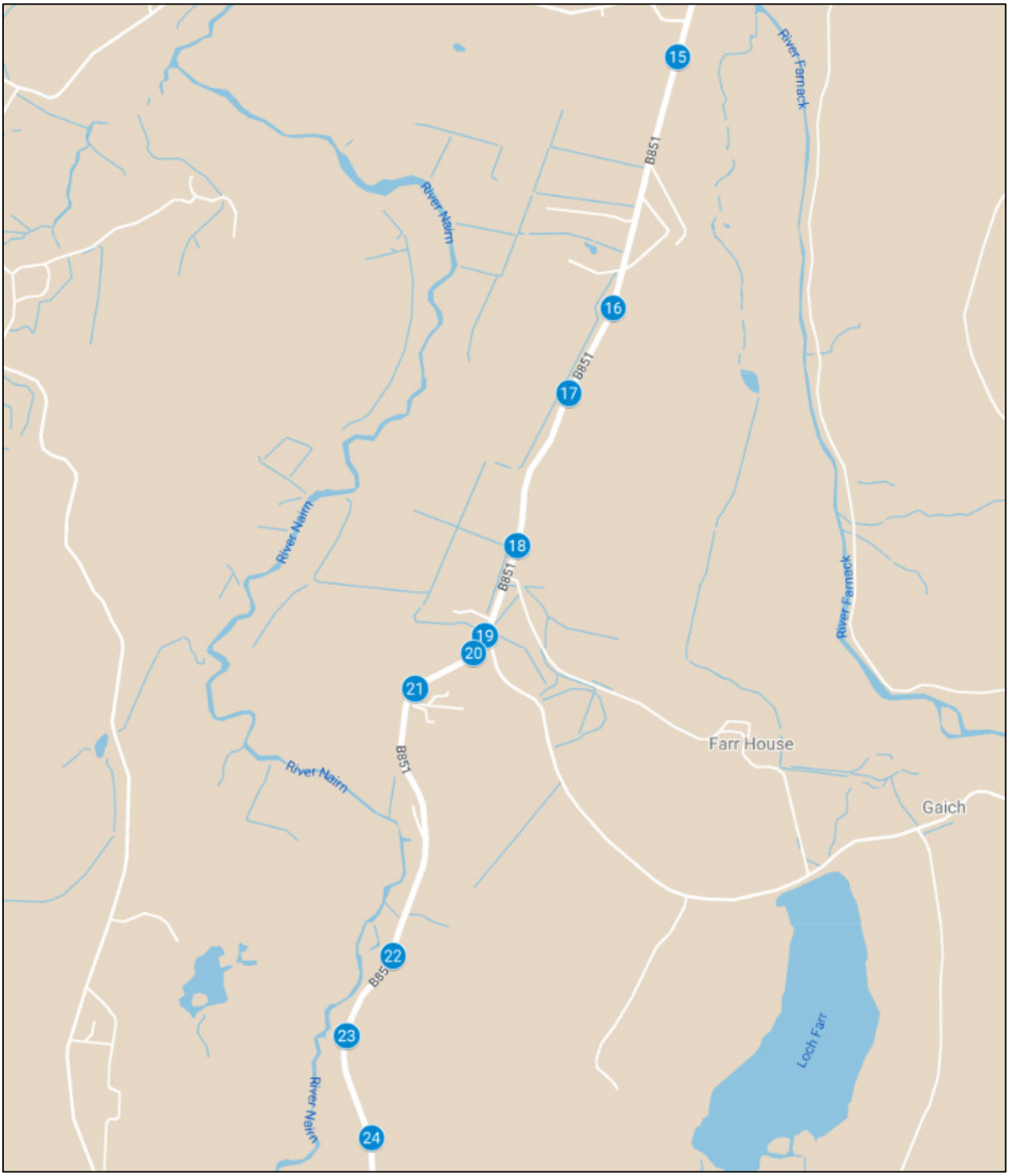
11
Dalvourn
River Nairn
River Farnack
12
13
Farr
HNAIRN
B851
14
croft Cray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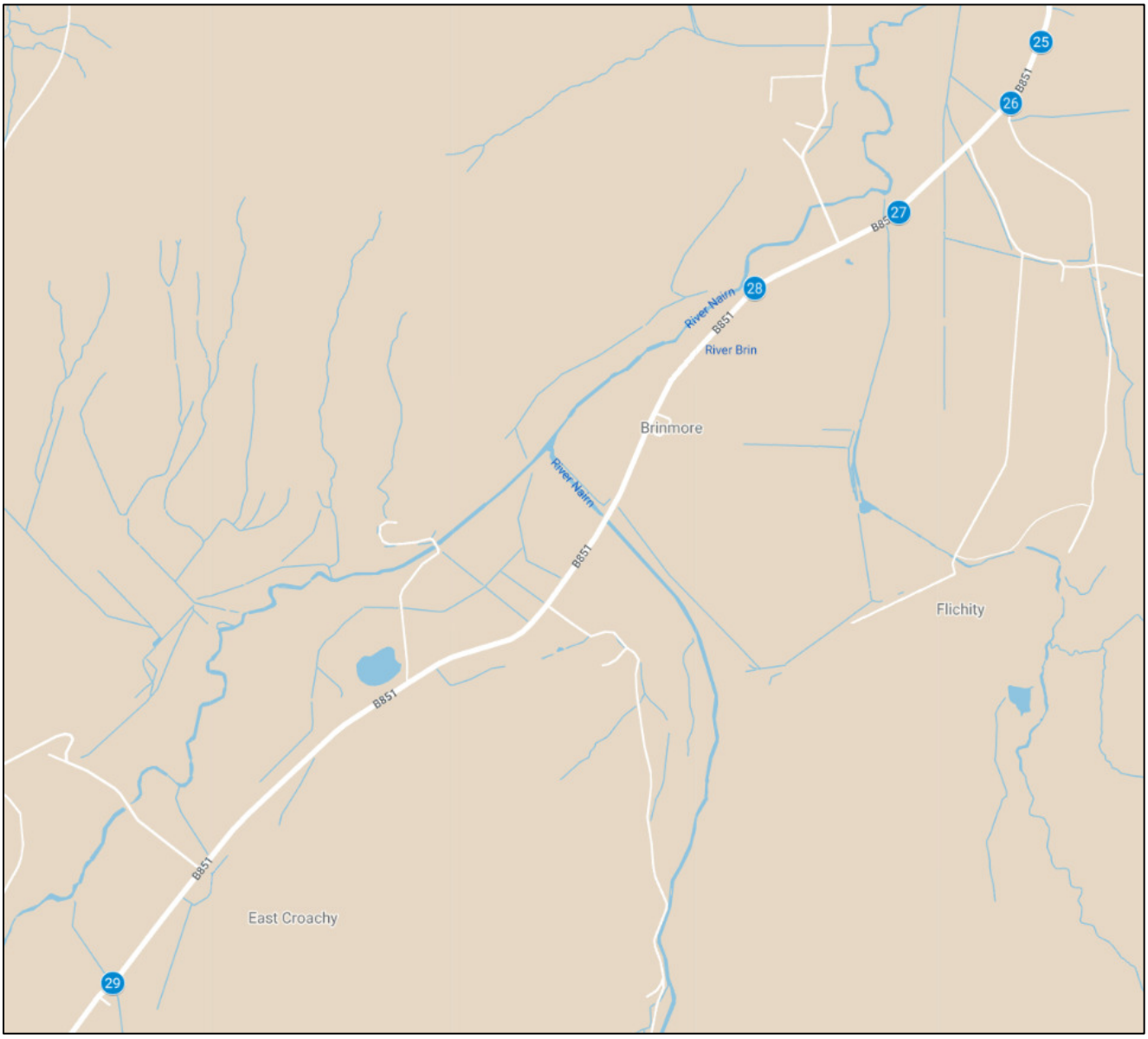
B851
River Nairn
River Farnack
Farr House
Gaich
Loch Farr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River Brin
Brinmore
River Nairn
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Flichity
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B851
East Croachy
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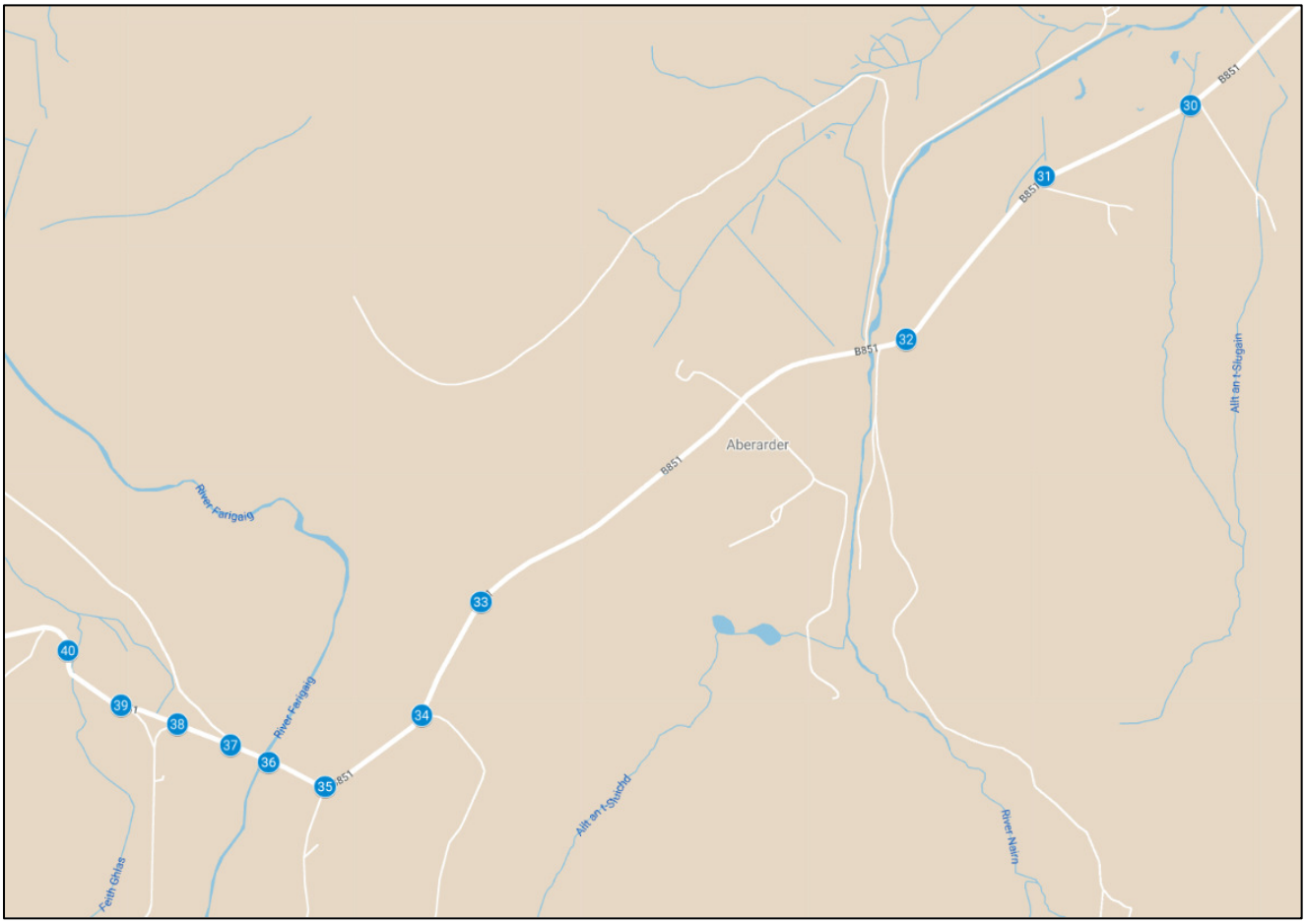
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Aberarder
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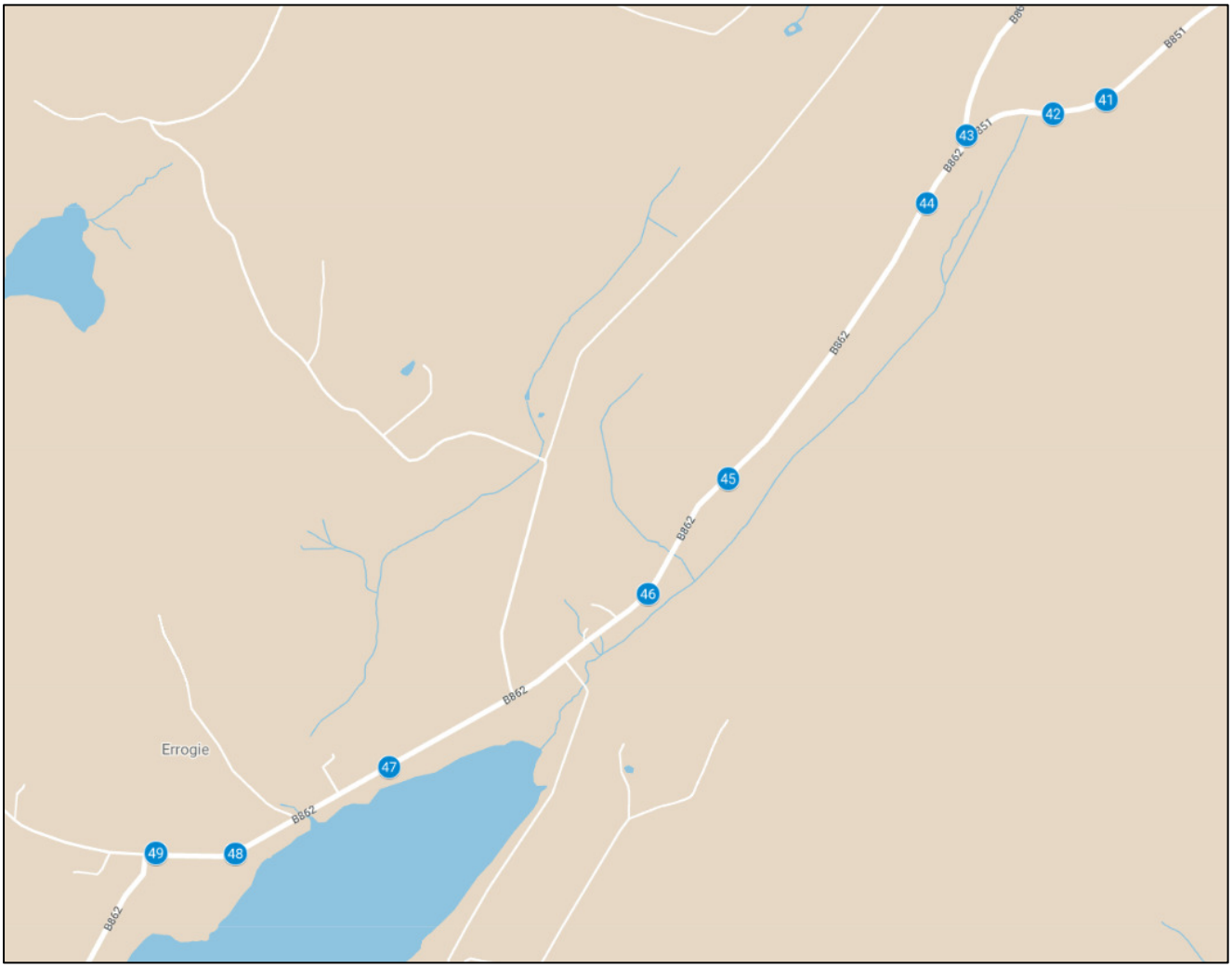
Allt an t-Slugain
Allt an t-Sluichd
River Nairn
Feith Ghlas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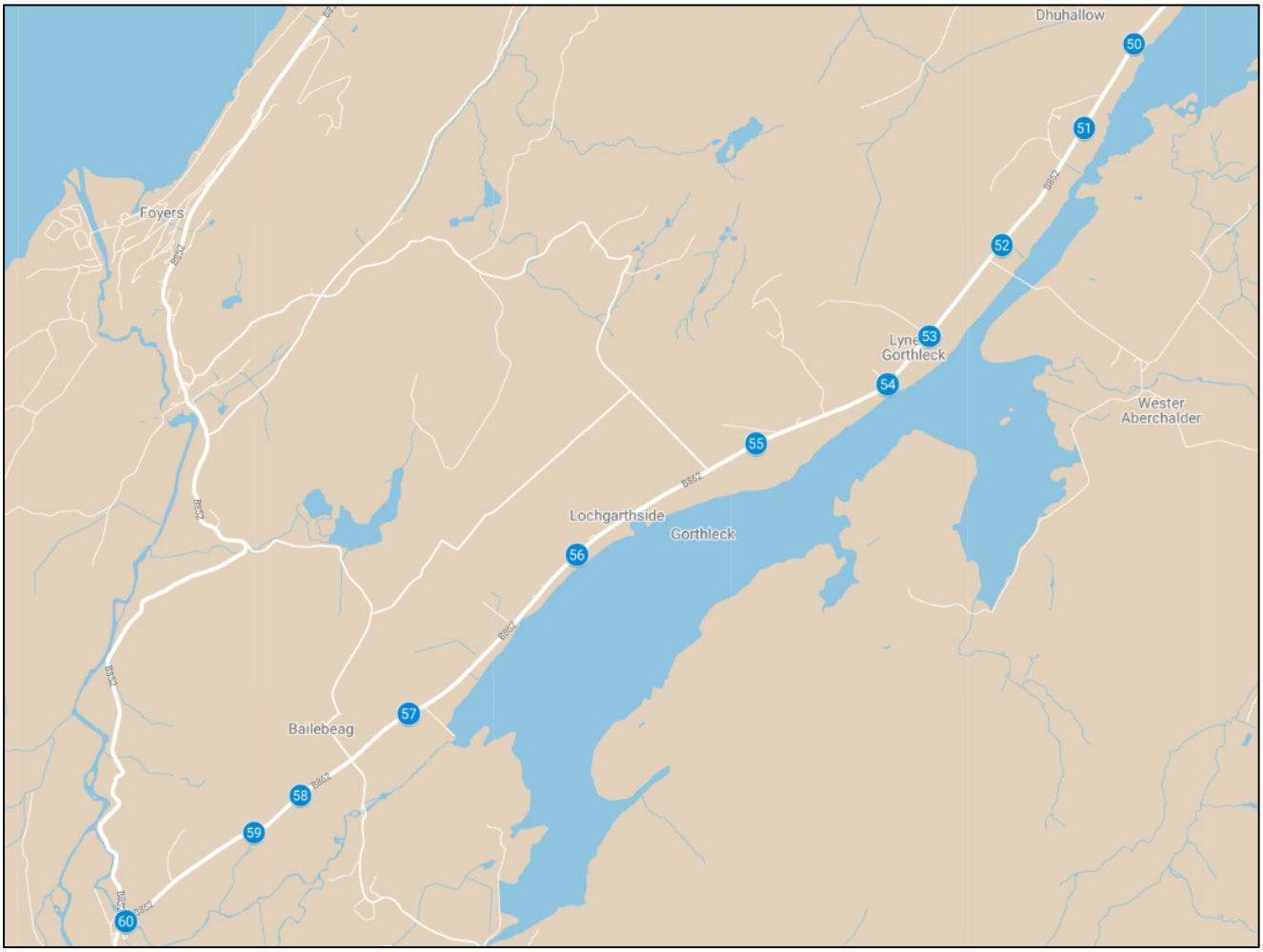
Errogie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Foyers
B852
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Aberchalder
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Lochgarthside
Gorthleck
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Bailebeag
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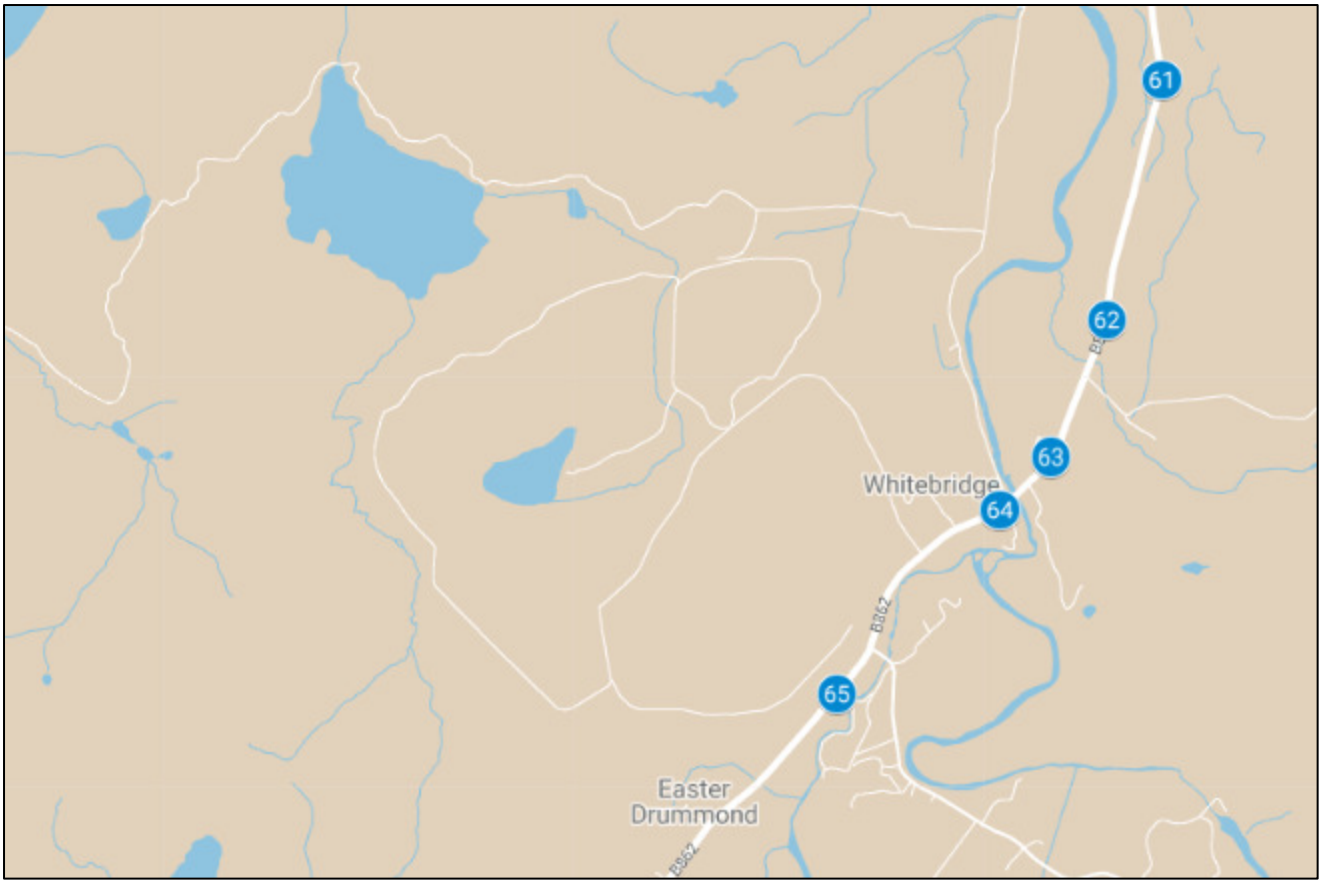
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Whitebridge
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B862
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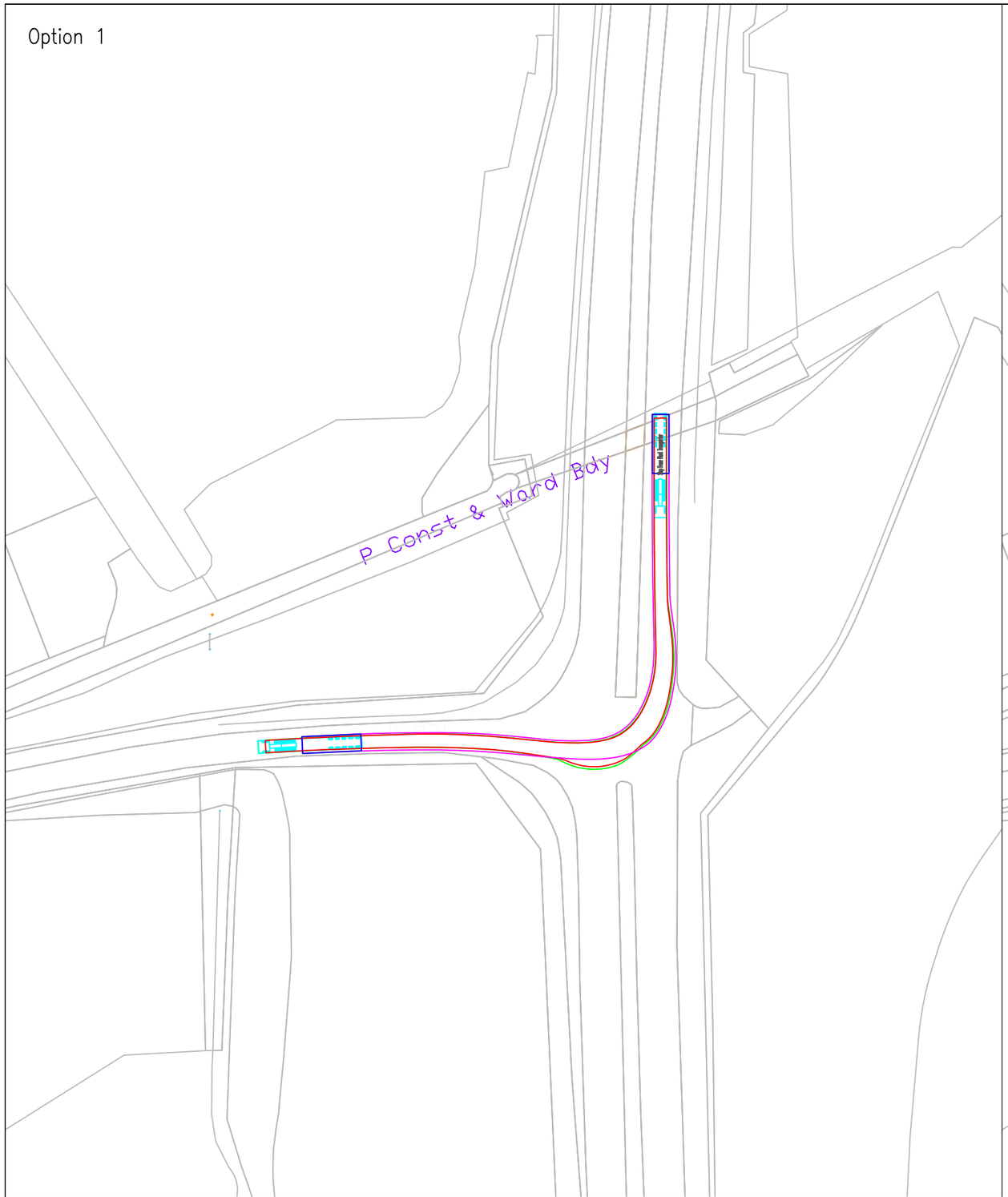
Easter
Drummond

Appendix B Swept Path Assessment

Option 1



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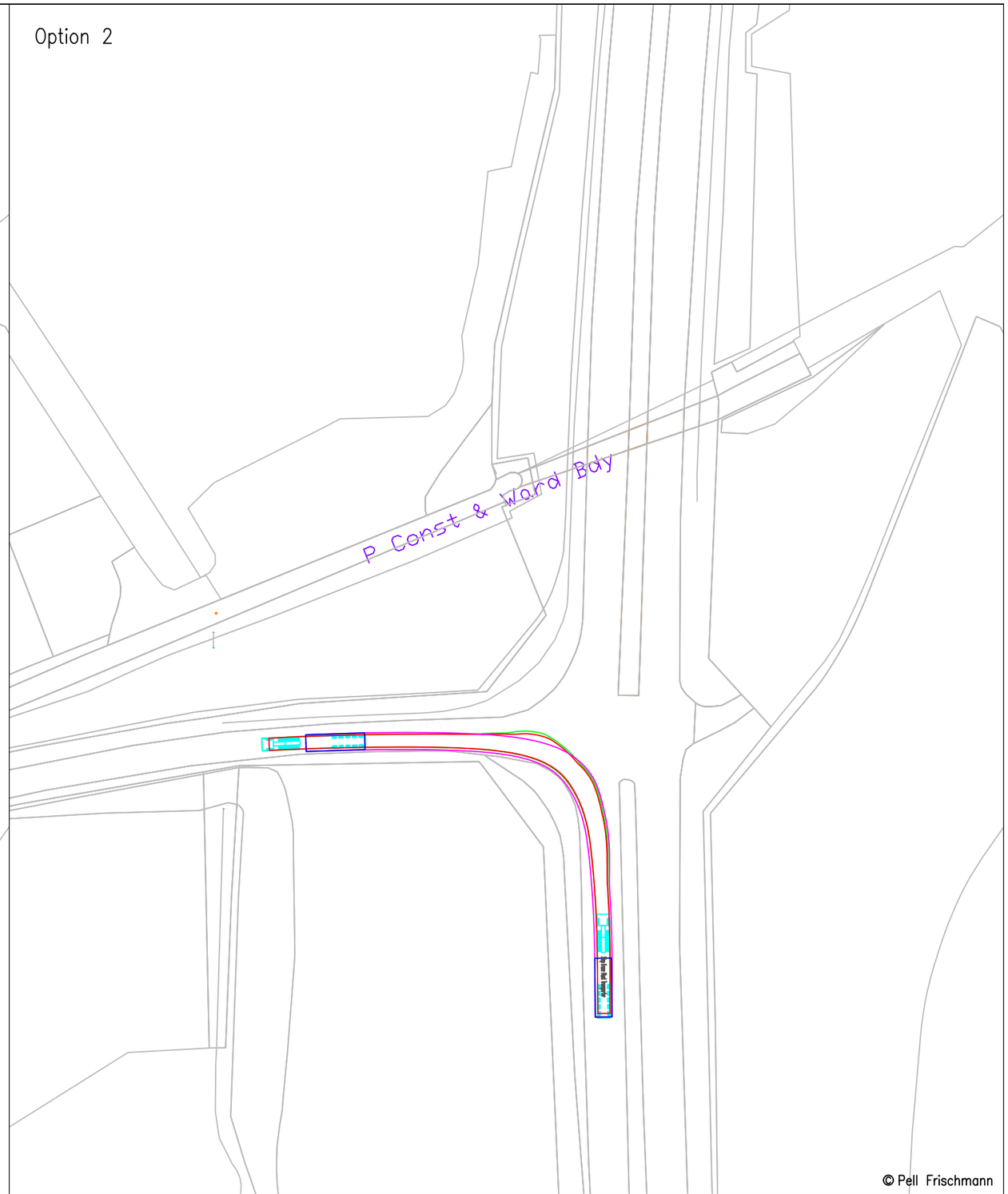

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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: A9 / B851 Junction

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		1

Scale: 1:1000 @ A3

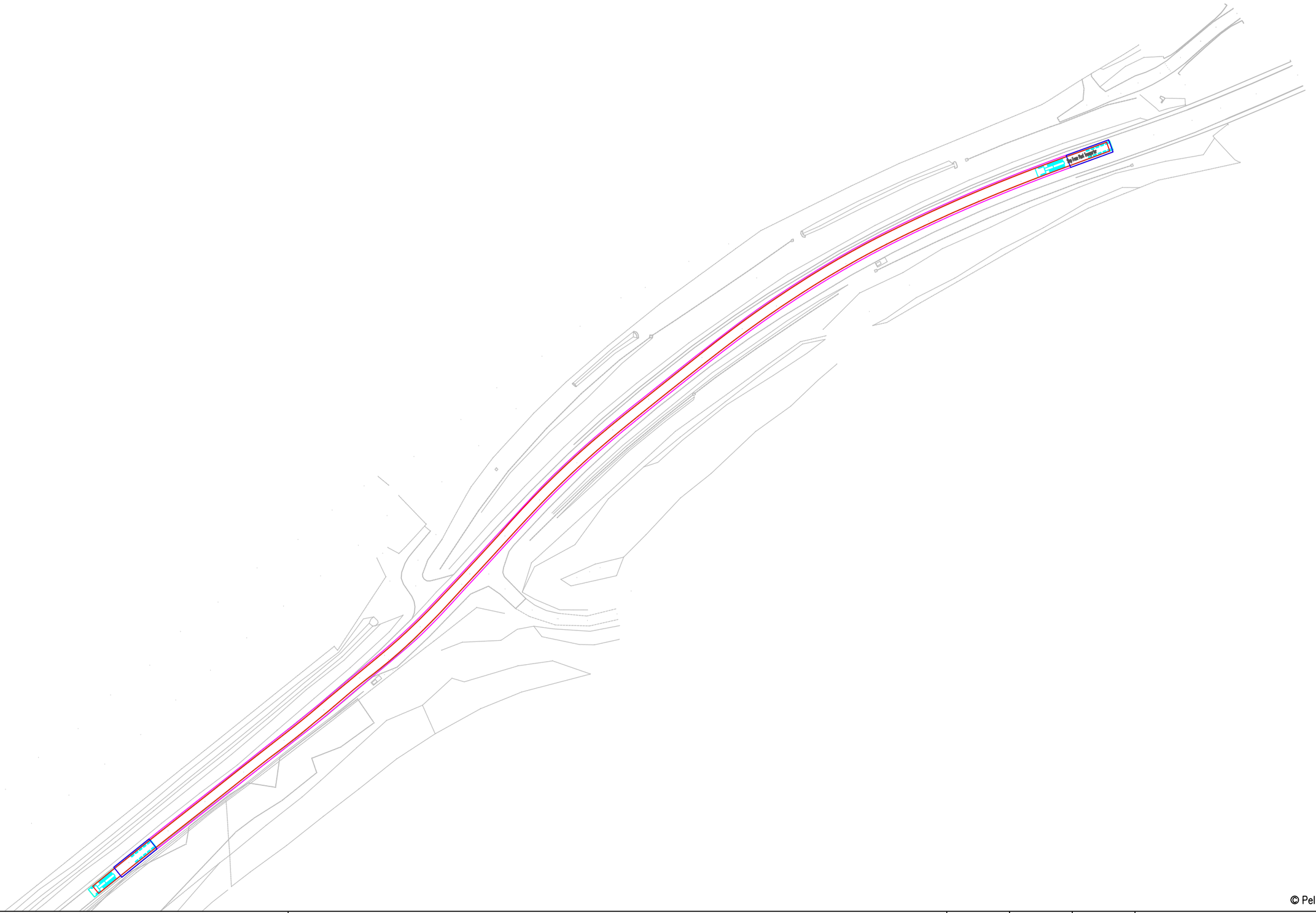
File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK01

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0



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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 South of the A9 Junction

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		2

Scale: 1:1000 @ A3

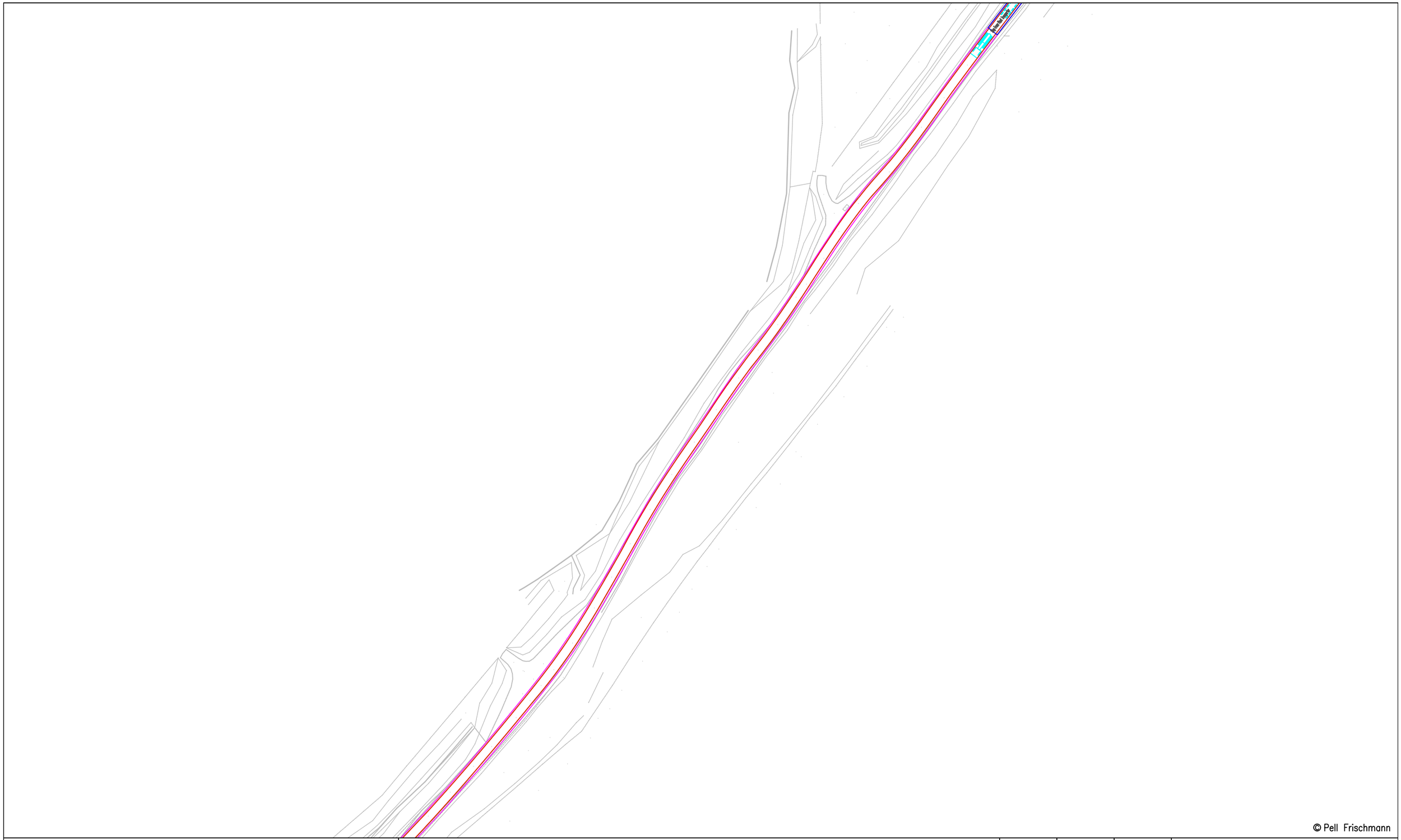
File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK02

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0



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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Mains of Faille

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		3

Scale: 1:1000 @ A3

File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK03

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1. All mitigation is subject to confirmation through a test run.
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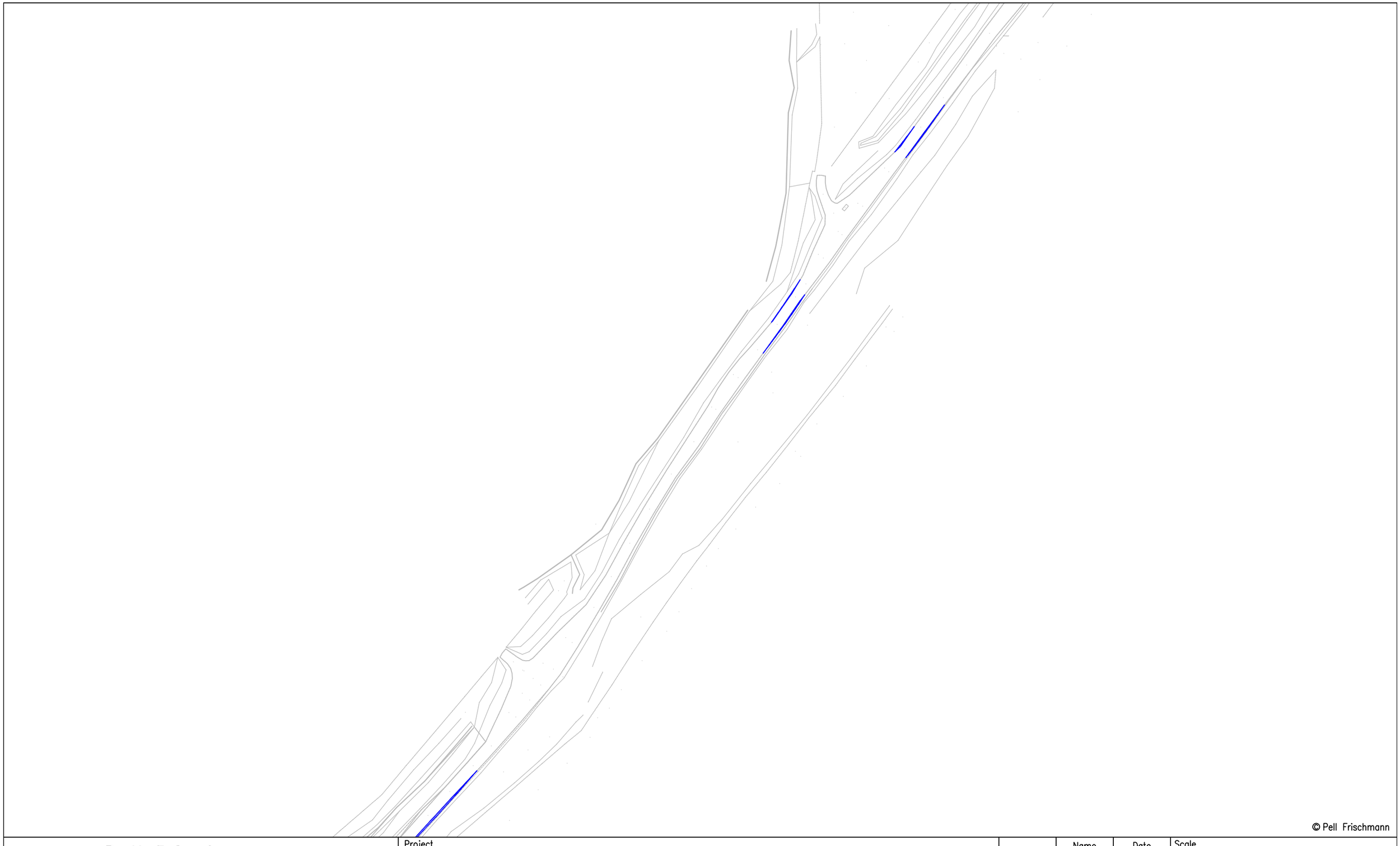

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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Mains of Faille

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		3

Scale: 1:1000 @ A3

File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK03A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0

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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 North of Dell Farm Bends

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		4

Scale: 1:1000 @ A3

File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK04

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2. This is not a construction drawing and is intended for illustration purposes only.

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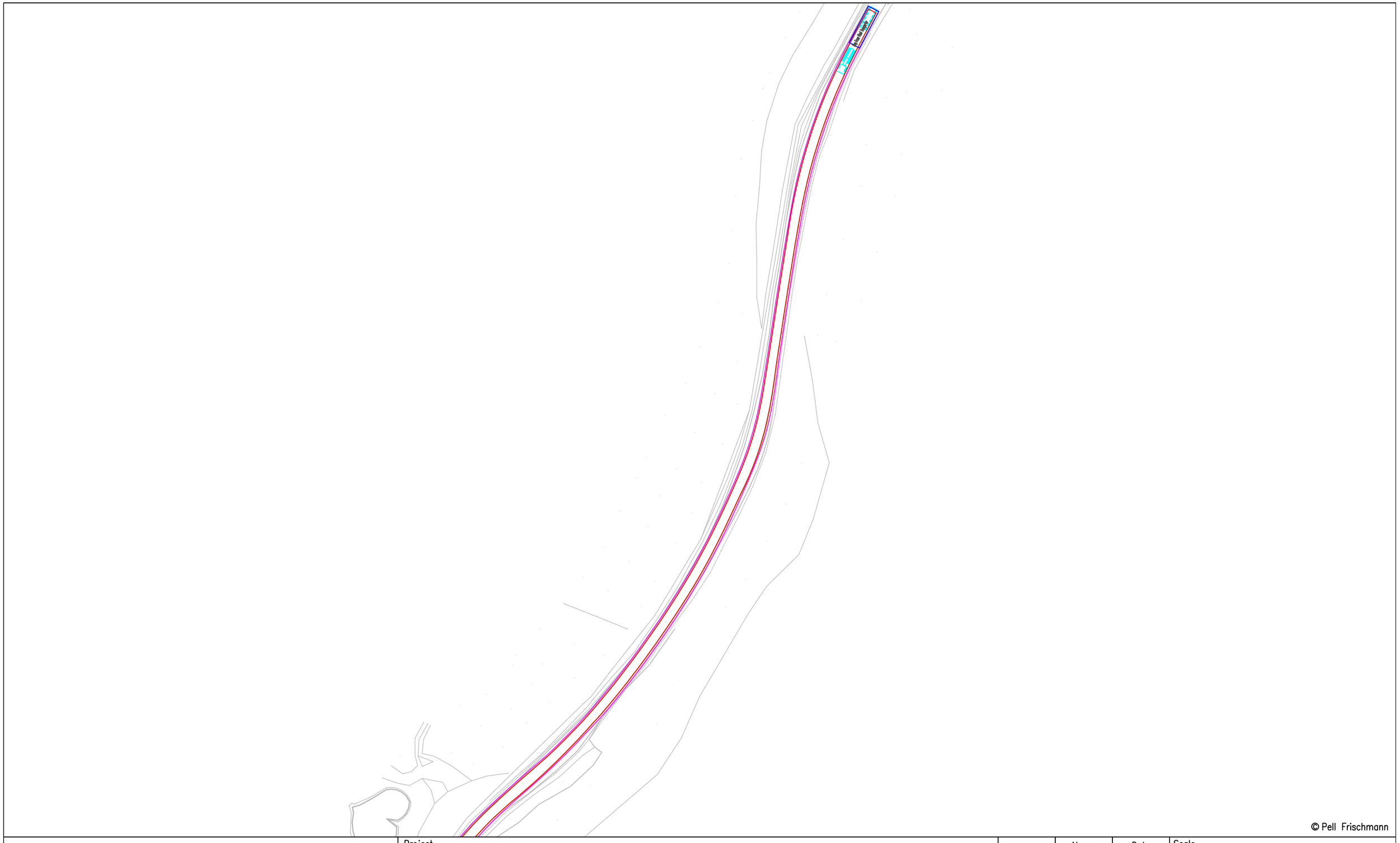

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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Dell Farm Bends

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		5,6&7

Scale: 1:1000 @ A3

File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK05

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0

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Email: pfedinburgh@pellfrischmann.com
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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 North of Tombreck Bends

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		8

Scale: 1:1000 @ A3

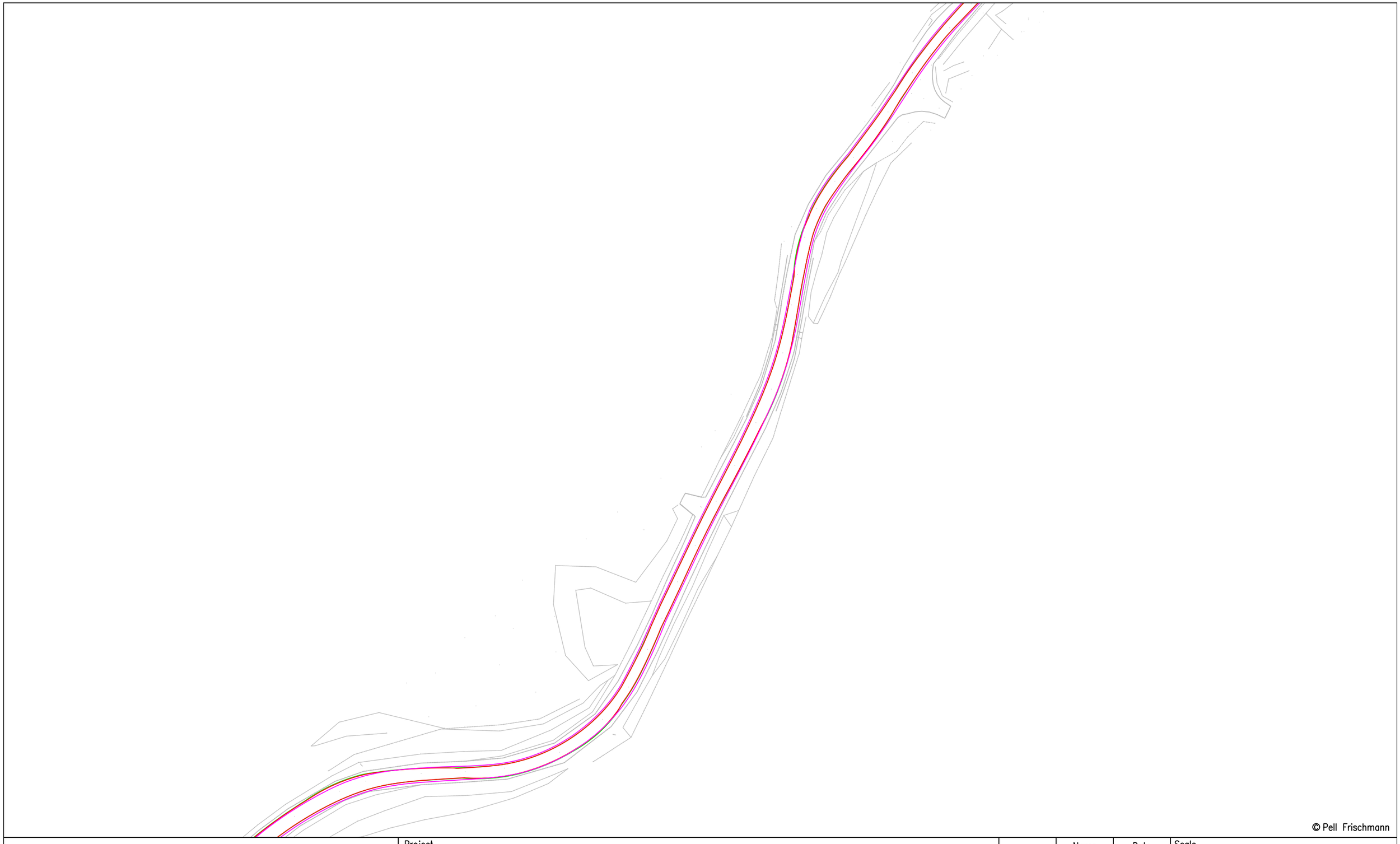
File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK06

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0



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www.pellfrischmann.com

Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 North of Tombreck Bends

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		9&10

Scale: 1:1000 @ A3

File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK07

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0

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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over–run | Over–sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 South of Farr

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		16

Scale: 1:1000 @ A3

File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK08

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0

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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Milton Wood

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		17

Scale: 1:1000 @ A3

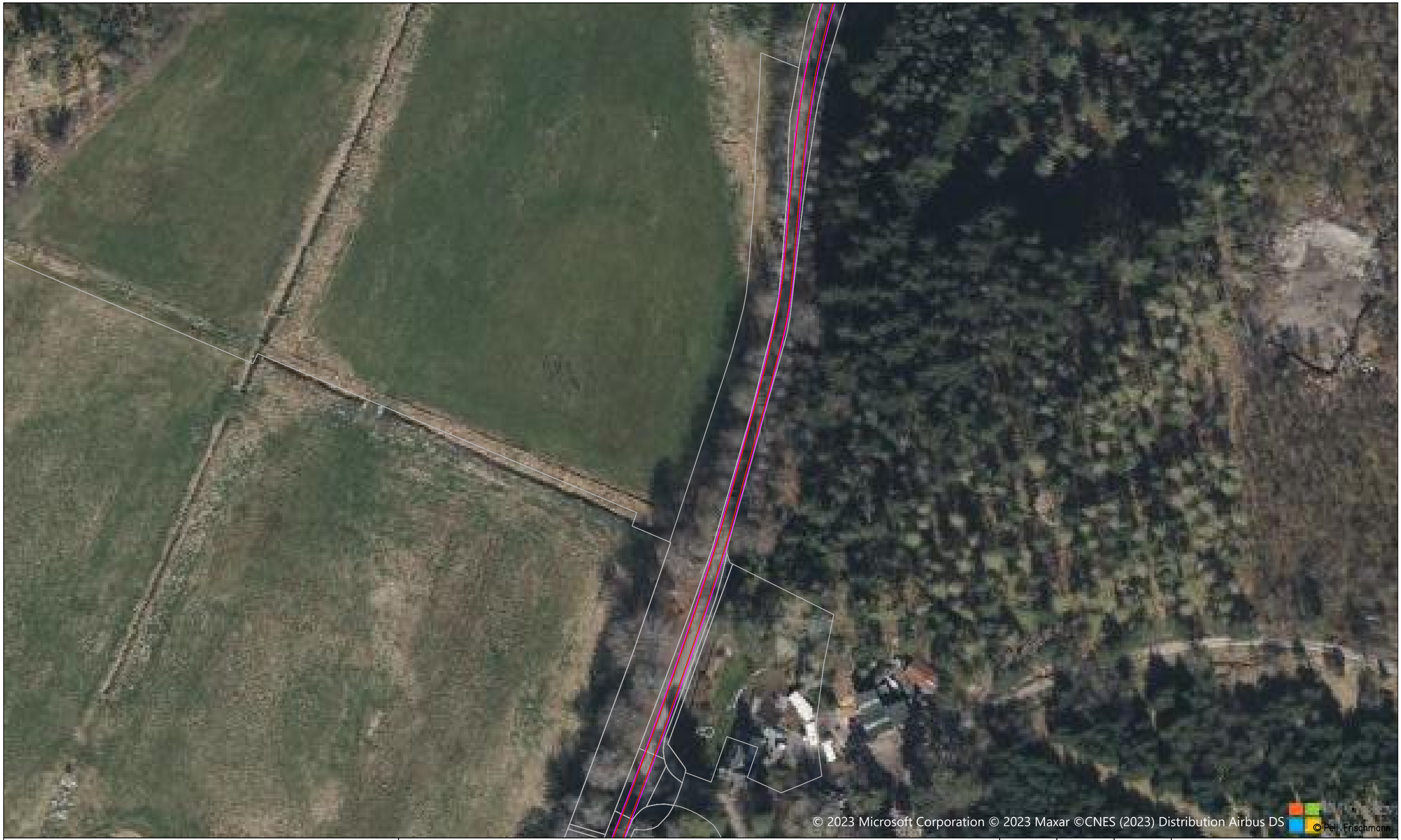
File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK09

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0



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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Milton Wood

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		18

Scale: 1:1000 @ A3

File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK10

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0

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Client: Loch Kemp Storage

Key: Wheel SPA; Body SPA; Load SPA; Indicative; Over-run; Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Achnabechan Bends

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		19,20&21

Scale: 1:1000 @ A3

File No 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK11

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0

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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Achnabechan Bends

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		22&23

Scale: 1:1000 @ A3

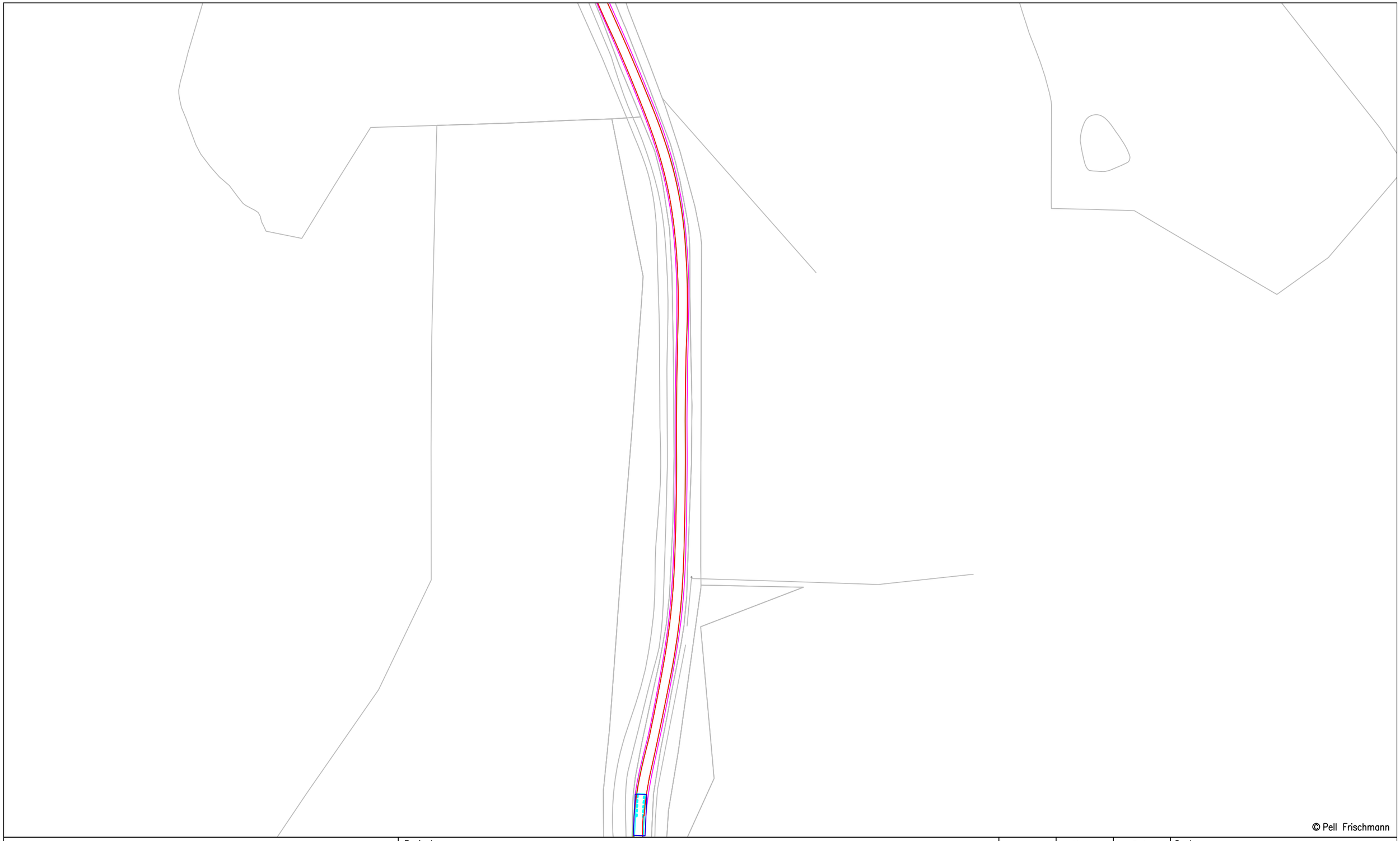
File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK12

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0



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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Druim Dubh Bends

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		24

Scale: 1:1000 @ A3

File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK13

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0

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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Stepping Stones Bends

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		25&26

Scale: 1:1000 @ A3

File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK14

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0

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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Flichity Lodge & Flichity Bends

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		27&28

Scale: 1:1000 @ A3

File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK15

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0

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Client: Loch Kemp Storage

Key: Wheel SPA; Body SPA; Load SPA; Indicative; Over-run; Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Flichity Bends

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		29

Scale: 1:500 @ A3

File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK16

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0

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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Carn Ban & Old School House

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		33&34

Scale: 1:1500 @ A3

File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK17

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0

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Client: Loch Kemp Storage

Key: Wheel SPA; Body SPA; Load SPA; Indicative; Over-run; Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Dunmaglass Bends

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		35&36

Scale: 1:1000 @ A3

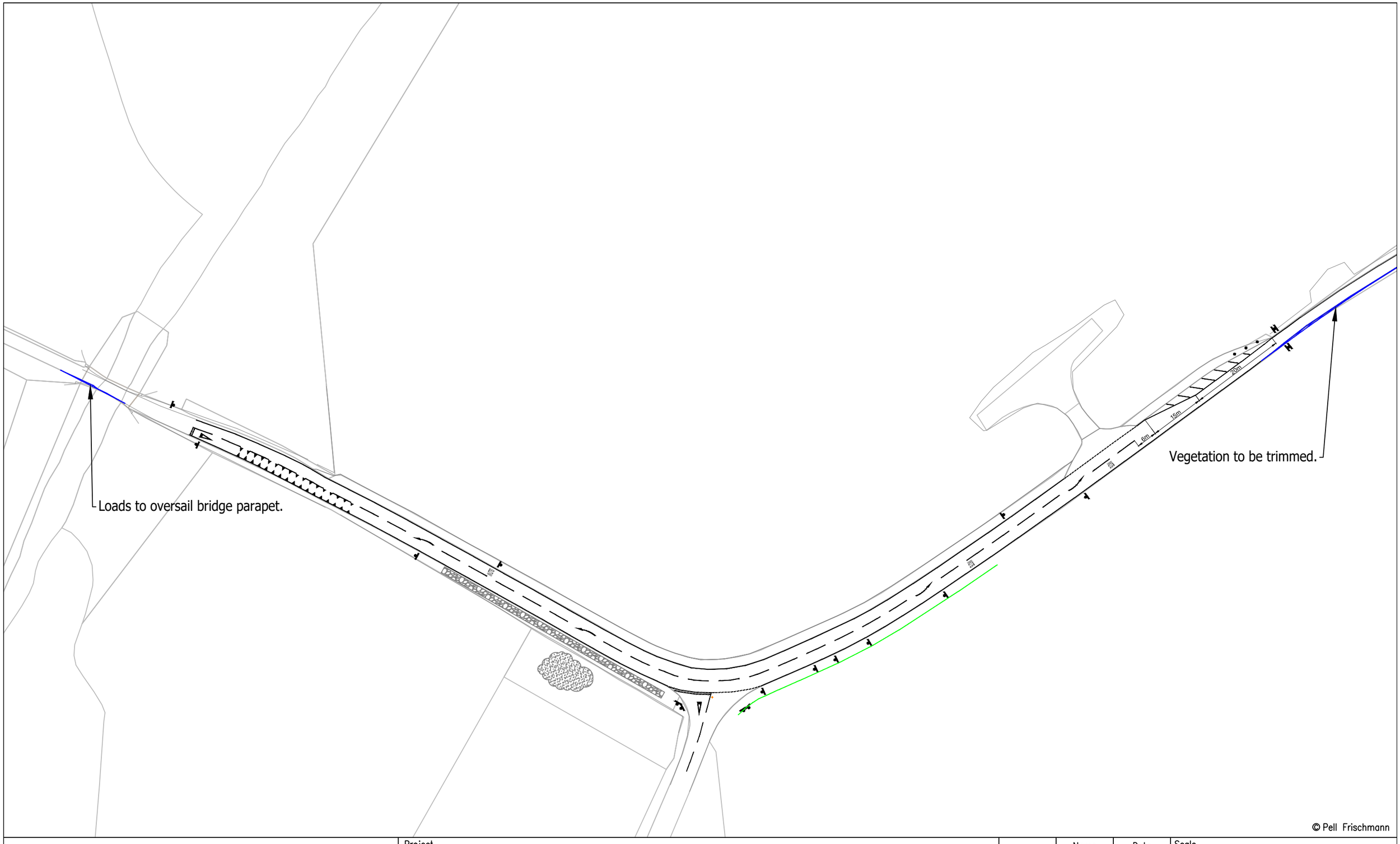
File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK18

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0



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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over–run | Over–sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Dunmaglass Bends

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		35&36

Scale: 1:1000 @ A3

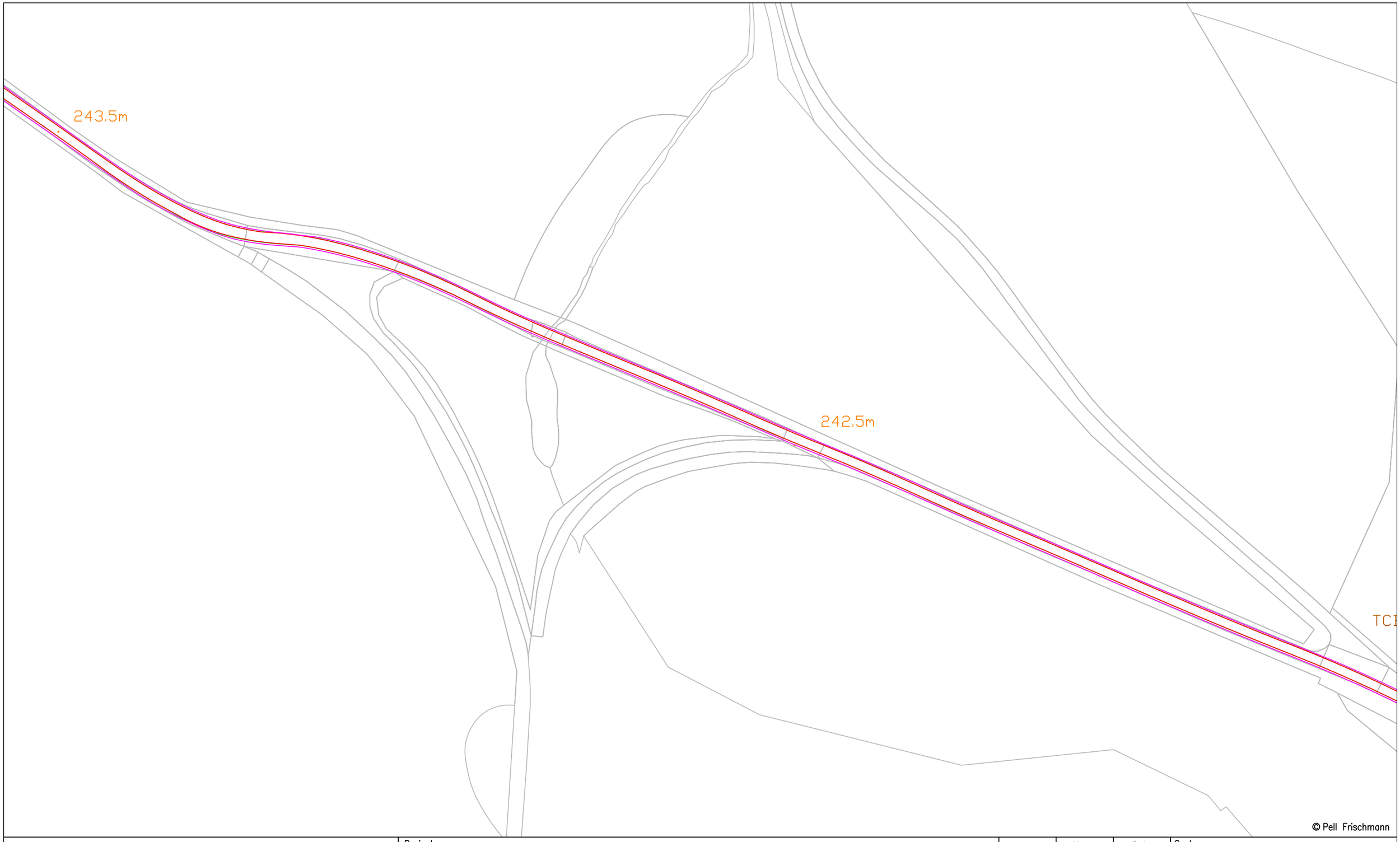
File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK18A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0



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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 West of River Farigaig Bridge

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		37,38&39

Scale: 1:1000 @ A3

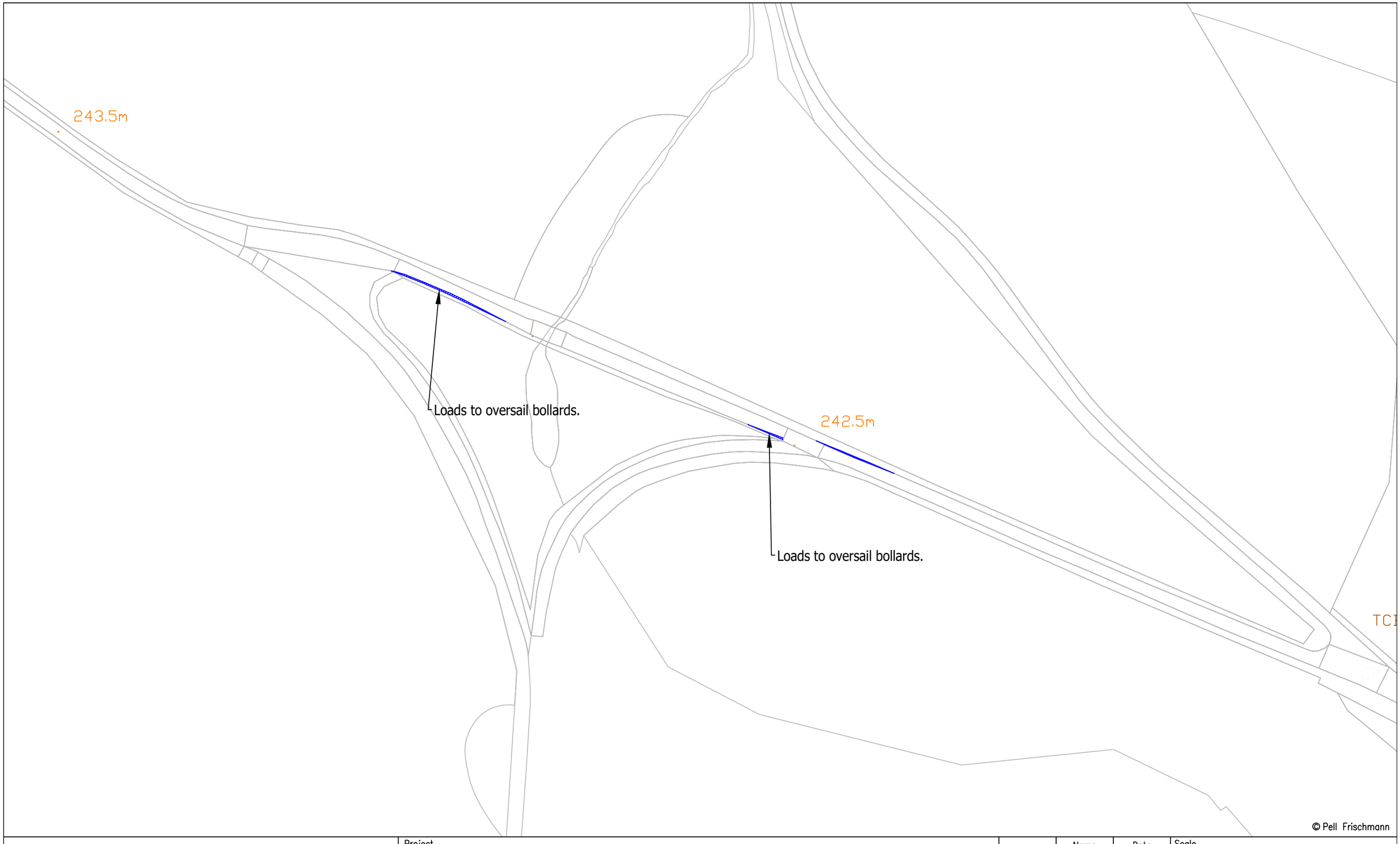
File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK19

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0



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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 West of River Farigaig Bridge

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		37,38&39

Scale: 1:1000 @ A3

File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK19A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0

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Client: Loch Kemp Storage

Key: Wheel SPA; Body SPA; Load SPA; Indicative; Over-run; Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Milton Bends

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		40

Scale: 1:1000 @ A3

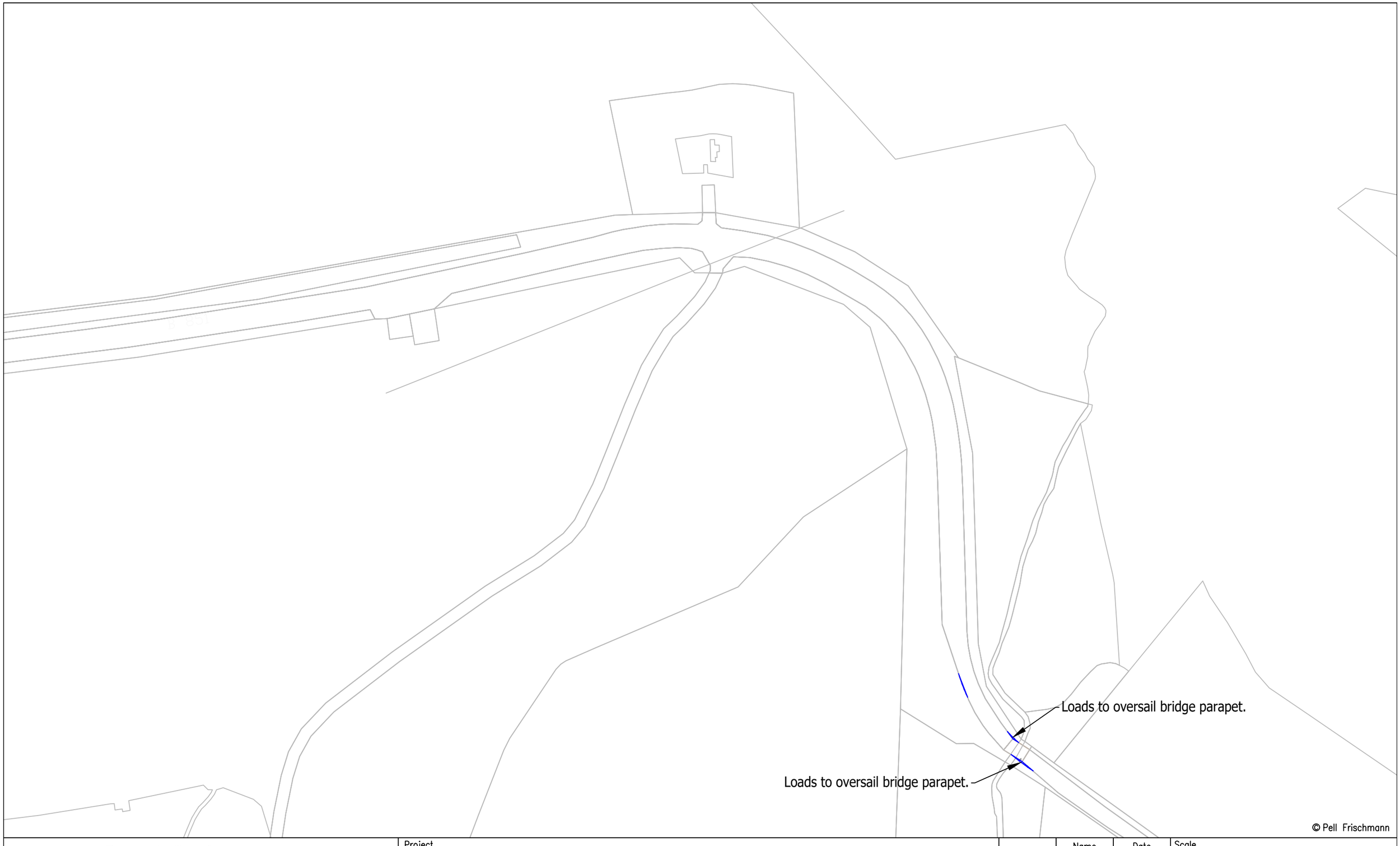
File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK20

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0



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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Milton Bends

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		40

Scale: 1:1000 @ A3

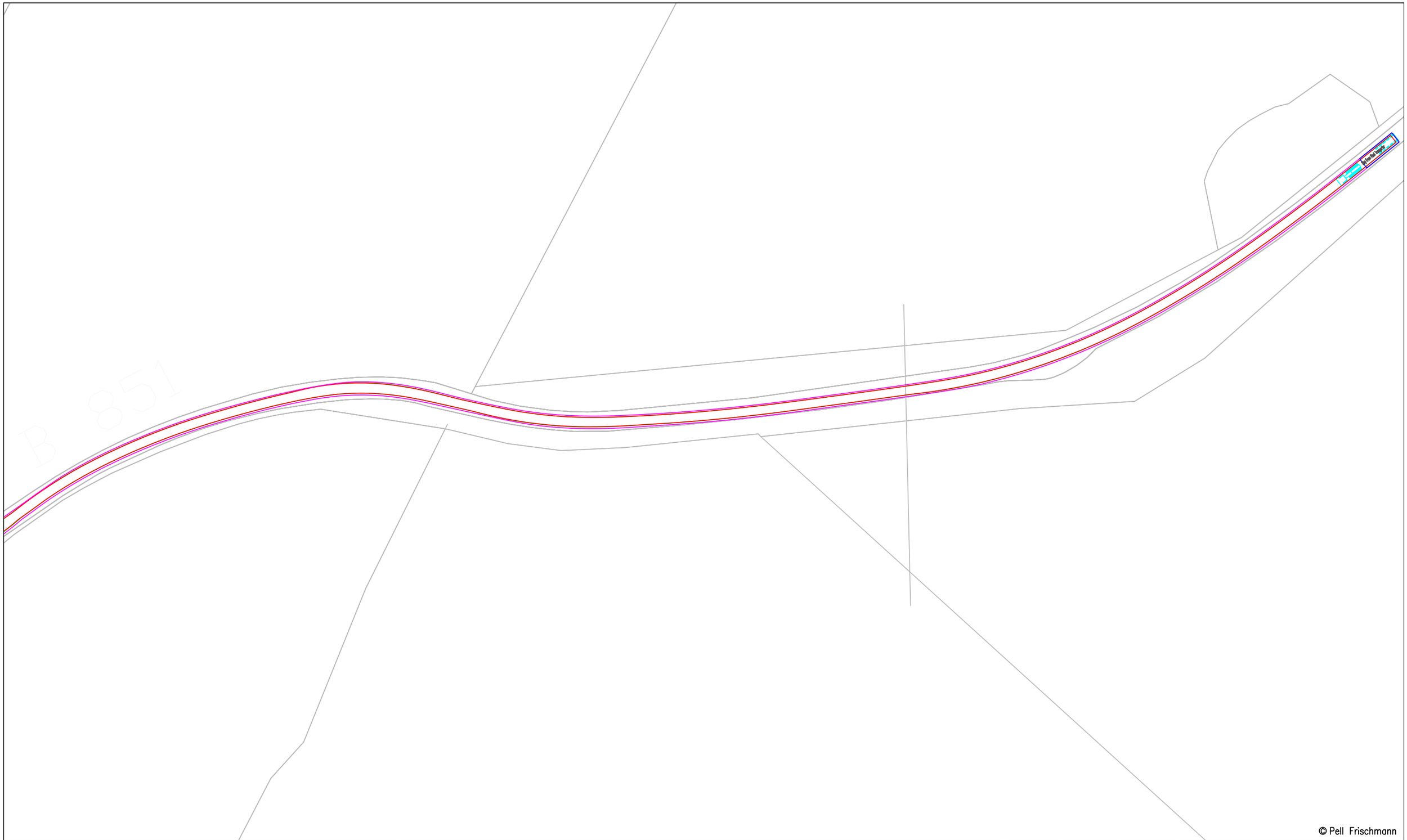
File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK20A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0



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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Carn Bad-Earbaig Bends

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		41&42

Scale: 1:1000 @ A3

File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK21

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0

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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over–run | Over–sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 / B862 Junction

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		43&44

Scale: 1:1000 @ A3

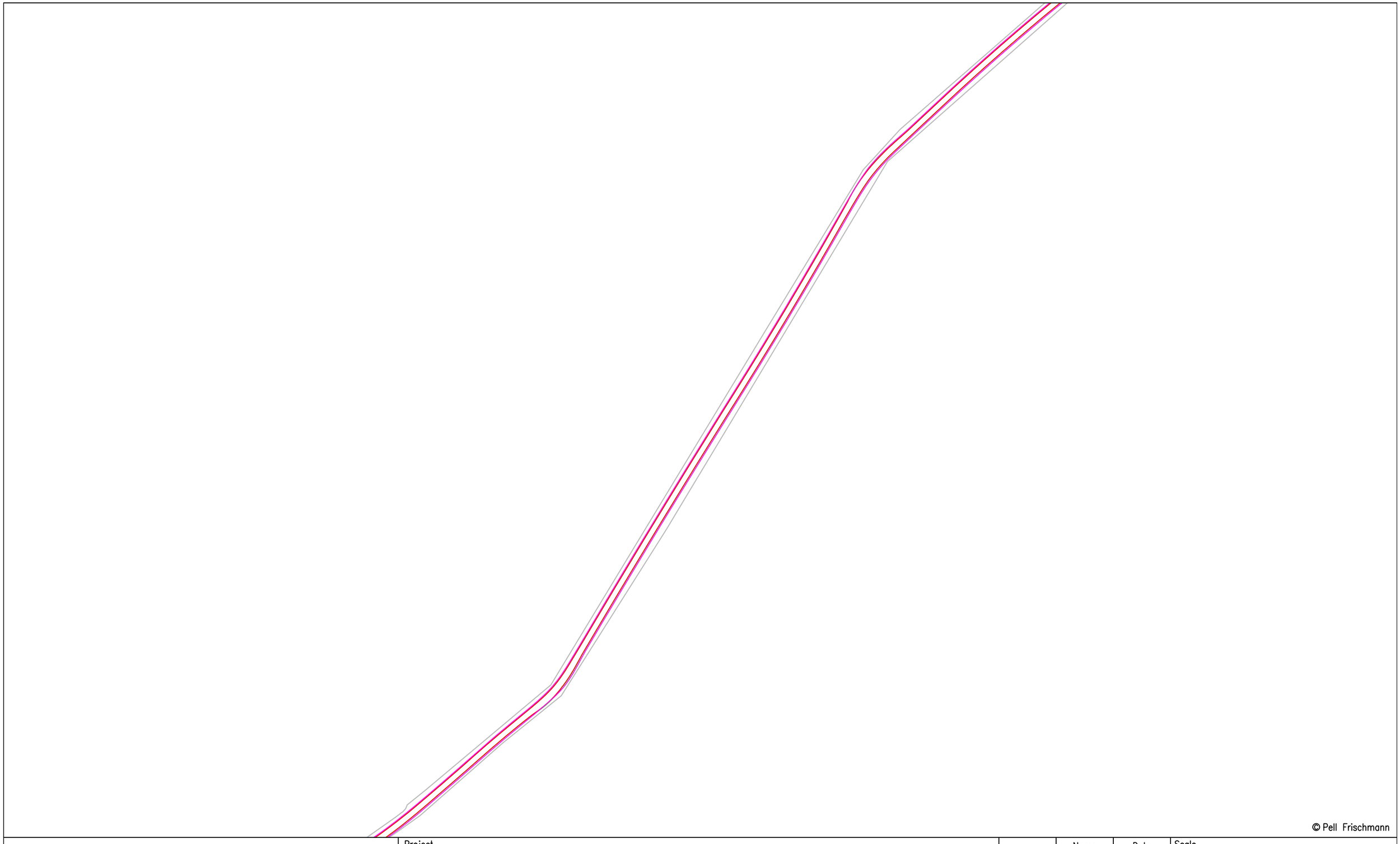
File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK22

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0



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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Torr Shelly

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		45&46

Scale: 1:1500 @ A3

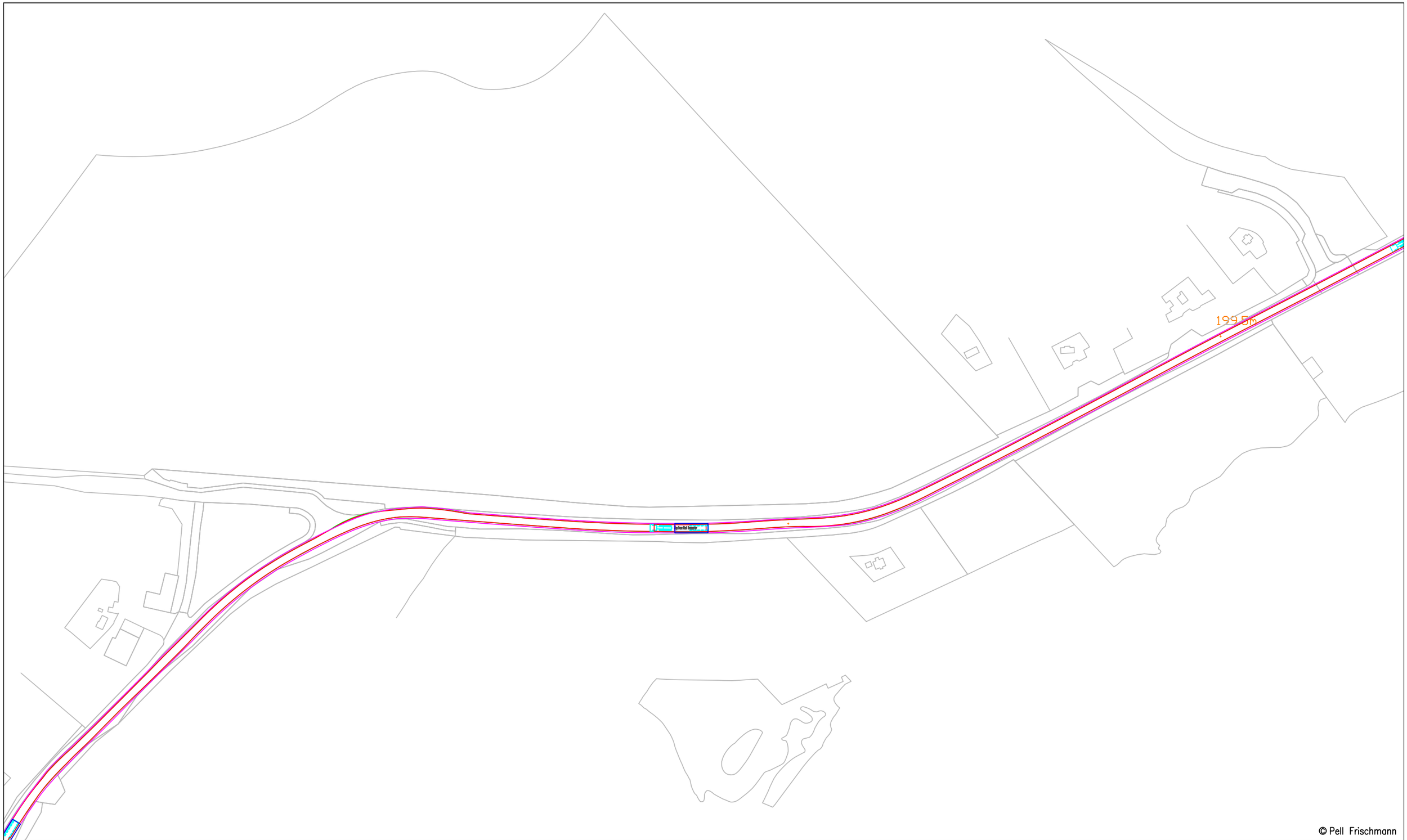
File No 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK23

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0



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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Errogie Bends

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		48&49

Scale: 1:1250 @ A3

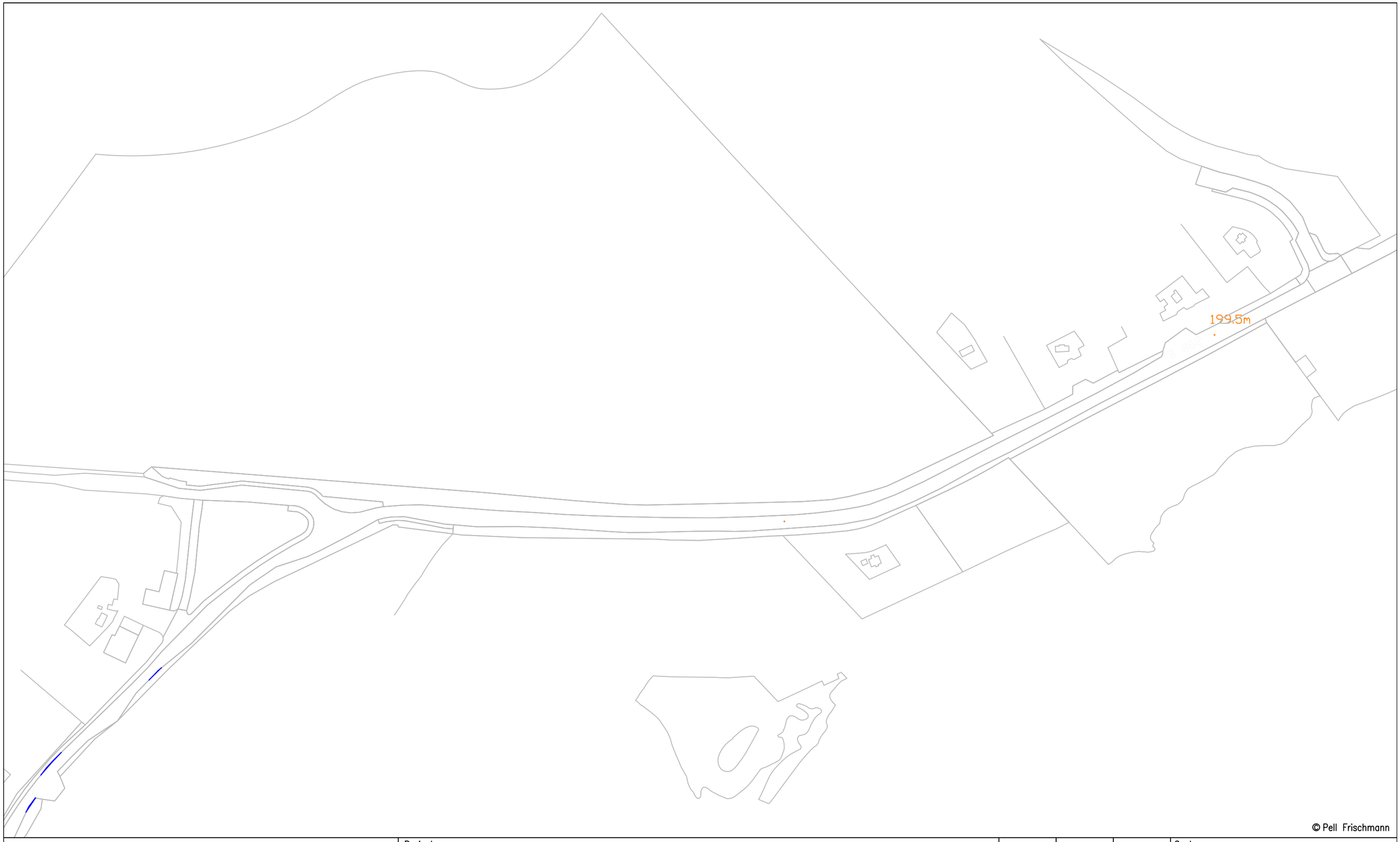
File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK24

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0



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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over–run | Over–sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B851 Errogie Bends

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		48&49

Scale: 1:1250 @ A3

File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK24A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0

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Email: pfedinburgh@pellfrischmann.com
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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B862 South of Errogie Bends

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		50

Scale: 1:1000 @ A3

File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK25

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0

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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B862 Gorthleck

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		54

Scale: 1:1000 @ A3

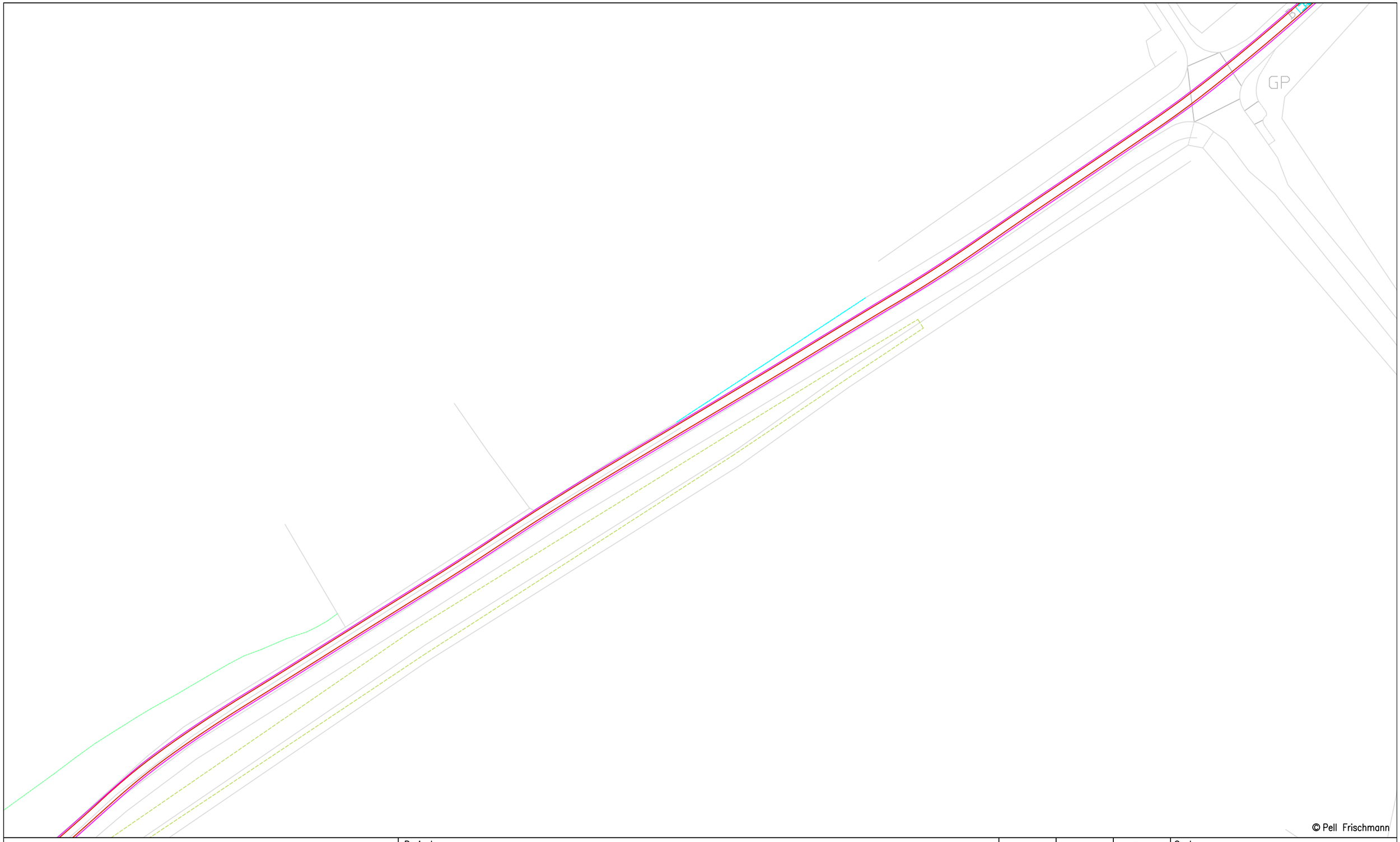
File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK26

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0



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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B862 Bailebeag

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		58

Scale: 1:1000 @ A3

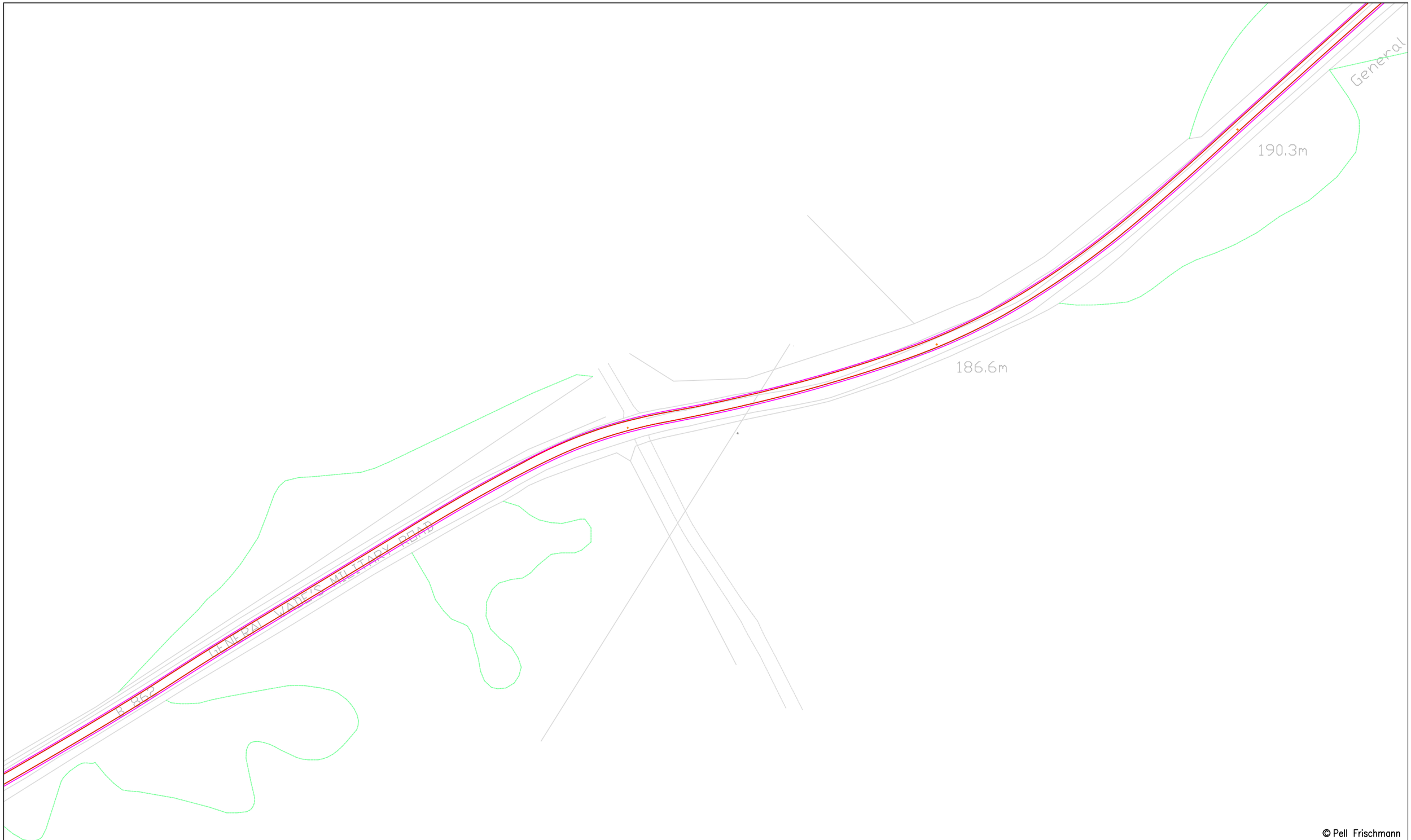
File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK27

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0



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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B862 South West of Bailebeag

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		59

Scale: 1:1000 @ A3

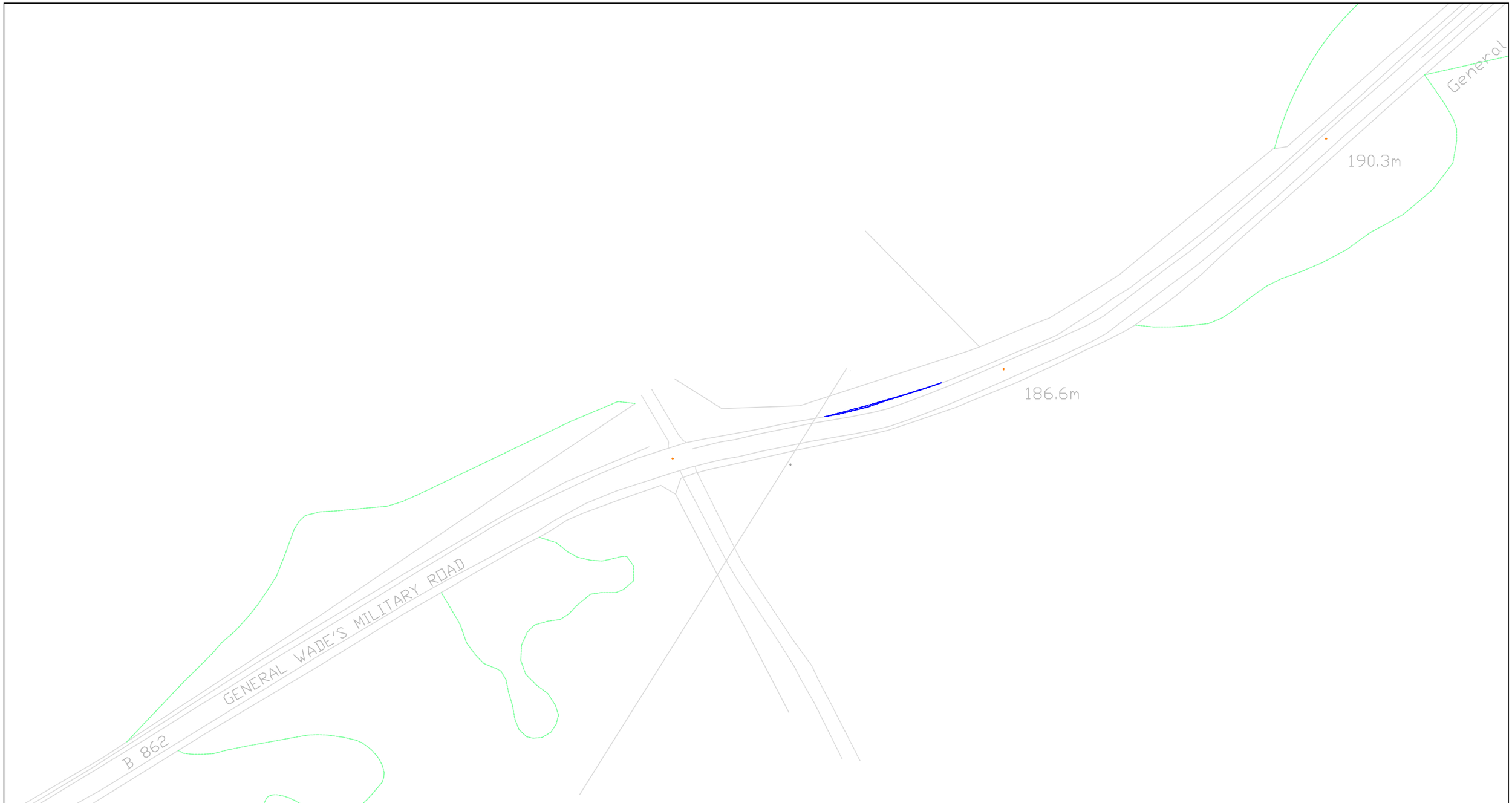
File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK28

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0



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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B862 South West of Bailebeag

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		59

Scale: 1:1000 @ A3

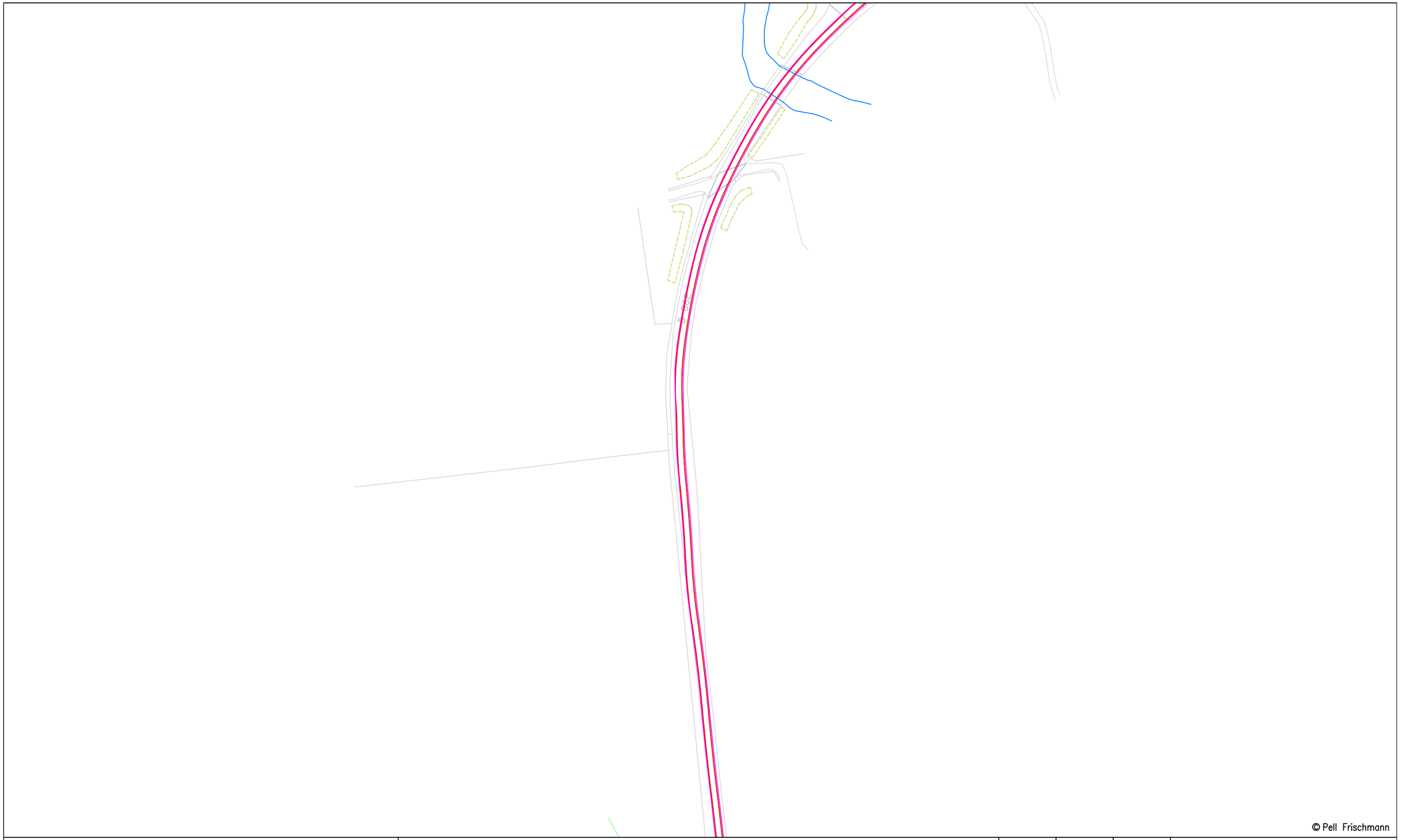
File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK28A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0



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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over–run | Over–sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B862 An Doirlinn

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		60&61

Scale: 1:1500 @ A3

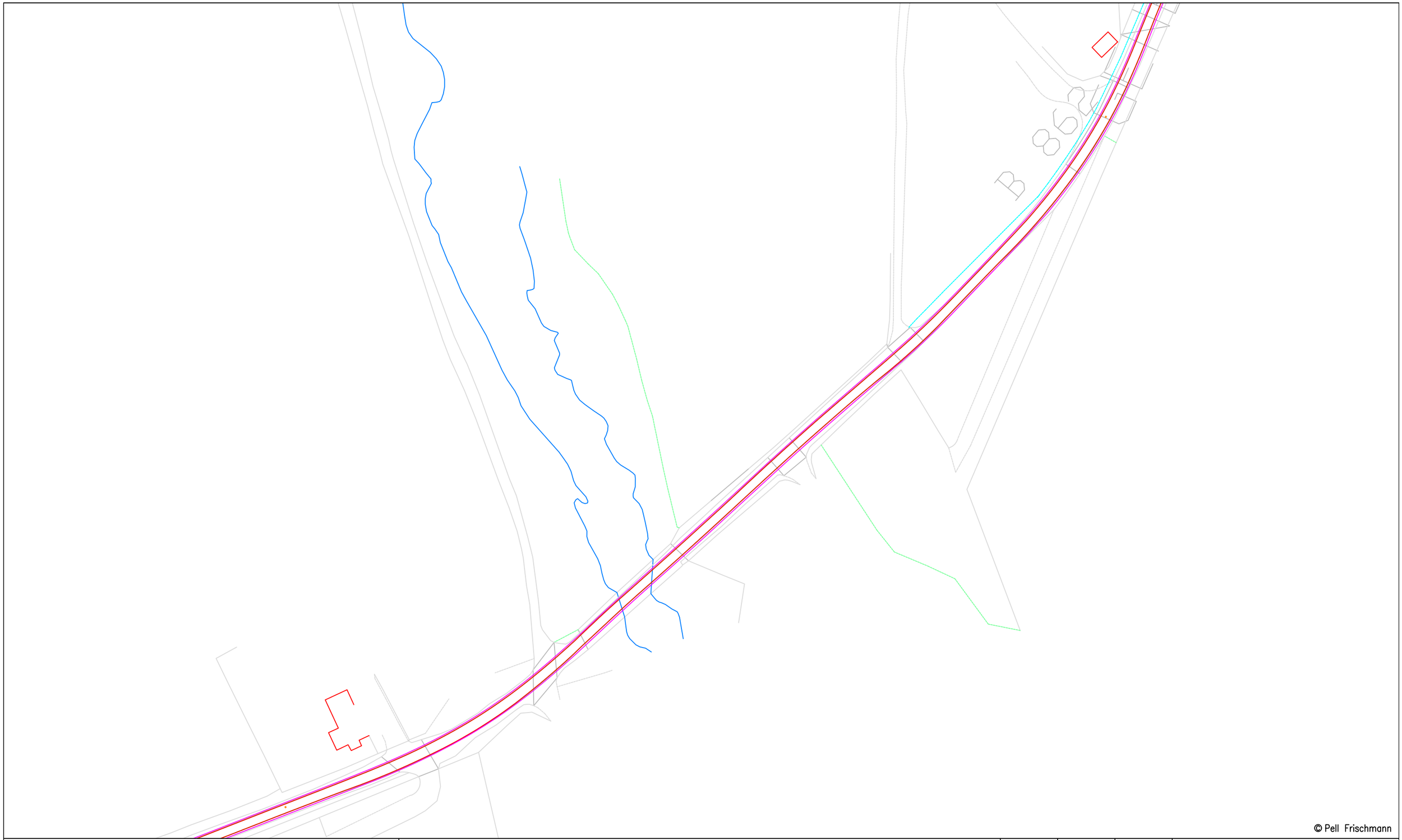
File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK29

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0



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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over-run | Over-sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B862 Whitebridge

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		63&64

Scale: 1:1000 @ A3

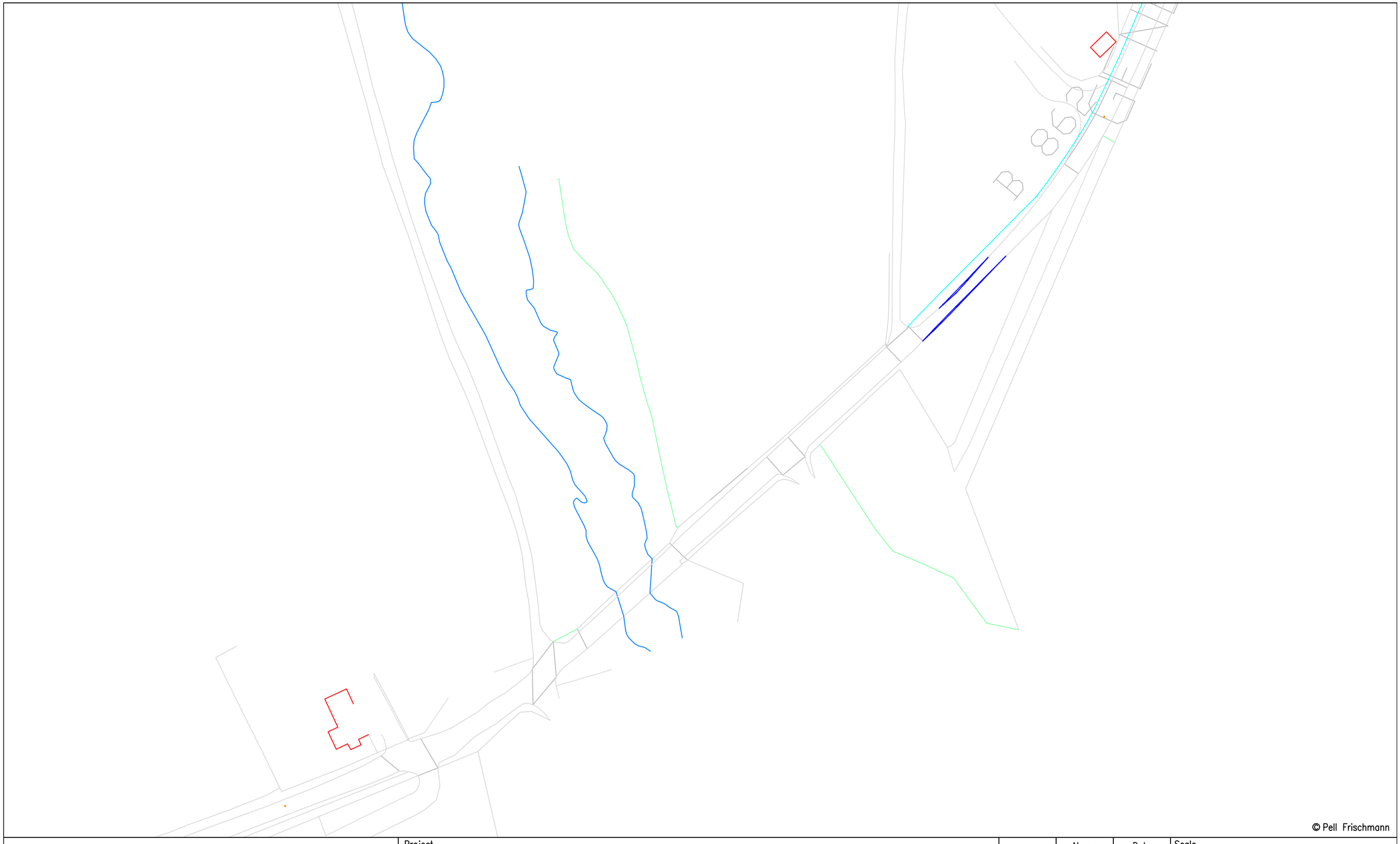
File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK30

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0



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Client: Loch Kemp Storage

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Over–run | Over–sail

Project: Loch Kemp Storage Scheme

Drawing Title: Construction Plant Deliveries

SPA Location: B862 Whitebridge

NO MITIGATION REQUIRED

	Name	Date
Drawn	TJL	11/11/2023
Designed	SK	20/10/2023
Checked	GB	20/10/2023
Point of Interest		63&64

Scale: 1:1000 @ A3

File No: 231012 Kemp Plant AIL Tracking.dwg

Drawing Status: Final

Drawing No.: SK30A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.

Revision: 0

Appendix C ESDAL Correspondence

No responses received to date.