

PLANNING ACT 2008

**APPLICATION BY MONA OFFSHORE WIND LIMITED FOR AN
ORDER GRANTING DEVELOPMENT CONSENT FOR THE MONA
OFFSHORE WIND**

LAND TO THE EAST OF THE A548

COMPRISING

PLOTS 06/102 - 06/105 (INCLUSIVE)

**PLANNING INSPECTORATE REFERENCE NUMBER
EN010137**

MNOW-AFP079: MNOW-AFP129: MNOW-AFP130: MNOW-AFP131

SUPPLEMENTARY WRITTEN REPRESENTATIONS

OF

GRIFFITH W. PARRY MRICS

IN RESPONSE TO

**Document Reference S_D1_5.6 Document No. MOCNS-J3303-RPS-10277
entitled Appendix to Response to Hearing Action Point: Indicative onshore
cable corridor crossing section and trenchless technique crossing long-
section**

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1.0 Definition /Glossary

1.1 This document uses the same definitions as in the Written Submissions of Griffith Parry dated 7th August. These are as follows:

- Mona Offshore Wind Limited (“**Promoter**”)
- Planning Act 2008 (the “**Act**”)
- Development Consent Order (“**Order**”)
- Mona Offshore Windfarm (“**Scheme**”).
- Plots 06-102 to 06-105 inclusive (“**Plots**”)
- Mrs HM Parry, Mrs EW Wade, Mr RW Parry and Mr GW Parry (“**Objectors**”).
- The Plots and other surrounding land owned by the Objectors (“**Property**”)
- Nationally Significant Project (“**NSP**”).
- Preliminary Environmental Information Report (“**PEIR**”)
- The Gas and Electricity Markets Authority grants (“**GEMA**”)
- Distribution Network Operators (“**DNOs**”)
- Scottish Power Electricity Networks (“**SPEN**”).

1.2 New definitions used are:

- Document Reference S_D1_5.6 Document No. MOCNS-J3303-RPS-10277 entitled Appendix to Response to Hearing Action Point: Indicative onshore cable corridor crossing section and trenchless technique crossing long-section (“**Hearing Action Point Submission**”)
- Written Submissions of Griffith Parry dated August 7th (“**August 7th Submissions**“)
- Drawing number ED13798-GE-1015 Rev F (“**Drawing**”)
- Health and Safety Executive (“**HSE**”)

2.0 Introduction

- 2.1 These written submissions are provided without prejudice to the Objector’s contention that the Order should not be granted at all.
- 2.2 The Promoter has submitted the Hearing Action Point Submission including cross sectional drawings presumably to explain and attempt to justify the excessive amount of land included in the Order and for the equally excessive permanently sterilised easement corridor area thereafter.
- 2.3 Contrary to the Promoter’s presumed intention however, it instead clearly demonstrates beyond doubt the wasteful and inefficient working methods that they intend to deploy with ill-considered knock on impacts on land take and consequent detriment to landowners.
- 2.4 The Promoter’s document contains cross section drawing number ED13798-GE-1015 Rev F (“**Drawing**”) which is of particular interest to the Objectors and shows a temporary working area of 74m now which has reduced from the 100m temporary working corridor area that the Promoter has insisted on to date.

- 2.5 The proposed use of the working area shown in the cross section drawing is at odds with my previous understanding of the layout arrangements as described in section 12 and especially section 12.2.5 of the August 7th Submissions but is now accounted for as follows:

74m WORKING AREA WIDTH BREAKDOWN			
	Temporary Fence Line and Surface Water Ditch	2.5	m wide
	Topsoil and Subsoil Storage Bunds	19.6	m wide
Area Proposed for 30m Perman- ent Easement	Separation Strip between Bunds and Trench Opening	1.0	m wide
	Trench	2.5	m wide
	Separation Between Trenches	5.0	m wide
	Trench	2.5	m wide
	Haul Road (Including Separation to Trenches)	7.0	m wide
	Trench	2.5	m wide
	Separation Between Trenches	5.0	m wide
	Trench	2.5	m wide
	Separation Strip between Bunds and Trench Opening	1.0	m wide
	Topsoil and Subsoil Storage Bunds	19.6	m wide
	Temporary Fence Line and Surface Water Ditch	2.5	m wide
TOTAL PROPOSED TEMPORARY WORKING AREA		73	Metres
TOTAL PROPOSED PERMANENT AREA		30	Metres

- 2.6 This supplementary written submission seeks to review the Promoter's now proposed working area shown in the cross section on the Drawing, firstly from a temporary construction point of view and secondly from the impacts that these methods have on the permanent sterilising land rights.
- 2.7 It should be read in conjunction with section 12 of the August 7th Submissions which it expands from a more practical / hands on approach.
- 2.8 It considers each constituent part of the cross section, soil storage bunds, trench widths, separation strip widths, haul road widths from thermal, electromagnetic, construction and maintenance / repair perspectives.

3.0 Construction and Maintenance Methodology.

- 3.1 With the exception of watercourses and hedges, the Promoter proposes open trench excavation over the Plots. They propose laying 4 no. trenches over the approximately 345 linear meters of the Plots.

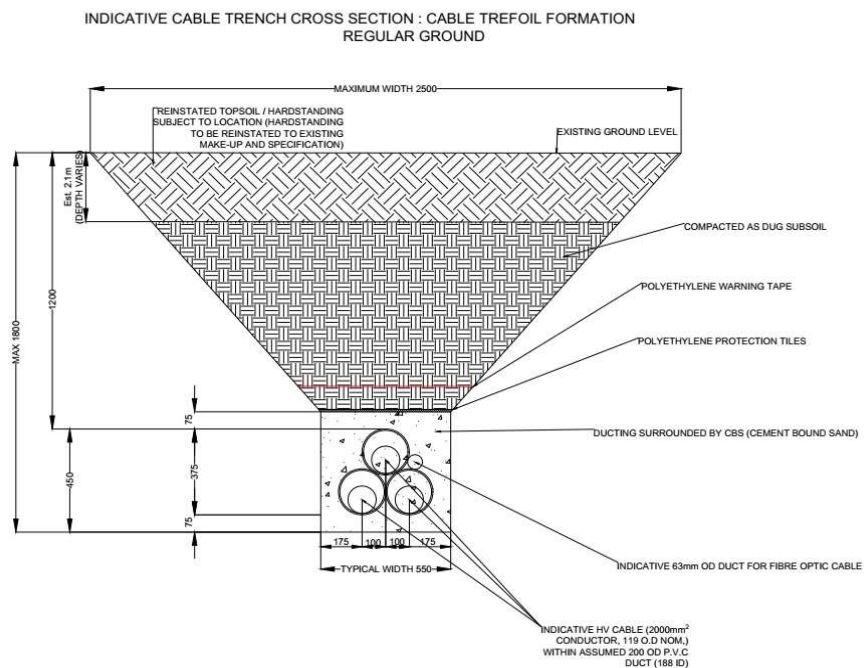
- 3.2 The Promoter intends an excavation down to approximately 1.8m with the cables being laid on top of circa 75mm trench bedding (i.e. the bottom of the cable duct will sit at 1.725m depth). Minimum depth of cover over the upper cable is intended to be 1.2m.

Trench Width, Support and Safety issues

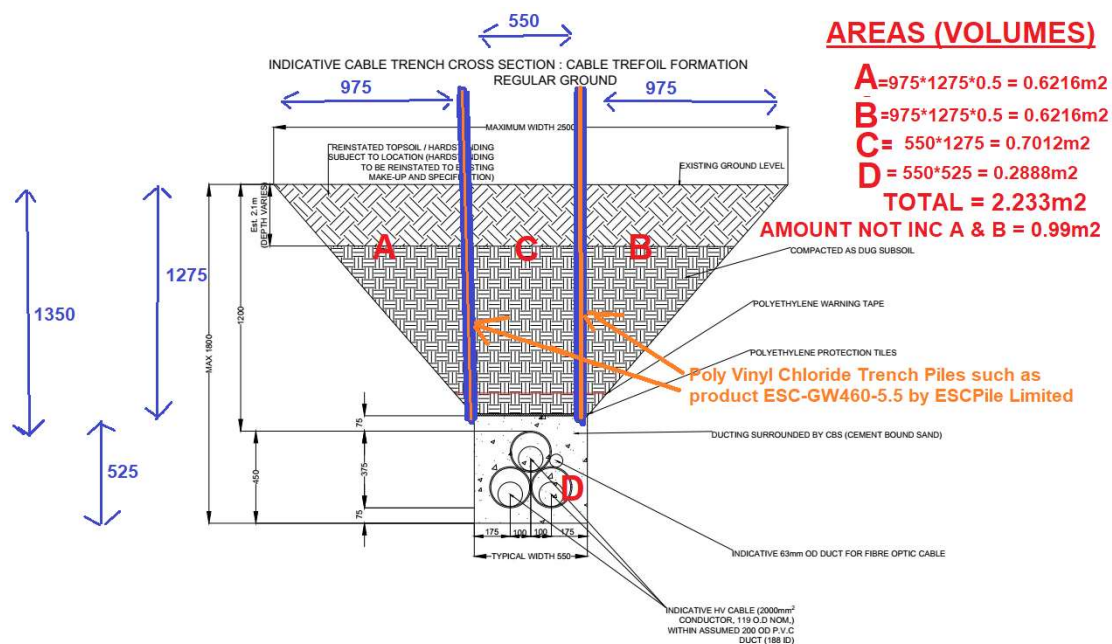
- 3.3 “Prescriptive” Health and Safety Executive (“HSE”) regulations dating from 1966 used to adhere to a presumptive rule that if a trench excavation was under 1.2m in depth then it did not need trench support. Later it was realised that, despite earlier guidance, there were actually considerable Health and Safety issues with trench excavations up to 1.2M and so the position was not endorsed in subsequent HSE advice.
- 3.4 Later HSE guidance on excavation can be found in HSE-CIS8 **Construction Information Sheet No 8**⁽¹⁾ which assumes trench support to be an essential safety component for working in any trenches.
- 3.5 The more recent document CIS64 which is an advisory good practice leaflet also produced by the HSE and entitled “**Excavation: What you need to know as a busy builder**”⁽²⁾. Shows that unsupported trench excavations may be acceptable for shallower trenches provided the sides are battered or angulated less steeply than the land’s natural angle of repose. The HSE stresses the adverse impacts and consequences of failing to follow good health and safety guidance clearly with a view to encouraging trench support such as trench or sheet piles or trench boxes to be used.
- 3.6 Despite the health and safety risks, the Promoter does not propose trench support and instead seems to be seeking to use an excessively wide 2.5M wide trench to accommodate angled slopes to be excavated to the depth of 1.8m in readiness to receive trench support material. See diagram extract from the Drawing in the Promoter’s Hearing Action Point Submission:

¹ CIS8 Construction Information Sheet No 8 Produced by the Health and Safety Executive **October 1997**

² CIS64 “Excavation: What you need to know as a busy builder by the Health and Safety Executive May 2019



- 3.7 The drawing is clearly marked “not to scale” and so the Promoters proposed angulation for the excavation cannot be reliably measured. There also seem to be some discrepancies with the Promoter’s vertical measurements on the diagram which make calculating the angle a little more difficult. Nevertheless, with some margin for error, the angle has been estimated to be approximately 52.5 degrees from the horizontal.
- 3.8 The actual angle ultimately excavated will obviously vary from location to location based on the soil-type and ground conditions i.e. moisture and plasticity at that time.
- 3.9 Nevertheless, based on the standard arrangement described in the Hearing Action Point Submission, it can be seen that after the first 1.275m of the trench walls will be battered at an angle of approximately 52.5 degrees. This causes the open trench area to extend to a width equating to an additional 1.95m over what is strictly necessary to accommodate the cables which is namely the 0.55m at the very bottom of the trench with the angulation entirely unnecessary.
- 3.10 Notwithstanding the health and safety risks, this gives rise to a great deal of additional excavation and material arisings than would otherwise be required and this is calculated in the markup below:



- 3.11 Areas A,B,C and D amount to approximately 2.233m². For each linear metre of the cables the volume of spoil being removed would therefore be 2.233m³.
- 3.12 If however, trench sheets were used allowing straight vertical walls to the trench then a more proportionate rectangular trench of only 0.99m² would be affected or a volume of 0.99m³ for each linear meter of the trench.
- 3.13 In addition to the saving of substantial volume excavated then this would also mean that 2 metres per trench could be saved off the temporary working area. This would be 8m over the 4 trenches.

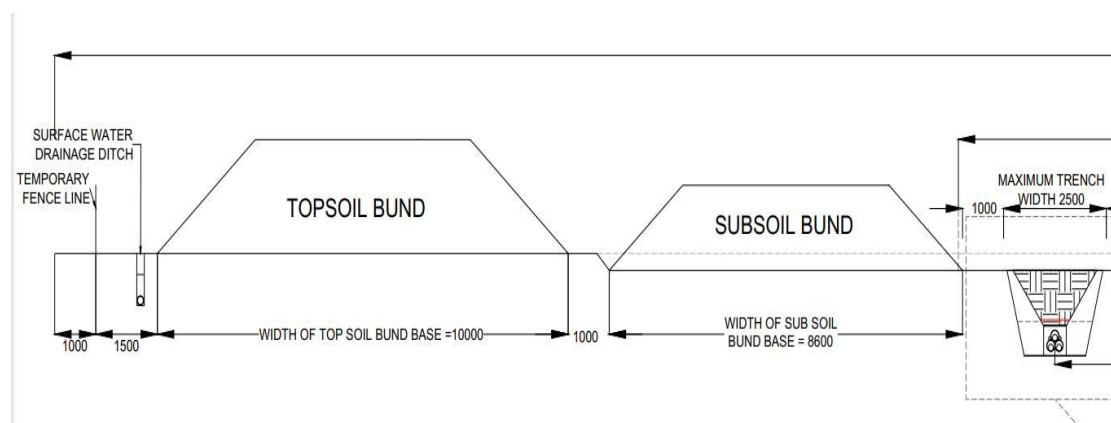
Volume of Soil to be Excavated and its Storage

- 3.14 For the following purposes we ignore any separation between topsoil and subsoil (which varies in depth from site to site in any event) and just deal with overall volumes.
- 3.15 The total excavation area of the cross sectional area is therefore 2.233m². For a 1m linear length of trench this would be a volume of 2.233m³. Depending on material type and moisture, or water content, at the time, it would be expected that this would weigh in the region of 3.5 tonnes.
- 3.16 For instance, for every individual linear metre of trench excavated in line with the current proposals then some 3.5 tonnes of material would be excavated by the Promoter or 14 tonnes overall for all 4 proposed trenches.
- 3.17 Obviously this is for the settled (compacted) soil in situ in the ground. When excavated the weight would obviously stay the same but, due to the disturbance, the volume would increase and this can mean an increased volume by up to 40% in exceptional circumstances. The increased volume per linear metre of trench

would therefore be 3.13m³ (being 2.233m³ *140%) or 12.5m³ (being 2.233m³ *4) over all 4 proposed trenches.

3.18 Areas A and B are obviously right angled triangles and their combined volume has been calculated to each be 1.2432m³ (being, 0.6216m³*2) per linear meter of each individual trench or 1.7405m³ (being, 1.2432m³*140%) once disturbed. Over the 4 trenches this would be 6.962m³ (being, 1.7405m³*4) per linear meter.

3.19 The Promoter's cross section Drawing in the Hearing Action Point Submission shows a 10 metre topsoil bund together with an 8.6 metre subsoil bund at both sides of the proposed trench excavations . No measurements are given for the bund heights and they cannot be scaled as the drawing clearly states that it is "not to scale"



3.20 However in order to work out what height a volume of 12.5m³ stored as a triangular prism along the working area/ alignment without flattened top bunding would require the calculation would be as follows:

$$(\text{Base} * \text{Height} * \text{Length}[\text{or Depth}]) / 2 = \text{Volume}$$

where the volume is obviously known to be 12.5m³

and base(s) and known to be 10m+8.6m_8.6m+10m = 37.2m

and the length (or depth) is known to be 1m

The calculation is therefore :

$$(37.2\text{m} * \text{Height m} * 1\text{m}) / 2 = 12.5\text{m}^3$$

$$37.2 * \text{Height} = 25$$

$$\text{Height} = 25 / 37.2 = 0.672\text{m}$$

3.21 The area that the Promoter has shown as soil bunding could therefore accommodate all the site excavation arisings within a bund of only 0.672M (just over 2 foot) in height . This would be a very irregular and unusually low height to which similar bunds would ordinarily be stacked from my experience of trench excavations. For one thing this would give rise to an extraordinary large surface area to which the Promoter would need to administer weed control and so on

unnecessarily increasing project costs. Ponding, leaching and erosion would also be a problem.

- 3.22 A far more common bunding height would be 1.5m although in constrained sites 2m or more would be used.

If a bunding height of 1.5m was used for the Scheme then the base need only be

$$(\text{Base} * \text{Height} * \text{Length}[\text{or Depth}]) / 2 = \text{Volume}$$

where the volume is obviously known to be 12.5m³

and height is taken to be = 1.5m

and the length (or depth) is known to be 1m

The calculation is therefore :

$$(\text{Base} * 1.5\text{m} * 1\text{m}) / 2 = 12.5\text{m}^3$$

$$\text{Base} * 1.5 = 25$$

$$\text{Base} = 25 / 1.5$$

$$\text{Base} = 25 / 1.5 = 16.67\text{m}$$

- 3.23 In the event of a 2m tall bund then the base width of the bund could be further reduced to 12.5m

- 3.24 A bund height of 1.5m would mean a reduction in the cross sectional width of the bund from 37.2m to 16.7m i.e. 8.35m either side of the trenches, enabling the working area to be reduced by a width of 20.5m.

- 3.25 A bund height of 2.0m would mean a reduction in the cross sectional width of the bund from 37.2m to 12.5m i.e. 6.25m either side of the trenches, enabling the working area to be reduced by 24.7m.

- 3.26 If trench piles ⁽³⁾ were to be used then the excavation of areas A and B would be unnecessary and a considerable saving of excavation arisings would be made. This would mean that a volume of only (12.5m³ less 6.962m³) i.e. 5.56m³ per linear metre would need to be displaced and stored.

- 3.27 If this reduced volume of arisings was stored in bunds at 1.5m height then the cross sectional bund width need only be 7.41m or 3.71m either side of the trenches. This could mean a reduction in temporary working area by a width of 29.8m.

- 3.28 If this reduced volume of arisings was stored in bunds at 2.0m height then the cross sectional bund width need only be 5.56m or 2.78m either side of the trenches. This could mean a reduction in temporary working are by an astonishing width of 31.64m.

³ If trench piles were to be used then a poly vinyl chloride product such as ESC-GW460-5.5 by ESCPILE Limited would be recommended if to be left in situ permanently – this would be for obvious conductivity reasons.

- 3.29 Using trench piles together with more pragmatic stacking of the soil arisings could therefore alone, potentially reduce the temporary working corridor from the now proposed 74m down to as little as 42.4m in line, or in fact a little less than some of the National Grid undergrounding schemes referred to in section 12.2.1 of my August 7th Submission.
- 3.30 The Promoter however, thinking only of its own convenience, has given no consideration whatsoever to mitigating the impact its scheme is likely to have on the landowners and occupiers.

5 metres separation area between trenches (7.5m between cable centres)

- 3.31 The Promoter's agents email of 11 August 2023 ⁽⁴⁾ stated that:

*"The (trench) separation distance (hence the width of the corridor) is required for several reasons these being **ease of construction**, electrical separation (i.e. safety), thermal independence and **ease of maintenance**" ⁽⁴⁾. (emphasis added).*

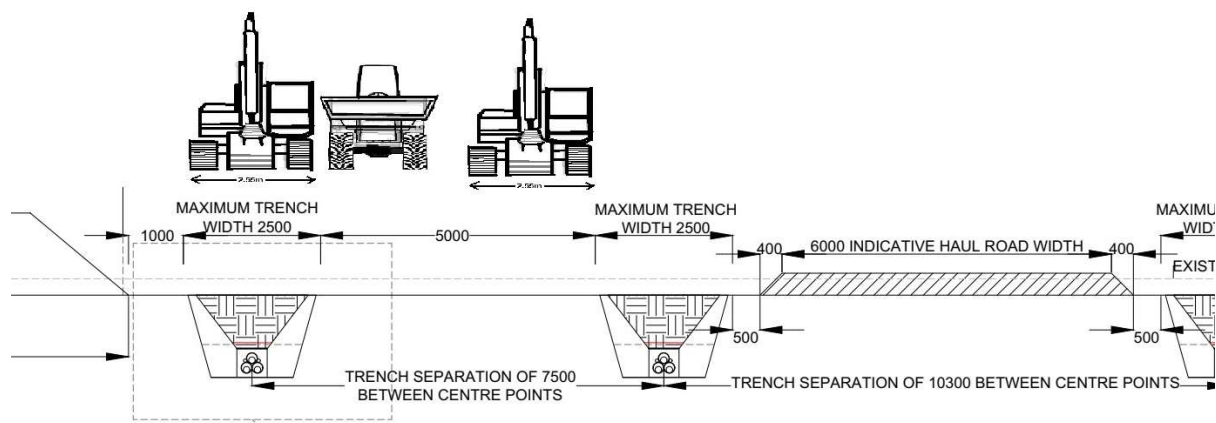
- 3.32 This was dealt with in Section 12 of the August 7th August Submission.

- 3.33 The Promoter has not submitted any evidence justifying, i.e. by way of calculations that the width requested is necessary for thermal independence or for electrical and or magnetic separation. These were demonstrated not to be an issue in sections 12.2.3 and 12.2.4 of my August 7th Submission and I have it on very good authority from a very respected professional working at senior level in high voltage power transmittal that:

"at that distance and underground, there is unlikely to be any thermal derating. EMF doesn't combine exponentially. I have never heard of EMF shielding being installed in a trench, but the principles of shielding are well established."

- 3.34 We must therefore again conclude that there are no thermal or EMF reasons for the 5M width between trenches and we must therefore again assume that it is instead for "**ease of**" construction or "**ease of**" maintenance reasons.
- 3.35 In terms of construction a standard 12 tonne tracked excavator has a width of approximately 2.55m wide. This itself is slightly more than the trench width that the Promoter intends to utilise.
- 3.36 Two excavators have therefore been shown overlaid on the Drawing below:

⁴ Email Dated 11 August 2023 from Dalcour Maclaren to Brown Rural



3.37 A tracked trenching excavator would ordinarily operate by locating itself on the line of the as yet unopened trench so that the jib was behind it and in line with the centre of the newly excavated trench to the rear of its direction of travel. The diagram shows that not only is there sufficient room for an excavator over the trench but that a further two excavators or more likely, 5 to 7 tonne dumpers (also of width circa 2.5m) or similar pieces of large excavation / muck removal equipment could be accommodated in the 5m spacing which as well is excessive and unnecessary for cable laying and accomplishment of the Scheme. This would be even more the case in the event that the narrower trenches were employed due to using more efficient and safer trench piles.

3.38 Once the cables are laid, backfilling the trenches would be a similar process although in reverse i.e. with the trench being filled in front of the direction of travel of the machine with the excavator travelling safely and efficiently over the already newly filled in trench.

3.39 Construction reasons therefore do not justify a 5m space between trenches.

3.40 In terms of whether the 5m strip is required for “maintenance” or repair of the cable in the future then it needs to be borne in mind that modern GPS equipment such as the Trimble R 780 ⁽⁵⁾ can pinpoint as built assets to within 10mm of accuracy and that together with modern “*cat and genny*” technology (Cable Avoidance Tool (CAT) and Signal Generator (Genny)) such as the C.A.T.4 and Genny4⁽⁶⁾ which can track existing underground cables also with extraordinary accuracy that, with good record keeping and proper pre dig research and preparation, there will be little, or indeed no, ambiguity whatsoever regarding the precise location and depth of these cables in the event that they needed to be excavated in the future, for instance, for repair or adjustment. A wide 5 metre spacing for trial holes and exploratory digs to try and locate the precise cable location would be entirely unnecessary.

3.41 It is therefore also difficult to identify any maintenance or repair reasons for a 5 metre spacing between the trenches (being a 7.5m distance between cable centres).

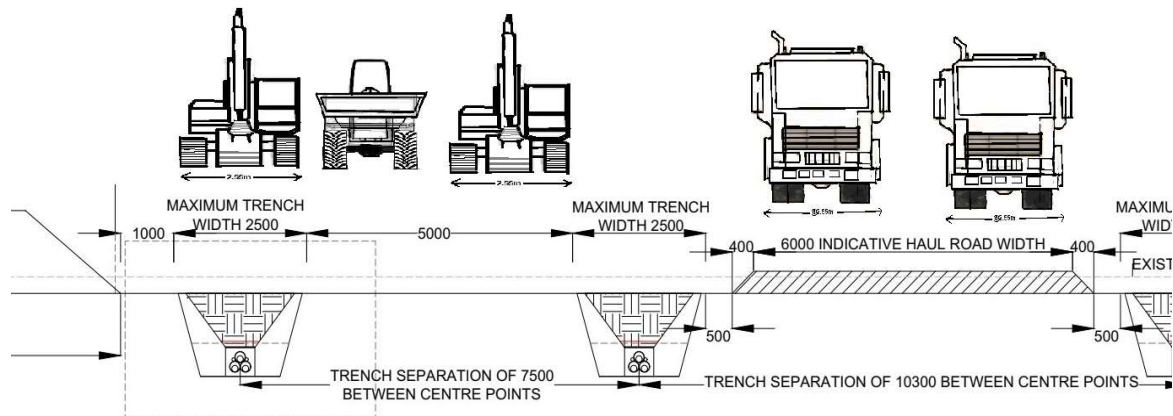
⁵ Trimble R780 GNSS (GPS) Smart Antenna

⁶ C.A.T4 and Genny4 manufactured by Radiodetection Ltd

6 metres haul road down the centre of the permanent easement area

3.42 A standard 4 axle rigid 32 tonne tipper also has a width of approximately 2.55m wide. This again itself is slightly more than the trench width that the Promoter intends to utilise.

3.43 Two such tipper wagons have therefore been shown overlaid to on an extract from Drawing below which shows that the road can conveniently accommodate two way Heavy Goods Vehicle traffic:



3.44 This convenience explains why the Promoter desires such a wide haul road the entire length of the onshore scheme even though the haul road would be extremely unlikely to be used again during the entire life of the cables once the scheme was implemented. Regardless of the fact that there would be no cables beneath the road, the Promoter still intends to sterilise this land as well.

3.45 This further demonstrates the Promoter's cavalier and inconsiderate approach and low regard towards landowners who it seems to view as insignificant and irrelevant parties but it will be landowners who have to suffer the detrimental impacts of this for the foreseeable future.

3.46 The Promoter could consider a 3m haul road with passing places but has chosen not to do so.

3.47 Better still, the Promoter could install a 3m haul road with passing places directly adjacent to the first trench in which all works would be completed and backfilled in full before the haul road is moved away from the completed trench and the second trench commenced which would be located in the original footprint of where the haul road was previously located for the first trench. Repeating this for trenches 3 and 4 would mean a much more efficient use of the land and the at the end of construction the final location of the haul road footprint could accommodate the final post construction drainage.

3.48 Given the evidence above, a far more proportionate use of the land than is currently proposed would be as follows:

74m WORKING AREA WIDTH BREAKDOWN				COMMENTARY	REVISED WIDTH "REQUIRED"
	Temporary Fence Line and Surface Water Ditch	2.5	m wide		Say 2.5m (if required at all)
	Topsoil and Subsoil Storage Bunds	19.6	m wide	A 2.0M tall bund here could replace with a 6.25m bund width	Say 6.25m
Area Proposed for 30m Permanent Easement	Separation Strip between Bunds and Trench Opening	1.0	m wide	unchanged	Say 1m
	Trench	2.5	m wide	using Trench piles could mean a trench of only 0.55m width	Say 0.55m
	Separation Between Trenches	5.0	m wide	there is no construction or maintenance of EMF or thermal justification for the width and a more proportionate spacing with be say 2m	Say 2.5m
	Trench	2.5	m wide	using Trench piles could mean a trench of only 0.55m width	Say 0.55m
	Haul Road (Including Separation to Trenches)	7.0	m wide	vehicle movements can be accommodated with passing places and the haul road could be moved along with the excavation as trenches are completed in any event at the end of construction the road footprint could house the post construction drainage	Say 2.5m
	Trench	2.5	m wide	using Trench piles could mean a trench of only 0.55m width	Say 0.55m
	Separation Between Trenches	5.0	m wide	there is no construction or maintenance of EMF or thermal justification for the width and a more proportionate spacing with be say 2m	Say 2.5m
	Trench	2.5	m wide	using Trench piles could mean a trench of only 0.55m width	Say 0.55m
	Separation Strip between Bunds and Trench Opening	1.0	m wide		Say 1m
	Topsoil and Subsoil Storage Bunds	19.6	m wide	A 2.0M tall bund here could replace with a 6.25m bund	Say 6.25m
Temporary Fence Line and Surface Water Ditch	2.5	m wide		Say 2.5m (if required at all)	
TOTAL PROPOSED TEMPORARY WORKING AREA		73	Metres	ESTIMATED PROPORTIONATE WORKING AREA	29.2 Metres
TOTAL PROPOSED PERMANENT AREA		30	Metres	ESTIMATED PROPORTIONATE PERMANENT AREA	11.7 Metres

3.49 Applying much more proportionate spacings and efficient working practices above then it can be seen that the temporary working area could be reduced to circa 30m width whilst the permanent cable easement could be reduced to circa 12 metres which is far less detrimental to the land although it remains the Objectors strong preference that their land is not affected at all.

4.0 Conclusion

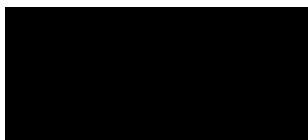
- 4.1 As shown in section 12 of my August 7th Submissions, no thermal or electromagnetic reasons justifying the excessive trench spacings proposed by the Promoter have been identified.
- 4.2 Other than the claim in the email of 11th August ⁽⁴⁾ then the Promoter has made no other reference to them being required for these reasons either. Neither has the Promoter sought to provide calculations or other evidence that thermal or electromagnetic reasons might be a reason behind such excessively wide trench spacings.
- 4.3 As also suggested in section 12 of my August 7th Submissions, the use of trench sheets can greatly reduce excavation widths and further, polyvinyl chloride trench sheets could be left in situ around the cables at a level above the highest cables to protect and give warning in the very unlikely event of a random accidental dig down.
- 4.4 The Promoter could achieve a much narrower temporary working are by using trench piles to narrow the dig area and substantially reduce the excavated material arisings needing to be stored during the scheme.
- 4.5 Raising the height of the soil storage bunds above the extraordinarily low heights currently proposed will also greatly narrow the temporary working area necessary.
- 4.6 In addition to there being no EMF or thermal reasons to justify the 5m space (7.5m between cable centres) neither are there any construction or maintenance reasons

and this land has only been included in the Order because the Promoter desires it for its own convenience.

- 4.7 The central haul road is also misconceived and wasteful of land. The amenity of a haul road can be accommodated on 50% of the land with passing places. Further, the haul road can be moved along as the trenches are laid and completed so that the haul road is ultimately located to the outside of the cable trenches and easement and need not be included in the sterilised area rather than in the centre where it causes maximum disruption, inconvenience and impairment to landowners and occupiers.
- 4.8 There are therefore no thermal derating, electrical, magnetic, other physical, construction (including health and safety), maintenance (including repair or renewal) or other practical or theoretical reasons that “require” this excessive amount of land for the implementation and delivery of the Scheme that justify its inclusion in the Order or for the excess land to be recommended for confirmation. The excess land is not “*necessary for the accomplishment of the Scheme*”. The excessive amount of land that the Promoter intends to impact upon has only been included in the Order as the Promoter desires it solely for its own convenience and amenity in furtherance of the Promoter’s own venal commercial interests.
- 4.9 In fact, the additional detriment that landowners will suffer due to the extent of this excessive and unnecessary landtake, if confirmed, further balances the decision “scales” against confirmation, when considering whether the application complies with section 122(3) of the Act and the associated sections 13 and 14 of the Guidance to the Act which requires that there be:

“a compelling case in the public interest for compulsorily acquiring the land and that the public benefit must outweigh the private loss that would be suffered by those whose land is to be acquired”. (emphasis added)

- 4.10 The Court of Appeal decision in the Sharkey case⁽⁷⁾ confirmed the position that this excess and unnecessary land cannot be confirmed in this Order and modification to the Order will be required to exclude it before confirmation.
- 4.11 Notwithstanding the above it remains the Objectors’ strong preference that the Plots are excluded altogether from this Order prior to its confirmation.



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Griffith Wynne Parry MRICS
Senior Consultant
The Brown Rural Partnership
Dated 27 August 2024

⁷ Sharkey And Another V. Secretary Of State For The Environment And South Buckinghamshire District Council Court Of Appeal (L (Parker, McCowan and Scott L.n.): October 14, 1991 63P. &C.R

Footnote 01

to

Supplementary Written Submission
dated 27 August 2024

in Rebuttal to

Mona Offshore Wind Limited Document
No. MOCNS-J3303-RPS-10277

entitled

Appendix to Response to Hearing Action Point:
Indicative onshore cable corridor crossing section and
trenchless technique crossing long-section



Safety in excavations

Construction Information Sheet No 8 (Revision 1)

Introduction

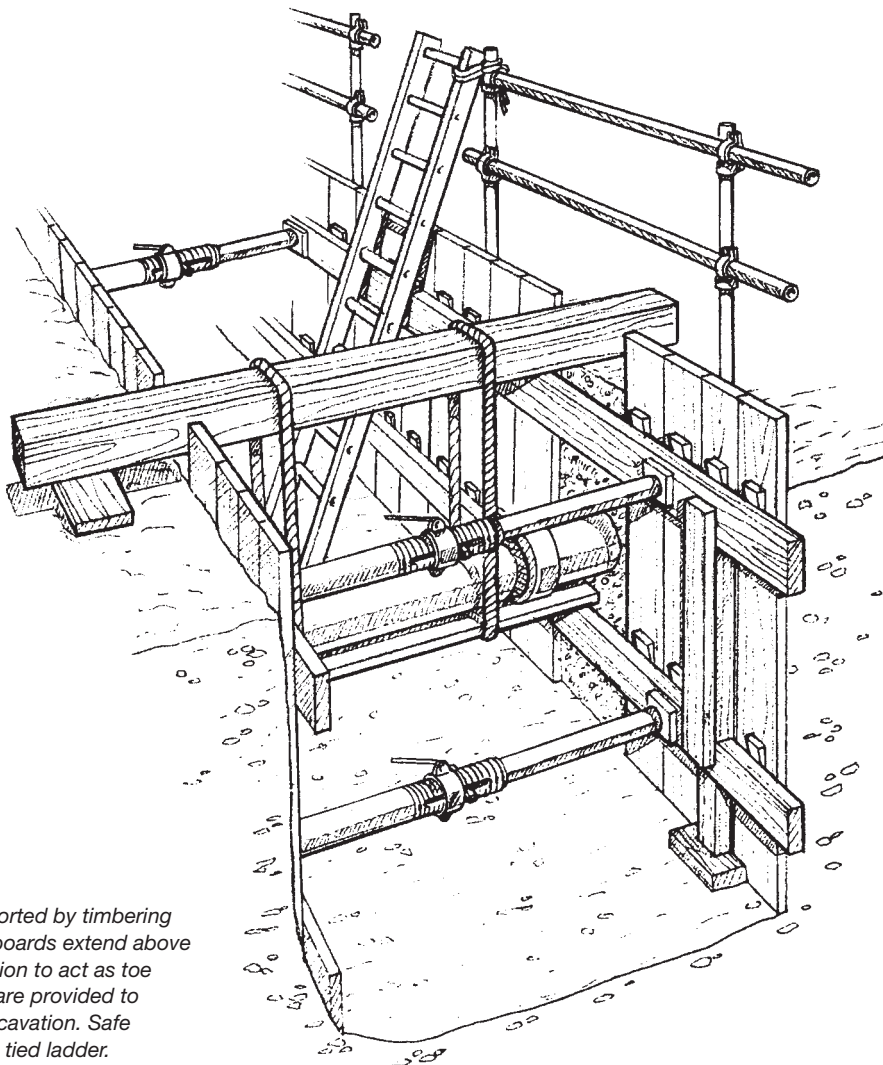
Every year, people are killed or seriously injured when working in excavations. Excavation work has to be properly planned, managed, supervised and carried out to prevent accidents. This information sheet provides advice for those involved in excavation work.

Planning

Before digging any excavations, it is important to plan against the following:

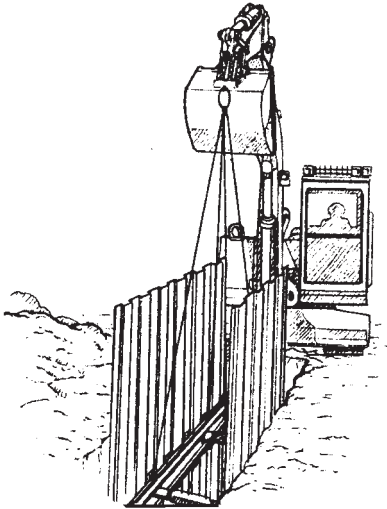
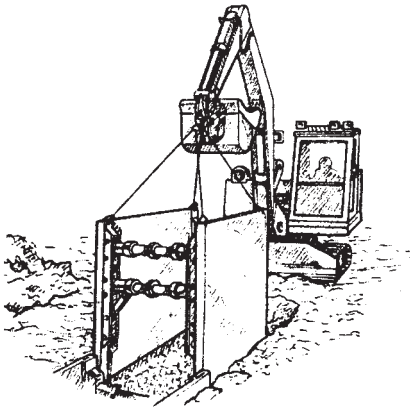
- collapse of the sides;
- materials falling onto people working in the excavation;
- people and vehicles falling into the excavation;
- people being struck by plant;
- undermining nearby structures;
- contact with underground services;
- access to the excavation;
- fumes; and
- accidents to members of the public.

Make sure the necessary equipment needed such as trench sheets, props, baulks, etc, is available on site before work starts.



This excavation is supported by timbering and props. The poling boards extend above the edge of the excavation to act as toe boards and guard rails are provided to prevent falls into the excavation. Safe access is provided by a tied ladder. Exposed services are supported.

Excavation collapse



A range of proprietary trench boxes and hydraulic wallings allow trench supports to be put in place without requiring people to enter the excavation.

- Prevent the sides and the ends from collapsing by battering them to a safe angle or supporting them with timber, sheeting or proprietary support systems.
- Do not go into unsupported excavations.
- Never work ahead of the support.
- Remember that even work in shallow trenches can be dangerous. You may need to provide support if the work involves bending or kneeling in the trench.

Materials falling into excavations

- Do not store spoil or other materials close to the sides of excavations. The spoil may fall into the excavation and the extra loading will make the sides more prone to collapse.
- Make sure the edges of the excavation are protected against falling materials. Provide toe boards where necessary.
- Wear a hard hat when working in excavations.

People and vehicles falling into excavations

- Take steps to prevent people falling into excavations. If the excavation is 2 m or more deep, provide substantial barriers, eg guard rails and toe boards.
- Keep vehicles away from excavations wherever possible. Use brightly painted baulks or barriers where necessary.
- Where vehicles have to tip materials into excavations, use stop blocks to prevent them from over-running. Remember that the sides of the excavation may need extra support.

People being struck by plant

- Keep workers separate from moving plant such as excavators. Where this is not possible use safe systems of work to prevent people being struck.
- Plant operators should be competent.

Undermining nearby structures

- Make sure excavations do not affect the footings of scaffolds or the foundations of nearby structures. Walls may have very shallow foundations which can be undermined by even small trenches.
- Decide if the structure needs temporary support before digging starts. Surveys of the foundations and the advice of a structural engineer may be needed.

Avoiding underground services

- Look around for obvious signs of underground services, eg valve covers or patching of the road surface.
- Use locators to trace any services. Mark the ground accordingly.
- Make sure that the person supervising excavation work has service plans and knows how to use them. Everyone carrying out the work should know about safe digging practices and emergency procedures.

Access

- Provide good ladder access or other safe ways of getting in and out of the excavation.

Fumes

- Exhaust fumes can be dangerous. Do not site petrol or diesel-engined equipment such as generators or compressors in, or near the edge of, an excavation unless fumes can be ducted away or the area can be ventilated.

Protecting the public

- Fence off all excavations in public places to prevent pedestrians and vehicles falling into them.
- Where children might get onto a site out of hours, take precautions (eg backfilling or securely covering excavations) to reduce the chance of them being injured.

For more information, read HSG151 *Protecting the public: Your next move*.

Supervision

- **A competent person must supervise the installation, alteration or removal of excavation support.**
- People working in excavations should be given clear instructions on how to work safely.

Inspecting excavations

- **A competent person must inspect excavations:**
 - **at the start of each shift before work begins;**
 - **after any event likely to have affected the strength or stability of the excavation; and**
 - **after any accidental fall of rock, earth or other material.**
- **A written report should be made after most inspections. Stop work if the inspection shows the excavation to be unsafe.**

For more information on inspections and reports, read CIS 47.

Legal requirements

Health and Safety at Work etc Act 1974

Management of Health and Safety at Work Regulations 1999

Provision and Use of Work Equipment Regulations 1998

Construction (Health, Safety and Welfare) Regulations 1996

References and further information

Inspections and reports Construction Information Sheet CIS47(rev1)HSE Books 2005

Health and safety in construction HSG150 (Second edition) HSE Books 2001 ISBN 0 7176 2106 5

Protecting the public: Your next move HSG151 HSE Books 1997 ISBN 0 7176 1148 5

Health and safety in excavations: Be safe and shore HSG185 HSE Books 1999 ISBN 0 7176 1563 4

The future availability and accuracy of the references listed in this publication cannot be guaranteed.

Further information

HSE priced and free publications are available by mail order from HSE Books, PO Box 1999, Sudbury, Suffolk CO10 2WA Tel: 01787 881165 Fax: 01787 313995 Website: www.hsebooks.co.uk (HSE priced publications are also available from bookshops and free leaflets can be downloaded from HSE's website: www.hse.gov.uk.)

For information about health and safety ring HSE's Infoline Tel: 0845 345 0055 Fax: 0845 408 9566 Textphone: 0845 408 9577 e-mail: hse.infoline@natbrit.com or write to HSE Information Services, Caerphilly Business Park, Caerphilly CF83 3GG.

This leaflet contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

The leaflet includes mandatory requirements under the Construction (Health, Safety and Welfare) Regulations 1996. These are shown in bold type.

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Footnote 02

to

Supplementary Written Submission
dated 27 August 2024

in Rebuttal to

Mona Offshore Wind Limited Document
No. MOCNS-J3303-RPS-10277

entitled

Appendix to Response to Hearing Action Point:
Indicative onshore cable corridor crossing section and
trenchless technique crossing long-section

Excavation:

What you need to know as a busy builder

Getting in too deep?

Follow these essential health and safety tips to protect people working on your construction site.

The tips summarise actions for straightforward excavations – eg pipe and cable laying, manhole construction, shallow foundations, small retaining walls etc. If your excavation is more complicated, speak to an expert, such as a structural engineer.

- Prevent collapse – shore, step or batter back. Don't assume ground will stand unsupported.
- Support the excavation as you go along.
- Prevent people and materials falling in – with barriers strong enough not to collapse if someone falls against them.
- Keep plant and materials away from the edge.

- Avoid underground services – use relevant service drawings, service locating devices and safe digging practice.
- Provide ladder access to get in and out.
- Make sure adjacent structures are not undermined – dig well away from them.
- Check the excavation each day before work starts and after any event that may affect its stability – eg a fall of material or poor weather. Keep records so people can be sure it is safe for work to continue.

To find out more about construction health and safety, visit www.hse.gov.uk/construction.

What can happen if health and safety is ignored?

An unsupported trench collapsed, killing one worker and injuring another. Heavy machinery operating at the edge of the excavation contributed to the collapse. The two companies concerned were fined a total of £320 000 and paid prosecution costs of £33 367.

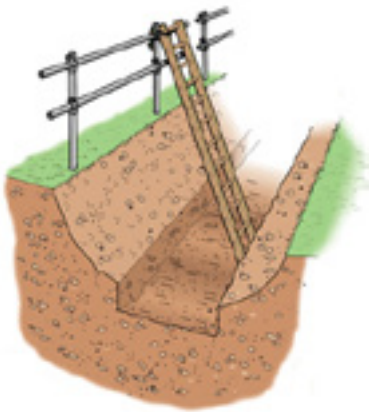
See over for examples of good and bad practice ...

Fee for Intervention

HSE now recovers the costs of time spent dealing with material breaches of health and safety law. This is known as Fee for Intervention (FFI). FFI generally applies when an inspector finds something wrong that they believe is serious enough for them to write to you about. A fee is charged for the time spent by the inspector in sorting it out. Following the simple guidance on this sheet may help you to avoid having to pay a fee.

Digging excavations:

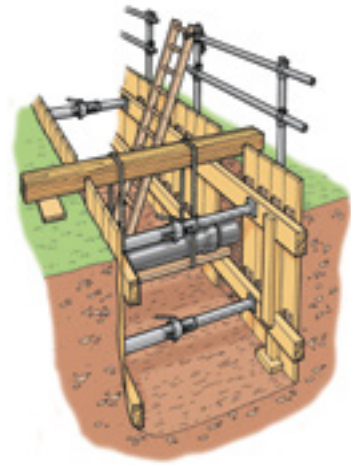
Good practice



A simple trench with sides battered back to 45° (guard rails on right hand side omitted for clarity)



Trench sheets with timber walings, screw props, puncheons and sole plates



An example of a shored excavation with ladder access and supported services (guard rails on left hand side omitted for clarity)

Bad practice

Inadequate shoring of this excavation and others like it led to the collapse of an adjoining 3-storey property (see picture, right). Luckily, no one was injured.

The construction company and its director were fined £90 000 each, ordered to pay costs of £14 444, and compensation of £3000 to each of the three displaced residents of the flats.



Further information

For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit www.hse.gov.uk/. You can view HSE guidance online and order priced publications from the website. HSE priced publications are also available from bookshops.

This leaflet contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

This leaflet is available at:
www.hse.gov.uk/pubns/cis64.pdf.

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First published 03/12.

The Working Well Together campaign aims to improve health and safety in the construction industry, particularly in small and micro businesses. For more information visit www.wwt.uk.com



Footnote 03

to

Supplementary Written Submission
dated 27 August 2024

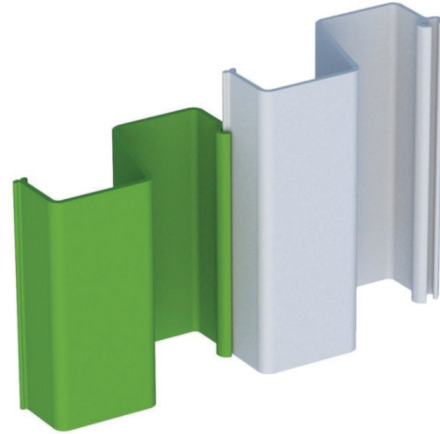
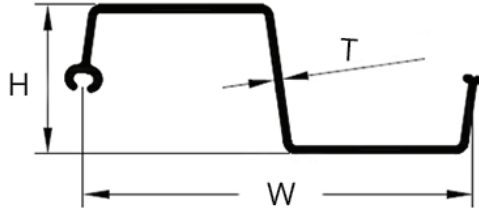
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Indicative onshore cable corridor crossing section and
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ESC-GW300-5.5 VINYL DOUBLE U PROFILE



	IMPERIAL		METRIC	
	UNIT	VALUE	UNIT	VALUE
Section width (W)	in	11.8	mm	300
Section depth (H)	in	4.5	mm	115
Thickness (T)	in	0.22	mm	5.5
Cross-section area	in ²	4.6	cm ²	29.7
Section modulus	in ³ /ft	5.9	cm ³ /m	320
Moment of inertia	in ⁴ /ft	13.5	cm ⁴ /m	1842
Allowable moment	ft-kips/ft	1.6	kNm/m	7.0
Ultimate moment	ft-kips/ft	3.2	kNm/m	14.1
Ultimate stiffness	ibf-in ² *10 ⁶ /ft	5.1	kNm ² /m	47.9
Impact strength Charpy test	ft-lbs/ft ²	≥ 14.3	kJ/m ²	≥30
Weight Per Pile	lb/ft	2.89	kg/m	4.3
Weight Per Wall	lb/ft ²	2.92	kg/m ²	14.3

*Safety factor = 2

Tolerance in accordance with the State technical assessment.

ESC STEEL LLC



Pietrucha ESC Inc.

CHARLOTTE, NC

18805 W Catawba Ave, Suite #207, Cornelius,
North Carolina 28031, USA

E : info@escvinylpile.com T : 980 689 4388

E : [redacted]@escvinylpile.com T : [redacted]

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E : [redacted]@escvinylpile.com T : [redacted] (WhatsApp Only)

FACTORY

2185 Salisbury Hwy, Statesville,
North Carolina, 28677, USA

Para solitudes en español, por favor contactar a

E : [redacted]@escvinylpile.com T : [redacted]

Footnote 04

to

Supplementary Written Submission
dated 27 August 2024

in Rebuttal to

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Appendix to Response to Hearing Action Point:
Indicative onshore cable corridor crossing section and
trenchless technique crossing long-section

Griff Parry

From: Laura Leigh [REDACTED]@Dalcourmaclaren.com>
Sent: 11 August 2023 12:33
To: Griff Parry
Cc: Ella Dainty
Subject: RE: Queries including those outstanding from Mona Offshore Wind Farm consultation meetings of 13/9/22 and 30/5/23

Dear Griff,

I hope you are well.

In Ella's absence, please find below in red comments to your queries.

If you have any additional queries, please do let me know.

Many thanks,

Laura

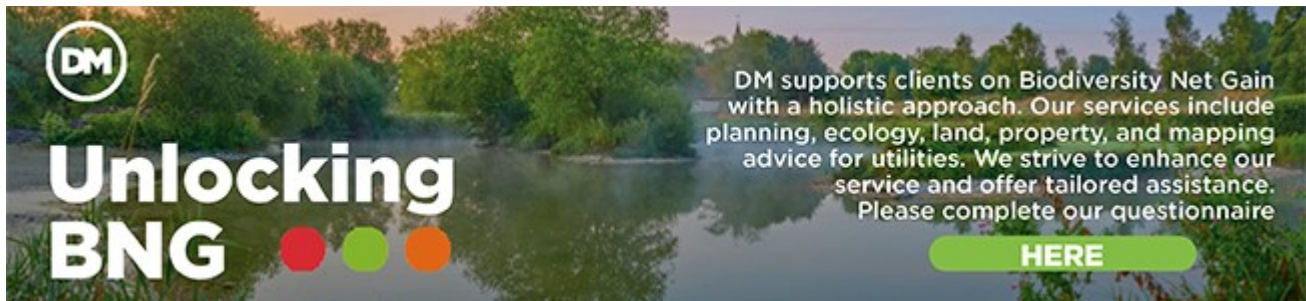


Laura Leigh

T [REDACTED]
[REDACTED]

W dalcourmaclaren.com

/// roadshow.skis.slate



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Before printing, think about the environment.

From: Griff Parry [REDACTED]@brownrural.com>

Sent: 01 August 2023 20:22

To: Ella Dainty [REDACTED]@dalcourmaclaren.com>

Cc: Laura Leigh [REDACTED]@Dalcourmaclaren.com>

Subject: Queries including those outstanding from Mona Offshore Wind Farm consultation meetings of 13/9/22 and 30/5/23

Dear Ella

A number of queries are outstanding about the proposed works through land close to Pen-Yr Efail crossroads in Abergele - many of these were requested at the MS Teams consultation meeting on 30th May 2023 and also even earlier in the meeting of 13/9/22 with Ellie Daikin and James Moran and are still outstanding. Please could you respond at your earliest convenience ? The queries are as follows:

- 1) The logical route for this power cable is to follow the A55 road – why is this route not being considered please? A number of constraints were found which made this route unfeasible. Details can be found here - https://enbw-bp-consultation.s3.eu-west-2.amazonaws.com/PEIR/04+Preliminary+Environmental+Information+Report/01+-+Introductory+Chapters/RPS_EOR0801_Mona_PEIR_Vol1_4_+SSA.pdf. One of the main reasons is that we can not follow the A55 road is that in order to head south towards Bodelwyddan National Grid substation, we would need to pass through the gap where the Awel y Mor project is located. There is currently not enough room to facilitate running our cable route through any gap there.
- 2) Notwithstanding the A55 route, what other routes were considered by Mona Offshore Limited before deciding on the corridor which includes the land behind Waterloo Garage and why were these routes not considered further? A number of routes were proposed and evaluated, and these would be outlined in the site selection chapter: https://enbw-bp-consultation.s3.eu-west-2.amazonaws.com/PEIR/04+Preliminary+Environmental+Information+Report/01+-+Introductory+Chapters/RPS_EOR0801_Mona_PEIR_Vol1_4_+SSA.pdfThe.
- 3) It is understood that the proposed route broadly follows the A548 from the north as it approaches the Pen Yr Efail crossroads. Why can't the cables merely be routed a little further up the A548 and then join the SP Energy Networks Pylons further down in the south end of this block of land (in the same land ownership) or even the larger set of pylons that run through land belonging to Bodrochwyn Mawr Farm please? This would clearly save a great deal of disturbance to all the businesses and landowners along the route and would also greatly reduce the installation time for the cable. The connection point is not determined by the project – it is determined by a connection agreement offered by National Grid, and the requirement of the project is to connect in to the Bodelwyddan National Grid substation.
- 4) How many cable runs are currently proposed? Can they be incorporated into one trench? if not why not? There will be up to four cable trenches within the permanent Onshore Cable Corridor, each trench measures up to 2.5m wide as per page 20 of Preliminary Environmental Information Report, Volume 7, annex 17.4: Water Framework Directive surface water and groundwater assessment and per Volume 7, chapter 20: Land use and recreation. There is also information at Figure 3.17 within the Project Description chapter.
- 5) What are the proposed capacities of these cable individually and combined? what is proposed to be done to limit the risk of there "arcing" to impact surface uses of the land or harm livestock? There will be up to 4 cable circuits with 3 cables in each circuit. Each circuit has a capacity of up to 500MW and an overall capacity of 1500MW.
- 6) If they are to be in separate trenches how far apart will the cable trenches be? why are these distances necessary? The cable trench separation is nominally 7.5m from the centre line of one trench to the centre line of the next. The separation distance is required for several reasons these being ease of construction, electrical separation (i.e. safety), thermal independence and ease of maintenance.
- 7) How deep are the cables proposed to be laid? Why these depths? can they be laid deeper?
- 8) What "cable bedding" is proposed below the cable(s) and what over? The cables will be located within a plastic duct which will be surrounded by a cement bound fill material (CBS) with a minimum of 75mm to the sides, top and bottom of the duct. A duct marker board will be placed on top of the CBS followed by 100mm of as dug material then a layer of market tape followed by the remainder of the as dug fill material up to the underside of the topsoil interface. The fill material will be compacted using proprietary compaction plant to replicate the surrounding material. Prior to replacing the topsoil, the subsoil will be ripped to remove any over compaction resulting from site construction/ traffic as agreed and stated within the soil management plan.
- 9) What is the proposed safe loading weight over the cable for current and proposed future vehicular and other uses? The cables will be buried with a minimum cover of 1200mm, this may be reduced where hard ground/rock is encountered. The loading capacity of the ground directly above the cable run will be the same as the adjacent material and there will be no additional constraints with regards standard farming techniques and associated plant movements.
- 10) Are there any underground cooling proposals? If so, what are they? if not, what happens in the event of the surrounding ground overheating and possibly suffering abnormal "drying out"? Underground cooling is not

being proposed. The cable/ducts have a CBS bed and surround which aids thermal dissipation under normal working loads.

- 11) Please could I have copies of the engineering cross section drawings for the cable laying proposals and current proposed routes? Please refer to Ella's email of 2nd June 2023 – Figure 3.17 ~(page 31) https://enbw-bp-consultation.s3.eu-west-2.amazonaws.com/PEIR/04+Preliminary+Environmental+Information+Report/01+-+Introductory+Chapters/RPS_EOR0801_Mona_PEIR_Vol1_3_PD.pdf
- 12) What are Mona's proposals for pre-construction drainage? As explained a great deal of investment has gone into drainage in this land now and we are fearful that this will be undone by this work. Open discussions with landowners have taken place in order to gain an understanding of the field drainage system. Furthermore, geophysical surveys have pinpointed the location of all known drainage as well as any old field drains that the landowner may have been unaware of. The impact of the project on land drainage is mitigated by the use of drainage specialists and careful planning of drain locations, which avoids disrupting land drainage whenever possible. To maintain the existing land drainage flow, pre-construction drainage will be installed on either side of the Mona Onshore Cable Corridor as needed. Interceptor drains will also be installed wherever the haul road crosses water courses or public highways as detailed on page 30 of the Preliminary Environmental Information Report, Volume 7, Annex 17.4: Surface water and groundwater assessment. This will also be addressed in the Code of Construction Practice surface water and groundwater protection plan; and the Operational Drainage Management Strategy.
- 13) What are Mona's proposals for post construction drainage? A field drainage strategy will be developed in consultation with landowners. Any field drainage intercepted during the cable installation will either be reinstated following the installation of the cable or diverted to a secondary channel through the installation of post construction drainage. This will also be addressed in the Operational Drainage Management Strategy.
- 14) When in situ what can the surface of the land over and immediately adjacent to the cables be used for other than merely agricultural use - I explained that we have had several enquiries for caravans and for cycle camping pod type operations as well as for solar farm uses and all these will all involve concrete footings and pads and their own services being laid - will these cables compromise and or sterilise these uses? Please refer to Ella's email of 2nd June 2023 - The permanent easement requires access to the cables for potential need for maintenance so we would need to remove any concrete pads to potentially access the cables – so no, they couldn't go on top of the cables. If this is something you are considering, please provide plans of your proposals so we can review.
- 15) Kindly confirm the current precise timetable for laying this cable(s) through this land and how long it will take – please could I have a copy of the current high-level programme. The current timeframes of the programme are not yet confirmed; construction is scheduled to begin in 2026 and continue until 2028, providing a two-year timeframe; however, as you will be aware such large scale projects may encounter unforeseen obstacles and so the project has a two-year extension available; this will still allow for completion within the government's 2030 targets.
- 16) In the event that this land is also proposed for a working compound then kindly confirm the area required for that use and the timetable for its use and also how the land is intended to be prepared for that purpose and please provide a compound layout plan including the proposed access arrangements and advise for what section of the line the compound is proposed to serve? If a compound was on the land, as detailed in the PEIR the measurements would be up to 150m x 150m and will be in place for the duration for the work. The compounds will be located within the Mona Proposed Onshore Development Area. Soils will be removed, and crushed stone or other suitable materials will be used across the entire area to create hardstanding.
- 17) What will the proposed working hours for the be? At PEIR, the draft DCO stated working hours of 0700 – 1900 from Monday to Saturday with no activity on Sundays or bank holidays.
- 18) Please could I have a copy of the proposed draft easement document? We will be issuing Heads of Terms in the coming weeks

I look forward to hearing from you at your earliest convenience.

GW Parry

Griff Parry
BSc (Hons) MRICS

Footnote 05

to

Supplementary Written Submission
dated 27 August 2024

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Appendix to Response to Hearing Action Point:
Indicative onshore cable corridor crossing section and
trenchless technique crossing long-section

Trimble R780

GNSS Smart Antenna

Rugged, reliable positioning

The ultra-rugged Trimble® R780 GNSS Smart Antenna offers unmatched reliability for construction site positioning. Ideal for use on small and large job sites, the R780 can serve as a GNSS rover system or as a base station for other GNSS operations including machine control.

The R780 is scalable from entry-level to high precision applications to fit your needs. It has a longer battery life and incorporates the latest technology to make construction surveying easier, safer and more productive.

Rugged, all-in-one solution

- Compact design with unprecedented strength and durability, easy to use and virtually indestructible
- Tilt compensation makes site positioning easier and more accessible for new users, while saving time and money for experienced users
- The most rugged receiver Trimble has ever built helps you eliminate downtime
- Real-Time Kinematic (RTK) corrections for higher-accuracy site measurements
- More GNSS satellites increase productivity and uptime and give you greater accuracy in difficult conditions such as tree canopy or urban areas
- Use the eBubble to see the verticality of the receiver in Trimble Siteworks Software instead of on the rod bubble for more efficient surveying, especially in low light conditions

Flexibility

The R780 is compact and can easily go from carrying case to range pole, tripod, t-bar or vehicle with a single click so you can get going faster.

Trimble ProPoint technology

Trimble ProPoint™ GNSS technology uses all available signals to provide survey-grade positioning in challenging environments where other GNSS systems either can't provide a solution at all or produce unreliable error estimates.

Trimble xFill technology

Trimble xFill® technology seamlessly fills in for gaps in RTK or VRS connection streams if the connection is lost, expanding site productivity by allowing short excursions into locations where GNSS corrections were not previously available.



GNSS receiver, antenna, radio and battery in one unit—ultra-rugged housing built to withstand harsh construction site conditions.

CenterPoint® RTX delivers fast, high accuracy GNSS positions worldwide via satellite or cellular/IP without a local base station or VRS network.

VRS and IBSS compatible for a more economical solution.

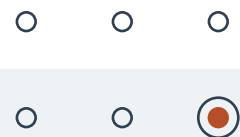
Connected-site enabled with integrated Wi-Fi® Bluetooth® and wideband radio.

Rapid daily base station setup with a single button push using Trimble AutoBase™ technology.

Tilt compensation functionality to measure accurate points without leveling the pole.

Add a Trimble Protected protection plan for worry-free ownership over and above the standard Trimble product warranty. Added enhancements include coverage for wear & tear, environmental damage, and more. Accidental damage is covered with Premium plans, available only at point-of-sale in selected regions.

For details, visit trimbleprotected.com or contact a local Trimble distributor.



heavyindustry.trimble.com

Trimble R780

GNSS Smart Antenna



Tilt compensation

Using the R780 and Trimble Siteworks Software it is now possible to capture accurate points while standing, walking or driving the site in a vehicle, while the receiver is not level.

Full GNSS tilt compensation makes Siteworks easier to learn for beginners and saves significant time for more experienced surveyors. Tilt compensation in vehicle mode is designed to capture higher accuracy measurements on steeper slopes from a moving vehicle, and more accurate volume measurements to save time and money on material planning.

- Easily and safely survey hard to reach areas (corners, traffic lanes, utility flowlines)
- Faster measurements
- More efficient stake-outs
- No magnetic interference

Mount the R780 to a vehicle and do site topos, road centerlines, and check as-builts in even the roughest site conditions. The R780 can withstand high vibration scenarios without interruption or fear of damage.

It has never been so easy to survey. Initial site work and topos can even be done base station-free using satellite-delivered GNSS corrections to the rover.

Applications

With the R780 and Siteworks, you can:

- Determine cut/fill on a range pole, utility vehicle or truck
- Record tilt data when taking measurements
- Stake out site or road features, utilities, daylight lines and side slopes
- Measure progress and calculate material stockpile volumes
- Carry out as-built measurements, grade checks and thickness checks

Using your smartphone, quickly check the health and status of the receiver with the Trimble GNSS Status App. For a more in-depth look, the Trimble Web UI can be accessed over Wi-Fi. Setting a new standard for rugged reliability, the R780 keeps your crews working, not wasting time with GNSS maintenance.

Reliable base station

The R780 can also serve as a powerful site base station, receiving corrections for rover or machine control work via optional radio or the integrated Wi-Fi for savings and faster start-up. It is the easiest base station on the market. The R780 will automatically establish a connection with the machine radio or GNSS rover and begin transmitting corrections—just put it on the tripod, switch it on and go.



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Footnote 06

to

Supplementary Written Submission
dated 27 August 2024

in Rebuttal to

Mona Offshore Wind Limited Document
No. MOCNS-J3303-RPS-10277

entitled

Appendix to Response to Hearing Action Point:
Indicative onshore cable corridor crossing section and
trenchless technique crossing long-section

RADIODETECTION 

C.A.T4[®] and Genny4[®]



CABLE AVOIDANCE TOOLS – DETECT MORE, FASTER, SMARTER, SAFER

SPX 



the preferred cable avoidance tool
for decades based on its ease of use
and reliability of results

C.A.T4 and Genny4

Dig more safely

As a safety critical tool, C.A.T4 and Genny4 offer a number of features designed to support safe working and help to drive utility strike rates down.

StrikeAlert™ warns the operator of shallow buried utilities, while the SWING™ warning alerts of incorrect usage patterns, encouraging corrective action.

C.A.T4's Dynamic Overload Protection feature automatically filters out high levels of interference, allowing operators to continue working even in electrically noisy areas such as substations and under high-voltage cables.

Detect more, detect faster

The Radiodetection C.A.T and Genny is designed to locate buried pipes and cables prior to any excavation keeping operators safe and allowing utility management at minimum risk and cost.

With a clear backlit display, mode controls and sensitivity at your fingertips, the C.A.T and Genny has become the preferred Cable avoidance tool for decades based on its ease of use and reliability of results.

Small cable locating

Simultaneous dual frequency and simple, intuitive, locating methods assist C.A.T4 and Genny4 users to locate Small Diameter cables such as telecom twisted pairs, CATV feeds, spurs and drop-offs which have historically been hard to find and a common strike risk.

Avoidance Mode

Avoidance Mode speeds the process of pre-dig scanning by searching for Power, Radio and Genny signals simultaneously. C.A.T4 Avoidance Mode offers fully controllable responses, allowing operators to rapidly pinpoint a buried utility and trace it across an area. Real Sound audio enables operators to differentiate between individual signals and utilities to maximise locate speed whilst maintaining safety.












SWING warning

Radiodetection C.A.Ts are designed to respond exceptionally fast to even the smallest detectable underground signals. Radiodetection's research into underground signal detection has shown that the ability of an operator to identify these buried utilities is directly affected by careless working practices such as excessive or rapid swinging.

To further reduce utility strike risks, the gC.A.T4+ model is equipped with sensors to detect such incorrect usage and warn the operator with an alert that is also stored in the data log.

Genny4 signal boost

Alongside its familiar standard power mode, Genny4 provides a Signal Boost feature which increases the output signal by up to a factor of 10, enabling operators to locate utilities deeper and over greater distances.

Features	C.A.T4	C.A.T4+	gC.A.T4+
Avoidance Mode™ (A) 	●	●	●
Genny™ Dual Signal Locate (G) 	●	●	●
Power Signal Locate (P) 	●	●	●
Radio Signal Locate (R) 	●	●	●
eCert™	●	●	●
Dynamic Overload Protection	●	●	●
Depth		●	●
StrikeAlert™ 	●	●	●
Service Due Indicator 			●
SWING™ Warning 			●
CALSafe™ 			●
C.A.T Operation logging 			●
Bluetooth® 			●
GPS/GNSS 			●
C.A.T Manager for PC Support	●	●	●
C.A.T Manager Mobile App Support			●

Model choice

There are three C.A.T4 models to choose from, for customers whose prime reason for using a cable avoidance tool is to avoid any utilities, then the C.A.T4 and C.A.T4+ are a perfect solution.

For customers who wish to survey and report what they find and trace, the gC.A.T4+ model features usage monitoring and GPS, logging key locate parameters every second to aid in identifying training needs, compliance and recording workflow patterns, providing data on not only when and how, but also where the gC.A.T4+ was being used.

Using a gC.A.T4+ with C.A.T Manager Online, Radiodetection's asset tracking and workflow management system, enables Managers to produce reports indicating when where and how all their C.A.T4s are being used, enabling consistent improvement programs to be introduced, reducing bad practice, improving safety by reducing cable strikes and costs of excavation programs.

C.A.T4 Cable Avoidance Tool range

Advanced digital design with the classic Radiodetection C.A.T look and feel.



Trigger switch – intuitively control power on/off

Depth button

Detachable loudspeaker for use in noisy environments

Mode selector switch

Sensitivity control

Fully integrated data logging memory, GPS/GNSS receiver and Bluetooth® Low Energy options

Light-weight high impact ABS casing provides protection to IP54 for all-weather operation

Genny4 signal generator

Locate more, and smaller, utilities with dual power and simultaneous dual frequency design.

On/off switch

Loudspeaker

Battery compartment (4 x D-Cell)

Signal Boost button

Accessory connection socket

Battery (2 x D-Cell) and USB data connection compartment

Accessory storage tray

Replaceable wear boot



Accessory storage tray

Conveniently store Genny4 accessories, including the supplied magnet, earth stake and direct connection leads.

High contrast display with auto-backlight

Bargraph 'tidemark' enables operators to quickly spot and zero-in on a buried conductor.

High speed USB 2.0 data connection

Connect to a PC to configure C.A.T settings, run an eCert, and to rapidly transfer usage data from gC.A.T4 series locators.

Developing Locator Skills

The gC.A.T4+ automatically stores how, when, and where the Locator has been used. The information can be transferred to a PC at any time and then using the C.A.T Manager for PC, understand how the Locator has been used at a particular time. This information is invaluable when trying to ensure correct use of the locator.

Information stored by gC.A.T4+

- Mode of use
- Detected Signal strength (from Power, Radio and Genny)
- Signal strength warnings (Signal Overload)
- Date Time and GPS position of Survey
- All Alerts during operation (StrikeAlert, SWING)
- Bargraph display level
- Sensitivity control level
- Depth measurements
- Battery status
- Calibration status
- Time to next Calibration
- Audio status
- Inclination of Locator angle

Locator Alerts



CALSafe*

Indicates how long before your C.A.T4 needs a service and calibration check.



StrikeAlert Warning

Warns of shallow buried utilities.



SWING Warning*

Ground-breaking feature warns operators of incorrect usage to promote best working practices.

*gC.A.T4+ model only

Operating modes



Avoidance Mode

Simultaneously search for and pinpoint Genny, Power and Radio signals for rapid surveying.



Genny Mode

Detects the signals transmitted by Genny4, with on-demand estimation of the depths of buried utilities.



Power Mode

Detects the electromagnetic fields generated by loaded power cables.



Radio Mode

Detects long-range radio signals as they travel along buried cables and pipes.



C.A.T Manager Online

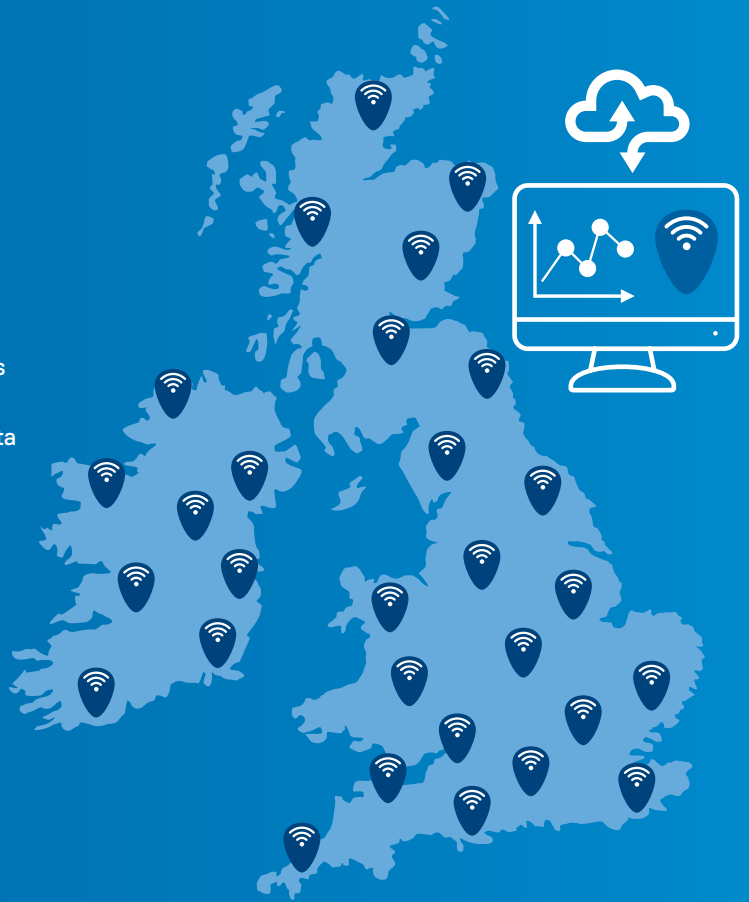
C.A.T Manager is a survey and usage analysis tool that allows Depot or Supervisor management within fleet or utility Companies to better manage their fleets of gC.A.T4+s.

Using a standard web browser, managers and supervisors can review how, when and where, their entire team of field operators are using their C.A.T4 locators, provide automatic reports of gC.A.T4+ activity with survey notes and photos, allowing the data to be visualized on Google maps.

It can also be used to prevent poor work practices developing, by identifying training needs early.

It is directly aimed at Fleet and utility management to drive best behaviour and reduce strikes.

Data can be exported and shared as KML or CSV files.



C.A.T Manager for Mobile

This phone App (Andoid or IOS) links the gC.A.T4+ to the cloud based C.A.T Manager Online. Data is transferred automatically as it is generated from the gC.A.T4+. Once it is in the CMO cloud, all the CMO tools can be used to set use parameters and monitor/adjust methods of gC.A.T4 use.

Features

C.A.T fleet management

Register and maintain all your gC.A.T4+ and Genny4 products. Check when the gC.A.T4+ calibration is due to expire.

Online storage

The C.A.T Manager Online system stores and backs-up all the data in a secure cloud. No need to change your company's IT infrastructure.

C.A.T operator feedback

C.A.T Manager Mobile app allows operators to receive immediate on-site feedback, helping them to improve their performance and to operate more safely.

Survey analysis and usage reporting

All scans received from C.A.T Manager Mobile, or uploaded using the web upload function, are automatically grouped into survey tasks and can be reviewed using a standard web browser. Usage analysis and survey reports can be generated, and downloaded as PDF files.

Local download

Retrieve all your data from the C.A.T Manager cloud to store on your PC or local network.

Pro Subscriptions

Subscribers to the Pro version also benefit from:

Team and account management

gC.A.T4+ operators can be organised by region, depot, accounts and contracts.

This allows managers to review the performance of different groups of users. Reports can be generated for customers and stakeholders, showing adherence to best practice, or documenting ongoing improvements.

Advanced statistical analysis

Access detailed analysis to assess users, regions and accounts.

This allows objective performance reviews to aid continuous improvement processes.

Always Evolving

The C.A.T Manager Online system is continually evolving, offering new functionalities and features designed in collaboration with our customers, to simplify field and office operations.

To find out more, and see how C.A.T Manager Online can benefit your team, visit: www.radiodetection.com/catmanageronline

Accessories

Genny4 accessories are designed to transmit locate signals along most infrastructure types, including non-conductive targets such as plastic ducts and ceramic pipes, including:

- Signal clamps
- Sonde
- Live plug/cable connectors
- FlexiTrace™
- High strength Neodymium magnet

Genny4 accessories are reverse compatible with Genny3.

For more information on the wide range of accessories available, contact your local Radiodetection office, or visit www.radiodetection.com

Subscription Levels

Features	Standard	Pro
Android and Apple mobile app	✓	✓
C.A.T fleet management	✓	✓
Online Storage	3 months	Indefinite
C.A.T operator feedback	✓	✓
Survey Analysis & Usage reporting	✓	✓
Backup option	✓	✓
E-Mail and tickets support	✓	✓
Phone Support	X	✓
Team and account management	X	✓
Advanced statistical analysis	X	✓

C.A.T Manager is available as a PC program or as a Cloud based online application.

C.A.T Manager App is free to download and use from Apple App Store and Google Play.



Training

Radiodetection offers comprehensive training options for anyone who needs to know how a C.A.T4 works at any level, including operators, managers and trainers. Radiodetection training promotes best working practices and supports those responsible for Cable Avoidance Management.

Contact your local office or representative for more details.



Service

Maintaining your equipment to keep it in the field for as long as possible makes obvious financial sense for all C.A.T4 owners.

Since Radiodetection developed its first C.A.T and tracing systems in the 1970s, our Authorised Service Centers have been providing BSI/ISO standard annual calibration, and factory standard repairs using original specification parts, to keep your survey equipment up to scratch.

You can be confident that your C.A.T safety tools will be tested on purpose built, computer controlled test rigs, and are working as well as they were when new.

For more information go to

www.radiodetection.com/service-centers

C.A.T4 Maintenance

Service due indicator and CALSafe™

Annual service and calibration is key to ensuring that C.A.T operators can work safely and with confidence in their equipment. To support this, the gC.A.T4+ provides a 31-day Service Due countdown warning on start-up.

CALSafe – can be set to automatically deactivate on expiry of the defined calibration interval, to help ensure compliance with individual company policies.

The interval required between services can be customized using the C.A.T Manager software to anything up to one year.

eCert – remote calibration validation

eCert remote calibration testing offers an innovative calibration option intended to form part of an annual service regime. Activated through the C.A.T Manager PC software, eCert provides a fast, thorough and convenient test of the key locating circuitry within C.A.T4, and validates the results against the original factory calibration using an internet connection to Radiodetection. Following an eCert test pass, a Radiodetection Calibration Certificate for that C.A.T4 can be printed or saved.

For a complete maintenance package, Radiodetection also offers exhaustive factory-backed service and recalibration options including full mechanical integrity inspection and function testing.

Technical support:



Radiodetection offers an on-line information system for all technical enquiries about our products and software services. We have a extensive resource of application and product knowledge so ask us a question or look through our FAQ.

Our Mission

Provide best in class equipment and solutions, to prevent damage to critical infrastructure, manage assets and protect lives.

Our Vision

To be the world's leader in the management of critical infrastructure and utilities.

Our locations



USA

Raymond, ME
Kearneysville, WV

Canada

Vaughan, ON
Mississauga, ON



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United Kingdom **HQ**
France
Germany
The Netherlands



Asia Pacific

India
China
Hong Kong
Indonesia
Australia

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Footnote 07

to

Supplementary Written Submission
dated 27 August 2024

in Rebuttal to

Mona Offshore Wind Limited Document
No. MOCNS-J3303-RPS-10277

entitled

Appendix to Response to Hearing Action Point:
Indicative onshore cable corridor crossing section and
trenchless technique crossing long-section

**SHARKEY AND ANOTHER v. SECRETARY OF STATE
FOR THE ENVIRONMENT AND SOUTH
BUCKINGHAMSHIRE DISTRICT COUNCIL**

COURT OF APPEAL (Parker, McCowan and Scott L.JJ.): October 14,
1991

Compulsory purchase order—Land required for a planning purpose—Meaning of “required”—Whether local authority should exhaust other planning enforcement powers before using compulsory purchase powers—Town and Country Planning Act, 1971, s.112(1)(b)

Gipsies brought mobile homes onto eight plots in the metropolitan green belt, where there was a presumption against development, without obtaining planning permission. They intended to settle permanently there. The local authority proceeded against the gipsies, initially by way of enforcement notices and then by obtaining injunctions, but finally, finding that these procedures were cumbersome, expensive and ineffective, made a compulsory purchase order seeking to purchase all eight plots on the ground that the land was “required” to achieve proper planning of the area within the Town and Country Planning Act 1971, s.112(1)(b).

After holding a public inquiry into the compulsory purchase order, the inspector, while accepting that the development was inappropriate and unacceptable in the green belt, recommended that the order should not be confirmed, on the grounds that the council had not satisfactorily shown that this was the only reasonable means of achieving proper planning of the area and that the order was premature. This was not accepted by the Secretary of State, who confirmed the order in respect of four plots on the ground that, on the evidence, successful restoration of the land without the compulsory purchase order would be unlikely in these cases, but deferred his decision in respect of the other four plots where time for compliance with the enforcement notices had not yet expired.

Certain gipsies appealed against the decision of Roch J.,¹ who had dismissed their application to quash the compulsory purchase order. They contended that the land was not “required” by the local authority within section 112(1)(b), since there were various ways in which the clearance of the land could be achieved without compulsory purchase.

Held, dismissing the appeal, that in order to show that land was “required” for a purpose which it was necessary to achieve in the interests of proper planning within the Town and Country Planning Act 1971, s.112(1)(b), a local authority did not have to show that compulsory purchase of the land was indispensable to the achieving of that purpose, but that it was necessary in the circumstances of the case. It was not enough, however, that such compulsory purchase might be desirable. The Secretary of State was entitled to find that the council was unlikely to achieve successful restoration of the land without compulsory purchase in respect of four plots and to defer a decision in respect of the four further plots where there was a possibility that this might be achieved.

Cases cited:

(1) *Company Developments (Property) Ltd. v. Secretary of State for the Environment and Salisbury District Council* [1978] J.P.L. 107.

(2) *R. v. Secretary of State for the Environment, ex p. Leicester City Council* (1988) 55 P. & C.R. 364.

¹ See (1991) 62 P. & C.R. 126.

(3) *Runnymede Borough Council v. Ball* [1986] 1 W.L.R. 353; [1986] 1 All E.R. 629; 53 P. & C.R. 117, C.A.

Legislation construed:

Town and Country Planning Act 1971 (c. 78), s.112(1)(b) (see now Planning Act 1990, s.226(1)). The provision is set out at page 335, *post*.

Appeal by L. Sharkey and C. Fitzgerald from a decision of Roch J. on May 11, 1990 (see 62 P. & C.R. 126) in which he dismissed their application to quash a compulsory purchase order made by the South Buckinghamshire District Council on October 8, 1985, relating to certain plots of land at Swallow Street, Iver, Buckinghamshire, in the metropolitan green belt, upon which they had installed mobile homes without planning permission. The appellants contended that the district council only required clearance of the land, which could be achieved by prosecution, by the council entering upon the land and clearing it, by injunction or by providing a suitable alternative site. Compulsory purchase was not "required."

Harry Sales for the appellants (applicants).
W. Robert Griffiths for the first respondent.
R. J. Rundell for the second respondent.

PARKER L.J. I will ask McCowan L.J. to give the first judgment.

McCOWAN L.J. This is an appeal from a decision of Roch J. given on the May 11, 1990, dismissing an application by the appellants that the South Bucks District Council (Ivor No. 1) Compulsory Purchase Order 1985 be quashed. The first respondent is the Secretary of State for the Environment and the second respondent is the South Bucks District Council.

The order in question, as made by the South Bucks District Council on October 8, 1985, related to plots 1 to 6, 7A and 7B Swallow Street, Iver. The order as confirmed by the Secretary of State related only to plots 1, 5, 6 and 7A. Postponement of consideration of the order in so far as it related to plots 2, 3, 4 and 7B was directed by the Secretary of State.

Between September 15 and 17, 1987, an inspector held a public inquiry into the compulsory purchase order and also into various enforcement notices with which neither the hearing before Roch J. nor the appeal have been concerned. The reason for that, as we understand it, is that before the case started in front of Roch J. it was agreed between the parties that the appellants would not pursue their appeals against the enforcement on the basis that the council for their part would not take action in respect of them before some date in 1991. Those enforcement notices are therefore effective.

That inspector described the site covered by the order thus:

The order land is on the west side of Swallow Street and in a generally open area between the north-western and south-western extremities of the built-up areas of Iver and Iver Heath respectively. It is approximately 0.28 (0.69 acres) in area and divided into 7 plots, numbered 1 to 7 consecutively from south to north (Plan A). At the time of the inquiry Plot 7 had been sub-divided into 2, the southern part referred to as Plot 7A and the northern as Plot 7B (Plan Q).

The inspector went on to make findings of fact about, among other things, the state of occupation of the various plots. He said:

5. Plot 1, Cherry Orchard, contains a mobile home and hardstanding and garden areas, and is residentially occupied by Mr. Sharkey and family.
6. Plot 2, Springfield Rose, contains a mobile home and hardstanding area, and is residentially occupied by Mr. And Mrs. Carey.
7. Plot 3, Little Apple, contains a mobile home, touring caravan and hardstanding area, and is residentially occupied by Mr. M. Smith and family.
8. Plot 4, Mill Place, contains a mobile home, touring caravan and hardstanding area, and is residentially occupied by Mr. J. Smith and family.
9. Plot 5, Silver Birch, contains a mobile home and hardstanding area, and is residentially occupied by Mr. Fitzgerald and family.
10. Plot 6, Swallows Nest, contains a mobile home and patio, garden and hardstanding areas, and is residentially occupied by Mr. Stubbings and family.
11. Plot 7A, Summerset Place, contains a touring caravan and hardstanding area, and is residentially occupied by Mr. Brown and family.
12. Plot 7B, Meadowside, contains a touring caravan and hardstanding and garden areas, and is residentially occupied by Mr. Price and family.

Plots 1 and 5, it is to be noticed, are occupied by the two appellants. The learned judge summarised the situation in this way²:

Those plots were occupied by travellers or gypsies. Often the occupant was the person who had purchased the plot. Entrances were made on to Swallow Street in most cases, although in some cases it was said that existing entrances were used. Hardstanding was put down for caravans and for vehicles, walls were built and gardens cultivated. In addition some septic tanks were constructed.

It seems that the travellers who bought and occupied those plots were travellers who wished to settle, to send their children to school, and to avoid having to move their children from one school to another. In short that the occupants were responsible and orderly people.

However, Swallow Street is within the Metropolitan Green Belt and there was and is a presumption against such development which is only to be displaced in certain exceptional cases. The second respondent, as the local planning authority, were against this unpermitted development and took steps to terminate this unauthorized use of this land.

Enforcement notices were prepared and served under section 87 of the Town and Country Planning Act 1971. In respect of some of the plots there was more than one enforcement notice.

The history in relation to plot 1 was this: that in 1984 four enforcement notices were served. In August 1985 the second respondent used its powers under section 91 of the Town and Country Planning Act 1971 to enter plot 1 and execute the work set out in the four enforce-

² (1991) 62 P. & C.R. 126 at p. 128.

ment notices. Consequently, by October 8, 1985 plot 1 was unoccupied and the hardstanding, fences and vehicular access which had existed on plot 1 had been removed.

In May 1986 a High Court injunction was obtained to prevent plot 1 being used by a traveller. In August of 1986 a second such injunction was obtained by the second respondent. In February 1987 further action under section 91 of the Act was taken. In April 1987 a writ was served on the then occupant of plot 1. Nevertheless by September 1987, at the time that a public inquiry was held by a planning inspector, Mr. Brock, plot 1 was being used by a traveller who had a caravan on the plot sited on hardstanding.

The inspector's report indicates that four enforcement notices were served in respect of plot 2, the first on May 15, 1985 and the remaining three on September 3, 1985. Three enforcement notices were served in respect of plot 6, two on September 5, 1985 and the third on September 20, 1985. Five enforcement notices were served in respect of plot 4, four on September 5, 1985 and the fifth on March 7, 1986. One enforcement notice was served in respect of plot 7 on August 8, 1987.

On October 8, 1985 the second respondent promulgated a compulsory purchase order under section 112(1)(b) of the Town and Country Planning Act 1971 seeking authorization to purchase compulsorily the land described in the schedule which was all eight plots, that is to say, plots 1 to 6 7A and 7B which were described in the schedule simply as plot 7; "For the purpose which it is necessary to achieve in the interests of the proper planning in the area in which the land is."

It is convenient at this point to read section 112 of the Town and Country Planning Act 1971. In so far as it is material it provides as follows:

- (1) A local authority to whom this section applies shall, on being authorised to do so by the Secretary of State, have power to acquire compulsorily
 - (a) any land which is in their area and which is suitable for and is required in order to secure the carrying out of one or more of the following activities, namely, development, redevelopment and improvement;
 - (b) any land which is in their area and which is required for a purpose which it is necessary to achieve in the interest of the proper planning of and area in which the land is situated.

As the judge said, the council relied in this case on subsection 1(b). The council's case under that subsection before the inspector was summarised by him as follows:

167. The need for a compulsory purchase order is due to deliberate flouting of planning control by the occupiers of the land or their predecessors. Normal legal procedures have been shown to be cumbersome, expensive and ineffective. Enforcement procedure has been satisfactory up to a point, but thereafter has been ineffective; prosecutions depend on identification, which is difficult when occupiers come and go, the level of fines imposed is low and injunctions obtained apply only to the persons named. On the Cherry Orchard site [I interpolate that is a reference to plot 1] section 91 action has been found ineffective; twice the land has been cleared, and twice reinstated. A stop

notice on Plot 7 has been ineffective. No grounds exist for expecting that the land would revert to an appropriate Green Belt use even if section 91 powers were again to be used. All except one of the present occupiers have said that they would not reinstate their land to the condition in which it formerly was. Public money would be wasted by the use of section 91 powers, and the aim of protecting the Green Belt would be rendered futile.

168. The only effective means of protection is by compulsory purchase. As a housing action area is purchased for the benefit of the community as a whole, so would the purchase of this Green Belt land be of benefit to the community. In the light of that consideration the order should be confirmed. Even if it is thought that it should not be confirmed in respect of Plots 2 to 6 on the grounds that all other avenues have not yet been fully explored, it should be confirmed in respect of Plots 1, 7A and 7B.

The inspector's conclusion on this issue was:

189. . . . I find the development which has taken place on the land to be inappropriate and unacceptable. In my opinion the location is such that the land should not be left in a derelict or neglected state, but should be put to a suitable rural use. That aim seems to me to be one which it is necessary to achieve in the interests of the proper planning of the area.

190. However, I do not consider that, with the possible exception of Plot 1, the Council have satisfactorily shown that the only practicable means of achieving the aim is by compulsory purchase. With regard to Plots 3 to 6, there is no evidence of prosecutions or attempted prosecutions for non-compliance with those enforcement notices which are not the subject of appeal and should by now have been complied with. Regarding Plots 7A and 7B, action in respect of a breach of the stop notice is apparently still being pursued, and I note that the period for compliance with the enforcement notice issued on September 11, 1987 is not due to and until November 16, 1987. I find insufficient evidence to substantiate a claim that the general level of fines imposed for non-compliance with enforcement notices is so low as to vitiate the value of prosecution.

191. As to the notices currently under appeal, it might be that the appellants would now decide to accept what I believe to be the inevitability of the situation, and would choose to comply with the requirements within the time allowed. The evidence is that, in the event of non-compliance with the notices if upheld, and of the order not being confirmed, the Council would seek to use its powers under section 91 of the 1971 Act. This course of action would no doubt be open to the Council to pursue if it wished, and it does not seem to me necessarily to follow that, because Plot 1 has been reoccupied after such action in the past, further action would fail to have the desired effect in the future.

192. Even if past experience provided a good reason for the compulsory purchase of Plot 1, the purpose which it is necessary to achieve would be unlikely to be realised by the acquisition of an individual plot in isolation. The Council's restoration and landscaping scheme could not be implemented by the use only of Plot 1. With regard to that

scheme, it seems to me that an appropriate rural use would equally lie in the return of the land to grazing land, whether as a parcel on its own or in conjunction with adjoining land. It could be that the present owners of the land, notwithstanding the evidence given at the inquiry, would be finally convinced that they should dispose of their land, and would offer it for sale to an owner of adjoining or adjacent land for use by him for an appropriate purpose.

I interrupt the reading at this point to make the comment that nothing has happened since to justify the inspector's optimism. He continued:

193. I conclude that, whereas it may eventually be found that, in order to achieve the necessary purpose on planning grounds, no practicable alternative exists to compulsory purchase of the land, the making of the order at this stage is, at the least, premature.

He went on to recommend that the compulsory purchase order be not confirmed.

In turn the Secretary of State had this to say on the issue in his decision letter of the February 24, 1989:

The Secretary of State agrees that the interests of the proper planning of an area within the Metropolitan Green Belt are served by the removal of development which is detrimental to the visual amenities of that area.

5. In considering the Inspector's conclusions in the light of the council's statement of reasons, the Secretary of State agrees that the development which has taken place on the order land is inappropriate and unacceptable in this generally open area which is within the Metropolitan Green Belt and the Colne Valley Park. He shares the Inspector's opinion that the implementation of the council's proposed landscaping scheme (which was prepared only after the order had been submitted for confirmation) whilst consistent with Green Belt policy, is not the only purpose to which the land could appropriately be put. He agrees that the land should not be left in a derelict or neglected state.

6. On the basis of the evidence presented at the inquiry, the Secretary of State does not accept in its entirety the Inspector's conclusion that the council have not satisfactorily shown that the only practicable means of achieving the aim of putting the order land to a suitable rural use is by compulsory acquisition. The Secretary of State has had particular regard to the evidence presented by the council as to the result of enforcement action in respect of various sites in the district, including sites which are also the subject of this order. He has concluded, on the balance of probabilities, that successful restoration of the land as a consequence of the upholding of the enforcement notices is unlikely as respects plots 1, 5, 6 and 7A since the evidence of the owners of those plots is to the effect that they would not, or in one case could not afford to restore the land, even if the notices were upheld. Accordingly he has decided to confirm the order in relation to those plots.

7. The evidence given by the owners of plots 3 and 4 suggests that the land would be restored if the enforcement notices were upheld. In relation to plots 2 and 7B the owners either expressed no view or were undecided about restoration. The Secretary of State considers that it

would be appropriate in relation to these plots to defer his decision on the order until the period for compliance with the relevant enforcement notices has elapsed. He will then form a view as to the necessity for confirmation of the order in respect of those plots.

I need not read paragraph 8, which deals with certain modifications. In paragraph 9 he went on to say:

9. Accordingly, in exercise of the power conferred on him by section 132(2) of the Town and Country Planning Act 1971, he hereby confirms the South Bucks District Council (Iver No. 1) Compulsory Purchase Order 1985 insofar as it relates to plots 1, 5, 6 and 7A subject to the modifications shown thereon in red ink. He hereby directs that consideration of the order insofar as it relates to plots 2, 3, 4 and 7B be postponed until September 28, 1989.

In challenging this decision in the courts the appellants put forward two grounds in their notice. First, it is said that:

the first respondent treated the likelihood of the applicants carrying out works of restoration in accordance with enforcement notices as the determining factor and in so doing ignored the powers of the Second Respondent to carry out works of restoration under section 91 of the Town and Country Planning Act 1971.

Secondly, that:

the first respondent considered it unnecessary to confirm the compulsory purchase order in respect of plots owned by other than the applicants and thereby and by his express conclusions concluded that the avowed purpose of the order in the form of the second respondent's proposed landscaping scheme did not justify confirmation of the compulsory purchase order.

The provisions of section 91(1) of the Town and Country Planning Act 1971 there referred to read as follows:

If, within the period specified in an enforcement notice for compliance therewith, or within such extended period as the local planning authority may allow, any steps which by virtue of section 87(7)(a) of the Act are required by the notice to be taken (other than the discontinuance of a use of land) have not been taken, the local planning authority may enter the land and take those steps, and may recover from the person who is then the owner of the land any expenses reasonably incurred by them in doing so.

It is to be observed, however, that, in practical terms, to do this it would be necessary first to get occupiers off the site.

The appellants submitted before Roch J. that compulsory purchase of the land was not required for the purpose in question, because that purpose could be achieved by other means, notably under section 91. Roch J. was referred to two authorities on the word "required" in this context, as have we. Both cases involve consideration of section 112(1)(a) but, as the judge said, and it has not been disputed, the word "required" must have the same meaning in (b) as in (a).

In *Company Developments (Property) Ltd. v. Secretary of State for the Environment and Salisbury District Council* Sir Douglas Frank held that

the word "required" in this context does not mean "essential," but only that the acquiring authority and the Secretary of State consider it desirable to acquire the land to secure the carrying out of the activity in question.

In *R. v. Secretary of State for the Environment, ex p. Leicester City Council* McCullough J. considered that the word "required" meant more than mere desirability. Roch J., in this case, dealt with that argument as follows.³

Because of the nature of the power given to local authorities by section 112, namely, to deprive the owner of his land against that owner's will, I prefer and adopt the stricter meaning of the word "required" suggested by the judgment of McCullough J. In my judgment the word means that the compulsory acquisition of the land is called for; it is a thing needed for the accomplishment of one of the activities or purposes set out in the section. However, I accept the dictum of Sir Douglas Frank QC to this extent that neither the local authority nor the Secretary of State have to go so far as to show the compulsory acquisition of the land is indispensable to the carrying out of the activity or the achieving of the necessary planning purpose. The local authority need not have tried to use all their other powers before resorting to compulsory purchase, provided there is evidence on which they and the Secretary of State can conclude that, without the use of compulsory purchase powers, the necessary planning purpose is unlikely to be achieved.

In this case the Secretary of State in paragraph 5 of the letter of his decision correctly, in my view, identified the purpose which it was necessary to achieve in the interest of proper planning of the area in which the land was situated, namely, to remove the development which had taken place and which was inappropriate and unacceptable and to ensure that the land should not be left in a derelict or neglected state. The Secretary of State then went on to consider whether acquisition of the land by compulsory powers was required in the sense of being needed for the accomplishment of the purpose because he has concluded, on the balance of probabilities, that successful restoration of the land was unlikely in respect of plots 1, 5, 6 and 7A, unless the order was confirmed in relation to those plots. In my judgment there was evidence on which the Secretary of State was entitled to reach that conclusion. If the Secretary of State had asked himself the question, is the compulsory acquisition of this land desirable for the accomplishment of the purpose, I would have held that he had applied the wrong test.

Had the Secretary of State gone on to refuse to confirm the compulsory purchase order with regard to the other four plots, then in my opinion there may have been some prospect of his decision being overturned on the grounds of irrationality. However, that is not the decision reached by the Secretary of State and I assume, in his favour, that he will confirm the compulsory purchase order in respect of those plots if, despite the removal of caravans and so forth from those plots, those plots are not restored to some use suitable for the area but are

³ (1991) 62 P. & C.R. 126 at pp. 133-134.

left in a state where they become or are likely to become derelict and neglected.

I may confess in this case that had the decision been mine, I would have reached the same conclusion as that reached by the inspector, namely, that the making of the compulsory purchase order at that stage was premature. However, it is a well established principle of administrative law that such judgments are for the local authority and the Secretary of State and not for this court.

Consequently the conclusion that I have reached is that I must dismiss these applications for judicial review.

I agree with Roch J. that the local authority do not have to go so far as to show that the compulsory purchase is indispensable to the carrying out of the activity or the achieving of the purpose; or, to use another similar expression, that it is essential. On the other hand, I do not find the word "desirable" satisfactory, because it could be mistaken for "convenient," which clearly, in my judgment, is not sufficient. I believe the word "required" here means "necessary in the circumstances of the case."

Before this court the appellants put their case in this way. It is said by Mr. Sales that the seven grounds of appeal in the notice of appeal all relate to different aspects of the same point, which is that the land, the subject of a compulsory purchase, is not required by the second respondent. Compulsory purchase by, for example, local authorities can be authorised when they require land for the carrying out of their function, such as by-ways, housing, parks, etc. In all cases it is the land itself which is required for the purpose for which there is statutory authority to acquire compulsorily. In the case of section 112(1)(b) of the 1971 Act, this, he points out, is an express requirement. But, he says, in this case there is no requirement whatever of the second respondents for the land itself. Their requirement is only the clearance of the land and that could be achieved without compulsory purchase of the land itself by any of the following methods or a combination of them: (1) prosecutions under section 179 of the 1990 Act for non-compliance with enforcement notices; (2) execution of work by the local planning authority plus entry on to the land for that purpose, pursuant to section 178 of the 1990 Act, coupled with a right to recover from the owner expenses reasonably incurred in so doing; (3) injunction proceedings pursuant to section 222 of the Local Government Act 1972; (4) the provision of an acceptable alternative site for the appellants.

I am bound to say, however, that the planning history of the site, notably that of plot 1, gives one little faith in the efficacy of these remedies in dealing with these occupiers. It is indeed important, in my judgment, not to lose sight of two sections of the evidence which was before the Secretary of State. The first of these was the history of the unsuccessful attempt by the council using other methods to get these plots cleared, which history was recounted by Roch J. in a passage which I have quoted from his judgment.

The second section concerned the intentions of the occupants themselves. These the inspector summarised on the evidence they gave as follows. He recounted that Mr. Sharkey, one of the appellants, who occupies plot 1, said in evidence that "they could not afford to restore it to green field land." Mr. Carey's evidence in respect of plot 2 was that he would not be prepared to move to any council owned site. Mr. M. Smith said in respect of plot 3 that he would be prepared, with the council's help, to

reinstate it. Mr. J. Smith from plot 4 said that he would reinstate it to green meadow. Mr. Fitzgerald, the other of the appellants, said of plot 5 that he could not reimburse the council for any costs of reinstatement. Mr. Stubblings from plot 6 said that he would not restore it to its former condition. Mrs. Brown from plot 7A said that they would not themselves clear it. Mr. Price from plot 7B on the other hand, said that he did not know if he would reinstate it.

In the light of all that evidence the Secretary of State was, in my judgment, entitled to arrive at the conclusion that the council were not likely to achieve successful restoration of the land including plots 1, 5, 6 and 7A without compulsory purchase but that in respect of the remaining plots it was still possible that they might.

I agree with Roch J. that, had the Secretary of State refused to confirm a compulsory purchase order with regard to those remaining four plots, some force might have been given to an argument that he had acted irrationally, but, as it is, the plain implication of his decision is that if these plots are not restored to a use suitable for their area he will confirm the compulsory purchase order in respect of them.

As I indicated, a subsidiary argument was advanced by the appellants that by deferring a decision in respect of those plots the Secretary of State has put it out of the council's power to carry out their landscaping scheme. I am satisfied however that this scheme was only put forward at the inquiry as a possible scheme should the order be confirmed in respect of all eight plots. The scheme is not essential to the planning purpose, which is to restore the land to rural use. That purpose can be achieved in respect of a single plot by removal of a caravan, hardstanding, etc., and reversion to grass or shrubs and trees.

For all these reasons I agree with Roch J.'s decision and would dismiss the appeal.

SCOTT L.J. I agree with the judgment that McCowan L.J. has given and would add only one point.

Both before us and before Roch J. Mr. Sales submitted that the power of compulsory purchase given by section 112 of the 1971 Act was a power which should be used only as "a last resort," as he put it. That may be so as between the various statutory powers available to the local authority under the Town and Country Planning Acts. If, however, the choice is between an exercise of the power of compulsory purchase and the alternative route by means of which a local authority may seek to enforce the planning law, namely High Court proceedings for a civil injunction, then I do not agree.

There are statements in a number of cases at levels all the way up to the House of Lords to the effect that the use of civil proceedings for injunctions in order to enforce the public law should be confined to exceptional cases (see, e.g. *Runnymede Council v. Ball* and the cases there cited). A civil injunction involves the substitution of an unlimited power of imprisonment, available in contempt of court proceedings against persons who disobey the injunction, for the limited penalties for disobedience of the law prescribed by Parliament. I do not doubt that in many cases local authorities are entirely justified in taking High Court proceedings for injunctions so as to obtain the additional sanction of committal for contempt in order to enforce obedience to the statutory offences in question. But to say that a compulsory purchase power is only to be used as a matter of last

resort after a civil injunction has been shown to be ineffective is a proposition I find entirely unacceptable. Which of the two, compulsory purchase or High Court proceedings, is to be preferred may depend upon the facts of a particular case. Which ought to be the last resort may be a matter of debate in a number of cases. But in the circumstances with which the council was faced in the instant case, I do not regard an application for a High Court injunction, with the possibility of contempt proceedings following, as something which had to be tried before the compulsory purchase procedure could be invoked. I agree that this appeal should be dismissed.

PARKER L.J. I agree. Both the inspector and the Secretary of State came to the clear conclusion that this land was necessary to be acquired in the interests of proper planning and that, unless that purpose could be achieved by other means, a compulsory purchase order was justified. The inspector had a somewhat rosier view of the situation than the Secretary of State and apparently took the view that the purpose might be achieved without a compulsory purchase order. The Secretary of State considered that it could not be achieved in respect of certain of the plots, but that it might conceivably be achieved in respect of others and therefore deferred his decision with respect to those others.

In my view the Secretary of State not only came to the right conclusion but no other conclusion was really open to him. I would also dismiss this appeal.

*Appeal dismissed with costs.
Application for leave to appeal
to the House of Lords refused.*

Solicitors—Lance Kent & Co. Chesham, Buckinghamshire; the Treasury Solicitor; the Solicitor to the South Buckinghamshire District Council.