

Norfolk Vanguard Offshore Wind Farm

# Applicant's Response to Request for Information

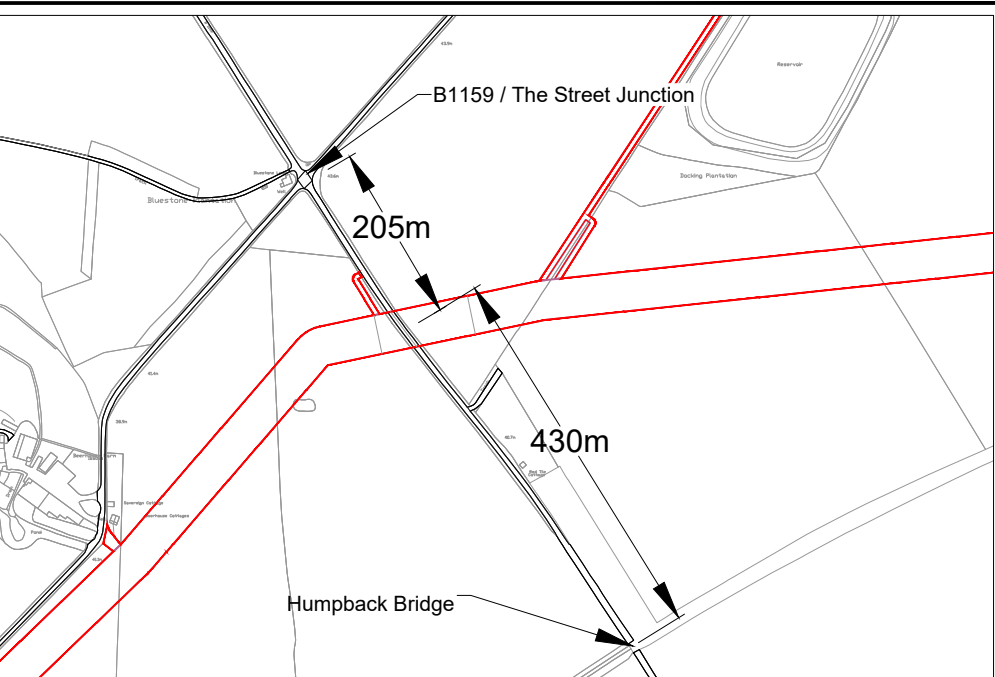
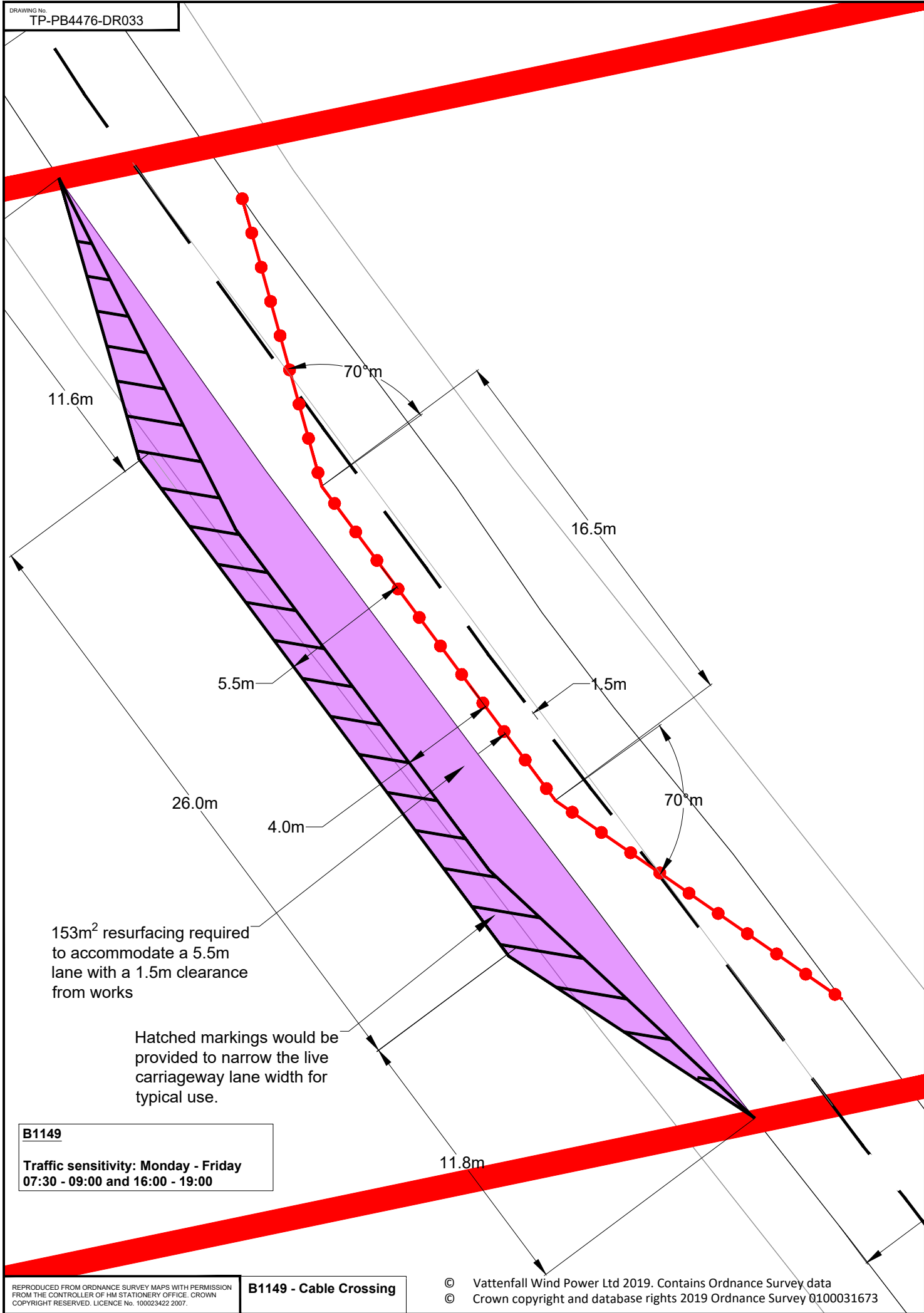
Appendix 1 B1149 traffic management drawings

Applicant: Norfolk Vanguard Limited  
Document Reference: ExA; WQ; 11.D10.1.App1

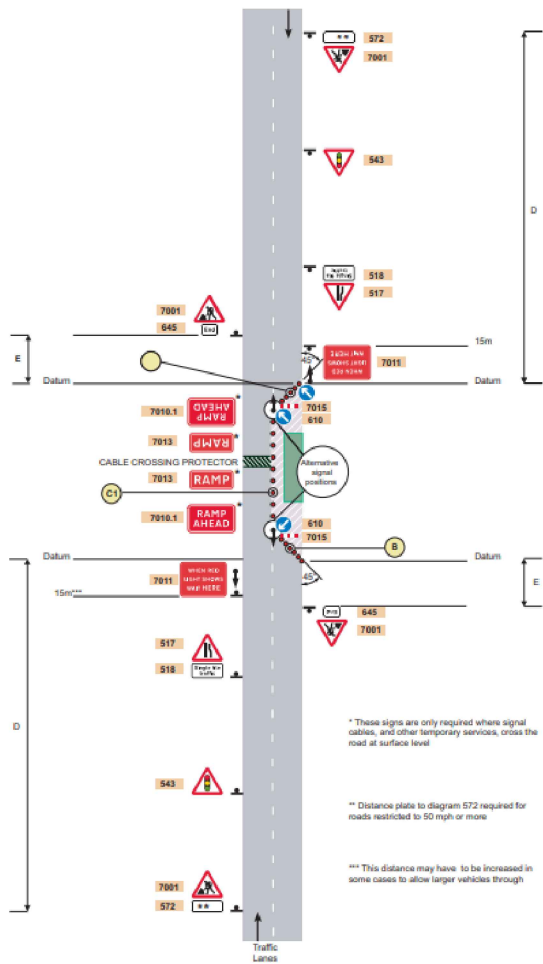
Date: February 2020

*Photo: Kentish Flats Offshore Wind Farm*





Plan SC7: Portable traffic signals on a two-lane single carriageway road



NOTE: Refer to Table 5.3 in Section D5.4 for recommended range of distances for dimensions D and E.

Table 5.3 Distances shown in plans in Sections D5.5 to D5.8 and D5.10

	Single carriageway road:			
	30mph or less	40mph	50mph	Unrestricted (60 mph)
Minimum and normal maximum sight distance D of first sign in advance of lead-in taper in metres	20* - 45	45 - 110	275 - 450	275 - 450
Minimum longitudinal clearance L in metres	0.5	15	30	60
Length of taper T in metres:				
1	13	20	25	25
2	26	40	50	50
3	39	60	75	75
4	52	80	100	100
5	65	100	125	125
Minimum lateral safety zone clearance	0.5	0.5	1.2	1.2
Distance E to "end of road works" sign	10 - 30	10 - 30	30 - 45	30 - 45

Extracts from Traffic Signs Manual (2009)  
Chapter 8 Part 1

**NOTES**

- Do not scale from this drawing, all dimensions are in metres unless noted otherwise.
- This drawing has been based upon Ordnance Survey Maps and Royal Haskoning can not guarantee the accuracy of data.

**KEY**

- DCO ORDER LIMITS
- REQUIRED RESURFACING
- INDICATIVE CONES

**REVISIONS**

REV	DATE	DESCRIPTION	BY	CHK	APP
F2.0	JUN '19	Updated		RNE	ADR

**CLIENT**

**VATTENFALL**

**PROJECT**

NORFOLK VANGUARD OFFSHORE WIND FARM

**TITLE**

B1149 TRAFFIC MANAGEMENT (SOUTH WESTERN VERGE)

**Right of Way House, Boston**  
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**Royal HaskoningDHV**  
Enhancing Society Together

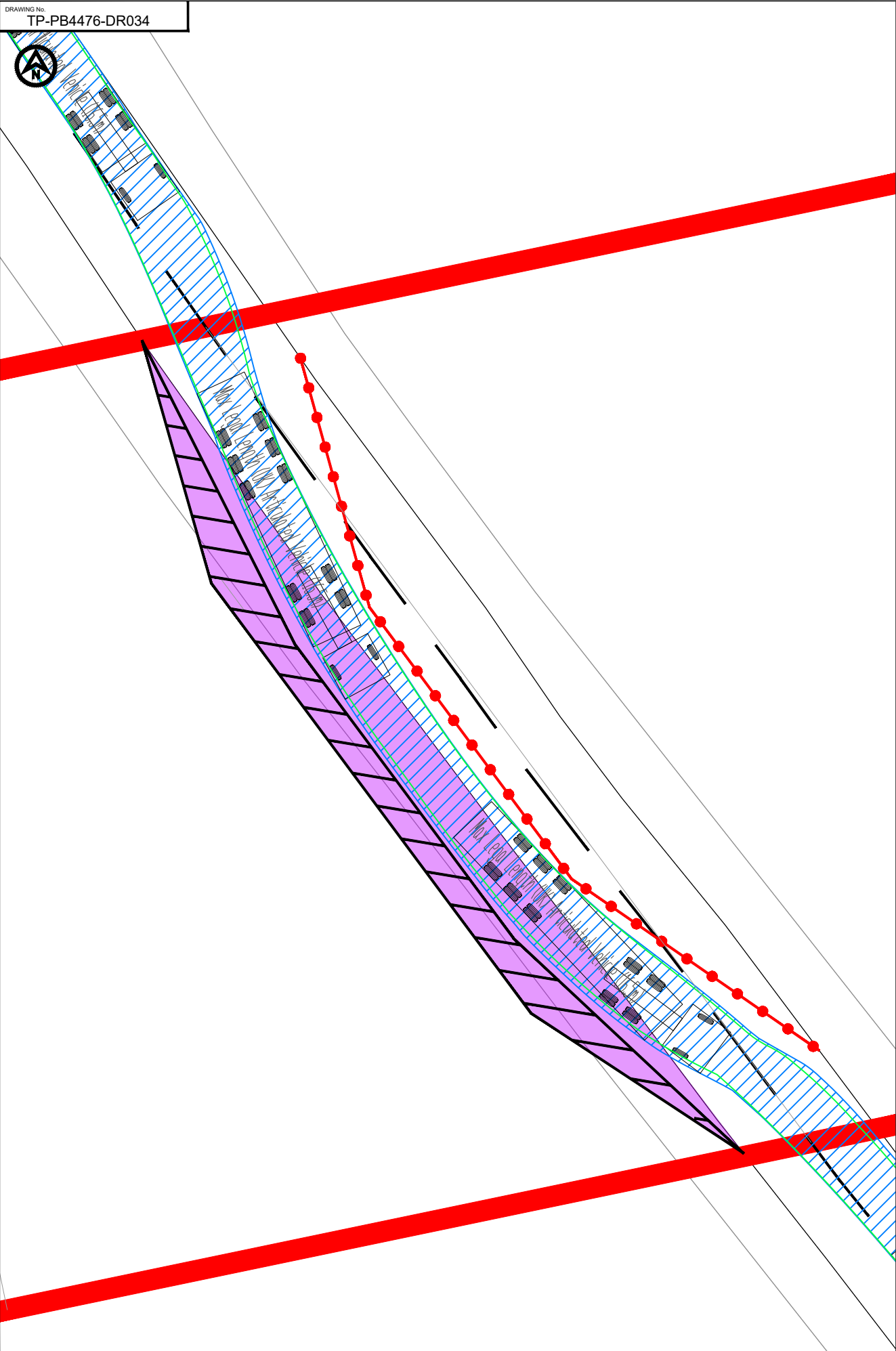
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**DATE** 31.05.19 **SCALE** AT A1 1:250 **CLIENTS REF.**

**DRAWING No.** TP-PB4476-DR033 **REVISION** F2.0

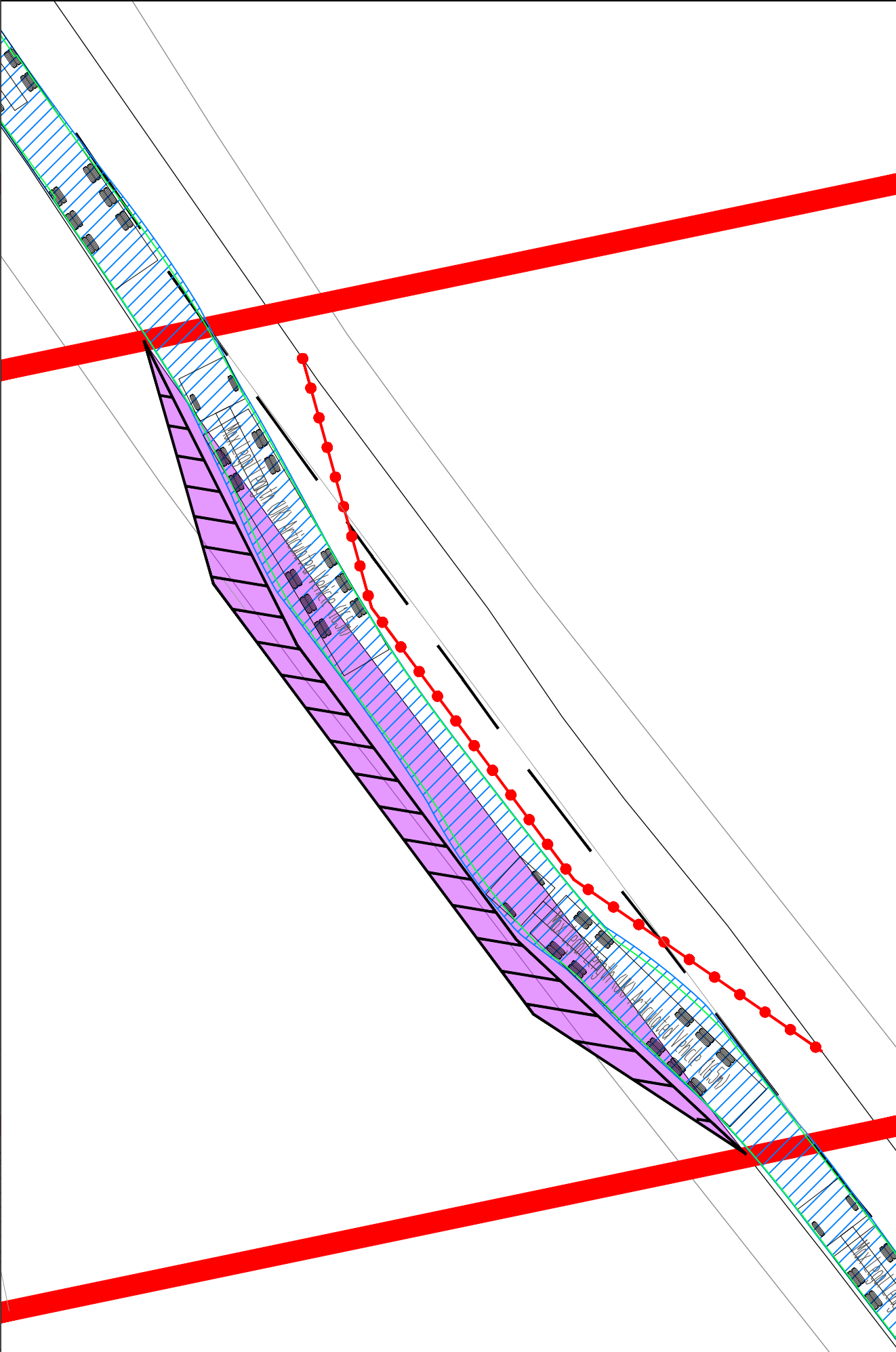
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DRAWING No.  
TP-PB4476-DR034



REPRODUCED FROM ORDNANCE SURVEY MAPS WITH PERMISSION  
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Southbound  
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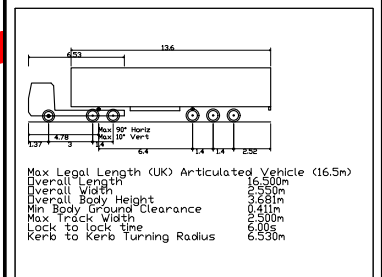
Northbound  
SCALE - 1:250

- NOTES
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  2. This drawing has been based upon Ordnance Survey Maps and Royal Haskoning can not guarantee the accuracy of data.

KEY

— ORDER LIMITS

VEHICLE TRACKING



VEHICLE BODY SWEEP PATH (FORWARD GEAR)

VEHICLE CHASSIS SWEEP PATH

REQUIRED RESURFACING

INDICATIVE CONES

**DRAFT - NOT FOR  
CONSTRUCTION**

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REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT

**VATTENFALL**

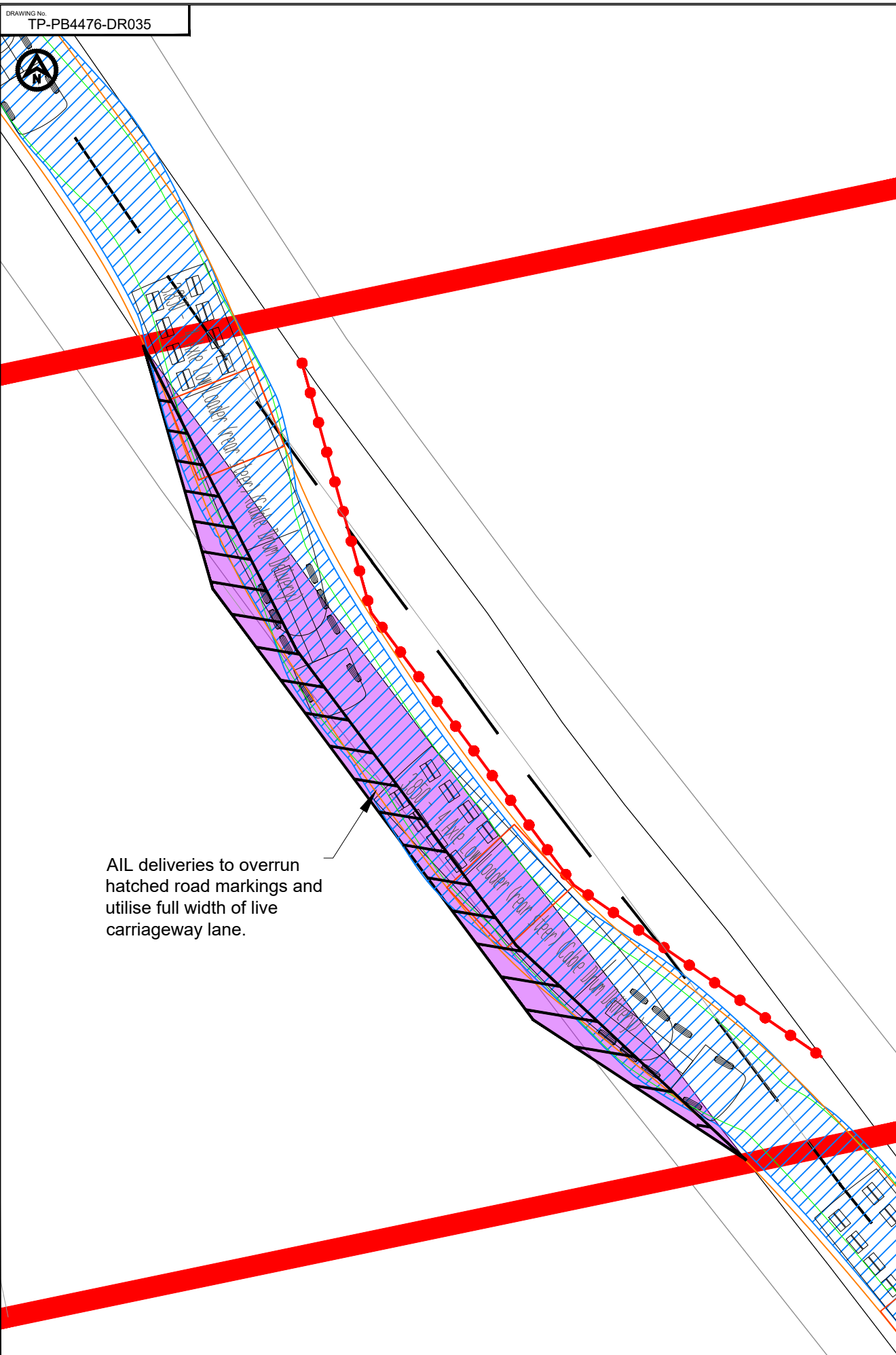
PROJECT  
NORFOLK VANGUARD OFFSHORE  
WIND FARM

TITLE  
B1149 TRAFFIC MANAGEMENT  
ARTICULATED LORRY SWEEP  
PATH ANALYSIS  
(SOUTH WESTERN VERGE)

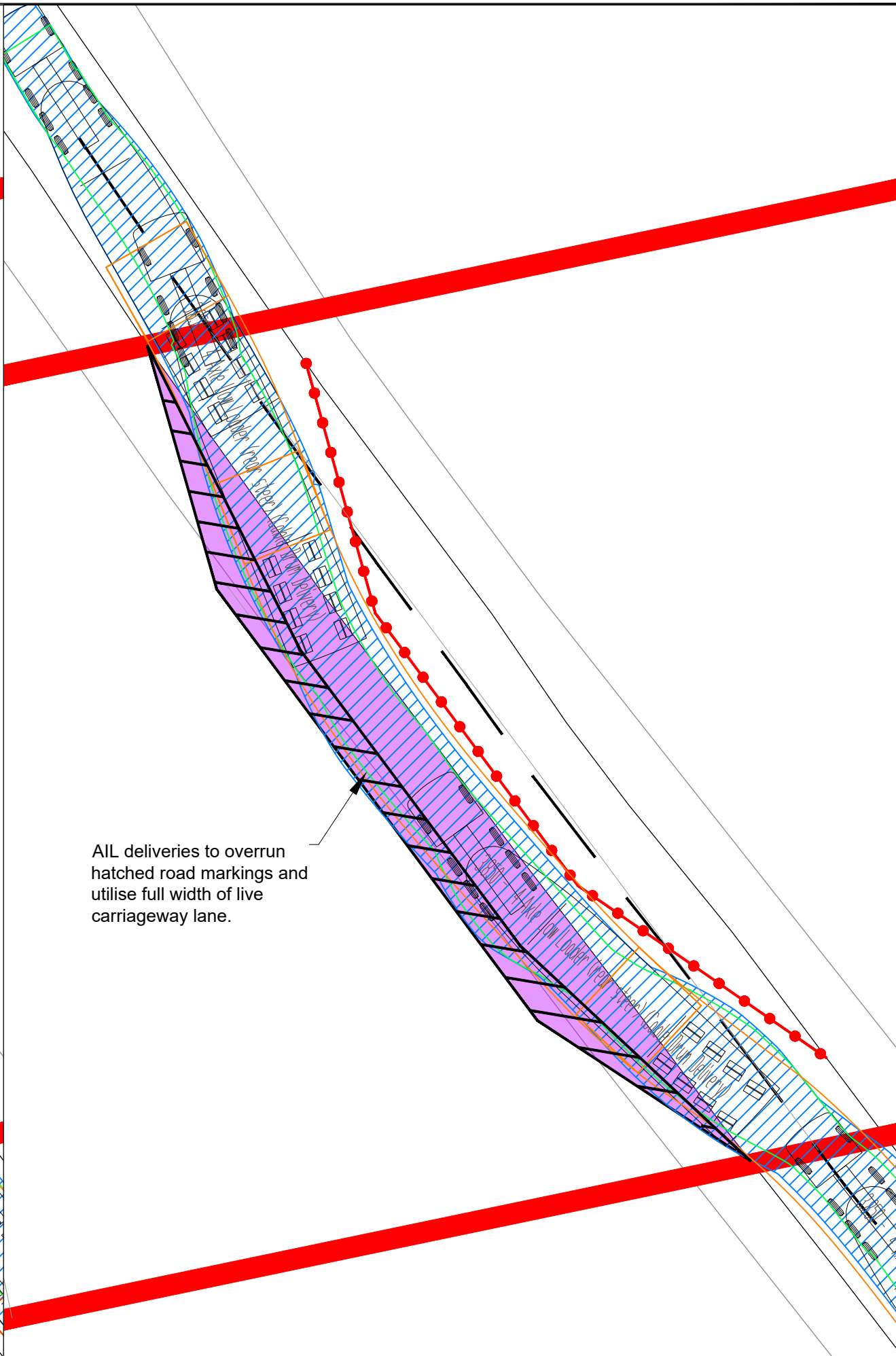


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DATE	31.05.19	SCALE AT A3	1:250	CLIENTS REF.	
DRAWING No.	TP-PB4476-DR034	REVISION			
CLIENT DWG No.					F2.0





ALL deliveries to overrun  
hatched road markings and  
utilise full width of live  
carriageway lane.



ALL deliveries to overrun  
hatched road markings and  
utilise full width of live  
carriageway lane.

**NOTES**

- Do not scale from this drawing, all dimensions are in metres unless noted otherwise.
- This drawing has been based upon Ordnance Survey Maps and Royal Haskoning can not guarantee the accuracy of data.
- Cable drum dimensions taken from Hornsea 3 Offshore Windfarm document 'Main Construction Compound Access Strategy' September 2018.
- Typical ALL vehicle used suitable for cable drum loadings.

**KEY**

— ORDER LIMITS

**VEHICLE TRACKING**

3.850 - 4 Axle Low Loader (rear steer) (Cable Drum Delivery)

Overall Length 12.5m  
Overall Width 2.5m  
Overall Height 3.5m  
Min Rpyd Ground Clearance 0.5m  
Lock to Lock Time 10.0m  
Max Wheel Angle 30.0°

▨ VEHICLE BODY SWEEP PATH (FORWARD GEAR)  
▨ VEHICLE CHASSIS SWEEP PATH  
▨ INDICATIVE CABLE DRUM SWEEP PATH  
▨ REQUIRED RESURFACING  
●●● INDICATIVE CONES

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**VATTENFALL**

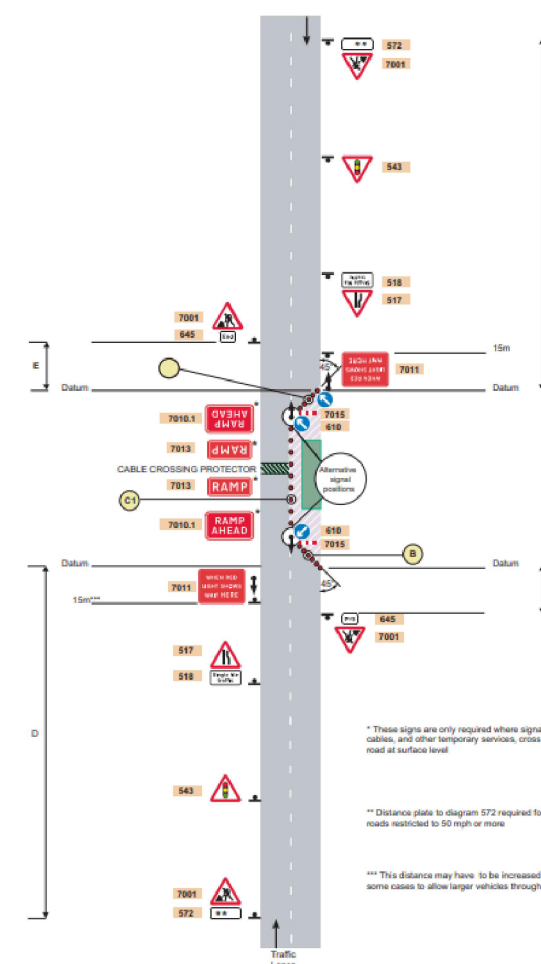
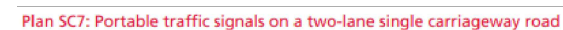
PROJECT  
NORFOLK VANGUARD OFFSHORE WIND FARM

TITLE  
B1149 TRAFFIC MANAGEMENT  
TYPICAL AIL CABLE DRUM  
DELIVERY  
SWEEP PATH ANALYSIS  
(SOUTH WESTERN VERGE)

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Email: info@rhdhv.com  
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NOTE: Refer to Table 5.3 in Section D5.4 for recommended range of distances for dimensions D and E.

	Single carriageway road: Permanent speed limit			
	30mph or less	40mph	50mph	Unrestricted (60 mph)
Minimum and normal maximum stiling distance of first sign in advance of lead-in taper in metres	20* – 45	45 – 110	275 – 450	275 – 450
Minimum longitudinal clearance L in metres†	0.5	15	30	60
Length of taper T in metres‡				
1	13	20	25	25
Width of hazard	2	26	40	50
(metres) including	3	39	60	75
safety zone S	4	52	80	100
5	65	100	125	125
Minimum lateral safety zone clearance	0.5	0.5	1.2	1.2
Distance E to 'end of road	10 – 30	10 – 30	30 – 45	30 – 45

Extracts from Traffic Signs Manual (2009)  
Chapter 8 Part 1

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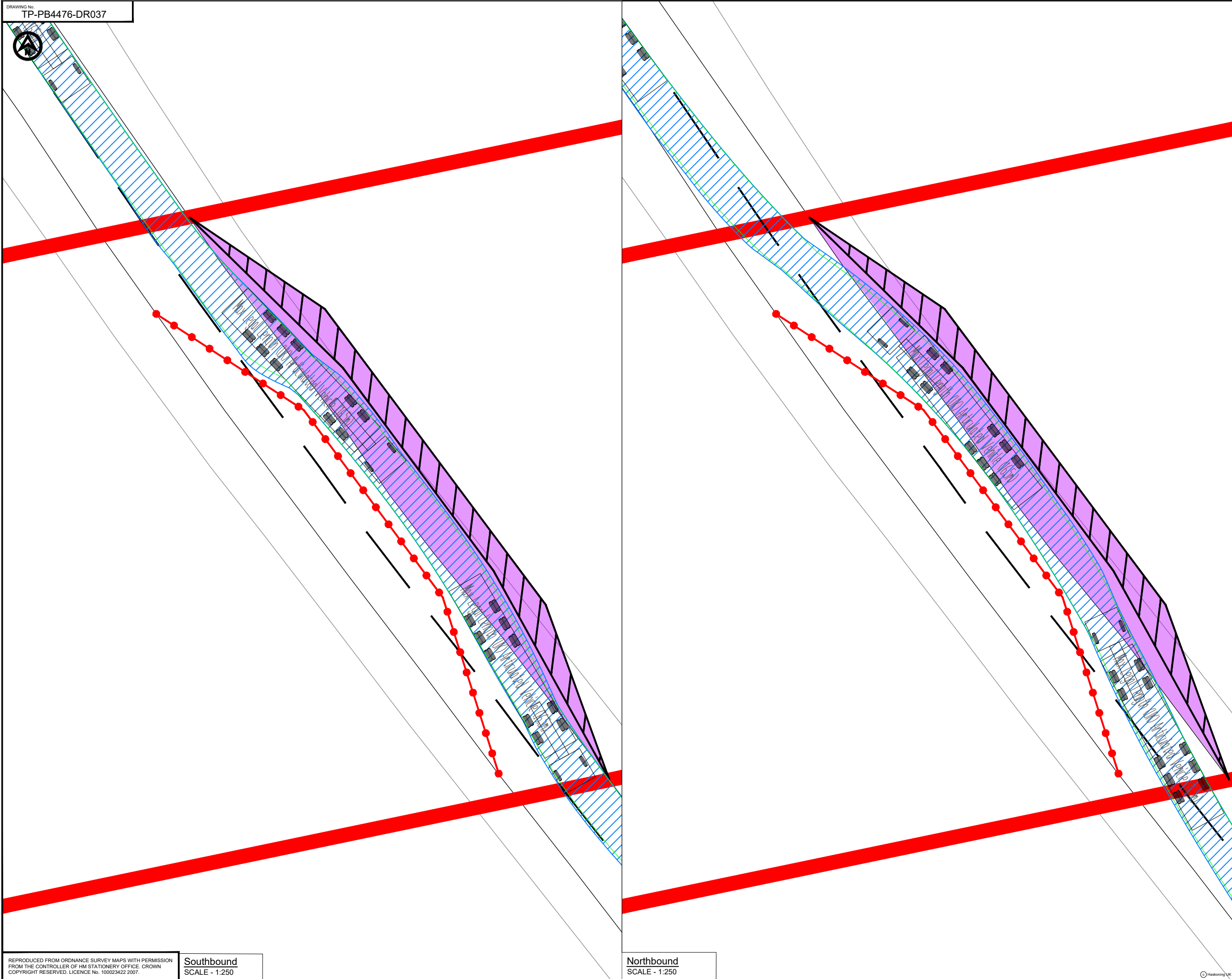
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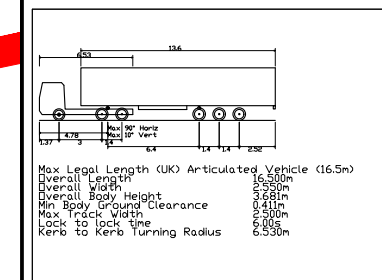






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**KEY**

— ORDER LIMITS



-  VEHICLE BODY SWEEP PATH (FORWARD GEAR)
-  VEHICLE CHASSIS SWEEP PATH
-  REQUIRED RESURFACING
-  INDICATIVE CONES

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VATTENFALL 

PROJECT  
NORFOLK VANGUARD OFFSHORE  
WIND FARM

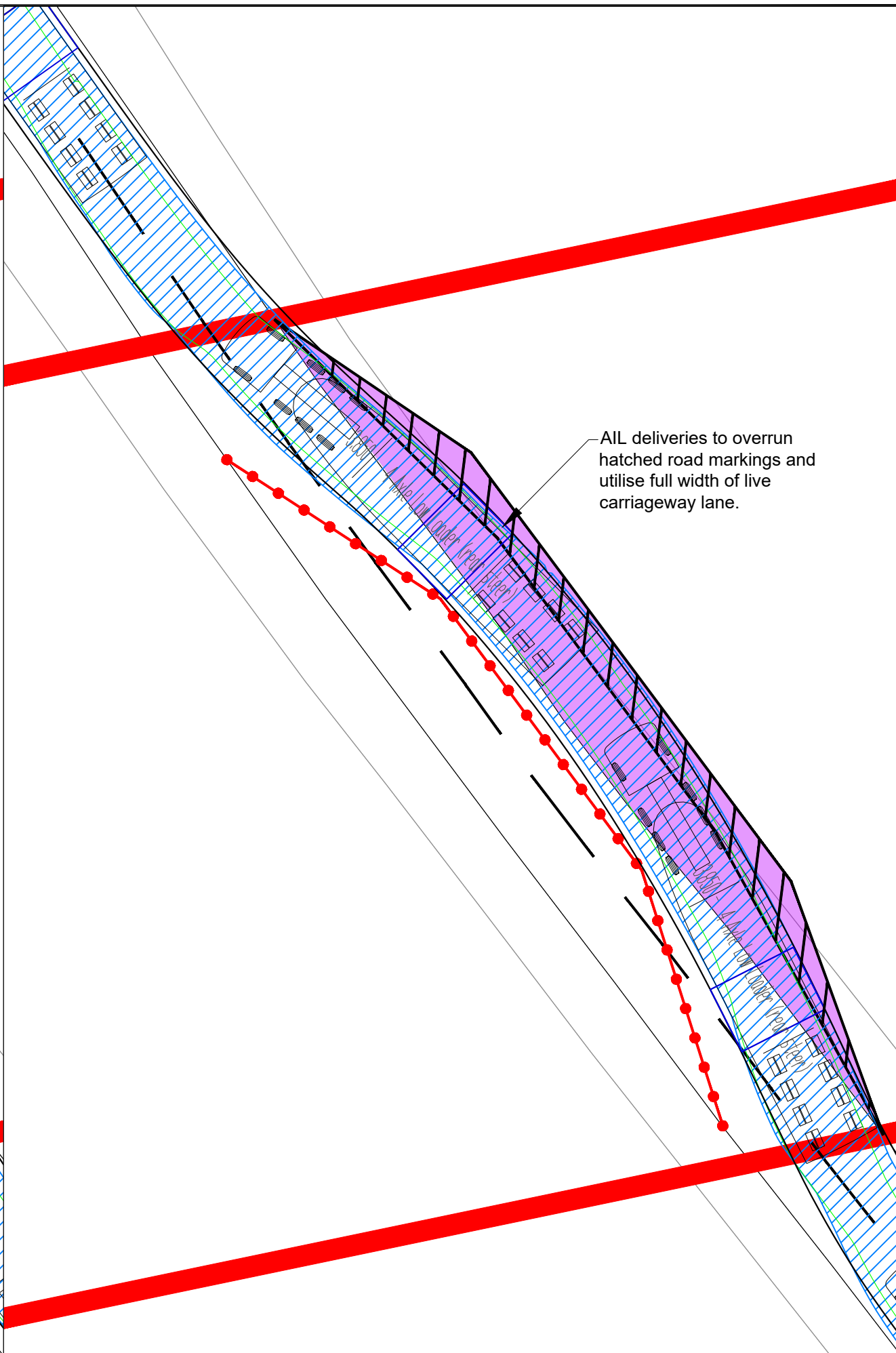
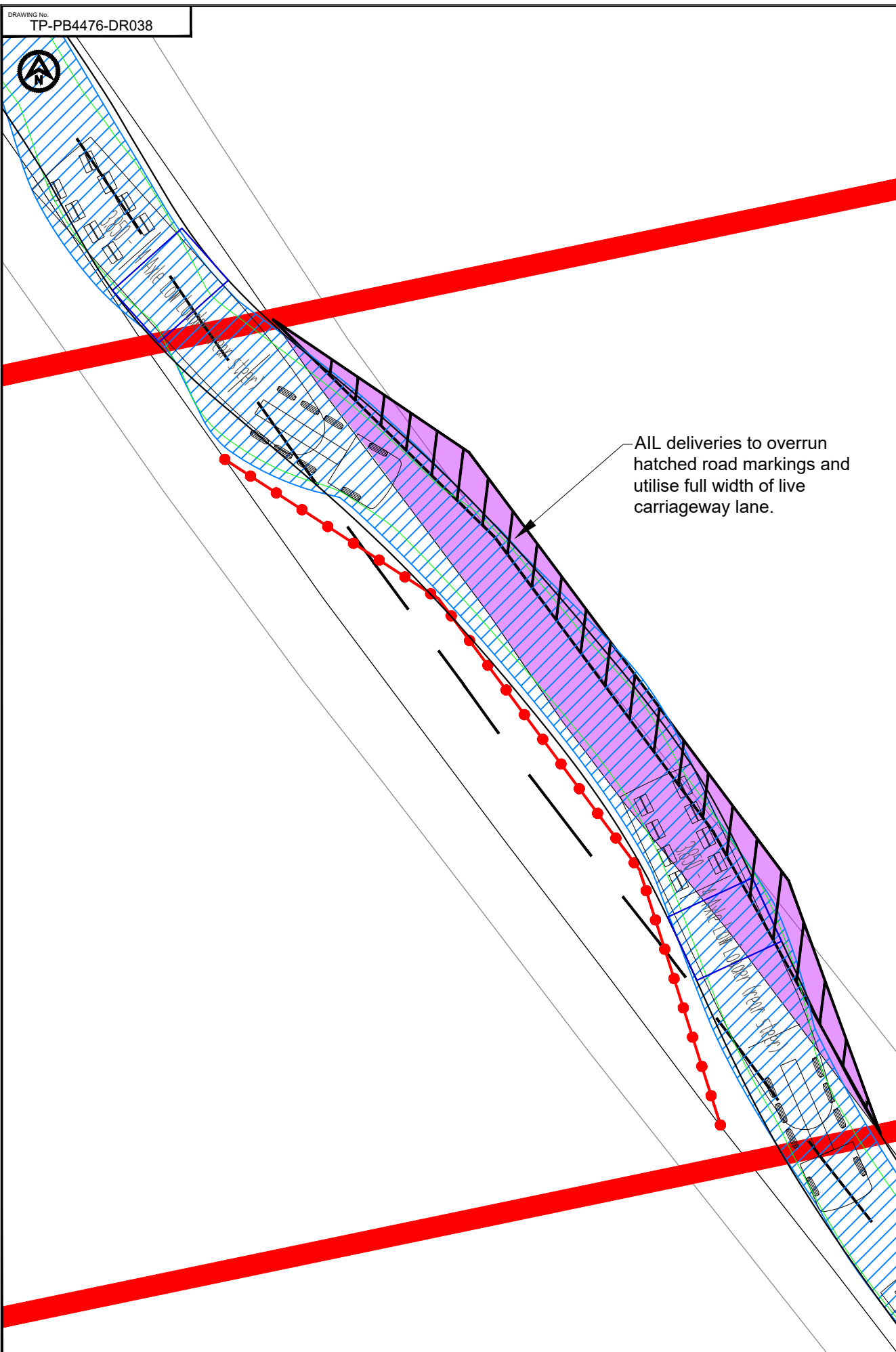
TITLE

B1149 TRAFFIC MANAGEMENT  
ARTICULATED LORRY SWEPT  
PATH ANALYSIS  
(NORTH EASTERN VERGE)



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- Cable drum dimensions taken from Hornsea 3 Offshore Windfarm document 'Main Construction Compound Access Strategy' September 2018.
- Typical AIL vehicle used suitable for cable drum loadings.

**KEY**

- ORDER LIMITS

**VEHICLE TRACKING**

3.850 - 4 Axle Low Loader (rear steer)  
Overall Length 12.5m  
Overall Width 2.5m  
Max. Body Height 4.15m  
Max. Body Ground Clearance 0.5m  
Lock to Lock Time 35.00s  
Max. Wheel Angle 35.00s

- VEHICLE BODY SWEEP PATH (FORWARD GEAR)
- VEHICLE CHASSIS SWEEP PATH
- INDICATIVE CABLE DRUM SWEEP PATH
- REQUIRED RESURFACING
- INDICATIVE CONES

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PROJECT  
NORFOLK VANGUARD OFFSHORE WIND FARM

TITLE  
B1149 TRAFFIC MANAGEMENT  
TYPICAL AIL CABLE DRUM  
DELIVERY  
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