

Norfolk Vanguard Offshore Wind Farm Outline Traffic Management Plan (tracked changes)

Part 4 of 4

Applicant: Norfolk Vanguard Limited
Document Reference: 8.8
Pursuant to: APFP Regulation: 5(2)(q)
[Deadline 7](#)

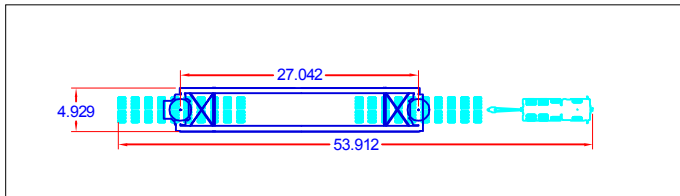
Date: [02 May 2019](#)
Revision: Version [2](#)
Author: Royal HaskoningDHV

Photo: Kentish Flats Offshore Wind Farm



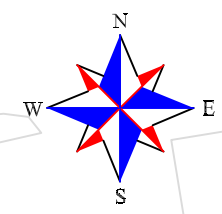


Direction of view



Swept Path indicates trailer utilising MANUAL steering

20 Row Girder Bridge Arrangement for the movement of a 200Te Transformer



Continue on A47 to roundabout with Norwich Road.
At roundabout, continue on A47.

****Caution****

- Road signs on central island of the roundabout to be removed.
- Trees on roundabout to be pruned.
- Girder Bridge to be raised to clear central island.

UK Grid Reference: TF 84305 09509

- The swept path analysis provided is produced from a purely transport orientated view, and does not consider any political issues in terms of land ownership, or any other precincts raised, that may otherwise be restrictive.
- The drawing has been produced from data created by Collett. A site visit has **not** been conducted to verify road widths or the presence of street furniture.
- All swept path diagrams and assessments are made and calculated for the road movement of loaded trailer equipment carrying Turbine components. These dimensions are based on the turning circles and specification of Collett & Sons Ltd trailer equipment.
- This SPA is a means of providing evidence of minimum requirements of any one vehicle as a footprint and there is no safety factor or margin included.
- Turbine delivery vehicles can be both left and right hand drive vehicles, therefore due to drivers perception it must be assumed that every vehicle will not follow the exact same line and so a margin of additional space should be allowed for.
- Land take is usually referred to when land is required from Private Land Owners; road widening is usually referred to when land is required within highways boundaries. The boundaries between private land and highways property are assumed by using obvious demarcation such as fence lines/hedges etc. It should be noted that actual boundaries between highways and private land are not substantiated in this report and can only be authenticated by carrying out land searches.
- Police escorts and permits will be required for the movement of all of the components. Form 'BE16' permits will also be required to undertake the movement of the vehicle shown in the swept path analysis. These permits are at the discretion of the Highway Agency (HA). Therefore, approval of these 'permits for movements' by the HA are a major consideration before the physical capability to deliver these components are undertaken.
- In critical areas, where modifications are required, the road construction must be formed to the minimum specification contained in the Turbine Manufacturers Transport Guidance Notes.
- The Turbine Manufacturers Transport Guidance Notes will state the minimum road width required for the transport of components. Any roads below this stated width will require widening to reflect this regardless of any swept path analysis not indicating modifications.
- The information is privileged and confidential and is for the exclusive use of the nominated client.
- All dimensions in meters

Road signs to be removed
Trees to be pruned

- Area within red outline will be swept by tractor and trailer axles
- ▨ Hatched area within red outline to be levelled and prepared to accept axle loadings
- Area within magenta outline will be oversailed by load and projections
- Area within green outline will be oversailed by trailer body

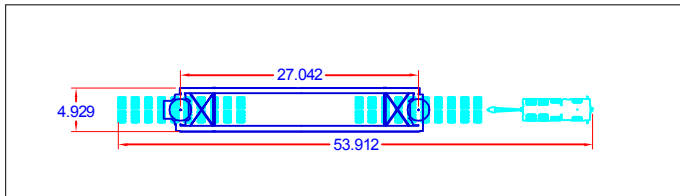


COLLETT & SONS LIMITED
Victoria Terminal TEL: +44(0)8456 255288
Albert Road FAX: +44(0)8456 255244
Halifax, HX2 0DF WEB: www.collett.co.uk

DRAWN	S.MANGHAM	TITLE	A47/NORWICH ROAD ROUNDABOUT		
DATE	20/03/2018	MAPPING	ORDNANCE SURVEY <small>Not Adjusted</small>	CUSTOMER	ROYAL HASKONING DHV
SCALE	1:500	SIZE	A3	PINCH POINT IDENTIFIED BY	COLLETT
				SITE	NORFOLK VANGUARD
				DWG. NO	314597-180A1.1

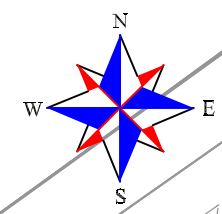


Direction of view



Swept Path indicates trailer utilising MANUAL steering

20 Row Girder Bridge Arrangement for the movement of a 200Te Transformer



Continue on A47 to proposed site entrance.

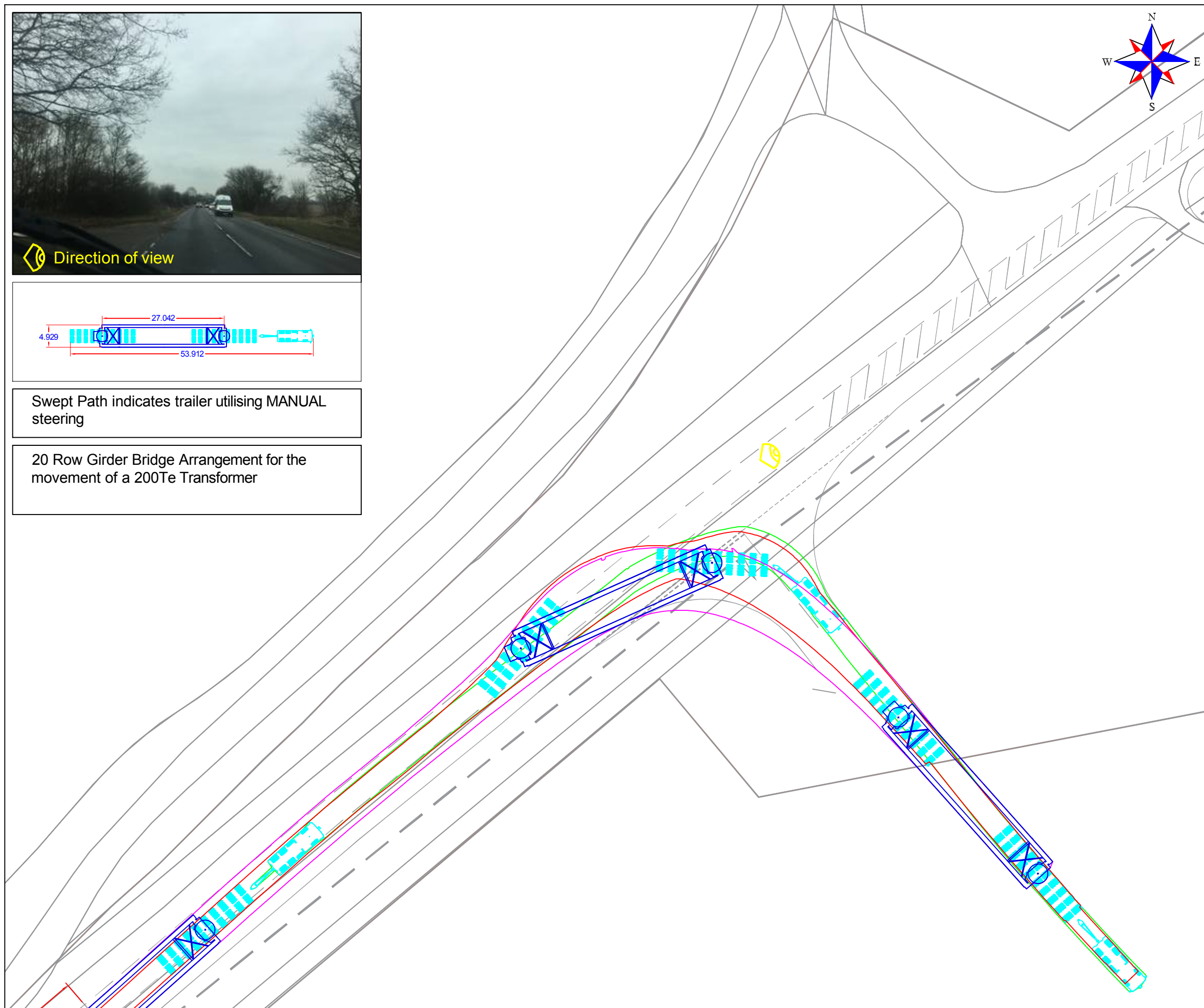
****Caution****

- Proposed junction alignment can be navigated utilising manual steering.

UK Grid Reference: TF 89245 11382

- The swept path analysis provided is produced from a purely transport orientated view, and does not consider any political issues in terms of land ownership, or any other precincts raised, that may otherwise be restrictive.
- The drawing has been produced from data created by Collett. A site visit has not been conducted to verify road widths or the presence of street furniture.
- All swept path diagrams and assessments are made and calculated for the road movement of loaded trailer equipment carrying Turbine components. These dimensions are based on the turning circles and specification of Collett & Sons Ltd trailer equipment.
- This SPA is a means of providing evidence of minimum requirements of any one vehicle as a footprint and there is no safety factor or margin included.
- Turbine delivery vehicles can be both left and right hand drive vehicles, therefore due to drivers perception it must be assumed that every vehicle will not follow the exact same line and so a margin of additional space should be allowed for.
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- Police escorts and permits will be required for the movement of all of the components. Form 'BE16' permits will also be required to undertake the movement of the vehicle shown in the swept path analysis. These permits are at the discretion of the Highway Agency (HA). Therefore, approval of these 'permits for movements' by the HA are a major consideration before the physical capability to deliver these components are undertaken.
- In critical areas, where modifications are required, the road construction must be formed to the minimum specification contained in the Turbine Manufacturers Transport Guidance Notes.
- The Turbine Manufacturers Transport Guidance Notes will state the minimum road width required for the transport of components. Any roads below this stated width will require widening to reflect this regardless of any swept path analysis not indicating modifications.
- The information is privileged and confidential and is for the exclusive use of the nominated client.
- All dimensions in meters

- Area within red outline will be swept by tractor and trailer axles
- Hatched area within red outline to be levelled and prepared to accept axle loadings
- Area within magenta outline will be oversailed by load and projections
- Area within green outline will be oversailed by trailer body



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 Halifax, HX2 0DF WEB: www.collett.co.uk

DRAWN	S.MANGHAM	TITLE	PROPOSED SITE ENTRANCE OFF A47		
DATE	20/03/2018	MAPPING	PROVIDED BY CLIENT	CUSTOMER	ROYAL HASKONING DHV
SCALE	1:500	SIZE	A3	PINCH POINT IDENTIFIED BY	COLLETT
				SITE	NORFOLK VANGUARD
					DWG. NO 314597-190A1.1

APPENDIX 3 - COUNCIL CORRESPONDENCE AND COMMENTS

Our Ref:	314597	Date:	10 th March 2018
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Application for 'Confirmation of suitable route' for Norfolk Vanguard.

To Whom it May Concern,

I am currently carrying out a survey to a site called 'Norfolk Vanguard', off A47 near Necton.

Could you please **confirm in writing** that the **route** detailed below and all structures that are involved in your area on this route are suitable in terms of axle loadings, spacing and Gross vehicle weights, in connection with the loaded vehicle specifications below.

Route:
<ul style="list-style-type: none"> • Exit Kings Lynn Harbour onto Edward Benerfer Way, • Continue on Edward Benerfer Way to merge onto Grimston Road A148. • Continue on A148 to roundabout junction with A149 Queen Elizabeth Way, • At roundabout turn right onto A149 Queen Elizabeth Way, • Continue on A149 through 2 roundabouts to roundabout junction with A47, • At roundabout turn left onto A47, • At roundabout turn left onto A47, • At roundabout, continue on A47, • At roundabout continue on A47, • Continue on A47 to proposed site entrance on the right hand side at approx. OS Grid refs: TF 89245 11382.

Load A: Girder Bridge Only									
Rigid Length	27.042	Overall Length	49.70	Overall Width	7.39	Overall Height	4.929	Gross Vehicle Weight	332.86Te

	1	2	3	4	5	6	7	8	9	10	11	12	13	
Number of wheels per axle	8	8	8	8	8	8	8	8	8	8	8	8	8	
Axle Weight (Te.)	16.64	16.64	16.64	16.64	16.64	16.64	16.64	16.64	16.64	16.64	16.64	16.64	16.64	
Axle Spacing		1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	11.78	1.50	1.50	1.50

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EXPERTS IN MOTION

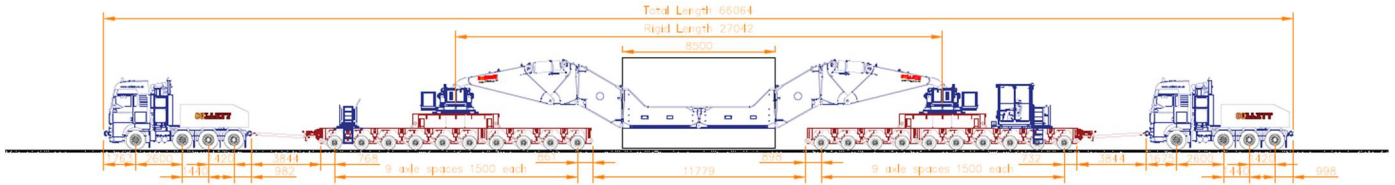
Victoria Terminal
Albert Road
HALIFAX
West Yorkshire
HX2 0DF

Mistral Point
AW Nielsen Road
GOOLE
East Yorkshire
DN14 6UE

Baltic House
Central Dock Road
GRANGEMOUTH
Central Scotland
FK3 8TY

Tel. +44 (0) 8456 255 233
Fax +44 (0) 8456 255 244
Email info@collett.co.uk
www.collett.co.uk

14	15	16	17	18	19	20
8	8	8	8	8	8	8
16.64	16.64	16.64	16.64	16.64	16.64	16.64
1.50	1.50	1.50	1.50	1.50	1.50	



Should there be any problem with any part of the route detailed, I would appreciate your immediate response.

Your urgent response would be greatly appreciated.
Many thanks & best regards

Steven Mangham
COLLETT & SONS LTD

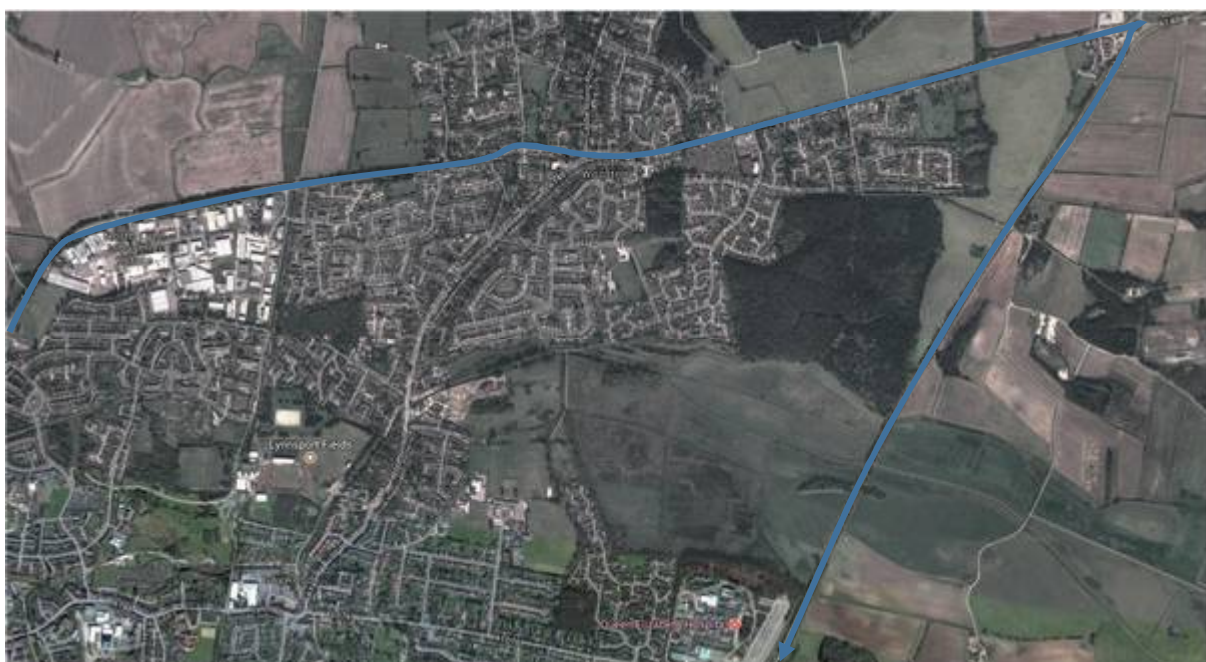
Map of Routes

Route A

Exit from Kings Lynn Harbour on Edward Benerfer Way.



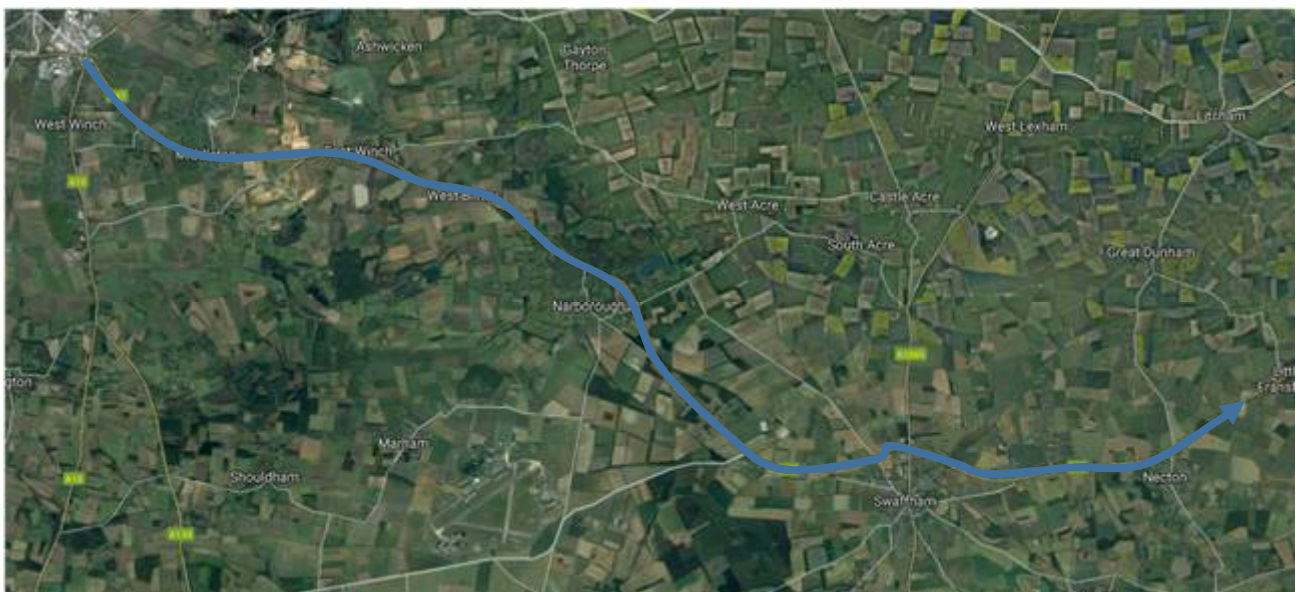
Continue on Edward Benerfer Way to merge on Grimston Road A148.



Continue on A148 to roundabout junction with A47.



Continue on A47 to Site



Steven Mangham

From: Howell, Tania <Tania.Howell@jacobs.com>
Sent: 21 March 2018 08:19
To: Steven Mangham
Subject: RE: Confirmation of Suitable Route - 314597

Good morning Steven,

Thank you for your enquiry.

I can confirm that neither of the route options will affect any Historic Railways Estate structures.

Regards
Tania

Tania Howell
Abnormal Loads Officer
Jacobs
DDI: 0118 946 8911

If your mail concerns abnormal load movements, please reply to RSGBRB@jacobs.com

From: Steven Mangham [<mailto:Steven.Mangham@collett.co.uk>]

Sent: 20 March 2018 16:54

To: abloads.area6@kier.co.uk; roadspace.area6@kier.co.uk; abnormalloads@norfolk.gov.uk; Abnormal Loads Contact (AbnormalLoadsContact@networkrail.co.uk) <AbnormalLoadsContact@networkrail.co.uk>; abnormal.loads@canalrivertrust.org.uk; RSGBRB@jacobs.com

Subject: [EXTERNAL] Confirmation of Suitable Route - 314597

Good Afternoon,

To Whom It May Concern:

Please find attached a Confirmation of Suitable Route request for Norfolk Vanguard.

Please note that, at present, we do not require a permit to move. This request is for information purposes only to ensure that the route is suitable to accept the axles loads proposed and to identify any potential structure issues there may be on the identified route.

If you could response in writing to steven.mangham@collett.co.uk that would be much appreciated.

Kind Regards,

Steven Mangham

Consulting Team Manager/Renewables Project Manager

Collett & Sons Ltd | Victoria Terminal | Albert Road | Halifax | HX2 0DF | UK

Tel: +44 (0)8456 255288 | Fax: +44 (0)8456 255244 | Mob: [REDACTED]

Email: steven.mangham@collett.co.uk | Web: www.collett.co.uk



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1180 Eskdale Road, Winnersh, Wokingham RG41 5TU
Registered in England and Wales under number 2594504

Steven Mangham

From: Administrator
Sent: 26 March 2018 12:11
To: Steven Mangham
Subject: FW: 2018-03-23 00-00 Confirmation_of_suitable_route_314597
Attachments: 2018-03-23 00-00 Confirmation_of_suitable_route_314597.pdf; 2018-03-23 00-00 Confirmation_of_suitable_route_314597.xlsx

Michael Collett
Director

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Tel: +44 (0)8456 255233 | Fax: +44 (0)8456 255244 | mob: [REDACTED]

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From: Hughes, John [<mailto:John.Hughes@kier.co.uk>]
Sent: 26 March 2018 11:59
To: info at collett
Cc: Nick Hyde (Nicolas.hyde@highwaysengland.co.uk); Chimwemwe Banda
Subject: 2018-03-23 00-00 Confirmation_of_suitable_route_314597

Steven Mangham
Proposals such as in the attached have to be dealt with by due process.
If you have not already done so you must submit a Special Order Notification to:-

Abnormal Loads
Highways England | The Cube | 199 Wharfside Street | Birmingham | B1 1RN
Tel: 0300 470 3102
Abnormal Loads Team Tel: 0300 470 3004
Web: <http://www.highways.gov.uk>

I believe that this is done via [ESDAL](#).

There are potentially twenty structures belonging to Highways England that may be affected by your proposal, though I note that you are avoiding some of the larger span structures in your attached proposal.

The structures potentially affected by your proposal are listed in the attached excel spreadsheet. We at Kier are unable to process your proposal further without a notification and Special Order reference from Highways England.

Regards

John Hughes Bsc. C.Eng MICE

Project Manager Structures
Abnormal Loads Coordinator Highways England Areas 6 and 8

Kier Services | Highways | Sandy Highways Depot, Beamish Close, Sandy **SG19 1SD**
T: | 01223 255255 | E: john.hughes@kier.co.uk
Web www.kier.co.uk

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Our values are enthusiastic, collaborative and forward-thinking

Kier Highways Limited | Registered in England No. 5606089
Registered Office: Tempsford Hall, Sandy, Bedfordshire, SG19 2BD

Steven Mangham

From: Nicholson Katie <Katie.Nicholson@networkrail.co.uk> on behalf of Network Rail Abnormal Loads <NetworkRailAbnormalLoads@networkrail.co.uk>
Sent: 23 March 2018 13:20
To: Steven Mangham
Subject: QID 615 RE: Confirmation of Suitable Route - 314597

Hi Steven,

Your proposed movement does not affect any Network Rail owned road over rail bridges or tunnels therefore we have no objection to your proposed routes.

Please note we only check the load carrying capacity of Network Rail owned road over rail bridges affected we do not check anything else including:

- Load carrying capacity of level crossings
- Clearance to bridge parapets
- Clearance under a rail bridge
- Clearance to overhead wires at level crossings

Many Thanks

Katie Nicholson

Abnormal Loads Assistant
Abnormal Loads Help Desk: 01908 783 140



Abnormal Loads | National Records Group | Route Services

The Quadrant | Elder Gate | Milton Keynes | MK9 1EN

D 01908 783 140 | E Katie.Nicholson@networkrail.co.uk W [Network Rail Abnormal Loads](#)

From: Steven Mangham [<mailto:Steven.Mangham@collett.co.uk>]

Sent: 20 March 2018 16:53

To: abloads.area6@kier.co.uk; roadspace.area6@kier.co.uk; abnormalloads@norfolk.gov.uk; Network Rail Abnormal Loads; abnormal.loads@canalrivertrust.org.uk; rsgbrb@jacobs.com

Subject: Confirmation of Suitable Route - 314597

Good Afternoon,

To Whom It May Concern:

Please find attached a Confirmation of Suitable Route request for Norfolk Vanguard.

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If you could response in writing to steven.mangham@collett.co.uk that would be much appreciated.

Kind Regards,

Steven Mangham

Consulting Team Manager/Renewables Project Manager

Collett & Sons Ltd | Victoria Terminal | Albert Road | Halifax | HX2 0DF | UK

Tel: +44 (0)8456 255288 | Fax: +44 (0)8456 255244 | Mob: [REDACTED]

Email: steven.mangham@collett.co.uk | Web: www.collett.co.uk



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Steven Mangham

From: ETD Bridges <pandt.bridges@norfolk.gov.uk>
Sent: 21 March 2018 12:15
To: Steven Mangham
Subject: RE: MOVING - NO DATE FW: Confirmation of Suitable Route - 314597
ABNORMAL LOAD

Hi Steven

I have checked the routes and do not see any problems with the proposed vehicle/axle loads travelling over the NCC owned structures on the route. NCC are not responsible for the structures on the A47 and you will need to contact Highways England for them to comment on the suitability of that part of the route.

Regards

Mark

Mark North
Bridge Network Engineer
Highways & Transport
Community and Environmental Services

Direct Dial Telephone No: 01603 223804
Direct Fax No: 01603 223305
E-mail: mark.north@norfolk.gov.uk

Norfolk County Council
General enquiries: 0344 800 8020 or information@norfolk.gov.uk
Website: www.norfolk.gov.uk

From: Abnormal Loads
Sent: 21 March 2018 08:56
To: ETD Bridges <pandt.bridges@norfolk.gov.uk>
Subject: MOVING - NO DATE FW: Confirmation of Suitable Route - 314597 ABNORMAL LOAD

From: Steven Mangham [<mailto:Steven.Mangham@collett.co.uk>]
Sent: 20 March 2018 16:53
To: abloads.area6@kier.co.uk; roadspace.area6@kier.co.uk; Abnormal Loads <abnormalloads@norfolk.gov.uk>;
Abnormal Loads Contact (AbnormalLoadsContact@networkrail.co.uk) <AbnormalLoadsContact@networkrail.co.uk>;
abnormal.loads@canalrivertrust.org.uk; rsgbrb@jacobs.com
Subject: Confirmation of Suitable Route - 314597

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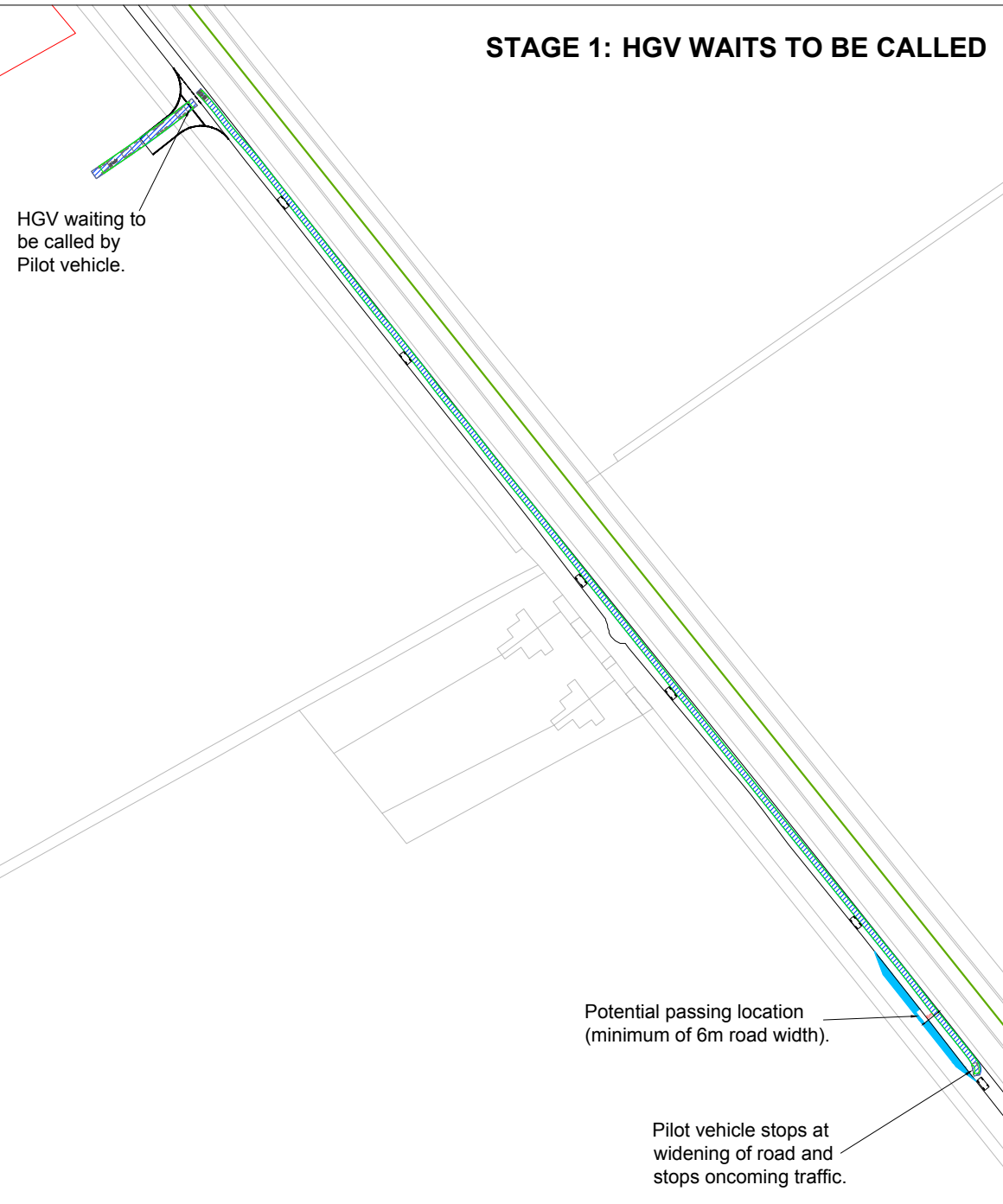
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APPENDIX 3: PILOT VEHICLE CONCEPT

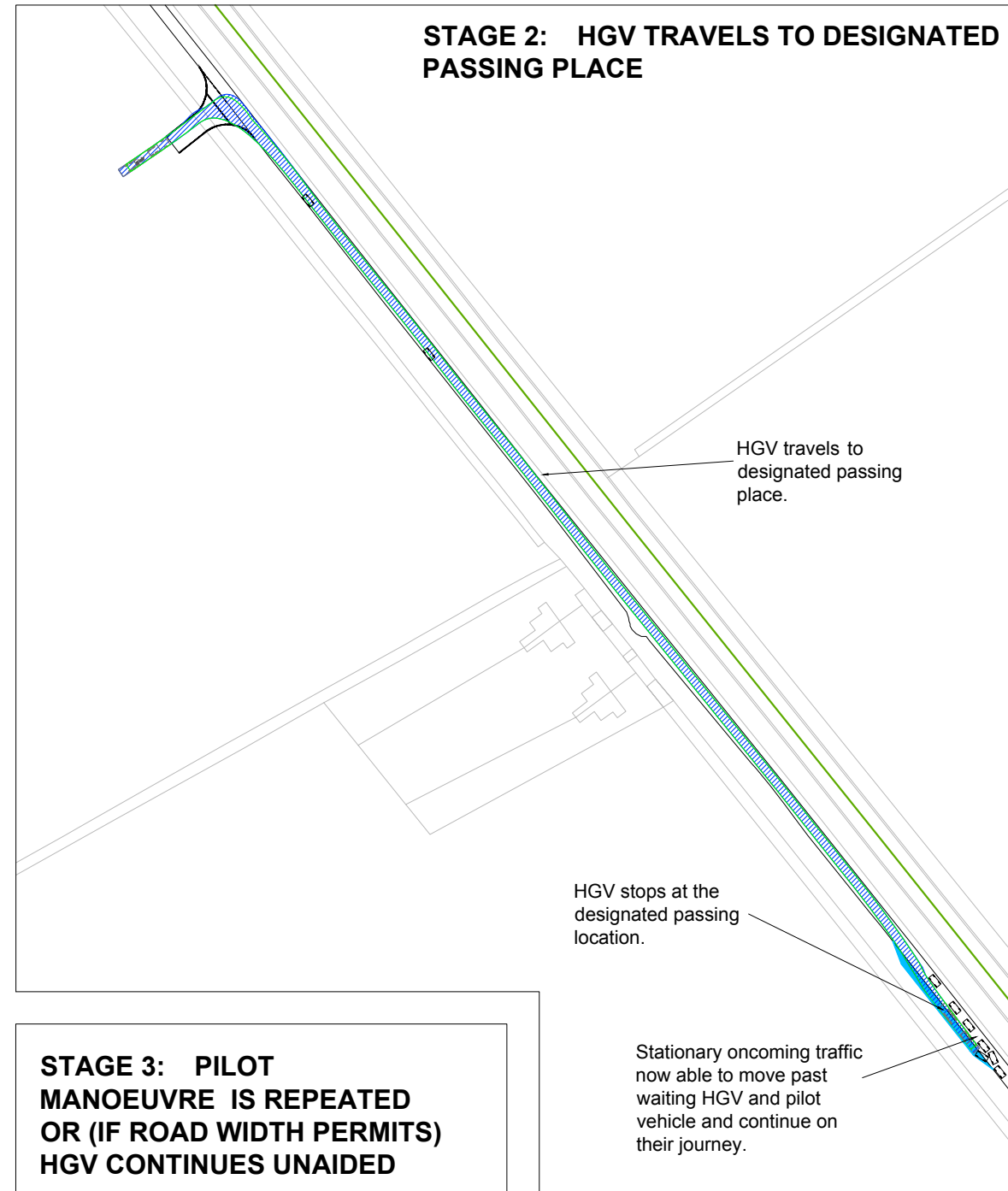


Legend

STAGE 1: HGV WAITS TO BE CALLED



STAGE 2: HGV TRAVELS TO DESIGNATED PASSING PLACE



STAGE 3: PILOT MANOEUVRE IS REPEATED OR (IF ROAD WIDTH PERMITS) HGV CONTINUES UNAIDED

Stationary oncoming traffic now able to move past waiting HGV and pilot vehicle and continue on their journey.

PROJECT:
NORFOLK VANGUARD OFFSHORE
WIND FARM

TITLE:
PILOT VEHICLE WITH PASSING
PLACES

Rev	Date	By	Comment

Drg No	TP-PB47476-DR011
Rev	D0.1
Date	02.05.18
Layout	LAYOUT