

Runaway Risk Locations for 019 Compliance within Anglia

This document sets out how Anglia Route will manage the risk of trolleys/ RRVs or Ironmen running away on a slope

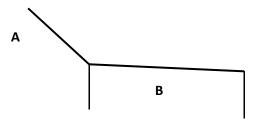
The following areas are at risk from Runaways, according to the data held in Geo Rinim which is the best data Network Rail currently holds.

The mitigation only needs to apply for static worksites of more than 30 minutes duration, within a possession.

<u>Key Point 1:</u> Point protection below will be applied at all times during any works in a possession or line block.

There are two component parts to a runaway location, the gradient (A) and the area at risk at the bottom of the gradient (B), which is up to 5 miles from the end of A. There is only a risk if a trolley, RRV or Iron Man is in area A. If this is the case Vortok Protection is required to be deployed.

McGinleys' staff have been trained in use of Vortok on Anglia Route and are available via a coom order, use the following account codes C7A163 148411. There is no money on the account, it enables orders to be tracked easily.



Engineers Line Reference (if is not included in here there is no risk).

AWL (Acton East - Acton Wells Junction)

• Area A, from Acton Wells towards Western, downhill from Anglia. No mitigation required on Anglia, the risk is to IMDM Reading.

BDH

IMDM Bedford can pose a runaway risk to Anglia on the BDH. Any work on the BDH between
Dudding Hill and our Boundary will require vortok protection on the boundary side of the
work (furthest from Dudding Hill). 8 and 9 points at Dudding Hill to be maintained in the
Normal Position, to protect the CAW.



BGK

- Area A 3m 06ch to 3m 17ch, downhill to Clapton Area B is from 3, 17ch to Clapton Junction 2520 and 2521 points laying reverse, towards Chingford, where there is a runaway risk in both directions form the CJC back to Hackney Downs.
- Area A 4m 45ch to 4m 47ch Area B to Tottenham South Junction, 2529 and 2530 to be set reverse, to the TSE, which is uphill to the T&H line.
- Area A, 34m 52 to 34m 43ch downhill to Stansted North Junc. Area B, to 2640 and 2641 points set reverse to the TEN (North Curve) to protect the BGK.
- Area A 35m 09ch to 35m 16ch towards Stansted North Junc, Area B to 2640 and 2641 points set reverse to the TEN (North Curve) to protect the BGK.

BOK 1

- Area A 3m 49ch to 3m 36ch, downhill towards Cannonbury. Area B from 3m 65ch to Stratford. Vortok to be deployed on the Willesden side of the worksite.BOK5 ACTON WELLS JN to OLD KEW JN
- Area A 1m 32ch to 1 m 05ch downhill to Acton Central. Area B with 202 and 203 points normal to the route boundary. Vortok protection required on the Willesden side of the works.

BOK 2

- Area A 2m 67ch to 2m 71ch downhill to Willesden. Area B to Acton Wells Junction. Vortok to be deployed on the Stratford side of the worksite.
- Area A 1m 42ch to 0m 64ch downhill towards Stratford. Area B to Dalston Kingsland Station (DWW1 2m 09ch). Vortok to be deployed on the Willesden side of the worksite.

BRA (Braintree Branch)

• Area A 18m 20ch to 18m 02ch downhill towards Braintree, Area B from 18m 02 to the buffer stops at Braintree, protection to be placed on the Witham side of the works.

CAW

Area A Downhill gradient between 6m 75ch and 6m 77ch, towards Neasden Signal Box. The
rest of the line to Acton Wells is at risk, Area B. 581 and 582 points at Acton Wells to be
maintained in reverse to protect the North London Line.



CCH (CAMBRIDGE HAUGHLEY JNC)

- Area A 0m 63ch to 1m 06ch downhill to Coldham Lane, with runaway protection required, protection to be placed on the Dullingham side of the work site. Area B from 063ch to 1106 points to be maintained in normal to prevent risk to the BGK line of route.
- Area A 8m 02ch to 8m 22ch, downhill towards Coldham Lane Junc Area B from 8m 02ch to 3m 02ch. Vortok if required to be deployed on the Chippenham side of the works.
- Area A from 8m 75ch to 10m 37ch, downhill towards Coldham Lane Junc . Area B from 8m 75ch to 3m 75ch, vortok protection Chippenham side of the worksite.
- Area A from 11m 12ch to 12m 75ch, downhill towards Chippenham Junction. Area B 12m 75ch to 17m 75ch with vortok protection required on the Haughley side of the worksite.
- Area A from 14m 18ch to 14m 23ch downhill towards Chippenham Junction. Area B from 14m 23ch to 19m 23ch. Vortok protection on the Cambridge side of the worksite.
- Area A from 28m 02ch to 28m 10ch downhill towards Bury St Edmunds. Area B from 28m 10ch to 33m 10ch, with Vortok protection on the Cambridge side of the worksite.
- Area A from 34m 09ch to 34m 16ch downhill to Haughley Junction. Area B from 34m 16ch to 39m 16ch, with vortok protection on the Bury side of the worksite.
- Area A from 38m 54ch to 38m 60ch downhill towards Elmswell. Area B from 38m 54ch to 33m 54ch, with vortok protection on the Haughley side of worksite.

CJC CLAPTON JNC - CHINGFORD

- Area A 4m 50ch to 5m 54ch downhill to Clapton Junc Area B to Clapton Junc 2522 and 2520 points required Normal Vortok to be deployed on the Chingford side of the works.
- Area A 5m 32ch to 5m 66ch downhill to Clapton Junc Area B to Clapton Junc 2522 and 2520 points required Normal Vortok to be deployed on the Chingford side of the works.
- **Area A** 6m 21ch to 6m 43ch down to Clapton Junc **Area B** 6m21 to Clapton Junc 2522 and 2520 points required Normal Vortok to be deployed on the Chingford side of the works.
- Area A 6m 59ch to 6m 67ch boths ways. Area B none. Vortok to be deployed on the side of the trolley.
- Area A 7m 30ch to 7m 35ch downhill to Chingford. Area B 7m 35ch to Chingford Buffer Stop. Vortok to be placed London side of the works.
- Area A 8m 75ch to Chingford 10m 11ch. Area B none. Vortok to be deployed London side of the works.



CNS (Channelsea Curve)

Area A Whole of the ELR, downhill towards the North London Line. Points 2141 to normal
to protect worksite and 650 to be set normal to protect the CST.

COC (Colcheter- Clacton)

- Area A 52m 31ch to 52m 70ch downhill towards East Gates. Area B 52m 70ch to East gate
 Junction, use points to deflect runaway at 53m 13ch. Vortok to be deployed on the
 Colchester North Side of the works.
- Area A 57m 04ch to 56m 32ch downhill towards Wivenhoe. Area B 56m 32ch to 53m 36ch, use Hythe Junction to deflect runaway. Vortok to be placed Clacton side of the works.
- Area A 58m 04 to 58m 33ch downhill to Gt Bentley. Area B 58m 33ch to 63m 33ch. Vortok
 to be deployed Colchester side of the works.
- Area A 60m 45ch to 60m 55ch downhill towards Arlesford. Area B 60m 45ch to 58m 04ch.
 Vortok deployed on the Clacton side of the works.
- Area A 66m 32ch to 66m 68ch there is a dip between these two places. Area B none. Vortok to be deployed on the side of the site nearest the trolley.
- Area A 67m 03ch to 67m 10ch downhill to Clacton. Area B To Clacton Buffers at 69m 54ch. Vortok to be deployed on the Colchester side of the works.
- Area A 67m 10ch to 67m 40ch downhill towards Thorpe-le-Soken. Area B 67m 10ch to 66m 33ch. Vortok to be deployed on the Clacton side of the work.

CRS SHERINGHAM – CROMER

- Area A 44m 50ch to 44m 40ch downhill towards West Runton. Area B from 44m 40ch to Sheringham Buffer Stop. Vortok to be deployed on the Cromer side of the works.
- Area A 43m 69ch to 43m 65ch downhill towards West Runton. Area B 43m 65 to Sheringham Buffer Stop. Vortok to be deployed on the Cromer side of the works.

DWW2

• Area A 3m 06ch to 3m 12ch, downhill towards Stratford. Area B from 3m 06ch to Stratford. Vortok to be deployed on the Willesden side of the worksite.



ENT (Enfield Town to Bury St Junc)

 Area A 10m 30ch to 10m 27ch downhill towards Bury St Junc. Area B 10m 27 to 9m 22ch, points 2674, 2675 and 2676 all reverse. Vortok to be placed Enfield Town side of the works.

ESK

- Area A from 71m to 70m 05ch downhill to Ipswich. Area B points XX to be set into Ipswich vard.
- Area A from 73m 06ch to 73m 77ch downhill towards Woodbridge. Area B 73m 77ch to 78m 77ch. Vortok to be placed on the Ipswich side of the works.
- Area A from 78m 18ch to 78m 43ch downhill towards Woodbridge. Area B 78m 43ch to 83m 43ch. Vortok to be placed on the Ipswich side of the works.
- Area A from 80m 45ch to 80m 51ch downhill towards Woodbridge. Area B 80m 51ch to 85m 51ch. Vortok to be deployed on the Ipswich side of the works.
- Area A from 82m 12ch to 82m 63ch downhill towards Woodbridge. Area B 82m 63ch to 84m 18ch. Vortok to be deployed on the Ipswich side of the works.
- Area A from 83m 12ch to 84m 18ch, this is a valley, with runaway possible in either direction. Vortok to be deployed on the side nearest the trolley.
- Area A 85m 15ch to 85m 53ch to 86m 49ch, this is a valley with runaway possible in both directions. Vortok to be placed on the side nearest the trolley.
- Area A 89m 50ch to 90m 06ch downhill towards Wickham Market. Area B 89m 50ch to 84m 50ch towards Ipswich. Vortok to be placed on the Saxmundham side of the works.
- Area A 90m 36 to 90m 43ch downhill towards Wickham Market. Area B 90m 36ch to 85m 36ch. Vortok to be placed on the Saxmundham side of the works.
- Area A 90m 55ch to 92m 56ch downhill into Saxmundham. Vortok to be placed on the side nearest the trolley.
- Area A 93m 25ch to 96m 23ch downhill into Darsham. Vortok to be deployed on the side of the works nearest the trolley.



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- Area A 95m 44ch to 98m 61ch, this is a valley. Vortok to be deployed on the trolley side of the works.
- Area A 98m 77ch to 101m 78ch downhill into Halesworth. Vortok to be deployed on the side of the works nearest the trolley.
- Area A 103m 16ch to 103m 28ch downhill towards Halesworth. Area B from 103m 16ch to 98m 16ch. Vortok to be deployed on the Brampton side of the works.
- Area A 103m 75ch to 105m 21ch into Brampton. Vortok to be deployed on the side of the works nearest the trolley.
- **Area A** 105m 49ch to 106m 48ch, this is a valley. Vortok to be provided on the side of the works nearest the trolley.
- Area A 107m 35ch to 108m 57ch downhill to Beccles. Area B 108m 57ch to 113m 57ch. Vortok to be deployed on the Brampton side of the works.

ETN (Ely to Norwich)

 Area A 117m 28ch to 117m 71ch downhill towards Norwich. Area B 117m 71ch to 122m 71ch. Vortok to be placed Ely side of the works.

FEL Felixstowe Branch

- Area A 72m 31ch to 72m 54ch, downhill towards Westerfield. Area B, None, 2212 points normal to protect ESK. Vortok to be deployed Felixstowe side of the works.
- Area A 73m 29ch to 73m 72ch downhill towards Derby Road. Area B 73m 72ch to 78m 72ch. Vortok to be deployed on the Ipswich side of the works.

FED

• Area A 83m 70ch to 84m 48ch. Area B into Felixstowe Docks. Vortok to be deployed on the Ipswich side of the works. 2217 points to be maintained normal to protect the docks.



FSS1 (FENCHURCH STREET - BARKING WEST JN)

- Area A from 3m 03ch to 3m 20ch downhill towards West Ham. Area B from 3m 20ch to 4m 36ch. Vortok to be placed on the London side of the works.
- Area A 3m 41ch to 3m 54ch downhill towards West Ham. Area B from 3m 20ch to 4m 36ch. Vortok to be deployed on the London side of the works.
- Area A 4m 04ch to 4m 36ch. This is a dip where there is a runaway risk in both directions in this area.

FSS2 (BARKING WEST JN - SOUTHEND CENTRAL STATION)

- Area A 13m 13ch to 13m 15ch downhill towards Barking. Area B 13m 13ch to 8m 13ch. Vortok to be deployed on the Southend side of the works.
- Area A 19m 50ch to 19m 58ch downhill to West Horndon. Area B 19m 50ch to 14m 50ch.
 Vortok to be deployed on the Southend side of the works.
- Area A 21m 20ch to 21m 46ch downhill to West Horndon. Area B 21m 20ch to 16m 20ch.
 Vortok to be deployed on the Southend side of the works.
- Area A 21m 76ch to 22m 11ch downhill towards West Horndon. Area B 21m 76ch to 16m 76ch. Vortok to be deployed on the Southend side of the works.
- Area A 25m 26ch to 25m 35ch downhill towards Pitsea. Area B 25m 35ch to 30m 35ch.
 Vortok to be deployed on the Barking Side of the works.
- Area A 25m 70ch to 26m 32ch downhill towards Pitsea. Area B 26m 32ch to 31m 32ch.
 Vortok to be deployed on the Barking side of the works.
- Area A 35m 25ch to 35m 75ch downhill to Leigh on Sea. Area B 35m 25ch to 30m 25ch.
 Vortok to be deployed on the Southend side of the works.

GOJ GOSPEL OAK JN - JUNCTION RD JN

 Area A downhill towards Junction Rd Junction points 3066 and 3067 points to be maintained in reverse for protection to the T&H line.

GRE GRAHAM ROAD CURVE

Area A whole of the line. Points to be set normal, 2501 to prevent moves from the BGK
running towards the North London Line NL623 points normal to prevent runaway onto the
north London Line.



HPW

 Area A downhill on the whole line to the TAH. 71 and 2114 points to be maintained in Normal for protection.

HDT

- Area A from 3m 48ch to 3m 58ch, downhill towards Rectory Road. Area B from 3m 58ch to 8m 58ch. Vortok to be deployed on the Hackney side of the worksite.
- Area A from 5m 7ch to 5m 73ch, downhill towards Bruce Grove. Area B from 5m 73 to 10m 73ch. Vortok to be deployed on the Hackney side of the worksite.
- Area A from 6m 15ch to 6m 18ch. Downhill towards Hackney. Area B from 6m 15ch to
 Hackney Downs. Vortok to be deployed on the Enfield Town side of the worksite. Xx points
 to protect the BGK.
- Area A 7m 22 to 7M 68ch dip. Area B none, dip in track. Vortok to be deployed on the side where the trolley is.
- Area A 8m 30ch to 8m 33ch downhill to Silver Street. Area B to 7m 22ch (rising gradient).
 Vortok to be deployed on Enfield Town side of the works.
- Area A 8m 58ch to 8m 66ch downhill to Bury St Junc. Area B to Enfield Town or Cheshunt depending upon points at Bury St Junc, can use these to deflect runaway. Vortok to be placed London side of the works.
- Area A 13m 26ch to 13m 29ch downhill towards Bury St Junc. Area B from 13m 26ch to 8m 26ch. Bury St points can be used to prevent runaway beyond the Junction at 9m 22ch.
 Vortok to be deployed on the Cheshunt side of the works.
- 13m 58ch to 13m 78ch downhill towards Cheshunt. Area B from 13m 78 to Cheshunt Buffer Stop **2687 points reverse**, **2545 points Normal**. Vortok to be deployed Bury St Junc side of the works.

KGC KENSAL GREEN JN - WILLESDEN (CITY LINES)

 Area A whole of the ELR to Anglia Boundary. IMDM Euston at risk. Vortok protection on the Kensal Green side of the works.

KGW New Lines (to Willesden Low Level)

• **Area A** from start of the ELR towards Willesden low level on the whole of the line. Risk to IMDM Euston. Vortok protection on Stratford side of the work site.



LTN1 (LIVERPOOL STREET - TROWSE LOWER JN)

- Bethnal Green All Lines Area A 0m 71ch to 0m 50ch, downhill to Liverpool Street. Area B from 0m 50ch to all Buffer stops. Points can be used as protection if a runaway can be diverted from your site of work. Vortok to be deployed on the Bethnal Green side of the works.
- Ilford Flyover- Electric lines only Area A 7m 05ch to 7m 22ch, Area B from 7m 22ch to 12m 22ch, downhill towards Severn Kings. 2185 and 2186 points set reverse to the car sheds can provide mitigation countryside them. Vortok warning to be placed Ilford side of the worksite.
- Ilford Flyover- Electric Lines only Area A 6m 75ch to 6m 46ch, Area B from 6m 46ch to 1m 46ch, downhill towards Stratford. 2167 and 2168 points reverse to protect, electric lines London Side of the Junction. Vortok protection to be placed on the Ilford side of the works.
- Romford Brentwood all lines Area A from 18m 55ch to 16m 05ch, downhill towards
 London. Area B from 16m 05ch to 11m 05ch, 2215/2216/2217and 2218 points all reverse
 at Romford protect any sites London Side of Romford. Vortok system(s) to be deployed
 Shenfield side of the works.
- **Chelmsford Sidings Area A** from 2353 points to the hand points, downhill towards the buffer stops. **Area B** from the hand points to the buffer stops.
- Colchester Area A between 51m 67ch to 52m 36ch there is a runaway risk in both directions. There is **no Area B** as this forms a dip. Vortok protection will be required on the side(s) where the trolley is/are.
- Area A 105m 14ch to 105m 19ch downhill towards Norwich. Area B 105 19ch to 110m 19ch. Vortok to be applied on the Diss side of the works.
- Area A 110m 67 to 110m 73 downhill towards Diss. Area B 110m 67 to 105m 67. Vortok to be deployed on the Norwich side of the works.
- Area A 112m 75ch to 113m 54ch downhill to Norwich. Area B 113m 53 to points at Trowse to protect Norwich.

MAH (MANNINGTREE - HARWICH)

• Area A from 59m 68ch to 60m 0ch runaway risk towards Manningtree. Protection required Harwich side of the worksite. Area B from 59m 68 onto the North curve to 1259 trap points. 1256 and 1258 points reverse to divert runaway onto the North Curve.



- Area A 61m 22ch to 61m 26ch downhill towards Mistley. Area B from 61m 26 to 64m 64ch. Vortok to be deployed on the Manningtree side of the works.
- Area A 62m 08ch to 62m 13ch downhill to Wrabness. Area B 62m 13ch to 64m 64ch. Vortok to be deployed upon the Manningtree side of the works.
- Area A 64m 17ch to 64m 55ch downhill towards Mistley. Area B 64m 17ch to 59m 68 onto
 the North curve to 1259 trap points. 1256 and 1258 points reverse to divert runaway onto
 the North Curve.
- Area A 67m 48ch to 67m 68ch downhill to Parkston. Area B from 67m 68ch to 68m 02ch
 Points to be set, 514 and 515 points Reverse, to protect the worksites towards Harwich
 from Parkston Yard. Vortok to be deployed on the Manningtree side of the works.

NAY

 Area A 7m 30ch to 5m 78ch downhill to Brundall. Area B points at Brundal to be used to protect NOL. Vortok to be deployed on the Yarmouth side of the works.

NOL

- Area A 13m 08ch to 13m 17ch downhill to Haddiscoe. Area B 13m 17 to 18m 17ch. Vortok to be applied Norwich side of the works.
- Area A 17m 45ch to 17m 51ch downhill towards Haddiscoe. Area B 17m 45 to 12m 45ch.
 Vortok to be deployed on the Lowestoft side of the works.
- Area A 17m 62ch to 17m 67ch downhill towards Somerleyton. Area B 17m 67ch to 20m 79ch. Vortok to be deployed on the Norwich side of the works.
- Area A 20m 66 to 20m 79ch downhill towards Somerleyton. Area B 20m 66ch to 17m 62ch. Vortok to be deployed on Lowestoft side of the works.

ROU(Romford – Upminster)

- Area A 0m 44ch to 0m 52ch, downhill towards Romford. Area B from 0m 44ch to the buffer stops at Romford.
- Area A 0m 71ch to 0m 76ch, downhill towards Romford. Area B from 0m 71ch to the buffer stop at Romford. 2219 points to be maintained normal. Vortok to be deployed on the Upminster side of the work.rea A 2m 27ch to 2m 53ch downhill towards Upminster. Area B from 2m 53ch to the buffer stop at Upminster. Vortok deployment would be on the Romford side of the works.



SOB

- Area A 12m 19ch to 12m 16ch downhill to Ely. Area B 12m 16ch to 12m 28ch, 1134 points reverse. Vortok Soham side of the work.
- Area A 11m 71ch to 11m 66ch, downhill to Soham. Area B 11m 66ch to 5m 66ch. Vortok to be Ely side of the works.

SIZ (Sizewell Branch)

• **Area A** the whole of the branch in both directions. Vortok to be deployed on the trolley side of the works.

SSL SEVEN SISTERS LOOP

• **Area A** Runaway risk in both directions. Points to be maintained in the normal position at both ends of the loop.

SSV (SHENFIELD - SOUTHEND VICTORIA)

- Area A UP& DN Southend from 20m 48ch to 21m 22ch downhill towards Billericay. Area B from 21m 22ch to 25m 48ch. Vortok to be deployed on the Shenfield side of the works.
- Area A Southend Loop from 20m 46ch to 20m 76ch downhill towards Billericay. Area B from 20m 76ch to 25m 48ch on the Southend Branch. Vortok to be deployed on the Shenfield side of the works.
- Area A 23m 22ch to 24m 16ch, downhill from Billericay. Area B from 23m 22ch to 20m 46ch.
 Vortok deployment will be required on the Billericay side of the works.
- Area A 24m 49ch to 24m 58ch, downhill towards Wickford. Area B from 24m 58ch to 29m 58ch. Vortok protection required on the Shenfield side of the works.
- Area A 24m 73ch to 25m 56ch downhill towards Wickford. Area B from 25m 56ch to 30m 56ch. Vortok to be placed on the Shenfield side of the worksite.
- Area A 25m 70ch to 26m 03ch, downhill towards Wickford. Area B from 26m 03ch to 31m 03ch. Vortok to be deployed on the Shenfield side of the works.
- Area A 26m 13ch to 26m 70ch, downhill towards Wickford. Area B from 26m 70ch to 31m 70ch. Vortok to be deployed on the Shenfield side of the work.
- Area A 27m 05ch to 27m 54ch, downhill towards Wickford. Area B from 27m 54ch to 32m 54ch. Vortok to be deployed on the Shenfield side of the work.



SSV Continued

- Area A 28m 32ch to 28m 52ch, downhill towards Wickford. Area B from 28m 52ch to 33m 52ch. Vortok to be deployed on the Shenfield side of the work.
- Area A 29m 13ch to 29m 55ch, downhill towards Wickford. Area B from 29m 13ch to 24m 13ch. Vortok to be deployed on the Southend side of the work
- Area A 29m 78ch to 30m 31ch, downhill to Rayleigh. Area B from 30m 31ch to 35m 31ch. Vortok to be deployed on the Shenfield side of the worksite.
- Area A 31m 61ch to 32m 66ch, downhill to Wickford. Area B from 31m 66ch to 26m 66ch. Vortok to be deployed on the Southend side of the worksite.
- Area A 33m 15ch to 33m 38ch, downhill to Rayleigh. Area B from 33m 15ch to 27m 15ch. Vortok to be deployed on the Southend side of the works.
- Area A 33m 79ch to 34m 32ch downhill towards Hockley. Area B from 34m 32ch to 39m 32ch. Vortok to be deployed on the Shenfield side of the works.
- Area A 34m 68ch to 35m 14ch, downhill to Rayleigh. Area B from 34m 68ch to 29m 68ch.
 Vortok to be deployed on the Southend side of the works.
- Area A 35m 42ch to 35m 62ch downhill to Hockley. Area B from 35m 62ch to 40m 62ch.
 Vortok to be deployed on the Shenfield side of the works.
- Area A 36m 25ch to 37m 73ch, downhill towards Rochford. Area B from 36m 25ch to Southend Victoria. Vortok to be deployed on the Shenfield side of the works.

SSL

• Area A downhill on the whole line. Points XX to be maintained normal to prevent runaways.

STB (Colchester Town)

 Area A down hill on the whole ELR to Colne Junction. Area B points to be sued to deflect runaway. Vortok to be placed Colchester Town side of the works.



SUD(Sudbury Branch)

- Area A from 50m 34ch to 50m 14ch towards Marks Tey. Area B To Marks Tey, with vortok protection to be placed on the Sudbury side of the worksite, if required. 2390 points maintained normal to protect LTN1.
- Area A from 52m 55ch to 53m 29ch downhill towards Sudbury. Area B from 53m 29ch to the buffer stop at Sudbury, vortok protection will be required on the Marks Tye side of the worksite.

TAH

- Area A 13m 16 to 13m 31ch, downhill towards Barking. Area B, to the Buffer stop at Barking. Vortok to be deployed on the Woodgrange Park side of the work.
- Area A 13m 16ch to 13m 03ch downhill towards Woodgrange Park. Area B, 13m 03ch to 11m 50ch, as this forms a dip. Vortok protection to be placed on the Barking side of the works.
- Area A 11m 50ch to 11m 78ch downhill to Woodgrange Park. Area B 13m 03ch to 11m 50ch, as this forms a dip. Vortok protection to be placed on the Gospel Oak side of the works
- Area A 8m 45ch to 8m 28ch, downhill towards Walthamstow Queens Road. Area B from 8m 28ch to 6m 39ch as this forms the limits of a dip. Vortok protection required on the Barking side of the works.
- Area A 6m 39 to 6m 48ch downhill towards Blackhorse Road. Area B from 8m 28ch to 6m 39ch as this forms the limits of a dip. Vortok protection required on the Gospel Oak side of the works.
- Area A 4m 28ch to 5m 24ch downhill towards South Tottenham. Area B from 5m24ch to 8m 45ch. Vortok deployment on the Gospel Oak side of the works.

TEN

• Area A The whole line is downhill to Stansted North Junction 2641 points maintained normal to protect the BGK. Area B is not at risk if 2641 points are maintained normal.



TLA

 Area A 34m63ch to 33m 62ch downhill to towards Stansted South Junction. Area B to Stansted South Junction, protection will be required on the airport side of the worksite.
 2636 and 2635 points to be maintained in normal to protect the BGK.

TLL

- Area A 7m 24ch to 7m 28ch, downhill towards East Ham. Area B 7m 24ch to 2m 24ch. Vortok to be deployed Barking side of the works. Check
- Area A 7m 30ch to 7m 35ch, downhill towards Barking Area B 7m 35ch to 12m 35ch. Vortok to be deployed London side of the works. Check
- Area A 15m 39ch to 15m 44ch, downhill to Rainham. Area B 15m 39ch to 10m 39ch. Vortok protection required on the Tilbury side of the works.

TSE (SOUTH TOTTENHAM EAST JN TO TOTTENHAM SOUTH JN)

 Area A Runaway risk from T&H to the BGK line of route. Protection to be provided on the T&H side of the worksite. 74 and 75 points on T&H maintained to prevent runaway event.

TWN (Thorpe to Walton)

 Area A 66m 74ch to 67m 04ch downhill to Thorpe-le-Soken. Area B 66m 74ch to 65m 21ch, 3086 points to be maintained normal to protect the COC.

UPG (UPMINSTER - GRAYS)

Area A between 4m 20ch and 5m 16ch in both directions. **Area B** This is a dip, so no protection required outside these limits. Vortok protection require don both sides of the site.

Area A from 6m 45ch to 6m 24ch downhill to Grays. **Area B** to the Buffers in Grays 2277 and 2280 points normal. Vortok protection to be placed on the Upminster side of the work site. **To protect the Tilbury Lines, 2277 and 2280 need to be maintained in normal.**



WHC

WHITLINGHAM TO CROMER

- Area A 1m 77ch to 2m 76ch, downhill towards Whitlingham Junc. Area B None, Points 102 and 103 to normal to protect NOL.
- 4m 68ch to 5m 09ch downhill towards Whitlingham Junc. Area B from 4m 68 to Whitlinghm Junc Points 102 and 103 to normal to protect NOL. Vortok to be deployed on the Cromer side of the works.
- Area A 6m 55ch to 7m 12ch downhill towards Wroxham. Area B 7m 12ch to 12m 12ch.
 Vortok to be deployed on the Norwich side of the works.
- Area A 8m 05ch to 8m 07ch downhill to Wroxham. Area B 8m 07ch to 13m 07ch. Vortok to be deployed on the Norwich side of the works.
- Area A 12m 43ch to 12m 50ch downhill towards Worsted. Area B form 12m 50ch to 13m 77ch. Vortok to be deployed on the Norwich side of the works.
- Area A 13m 16 to 13m 77ch downhill towards Worsted. Area B 13m 16 to 8m 16ch. Vortok to be deployed on the Cromer side of works.
- Area A 20m 34ch to 21m 10ch downhill towards Gunton. Area B 20m 34ch to 15m 34ch. Vortok to be deployed upon the Cromer side of the works.
- Area A 22m 30ch to 22m 62ch downhill towards Gunton. Area B 22m 30ch to 17m 30ch. Vortok to be deployed on the Cromer side of the works.
- Area A 23m 32ch to Cromer downhill to Cromer buffer stops. Area B None. Vortok to be deployed on the Norwich side of the works.



Runaway Risk Locations for 019Compliance within Anglia Issued 22nd June 2018 wis (WICKFORD SOUTHMINSTER)

- Area A from 2306 points to 29m 54ch downhill towards Wickford. Area B 2306 points maintained normal to de-rail any runaway. Vortok to be deployed on the Southminster side of the works. Points 2306 to normal to protect the SSV.
- Area A from 29m 74ch to 30m 47ch, downhill towards Battlesbridge. Area B from 30m 47 to 35m 47ch. Vortok to be deployed on the Wickford side of the works.
- Area A from 37m 05ch to 37m 19ch, downhill towards Fambridge. Area B from 37m 19ch to 38m 71ch. Vortok to be deployed on the Wickford side of the works.
- Area A from 38m21ch to 38m 71ch, downhill towards Fambridge. Area B from 38m 21ch to 37m 05ch. Vortok to be deployed on the Southminster side of the works.
- Area A from 41m 26ch to 41m 46ch, downhill towards Althorne. Area B from 41m 46ch to Southminster. Vortok to be deployed on the Wickford side of the works.

WMB (WILLESDEN HL JN - MITRE BRIDGE JN)

• Area A For the entire ELR runaway towards Mitre Bridge, IMDM Euston at Risk. Vortok to be deployed Willesden side of the works