**DOCUMENT 2, APPENDIX 1**

**TRAFFIC COMMENTARY - Focusing on the A184 corridor and junctions 21 and 22**

**Summary**

The ambition in the Local Plan - to move towards being green, healthy and carbon neutral cannot be fully realised in the East Boldon Forum area if the proposed 650 new houses in the village and other developments in surrounding areas materialise. This is due to the increased traffic and resultant air and noise pollution, caused by overcapacity queuing and the incapacity of the highway infrastructure (A184 and feeder roads/junctions 21 and 22) to cope, despite the proposed actions, mitigation measures and incremental roll out of these.

**Commentary/Notes**

The Local Plan acknowledges that congestion is and by 2039 will continue to be an issue. (30) The Infrastructure Delivery Plan Objective (15) focuses on developing a sustainable transport network as a means to reduce local traffic congestion and improve air quality.

Systra’s Traffic Capacity Assessment document (TCA) shows that traffic is set to increase and exceed the already over capacity 2018 levels but concludes that the traffic impact of the Local Plan developments can be mitigated through a combination of highway mitigation schemes (A184/junctions 21, 22) supported by sustainable transport improvements within the next 5 years. (4.1.4) and be deliverable through available funding sources and partnership with external organisations (4.1.7).

Whilst the proposal to discourage extraneous journeys through the A184, via upgrades to the A1231 and package of mitigation measures (3.20.6) – will ‘discourage’ and ‘reduce’ over capacity it will not do so within a consistently acceptable capacity level. The anticipated 10% reduction in implementing these measures will not sufficiently lower over capacity traffic to under a critical level. Therefore the degree of impact is a moot point.

The TCA states that greater reductions could only come about as the result of large strategic infra structure projects such as a new metro station; new scheme to bridge to the existing level crossing to the North of Boldon and new metro park and ride site, if these come forward (3.20.6). Therefore in the shorter term no reliance can be placed on these uncertain future projects to reduce traffic over capacity and congestion.

The assumption that if overcapacity queuing continues drivers “will naturally alter their route choice and divert to an alternative route or change their travel patterns.” (TCA 3.21.16) is unsubstantiated therefore questionable. Placing reliance on drivers changing their travel patterns is ‘happenstance,’ only direct intervention, well in advance of the village proximity, will effect change and divert extraneous traffic from using the A184 corridor to access Testo’s roundabout. Even with a reduction in extraneous traffic, new housing in and around the villages will no doubt continue to generate queues that exceed capacity.

An example of queue lengths during evening peaks at Junction 21 & 22, using various headings/scenarios, is shown in the in the following tables, constructed using extracts from TCA diagrams (unnumbered) at 3.21 and 3.22 in the document.

**A184/Boker Lane (Junction 21) signalised evening queues (3.21) red = over capacity**

**orange = approaching capacity**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Extracted from diagrams in the TCA** | **2018 BASE**  **+ COM + OTHER** | **2018 BASE+ COMM+ OTHER+ LOCAL**  **PLAN** | **2018 BASE**  **+ COMM**  **+ OTHER**  **+ ALTERN**  **ATIVE**  **LOCAL PLAN** | **2018 BASE + COMM+**  **OTHER +**  **LOCAL PLAN-**  **DOUBLE CYCLE** | **2018 BASE**  **+ COMM**  **+ OTHER**  **+ ALT**  **LOCAL PLAN –DOUBLE**  **CYCLE** | **2018 BASE +**  **COMM + OTHER +**  **ALT DIST + MITIGATION,** | **2018 BASE +**  **COMM + OTHER +**  **+ MITIGATION + DOUBLE CYCLE** | **2018 BASE +**  **COMM +**  **OTHER +**  **MITIGATION +**  **ALT DIST+**  **DOUBLE**  **CYCLE** |
| **Boker Lane** | **67m** | **115m** | **165m** | **within capacity** | **101m** | **82m** | **within capacity** | **73m** |
| **A184 W Western Terrace** | **261m** | **630m** | **868m** | **191m** | **442m** | **642m** | **148m** | **273m** |
| **A184 E** | **within capacity** | **within capacity** | **within capacity** | **within capacity** | **within capacity** | **within capacity** | **within capacity** | **within capacity** |

**B1229/A184 Station/Whitburn Road (Junction 22) signalised evening queues (3.22)**

**red = over capacity, orange = approaching capacity**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Extracted from diagrams in the TCA** | **2018 BASE**  **+ COM**  **+ OTHER** | **2018 BASE**  **+ COMM**  **+ OTHER**  **+ LOCAL**  **PLAN** | **2018 BASE + COMM + OTHER + ALTERN**  **ATIVE**  **LOCAL PLAN** | **2018 BASE + COMM+ OTHER**  **+ LOCAL**  **PLAN -DOUBLE CYCLE** | **2018 BASE**  **+ COMM**  **+ OTHER + ALT**  **LOCAL PLAN –DOUBLE**  **CYCLE** | **2018 BASE + COMM+ OTHER+**  **MITIGATION** | **2018 BASE +**  **COMM + OTHER+**  **ALT DIST + MITIGATION** | **2018 BASE + COMM + OTHER+ MIT +**  **DOUBLE**  **CYCLE** | **2018 BASE +**  **COMM +**  **OTHER +**  **MITIGATION +**  **ALT DIST +**  **DOUBLE CYCLE** |
| **B1229 Station Road** | **97m** | **129m** | **251m** | **within capacity** | **185m** | **96m** | **192m** | **57m** | **126m** |
| **A184 W Sunderland Road** | **452m** | **562m** | **947m** | **233m** | **598m** | **406m** | **742m** | **167m** | **392m** |
| **A184 E** | **78m** | **103m** | **109m** | **within capacity** | **within capacity** | **within capacity** | **within capacity** |  | **within capacity** |

Both junctions can be seen to be operating more than capacity, in most scenarios (apart from the eastern side of the A184) despite mitigation measures, with the worst queuing on the A184Western Terrace (J21) and A184 W Sunderland Road (J22) although the B1229 is not far behind.

The suggestion to divert traffic from Tile Sheds/New Road onto the A184 (because the provision of full barriers at level crossings will result in their closure for 30 minutes within every hour), results in both junctions being over capacity at both morning and evening peaks. There is however no acknowledgement that the full barriers at East Boldon metro station B1229 will also result in closure for 30 minutes within each hour.

**Figure 44**  **Composition of traffic passing through junction at the end of the plan period – Evening Peak**

1593 car trips pass along Station Road/Whitburn Road/through junction 22 onto the A184. By the end of the plan period it is anticipated this will increase by 118 (evening).

**DEVELOPMENT TRIPS THROUGH JUNCTION 22**

**SITE REF SITE NAME AM TRIPS PM TRIPS**

SBC010 Land at Cleadon Lane Industrial Estate 25 27

SBC072 Land south of Fellgate 23 25

SBC087 Land south of St. Johns Terrace and Natley Avenue 17 17

SBC030 Land at North Farm (West) 11 12

ED2.7 Land bounded by Chaytor Street and Ellison Place 7 5

Remaining Developments 30 30

The TCA highlights also that upgrades to and expansion of the metro system offers sustainable transport that will be of benefit to the whole borough. East Boldon is home to a metro station, next to the very busy B1229, the small car park is currently often over capacity resulting in spillage onto the surrounding residential streets. The addition of a future park and ride scheme, to promote sustainable travel and accommodate increased demand (estimated 24,000 extra passengers per day across ST system 3.22.11), appears to be laudable but, will no doubt add more traffic to the road system and perhaps encroach into the greenbelt, although no prospective site has been identified.

It should be noted that all the above roads pass through a densely populated residential area and one that already suffers from a range of traffic issues, including congestion and pollution, clearly documented in the EBNF Neighbourhood Plan. Various vehicles use the roads, mainly cars but also buses, tractors from surrounding farms and LGV/HGV from industrial businesses in the Forum area. With the Local Plan this is set to worsen. Sustrans (national travel charity) estimates that 28,000-36,000 early deaths occur in the UK due to air pollution worsening heart and lung disease… 80% of road nitrogen dioxide pollution (NO2) is from road transport where limits are broken.

*Active travel: local authority toolkit (updated 10 Aug 2022)*. [www.gov.uk](http://www.gov.uk/)

The question remains …

In the light of the above findings, how then can the ambition in the Local Plan - to move towards being green, healthy and carbon neutral be fully realised in the East Boldon Forum area if the proposed 650 new houses in the village and other developments in surrounding areas materialise?