

REPORT N° 002 REVC - ADDENDUM

WAVENEY LOCAL PLAN

SUFFOLK COUNTY TRANSPORT MODEL (SCTM)
FORECAST MODEL REPORT ADDENDUM

PUBLIC

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Suffolk County Council

**Final
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1 INTRODUCTION

1.1 BACKGROUND

- 1.1.1 WSP | Parson Brinckerhoff have been commissioned to undertake an assessment of the impact of the Waveney Local Plan on the highway network for a forecast year of 2036. Waveney District Council (WDC) have provided WSP | Parsons Brinckerhoff with information on different scenarios which have been considered as part of the emerging Waveney Local Plan. These scenarios generally contain consistent assumptions on the level of housing and job growth which will occur across Waveney between 2016 and 2036; however they contain differences in terms of the distribution of the specific developments which will account for this growth.
- 1.1.2 WSP | Parsons Brinckerhoff produced a report which discussed the various local plan scenarios within the context of impacts of forecast growth in traffic named “Waveney Local Plan - Suffolk County Transport Model (SCTM) Forecast Model Report RevB” dated May 2017.
- 1.1.3 This addendum report specifically focuses on the Local Plan Sites 8/9/81/82/205 south of Beccles which were considered as a single development across all scenarios modelled. In Scenarios 1, 2 and 3 detailed in the main report named above, it was assumed there would be 1,100 dwellings south of Beccles. This was modelled assuming an equal split of 550 dwellings between two zones, one of which accessed directly onto the Beccles Southern Relief Road; the other assumed an access onto Ellough Road. In Scenario 4, it was assumed 650 dwellings would be modelled south of Beccles, all of which accessed onto the Beccles Southern Relief Road.
- 1.1.4 This addendum report has been produced to detail sensitivity tests which better enable Waveney District Council to understand the impacts of changing the access for the 1,100 dwelling development south of Beccles to be solely onto the Beccles Southern Relief Road or onto Ellough Road.
- 1.1.5 Figure 1.1 shows the location of sites 8/9/81/82/205 south of Beccles and SATURN links used for the development accesses.

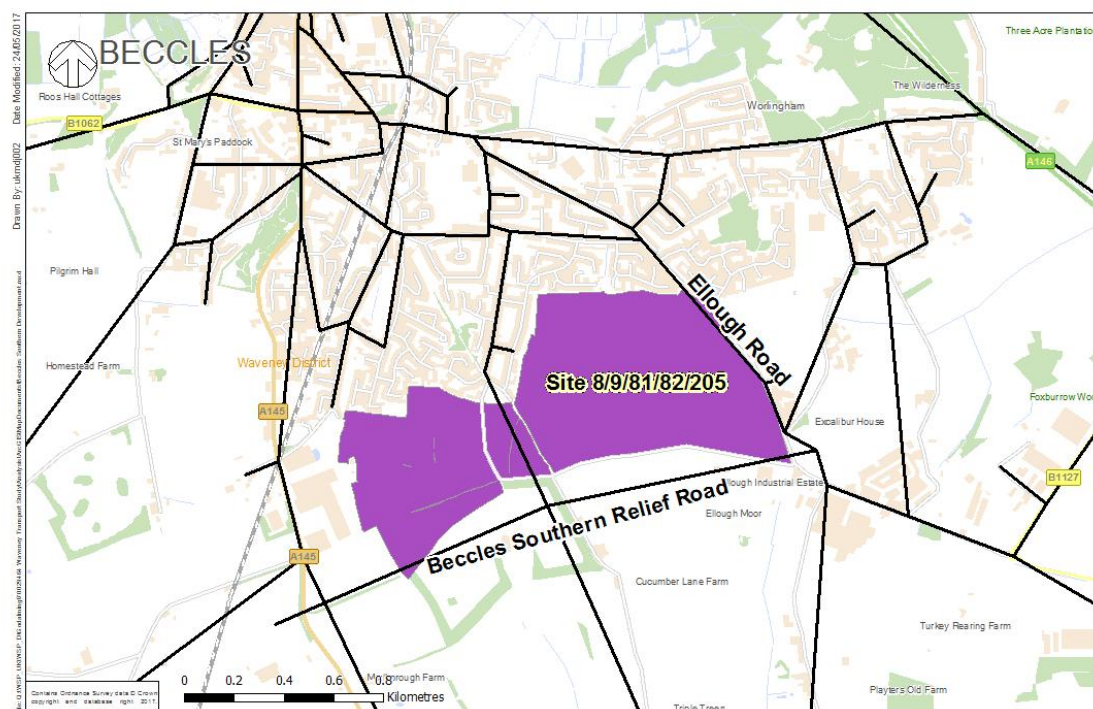


Figure 1.1 Development location south of Beccles

1.2 SENSITIVITY TESTS MODELLED

- 1.2.1 The sensitivity tests in this report are based on Scenario 3 which was detailed in the main report. These model runs represent 2036 forecast traffic levels for an AM peak hour (0800-0900) and PM peak hour (1700-1800). Two sensitivity tests have been carried out and are discussed in this report, described as 3A & 3B.

SENSITIVITY TEST 3A

- 1.2.2 In this scenario, all traffic associated with Sites 8/9/81/82/205 (1,100 dwellings) was modelled as accessing onto Elough Road only.

SENSITIVITY TEST 3B

- 1.2.3 In this scenario, all traffic associated with Sites 8/9/81/82/205 (1,100 dwellings) was modelled as accessing onto Beccles Southern Relief Road only.
- 1.2.4 All other assumptions and inputs for the model runs are consistent with Scenario 3 detailed in the main report used as evidence for the Waveney Local Plan.

2 ANALYSIS

2.1 INTRODUCTION

- 2.1.1 The immediate network around the Sites 8/9/81/82/205 is still shown to operate within capacity by 2036. Changing the access arrangements to the site do not fundamentally alter the conclusions regarding the most congested junctions within Beccles detailed in the main modelling report. The analysis in this report addendum is therefore based on selected link analysis for traffic solely related to the 1,100 dwellings at Sites 8/9/81/82/205 south of Beccles. This has been carried out in order to aid Waveney District Council's understanding of the impact of differing access arrangements on the distribution of traffic to/from this site, specifically which links in/around Beccles are likely to be used by this development traffic.
- 2.1.2 Select Link Analysis (SLAs) were carried out in SATURN for the zones which included traffic associated with Sites 8/9/81/82/205. In the analysis presented in this section, screenshots showing the traffic distribution from the selected links will be presented for the following model runs:
- Sensitivity Test 3A 2036 AM & PM
 - Sensitivity Test 3B 2036 AM & PM
- 2.1.3 For each model run separate inbound and outbound SLAs are presented for each zone containing traffic associated with Sites 8/9/81/82/205 south of Beccles for the following zones:
- Zone 547: traffic loading to/from Ellough Road
 - Zone 867: traffic loading to/from Beccles Southern Relief Road

SENSITIVITY TEST 3A – 2036 AM PEAK

2.1.4

Figure 2.1 shows the distribution of traffic leaving the 1,100 dwellings which access onto Ellough Road in the 2036 AM peak. This shows around 210 pcus head northbound onto Ellough Road into Beccles, whilst around 110 pcus use College Lane to head westbound on the A146 Norwich Road. 60 pcus head eastbound on the A146 via the B1127 Copland Way.

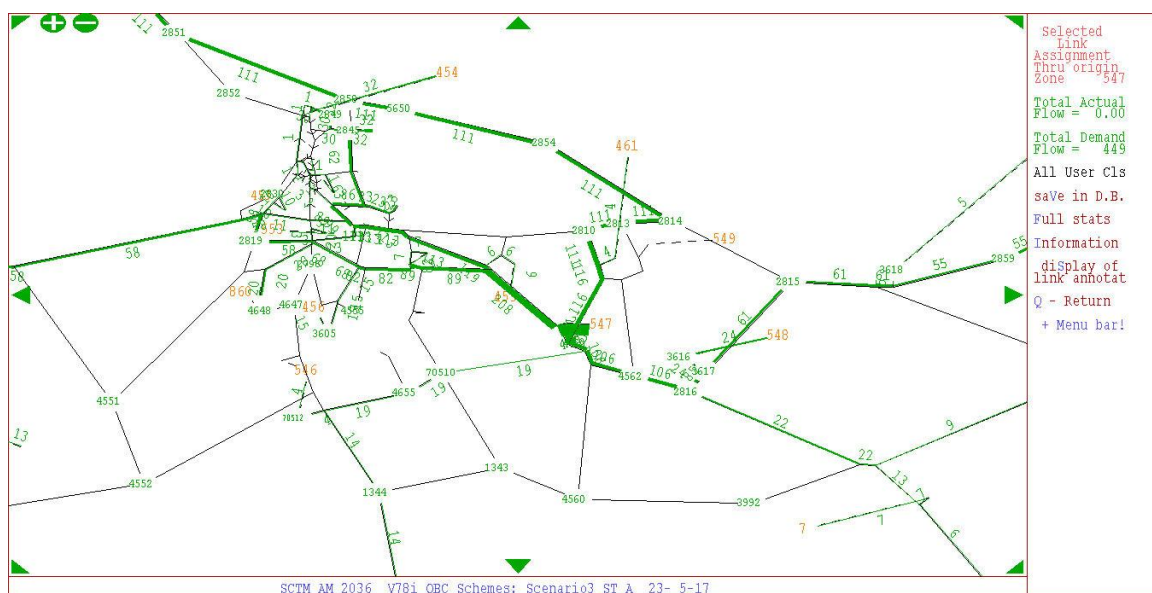


Figure 2.1 Sensitivity Test 3a – 2036 AM – Outbound traffic from zone 547

2.1.5

Figure 2.2 shows the distribution of traffic arriving at the 1,100 dwellings from Ellough Road in the 2036 AM peak. This shows around 130 pcus arrive from the north of Ellough Road, around 55 pcus of which is strategic traffic from the A146 Norwich Road. Westbound traffic into the site totals around 75 pcus, the majority of which comes from the A146 westbound via B1127 Copland Way.

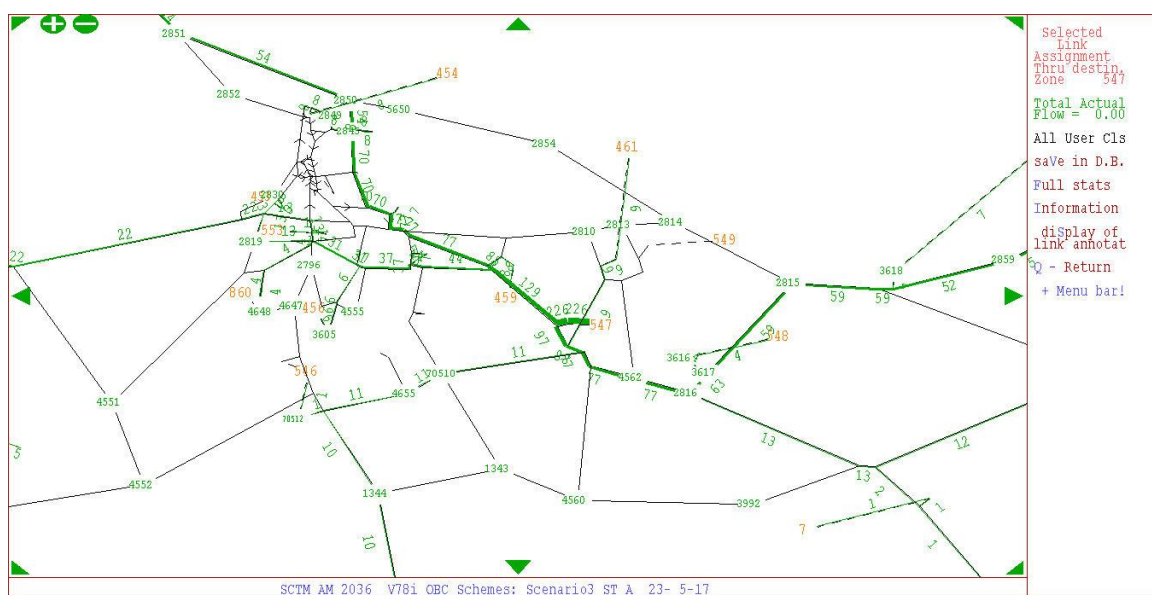


Figure 2.2 Sensitivity Test 3a – 2036 AM – Inbound traffic to zone 547

SENSITIVITY TEST 3A – 2036 PM PEAK

2.1.6

Figure 2.3 shows the distribution of traffic travelling from the 1,100 dwellings on Ellough Road in the 2036 PM peak. Around 100 pcus leave the site towards the A146 Norwich Road, routing via College Lane. Around 155 pcus head north on Ellough Road with an even split of trips between Coney Hill and Ingate into Beccles.

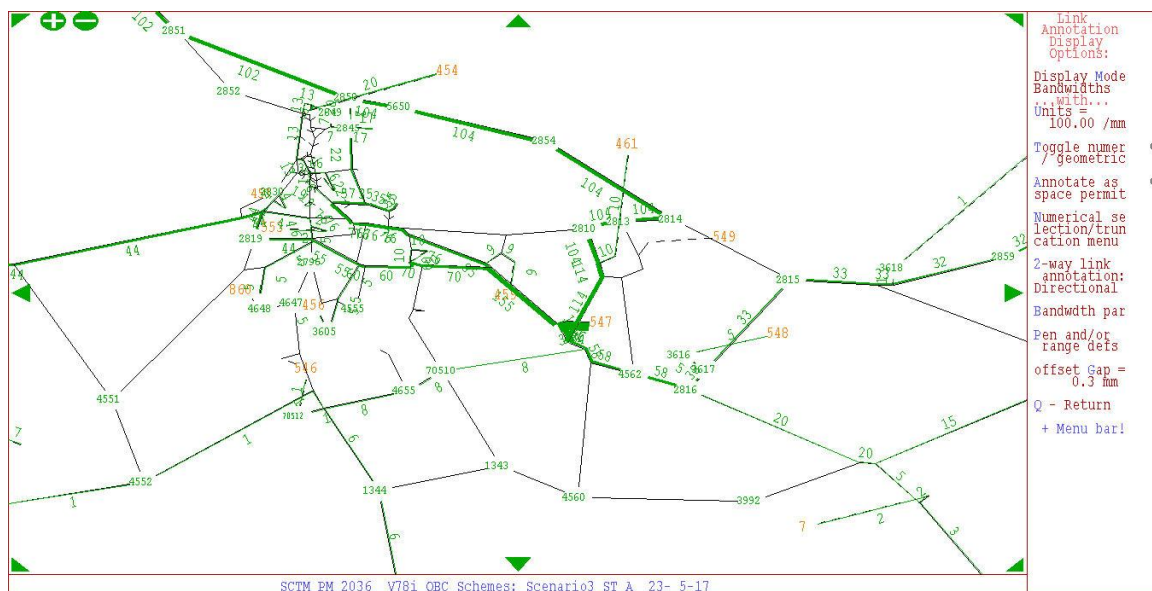


Figure 2.3 Sensitivity Test 3a – 2036 PM – Outbound traffic from zone 547

2.1.7

Figure 2.4 shows the distribution of traffic travelling to the 1,100 dwellings on Ellough Road in the 2036 PM peak. Around 85 pcus is strategic traffic arriving from the A146 Norwich Road. In total around 240 pcus arrive at the site from the north on Ellough Road either via Ingate or Coney Hill. Around 130 pcus arrive from the east of the site, most of which arrives from the A146 via B1127 Copland Way.

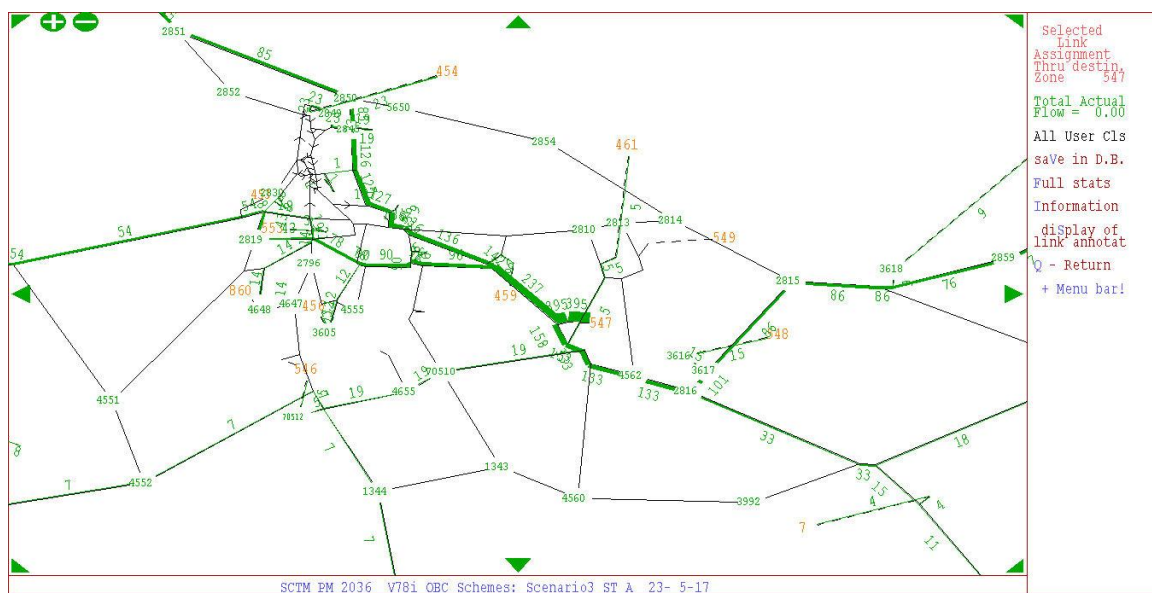


Figure 2.4 Sensitivity Test 3a – 2036 PM – Inbound traffic to zone 547

SENSITIVITY TEST 3A SUMMARY

- 2.1.8 Tests which include all traffic from the 1,100 dwelling development south of Beccles loading onto Ellough Road show a significant proportion of the traffic comes to and from the site via the A146 Norwich Road westbound and A146 eastbound. Local routes in and around Beccles for which development traffic utilise include Ingate / Lowestoft Road, Coney Hill, College Lane and the B1127 Copland Way.

SENSITIVITY TEST 3B – 2036 AM PEAK

2.1.9

Figure 2.5 shows the distribution of traffic travelling from the 1,100 dwellings on Beccles Southern Relief Road in the 2036 AM peak. 350 pcus head immediately east from the site, with around 110 pcus being strategic, travelling westbound on the A146 Norwich Road via College Lane. The remainder of the traffic which heads immediately east travels northbound on Ellough Road, then via Ingate into Beccles. Around 60 pcus head westbound from the site reaching Bungay Road via Church Road.

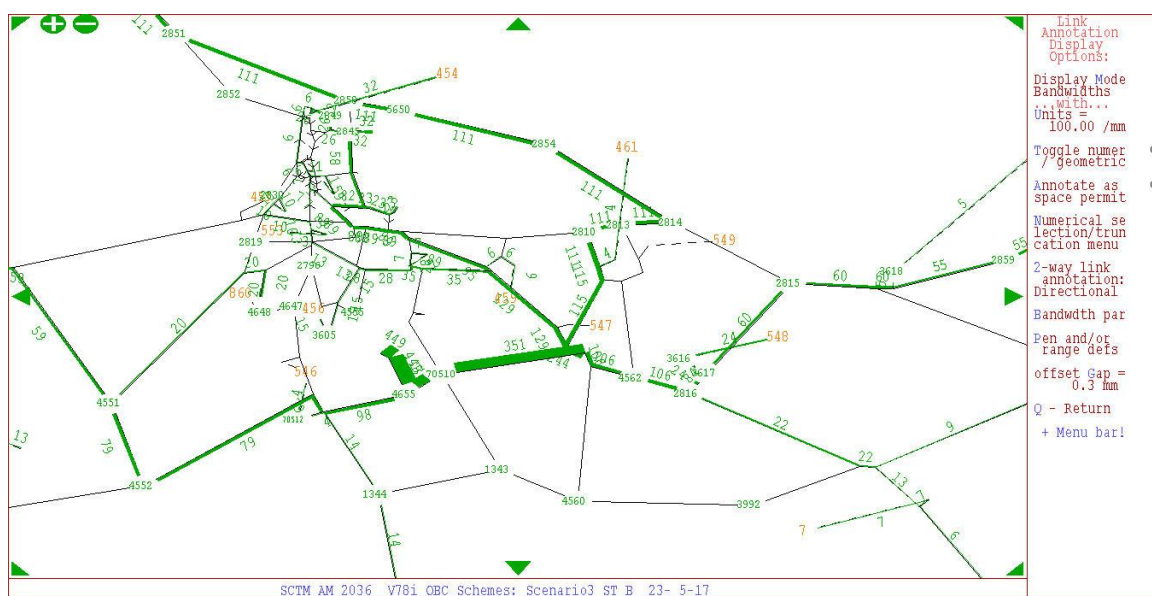


Figure 2.5 Sensitivity Test 3b – 2036 AM – Outbound traffic from zone 864

2.1.10

Figure 2.6 shows the distribution of traffic travelling to the 1,100 dwellings on Beccles Southern Relief Road in the 2036 AM peak. Around 180 pcus arrive from the east of the site, of which 100 pcus is strategic traffic arriving from the A146 Norwich Road via College Lane (40 pcus) or from the A146 via B1127 Copland Way (60 pcus).

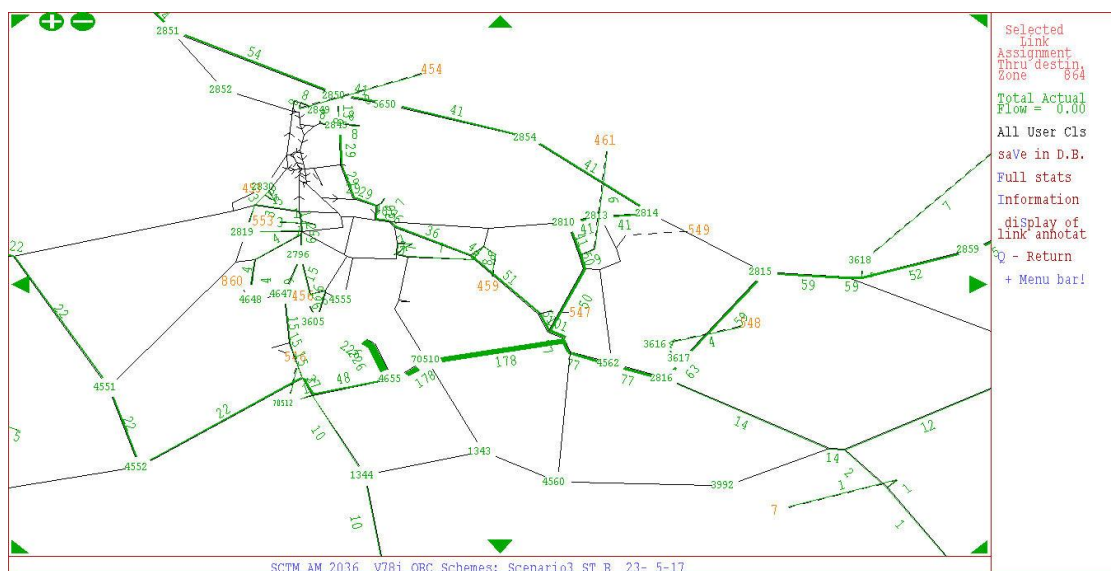


Figure 2.6 Sensitivity Test 3b – 2036 AM – Inbound traffic to zone 864

SENSITIVITY TEST 3B – 2036 PM PEAK

2.1.11

Figure 2.7 shows the distribution of traffic travelling from the 1,100 dwellings on Beccles Southern Relief Road in the 2036 PM peak. 275 pcus head immediately east from the site, with around 130 pcus being strategic, travelling westbound on the A146 Norwich Road via College Lane. The remainder of the traffic which heads immediately east travels northbound on Ellough Road, then via Ingate into Beccles. Around 45 pcus head westbound from the site reaching Bungay Road via Church Road.

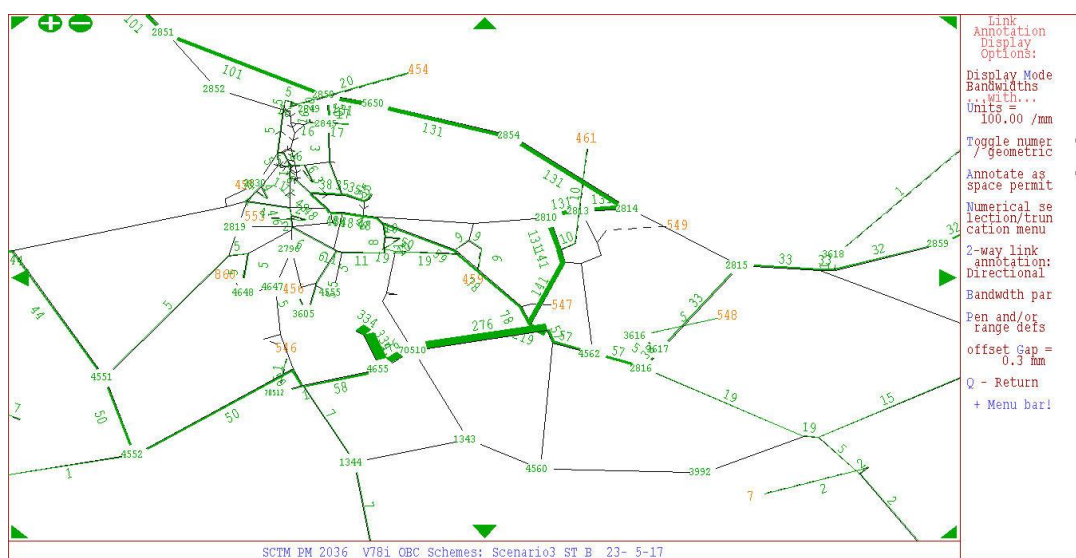


Figure 2.7 Sensitivity Test 3b – 2036 PM – Outbound traffic from zone 864

2.1.12

Figure 2.8 shows the distribution of traffic travelling to the 1,100 dwellings on Beccles Southern Relief Road in the 2036 PM peak. Around 260 pcus arrive from the east of the site, of which 85 pcus is strategic traffic arriving from the A146 Norwich Road via Ingate or from the A146 via B1127 Copland Way (100 pcus). Around 55 pcus head west from the site via Church Road into Bungay Road.

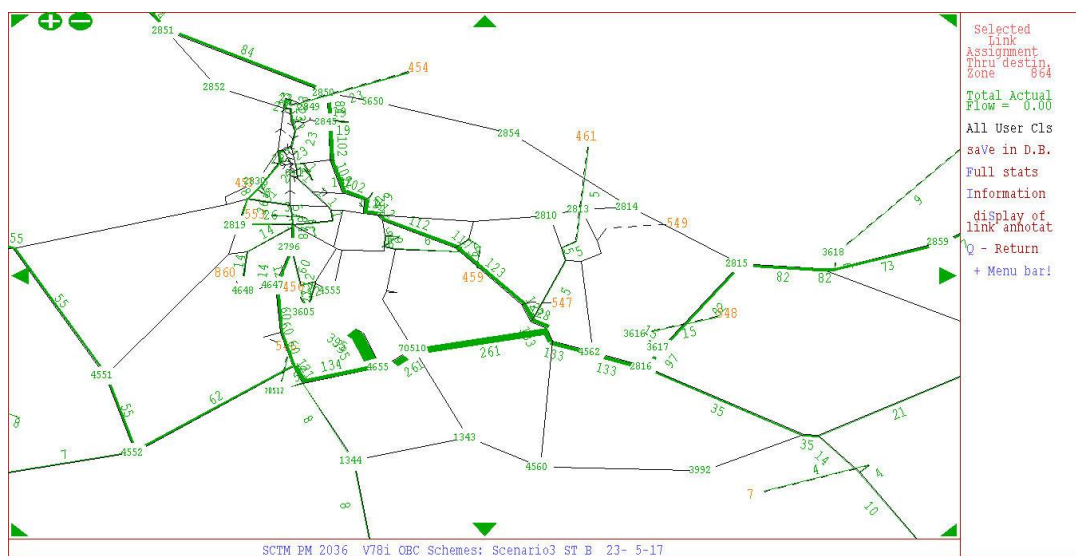


Figure 2.8 Sensitivity Test 3b – 2036 PM – Inbound traffic to zone 864

SENSITIVITY TEST 3B SUMMARY

- 2.1.13 Tests which include all traffic from the 1,100 dwelling development south of Beccles loading onto Beccles Southern Relief Road show the majority of traffic uses similar routes to those shown in Test 3A i.e. strategic traffic onto the A146 is a significant component of the development traffic routing via Ingate / Lowestoft Road, Coney Hill, College Lane and the B1127 Copland Way. Concentrating the 1,100 development access onto Beccles Southern Relief Road leads to a minor increase in traffic which travels to/from Bungay Road via Church Road to the west of Beccles.

SENSITIVITY TEST COMPARISON – 2036 AM PEAK

2.1.14

Figure 2.9 provides a comparison of the total modelled flow in the AM peak between Test 3A and 3B. This shows the main point of difference occurs on the eastern section of the Beccles Southern Relief Road between Cucumber Lane and Ellough Road / Benacre Road, most notably in the eastbound direction.

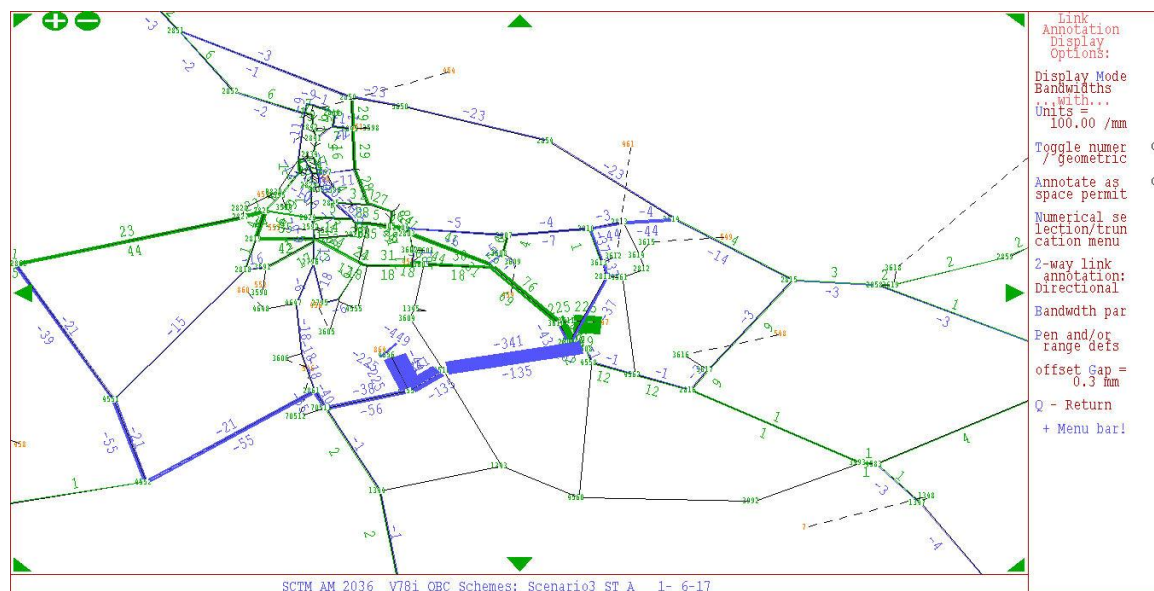


Figure 2.9 Sensitivity Test 3b – 2036 PM – Outbound traffic from zone 864

2.1.15

Figure 2.10 provides a comparison of the total modelled flow in the PM peak between Test 3A and 3B. As with the AM peak, this shows the main point of difference occurs on eastern section of the Beccles Southern Relief Road between Cucumber Lane and Ellough Road / Benacre Road to a similar level in both directions

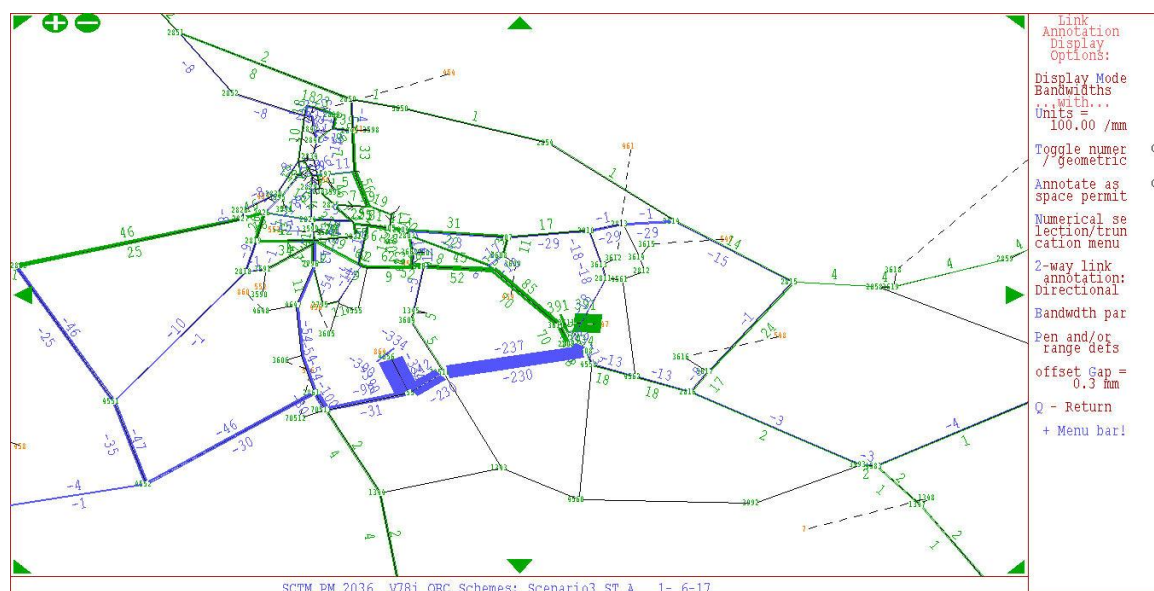


Figure 2.10 Sensitivity Test 3b – 2036 PM – Outbound traffic from zone 864

3 CONCLUSIONS

- 3.1.1 The modelling in this addendum has been carried out in order to assist Waveney District Council to understand the implications of 1,100 dwellings associated with Sites 8/9/81/82/205 south of Beccles solely accessing onto Ellough Road or Beccles Southern Relief Road
- 3.1.2 Previous modelling detailed in the main report included an even split of 550 dwellings between the accesses for the purposes of assessing the Waveney Local Plan
- 3.1.3 Sensitivity tests were carried out, with test 3A allowing traffic from the development to solely access the wider network from Ellough Road, whilst test 3B only allowed access via Beccles Southern Relief Road. The results of these tests have been presented in terms of select link analysis to/from the development site to enable understanding of how the two access configurations affect the distribution of traffic.
- 3.1.4 The select link analysis shows the distribution of traffic is broadly similar between the two tests in that traffic still heads either westbound or eastbound onto the A146 Norwich Road irrespective of the access configuration. The following local roads have been highlighted as carrying a significant proportion of the traffic associated with Sites 8/9/81/82/205:
 - College Lane
 - B1127 Copland Way
 - Ingate / Lowestoft Road
- 3.1.5 Moving the access for the development to Beccles Southern Relief Road leads to a minor increase in traffic which routes to/from the site via Bungay Road / Church Road.
- 3.1.6 Given the results of the sensitivity tests are shown to be broadly similar, this gives increased confidence in the assumptions which have been employed for the modelling in the main report and used as evidence for the Waveney Local Plan. Applying a generic split of dwellings for Sites 8/9/81/82/205 between accesses onto Ellough Road and Beccles Southern Relief Road will not lead to major differences in the distribution of traffic from this site and fundamentally alter the conclusions in the main report as to where the most congested locations are likely to occur in and around Beccles.

