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FINAL STUDY REPORT [ISSUE 5]

Eastbourne Town Centre Modelling Study 2018

Prepared for

East Sussex County Council
& Eastbourne Borough Council

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East Sussex Highways
A partnership between:
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Supporting East Sussex
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Executive Summary

General

This is the Final Report for the Eastbourne Town Centre Modelling Study 2018.

The purpose of the modelling study was to establish what further improvements would be required to the movement and access of all road users into and around Eastbourne town centre to support sustainable economic growth and regeneration. The model developed in this study was used to test various scheme options in order to develop a business case to unlock the funding available from SELEP.

The study featured:

- the development of a SATURN-based highway traffic model of the Eastbourne Town Centre area;
- the identification and development of highway options for the town centre area in partnership with stakeholders;
- the modelling of a select number of preferred highway options; and
- the preparation of an evidence base to support (i) business case submissions to the South East Local Enterprise Partnership (SELEP) to unlock available Local Growth Fund monies associated with the Eastbourne Town Centre Movement and Access Package as well as (ii) a pipeline of further funding bids.

Model Development & Quality

An extensive amount of data was collected for the study from both existing sources (e.g. ESCC's Transport Monitoring team's database and DfT's online database) and specially commissioned surveys.

Such data allowed for the development of a set of models that replicate typical weekday morning, weekday afternoon and Saturday peak hour flows to a high degree of realism.

The actual models developed had their starting point in existing Wealden Local Plan Transport Study (SWETS update) 2017 models but have much more refined networks and significantly more traffic zones than the Wealden Local Plan Transport Study (SWETS update) 2017 models have within Eastbourne Town Centre and its immediate vicinity.

Option Identification

Stakeholder inputs and study team investigations suggested thirteen options as follows:

1	Relocate the Ring Road to The Avenue and Cavendish Place
2	Pedestrianise Terminus Road between Seaside Road and Grand Parade
3	Pedestrianise Terminus Road between Bolton and Langney Roads at the very least, and possibly also the whole length of Langney Road and the top portion of Bolton Road in addition
4	Add zebra crossings all round Memorial Roundabout plus small kerb line changes to slow vehicles and improve public realm
5	Simplify the junction of Grove Road, South Street and Meads Road
6	Make Grove Road 20mph and reduce carriageway width
7	Pedestrianise the area in front of the Town Hall
8	Introduce two-way operations on Ashford Road between Gildredge and Susan's Roads
9	Create a bus hub and interchange under the existing station canopy off Ashford Road
10	Introduce two-way operations on Susan's Road between Ashford and Seaside Roads
11	Introduce two-way operations on Seaside Road between Terminus Road and Cavendish Place
12	Improve cycle provision within the town centre
13	Pedestrianisation of South Street between Grove and Gildredge Roads

Option Development & Testing

Option development and feasibility checking focused on identifying schemes in each instance that are deliverable (i.e. physically feasible and buildable), affordable and effective, where effectiveness was assessed against all modes of travel (i.e. cars, cycles and pedestrians) and key issues associated with travel (e.g. delay, safety and access). In practice, the physical extent and nature of each scheme was determined first with model testing following once workable and deliverable configurations had been identified. The traffic implications of the various options were tested both separately and in select combinations with other options to ensure cumulative impacts aren’t unacceptable. Subsequent business case development work will capture social and regeneration-related benefits.

The finally identified town centre cycle network was not modelled because final proposals have limited implications for vehicular movements.

Conclusions

Initial investigations suggest all thirteen options are physically feasible and workable from a traffic perspective. Importantly, nothing of a traffic operating nature was identified which would rule out any one option or combination of options.

Certain schemes are associated with impacts and delivery issues that might present implementation challenges – e.g.:

- parking and loading provision loss;
- traffic displacement; and
- the current ownership of the station canopy and land it stands on.

Projected traffic demand changes between 2017 and 2027 result in a step-up in traffic operating conditions (e.g. total distance travelled, total time travelled, total junction delay, queuing, vehicle stops and vehicle-related pollutants) and average vehicular speeds across the town centre drop marginally. Maximum transient queues remain effectively the same.

Option 7 (pedestrianisation of the area in front of the town hall) and Option 8 (two-way operations on Ashford Road) are associated with higher numbers of movements with approaching capacity[1]. Interestingly, the combination of Options 7 and 8 with other options – more particularly, Options 10 and 11 (two-way operations on Susan's and Seaside Roads) – mitigates their impacts.

Importantly, no options are unacceptable from a network capacity perspective.[2]

Critical movements (i.e. movements close to or over capacity[3]) occur at the following locations:

- The junction of A259 Upperton Road and The Avenue.
- The junctions of Ashford Road with Terminus/Gildredge Roads, Junction Road and Cavendish Place.
- The Bolton Road approach onto Memorial Roundabout.

As noted above, certain schemes are associated with levels of traffic displacement that might present implementation challenges. Specific options for which this might be the case are Options 5, 6, 7 and 13.

1 V/Cs greater than 0.75.

2 i.e. no or workable capacity issues across the town centre road network.

3 V/Cs greater than 0.95.

Recommendations

It is recommended that Option 3a comprises the initial package for implementation, followed by Option 2. Together they will provide an unbroken pedestrian connection between the station and the seafront. However, Option 2 should only follow works to upgrade the sections of Terminus Road that are already pedestrianised but not to Phase 1[4] standards (which it is assumed Option 3a will be built to). The estimated £3,810,000 necessary to implement Option 3a and upgrade the sections of Terminus Road that are already pedestrianised but not to Phase 1 standards exceeds the immediately available £3 million but includes 30% optimism bias as well as a number of other cost-related assumptions.

Options 4 and 1 should comprise the third implementation package. Option 4 naturally builds on Options 2 and 3a. Increased pedestrianisation within the town centre will lay a platform for the relocation of the Ring Road to The Avenue and Cavendish Place justifying Option 1.

Options 8, 10 and 11 comprise the next logical package. Apart from building on Options 2 and 3a they will also provide further incentive for through-traffic to use The Avenue and Cavendish Place rather than Ashford and Susan's Roads.

Option 12 uniquely targets cyclists and is therefore a standalone package. It also arguably deserves dedicated funding. The securing of dedicated funding will allow parallel attention with the first three packages.

A copy of the full report can be provided on request.

4 i.e. Terminus, Ashford, Cornfield and Gildredge Roads -related highways improvements associated with the extension of the Arndale Shopping Centre.