

**Southend-on-Sea Borough Council**  
**Report of Executive Director for Neighbourhoods and Environment**  
**To**  
**Cabinet**  
**On**  
**23 November 2021**

**Agenda  
Item No.**

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**20 mph Neighbourhoods**

**Place Scrutiny Committee**  
**Cabinet Member: Councillor Woodley**  
**Part 1 (Public Agenda Item)**

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**1. Purpose of Report**

- 1.1 To seek Member approval for the adoption of 20mph Neighbourhoods pilot scheme in the Southend borough in the following locations:
- 1.1.1 Leigh West and Leigh Ward
- i. Area bounded by Hadleigh Road, Rectory Grove, Lymington Avenue, London Road and Salisbury Road.
- 1.1.2 Thorpe Ward
- i. Area bounded by Thorpe Hall Avenue, Thorpe Bay Gardens, Maplin Way and Station Road.
  - ii. On Burges Road, Colbert Avenue and Wyatts Drive.
  - iii. On Shaftesbury Avenue, Kensington Avenue and Northumberland Crescent.
- 1.2 To advise Members that Traffic Regulation Orders may be required in advance and during the works.
- 1.3 Subject to the approval, the scheme implementation for the above scheme is anticipated to cost in the region of £500,000 and will be funded using capital grant from the Department for Transport (DfT).

## **2. Recommendations**

### **Cabinet agrees that:**

- 2.1 the proposed scheme for each of the areas be taken forward to construction; and**
- 2.2 delegated authority be given to the Executive Director for Neighbourhoods and Environment, in consultation with the Cabinet Member for Transport, Asset Management and Inward Investment to agree the advertisement of any necessary traffic regulation orders.**
- 2.3 To approve the £500,000 grant funded expenditure to implement the 20 mph Neighbourhoods Scheme.**

## **3. Background**

- 3.1 Following the publication of the councils most recent Local Transport Plan in 2015 (Southend-on-Sea Borough Council, 2015), an improvement to the existing network and traffic management schemes was identified.
- 3.2 In line with the Road Traffic Act (1988), local authorities are required to implement measures to improve and promote road safety for all road users.
- 3.3 Whilst accident monitoring on the existing highways network can identify specific areas of concern and create datasets that can be used as justification for future works, this is not a useful tool to monitor speeding.
- 3.4 Community safety was also highlighted as being of paramount importance. One documented method to improve such safety is by reducing speeds in residential areas to 20 mph.
- 3.5 Road closures, average/safety cameras and better enforcement were also discussed, but these options do not provide a physical obstacle to reducing vehicle speeds, and instead only act as a deterrent to speeding. The use of safety cameras would also require approval from the Safer Essex Roads Partnership (SERP), which may prolong installation and require additional financial considerations to be made to cover these installation and monitoring costs.
- 3.6 This 20 mph Neighbourhoods pilot scheme is being trialled in the wards of Thorpe, Leigh West and Leigh, as there is already the support of members for a scheme of this nature in these areas.
- 3.7 The outcome of this pilot scheme will aid in the development of similar schemes across the borough in the future.
- 3.8 The primary objective of the 20 mph Neighbourhoods scheme is to reduce average vehicle speeds, thereby improving the safety for road users, pedestrians and residents.

- 3.9 Reducing vehicle speeds will also have the secondary advantage of allowing drivers to react to sudden changes in road conditions faster and will give drivers greater visibility at junctions when driving at a slower speed.
- 3.10 Modelling and research undertaken by National Highways has also proven that lowering the speed limit is also the most effective emissions reduction option (Highways England, 2019)
- 3.11 It has been recognised that lowering vehicle speeds will have an effect on journey times. Along a 1km length of road, a vehicle travelling at an average speed of 30mph will take 74 seconds to travel the length of the road, whereas a vehicle travelling at an average speed of 20mph will take 111 seconds. Although there is a 37 second increase in journey times across this distance, this difference is comparatively negligible when offset against the risk of serious injury when travelling at the two different speeds.
- 3.12 Road widths vary between wards, with Thorpe ward having comparatively wider roads to Leigh West and Leigh wards, and so the traffic calming features to be used in each area will also differ to reflect the carriageway conditions.
- 3.13 Leigh West and Leigh Ward
- 3.13.1 The introduction of 20mph schemes in residential areas was first raised several years ago and was the subject of a Place Scrutiny Committee In-Depth Study. That study generally accepted the desirability of 20mph speed restrictions in some form, but was put on hold because the Government was carrying out a study into the subject. That study supports the provision of such limits and zones.
- 3.13.2 This current matter was first raised by a ward councillor approximately 4 years ago and was considered by the Traffic Regulations Working Party (TRWP) at its meeting on the 14th September 2017. When this was first considered it was proposed as part of a scheme to introduce one way streets as well as 20mph speed restrictions. The TRWP resolved that the scheme not be progressed due to concerns that the implementation of one way streets could increase vehicle speeds.
- 3.13.3 The provision of 20mph limits in residential areas directly links to the 2050 ambitions of Safe & Well and Active & Involved, by providing a more attractive environment for non-motorised users, which seeks to prioritise different modes of transport ahead of the use of private motor vehicles. The existing 20mph speed limits and the proximity to an existing School Streets pilot make this area an ideal location for this experiment ensuring safer walking routes for residents and school children.
- 3.13.4 Vehicle speed survey data has been collated for these roads at varying times, from December 2014 to July 2021. For a full set of these results, please refer to **Appendix A**.
- 3.13.5 The result of this data indicates that whilst the majority of traffic is complying with the speed limit in Southsea Avenue and Westleigh

Avenue, there is still evidence that some motorists are not complying with the speed limit.

### 3.14 Thorpe Ward

- 3.14.1 A meeting was held with Ward Members on 30<sup>th</sup> June 2021. At the meeting, they stated there to be known speeding issues in the following areas, based on feedback from local residents and previous incidents:
- i. Area bounded by Thorpe Hall Avenue, Thorpe Bay Gardens, Maplin Way and Station Road.
  - ii. Burges Road, Colbert Avenue and Wyatts Drive.
  - iii. Shaftesbury Avenue, Kensington Avenue and Northumberland Crescent.
- 3.14.2 Vehicle speed survey data has been collated for these roads at varying times, from November 2014 to February 2020. The result of this data indicates that for all these roads, with the exception of Northumberland Crescent, Kensington Avenue, St Augustines Avenue and Fermoy Road, the '85th percentile' (the speed at which 85% of vehicles will be travelling at, or below) figure speeds are greater than the existing 30mph speed limit. For a full set of these results, please refer to **Appendix B**.
- 3.14.3 This excessive vehicle speeding poses a significant risk to safety for all road users. As such, it is proposed to look at scheme options to mitigate this speeding issue, of which a 20mph zone scheme was suggested at the aforementioned meeting.
- 3.14.4 It is understood that local residents in the three areas have been informed of the option of a 20 mph zone scheme in the form of a newsletter publication. Feedback from this newsletter went to Councillors Woodley, Terry and Stafford, who reported that the scheme idea was positively received.
- 3.14.5 If approved, the proposed works are programmed to commence construction in February 2022.

## 4. Scheme Options

### 4.1 Leigh West and Leigh Ward

- 4.1.1 Taking account of the 85<sup>th</sup> percentile speeds above, it would have been desirable to install a 20mph speed zone in the Leigh Wards. However, owing to the highway geometry and parking requirements this could not be accomplished as there was insufficient carriageway space to install the number obligatory physical measures required within a 20mph zone.

- 4.1.2 As it was felt that traffic signs alone would not be enough to ensure drivers comply with a new 20mph speed limit, a pilot scheme, utilising visual features such as bespoke carriageway markings alongside strategically placed physical measures was developed.
- 4.1.3 The additional visual and physical measures, not normally required within a 20mph speed limit, will reduce vehicular speeds to the desired 85th percentile speed for a limit. This approach is being taken by other highway authorities such as Nottinghamshire County Council.
- 4.1.4 The scheme will therefore consist of:
- i. Regulatory 20mph speed limit signs, including smaller repeater signs
  - ii. Bespoke '20 is plenty' carriageway markings
  - iii. Entry treatment in the form of raised tables
  - iv. Raised tables across some junctions
  - v. Vehicle activated signs at key locations
  - vi. Bespoke '20 is plenty' lamp column banners

This will reduce speeds on all entrances to the limits and maintain compliant speeds along all of the roads within the scheme extents. This will not impact the quantity of parking spaces within the area. Raised tables will be constructed to a maximum height of 75mm.

- 4.1.5 The pilot will remain in place for a period of 12 months and then subject to the outcome, the scheme will either be formalised permanently or the measures will be removed.
- 4.1.6 The success of the pilot will be assessed by comparing the '85th percentile speeds' prior to the installation of these measures with post-scheme speed data. Additionally, consultation with residents will take place and also be collated and considered.
- 4.1.7 The boundaries between Leigh Ward and West Leigh Ward run along Grange Road and Marine Avenue. Thus, the only roads in West Leigh Ward affected by the proposals is the western half of Grange Road and Salisbury Road, all other West Leigh roads within the area are already subject to a 20mph.
- 4.1.8 The scheme will introduce 20mph speed limits, associated speed limit signage & road markings, vehicle activated speed signs, entry treatments and speed tables on the following roads:
- i. Salisbury Road
  - ii. Southsea Avenue north and south of Glendale Gardens

- iii. Lymington Avenue north and south of Glendale Gardens
- iv. Leighville Grove
- v. Grange Road

There will also be speed tables installed on the following roads which are already subject to a 20 mph speed limit:

- i. Percy Road
- ii. Westcliff Drive
- iii. Westleigh Avenue
- iv. Marine Avenue
- v. Fairleigh Drive
- vi. Ronald Hill Grove

4.1.9 If approved, the proposed works (refer to 4.4 for details) are programmed to commence construction in February 2022.

4.1.10 A proposed Scheme plan outlining the speed control measures for the above area, as well as a plan showing the scheme extents, is shown in **Appendix C**.

## 4.2 Thorpe Ward

4.2.1 Department for Transport's Circular 01/2013 – 'Setting local speed limits', provides guidance on speed control measures in 20 mph zones. The scheme options have been designed in accordance with this publication; incorporating the following:

- i. Non-physical measures of speed reduction, such as vehicle activated speed limit signs and review of static signing.
- ii. Physical measures, such as build-outs, speed cushions and pillows and raised tables.

4.2.2 As there is underlying historical issue of speeding on these roads (based on the 85<sup>th</sup> percentile survey data) and driver feedback signs "may encourage drivers or riders to drive over the speed limit or at a higher 'target speed'" (Essex County Council, 2010), it is felt that only physical measures would have an actual impact on reducing excessive vehicle speeds. Therefore, we propose to implement physical measures as follows:

### **Area bounded by Thorpe Hall Avenue, Thorpe Bay Gardens, Maplin Way and Station Road**

- i. Gateways – To be located on the entrances/exits to the 20mph zone roads (excluding the western end of Station Road), to make it clear, through signage and raised tables, the driver is entering a different environment to encourage a change in driving behaviour and compliance with the speed limit. 20mph zone signs are to be clearly displayed.
- ii. Raised Tables – To be located across the extent of Area 1, to act as a physical traffic calming measure. Raised tables will be constructed to a maximum height of 75mm. Raised tables located on Station Road will be constructed with a 6-metre-wide plateau to allow local buses to safely pass over the top of them.
- iii. Speed humps – To be located across the extent of Area 1 (with the exception of Station Road), to act as a physical traffic calming measure forcing drivers to slow down on the approach and whilst going over the speed hump. Speed humps will be constructed to a maximum height of 75mm.
- iv. Speed cushions – to only be used on the designated bus service route along Station Road, allowing buses to easily pass, but still slowing other drivers. Cushions will be constructed to a maximum height of 75mm.
- v. Kerb line build-outs – To be located across the entire extent of Area 1 (with the exception of Station Road). The build-out will narrow the road, influencing driver behaviour, to slow down vehicles. Build-outs will be installed on both sides of the road at varying locations to avoid singular priority working. Where build-outs will be soft landscaped and be an extension to the footway kerb line.

### **Burges Road, Colbert Avenue and Wyatts Drive**

- i. Gateway features – To be located on the entrances/exits to the 20mph zone roads to make it clear to make it clear, through signage and raised tables, the driver is entering a different environment to encourage a change in driving behaviour. 20mph zone signs are to be clearly displayed.
- ii. Raised Tables – To be located across the extent of Area 2, to act as a physical traffic calming measure forcing vehicles to slow down prior to mounting the table. Raised tables will be constructed to a maximum height of 75mm.
- iii. Speed humps – To be located across the extent of Area 2, to act as a physical traffic calming measure forcing drivers to slow down on the approach and whilst going over the speed hump. Speed humps will be constructed to a maximum height of 75mm.

## **Shaftesbury Avenue, Kensington Avenue and Northumberland Crescent.**

- i. Gateway features – To be located on the entrances/exits to the 20mph zone roads to make it clear to make it clear, through signage and raised tables, the driver is entering a different environment to encourage a change in driving behaviour. 20mph zone signs are to be clearly displayed.
  - ii. Raised Tables – To be located across the extent of Area 3, to act as a physical traffic calming measure forcing vehicles to slow down prior to mounting the table. Raised tables will be constructed to a maximum height of 75mm.
  - iii. Speed humps – To be located across the extent of Area 3, to act as a physical traffic calming measure forcing drivers to slow down on the approach and whilst going over the speed hump. Speed humps will be constructed to a maximum height of 75mm.
- 4.2.3 Proposed Scheme plans outlining the speed control measures for each of the above areas are shown in **Appendix D**.
- 4.2.4 Within Area 3 is Lifstan Way, which is characterised as a through-route for traffic. Lifstan Way serves the adjacent Southchurch Park and Greenways. Southchurch Park is a popular leisure spot and Greenways is a local school. To protect child and pedestrian safety it is proposed to install speed humps on Lifstan Way, extending to the north and just past Greenways.
- 4.2.5 The pilot will remain in place for a period of 12 months under an Experimental Order and then, subject to the outcome, the scheme will either be formalised permanently, or the measures will be removed. There is also the possibility to amend the originally constructed design once the 12-month Experimental Order comes to an end, to reflect driver and pedestrian behaviour during the pilot period, should this be deemed necessary.

## **5. Budget**

- 5.1 The estimated cost to produce detailed designs and implement all elements of this scheme is £500k and will be funded by DfT capital grant. Costs will be monitored throughout the project and any changes to the estimates will be reflected in the budget outturn report to Cabinet.

## **6. Reasons for Recommendations**

- 6.1 The recommendations in this report are to support the Council's 2050 Shared 'Safe and Well' Ambition, to ensure "people in Southend on Sea feel safe in all aspects of their lives".

## 7. Corporate Implications

### 7.1 Contribution to Council's Vision & Corporate Priorities

7.1.1 Safe & Well - This scheme contributes to the Council's visions, particularly in terms of moving towards a safer borough by reducing vehicle speeds and improving safety for pedestrians and school children ensuring residents feel safe and secure in their neighbourhoods. These works areas are also situated around schools participating in the School Streets pilot programme, so these schemes will also seek to contribute to the safety of school children and parents. This is in line with the Policy 16, taken from the councils Local Transport Plan, which highlights the need to "carry out a programme of measures designed to improve road safety and to promote road safety for all road users." (Southend-on-Sea Borough Council, 2015), which is what this pilot scheme, and subsequent 20mph Neighbourhood schemes, will seek to address.

7.1.2 Active & Involved – By improving safety, the ambition of the scheme is to encourage our residents to use active and sustainable transport options, by prioritising non-motorised vehicle travel ahead of private car use. This will be achieved by improving the perceived safety for pedestrians, who would be more inclined to use active travel options if it was their belief that these options were safe enough for use by both adults and children. This is in line with the councils Green City Action Plan sub-priority 2.4, which highlights the need to enable sustainable transport within the Borough and the actions that can be taken to achieve this (Southend-on-Sea Borough Council, 2021)

### 7.2 Property Implications

7.2.1 There are no property implications.

### 7.3 Consultation

A majority of residents are already aware of the plans to implement a 20mph zone scheme in Thorpe Ward. Consultation with key stakeholders, local schools, businesses and residents will be undertaken during the detailed design and construction process, and an experimental TRO (eTRO) will be enforced once the scheme has been constructed, which will allow for amendments to the original scheme design to be made at the end of the maximum 18 month experimental period. This gives both residents and road users the chance to experience the changes for themselves and submit feedback on any aspects of the pilot scheme they feel work well or could work better. Following residents feedback, any suggestions can be reviewed and implemented where necessary, creating a final scheme design that is agreeable to all parties.

### 7.4 Risk Assessment

7.4.1 Risks are reviewed throughout the life of the project and mitigation measures undertaken to reduce risks. A Road Safety Audit will also be

undertaken prior to, during and after the construction of each of the two pilot schemes.

## 7.5 Environmental Impact

7.5.1 Studies in London suggest that 20mph speed limits do not appear to worsen air quality as motorists driving style become smoother with less accelerations and decelerations producing less emissions. Furthermore, the reduced speeds also decrease road danger with less incidents and can encourage more active forms of travel particularly for local journeys.

7.5.2 Air quality monitoring will be undertaken prior to the commencement of works and once works have been completed, to assess the level of pollution in relation to the ambient air quality standards and ensure that what has been constructed does not have a negative impact on the local air quality.

## 8. Appendices

8.1 Appendix A: 85<sup>th</sup> Percentile Vehicle speed survey data – Leigh West and Leigh Ward

8.2 Appendix B: 85<sup>th</sup> Percentile Vehicle speed survey data – Thorpe Ward

8.3 Appendix C: Proposed Design Drawings for 20 mph Neighbourhoods in Leigh West and Leigh Ward

8.4 Appendix D: Proposed Design Drawings for 20 mph Neighbourhoods in Thorpe Ward

## 9. References

9.1 Atkins, AECOM, Maher, M. (2018) *20mph Research Study, Supporting Technical Appendix, Rapid Evidence Review*, SNC-Lavalin.

9.2 Essex County Council (2010) *Essex Speed Management Strategy*, Essex County Council.

9.3 Highways England (2019) *Summary of research projects to improve air quality on or close to the strategic road network*, Highways England.

9.4 Southend-on-Sea Borough Council (2015) *Local Transport Plan 3 Implementation Plan 2015/16 – 2020/21*, Southend-on-Sea Borough Council.

9.5 Southend-on-Sea Borough Council (2019) *Southend 2050: Our Shared Ambition*, Southend-on-Sea Borough Council.

9.6 Southend-on-Sea Borough Council (2021) *Green City Action Plan*, Southend-on-Sea Borough Council.