

# **North East Lincolnshire Settlement Accessibility Assessment**

Published August 2023

|                         |    |
|-------------------------|----|
| Section                 |    |
| Introduction            | 2  |
| Methodological Approach | 6  |
| Settlement Matrix       | 16 |
| Conclusions             | 21 |
| Appendix                | 24 |

## Introduction

## Purpose

- 1.1 North East Lincolnshire Council ('the Council') is undertaking a review of the Local Plan. This paper is intended to support the development of options for housing growth outlined in the Draft Plan.
- 1.2 This report supports the process in establishing the preferred options by providing an assessment of the accessibility of North East Lincolnshire's settlements to key services and amenities which are used by residents.
- 1.3 The assessment presented in this report is founded on an objective methodological approach which uses a number of key measurement indicators to assign points to settlements. The settlements which accumulate the highest number of points are deemed to be those which provide accessibility for residents to a wide range of key services and amenities, including education, health care and recreation.
- 1.4 This document should however not be looked at in isolation. The document only assesses accessibility which is just one factor in determining the sustainability of a settlement and the scale of growth that might be acceptable. Many other factors will influence the locations in North East Lincolnshire which are deemed to be capable of accommodating further housing growth. In particular the capacity of a settlement to accept growth will be determined by the pressures placed on the infrastructure available there. A summary of other key issues which have the potential to restrict the scale of growth in a settlement are summarised below in this introduction.
- 1.5 This evidence paper will not form the basis of an assessment of any individual housing site. Individual sites will be considered and assessed through the Strategic Housing and Employment Land Availability Assessment (SHLAA) and the Sustainability Appraisal of the plan.

## Spatial Zones, Historic Housing Delivery and Market Perception

- 1.6 The Council's existing Local Plan identified four distinct spatial zones within North East Lincolnshire. These spatial zones recognise the differing role, function and character that different areas in the borough provide.
- 1.7 The urban zone covers the area of port town of Grimsby and popular tourist resort of Cleethorpes. It is an area in which a significant proportion of the borough's population live and work. The western and southern arc ('the arc') comprises the five villages to the south and west of the urban area. These villages act as service settlements, providing housing with access to a range of services and amenities.
- 1.8 The port town of Immingham is within the estuary zone, an area in which industrial and commercial activity takes place on a large scale in the employment land of the South Humber Bank, north of the A180.

- 1.9** In contrast, the rural area is composed of small villages and hamlets of varying composition and with different levels of access to services; this includes the attractive landscape of the Lincolnshire Wolds, a designated Area of Outstanding Natural Beauty (AONB).
- 1.10** Census data captures the population change from 2011 to 2021 across the spatial zones. The resident population of the urban area fell by 3.9% (-4,705 residents) whilst the much smaller resident population of the rural area fell by 2.5% (-179 people). The population of the estuary zone has largely stagnated increasing just 0.2% (19 people) whilst there has been a relatively large increase in the population of the arc settlements which have seen population rise by 9.6% (+2,221 people). These figures along with the totals can be seen in Table 1.1 'Population Change between 2011 and 2021'<sup>(1)</sup>.

| Spatial Zone <sup>(1)</sup> | Total Residents (2011) | Share % (2011) | Total Residents (2021) | Share % (2021) | Population Change % |
|-----------------------------|------------------------|----------------|------------------------|----------------|---------------------|
| Estuary Zone                | 8,566                  | 5.4%           | 8,585                  | 5.5%           |                     |
| Rural Area                  | 7,291                  | 4.6%           | 7,112                  | 4.5%           | -2.5%               |
| Urban Area                  | 120,529                | 75.5%          | 115,824                | 73.8%          | -3.9%               |
| Arc Area                    | 23,230                 | 14.6%          | 25,451                 | 16.2%          | 9.6%                |
| <b>Total</b>                | <b>159,616</b>         |                | <b>156,972</b>         |                | <b>-1.7%</b>        |

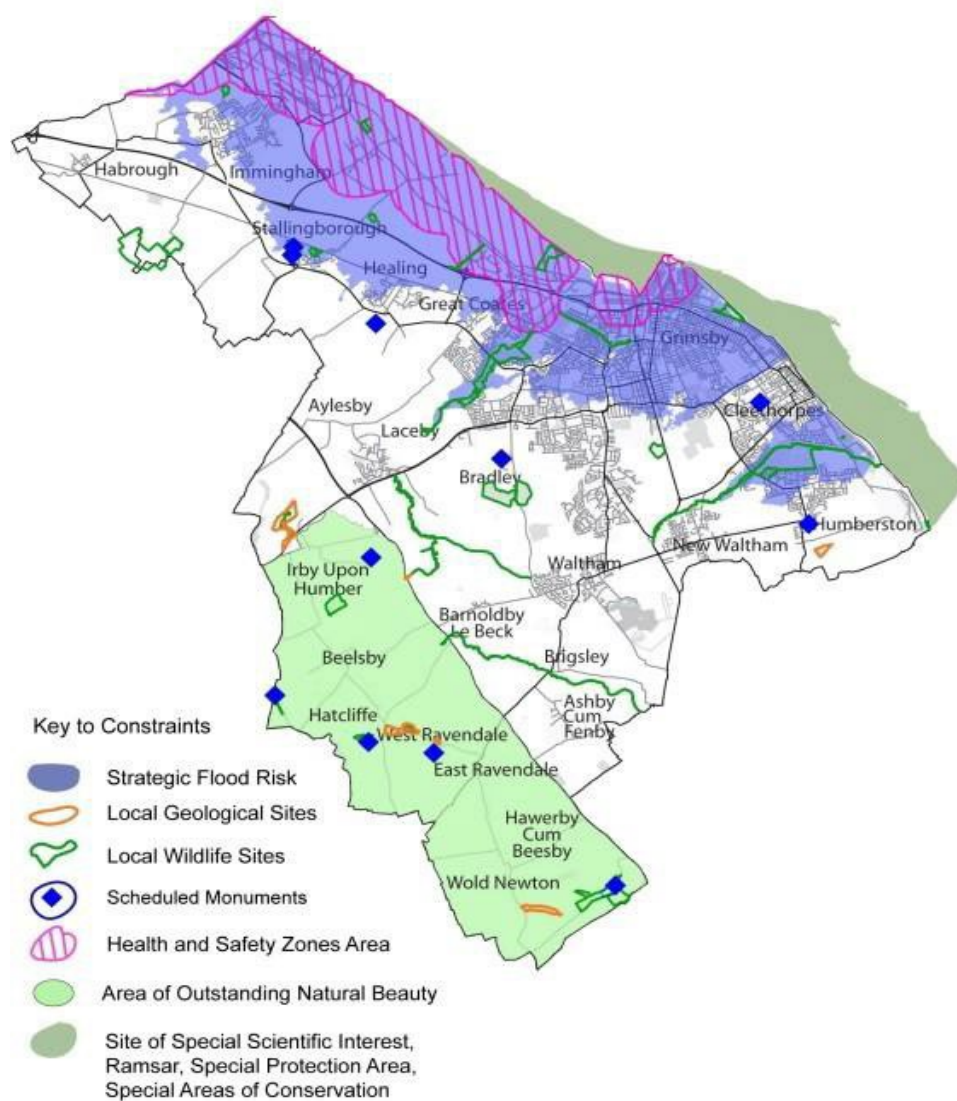
**Table 1.1 Population Change between 2011 and 2021**

- 1.11** The Council recently commissioned a Strategic Housing Market Assessment (SHMA) which is divided into three interrelated parts. The first identifies the overall housing need for the borough, based on a number of identified scenarios. The second considers the need for different types of housing; and the third focuses on the potential to deliver certain housing as part of wider regeneration efforts in Grimsby.

## **Spatial Zones, Historic Housing Delivery and Market Perception**

- 1.12** A number of development constraints exist in North East Lincolnshire which would restrict the potential for growth in settlements, including flood risk, landscape, ecological constraints, and health and safety zones. Figure 1.2 'Higher order development constraints' illustrates the extent of these constraints.

<sup>1</sup> Census 2011 & 2021, Office for National Statistics.



**Figure 1.2 Higher order development constraints**

- 1.12** Whilst these constraints will not necessarily preclude development in certain areas, it is important to consider them in light of the settlement accessibility matrix. Whilst the matrix may suggest that a particular settlement is an accessible location, the constraints highlighted here may affect the feasibility of development, or the scale of development proposed.

## Infrastructure

- 1.13** The Council commissioned an Infrastructure Delivery Plan (IDP) to support the existing plan preparation. This evidence will be considered and updated to identify infrastructure gaps that may act as growth constraints affecting settlements, in some cases this may act as a cap to the overall growth capacity of a settlement.

## Methodological Approach

## Methodological Approach and Measurement Indicators

- 2.1** The assessment looks at 20 individual settlements, ranging in scale from a town acting as a sub-regional centre, to small villages. Hamlets are excluded from the assessment. Each settlement in North East Lincolnshire has been assessed using a range of criteria for its accessibility to key services and facilities.
- 22** The previous Settlement Accessibility Assessment performed in 2013 assessed 23 individual settlements. This reduction in settlement areas is due to the changes in the construction of the 2021 census population data, which breaks down the population into locational increments of circa 100-500 people depending on the population density. As a result, densely populated areas such as Grimsby have a large number of settlement locations, with such locations being housing estates etc. with a total of 296 settlement locations. However, at the other end of the spectrum, given the small population numbers of West Ravendale, East Ravendale, Wold Newton and Hawerby Cum Beesby, the total population of all 4 areas combined is 198 people and is therefore combined into a single population location.
- 23** The assessment method includes facilities which exist within North East Lincolnshire as well as any facility based just outside the region, which could be deemed closer and more accessible to residents living within North East Lincolnshire and close to the border. However, much of the area's hinterland is rural in nature. Grimsby acts as a sub-regional centre and therefore movements into the borough to access services are common. It should also be noted that there are some movements from the borough to service providers which are not within the borough's administrative boundary.
- 24** The report does not intend to suggest that in order for a settlement to be considered a sustainable location to facilitate further growth that it must contain all of the services and facilities that residents will require. The evidence used is based on accessibility, and therefore a settlement can be shown to be sustainable if services located in other areas can be easily reached by sustainable modes of transport.
- 25** The variety of facilities and services evaluated as part of this accessibility assessment are considered to be key facilities and services to support housing growth. The facilities and services location data forming the basis of this settlement accessibility assessment is derived from multiple datasets. The Council has commissioned Isochrone modelling which provides an equitable and objective way of measuring the accessibility of each settlement, by measuring the time taken to reach key services by public transport. This Isochrone Modelling only uses bus based public travel information and does not include trains. This modelling is performed using Geographic Information System (GIS) software, which uses a mixture of pedestrian and public transport data to estimate journey times. Bus Open Data from the UK Government website was used in the GIS software as part of this accessibility analysis. The GIS software can also use this public transport data to estimate average wait times between timetabled services. Providing a realistic average journey time to set locations.

- 26** In the previous Settlement Accessibility Assessment in 2013, Accession Modelling was used. Accession Modelling was performed using a dedicated software that determines the journey times between set locations. Isochrone Modeling performs the same function as Accession Modelling but is one of a host of features contained within a GIS software tool. The modelling has produced a series of contour maps showing accessibility by differing time bands (10 minutes, 20 minutes etc.) to the services outlined in Table 2.1 'Accessibility Assessment - Key Services and Facilities'. These have been used to assess the sustainability of settlements using the criteria set out in this chapter. The contour maps can be found with the Appendix of this document.
- 27** Public transport data for both Bus and Rail from July 2023 was used to perform the accessibility assessment analysis.

| Category   | Facility Type                   |
|------------|---------------------------------|
| Education  | Primary Schools                 |
|            | Secondary Schools               |
| Healthcare | Health Centres and GP Surgeries |
|            | Dentist Surgeries               |
|            | Pharmacies                      |
|            | Hospitals                       |
|            | Allotments                      |
| Community  | Libraries                       |
|            | Recycling Centres               |
|            | Post Offices                    |
| Recreation | Parks & Play Areas              |
|            | Outdoor Sports Facilities       |
|            | Indoor Sports Facilities        |
|            | Entertainment Venues            |
| Retail     | Supermarkets                    |
|            | Convenience Stores              |
|            | Local Centres                   |
| Other      | Bus Service Frequency           |
|            | Rail Service Frequency          |
|            | Travel to Work                  |

**Table 2.1 Accessibility Assessment - Key Services and Facilities**

## Measurement Indicators

- 28** The following criteria are the measurement indicators that are considered to be key facilities and services which are required to support housing growth. Not all of these measurement indicators have been informed by GIS modelling, and where this is the case, the additional commentary explains the dataset used and rationale for its usage. All measurement indicators are weighted with a highest score of three points, unless otherwise stated. Where 'access to facilities' measurement indicators are used, the criteria score given is determined when the threshold of over 70% of the population can access these facilities. For instance, if only 69% of the population can access a facility within 10 mins and 90% can access the facility within 20 Mins, then it will receive a score for the criteria of 'within 10-20 mins'. Where 'transport accessibility' measurement indicators are used, the average stop frequency throughout the settlement area is used.

### Sustainable Transport Accessibility - Bus

- 29** The assessment of transport accessibility by bus measurement indicator was performed using GIS analysis. This information provided to the GIS software was extracted from Bus Open Data using GIS tools to determine the average frequency for all bus stops in each settlement area. This measurement indicator shows the frequency of scheduled bus services between 8am and 6pm for each settlements. Settlements attain a higher score from a regular service, with the score decreasing as the service becomes less regular.
- 210** Whilst there are settlements that have no service, a number of settlements have a service which is infrequent. The existence of an infrequent service does not add or subtract points to the score attained by a settlement. The criteria for this judgement is outlined in Table 2.2 'Sustainable Transport Accessibility - Bus'

| Criteria           | Score |
|--------------------|-------|
| 15 minutes or less | 3     |
| 16 - 30 minutes    | 2     |
| Over 30 minutes    | 1     |
| Infrequent         | 0     |
| No service         | -1    |

**Table 2.2 Sustainable Transport Accessibility – Bus**

NOTE: Frequency of scheduled bus services (8am to 6 pm) \*The first three criteria refer to regular services. Infrequent refers to an irregular service over 30 minutes.

### Sustainable Transport Accessibility - Rail

- 211** The assessment of transport accessibility by rail measurement indicator was not performed using GIS. The information regarding railway frequency was extracted from the timetable data provided by the three train operators that operate rail services in North East Lincolnshire; East Midlands Railway, Transpennine Express and Northern. This is due to many of the settlement areas having no rail stations and therefore no rail connectivity. There are only eight passenger rail stations within North East Lincolnshire, across six settlement areas. This measurement indicator awards a higher score to those settlements with a more frequent service between 8am to 6pm.
- 212** The weighting of the scoring scale for this measurement indicator is different than that used for the frequency of bus services. The measurement indicator does not deduct points for settlements which do not have a rail service. Census data shows that very few residents ages 16 – 74 and in employment in North East Lincolnshire travel to work by train<sup>(2)</sup>. The level of service provided by the railways has changed as a result of the COVID-19 pandemic, therefore, the scoring scale for this measurement indicator has changed to include infrequent services.

| Criteria   | Score |
|------------|-------|
| Two hourly | 3     |
| One hourly | 2     |
| Infrequent | 1     |
| No service | 0     |

**Table 2.3 Sustainable Transport Accessibility – Rail**

NOTE: Frequency of scheduled rail services (8am to 6pm)

2 Census 2021, Office for National Statistics.

## Access to Shopping Facilities

- 213** The assessment of access to shopping facilities measurement indicator was performed using GIS isochrone modelling. This determined the level of accessibility that each settlement has to convenience stores, supermarkets and local centres, which defined as such in the Council's Local Centres Update 2019. This data was supplied by North East Lincolnshire Council and Google and is known to be correct as of July 2023. Settlements achieve a higher score from being able to access these facilities within the time limits outlined in Table 2.4 'Access to Shopping Facilities'. All facilities were considered together.

| Judgement                                                                 | Criteria               | Score |
|---------------------------------------------------------------------------|------------------------|-------|
| Journey time by bus to convenience stores, local centres and supermarkets | Within 10 minutes      | 3     |
|                                                                           | Within 10 - 20 minutes | 2     |
|                                                                           | Within 20 - 30 minutes | 1     |
|                                                                           | Within 30 - 40 minutes | 0     |
|                                                                           | 40 minutes and over    | -1    |

**Table 2.4 Access to Shopping Facilities**

## Access to Healthcare Facilities

- 214** The assessment of access to healthcare facilities measurement indicator was performed using GIS isochrone modelling. This determined the level of accessibility that each settlement has to GP surgeries and Health Centres, Dentists, Pharmacies and Hospitals. This data was supplied by North East Lincolnshire Council and the NHS and is known to be correct as of July 2023. Settlements achieve a higher score from being able to access these facilities within the time limits outlined in Table 2.5 'Access to Healthcare Facilities'. Each facility type was assessed separately.

| Criteria               | Score |
|------------------------|-------|
| Within 10 minutes      | 3     |
| Within 10 – 20 minutes | 2     |
| Within 20 - 30 minutes | 1     |
| Within 30 - 40 minutes | 0     |
| 40 minutes and over    | -1    |

**Table 2.5 Access to Healthcare Facilities**

NOTE: Journey time by bus to GPs surgeries & Health Centres, Dentists, Pharmacies and Hospitals.

## Access to Education

- 215** The assessment of access to education measurement indicator was performed using GIS isochrone modelling. This determined the level of accessibility that each settlement has to primary and secondary education establishments. The data was supplied by North East Lincolnshire Council and the UK Government Website (GOV.UK) and is known to be correct as of July 2023. The accessibility of primary and secondary schools was considered separately. Special and private schools were excluded. Settlements achieve a higher score from being able to access these facilities within the time limits outlined in Table 2.6 'Access to Education'. Each facility type was assessed separately.

NOTE: Journey time by sustainable transport modes to primary and secondary education sites.

| Criteria               | Score |
|------------------------|-------|
| Within 10 minutes      | 3     |
| Within 10 – 20 minutes | 2     |
| Within 20 - 30 minutes | 1     |
| Within 30 - 40 minutes | 0     |
| 40 minutes and over    | -1    |

**Table 2.6 Access to Education**

- 216** The assessment of access to community facilities measurement indicator was performed using GIS isochrone modelling. This determined the level of accessibility that each settlement has to the number of community facility types present within 20 minutes. Settlements gain a higher score by achieving a higher number of facilities that are easily reachable by bus, in line with the criteria outlined in Table 2.7 'Access to Community Facilities'.

| Judgement                            | Criteria                           | Score |
|--------------------------------------|------------------------------------|-------|
| Facilities Present (within 20 mins): | All groups of facilities present   | 3     |
| Allotments                           | Three groups of facilities present | 2     |
| Libraries                            | Two groups of facilities present   | 1     |
| Recycling Centres                    | One facility present               | 0     |
| Post Offices                         | No facilities                      | -1    |

**Table 2.7 Access to Community Facilities**

Access to Recreation Facilities

**217** The assessment of access to recreation facilities measurement indicator was performed using GIS isochrone modelling. This determined the level of accessibility that each settlement has to the number of recreation facility types present within 20 minutes. The recreation facility types have been updated from the existing Settlement Accessibility Assessment from 2013 to better reflect the facilities that people would access by bus in 2023. Settlements gain a higher score by achieving a higher number of facilities that are easily reachable by bus, in line with the criteria outlined in Table 2.8 'Access to Recreation Facilities'.

| Judgement                            | Criteria                           | Score |
|--------------------------------------|------------------------------------|-------|
| Facilities Present (within 20 mins): | All groups of facilities present   | 3     |
| Parks & Play Areas                   | Three groups of facilities present | 2     |
| Outdoor Sports Facilities            | Two groups of facilities present   | 1     |
| Indoor Sports Facilities             | One facility present               | 0     |
| Entertainment Venues                 | No facilities                      | -1    |

Table 2.8 Access to Recreation Facilities

## Travel to work by car

- 2.18** The assessment of people who travel to work by car measurement indicator was not performed using GIS. This data was extracted from the 2021 census and was compared against the population data from the 2021 census for each settlement area to obtain a percentage. This measurement indicator considers the sustainability of the mode of travel taken to work by residents. The 2021 Census statistics published by the Office for National Statistics includes data showing the method of travel taken to work by the population aged 16 to 74<sup>(3)</sup>.
- 219** This measurement indicator considers the sustainability of the mode of travel to work by residents. The 2021 Census data published by the Office for National Statistics includes data showing the method of travel taken to get to work by the population aged 16 to 74<sup>(3)</sup>.
- 220** North East Lincolnshire Council has used this data, excluding those aged 16 to 74 who are not in employment, to assess the sustainability of settlements based on the percentage of people who drive a car to work. This therefore excludes people who commute to work by car as a passenger. The areas where more residents use their car to access work are considered less sustainable, however it should be noted that these are areas which typically have lower populations, and therefore small changes in the number of people using car as their method of transport to reach work will result in larger percentage increases than in the more densely populated urban areas.
- 221** Whilst some residents will travel outside of North East Lincolnshire for work this criteria is considered to provide a clear indication of settlement sustainability. The Census data is collected nationally and considered to be reliable and robust. The criteria for this judgement is outlined in Table 2.9 'Travel to work by car'.

| Criteria     | Score |
|--------------|-------|
| < 40.0%      | 2     |
| 40.1 - 50.0% | 1     |
| 50.1 - 60.0% | 0     |
| 60.1 - 70.0% | -1    |
| 70.1 - 80%   | -2    |
| > 80.1%      | -3    |

**Table 2.9 Travel to work by car**

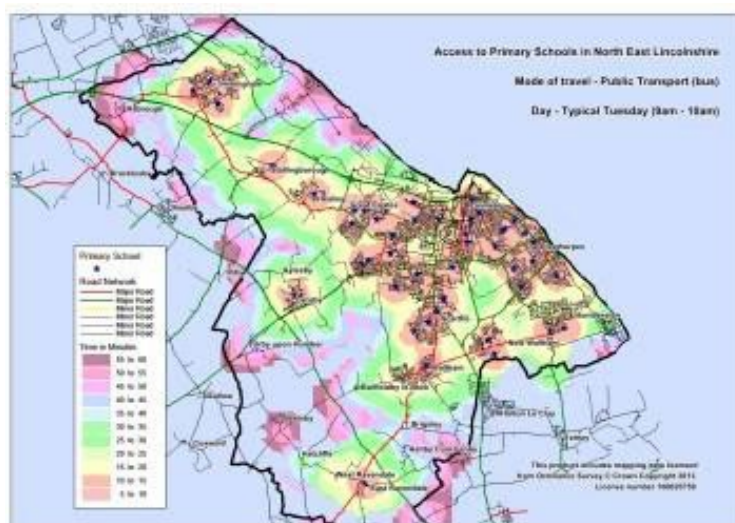
**NOTE:** % of all usual residents aged 16 to 74 in the area, excluding those not in employment, who drive to work<sup>(3)</sup>



- 222** This data is broken down to ward and parish level. Parish boundaries in some instances cover more than one settlement. The average for the settlement has therefore been applied to all wards and parishes within the settlement. For example, the average rate for the parish of East Ravendale has been applied for the settlements of East Ravendale, West Ravendale, Wold Newton and Hawerby Cum Beesby (all incorporated under East Ravendale as mentioned in section 2.2). For the urban areas of Grimsby and Cleethorpes, the average of all wards within these settlements has been used. A maximum score of 35 and a lowest score of -13 can be obtained from this accessibility assessment.

### Accession Sample

- 223** Figure 2.1 'Sample isochorone modelling output - Primary School Accessibility' provides a sample accession modelling output. These maps form the basis for much of the assessment of settlement sustainability.



**Figure 2.1 Sample isochorone modelling output - Primary School Accessibility**

## Settlement Matrix



- 3.1** The application of the criteria set out in Chapter 2 'Methodological Approach' has formed Table 3.1 'Settlement Accessibility Matrix'. The results are summarised below by spatial area.

### Urban Area

- 3.2** Perhaps unsurprisingly, the assessment identifies the urban area settlements as providing the greatest level of accessibility to services via public transport modes, with Grimsby and Cleethorpes ranking first and second place, and the village of Great Coates which is physically attached to the western edge of Grimsby occupying fourth place. Grimsby and Cleethorpes provide regular bus and rail services. Bus services in both settlements are frequent and allow for easy access to a wide range of services essential to support additional housing growth.
- 3.3** In particular, these areas are well served by health care, education and recreation facilities. The GIS modelling does however highlight that community facilities are less well served in Grimsby and Cleethorpes by comparison. However, community facilities on the whole score lower for accessibility than the other facility types assessed. This being mainly due to the region only having two Recycling centers and 10 Libraries.
- 3.4** Grimsby and Cleethorpes score lower for rail accessibility than Habrough, this is because Grimsby has three stations within its settlement area and the service frequency is measured as the average across all three stations, see section 2. for further details. Whereas all other settlement areas have a single rail station. Some services terminate at Grimsby Town and therefore do not call at Cleethorpes station.
- 3.5** Both Grimsby and Cleethorpes achieve low scores for access to secondary education, due to quantity of schools and their distribution. This is because secondary schools enrol higher numbers of pupils than primary schools and have larger catchment areas. However, on the whole secondary schools across the urban area can be reached within 30 minutes by bus. Whilst areas of the highest population density have good access to primary schools, this is less the case with secondary schools.
- 3.6** The settlements overall have access to a wide range of community and recreation facilities. Typically, less people in Grimsby drive to work than in Cleethorpes, with more people in Grimsby than in Cleethorpes cycling or walking to work. This is reflected in the matrix. In central parts of Grimsby, less than 45% of people rely on driving their car to access their place of employment. Whilst the urban area features all of the facilities required to support new housing growth, the distribution of facilities across the area means that not all parts of it meet the criteria outlined in this document to achieve the highest accessibility score.
- 3.7** Great Coates is considered to provide easy access to a wide range of services. This is owing to the provision of bus and rail services, and the proximity of the settlement to services in western Grimsby. The village is close to several schools. Despite its good public transport links, 75.6% of the working population drive to work.

- 3.8** The village of Bradley is not physically attached to the urban area and enjoys a degree of separation; however the village is clearly within the fringe of the urban area. The village is not considered to be a location which would provide access to services by sustainable methods of travel. The Council will also need to consider if the potential scale of growth required to sustain the provision of facilities within the settlement would be appropriate in this location

### **Estuary Area**

- 3.9** Immingham is a compact settlement which features all of the facilities required to support new residents, and overall, has good access to them. The settlement is ranked third in the sustainability matrix even though Immingham does not have a rail station.
- 3.10** The settlement is particularly well served by primary and secondary schools, and the distribution of these facilities means they are readily accessible from all parts of the settlement. The majority of the working age population rely on driving by car to work (73.9% of residents). A higher percentage of people in Immingham travel to work by walking, cycling and bus services than in neighbouring settlements such as Habrough and Stallingborough, owing to the provision of employment opportunities in and close to the town.

### **Western and Southern Arc Area**

- 3.11** All five western and southern arc ('the arc') settlements score well in the accessibility matrix, occupying between fifth to tenth place. Of these settlements, all have a bus service, although the service to New Waltham is less frequent than that of the other settlements. Healing is the only arc settlement that provides rail connectivity.
- 3.12** All settlements have high levels of accessibility to shopping facilities, and overall good access to healthcare facilities. Each settlement has a reasonable level of access to primary education facilities, but only Healing, Humberston and New Waltham (50%) provide a reasonable level of access to secondary provision via bus services. Access to community facilities is particularly high in Laceby and Waltham, and good across the other settlements. All five settlements provide strong access to an array of recreation facilities.
- 3.13** In all of the arc settlements, there is a high reliance on car as the method of travel to work. This being between 74-76% across all five settlement areas.

### **Rural Area**

- 3.14** The rural area has been assessed as the location that provides least accessibility to services and amenities, with only Stallingborough and Habrough having rail connectivity. Stallingborough, Aylesby and Brigsley were the only three rural area settlements to receive a positive score in the matrix. In the case of Stallingborough and Habrough, very few residents use rail as a mode of transport to travel to work.

- 3.15** Only Stallingborough benefits from a regular bus service within the rural areas, therefore providing access to a number of facilities. Brigsley has an infrequent bus service and Aylesby has no bus service. However, both areas can still provide accessibility to a range of facilities which are closeby and accessible by foot. Stallingborough and Brigsley both have a higher number of the population who drive to work, at 74.1%, which is higher than Aylesby at 57.3%.
- 3.16** Of the remaining seven rural settlements assessed, all score negative scores in the accessibility matrix. In all cases this is attributable to a lack of public transport links. None of the settlements provide quick and easy access to key facilities including health care or education. East Ravendale is the only settlement achieving a negative score which has primary school access. Beelsby has the lowest numbers of residents commuting to work via car, at 55.6%, whereas Irby Upon Humber has the highest number of residents commuting to work via car, at 82.9%.
- 3.17** It is expected that car usage will also be high within these rural settlement boundaries to enable access to other facilities, as the remaining settlements do not have access to the majority of facilities considered within this accessibility assessment.
- 3.18** We would expect to see a change in the settlement accessibility matrix results by comparison to the previous Settlement accessibility Matrix from 2013. Firstly, some of the criteria for the measurement indicators has changed:
- Sustainable Transport Accessibility - Rail; Scoring altered to reflect the addition of infrequent services (less than hourly), resulting in both two hourly and hourly frequency scores increasing by +1.
  - Access to Healthcare Facilities; Hospitals has been added as its own separate healthcare criteria score, in addition to GP Surgeries/Heath Centres, Pharmacies and Dentists.
  - Access to Recreation Facilities; The judgment of the different recreation facility categories has been changed to better reflect the types of recreation facilities that people would access by bus. Playing Fields, Sports Facilities and Leisure Centres are now combined into either Outdoor and Indoor Sports facilities. Allowing an Entertainment venues category to be added, which includes facilities such as Events Venues, Function Rooms, Social Clubs, Cinemas, Theatres, Bowling, Ice Rinks and Tourist Attractions.

Secondly, changes made to facilities and their locations, such as moving to different premises, failed businesses and new businesses. In addition, new buildings are constructed or demolished such as housing, retail, or other businesses. This will all have had a resultant impact on public transport in the last decade meaning that the accessibility for some facilities will have altered during this time.

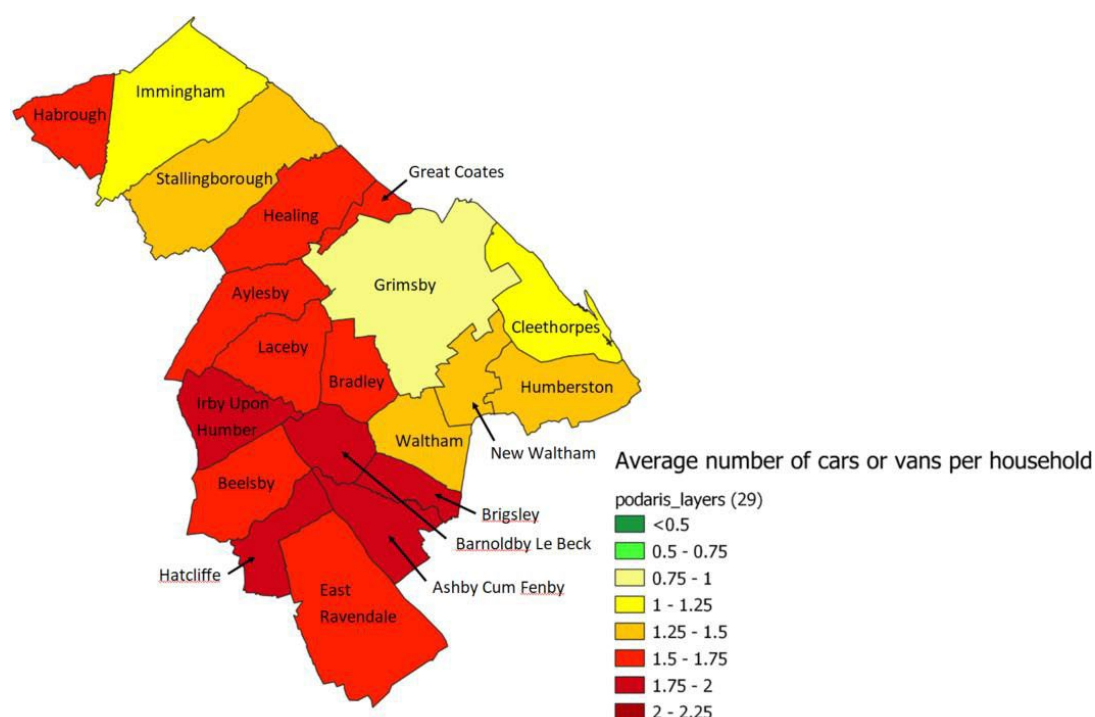
| Settlement        | Spatial Zone   | Bus | Rail | Shopping | GP/Heath Centres | Pharmacies | Dentists | Hospitals | Primary school | Secondary school | Community Recreation | Travel to work by car | Total Score |     |
|-------------------|----------------|-----|------|----------|------------------|------------|----------|-----------|----------------|------------------|----------------------|-----------------------|-------------|-----|
| Grimsby           |                |     |      |          | 3                | 2          | 2        | 0         | 3              | 1                |                      |                       |             |     |
| Cleethorpes       | Urban          | 2   | 2    | 3        | 2                | 2          | 2        | -1        | 3              | 1                | 0                    | 3                     | -1          | 18  |
| Immingham         | Estuary        | 1   | 0    | 3        | 2                | 2          | 2        | -1        | 3              | 2                | 1                    | 3                     | -2          | 16  |
| Great Coates      | Urban          | 2   | 1    | 2        | 2                | 2          | 0        | -1        | 3              | 2                | 0                    | 2                     | -2          | 13  |
| Laceby            | Arc            | 2   | 0    | 3        | 3                | 3          | -1       | -1        | 2              | -1               | 2                    | 1                     | -2          | 11  |
| Healing           | Arc            | 2   | 1    | 2        | 2                | 2          | -1       | -1        | 2              | 2                | 0                    | 2                     | -2          | 11  |
| Waltham           | Arc            | 2   | 0    | 2        | -1               | 2          | 2        | -1        | 2              | 0                | 2                    | 2                     | -2          | 10  |
| Humberston        | Arc            | 2   | 0    | 3        | -1               | 2          | -1       | -1        | 2              | 1                | 1                    | 3                     | -2          | 9   |
| Bradley           | Urban (Fringe) | -1  | 0    | 2        | 3                | 2          | 2        | -1        | 1              | 0                | 0                    | 2                     | -1          | 9   |
| New Waltham       | Arc            | 1   | 0    | 3        | -1               | 2          | 0        | -1        | 2              | 1                | 1                    | 2                     | -2          | 8   |
| Stallingborough   | Rural          | 1   | 1    | 3        | 1                | 0          | -1       | -1        | 3              | 1                | 0                    | 1                     | -2          | 7   |
| Aylesby           | Rural          | -1  | 0    | 1        | 1                | 1          | -1       | -1        | 1              | -1               | 0                    | 1                     | 0           | 1   |
| Brigsley          | Rural          | 0   | 0    | 1        | -1               | 1          | 1        | -1        | 1              | -1               | -1                   | 2                     | -2          | 0   |
| East Ravendale    | Rural          | 0   | 0    | -1       | -1               | -1         | -1       | -1        | 3              | -1               | -1                   | -1                    | -1          | -6  |
| Habrough          | Rural          | -1  | 3    | -1       | -1               | -1         | -1       | -1        | -1             | -1               | -1                   | 1                     | -2          | -7  |
| Barnoldby Le Beck | Rural          | -1  | 0    | 1        | -1               | 0          | 0        | -1        | 0              | -1               | -1                   | -1                    | -2          | -7  |
| Irby Upon Humber  | Rural          | -1  | 0    | 1        | 0                | 0          | -1       | -1        | -1             | -1               | -1                   | -1                    | -3          | -9  |
| Beelsby           | Rural          | -1  | 0    | -1       | -1               | -1         | -1       | -1        | -1             | -1               | -1                   | -1                    | 0           | -10 |
| Ashby Cum Fenby   | Rural          | 0   | 0    | -1       | -1               | -1         | -1       | -1        | 0              | -1               | -1                   | -1                    | -2          | -10 |
| Hatcliffe         | Rural          | -1  | 0    | -1       | -1               | -1         | -1       | -1        | 0              | -1               | -1                   | -1                    | -1          | -10 |

2023 - Settlement Accessibility Assessment

Table 3.1 Settlement Accessibility Matrix

## Conclusions

- 4.1** The assessment illustrates that it is not necessary for each settlement to provide all of the facilities and services that residents require in order for them to be easily accessed providing that there are good public transport links between settlements.
- 4.2** Many of North East Lincolnshire's smaller settlements located in the rural areas do however suffer from poor public transport links, with infrequent or even no service, which means that residents rely on the car as the main mode of transport to access certain types of facilities. As a result the number of residents with access to a car or van living in the rural area is significantly higher on average than compared to residents in the urban areas. This will occur owing to a range of differences between the areas, for example the comparative wealth of residents between the areas, but also because in many rural settlements it is essential to own a car to access services due to the lack of public transport availability.
- 4.3** Figure 4.1 'Access to vehicles' uses data from the 2021 Census to represent the numbers of vehicles each household has access to on average broken down into the 20 settlement areas assessed <sup>(4)</sup>. This illustration clearly shows that access to vehicles is much higher in the rural areas than in the urban areas where on average most households have access to one vehicle or less.



**Figure 4.1 Access to Vehicles**

4 Census 2021, Office for National Statistics.

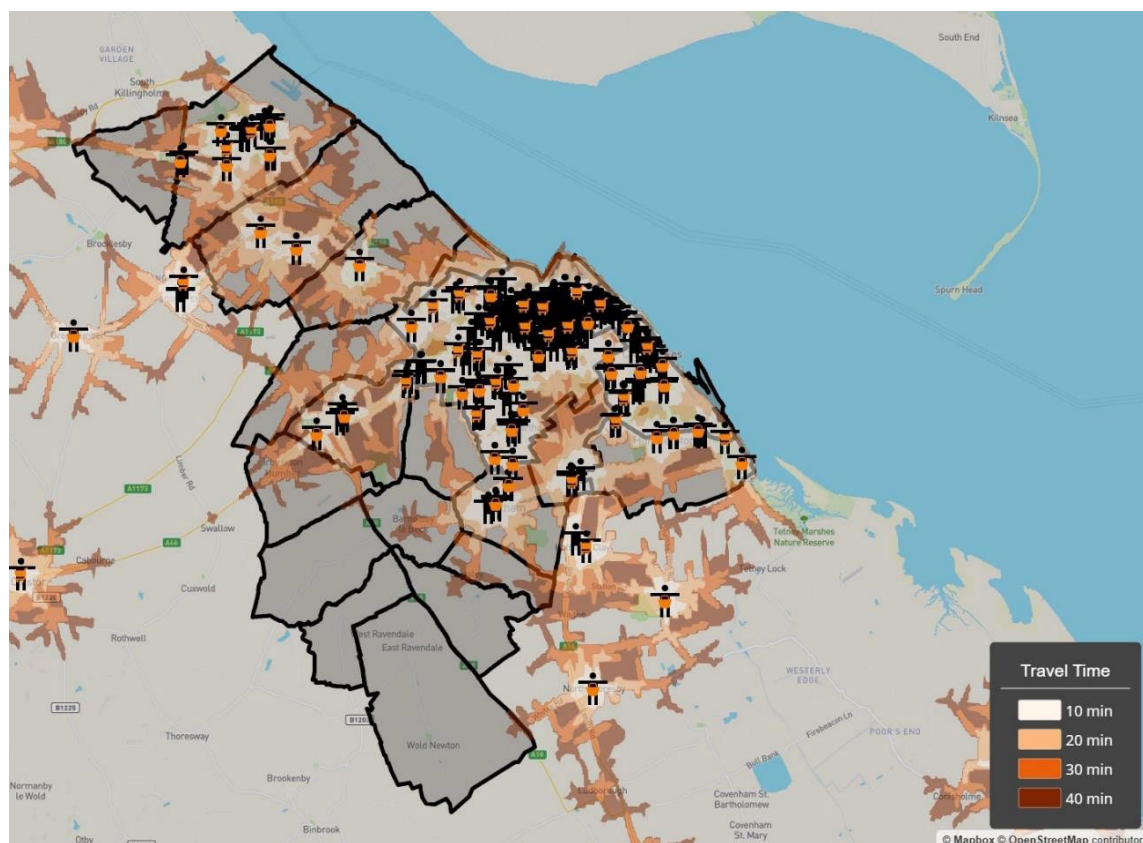
- 4.4** Improving accessibility to services in existing settlements will require either services being provided in or near to these settlements, the provision of services closer to existing public transport routes, or the provision of public transport services where they do not exist currently or operate infrequently. However, in many cases these options are not viable owing to a lack of market or population mass in the rural area to create the cumulative need for specific amenities or regular financially self-sustaining public transport services. Especially when factoring in the usage of private cars, with the average car ownership and travelling to work by car across the region being 95% and 71% of the population respectively<sup>(5)</sup>. The scale of growth required in these settlements to enable the viable provision of other facilities may not be considered appropriate in some of the settlements.
- 4.5** It is considered that in terms of access to facilities and services via public transport methods, Grimsby and Cleethorpes provide the most sustainable options for locating future housing growth. As to be expected given they are within the urban area. Immingham is also demonstrated to be a location with a high level of access to key services, however, growth here could be constrained by flood risk issues and deliverability with historically owing to its poor market perception and lack of historic housing completions. Locations within the western and southern arc area also score strongly with a reasonable number of accessible facilities. This being primarily due to stronger public transport links in these areas.
- 4.6** The 2021 Census data was obtained during a period where restrictions and implications of the COVID-19 pandemic were still being felt in society. Therefore, this data has the potential to be skewed given it will still contain some elements of the impacts from the pandemic. In particular, both the availability to work remotely combined with the UK Government advice to avoid public transport could be factors as to why travel to work by car has seen stronger values in some settlement areas and lower values in other areas by comparison to the Settlement Accessibility Assessment from 2013. Therefore, data may not be fully representative of a fully reopened society as is the case in 2023. On the other hand, some of the impacts from the pandemic have changed elements of society also going forward, such as remote working and accelerating the use of online facilities, which has impacted the high street and the need to travel to other physical establishments that provide community facilities, for example, GP video calls. This is further reason as to why we would expect to see a change in the settlement accessibility matrix results by comparison to the previous Settlement accessibility Matrix from 2013 as stated in section 3.18.

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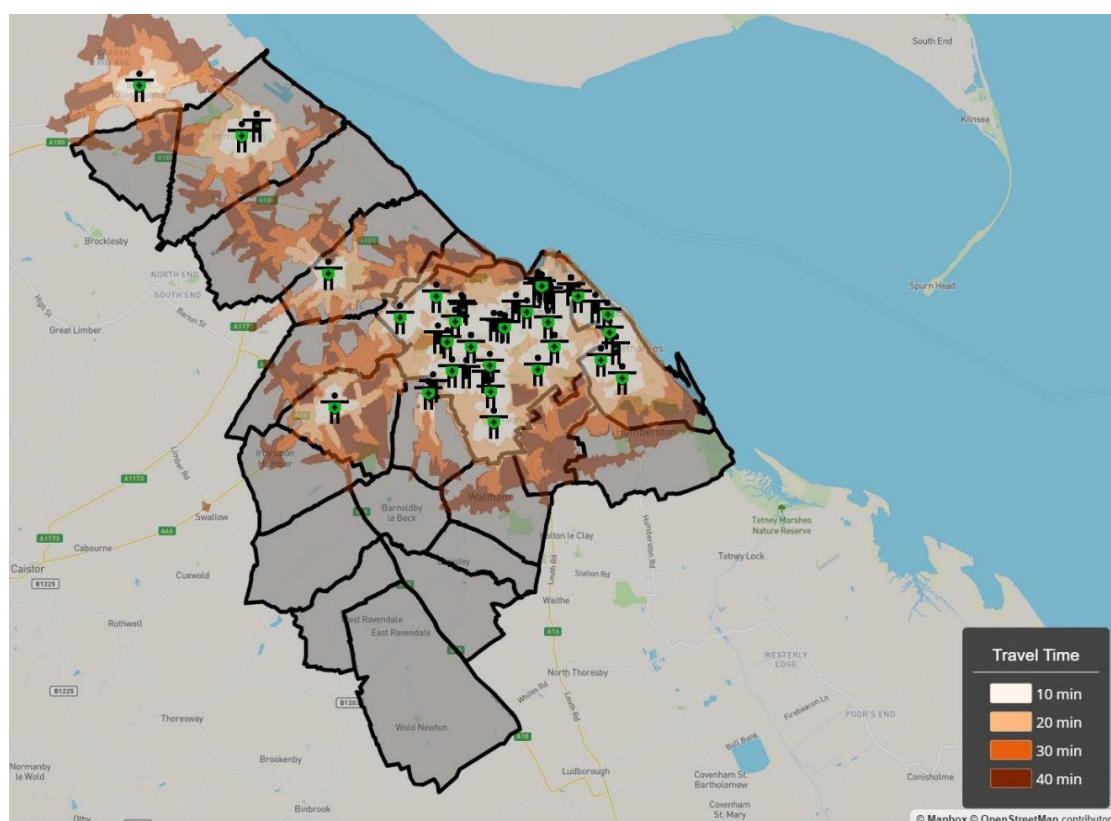
5 Census 2021, Office for National Statistics.

## Appendix

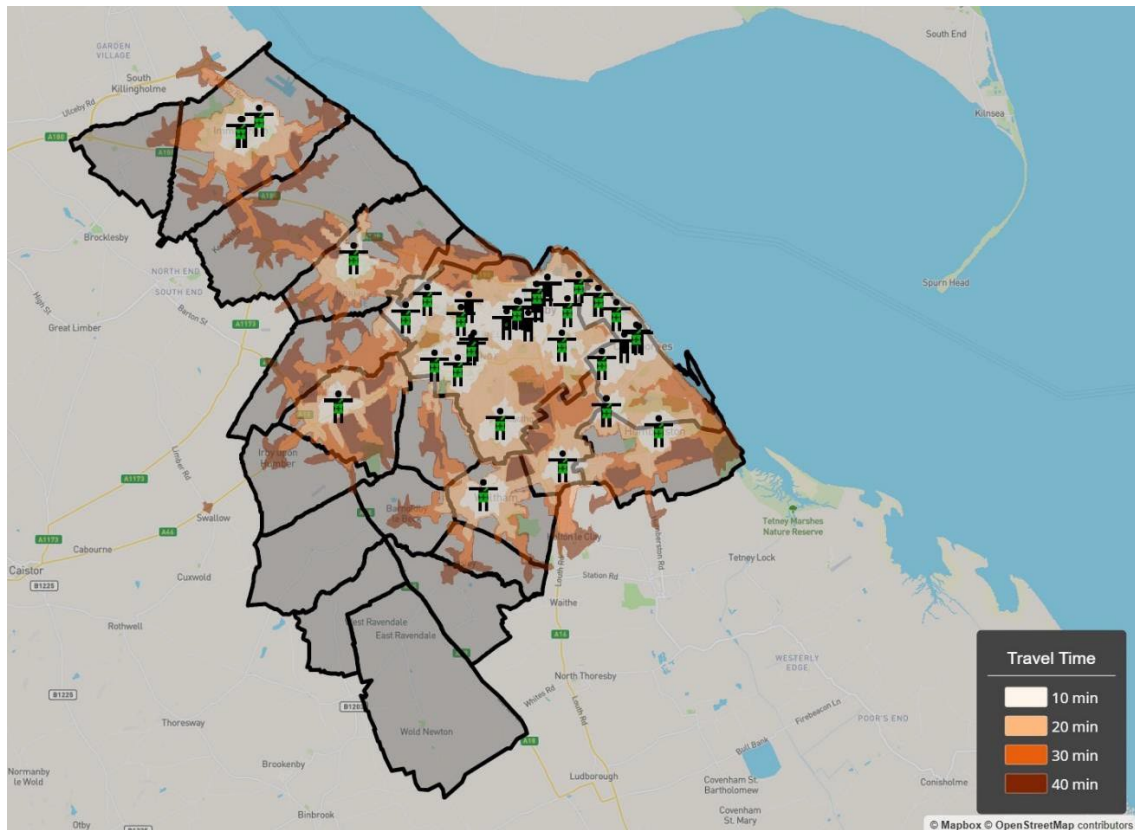
## Appendix 1 – Access to Shopping Facilities (GIS Mapping)



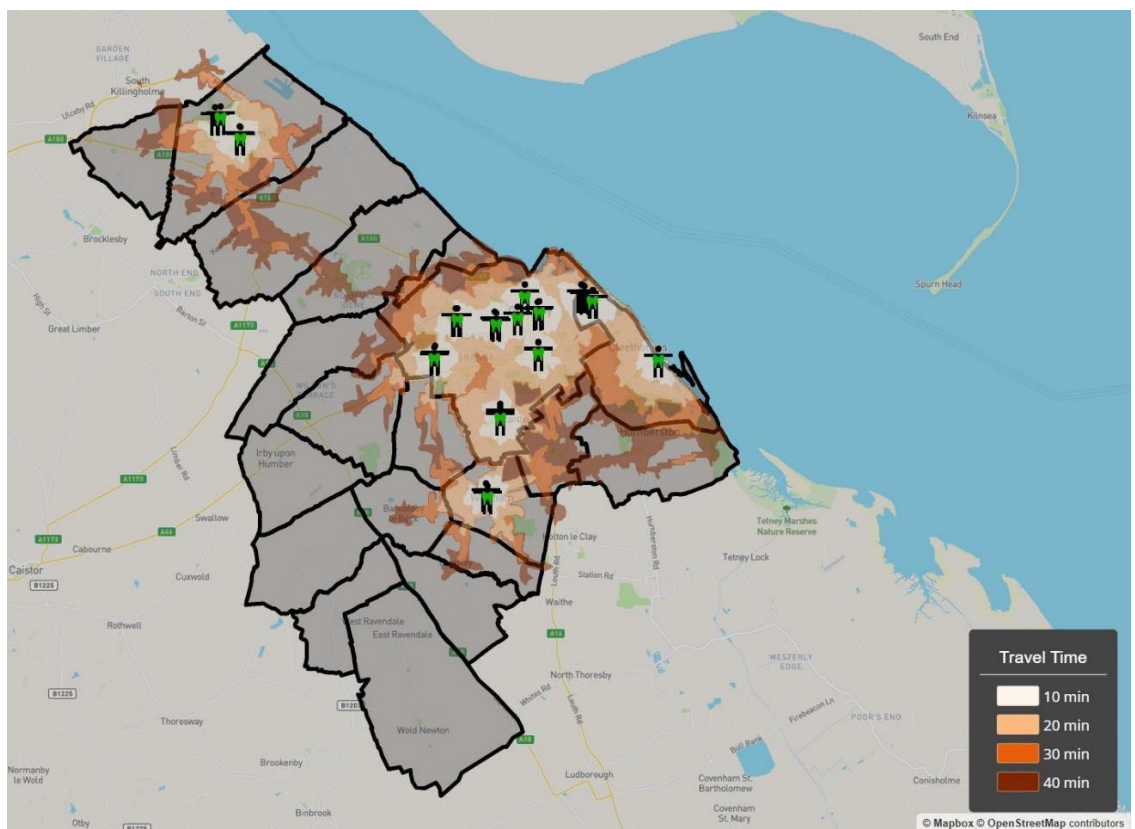
## Appendix 2 – Access to GPs and Health Centres (GIS Mapping)



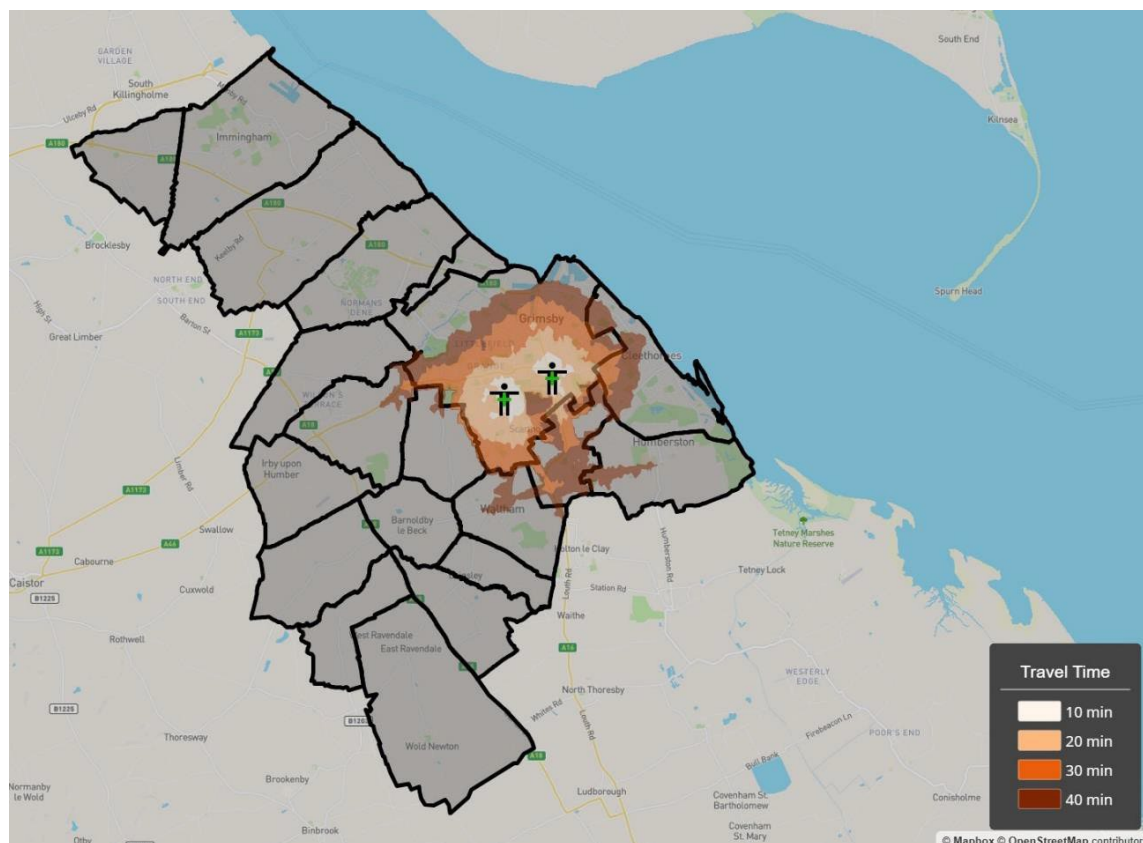
### Appendix 3 – Access to Pharmacies (GIS Mapping)



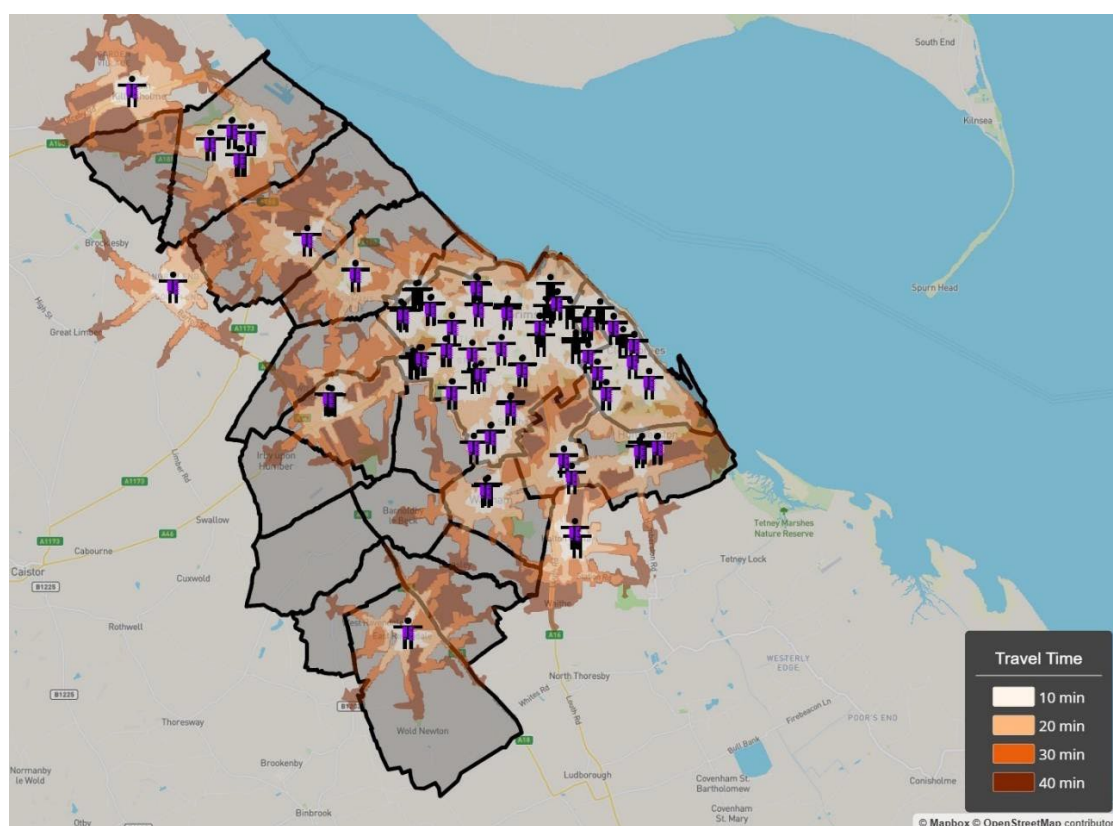
### Appendix 4 – Access to Dentists (GIS Mapping)



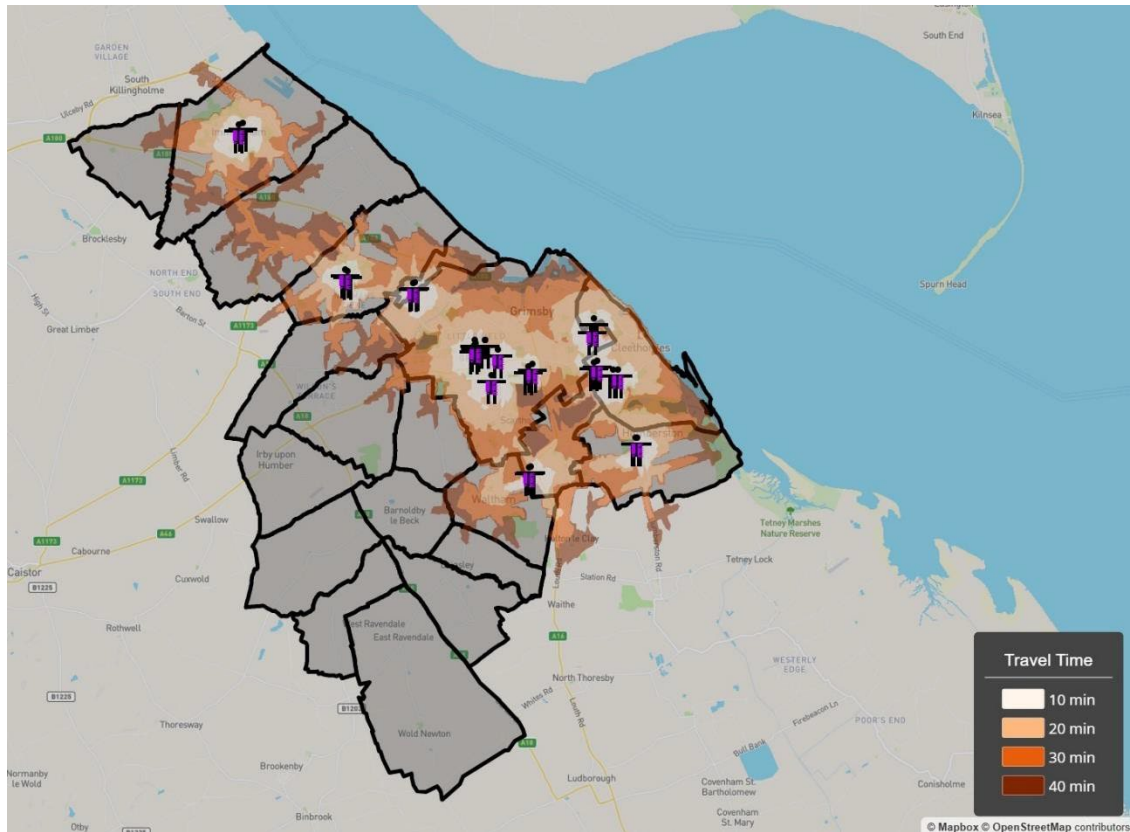
## Appendix 5 – Access to Hospitals (GIS Mapping)



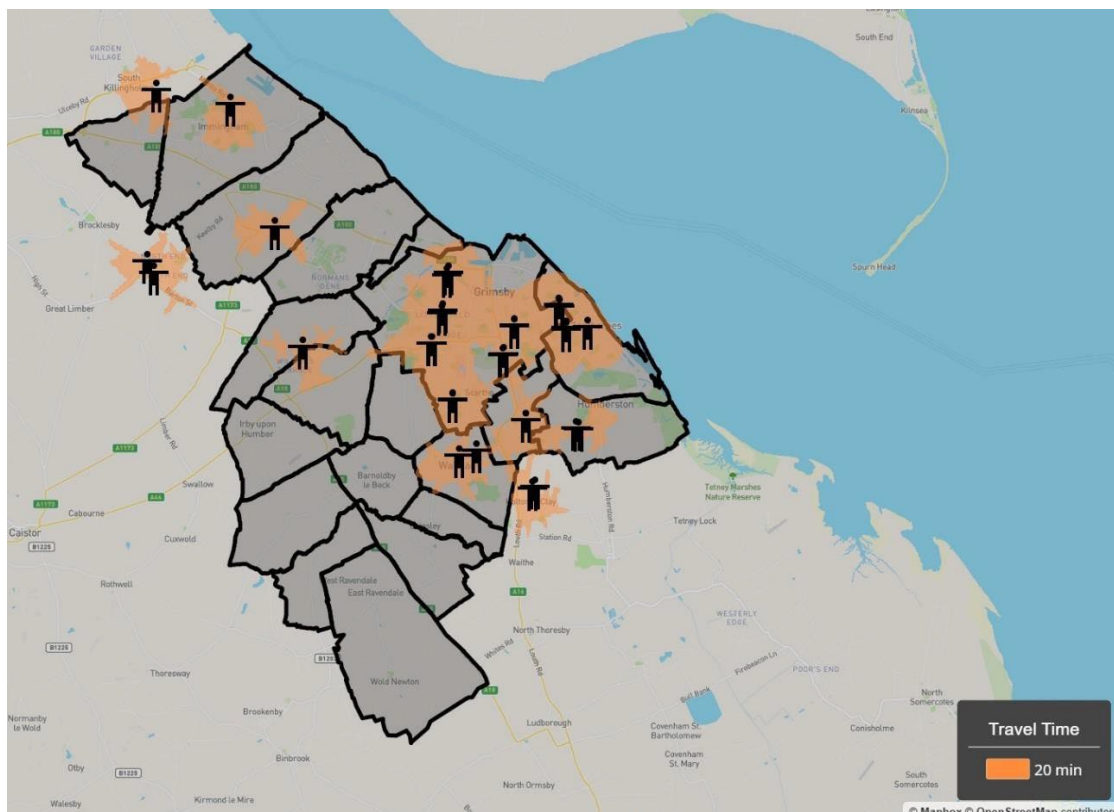
## Appendix 6 – Access to Primary Education (GIS Mapping)



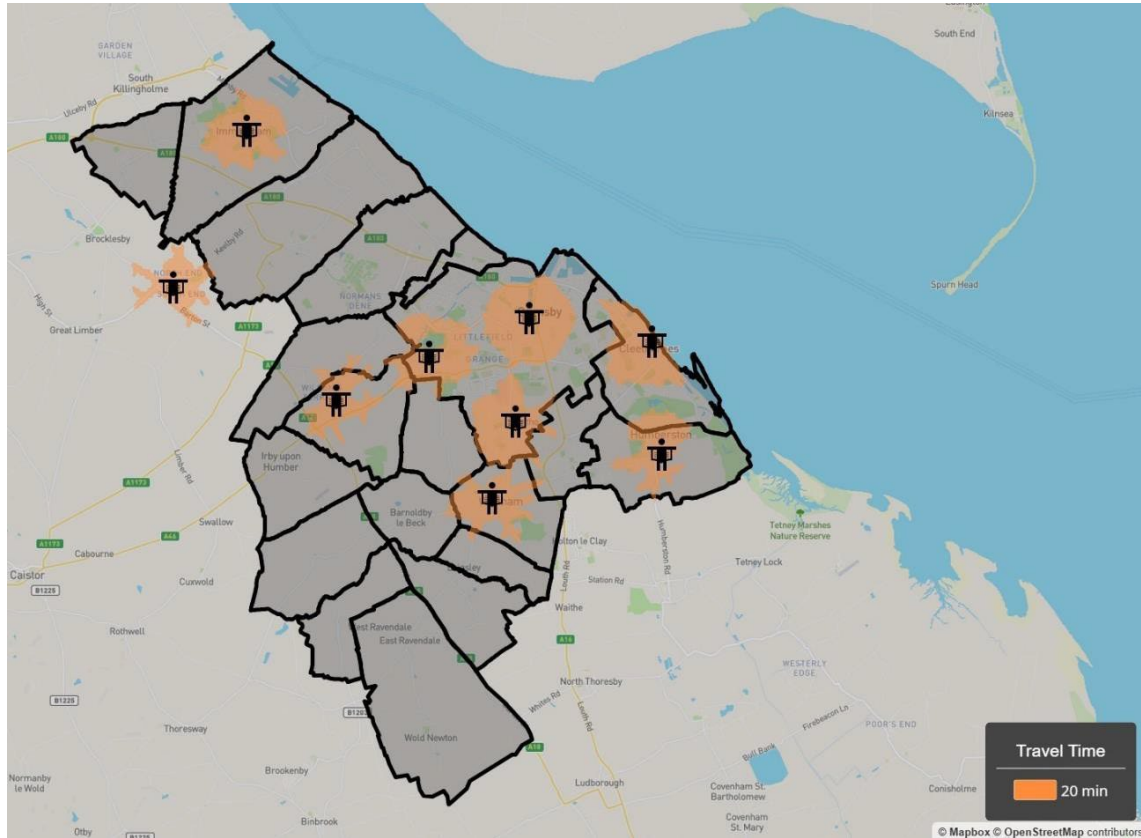
## Appendix 7 – Access to Secondary Education (GIS Mapping)



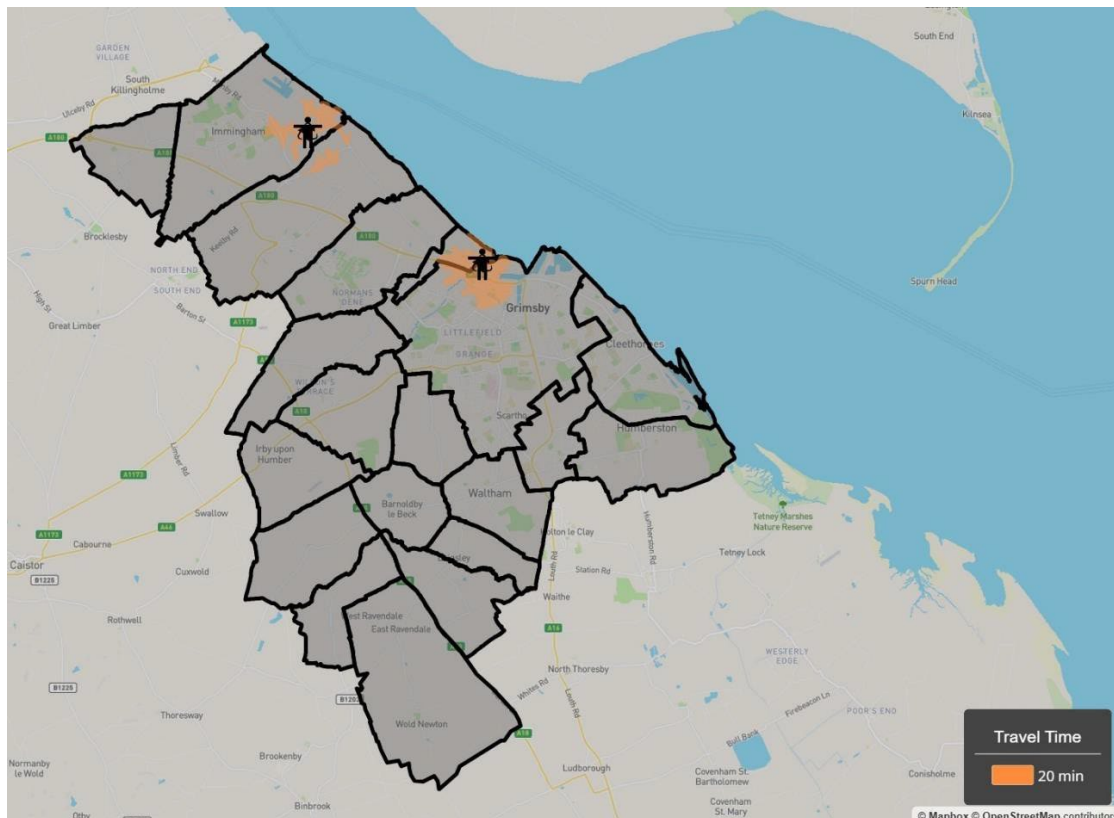
## Appendix 8 – Access to Allotments (GIS Mapping)



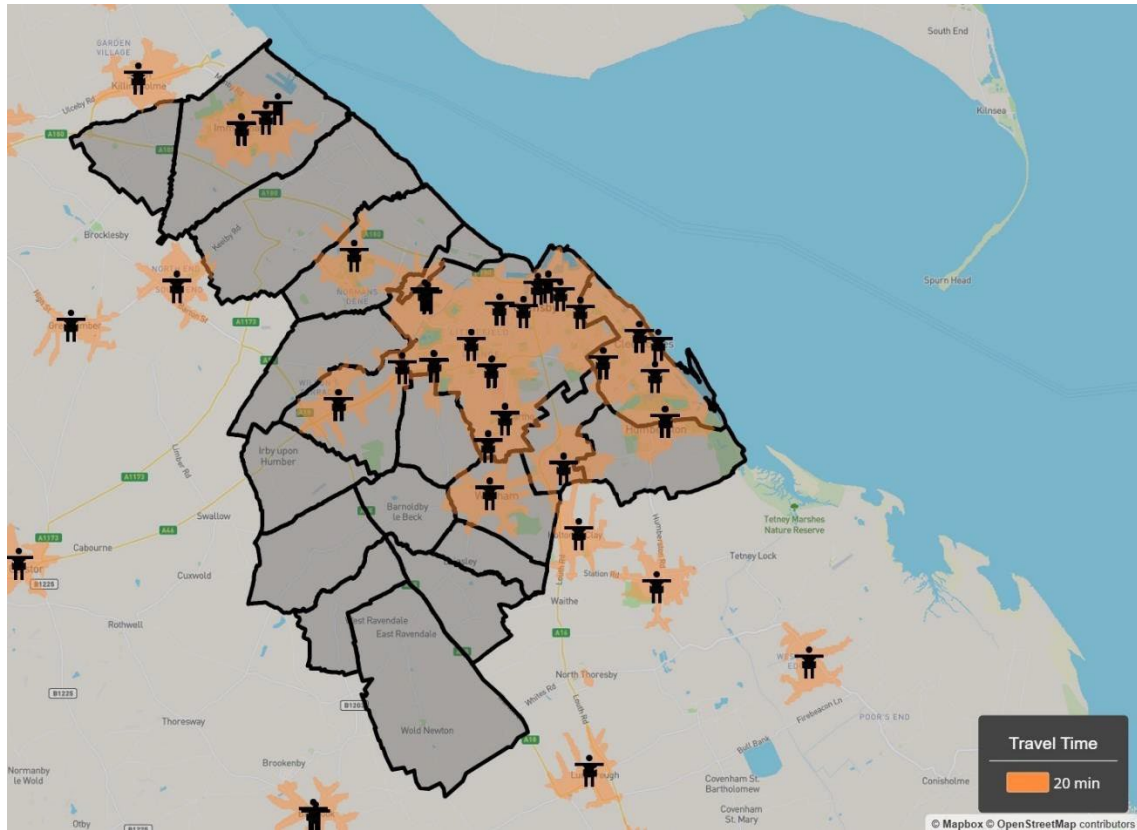
## Appendix 9 – Access to Libraries (GIS Mapping)



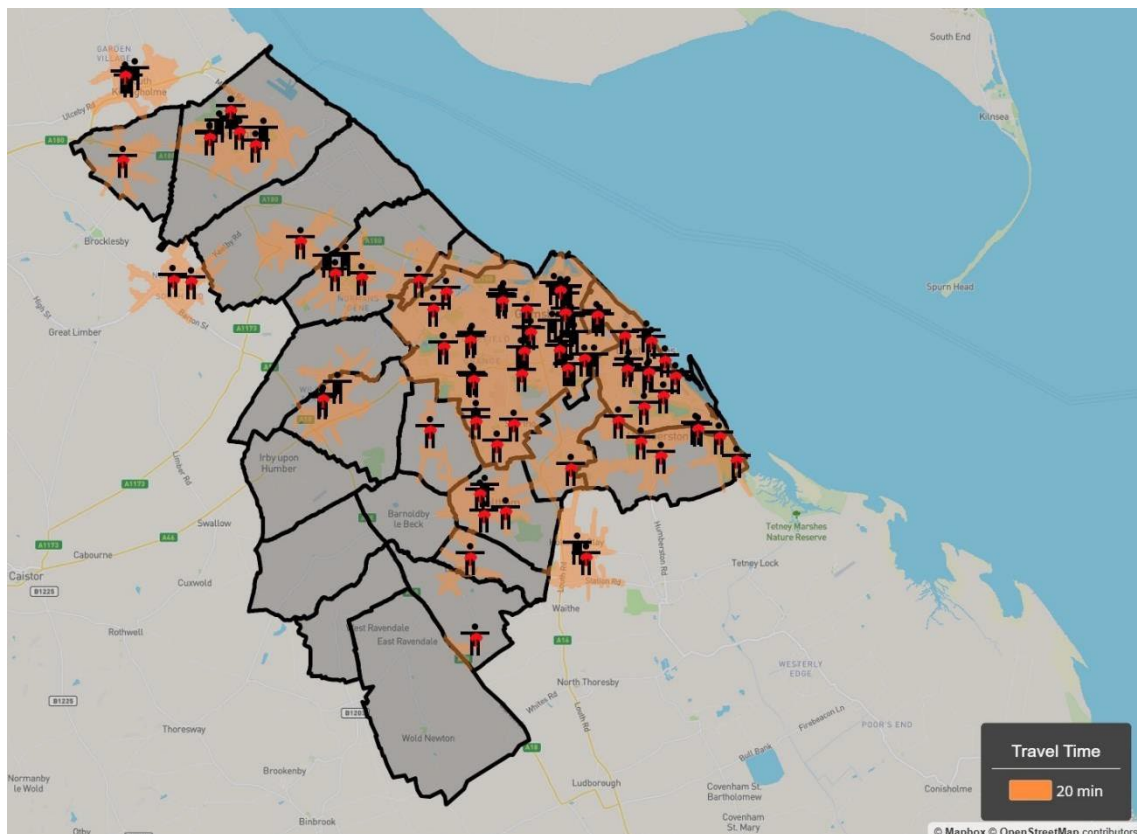
## Appendix 10 – Access to Recycling Centres (GIS Mapping)



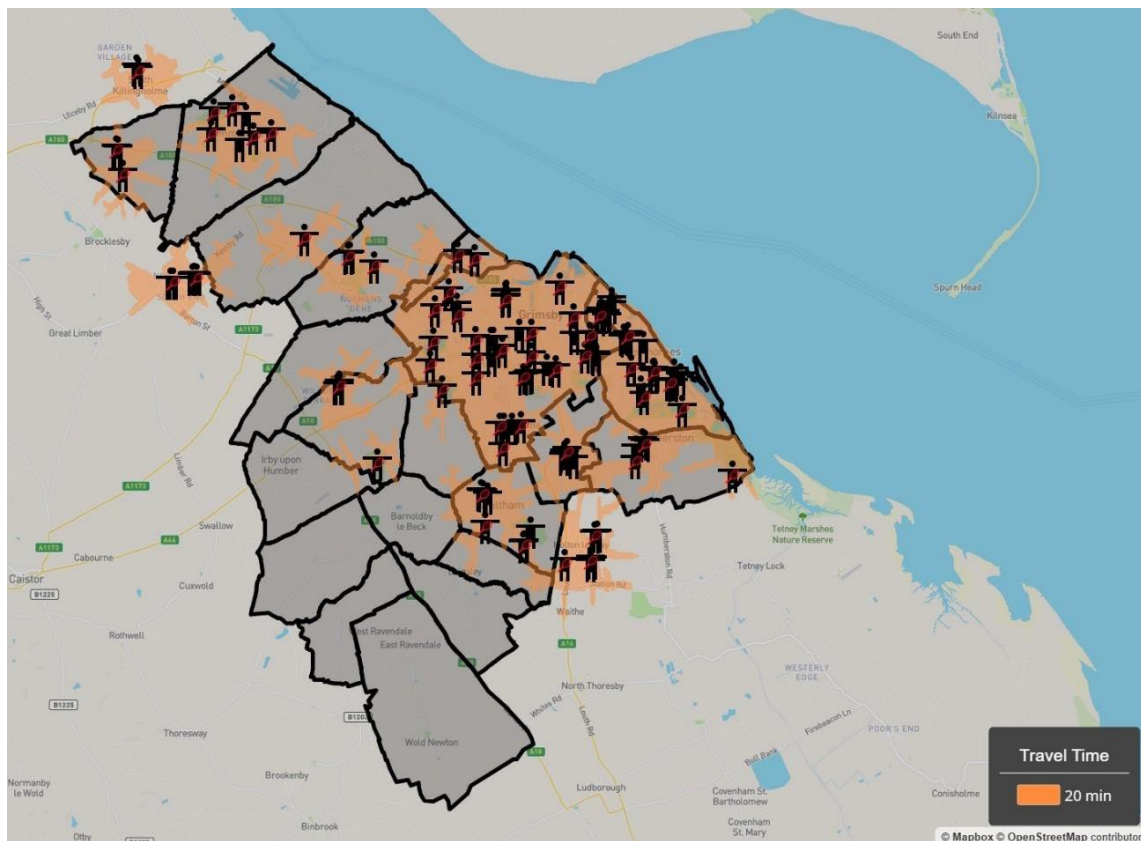
## Appendix 11 – Access to Post Offices (GIS Mapping)



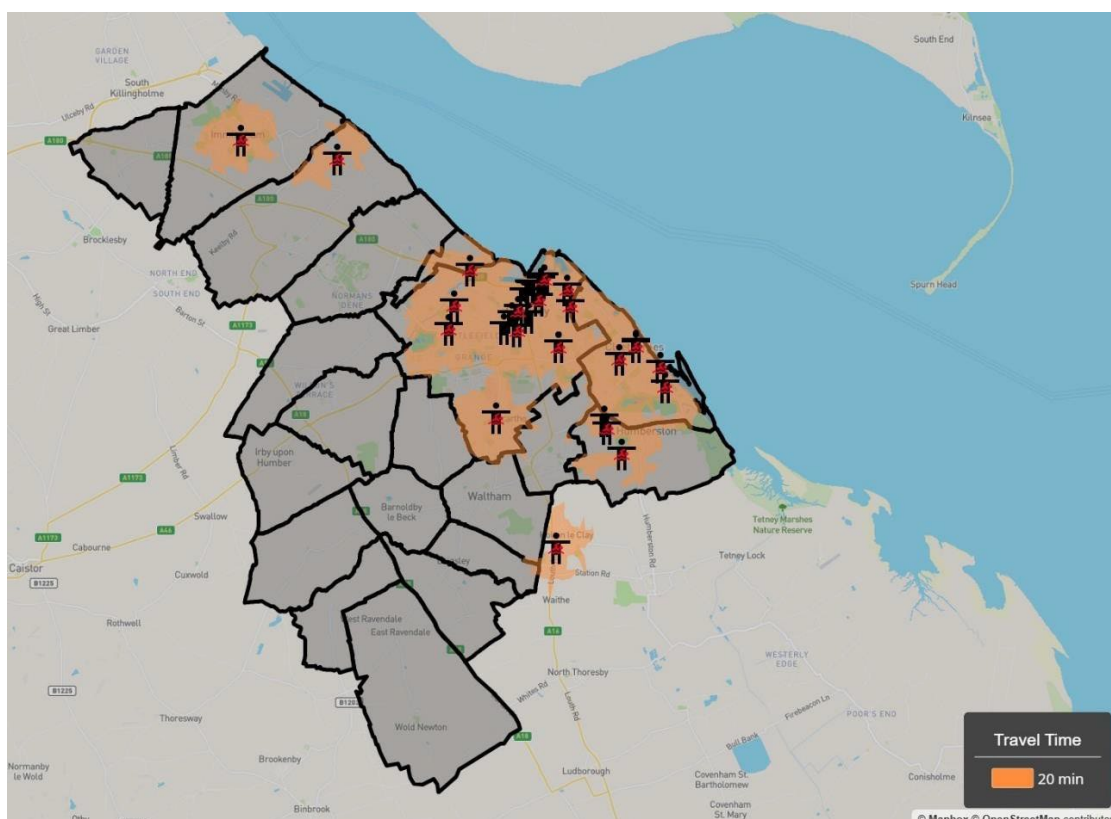
## Appendix 12 – Access to Parks & Play Areas (GIS Mapping)



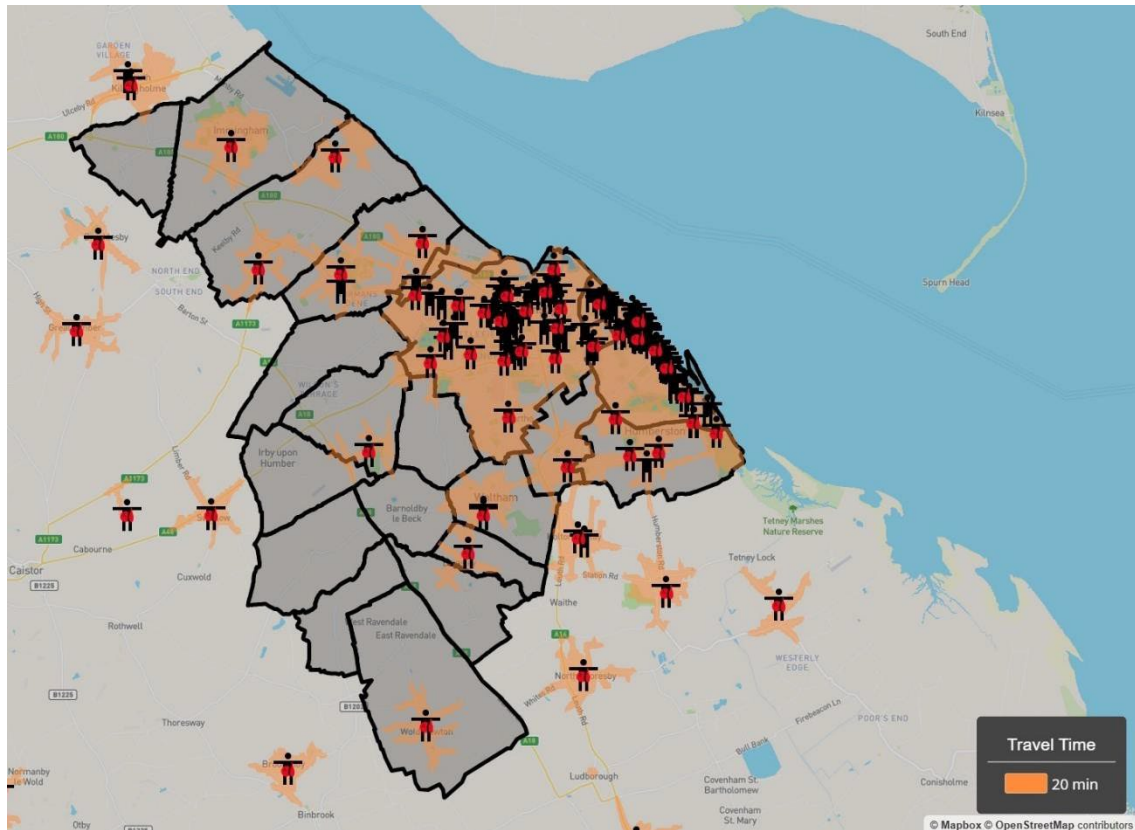
## Appendix 13 – Access to Outdoor Sports Facilities (GIS Mapping)



## Appendix 14 – Access to Indoor Sports Facilities (GIS Mapping)



## Appendix 15 – Access to Entertainment Venues (GIS Mapping)



### Appendix 16 – Car Ownership & Travel to Work by Car Percentages – North East Lincolnshire (2021 Census Data<sup>(6)</sup>)

| Settlement Area   | Travel to Work by Car (%) | Car Ownership (%) |
|-------------------|---------------------------|-------------------|
| Grimsby           | 65.7%                     | 85.6%             |
| Cleethropes       | 68%                       | 87%               |
| Immingham         | 73.9%                     | 90.6%             |
| Great Coates      | 75.6%                     | 96.6%             |
| New Waltham       | 74.3%                     | 95%               |
| Waltham           | 73.8%                     | 93.4%             |
| Laceby            | 75.6%                     | 95.3%             |
| Healing           | 74.5%                     | 97.2%             |
| Humberston        | 74.3%                     | 94.4%             |
| Stallingborough   | 74.1%                     | 95.1%             |
| Habrough          | 77%                       | 94.8%             |
| Bradley           | 68.5%                     | 97%               |
| East Ravendale    | 64.7%                     | 98.5%             |
| Barnoldby Le Beck | 70.3%                     | 98.6%             |
| Beelsby           | 55.6%                     | 96.5%             |
| Aylesby           | 57.3%                     | 94.6%             |
| Brigsley          | 74.1%                     | 97.8%             |
| Ashby Cum Fenby   | 72.4%                     | 98.7%             |
| Hatcliffe         | 66.7%                     | 96.7%             |
| Irby Upon Humber  | 82.9%                     | 98.4%             |

6 Census 2021, Office for National Statistics

Published/printed August 2023 by  
North East Lincolnshire Council  
Municipal Offices  
Town Hall Square  
Grimsby  
DN31 1HU