Transforming Travel

TECHNICAL APPENDIX

**October 2022**

# Bus Service Improvement Plan (BSIP)

## BCP Council in partnership with local bus operators

wsp.com

HM Government

BCP Council

# TECHNICAL APPENDIX

This technical appendix includes notes on two pieces of analysis which we have completed in preparing our Bus Service Improvement Plan (BSIP).

- The first part, Frequency and Accessibility Mapping, looks at the current bus network to show whether roads have more or less frequent bus frequent services, and how long it takes to travel from different areas of the borough to the town centres by public transport.
- The second part, Market Analysis, used demographic datasets to examine the transport needs of different social groups, and how likely it is that different types of public transport services will meet those needs.

WSP has carried out this analysis for BCP Council.

# FREQUENCY AND ACCESSIBILITY MAPPING

## 1. Introduction

This part of the appendix sets out a set of maps which show the frequency of bus services in the borough at different times of day, and a set of maps which show how quick it is to travel to key destinations in the borough by public transport at different times of day, as part of the evidence base for BCP Council's Bus Service Improvement Plan (BSIP). We also include some interpretation of what these maps mean for residents and visitors in Bournemouth, Christchurch and Poole.

## 2. Frequency maps

Bus frequency maps show how frequently buses run along the borough's roads, combining all services from all bus operating companies on each segment of the road network.

We include here three maps which show all services, for the typical peak hour service (Wednesday morning peak), the typical weekday off-peak service (Wednesday late morning/early afternoon), and the Sunday daytime service. These three time periods give a good indication of how services vary by time of day. Saturday services are similar to Wednesday off-peak services. Evening services are reasonably similar to Sunday daytime services.

We also include two maps which focus on those parts of the road network which see the most frequent services – where at least 6 buses run every hour, meaning that on average a bus arrives every 10 minutes or better. Where different routes combine to provide this frequency, the timetables may not give an even interval between services.

Both of these high-frequency maps are for the Wednesday morning peak. One shows bus services categorised as "inbound", the other shows "outbound" services. "Inbound" typically means buses travelling into the town centre, but this is not consistently applied. For example, services which connect town centres (e.g. Yellow Bus 1 Poole-Bournemouth-Christchurch or morebus X2 Bournemouth-Lymington) travel out from one town centre and into another, but are classed as "inbound" for the whole trip. Assigning "inbound" and "outbound" to circular services (e.g. morebus 7A/7B Upper Parkstone) is often entirely arbitrary. This means that the maps give a good general overview of where services are frequent towards the main centres – sufficient for considering where improvements might be needed. Finer-grained mapping would be needed for more detailed analysis at the individual route level.

All these frequency maps are based on bus timetables from October-December 2019. The dataset behind the maps is generally accurate, but gaps in the data supplied by bus operators or coding errors do occasionally lead to slight anomalies in the data. The maps are nonetheless reflective of the bus services running in Bournemouth, Christchurch and Poole in the period immediately before the COVID-19 pandemic and are a solid and reliable part of the evidence base for the BCP BSIP.

### CONCLUSIONS

The high-frequency maps show that the peak hour service is strongest on key corridors:

- east-west connecting Poole, Bournemouth and Christchurch town centres
- east from Christchurch town centre along Somerford Road
- radial (north-south) corridors into Poole town centre (Ringwood Road and from Canford Heath)
- radial (broadly north-south) corridors into Bournemouth town centre (Wallisdown Road, Wimborne Road, Charminster Road from Wallisdown, Muscliffe and Charminster)

These routes provide a strong network connecting residential areas with key destinations, including town

centres, rail stations, hospitals and tertiary education.

The general frequency maps show that, as is typical of bus networks across the country, urban areas have higher frequency services than less densely populated areas, and that frequencies are notably higher in the peak than the off-peak, with Sunday service considerably lower.

## 3. Accessibility mapping

The second set of maps show the time it takes to travel by public transport (bus and/or train) to key destinations in the borough, again at different times of the week: weekday morning peak, weekday evening, Sunday daytime. As with the frequency maps, these three time periods provide a good representation of how public transport service patterns vary across the day and week.

For each time period we have prepared four maps: one showing travel times to each town centre separately, and the fourth showing the minimum travel time to any of the three town centres.

We have plotted these maps using TRACC software, an industry-standard program which calculates the fastest possible journey times in line with set criteria. People in the darkest (maroon) areas can reach the town centre by public transport in 15 minutes or less; paler colours indicate longer journey times. The palest yellow represents areas where the journey takes between 90 minutes and two hours. From areas show as white on the maps it is not possible to access the town centre by public transport in less than two hours, or at all.

The criteria used to prepare these maps are set out in the following tables.

| **Scenario** | **Weekday AM Peak** |
|---|---|
| Direction: | To town centre destinations |
| Day of week: | Wednesday |
| Earliest journey start time: | 07:00 |
| Latest arrival time: | 08:59 |
| Max journey time: | 120 mins |
| Time bands: | 15 mins |
| Interchange penalty: | 5 mins |
| Max walk distance at start node: | 400m |
| Max walk distance at end node: | 400m |
| Mode: | Bus + Rail |

*"Interchange penalty" means time added to the time taken for a trip where the passenger changes buses or changes between bus and train.*

| **Scenario** | **Weekday Evening** |
|---|---|
| Direction: | To town centre destinations |
| Day of week: | Wednesday |
| Earliest journey start time: | 18:30 |
| Latest arrival time: | 20:30 |
| Max journey time: | 120 mins |
| Time bands: | 15 mins |
| Interchange penalty: | 5 mins |
| Max walk distance at start node: | 400m |
| Max walk distance at end node: | 400m |
| Mode: | Bus + Rail |

| Scenario | Sunday Daytime |
|---|---|
| Direction: | To town centre destinations |
| Day of week: | Sunday |
| Earliest journey start time: | 11:00 |
| Latest arrival time: | 13:00 |
| Max journey time: | 120 mins |
| Time bands: | 15 mins |
| Interchange penalty: | 5 mins |
| Max walk distance at start node: | 400m |
| Max walk distance at end node: | 400m |
| Mode: | Bus + Rail |

## CONCLUSIONS

As would be expected, journey times are generally shorter the closer you are to the town centre. Weekday services mean many residents of the borough can access their nearest town centre by public transport in 30 minutes or less.

Trains allow faster journey times than buses, so areas immediately around stations have quicker journey times than those areas further away. This explains why Pokesdown and Branksome, for example, show as maroon on the Bournemouth maps, with journey times by rail just 7 minutes (Pokesdown-Bournemouth) or 5 minutes (Branksome-Bournemouth). The same applies to Hamworthy on the Poole maps.

Three main town centres are reasonably well connected, with Christchurch-Poole timetabled to take 30-45 minutes in all the sampled periods and Christchurch-Bournemouth and Poole-Bournemouth scheduled to take 15-30 minutes in all sampled periods.

It is noteworthy that bus journeys between Poole and Wimborne are scheduled to take over half an hour for a trip which is less than 6 miles as the crow flies. Both the 3 and 4 services follow circuitous routes, showing the balance here is more towards serving communities in BCP rather than providing a fast direct link between the two towns.

# FREQUENCY MAPS

1 Wednesday morning peak
2 Wednesday off-peak
3 Sunday daytime
4 High frequency inbound
5 High frequency outbound

THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

N

## Key

BCP Boundary

**Bus frequency total of both directions, based on Q4 2019**

- Less than 0.5 bus/hr
- 0.5 or more bus/hr
- 1 or more bus/hr
- 2 or more bus/hr
- 3 or more bus/hr
- 4 or more bus/hr
- 5 or more bus/hr
- 6 or more bus/hr
- 12 or more bus/hr
- 24 or more bus/hr
- 48 or more bus/hr

BCP Council

Project Title

BCP
Bus Service Improvement Plan
70087606

Drawing Title

Bus Frequency:
Wednesday AM Peak 07:00-09:00

Scale at A3

1:75,100

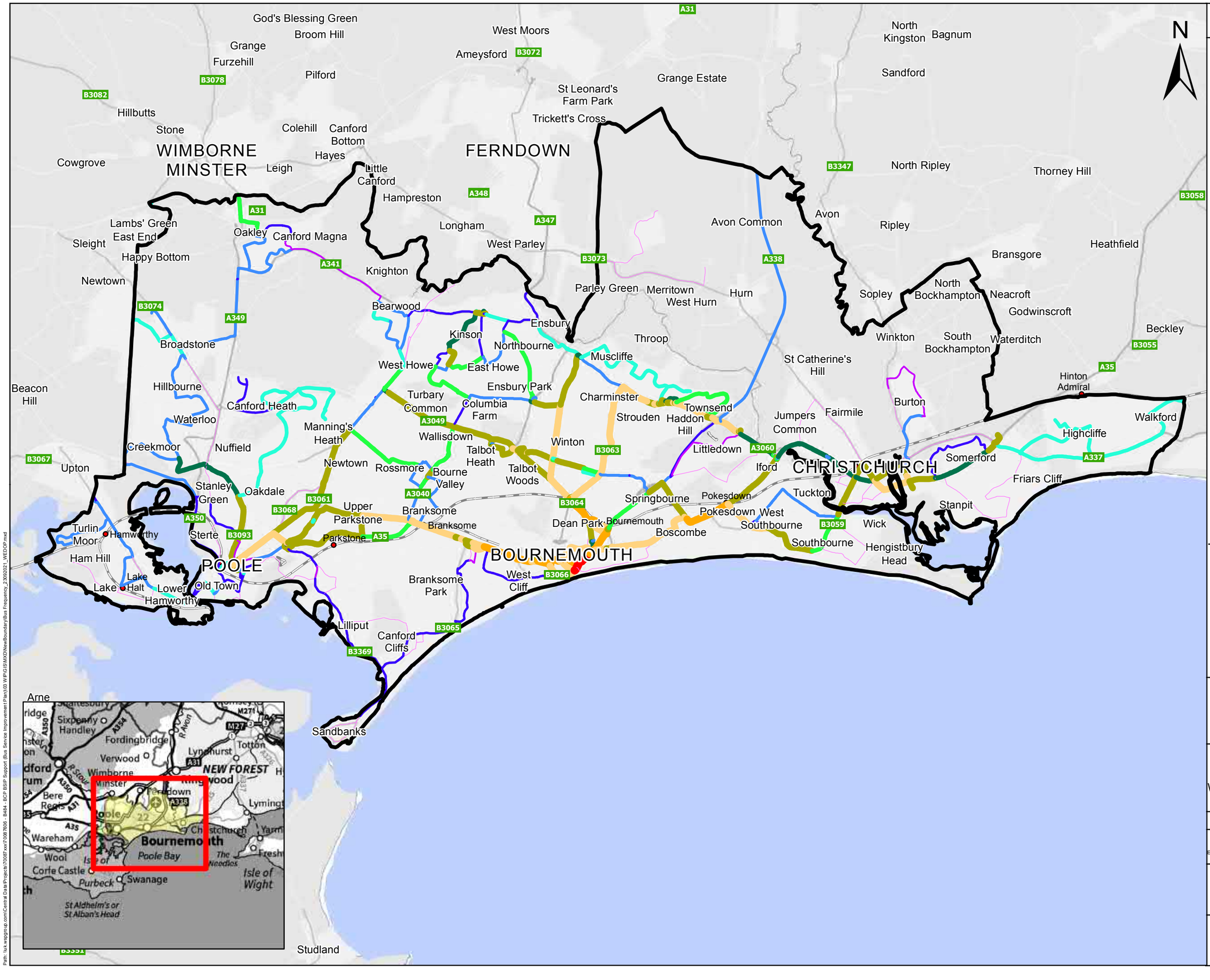


0 1 2 3
Kilometers

WSP House
70 Chancery Lane
London, WC2A 1AF
Tel: 020 7314 5000



Path: \\uk.wspgroup.com\Central Data\Projects\70087xxx\70087606 - B484 - BCP BSIP Support (Bus Service Improvement Plan)\03 WIP\GIS\MXD\NewBoundary\Bus Frequency_23092021_WEDAM.mxd



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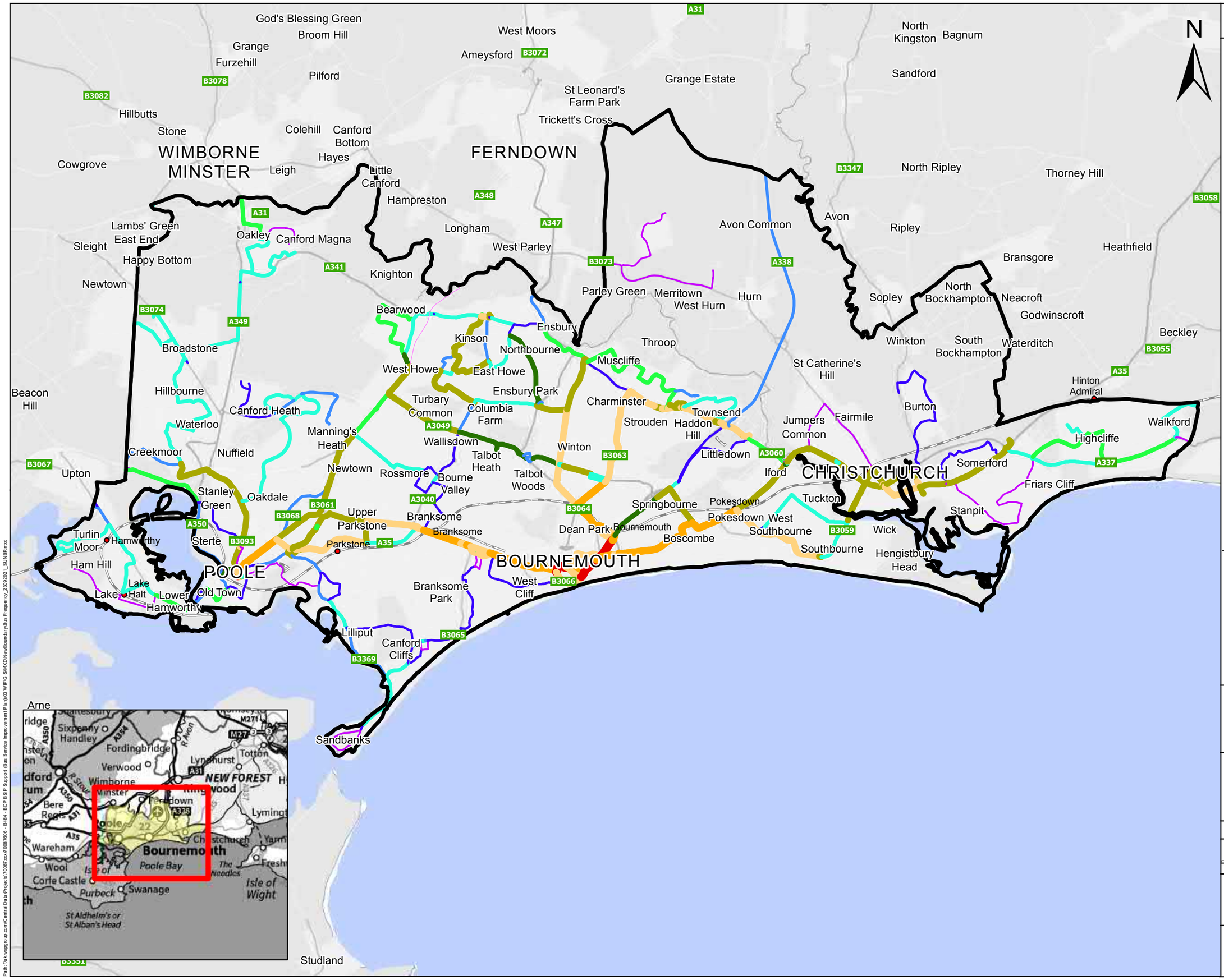




N

## Key

BCP Boundary

**Bus frequency total of both directions, based on Q4 2019**

- Less than 0.5 bus/hr
- 0.5 or more bus/hr
- 1 or more bus/hr
- 2 or more bus/hr
- 3 or more bus/hr
- 4 or more bus/hr
- 5 or more bus/hr
- 6 or more bus/hr
- 12 or more bus/hr
- 24 or more bus/hr
- 48 or more bus/hr

BCP Council

Project Title

BCP
Bus Service Improvement Plan
70087606

Drawing Title

Bus Frequency:
Sunday Between Peak
0900 to 1559

Scale at A3

1:75,100



0 1 2 3
Kilometers

WSP House
70 Chancery Lane
London, WC2A 1AF
Tel: 020 7314 5000



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N

## Key

BCP Boundary

**Bus Frequency based on Q4 2019 (Inbound Direction)**

6 buses per hour or more

BCP Council

Project Title

BCP
Bus Service Improvement Plan
70087606

Drawing Title

Bus Frequency:
Wednesday AM Peak 07:00-09:00

Scale at A3

1:74,139



0 1 2 3
Kilometers

WSP House
70 Chancery Lane
London, WC2A 1AF
Tel: 020 7314 5000

THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

N

## Key

BCP Boundary

**Bus Frequency based on Q4 2019 (Outbound Direction)**

6 buses per hour or more

BCP Council

Project Title

BCP
Bus Service Improvement Plan
70087606

Drawing Title

Bus Frequency:
Wednesday AM Peak 07:00-09:00

Scale at A3

1:74,139



0 1 2 3
Kilometers

WSP House
70 Chancery Lane
London, WC2A 1AF
Tel: 020 7314 5000



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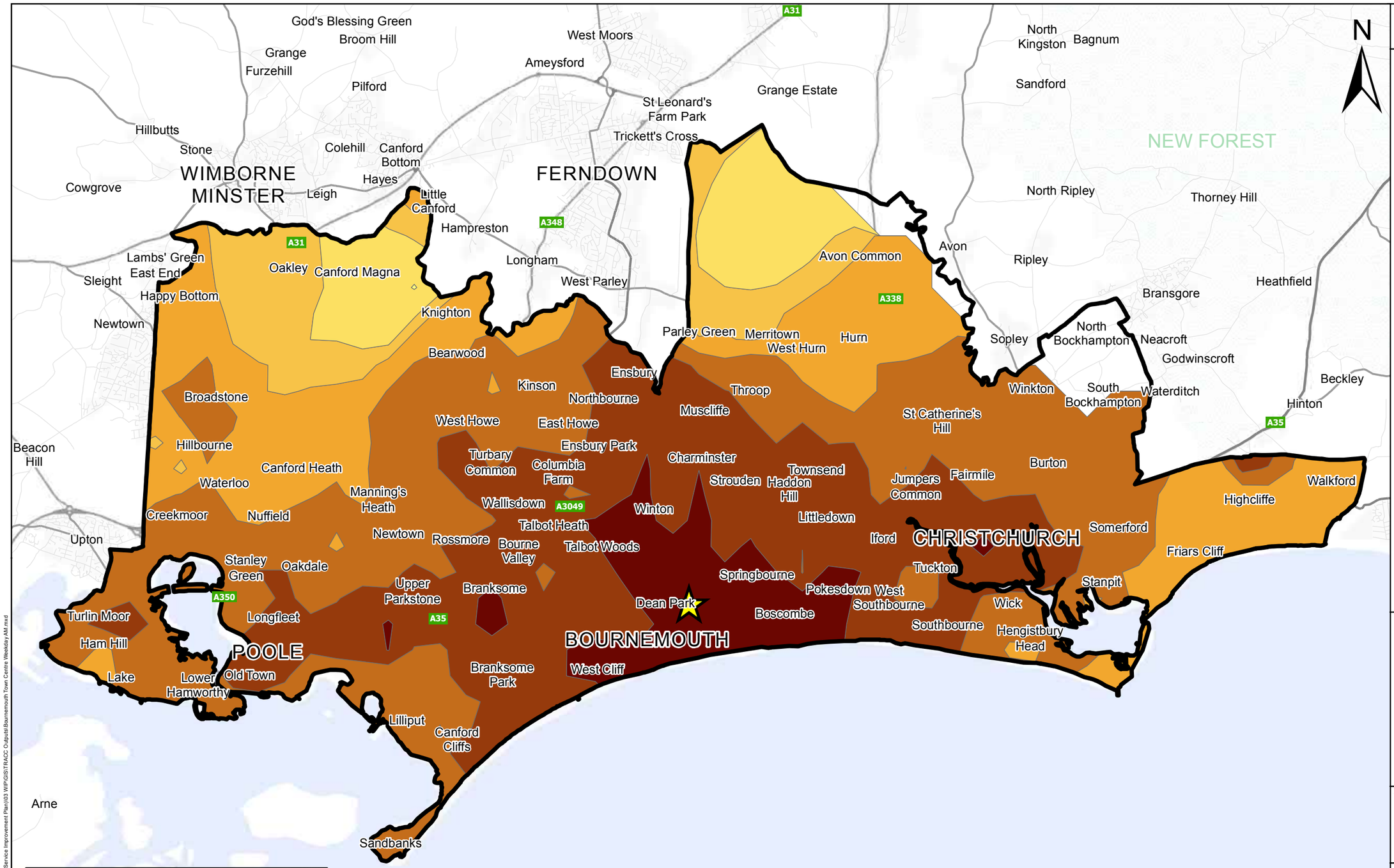
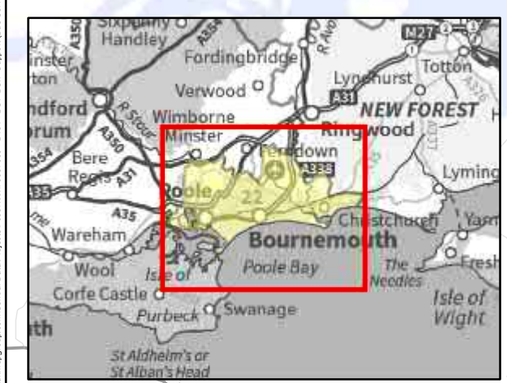
# ACCESSIBILITY MAPS

1. Wednesday AM peak
   a. Bournemouth
   b. Christchurch
   c. Poole
   d. Travel to any town centre
2. Wednesday evenings
   a. Bournemouth
   b. Christchurch
   c. Poole
   d. Travel to any town centre
3. Sunday daytime
   a. Bournemouth
   b. Christchurch
   c. Poole
   d. Travel to any town centre

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## Key

Bournemouth Town Centre

BCP Boundary

**Public Transport (Bus and Rail) Accessibility**

- 0 - 15 minutes
- 15 - 30 minutes
- 30 - 45 minutes
- 45 - 60 minutes
- 60 - 75 minutes
- 75 - 90 minutes
- 90 - 105 minutes

BCP Council

Job Title

Bus Improvement Plan
and
Enhanced Bus Partnership

Drawing Title

Weekday AM Peak (07:00 -09:0)
Bus Accessibility to
Bournemouth Town Centre

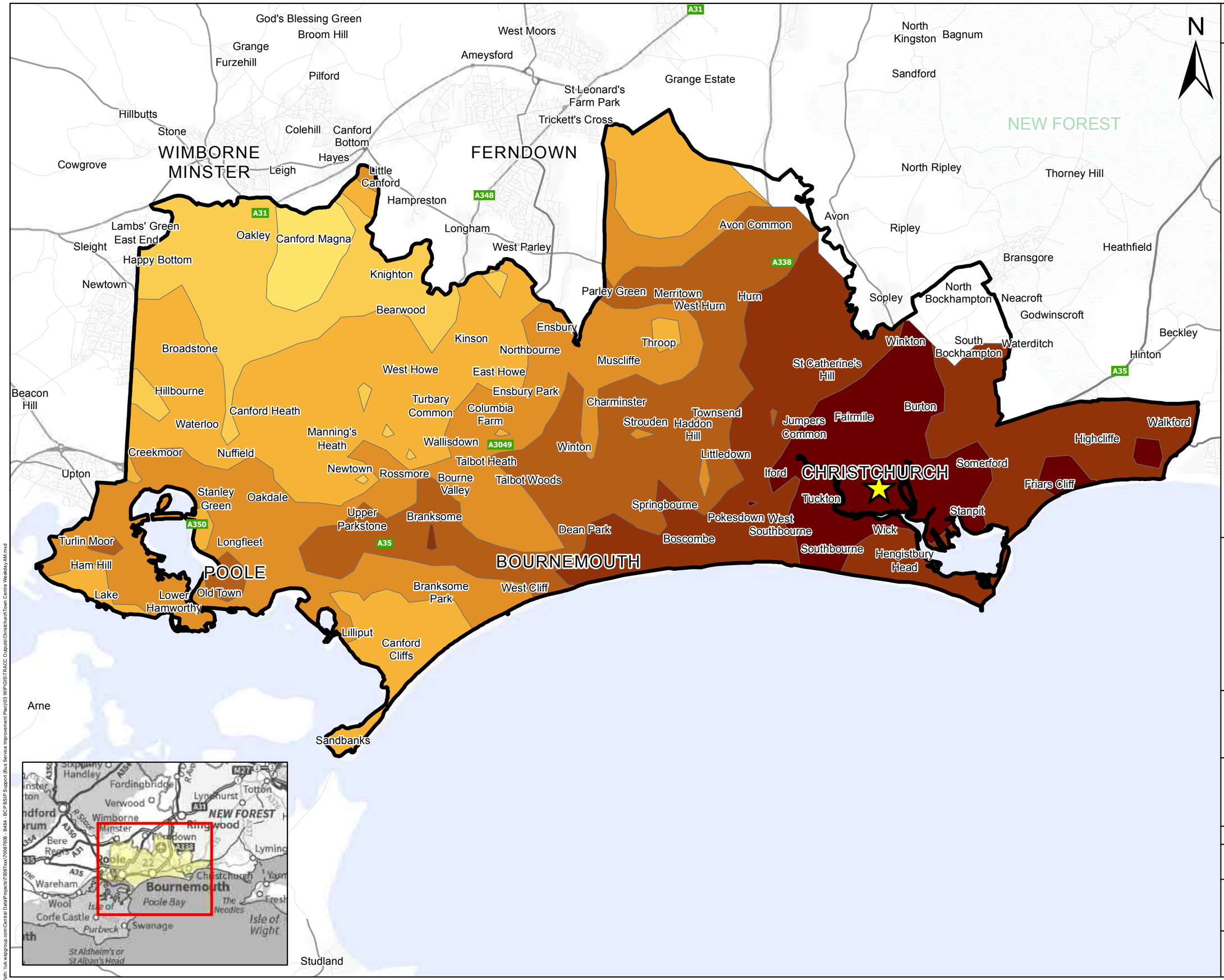
Scale at A3

1:75,100



0 2
Kilometers

WSP House
70 Chancery Lane
London, WC2A 1AF
Tel: 020 7314 5000

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## Key

ChristchurchTown Centre

BCP Boundary

**Public Transport (Bus and Rail) Accessibility**

- 0 - 15 minutes
- 15 - 30 minutes
- 30 - 45 minutes
- 45 - 60 minutes
- 60 - 75 minutes
- 75 - 90 minutes
- 90 - 105 minutes
- 105 - 120 minutes

BCP Council

Job Title

Bus Improvement Plan
and
Enhanced Bus Partnership

Drawing Title

Weekday AM Peak (07:00 -09:0)
Bus Accessibility to
ChristchurchTown Centre

Scale at A3

1:75,100



0 2
Kilometers

WSP House
70 Chancery Lane
London, WC2A 1AF
Tel: 020 7314 5000



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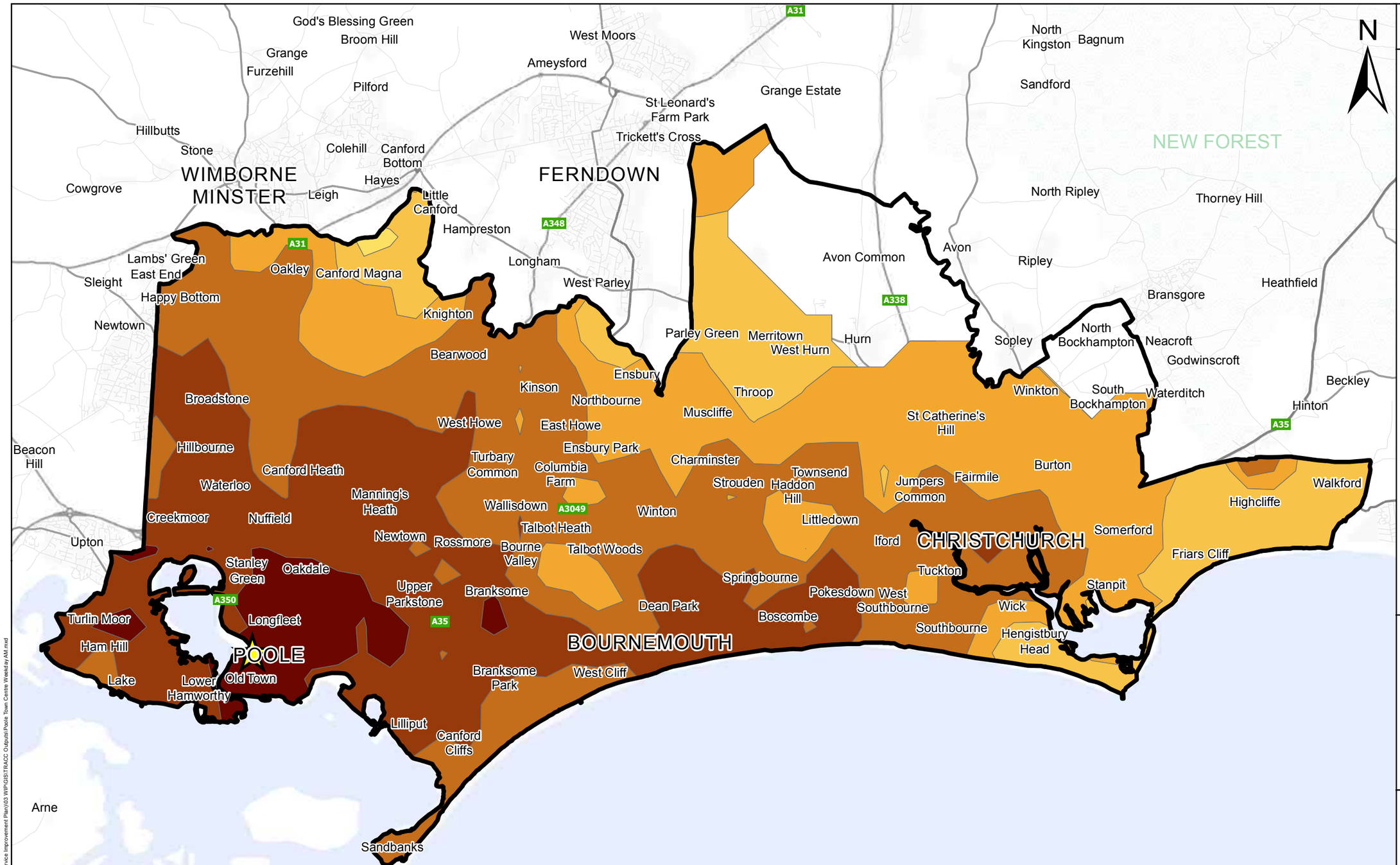


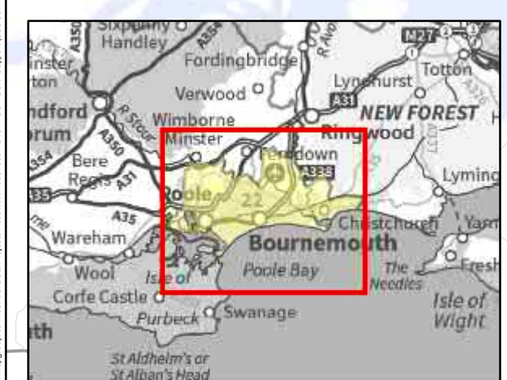


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Job Title

Bus Improvement Plan
and
Enhanced Bus Partnership

Drawing Title

Weekday AM Peak (07:00 -09:0)
Bus Accessibility to
Poole Town Centre

Scale at A3

1:75,100



0 2
Kilometers

WSP House
70 Chancery Lane
London, WC2A 1AF
Tel: 020 7314 5000



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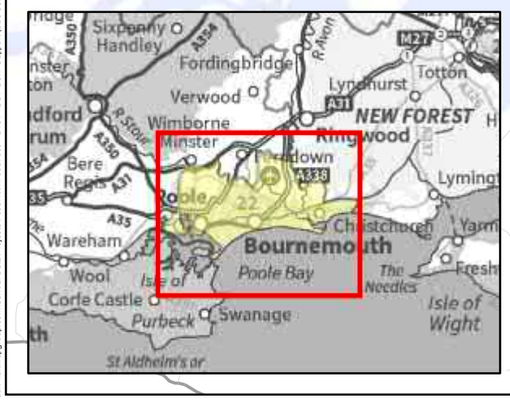
N

## Key

BCP Boundary

**Public Transport (Bus and Rail) Accessibility**

- 0 - 15 minutes
- 15 - 30 minutes
- 30 - 45 minutes
- 45 - 60 minutes
- 60 - 75 minutes
- 75 - 90 minutes
- 90 - 105 minutes
- 105 - 120 minutes




BCP Council

Job Title

Bus Improvement Plan
and
Enhanced Bus Partnership

Drawing Title

Wednesday AM Peak
(07:00-09:00)
Bus Accessibility to
BCP Town Centres

Scale at A3

1:75,100

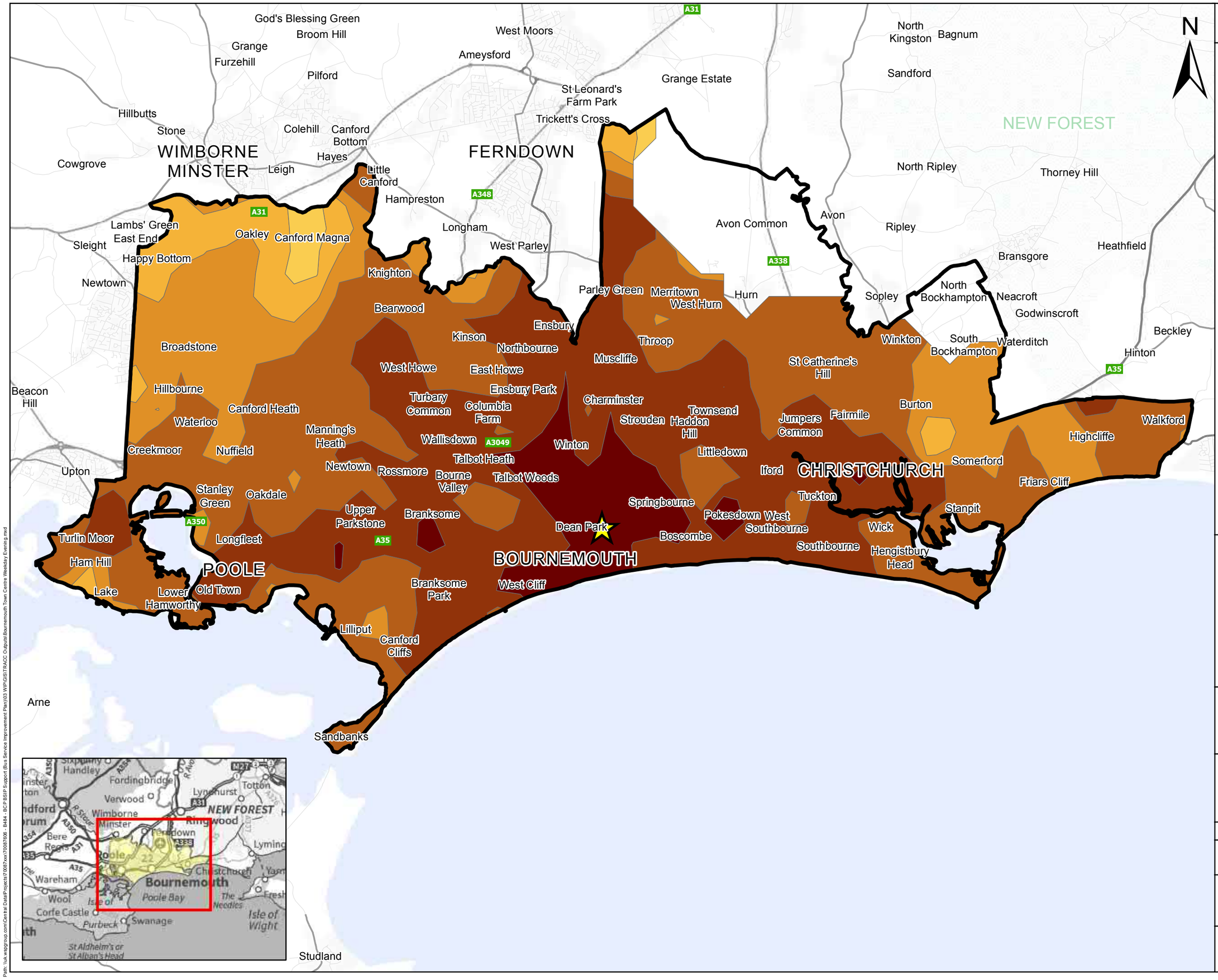


0 2
Kilometers

WSP House
70 Chancery Lane
London, WC2A 1AF
Tel: 020 7314 5000



Path: \\uk.wspgroup.com\Central Data\Projects\70087xxx\70087606 - B484 - BCP BSIP Support (Bus Service Improvement Plan)\03 WIP\GIS\TRACC Outputs\BCP Town Centres Weekday AM.mxd







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BCP Council

Job Title

Bus Improvement Plan and Enhanced Bus Partnership

Drawing Title

Weekday Evening (18:30 -20:30) Bus Accessibility to Bournemouth Town Centre

Scale at A3

1:75,100



0 2
Kilometers

WSP House
70 Chancery Lane
London, WC2A 1AF
Tel: 020 7314 5000



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N

## Key

Christchurch Town Centre

BCP Boundary

**Public Transport (Bus and Rail) Accessibility**

- 0 - 15 minutes
- 15 - 30 minutes
- 30 - 45 minutes
- 45 - 60 minutes
- 60 - 75 minutes
- 75 - 90 minutes
- 90 - 105 minutes
- 105 - 120 minutes

BCP Council

Job Title

Bus Improvement Plan
and
Enhanced Bus Partnership

Drawing Title

Weekday Evening (18:30 -20:30)
Bus Accessibility to
Christchurch Town Centre

Scale at A3

1:75,100



0 2 Kilometers

WSP House
70 Chancery Lane
London, WC2A 1AF
Tel: 020 7314 5000



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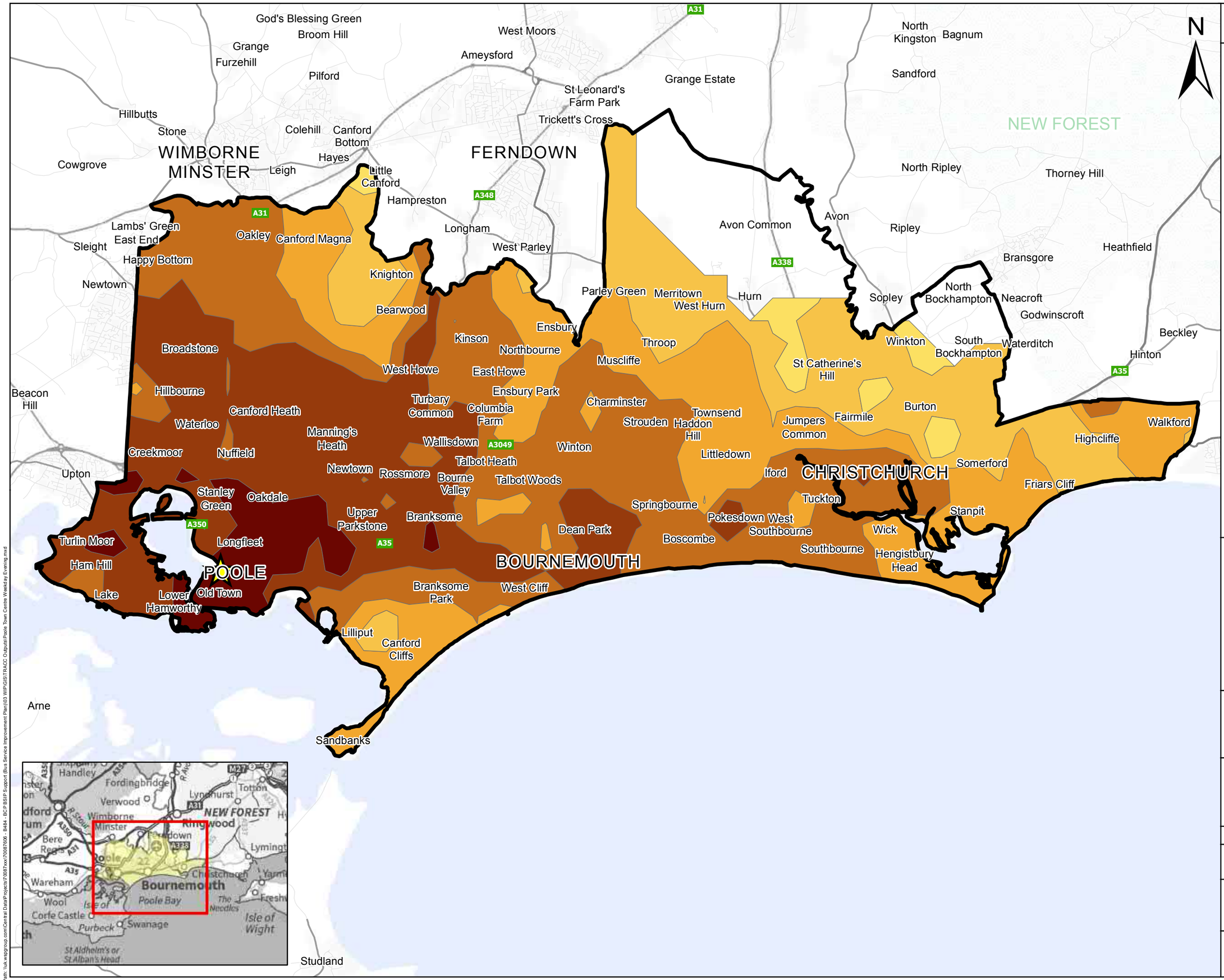


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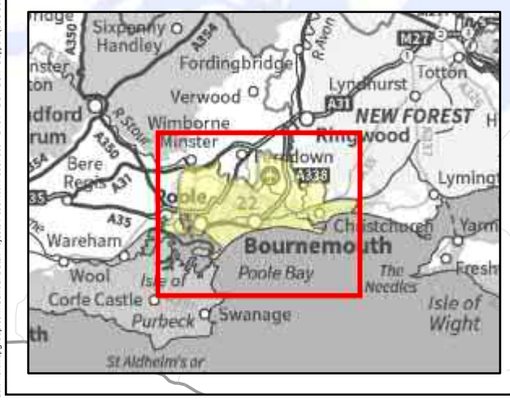
N

## Key

BCP Boundary

**Public Transport (Bus and Rail) Accessibility**

- 0 - 15 minutes
- 15 - 30 minutes
- 30 - 45 minutes
- 45 - 60 minutes
- 60 - 75 minutes
- 75 - 90 minutes
- 90 - 120 minutes




Job Title

Bus Improvement Plan
and
Enhanced Bus Partnership

Drawing Title

Weekday Evening
(18:30-20:30)
Bus Accessibility to
BCP Town Centres

Scale at A3

1:75,100



0 2
Kilometers

WSP House
70 Chancery Lane
London, WC2A 1AF
Tel: 020 7314 5000



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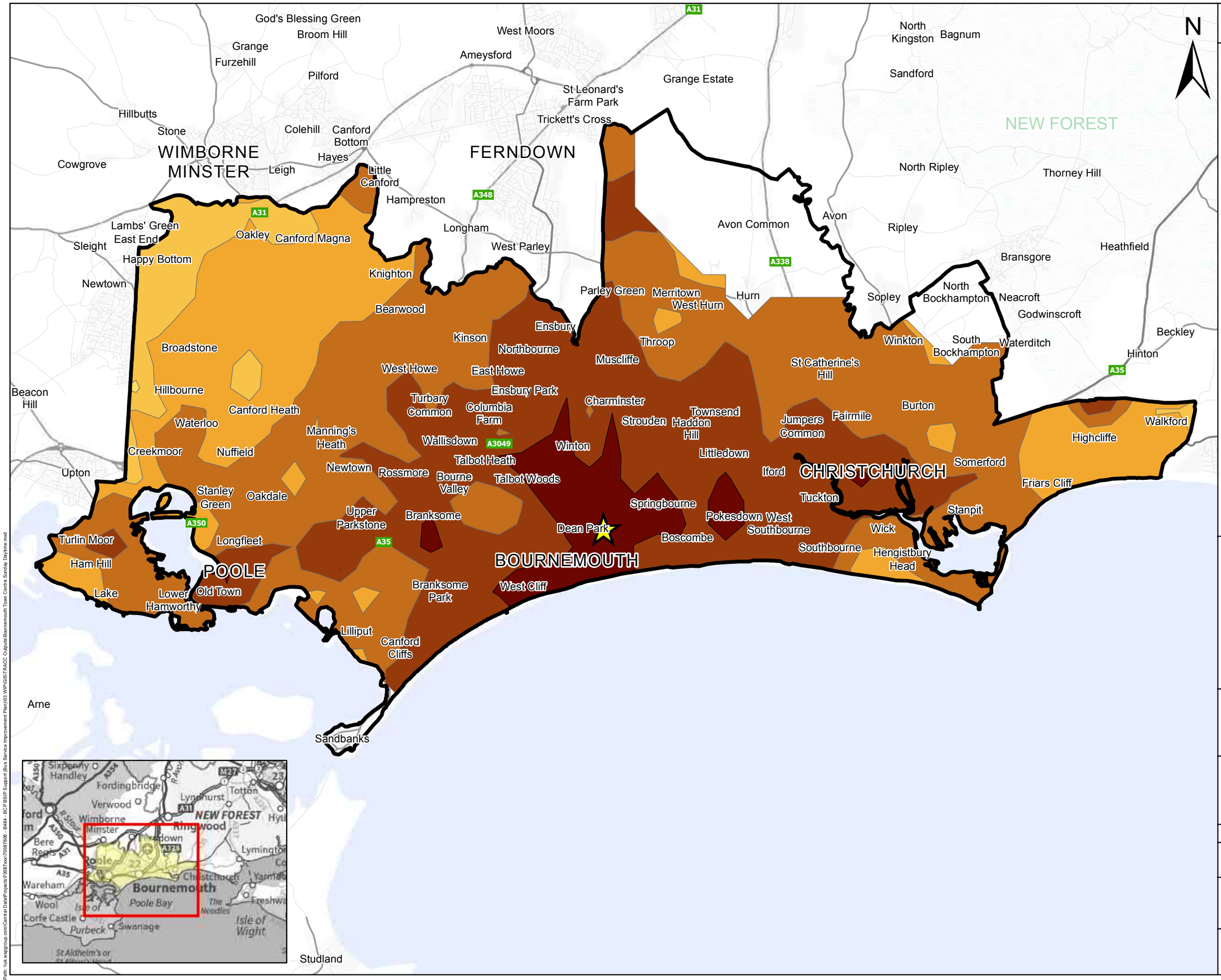





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BCP Council

Job Title

Bus Improvement Plan and Enhanced Bus Partnership

Drawing Title

Sunday Daytime (11:00 -13:00) Bus Accessibility to Bournemouth Town Centre

Scale at A3

1:75,100

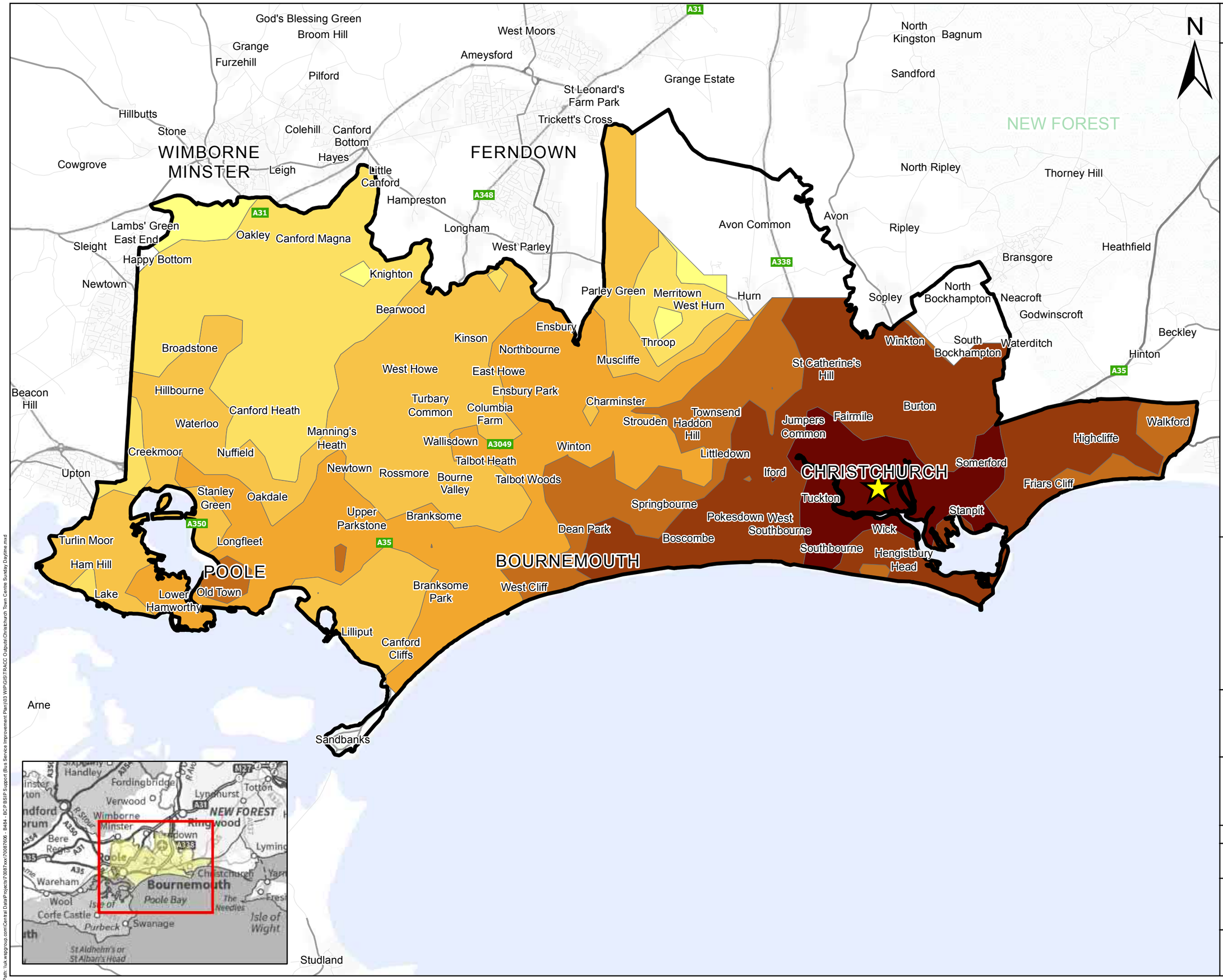


0 2
Kilometers

WSP House
70 Chancery Lane
London, WC2A 1AF
Tel: 020 7314 5000



Path: \\uk.wspgroup.com\Central Data\Projects\70097xxx\70097608 - B484 - BCP BSIP Support\Bus Service Improvement Plan\03 WIP\GIS\TRACC Outputs\Bournemouth Town Centre Sunday Daytime.mxd







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## Key

- Christchurch Town Centre
- BCP Boundary

**Public Transport (Bus and Rail) Accessibility**

- 0 - 15 minutes
- 15 - 30 minutes
- 30 - 45 minutes
- 45 - 60 minutes
- 60 - 75 minutes
- 75 - 90 minutes
- 90 - 105 minutes

BCP Council

Job Title

Bus Improvement Plan
and
Enhanced Bus Partnership

Drawing Title

Sunday Daytime (11:00 -13:00)
Bus Accessibility to
Christchurch Town Centre

Scale at A3

1:75,100



0 2
Kilometers

WSP House
70 Chancery Lane
London, WC2A 1AF
Tel: 020 7314 5000



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THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

N

## Key

Poole Town Centre

BCP Boundary

**Public Transport (Bus and Rail) Accessibility**

- 0 - 15 minutes
- 15 - 30 minutes
- 30 - 45 minutes
- 45 - 60 minutes
- 60 - 75 minutes
- 75 - 90 minutes

BCP Council

Job Title

Bus Improvement Plan
and
Enhanced Bus Partnership

Drawing Title

Sunday Daytime (11:00 -13:00)
Bus Accessibility to
Poole Town Centre

Scale at A3

1:75,100



0 2
Kilometers

WSP House
70 Chancery Lane
London, WC2A 1AF
Tel: 020 7314 5000



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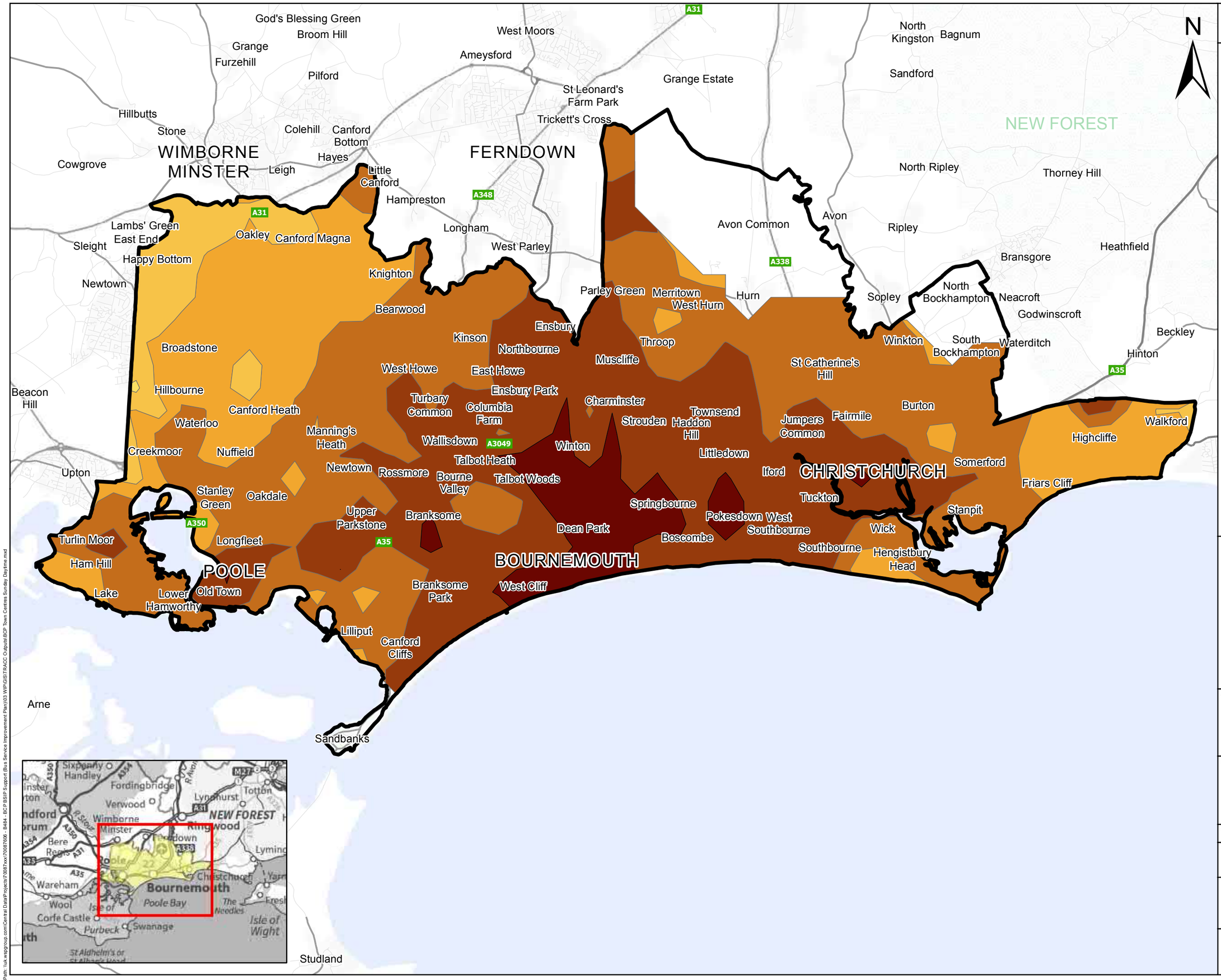





THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

## Key

BCP Boundary

**Public Transport (Bus and Rail) Accessibility**

- 0 - 15 minutes
- 15 - 30 minutes
- 30 - 45 minutes
- 45 - 60 minutes
- 60 - 75 minutes
- 75 - 90 minutes
- 90 - 105 minutes

BCP Council

Job Title

Bus Improvement Plan
and
Enhanced Bus Partnership

Drawing Title

Sunday Daytime (11:00 -13:00)
Bus Accessibility to
BCP Town Centres

Scale at A3

1:75,100



0 2
Kilometers

WSP House
70 Chancery Lane
London, WC2A 1AF
Tel: 020 7314 5000



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# MARKET ANALYSIS

## 1. Introduction

As transport is a derived demand, an understanding of key drivers and attitudes towards different modes is an important element when considering transport provision. To aid this analysis, population demographic analysis has been undertaken in order to develop a greater understanding of the travel needs of the local population. This analysis has used Experian's Mosaic consumer classification data, to identify key demographic groups and their propensity to use public transport services – thus providing an indication of the potential market for public transport services.

## 2. Experian Mosaic data

Experian's consumer classification data provides an understanding of the demographics, lifestyles and behaviour of different communities across the UK. The Mosaic dataset has historically been used in the commercial and retail sectors but provides a valuable data source for understanding communities and needs. It divides the UK population into 15 different types or *segments*, with information about the dominant characteristics of each. It can be used to understand the needs and attitudes of different segments, and the potential interactions of different segments of the population with different methods of transport.

It should be noted that although commercial Experian Mosaic data has the potential to facilitate the implementation of customer-focussed transport interventions that are targeted and tailored to specific localities, it supplements rather than replaces more established transport-focussed sources of information and analysis. As such, the data and results presented should be considered alongside other data points when forming conclusions and recommendations.

Table 1 provides a description of each of the 15 population segments used in the analysis, providing some key characteristics such as income, age, urban/rural location and likely attitudes towards public transport services.

## 3. Population segmentation analysis

In order to carry out thorough, detailed analysis of the area of Bournemouth, Christchurch and Poole (BCP), and to enable accurate comparisons, population segment analysis was carried out for the following areas:

- BCP as a whole
- Bournemouth
- Christchurch
- Poole

The population segment analysis results for the above areas are shown in table 2, which shows the proportion of the population that falls within the 15 population segments set out in table 1; data for the UK is also shown as a comparator. The results of the analysis are also illustrated spatially in figure 1, presenting the dominant population segments across the area. Each hexagon in the figure presents the dominant population in that spatial area, but it is important to consider that people fitting into various other population segments also live in the area. Areas not covered by hexagons represent areas where there is no or limited data to verify which population segment is dominant.

**Table 1: Experian Consumer Classification Analysis for Bournemouth, Christchurch and Poole**

| Population Segment | Population Segment Description | Likely Attitude Towards Public Transport / Shared Modes | Key characteristics | | |
|---|---|---|---|---|---|
| | | | Income | Working Age or Retired | Urban or Rural |
| **City Prosperity** | City Prosperity work in high status positions. Commanding substantial salaries, they are able to afford expensive urban homes. They live and work predominantly in large urban centres, with many found in/around the City or in locations a short commute away.<br>Highly educated, very ambitious and focused on their careers, many of this group are single and are less likely than others to have children. | Whilst on higher incomes, this segment has low levels of car ownership, associated with their desire to live in urban centres. They expect high levels of customer service, and place a priority on service reliability, high frequency and low journey times. Accordingly, the City Prosperity segment has a higher propensity to use taxis, ride-hailing services and DRT, and a lower propensity to use bus services. | Higher income households (£70k+) | Working Age | Urban |
| **Prestige Positions** | Prestige Positions are affluent married couples whose successful careers have afforded them financial security and a spacious home in a prestigious and established residential area.<br>While some are mature empty-nesters or elderly retired couples, others are still supporting their teenage or older children.<br>Of those whose children have grown up many are still offering support, either with a place to live in the family home, or by supporting them through university. | The Prestige Positions segment favour car use, and are unliked to travel using public transport. If required to use public transport/shared modes, their preference would be for taxi or ride-hailing services, given the personal service and journey time/reliability of these services; they are highly unlikely to use bus services. | Higher income households (£70k+) | Working Age | Urban |

| Population Segment | Population Segment Description | Likely Attitude Towards Public Transport / Shared Modes | Key characteristics | | |
|---|---|---|---|---|---|
| | | | Income | Working Age or Retired | Urban or Rural |
| **Country Living** | Country Living are well-off homeowners who live in the countryside, often beyond easy commuting reach of major towns and cities.<br>Some people are landowners or farmers, others run small businesses from home, some are retired, and others commute distances to professional jobs. | The Country Living segment have high levels of car ownership and use, with most households having at least two cars. They also have lower levels of smart phone use, and are late adopters of new technology solutions (such as app based ride hailing or demand responsive services). If required to use public transport/shared modes, their preference would be for taxi services, given the personal service and journey time/reliability of these services; they are highly unlikely to use bus services. | Higher income households (£70k+) | Working Age | Rural |
| **Rural Reality** | Rural Reality are people who live in rural communities and generally own their relatively low-cost homes. Their moderate incomes come mostly from employment with local firms or from running their own small business. A mix of families, mature couples and older singles. | The Rural Reality segment, given their residence in more rural areas, have a reliance on car ownership compared to urban dwellers. However, where possible they have a preference for more affordable modes of transport including bus and demand responsive transport services. They are less likely to use taxi or ride-hailing services, given the cost associated. | Lower income households (Under £30k) | Working Age | Rural |

| Population Segment | Population Segment Description | Likely Attitude Towards Public Transport / Shared Modes | Key characteristics | | |
|---|---|---|---|---|---|
| | | | Income | Working Age or Retired | Urban or Rural |
| **Senior Security** | Senior Security are elderly singles and couples who are still living independently in comfortable homes that they own. Property equity gives them a reassuring level of financial security.<br>This group includes people who have remained in family homes after their children have left, and those who have chosen to downsize to live among others of similar ages and lifestyles.<br>Senior Security is the most elderly group of all, their average age is 75, and almost all are retired. Some are living with their long-time spouse, but a larger number are now living alone. | The Senior Security segment comprises low mileage drivers who are late adopters of new technologies (such as app-based ride-hailing). They are highly driven by safety and security, cleanliness and physical accessibility. When using public transport, they have a greater propensity to use taxi services, and demand responsive transport (such as dial-a-ride services); they are less likely to use the bus. | Lower income households (Under £30k) | Retired | Urban |
| **Suburban Stability** | Suburban Stability are typically mature couples or families, some enjoying recent empty-nest status and others with older children still at home. They live in mid-range family homes in traditional suburbs where they have been for many years.<br>Households within Suburban Stability are mostly headed by people aged between 45-65. A significant proportion are still supporting adult children who may be studying, looking for work or | The Suburban Stability segment are likely to own and use a car, with a very low propensity to use public transport. Where they cannot use a car, their higher levels of smart phone use and desire for frequent and reliable services mean they are more likely to use taxi or ride-hailing services. | Middle income households (£30k-£70k) | Working Age | Urban |

| Population Segment | Population Segment Description | Likely Attitude Towards Public Transport / Shared Modes | Key characteristics | | |
|---|---|---|---|---|---|
| | | | Income | Working Age or Retired | Urban or Rural |
| | enjoying their parents' help while they save money. | | | | |
| **Domestic Success** | Domestic Success are high-earning families who live affluent lifestyles in upmarket homes situated in sought after residential neighbourhoods. Their busy lives revolve around children and successful careers in higher managerial and professional roles.<br>Families in Domestic Success are headed by couples typically aged in their late 30-40s; many have school age children. | Those in the Domestic Success segment are highly likely to be car users, with many owning a company car. They place a high priority on using their car during their busy days, and are less price conscious. This segment has a very low propensity for using public transport or shared modes. | Higher income households (£70k+) | Working Age | Urban |
| **Aspiring Homemakers** | Aspiring Homemakers are younger households who have, often, only recently set up home. They usually own their homes in private suburbs, which they have chosen to fit their budget.<br>Aspiring Homemakers are typically younger families, couples who are yet to have children, and singles in their 20-30s.<br>Couples can be married or more likely cohabiting, and where there are children they are usually of nursery or primary school age. | The Aspiring Homemakers segment are highly likely to use public transport services, including the bus, as well as shared transport services, including taxis, ride-hailing and DRT. In particular, access to transport for taking children to school is important. | Middle income households (£30k-£70k) | Working Age | Urban |

| Population Segment | Population Segment Description | Likely Attitude Towards Public Transport / Shared Modes | Key characteristics | | |
|---|---|---|---|---|---|
| | | | Income | Working Age or Retired | Urban or Rural |
| **Family Basics** | Family Basics are families with children who have limited budgets and can struggle to make ends meet. Their homes are low cost and often found in areas with fewer employment options.<br>Typically aged in their 30-40s, Family Basics consists of families with school age children, whose finances can be overstretched due to limited opportunities, low incomes and costs of raising children. | The Family Basics segment are highly likely to use public transport services, particularly as they are more price conscious than other segments. They are highly likely to use the bus, as well as shared transport services, including taxis, ride-hailing and DRT. | Lower income households (Under £30k) | Working Age | Urban |
| **Transient Renters** | Transient Renters are single people who pay modest rents for low cost homes. Mainly younger people, they are highly transient, often living in a property for only a short length of time before moving on.<br>Households in this group are typically aged in their 20s-30s and are either living alone or homesharing. Very few people are married and there are few children. | The Transient Renters segment is more price conscious, seeking value for money. With low car ownership, they are highly likely to use public transport and shared transport modes. | Lower income households (Under £30k) | Working Age | Urban |
| **Municipal Challenge** | Municipal Challenge are long-term social renters living in low-value multi-storey flats in urban locations, or small terraces on outlying | Amongst the Municipal Challenge segment, car ownership is very low, with people seeking affordability. They are therefore | Lower income households (Under £30k) | Working Age | Urban |

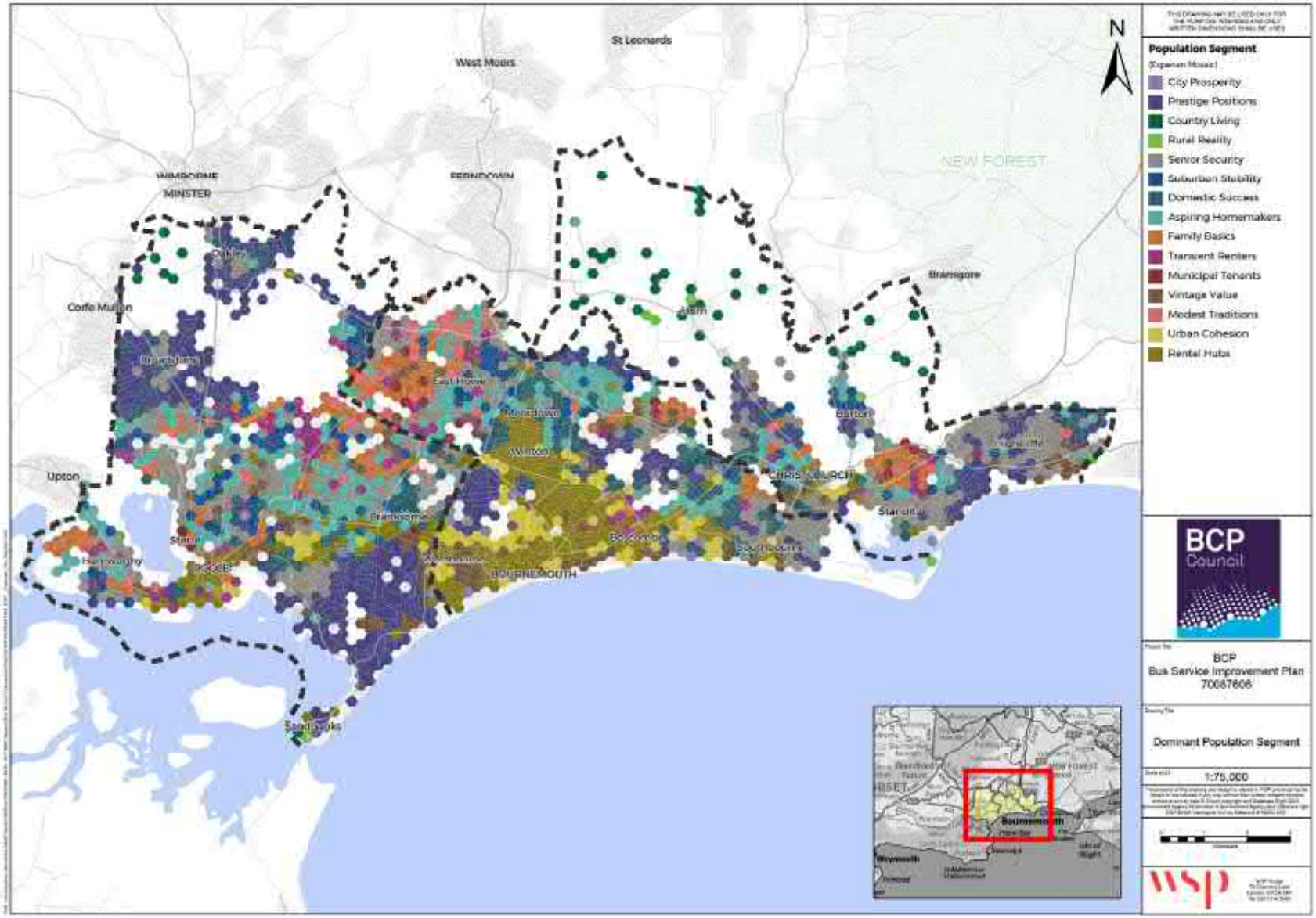
| Population Segment | Population Segment Description | Likely Attitude Towards Public Transport / Shared Modes | Key characteristics | | |
|---|---|---|---|---|---|
| | | | Income | Working Age or Retired | Urban or Rural |
| | estates. These are challenged neighbourhoods with limited employment options and correspondingly low household incomes.<br>People in Municipal Challenge are typically of working age. There are some families with children, but most are single. | highly likely to use public transport and shared transport modes. | | | |
| **Vintage Value** | Vintage Value are elderly people who mostly live alone, either in social or private housing, often purpose built for the elderly. Levels of independence vary, but as health need grow and incomes decline, many require increasing support.<br>Vintage Value consists of pensioners with an average age of 74, and most are now living alone. Women outnumber men because of their longer life expectancy. | The Vintage Value segment comprises elderly people who place a premium on safety and security, physical accessibility and cleanliness. When needing to travel, they may use public transport and shared modes, particularly taxi and bus services. | Lower income households (Under £30k) | Retired | Urban |
| **Modest Traditions** | Modest Traditions are older people living in inexpensive homes that they own, often with the mortgage nearly paid off. Incomes and qualifications are modest, but most enjoy a reasonable standard of living.<br>Modest Traditions consists of people aged mostly between 46-65 | The Modest Traditions segment places a premium on value for money and affordability, whilst having low levels of technology adoption. When not using a car, they are likely to use bus or taxi services; they are highly unlikely to use ride-hailing or DRT services. | Lower income households (Under £30k) | Working Age | Urban |

| Population Segment | Population Segment Description | Likely Attitude Towards Public Transport / Shared Modes | Key characteristics | | |
|---|---|---|---|---|---|
| | | | Income | Working Age or Retired | Urban or Rural |
| | who worked hard to buy their own homes and are now benefiting from that decision.<br>They are a combination of single people, married couples and families with grown-up children still living at home. | | | | |
| **Urban Cohesion** | Urban Cohesion are settled extended families and older people who live in multi-cultural city suburbs. Most have bought their own homes and have been settled in these neighbourhoods for many years, enjoying the sense of community.<br>Urban Cohesion contains both families with school age and older children, and older people pre and post retirement. | The Urban Cohesion segment are highly likely to use public transport and shared modes, potentially for commuting into urban centres. They are equally likely to use bus services as they are taxi, ride-hailing and DRT. | Middle income households (£30k-£70k) | Working Age | Urban |
| **Rental Hubs** | Rental Hubs contains predominantly young, single people in their 20s and 30s who live in urban locations and rent their homes from private landlords while in the early stages of their careers or pursuing studies.<br>Rental Hubs attract many young people, and most have yet to settle down with a partner or in a home of their own. | The Rental Hubs segment is similar to the Urban Cohesion Segment, being highly likely to use public transport and shared modes, potentially for commuting into urban centres. They are likely to use bus services, taxi, ride-hailing and DRT | Lower income households (Under £30k) | Working Age | Urban |

**Table 2: Population Segment Analysis**

| Population Segment | | UK | BCP | | Bournemouth | | Christchurch | | Poole | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | % | Population | % | Population | % | Population | % | Population | % |
| A | City Prosperity | 4% | 2,084 | 0.5% | 1,545 | 0.8% | 0 | 0.0% | 539 | 0.3% |
| B | Prestige Positions | 7% | 42,965 | 10.6% | 9,270 | 4.6% | 7,243 | 14.3% | 26,452 | 17.1% |
| C | Country Living | 7% | 999 | 0.2% | 0 | 0.0% | 822 | 1.6% | 177 | 0.1% |
| D | Rural Reality | 7% | 488 | 0.1% | 4 | 0.0% | 227 | 0.4% | 257 | 0.2% |
| E | Senior Security | 7% | 58,459 | 14.4% | 20,786 | 10.3% | 14,773 | 29.2% | 22,900 | 14.8% |
| F | Suburban Stability | 5% | 22,519 | 5.5% | 6,865 | 3.4% | 3,573 | 7.1% | 12,081 | 7.8% |
| G | Domestic Success | 9% | 33,443 | 8.6% | 18,063 | 9.0% | 4,641 | 9.2% | 10,739 | 6.9% |
| H | Aspiring Homemakers | 10% | 54,158 | 13.3% | 21,602 | 10.7% | 6,542 | 12.9% | 26,014 | 16.8% |
| I | Family Basics | 8% | 26,413 | 6.5% | 10,544 | 5.2% | 3,579 | 7.1% | 12,290 | 7.9% |
| J | Transient Renters | 6% | 16,736 | 4.1% | 7,218 | 3.6% | 1,511 | 3.0% | 8,007 | 5.2% |
| K | Municipal Challenge | 6% | 4,394 | 1.1% | 2,662 | 1.3% | 485 | 1.0% | 1,247 | 0.8% |
| L | Vintage Value | 5% | 29,009 | 7.6% | 12,748 | 6.3% | 4,578 | 9.0% | 11,683 | 7.5% |
| M | Modest Traditions | 5% | 9,505 | 2.3% | 4,608 | 2.3% | 849 | 1.7% | 4,048 | 2.6% |
| N | Urban Cohesion | 5% | 29,130 | 7.2% | 24,324 | 2.3% | 392 | 0.8% | 4,414 | 2.9% |
| O | Rental Hubs | 8% | 76,127 | 18.7% | 60,779 | 30.2% | 1,431 | 2.8% | 13,917 | 9.0% |
| **Total Population** | | - | **406,429** | - | **201,018** | - | **50,646** | - | **154,765** | - |

**Figure 1 – Dominant Population Segments in Bournemouth, Christchurch and Poole**



## BCP AS A WHOLE

As can be seen in table 2, the combined area of Bournemouth, Christchurch and Poole shows diverse findings, with many similarities and a few major differences across the three urban areas. However, some population segments are more prevalent than others. The three most commonly occurring segments in the BCP area are Rental Hubs (18.7%), Senior Security (14.4%) and Aspiring Homemakers (13.3%). These three household types alone account for 46.4% of the BCP population, equivalent to just under 190,000 people. Although people in the Senior Security segment are relatively likely to prefer taxi services and dial-a-ride type demand-responsive transport services (DRT), people in the Rental Hubs and Aspiring Homemakers segments are highly likely to use all forms of public transport such as the bus, as well as shared transport services, including taxis, ride-hailing and demand responsive transport.

## BOURNEMOUTH

The most commonly occurring demographic segment in Bournemouth is Rental Hubs, with around 60,780 people (30.2% of the local population) falling into this household type. This is a noticeably higher proportion than in the combined BCP area. Aspiring Homemakers (10.7%), Senior Security (10.3%), and Domestic Success (9.0%) all have broadly similar shares of the local population. Two of the four most frequent household categories (Rental Hubs; Aspiring Homemaker) have a high propensity to use public transport; people in Senior Security and Domestic Success segments have a lower propensity to use public transport, generally preferring the private car.

## CHRISTCHURCH

Senior Security dominate the demographics of the local population in Christchurch, with over 14,770 people (29.2% of the local population) falling into this household type. As noted in table 1, this segment comprises low mileage car drivers who are less likely to use public transport or shared modes – but when doing so they prefer taxi services and dial-a-ride type DRT; they are highly unlikely to use the bus if they have other options. Prestige Positions (14.3%) , Aspiring Homemakers (12.9%), Domestic Success (9.2%) and Vintage Value (9.0%) all contribute significant similar shares of the local population, with only the Aspiring Homemakers group of these showing high public transport use. This means the market for public transport is likely to be more limited in Christchurch than in Bournemouth, allowing for the difference in populations and areas of the two towns.

## POOLE

The two most represented demographic categories in Poole are Prestige Positions (17.1%) and Aspiring Homemakers (16.8%) contributing towards 33.9% (over 50,000 people) of total household types in the local population. These are closely followed by Senior Security (14.8%). Rental Hubs (9.0%) ranks as the fourth most represented demographic in Poole, noticeably lower than in BCP area (18.7%) and Bournemouth (30.2%). People in the Prestige Positions and Suburban Stability segments are more likely to use their car when travelling. On the other hand, people in the Aspiring Homemakers and Rental Hubs categories have higher preference towards use public transport.

# 4. Propensity analysis

Using the population segments and Experian Mosaic data, it has been possible to consider the propensity of each segment to use several modes of transport, including:

- Taxi
- App-based ride-hailing for sole use (such as the UberX service)
- Demand Responsive Transport (DRT) services,
- Premium DRT service
- Bus
- Premium bus services, such as those with higher quality seating/environments, limited stopping, complimentary on-board wifi, and at-seat USB charging – which sometimes command a premium price.

The modal propensity has been calculated by identifying a range of attributes that make modes attractive to potential users (e.g. speed, frequency, reliability, price, quality, safety/security, etc). The importance of each attribute to each Experian Mosaic-based segment, compared to all other segments (known as the human factor), has been calculated based on some of the 400+ individual datapoints within the Mosaic dataset (e.g. for price, we have used the level of households with low incomes in each population segment compared to the average).

For each of the potential transport modes considered, WSP judged how well they meet the attributes that make them attractive to users (known as the mode factor). The human and mode factors were combined to provide an understanding of how each mode meets the attributes that are important to people in each Mosaic segment. This combined calculation provides an understanding of the propensity of the segments to use each mode. When this calculation is applied across any specified area, the total population with very high, high, medium, low or very low propensity to use different modes can be calculated.

The propensity results provide an indication of the general potential market for the identified modes of transport and can inform whether there is potentially sufficient demand to justify introducing a new service. Table 3 provides a breakdown of this information, providing an understanding of the maximum potential market that each transport mode capture within the area of BCP.

The data in table 3 shows that:

- Across the combined area of Bournemouth, Christchurch and Poole, 73% of the population (almost 300,000) have either a very high or high propensity to use premium bus services. These are operated using buses that have extra features compared with traditional buses, such as free wifi, but also have fewer stops per journey and increased reliability. This is in contrast with traditional bus use which just under half of the population (44%) have a very high or high propensity to use. In addition, two thirds of the population are likely to use standard DRT services (67%) whereas around half of the population having a very high or high propensity to use taxi services (50%), ride-hailing (43%) and premium DRT (43%).
- In Bournemouth, the segment analysis shows even stronger prevalence than in the area of BCP, for premium bus (81% having a very high or high propensity) and standard DRT (73%) services. Over half of the population are still likely to use other transport modes including taxi (63%), ride-hailing (51%), premium DRT (51%) and standard bus (51%) services.

- In Christchurch, propensity to use public and shared modes reduces significantly, only premium bus (66% having a very high or high propensity) and standard DRT (56%) services remain at a similar level, but still lower than in BCP as a whole. The most prominent difference appears with taxi, ride-hailing and standard bus services where just over a one-quarter of the population have very high or high prevalence to use these modes.
- In Poole, propensity to use public and shared modes is lower than across the combined area of BCP, though the difference is not so significant as in Christchurch. The segment analysis shows a strong preference for Premium Bus service, with 65% of the population having a very high or high propensity to use the service. Conversely, there is a much lower proportion of the population who are likely to use remaining services: taxi (42%), ride hailing (39%), premium (39%) and standard (47%) DRT, and traditional bus services (40%).

## 5. Summary

This part of the appendix has detailed the market analysis undertaken to develop a greater understanding of the travel needs and propensity for different modes amongst the population in Bournemouth, Christchurch and Poole area. Experian Mosaic consumer data has been reviewed and analysed, capturing the dominant personas amongst the residents across the different life-stages, helping to illustrate the public transport requirements that need to be catered for.

The variation in the percentage of the different demographic categories across the four different localities highlight the importance of considering geographical and demographic differences between places and emphasises the need to tailor potential solutions to local circumstances.

**Table 3 – Propensity of the Bournemouth, Christchurch and Poole population to use public transport modes**

| Location | Mode | Population with Very High Propensity (5) | | Population with High Propensity (4) | | Population with Medium Propensity (3) | | Population with Low Propensity (2) | | Population with Very Low Propensity (1) | | Population with Very High or High Propensity | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BCP** | Taxi | 97,307 | 24% | 107,341 | 26% | 92,350 | 23% | 43,964 | 11% | 65,467 | 16% | 204,648 | 50% |
| | Ride-Hailing | 97,307 | 24% | 78,211 | 19% | 91,983 | 23% | 72,462 | 18% | 66,466 | 16% | 175,518 | 43% |
| | Premium DRT | 43,149 | 10% | 132,369 | 33% | 29,130 | 7% | 63,341 | 16% | 138,440 | 34% | 175,518 | 43% |
| | Standard DRT | 173,434 | 43% | 89,673 | 22% | 33,891 | 8% | 86,912 | 21% | 22,519 | 6% | 263,107 | 67% |
| | Bus | 43,149 | 11% | 134,679 | 33% | 119,170 | 29% | 9,505 | 2% | 99,926 | 25% | 177,828 | 46% |
| | Premium Bus | 173,434 | 43% | 123,076 | 30% | 488 | 0% | 109,431 | 27% | - | - | 296,510 | |
| **Bournemouth** | Taxi | 39,364 | 20% | 86,648 | 43% | 36,200 | 18% | 9,270 | 5% | 29,536 | 15% | 126,012 | 63% |
| | Ride-Hailing | 39,364 | 20% | 62,324 | 31% | 47,772 | 24% | 22,022 | 11% | 29,536 | 15% | 101,688 | 51% |
| | Premium DRT | 17,762 | 9% | 83,926 | 42% | 24,324 | 12% | 23,452 | 12% | 51,554 | 26% | 146,250 | 51% |
| | Standard DRT | 100,143 | 50% | 46,655 | 23% | 15,414 | 8% | 31,941 | 16% | 6,865 | 3% | 146,798 | 73% |
| | Bus | 17,762 | 9% | 85,043 | 42% | 59,407 | 30% | 4,608 | 2% | 34,198 | 17% | 102,805 | 51% |
| | Premium Bus | 100,143 | 50% | 62,065 | 31% | 4 | 0% | 38,806 | 19% | - | - | 162,208 | 81% |

| Location | Mode | Population with Very High Propensity (5) | | Population with High Propensity (4) | | Population with Medium Propensity (3) | | Population with Low Propensity (2) | | Population with Very Low Propensity (1) | | Population with Very High or High Propensity | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Christchurch** | Taxi | 11,632 | 23% | 1,823 | 4% | 20,063 | 40% | 8,065 | 16% | 9,063 | 18% | 13,455 | 27% |
| | Ride-Hailing | 11,632 | 23% | 1,431 | 3% | 15,650 | 31% | 12,048 | 24% | 9,885 | 20% | 13,063 | 26% |
| | Premium DRT | 5,090 | 10% | 7,973 | 16% | 392 | 1% | 15,485 | 31% | 21,706 | 43% | 13,063 | 26% |
| | Standard DRT | 13,063 | 26% | 15,165 | 30% | 5,290 | 10% | 13,555 | 27% | 3,573 | 7% | 28,228 | 56% |
| | Bus | 5,090 | 10% | 8,458 | 17% | 19,970 | 39% | 849 | 2% | 16,279 | 32% | 13,548 | 27% |
| | Premium Bus | 13,063 | 26% | 20,228 | 40% | 227 | 0% | 17,128 | 34% | - | - | 33,291 | 66% |
| **Poole** | Taxi | 46,311 | 30% | 18,870 | 12% | 36,087 | 23% | 26,629 | 17% | 26,868 | 17% | 65,181 | 42% |
| | Ride-Hailing | 46,311 | 30% | 14,456 | 9% | 28,561 | 18% | 38,392 | 25% | 27,045 | 17% | 60,767 | 39% |
| | Premium DRT | 20,297 | 13% | 40,470 | 26% | 4,414 | 3% | 24,404 | 16% | 65,180 | 42% | 60,767 | 39% |
| | Standard DRT | 60,228 | 39% | 27,853 | 18% | 13,187 | 9% | 41,416 | 27% | 12,081 | 8% | 88,081 | 47% |
| | Bus | 20,297 | 13% | 41,178 | 27% | 39,793 | 26% | 4,048 | 3% | 49,449 | 32% | 61,475 | 40% |
| | Premium Bus | 60,228 | 39% | 40,783 | 26% | 257 | 0% | 53,497 | 35% | - | - | 101,011 | 65% |