



Hywel Dda University Health Board

A HEALTHIER MID AND WEST WALES AND THE NEW URGENT AND PLANNED CARE HOSPITAL - DRAFT

Accessibility Report (Programme Business Case Appendix 13)





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EXECUTIVE SUMMARY

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OVERVIEW

In support of 'A Healthier Mid and West Wales' (AHMWW) health and care strategy, Hywel Dda University Health Board (HDUHB) consider proposals for the reconfiguration of existing health services provided at the Withybush (Haverfordwest), Glangwili (Carmarthen), Prince Philip (Llanelli), and Bronglais (Aberystwyth) hospitals to create a healthcare system for West Wales which is safe, accessible, sustainable and kind.

The proposals include the development of a new urgent and planned care hospital for the counties of Ceredigion, Pembrokeshire and Carmarthenshire. The proposed hospital is anticipated to be located between Narberth and St Clears, along with the reconfiguration of Withybush and Glangwili hospitals into community hospitals. Prince Philip and Bronglais hospitals will maintain their acute hospital status and will be subject to a programme of refurbishment works to bring accommodation up to modern standards.

VISION

As part of the AHMWW strategy HDUHB aims for services to be as accessible as possible for patients, visitors and staff. This includes designing services and utilising technology to reduce, whenever feasible, the requirement for staff and members of the public to travel to the sites. The Board also seeks to deliver upon the ambitions of the Wales Transport Strategy (2021) by developing processes and services that encourage the use of active travel and public transport modes. HDUHB aims to work closely with its partners to develop a range of transport solutions that will complement the greater level of integrated treatment and holistic care, delivered as a part of the new clinical model. This will include establishing services that facilitate transport demands in a timely and responsive way and enable greater engagement and collaboration with third sector providers. The Board will also seek to capitalise upon this opportunity to support the Welsh Government's response to the climate emergency by developing and enhancing the transport service to support a significant reduction in CO2 emissions and meet the objectives set out within the NHS Wales decarbonisation strategy.

The Board's aspirations are categorised under a few themes:

- Patient Transport (Emergency and Non-Emergency);



- Public and Community Transport; (This will allow for the WAST resources to focus on higher dependency patients);
- Staff Travel;
- Decarbonisation;
- Taxi / Courier Provision; and,
- Car Parking.

ACCESSIBILITY

The report provides an analysis in relation to non-blue light (no lights & sirens) travel time, as the proposed hospital will cater for a significant proportion of critical care needs in Hywel Dda. It also considers the accessibility of the study area by a range of transport modes, including walking, cycling, e-bike, bus, rail, and private car.

In addition, the existing local highway network conditions, along with a review of the personal injury collision data for key corridors within the study area have been provided. Details of the accessibility analysis have been compared against the staff postcode data for the proposed hospital. Also, the operational and servicing requirements for the new hospital in logistics terms have been considered.

The ambulance travel time analysis shows that 91%, 89% and 89% of incidents may be accessible by an ambulance within a one hour travel time from Whitland, Narberth and St Clears, respectively. On the other hand, the baseline for the study area including Bronglais and Morriston hospitals shows that only 68% of incidents are accessible within the one hour travel time by ambulance from either hospital. This analysis indicates that the preferred location of the proposed hospital should be between Narberth and St Clears.

The isochrones representing walkable distance in given time have been created, showing the accessible locations from each of the area considered for the new hospital. However, it is anticipated that patients to the new hospital are likely to be transported by other modes of transport, with visitors likely to walk from and to other transport mode location.

Similarly, the accessibility isochrones for standard bike and e-bike have been produced. It is considered that cycling as a mode of travel has the potential to replace short and medium distance vehicle journeys, particularly with a growing popularity of e-bikes which allow to travel longer distances for a wider group of users.

The South West and Mid Wales Transport Model (SWMWTM) has been utilised to understand the travel times across the modes from Narberth and St Clears to the wider surrounding network. Narberth and St Clears have been picked as these represent two extremities within the study area, and therefore demonstrate at high-level accessibility to the study area between Narberth and St Clears. At the next stage when more specific area information is determined, and more detailed analysis of specific areas within the study area (e.g. Whitland, Llanddewi Velfrey) would be undertaken. Travel times have been obtained for the morning peak, interpeak and evening peak periods using bus, rail and private car mode of transport. Using GIS software, these travel times have been plotted on the map to analyse and understand the accessibility of the proposed hospital locations by bus.

In relation to rail travel, an analysis of the existing service provision has been undertaken to ascertain the accessibility of the proposed hospital by this mode. It is noted that current service is



infrequent, particularly in Narberth, as the railway line splits at Whitland, reducing the number of services reaching this station.

Future potential rail improvements have also been investigated, focusing on the Swansea Bay and West Wales Metro programmes which include station improvements at Whitland and consideration for a new railway station provision in St Clears.

Finally, the average commute travel time for a private car has been analysed, also by utilising SWMWTM. The analysis results suggest that a wider area on the network can be accessible from St Clears when compared to Narberth within a one-hour drive time using private car.

CONCLUSION AND NEXT STEPS

It is considered that the new hospital, will provide an abundance of benefits, not only related to the health service, but may provide an opportunity for transport improvements, particularly around the active travel and public transport provision, in line with the Wales Transport Strategy user hierarchy. It is important to work with partners such as Welsh Government and Transport for Wales, to ensure the potential transport interventions are considered and, if delivered, will maximise the realisation of benefits for staff, patients and local communities.

The bus service provision along the main highway corridors is adequate. However, attention needs to be given to staff and patients travelling from the communities located outside of the main corridors, ensuring sustainable travel choices are provided to them.

Furthermore, improving the active travel and transport provision chimes with the carbon reduction agenda, which subsequently provides the health and environmental benefits to wider society.

The analysis in this report shows that e-bikes have the potential to become a suitable alternative to a private car for the journeys which are considered to be too long when using a standard bicycle. It also broadens the spectrum of users, who may be more willing to use a bike with a motorised assist.

Overall, it is considered that a new hospital site has a potential to provide sustainable accessibility, using the active travel and public transport modes, in line with the Wales Transport Strategy and other policies promoting healthier lifestyles, clean air and carbon reduction.

The AHMWW's strategy delivery portfolio, including building the business case for provision of a new hospital, requires a consideration of the key steps that need to be taken as part of the next stage of this work. This includes:

- Broader engagement with the stakeholders;
- Modelling of future transport demand levels;
- Mapping capacity to future demand;
- Investigating required new transport services;
- Explore further the opportunities for remote working and reducing the need to travel;
- Integration of transport modes;
- Supporting HDUHB to develop transport strategy; and,
- Provide transport appraisal of the short-listed sites.

1 INTRODUCTION

1.1 OVERVIEW

- 1.1.1. WSP UK Limited (WSP) have been commissioned by BDP to prepare an Accessibility Statement in support of the 'A Healthier Mid and West Wales' (AHMWW) Health and Care strategy for Hywel Dda University Health Board (HDUHB). The proposals comprise a reconfiguration of existing health services provided at the Withybush (Haverfordwest), Glangwili (Carmarthen), Prince Philip (Llanelli), and Bronglais (Aberystwyth) hospitals to create a healthcare system for Mid and West Wales which is safe, sustainable, accessible, and kind.
- 1.1.2. The proposals include the development of a new urgent and planned care hospital for the counties of Ceredigion, Pembrokeshire and Carmarthenshire. The proposed hospital site which is yet to be identified between Narberth and St Clears, along with the reconfiguration of Withybush and Glangwili hospitals to be community hospitals. Prince Philip and Bronglais hospitals will maintain their acute hospital status and will be subject to a programme of refurbishment works to bring accommodation up to modern standards. These new and refurbished facilities will be supported by a network of community hubs providing primary care and a significant proportion of outpatient services closer to home.
- 1.1.3. It is intended that the new hospital will be part of a new clinical care model. This is based on the new hospital focussing on emergency and planned care as part of an integrated system with enhanced preventative and community care.
- 1.1.4. In December 2019, WSP produced a report presenting the findings of a review into the current transport activity associated with the existing HDUHB acute hospital sites. The report was commissioned by Pembrokeshire County Council, and provided comprehensive baseline and supporting data, describing the characteristics of transport services across these sites. Key areas assessed as a part of this review included the following issues:
- Site location;
 - Staff commute time to their base site;
 - Visiting times;
 - Site accessibility;
 - Local highway network;
 - Car parking provision;
 - Existing provision for Non-Motorised Users (NMUs);
 - Traffic volume;
 - Operational site activity data;
 - Inpatient activity data; and,
 - WAST activity data.
- 1.1.5. While this review provided a robust baseline, a requirement for additional work has been identified, to assess how these areas will be impacted as a result of the changes proposed as part of the (AHMWW) programme of work.
- 1.1.6. In addition to West Wales Hospitals Review, HDUHB undertook a transport baselining exercise in 2018 as part of the '**Technical document to support the public consultation**'. This review assessed key aspects of transport demand and activity including:
-

- Access to emergency care;
- Non-Emergency Patient Transport Service (NEPTS);
- Public transport availability;
- Internal logistics;
- Indicative travel times for site access, NEPTS and EMS services; and,
- Patient transport accessibility.

1.1.7. Subsequently, this Accessibility Report (AR) has been prepared to help identify locations for the proposed new hospital in relation to the new Wales Transport Strategy. As such, this Accessibility Report will only provide initial analysis in relation to the accessibility of the potential site (within the analysed area), across the transport modes. It will not, therefore, be treated as a final and dominant determinant for the new hospital site location. A separate process will robustly appraise shortlisted sites.

1.1.8. The report will focus upon ambulance travel times as the hospital needs to cater for critical care and how the location is likely to be accessible by different mode of transport such as walking, cycling, e-bike, public transport and then lastly using the private car.

1.2 STRUCTURE OF REPORT

1.2.1. Following this introduction, this AR is structured as follow:

- **Chapter 2:** Sets out the ambitions and visions of the Health Board in relation to locating a new hospital, and considered as part of this study;
- **Chapter 3:** Provides the planning and transport policy context for the new hospital;
- **Chapter 4:** Provides details of the proposed new hospital and the existing hospitals from which healthcare services related to critical care will be relocated to the new hospital;
- **Chapter 5:** Sets out the accessibility by various modes of transport, assessment of the surrounding local highway network and staff postcode data. As well as mode split and operational and servicing requirements for the new hospital;
- **Chapter 6:** Provides an overview of key risks, and outlines the next steps; and,
- **Chapter 7:** Summarises and concludes the Accessibility Report.

2 VISION, AMBITIONS AND ASPIRATIONS

2.1 OVERVIEW

- 2.1.1. As a part of the AHMWW strategy, HDUHB aims for services to be as accessible as possible for the patients, visitors and staff. This includes designing services and utilising technology to reduce, whenever feasible, the requirement for staff and members of the public to travel to the sites.
- 2.1.2. Whenever travel is necessary, the Health Board aims at minimising the distances that individuals must travel by delivering more care services in the community and reducing the requirement for attendance at acute hospital sites. The Board also seek to deliver upon the ambitions of the Wales Transport Strategy (2021) by developing processes and services that encourage the use of active travel and public transport modes.
- 2.1.3. HDUHB aims to work closely with its partners to develop a range of transport solutions that will complement the greater level of integrated treatment and holistic care, delivered as a part of the new clinical model. This will include establishing services that facilitate transport demands in a timely and responsive way and enable greater engagement and collaboration with third sector providers.
- 2.1.4. The Board will also seek to capitalise upon this opportunity to support the Welsh Government's response to the climate emergency by developing and enhancing the transport model to support a significant reduction in CO2 emissions and meet the objectives set out within the NHS Wales decarbonisation strategy.
- 2.1.5. With key stakeholders and partners, the Board aims at developing a plan to address access, travel, transport and the necessary infrastructure to support the new hospital configuration taking into account the learning from the COVID pandemic. In the current COVID-19 era, remote/ digital services/virtual consultation and remote working have been key in administering healthcare services to the population. This needs to be taken into account when planning for a new hospital post-COVID, as patients are able to consult with their doctors quicker due to the increase of remote appointments. Also, digital/remote services and remote working reduces the demand for car parking at the new hospital and also traffic congestion on the local surrounding network. This should allow for ambulances and other clinical related logistics to reach their destination quicker, due to a reduction in congestion on the local roads. It is therefore paramount that opportunities for remote/digital services and remote working is considered and investigated at the new hospital.
- 2.1.6. It is considered that the new hospital's search location area has great opportunities for travel by rail and bus, however, the current level of service provision for these two modes is substandard and need improvement to be able to cater for the new hospital. A few initiatives are underway by the Welsh Government such as the Metro, new rail station at St Clears and improvements at Whitland railway station, that will benefit the new hospital. It is, however, imperative that further opportunities to improve accessibility to the new hospital by rail and bus are investigated.
- 2.1.7. It is the Board's aim to ensure that the new hospital is accessible by public transport for the most vulnerable members of the public. This requires further collaboration with partners, by maximising the opportunities for public transport provision not only along the main corridors, but also to extend the provision to local communities.
- 2.1.8. The Board's aspirations are summarised further in the following sections.

2.2 PATIENT TRANSPORT (EMERGENCY AND NON-EMERGENCY)

- 2.2.1. Development of a dedicated discharge and transfer service with a supporting transport coordination centre:
- The nature of the new clinical model will require an increase in the number of patients requiring transfer between the existing general hospitals and the new urgent and planned care centre due to the stepping up or stepping down of their care. HDUHB will work closely with WAST to establish a dedicated and enhanced discharge and transfer service to accommodate this change in the pattern of activity. This will include the commissioning of additional vehicles to accommodate the anticipated levels of future demand as well as the establishment of a dedicated patient flow centre with clinical input to coordinate patient journeys. The Board will ensure that any work undertaken locally is communicated widely with its partners in the event that an all-Wales Discharge and Transfer model is considered in the future by the National Collaborative Commissioning Unit (NCCU).
- 2.2.2. Development of new systems to improve the patient handover process:
- HDUHB will work with WAST to develop options for improving EMS and Non-Emergency Patient Transport handover times at acute hospital sites to reduce the amount of WAST vehicle downtime and improve service efficiency. This will require an increase in the level of resource available to support the handover of patients on arrival for the Accident & Emergency (A&E), outpatient and day case treatment at acute hospital sites; as well as improvements to the patient handover process.
- 2.2.3. Provision of transport capacity to deliver care closer to home:
- HDUHB will work with WAST and community transport providers to ensure that the available transport capacity is aligned with anticipated future demand levels and patient flows. This will ensure that care is delivered as close to the patient's home location as possible.
- 2.2.4. Avoidance of unnecessary admissions to hospital:
- Sufficient communication and engagement will be undertaken to raise public awareness of the available alternatives to A&E attendance e.g. the 111 service. In addition, HDUHB will, in partnership with WAST, explore the potential opportunities to implement services and processes to avoid attendance at A&E departments and promote alternative treatment and direct admissions in a community setting.
- 2.2.5. Co-location of HDUHB / WAST services and facilities:
- The addition of a new acute hospital site and the transition of more activity into a community setting will shift the flow of patient transport across the HDUHB area. To support this, HDUHB will engage with WAST to consider the most suitable options for co-locating services and vehicle bases to deliver the highest level of transport responsiveness.
- 2.2.6. HDUHB will continue to work with WAST and the Emergency Ambulance Services Commissioner (EASC) on refining the NEPTS eligibility criteria and patient needs assessment so that it effectively aligns to the new clinical model.

2.3 PUBLIC AND COMMUNITY TRANSPORT

- 2.3.1. Enhanced demand responsive transport and community transport services:

- As a part of this programme, HDUHB will work closely with local authorities, the community transport association and community transport providers to develop additional services that will support those patients not eligible for NEPTS transport but still in need of support to access healthcare services. This will include assessing existing demand responsive transport services and the potential for enhancing or developing existing community transport provision. This review will be aligned with the findings of the South West & Mid Wales regional transport model developed by Transport for Wales.

2.3.2. Greater use of public transport service to access healthcare settings:

- HDUHB will liaise with local authorities, the Swansea Bay and West Wales Metro programme management, as well as Transport for Wales to ensure that public transport service provision is aligned with the demands of healthcare delivery, resulting from the new clinical model. In addition, the Board will seek to encourage greater public transport use by designing the facilities in a way that allows those accessing care sites using public transport to do so comfortably and conveniently. Also, support and promotion of best practice will be sought to encourage increased confidence among elderly and vulnerable groups in using public transport services, e.g. by expanding or replicating the existing 'bus buddies' scheme that has been developed in Pembrokeshire.

2.3.3. Greater awareness of community transport provision and its availability:

- HDUHB will engage with the Community Transport Association, WAST and local community transport providers to identify ways of improving community transport provider's awareness and the signposting of patients not eligible for Non-Emergency Patient Transport services to these providers. This will improve healthcare accessibility and reduce the demand on NEPT services.

2.3.4. Development of additional, bespoke community transport provision to support access to and return from the new acute hospital site by the vulnerable patients:

- HDUHB will work with the community transport association and other major community transport providers e.g. Red Cross and Royal Voluntary Services (RVS) to ensure that new services are developed to meet the demands of the vulnerable patients. These services will be in line with those best practice examples currently offered at the existing acute hospital sites. Focus will also be placed on services that can reduce the likelihood of vulnerable patients in the community needing to be brought to an acute hospital.

2.3.5. Increased utilisation of Community Transport Providers to Support NEPTS:

- Historically there has been limited involvement by community transport providers in supporting NEPTS services. Typically, these providers have supported the Health Board in conveying patients that are not eligible for NEPTS but still in need of some form of transport support due to vulnerability. HDUHB will look to work with WAST and the third sector providers to investigate potential opportunities for diverting low-dependency patients away from the NEPTS services to community transport providers. This will allow for the WAST resources to focus on higher dependency patients.

2.4 STAFF TRAVEL

2.4.1. Increased flexible working arrangements and utilising available technology:

- HDUHB identified many benefits related to increased home-working during the ongoing Covid-19 pandemic and will seek to embed flexible working and the use of technology where feasible, to avoid a physical attendance at meetings for staff, as well as carry out online outpatient appointments. This will include developing a flexible working policy and investing in technology that will increase the feasibility of remote working.

2.4.2. Staff re-location:

- In order to reduce the need for staff to commute, the Health Board will explore the options and opportunities to re-locate staff within the Health Board, allowing them to work closer to their place of residence. This will reduce commuting requirements and increase the likelihood of staff commuting by active travel modes or public transport.

2.4.3. A modernisation of the Health Board's fleet:

- To support the Health Board's drive to reduce CO2 emissions and improve the efficiency of the fleet, an implementation of the telematics tracking provision is envisaged across all vehicles. This will include functions for both, vehicle trip and driver behaviour monitoring.

2.4.4. Increased support for car sharing:

- To reduce the negative effects of staff travel on air quality and level of carbon emissions, the Health Board will look at solutions that support and encourage the uptake of car sharing for business journeys and commuting. This will include consideration of potential incentives and also the provision of a system that will help to facilitate uptake.

2.5 DECARBONISATION

2.5.1. Delivery of the HDUHB transport decarbonisation strategy:

- A transport decarbonisation strategy has been developed for HDUHB which seeks to implement a range of process changes and infrastructure improvements to support achievement of the NHS Wales Decarbonisation objectives. The development of the new hospital site will be a key component in supporting the provision of infrastructure, enabling a successful delivery of this strategy.

2.5.2. Review and development of active travel options:

- To maximise the opportunities for active travel to access healthcare services, HDUHB will work closely with local authorities and public transport providers to explore the potential to develop additional walking and cycling routes to the planned facilities.

2.5.3. Development of Ultra-low Emission Vehicles (ULEV) infrastructure:

- It is envisaged that the provision of adequate electric vehicle charging infrastructure will form a key design principle in the development of the new hospital site. This will include staff and visitor ULEV charging, as well as adequate charging provision supporting the transition of the HDUHB's fleet to electric.

2.6 TAXI / COURIER PROVISION

2.6.1. Development of a fully integrated courier network that meets best practice guidelines:

- HDUHB will engage with the Health Courier Service and other courier providers to introduce a scheduled courier network that incorporates all planned sites, ensuring it meets the best practice guidance set out for the transport of controlled drugs and specimens.

2.6.2. Introduction of robust alternatives to taxi provision:

- HDUHB will investigate options for reducing the reliance on taxi services, particularly during the out of hour's period. This will include considering the development of internal Health Board transport provision as well as collaboration with community transport providers and WAST. This will help developing bespoke services to support the return of vulnerable patients from a hospital setting to their residence location.

2.6.3. Re-visit of the existing taxi contract to maximise taxi provider engagement:

- The Health Board will work with NWSSP and local taxi providers to outline a taxi contract that will support creating adequate transport capacity, in order to meet the Health Board's requirements.

2.7 CAR PARKING

2.7.1. The development of adequate car parking capacity, addressing the existing and future demand:

- Site design needs to ensure that adequate parking capacity is made available to meet the anticipated demand. A requirement for the electric vehicle charging needs to be recognised, where 10% of all parking bays to be facilitated with the EV charging provision as a minimum, as set out in the 'Future Wales: The National Plan 2040' document.

2.7.2. Parking control and enforcement:

- The Health Board will review existing car parking control and enforcement arrangements in place across all sites and assess the most suitable model for future provision.

2.7.3. Effective designated car parking arrangements:

- HDUHB will work with partner organisations to identify how parking can be most effectively allocated. This will include exploring the potential options for designated parking for ambulances, community transport providers, electric vehicle charging bays and car sharing bays.

3 POLICY OVERVIEW

3.1 INTRODUCTION

- 3.1.1. This report has been prepared with consideration to several relevant transport related policies at a national, regional, and local level, to ensure that the potential locations for the new hospital meets the requirement of these policy documents as accessibility by all modes of transport are concerned.
- 3.1.2. Of notable mention are the Welsh's Government's 'Planning Policy Wales Edition 11' and the Wales Transport Strategy (2021) which are discussed further in the following section.
- 3.1.3. The UHB recognises the importance of the planning policies and will work closely with key stakeholders and partners to provide assurance these challenges can be suitably addressed, and robust transport solutions put in place.

3.2 PLANNING POLICY WALES EDITION 11

- 3.2.1. Planning Policy Wales Edition 11 (PPW11) published in February 2021 provides the policy framework for the effective preparation of local planning authorities' development plans and how development should be shaped to deliver the best possible outcomes.
- 3.2.2. The primary objection of PPW is identified as follows:
- '...to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental, and cultural well-being of Wales, as required by the Planning (Wales) Act 2015, the Well-being of Future Generations (Wales) Act 2015 and other key legislation and resultant duties such as the Socio-economic Duty. A well-functioning planning system is fundamental for sustainable development and achieving sustainable places.'*
- 3.2.3. The document provides a number of national sustainable place making goals. Some of these are provided under the themes of "Facilitating Accessible and Healthy Environments" and "Maximising Environmental Protection and Limiting Environmental Impact". These include:
- Accessible by means of active travel and public transport;
 - Not car dependent;
 - Minimises the need to travel;
 - Provides equality of access;
 - Feels safe and inclusive;
 - Supports a diverse population;
 - Good connections;
 - Promotes physical and mental health and well-being; and
 - Reduces overall pollution.
- 3.2.4. PPW11 also highlights the importance of good design including:
- Ensuring ease of access for all;
 - Promoting sustainable means of transport; and
 - Achieving efficient use and protection of natural resources / designing for change.
- 3.2.5. Paragraph 3.12 states that:

“Good design is about avoiding the creation of car-based developments. It contributes to minimising the need to travel and reliance on the car, whilst maximising opportunities for people to make sustainable and healthy travel choices for their daily journeys. Achieving these objectives requires the selection of sites which can be made easily accessible by sustainable modes as well as incorporating appropriate, safe and sustainable links (including active travel networks) within and between developments using legal agreements where appropriate”.

- 3.2.6. It is highlighted that using and making use of existing infrastructure is important to this and that major generators of demand (including leisure and recreation) should be located “within existing urban areas or areas which are, or can be, easily reached by walking or cycling, and are well served by public transport”.
- 3.2.7. Within Chapter 4 (Active and Social Places), Section 4.1 sets out the transport objectives and aims to enable more sustainable travel choices by influencing the location, scale, density, mix of uses and design of new development. The chapter states that:

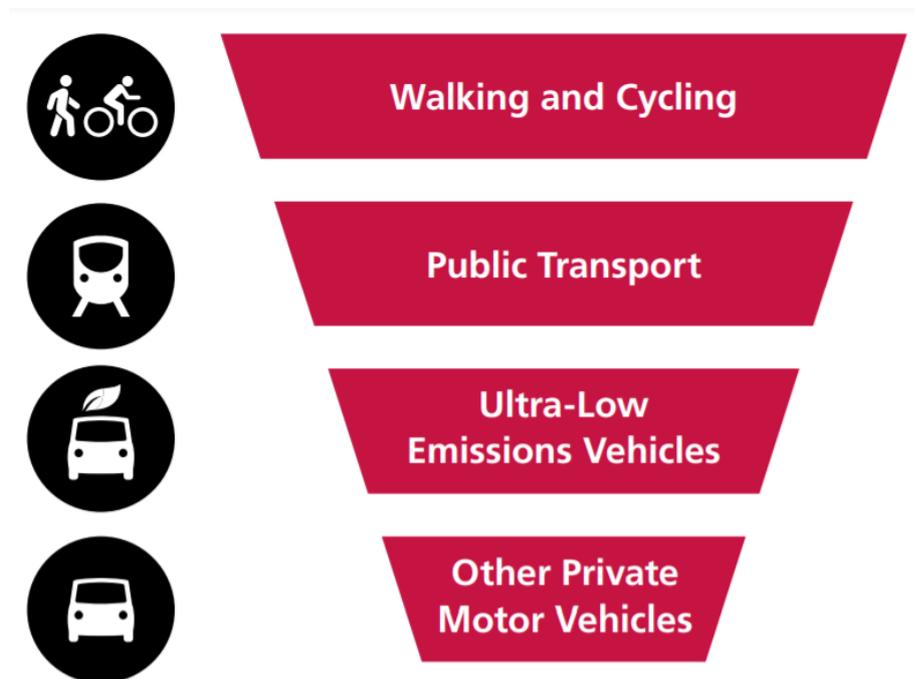
“The Welsh Government is committed to reducing reliance on the private car and supporting a modal shift to walking, cycling and public transport. Delivering this objective will make an important contribution to decarbonisation, improving air quality, increasing physical activity, improving the health of the nation, and realising the goals of the Well-being of Future Generations Act” .

3.3 THE WALES TRANSPORT STRATEGY 2021

- 3.3.1. The Welsh Transport Strategy is a statutory document required by the Transport (Wales) Act 2006 (The Act). The Act places a duty on Welsh Ministers to prepare and publish a WTS, setting out its policies and how they will be discharged. The WTS sets out Welsh Government’s strategic priorities and desired outcomes; the WTS addresses all transport modes, including walking, cycling, public transport, electric vehicles and the private car.
- 3.3.2. The Welsh Government developed the new WTS in order to provide a long-term vision for transport over the next 25 years, recognising a number of recent changes and looking to address future opportunities and challenges. The WTS provides the strategic framework within which future decisions on investment options will need to be made. To achieve that, WTS sets out the three headline priorities, including:
- Priority 1 – Bring services to people in order to reduce the need to travel.
This priority considers planning ahead for better physical and digital connectivity, more local services, more home and remote working, and more active travel, to reduce the need for people to use their cars on a daily basis;
 - Priority 2 – Allow people and goods to move easily from door to door by accessible, sustainable and efficient transport services and infrastructure.
WTS aims at achieving a shift away from private car use to more sustainable transport modes for the majority of journeys, while investing in low-carbon, accessible, efficient and sustainable transport services and infrastructure that enable more people to walk, cycle, and use public transport and low emission vehicles.
 - Priority 3 – Encourage people to make the change to more sustainable transport.
- 3.3.3. It is the Strategy’s objective to encourage people to change their travel behaviour to use low-carbon, sustainable transport, by making sustainable transport more attractive and more affordable, and by adopting innovations that make it easier to use.

- 3.3.4. The Wales Transport Strategy 2021 aims to create ‘an accessible, sustainable transport system’ with four key 20-year well-being ambitions, these include:
- Good for people and communities: By delivering services people can use, and want to use, which contribute to wider equality, health goals including addressing the barriers that stop people accessing transport.
 - Good for the environment: By significantly reducing greenhouse gas emissions, improving air quality, creating resilient ecosystems.
 - Good for places and the economy: Support key sectors and the Welsh supply chain and innovates so people and businesses can make sustainable transport choices.
 - Good for culture and language in Wales: By creating more opportunities for people to engage with language and culture and through protecting and promoting the distinct culture and language in Wales.
- 3.3.5. The strategy will deliver the above ambitions through sustainable investment, following delivery/ action plans, building partnerships, creating policies, building skills and capacity, and holding Welsh Government and partners to account. The strategy will always work around the five ways of working set out in the Wellbeing of Future Generations (Wales) Act 2015.
- 3.3.6. Apart from setting out short-term priorities and long-term ambitions, the Strategy proposes nine mini-plans which are explaining how the objectives will be delivered for different transport modes and sectors.
- 3.3.7. The Welsh Government encourages a more efficient transport system with a greater modal share of sustainable travel modes. The policy supports developments which prioritise active travel modes above public transport, with the car having the lowest prioritisation. Development should follow the sustainable transport hierarchy as shown in Figure 3-1.

Figure 3-1 - Transport User Hierarchy



3.3.8. This Accessibility Report has been prepared with consideration to the PPW11 and WTS, and in particular to the transport hierarchy set out in Figure 3-1, considering the location for the new hospital as far as accessibility by all transport modes and in particular sustainable travel modes is concerned.

3.4 CLEAN AIR PLAN FOR WALES: HEALTHY AIR, HEALTHY WALES (2020)

3.4.1. The aim of the Clean Air Plan for Wales is to improve air quality and reduce the impacts of air pollution on human health, biodiversity, the natural environment, and our economy. The Plan aims at supporting delivery of selected commitments, including reduction of emissions and delivery of vital improvements in air quality. The Plan considers the impact of COVID-19 on air quality. Clean Air Plan for Wales includes ambitions to meet and where possible exceed requirements set down in UK and international guidance and legislation.

3.4.2. The Clean Air Plan:

- Provides context about what is meant by clean air and the related challenges;
- Explains how air quality policy aligns with wider Welsh Government policy and the priorities and principles required to be applied in delivering the Plan;
- Considers the impacts of COVID-19 on society and air quality; and,
- Sets out foundations for collaborative work across sectors and with the public, to put in place new evidence based policy, legislation, regulations, and investment to reduce air pollution in line with highest international air quality standards.

3.4.3. This Plan sets out a 10-year pathway to achieving cleaner air, and is structured around four core themes, with actions to enable collaborative approaches to reducing air pollution:

- People: Protecting the health and well-being of current and future generations;

- Environment: Taking action to support our natural environment, ecosystems, and biodiversity;
- Prosperity: Working with industry to reduce emissions, supporting a cleaner and more prosperous Wales; and,
- Place: Creating sustainable places through better planning, infrastructure, and transport.

3.5 FUTURE WALES: THE NATIONAL PLAN 2040

- 3.5.1. Future Wales: The National Plan 2040 is a national development framework, setting the direction for development in Wales to 2040. It sets out a strategy for addressing key national priorities through the planning system, including sustaining, and developing the economy, achieving decarbonisation and climate-resilience, developing strong ecosystems, and improving the health and well-being of the communities in Wales.
- 3.5.2. Future Wales acts as a spatial plan, setting out a direction for where the investing in infrastructure and development should be focused. It sets the challenge of delivering these improvements to the public, private and third sectors. It makes clear the importance of planning new infrastructure and development in such a way that they are complementary rather than competing priorities, ensuring opportunities are maximised and multiple benefits are achieved.
- 3.5.3. This document is influenced by the Well-being of Future Generations (Wales) Act 2015. It demands that development and use of land contribute to improving the economic, social, environmental, and cultural well-being of Wales. Under the commitment to delivering sustainable development a contribution to each of the well-being goals can be maximised.

3.6 NATIONAL DEVELOPMENT FRAMEWORK (REPLACEMENT FOR THE WALES SPATIAL PLAN 2008)

- 3.6.1. A Draft National Development Framework (NDF) sets out a 20-year land use framework for Wales covering 2020 to 2040. The Draft Framework was published in September 2020 and will replace the current Wales Spatial Plan, following consultation in Summer/ Autumn 2019.
- 3.6.2. The purpose of the NDF is to support the delivery of Prosperity for All: The National Strategy by developing a clear long-term spatial direction for Government policy, action, and investment and for others who the Government work with.
- 3.6.3. The NDF sets out eleven outcomes which are collectively a statement of vision for 20 years' time and seeks to develop a Wales, where people live:
- And work in connected, inclusive and healthy places;
 - In vibrant rural places with access to homes, jobs, and services;
 - In distinctive regions that tackle health and socio-economic inequality through sustainable growth;
 - In places with a thriving Welsh language;
 - And work in towns and cities which are a focus and springboard for sustainable growth;
 - In places where prosperity, innovation and culture are promoted;
 - In places where travel is sustainable;
 - In places with world-class digital infrastructure;
 - In places that sustainably manage their natural resources and reduce pollution;
 - In places with biodiverse, resilient, and connected ecosystems; and
 - In places which are decarbonised.

3.7 THE ACTIVE TRAVEL (WALES) ACT 2013

- 3.7.1. The Active Travel (Wales) Act, enshrined in legislation in 2013 and commencing from September 2014, requires the Welsh Government and local authorities in Wales to actively promote and provide for walking and cycling as a mode of transport. The Act creates new duties for highways authorities to consider the needs of pedestrians and cyclists and make better provision for them.
- 3.7.2. Local authorities must take reasonable steps to enhance the provision made for pedestrians and cyclists. In order to adhere to this, local authorities must exercise their functions under this Act in a manner designed to promote active travel journeys, and secure new active travel routes and related facilities, and make improvements to existing active travel routes and related facilities.

3.8 THE WELL-BEING OF FUTURE GENERATIONS (WALES) ACT 2015

- 3.8.1. The Well-being of Future Generations (Wales) Act 2015 (WFGA) is about improving the social, economic, environmental, and cultural well-being of Wales. It places an obligation on public sector bodies to work together to meet seven well-being goals and strives to improve the social, economic, environmental, and cultural well-being of Wales. Its goals are as summarised in Table 3-1.
- 3.8.2. WelTAG has been developed by WG to ensure that public funds are invested in a way that ensures they maximise contribution to the well-being of Wales, as set out in the Well-being of Future Generations (Wales) Act 2015.

Table 3-1 - Well-being of Future Generations (Wales) Act Goals

Goal	Description of the Goal
A prosperous Wales	An innovative, productive, and low carbon society which recognises the limits of the global environment and therefore uses resources efficiently and proportionately (including acting on climate change); and which develops a skilled and well-educated population in an economy which generates wealth and provides employment opportunities, allowing people to take advantage of the wealth generated through securing decent work.
A resilient Wales	A nation which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic, and ecological resilience and the capacity to adapt to change (for example climate change).
A healthier Wales	A society in which people’s physical and mental well-being is maximised and in which choices and behaviours that benefit future health are understood.
A more equal Wales	A society that enables people to fulfil their potential no matter what their background or circumstances (including their socio-economic background and circumstances).
A Wales of cohesive communities	Attractive, viable, safe, and well-connected communities.
A Wales of vibrant culture and thriving Welsh language	A society that promotes and protects culture, heritage, and the Welsh language, and which encourages people to participate in the arts, and sports and recreation.

A globally responsible Wales	A nation which, when doing anything to improve the economic, social, environmental, and cultural well-being of Wales, takes account of whether doing such a thing may make a positive contribution to global well-being.
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- 3.8.3. Supplementary guidance for WeITAG outlines that it is essential to comply with the duties set out in the WFGA, which includes using the sustainable development principle through following the five ways of working and set well-being objectives that maximise contribution to the seven wellbeing goals.

3.9 ACTIVE TRAVEL ACT GUIDANCE (2021)

- 3.9.1. The Active Travel Act Guidance published in July 2021 brings together the previous two sets of statutory supporting guidance documents to the Active Travel (Wales) Act 2013 (i.e., the delivery guidance and the design guidance both published in 2014) and updates them. The updates of the document were based on drawing on a wide range of sources, most notably user experiences, public and stakeholder consultation feedback, policy changes, new infrastructure, and technology developments.

The guidance also, where appropriate aligns with the Department for Transport’s LTN1/20 on cycling infrastructure design.

- 3.9.2. The vision for the area as stated within the guidance is:

“for walking and cycling to become the normal choice for shorter journeys and we look forward to working with partners to turn this vision into reality.”

- 3.9.3. The Active Travel (Wales) Act 2013 requires all local authorities in Wales to produce maps of walking and cycling networks to all key destinations including educational institutions, and to deliver year on year active travel improvements along the mapped routes. The maps now known as Active Travel Network Maps (ATNM) combine the Existing Routes Map and the Integrated Network Map required by the 2013 Act and show existing and future active travel routes to all key destinations.
- 3.9.4. The act requires local authorities to submit a report to the Welsh Government on the extent to which walkers and cyclists make active travel journeys and set out what actions have been taken to promote active travel, each time they submit their network map. They also need to report annually on the costs they have incurred making improvements to their active travel network and the activities they have undertaken to promote active travel. This puts active travel at the forefront of the transport strategy to many key destinations.
- 3.9.5. The guidance states that plans for new schools, new housing developments and/or new workplaces need to be a major consideration in creating and reviewing the ATNM, and evidence of this having been done should be provided when the ATNM is submitted for approval by Ministers.

3.10 PROSPERITY FOR ALL: THE NATIONAL STRATEGY AND ECONOMIC ACTION PLAN 2017

- 3.10.1. Prosperity for All: The National Strategy (2017) sets out the long-term aim of the Welsh Government, which is ‘to build a Wales that is prosperous and secure, healthy and active, ambitious and learning, and united and connected.’
- 3.10.2. The Prosperity for All: Economic Action Plan (2017) aims to grow an inclusive economy whereby spreading opportunity and promoting well-being, contributing towards the delivery of Prosperity for All – The National Strategy.



3.10.3. The Plan aims to deliver infrastructure capable of supporting a range of economic activities and creating attractive places to live, learn, work and invest, as well as decarbonise the transport network and improve air quality. The Economic Action Plan includes a five-year programme of transport capital funding through Transport for Wales for both transport maintenance and new projects.

4 DETAILS OF PROPOSED HOSPITAL

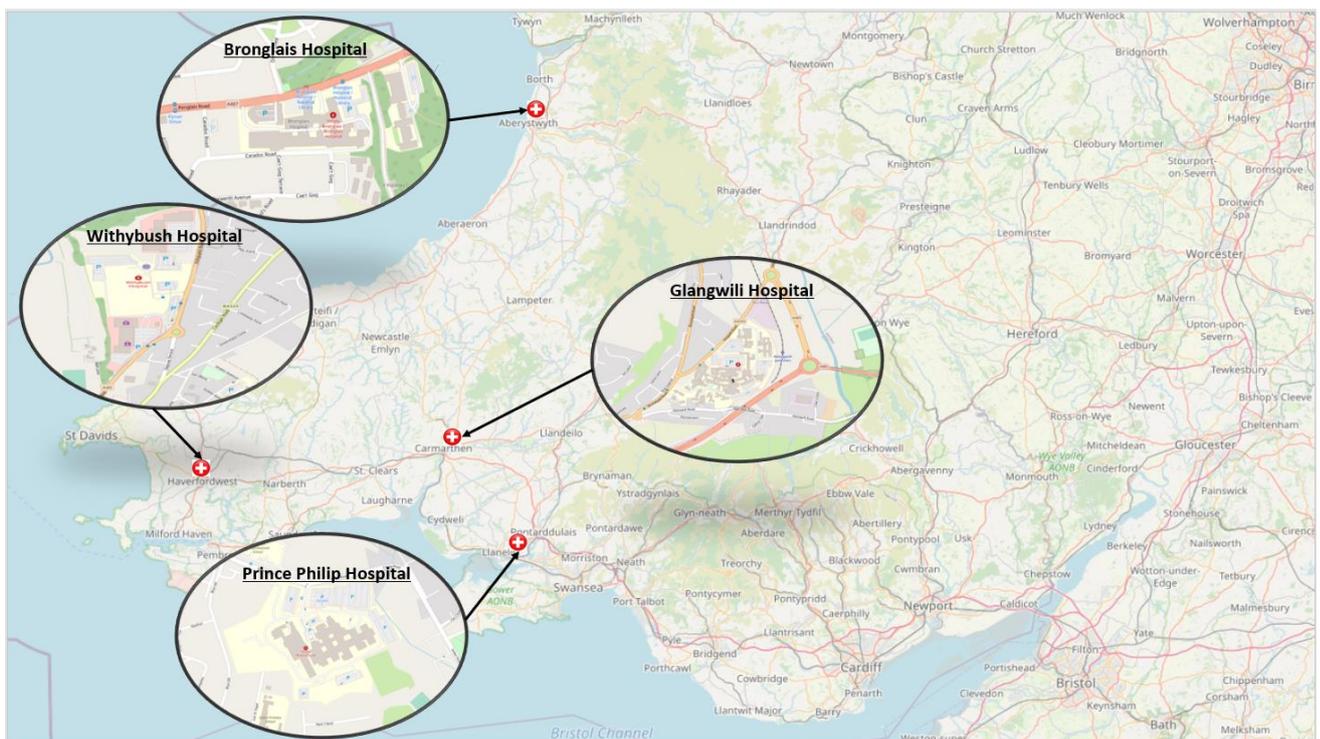
4.1 OVERVIEW

4.1.1. Following comprehensive public engagement and consultation concluding in 2018, the UHB agreed the health and care strategy, A Healthier Mid and West Wales – our future generations living well. The Health Board has made a long term commitment to transform itself to meet the requirements of social model for health and wellbeing. A move from a reactive medical model of delivery, to one based on community-based, proactive, population focused, preventative, person-centred care and treatment, will require realigning people, physical assets and the service offer, from a predominantly secondary care focused to earlier more localised and targeted interventions.

4.2 EXISTING HOSPITALS

4.2.1. The locations of the existing hospitals within the three counties Ceredigion, Pembrokeshire and Carmarthenshire are shown on Figure 4-1 below.

Figure 4-1 – Location of Existing Hospitals



WITHYBUSH HOSPITAL

4.2.2. Withybush Hospital is located on Fishguard Road in Haverfordwest, approximately 1 mile from the centre. Haverfordwest is the largest town in Pembrokeshire with a population of 12,042 (2011 census). Pembrokeshire has a population of 122,400 (2011 census). Hywel Dda University Health Board (HDUHB) employs approximately 2107 staff in Withybush Hospital, with numerous staff also using the site to hot desk. Withybush Hospital is a 24-hour Accident and Emergency (A&E) hospital.

GLANGWILI HOSPITAL

- 4.2.3. Glangwili Hospital is located on Dolgwili Road in Carmarthen, 2 miles from the centre. Carmarthen is the second largest town in Carmarthenshire, following Llanelli, with a population of 13,760. Carmarthenshire has a population of 183,777 (2011 census). HDUHB employs approximately 2948 staff in Glangwili Hospital, with numerous staff also using the site to hot desk. Glangwili Hospital is a 24-hour A&E hospital.

PRINCE PHILIP HOSPITAL

- 4.2.4. Prince Philip Hospital is located on Bryngwyn Mawr in Llanelli, Carmarthenshire, approximately 2.5 miles from the centre. Llanelli is the largest town in Carmarthenshire with a population of 49,591. Prince Philip Hospital is a Minor Injuries Unit hospital.

BRONGLAIS HOSPITAL

- 4.2.5. Bronglais Hospital is located on Caradoc Road in Aberystwyth, Ceredigion, approximately 0.5 miles from the centre. Aberystwyth is the largest town in Ceredigion with a population of 16,420. Bronglais Hospital is a 24-hour A&E hospital.

- 4.2.6. The following services are offered at all hospitals listed above:

- Accident and Emergency Services (excluding Prince Philip Hospital);
- Additional Professional Scientific and Technical;
- Additional Clinical Services;
- Administrative and Clerical;
- Allied Health Professionals;
- Estates and Ancillary;
- Healthcare Scientists;
- Medical and Dental, Nursing; and,
- Midwifery Registered.

4.3 PROPOSED HOSPITAL

- 4.3.1. The specific site location of the new urgent and planned care hospital for three counties: Ceredigion, Pembrokeshire and Carmarthenshire is required to be identified. Prior to the commencement of the Programme Business Case process the UHB identified, through public consultation, a zone between Narberth and St Clears as the optimum location for the proposed new urgent & planned care hospital. The zone includes areas in both Carmarthenshire and Pembrokeshire. This resulted in key area identification within the regions covering Narberth, Whitland and St Clears. Figure 4-2 shows the initial criteria and approximate area of concentration for the proposed new hospital location.

5 ACCESSIBILITY CONSIDERATIONS/ PROFILE

5.1 INTRODUCTION

5.1.1. This section of the report provided initial analysis undertaken in terms of travel times via ambulance as the proposed hospital will cater for a significant proportion of critical care needs in Hywel Dda. It also considers the accessibility of the study area by the transport modes listed below. It also explores the strengths and weaknesses of selected locations across the study area that have also been investigated for the following transport modes:

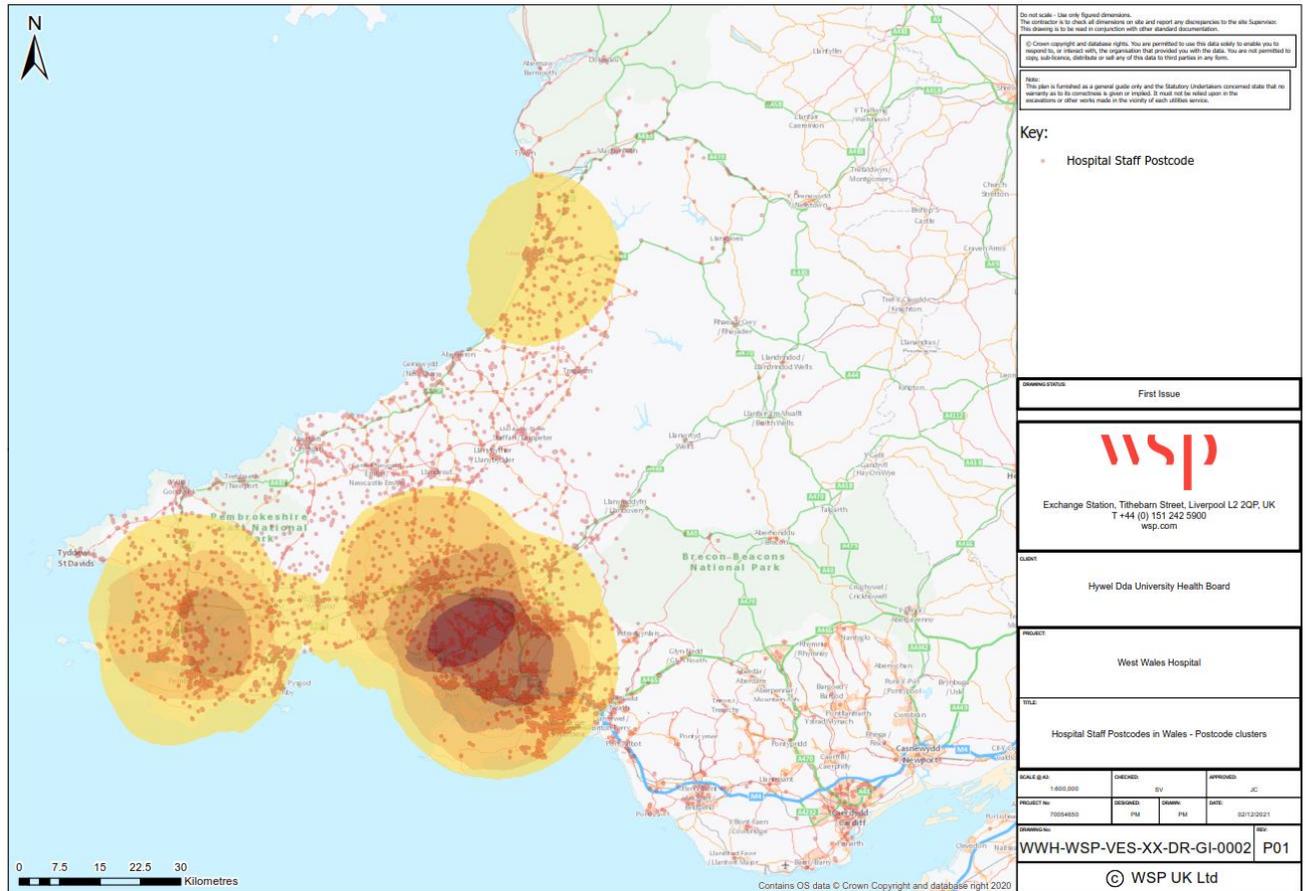
- Walking;
- Cycling;
- E-bike;
- Bus;
- Rail; and
- Private car.

5.1.2. In addition, the existing local highway network conditions, along with a review of the personal injury collision data for key corridors within the study area have been provided in this section. Details of the accessibility analysis have been compared against the staff postcode data for the proposed hospital. Also, the operational and servicing requirements for the new hospital in logistics terms have been considered in this section of the report.

5.2 STAFF POSTCODE DATA

5.2.1. Hywel Dda have provided staff post code data and this has been plotted on to a map for United Kingdom and provided in Appendix A. The staff post code data suggest that the greatest concentration of staff is in the south east region of the Hywel Dda geography. A map showing staff postcode data within this area as well as a heatmap to show concentration in postcode clusters is provided in Figure 5-1.

Figure 5-1 – Staff Post Code in South West Wales Region



5.3 ACCESSIBILITY BY TRANSPORT MODES

AMBULANCE

- 5.3.1. Welsh Ambulance Service Trust (WAST) Emergency Medical Services (EMS) data has been provided by the Health Board to understand the Ambulance Travel Time within Hywel Dda (HD) area. The following analysis has been undertaken and validated using the Optima Ambulance Modelling Software using WAST EMS data, that has been provided to the Health Board.
- 5.3.2. Approach
- 5.3.3. A number of different scenarios have been analysed to show the average travel times to the closest hospital included in the chosen scenario.
- 5.3.4. Each scenario is mapped using a 3x3 mile square to show the average travel time (Non Lights & Sirens) from incident to hospital, and the count of the ambulance incidents in each of the squares.
- 5.3.5. The data used in this analysis includes:
 - All WAST EMS incidents from 2019;
 - 51386 incidents are within Hywel Dda (HD);
 - 34450 of these are transported somewhere; and
 - 33808 of these are transported only to somewhere within HD or Morriston Hospital (just outside HD).

5.3.6. As such, the data file used for the analysis contains 33808 incidents in the area.

5.3.7. Scenario Options

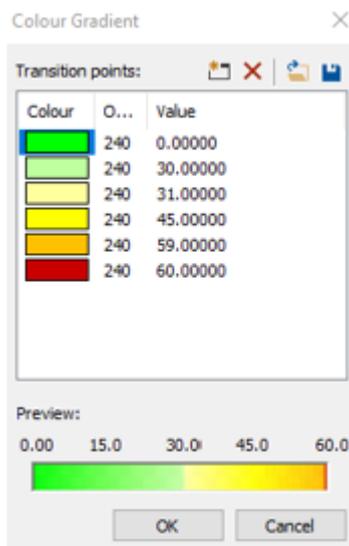
5.3.8. A total of 7 scenarios have been analysed and mapped in this section of the report as follows:

- Each of the three locations for the new hospital are mapped individually for Narberth, Whitland and St Clears;
- The baseline scenario is mapped which includes only Bronglais & Morriston hospitals only; and
- The future scenarios of the three new locations for the new hospital plus Bronglais & Morriston hospitals.

5.3.9. The 3 locations for the new hospital and postcodes utilised for producing the maps are outlined below.

- SA34 0AD (Whitland) (Centre);
- SA67 7AR (Narberth) (West); and
- SA34 4AG (St Clears) (East).

5.3.10. The colour scheme of the maps is based on the following time values.



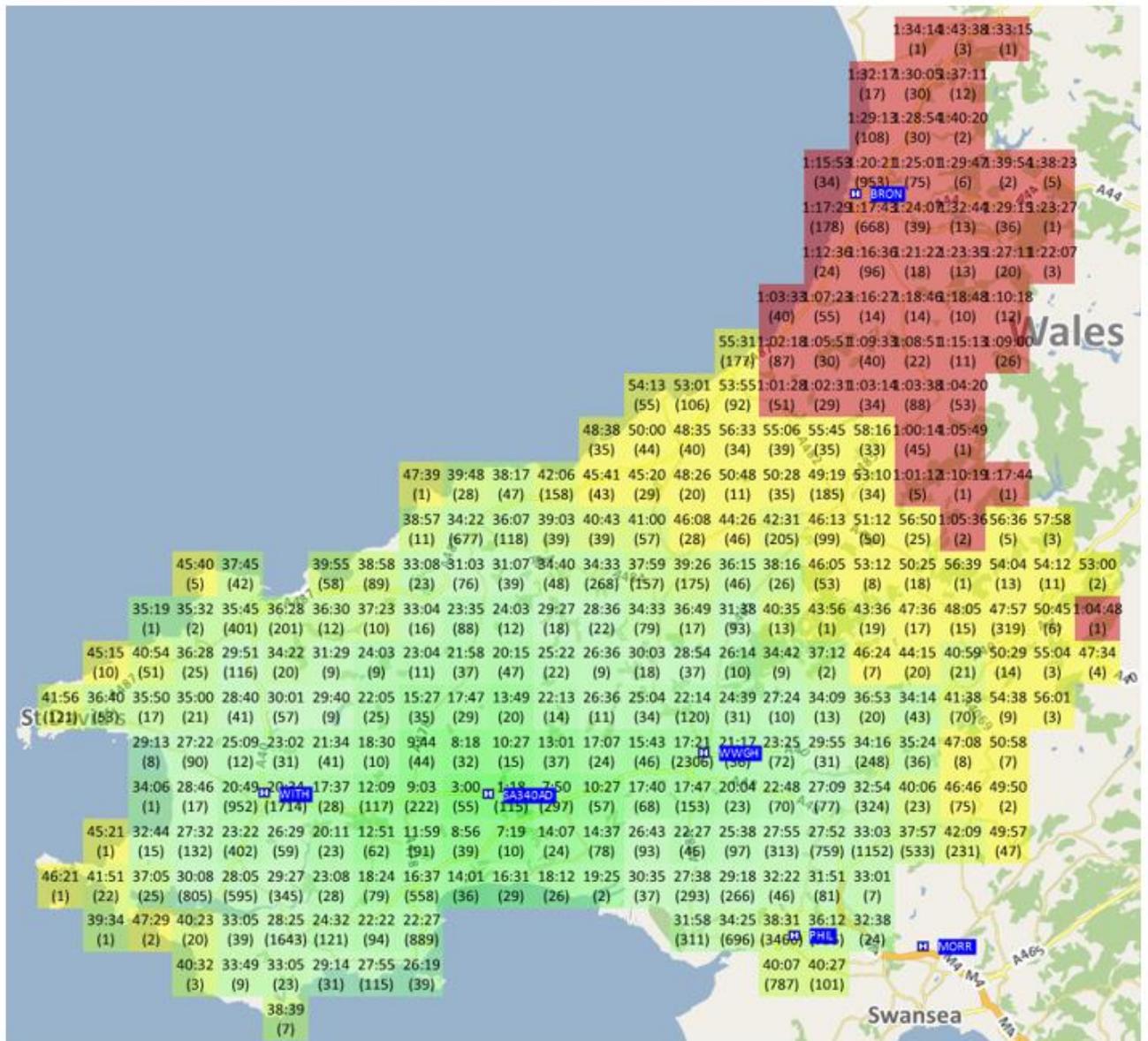
5.3.11. The maps supporting each scenario are shown in **Figure 5-2** to **Figure 5-8**. This shows the average non-blue light (no lights & sirens) travel time to/from the new hospital location within 3x3mile squares. The colours on the Figures indicate travel time with red colour marking the travel time over 60 minutes.

5.3.12. The non-blue light travel time represents a worst case scenario for ambulances. During a blue light scenario for ambulances, further travel distances could be achieved, as the ambulance services will be travelling at faster speeds, often avoiding potential queuing traffic. As such the distance travelled within one hour under the blue-light conditions will significantly increase.

5.3.13. Scenario - 1 - A single new hospital is located in SA34 0AD (Whitland) only

5.3.14. 30756 incidents are within 60mins of it (91.0%).

Figure 5-2 – A single new hospital is located in SA34 0AD (Whitland) only

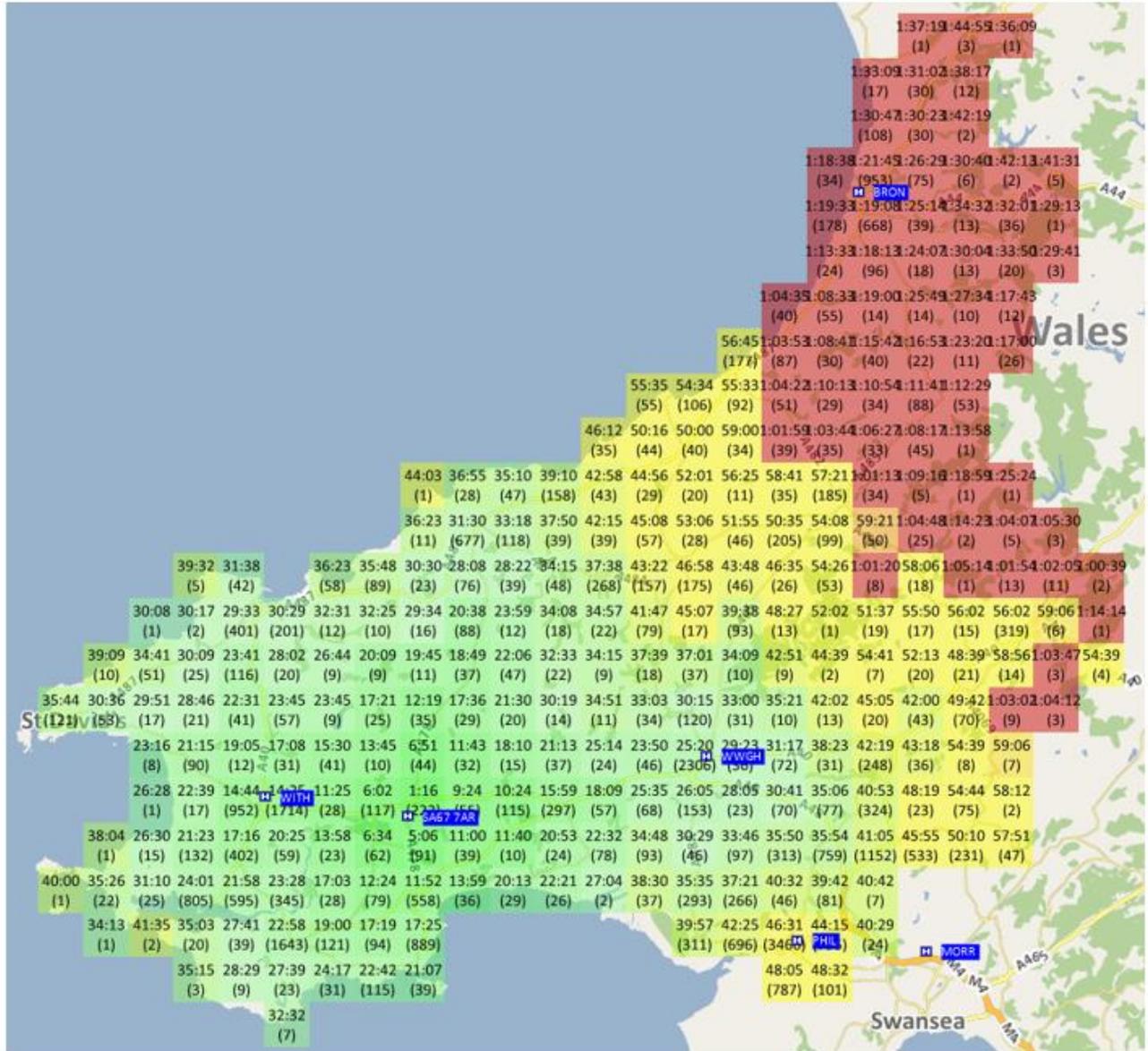


5.3.15. Note: The location of other hospitals is shown for reference purposes in BLUE points.

5.3.16. Scenario 2 - a single new hospital is located in SA67 7AR (Narberth) only

5.3.17. 30209 incidents are within 60mins of it (89.4%)

Figure 5-3 – A single new hospital is located in SA67 7AR (Narberth) only

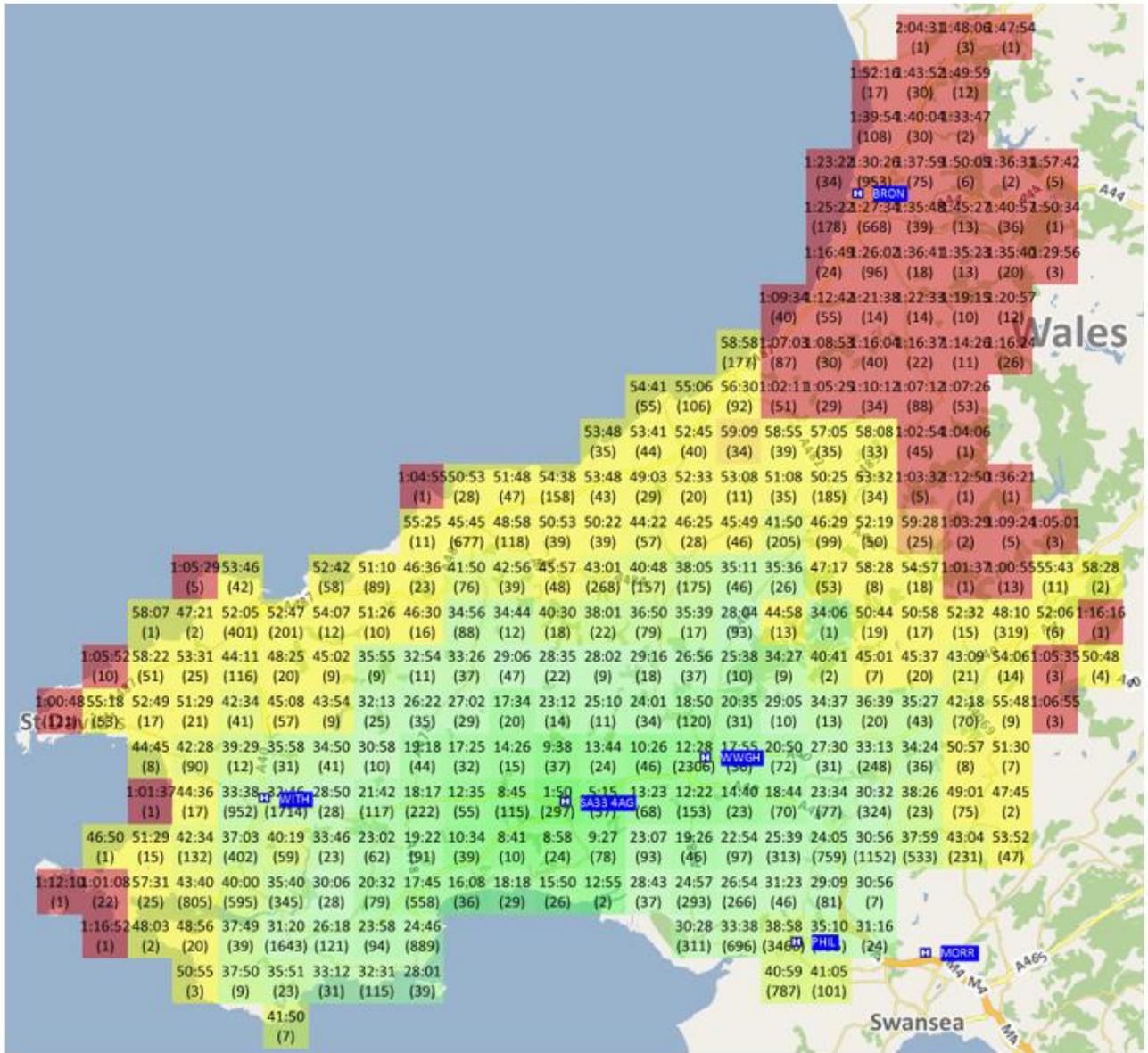


5.3.18. Note: The location of other hospitals is shown for reference purposes in BLUE points.

5.3.19. Scenario 3 - a single new hospital is located in SA33 4AG (St Clears)

5.3.20. 30157 incidents are within 60mins of it (89.2%)

Figure 5-4 – A single new hospital is located in SA33 4AG (St Clears)

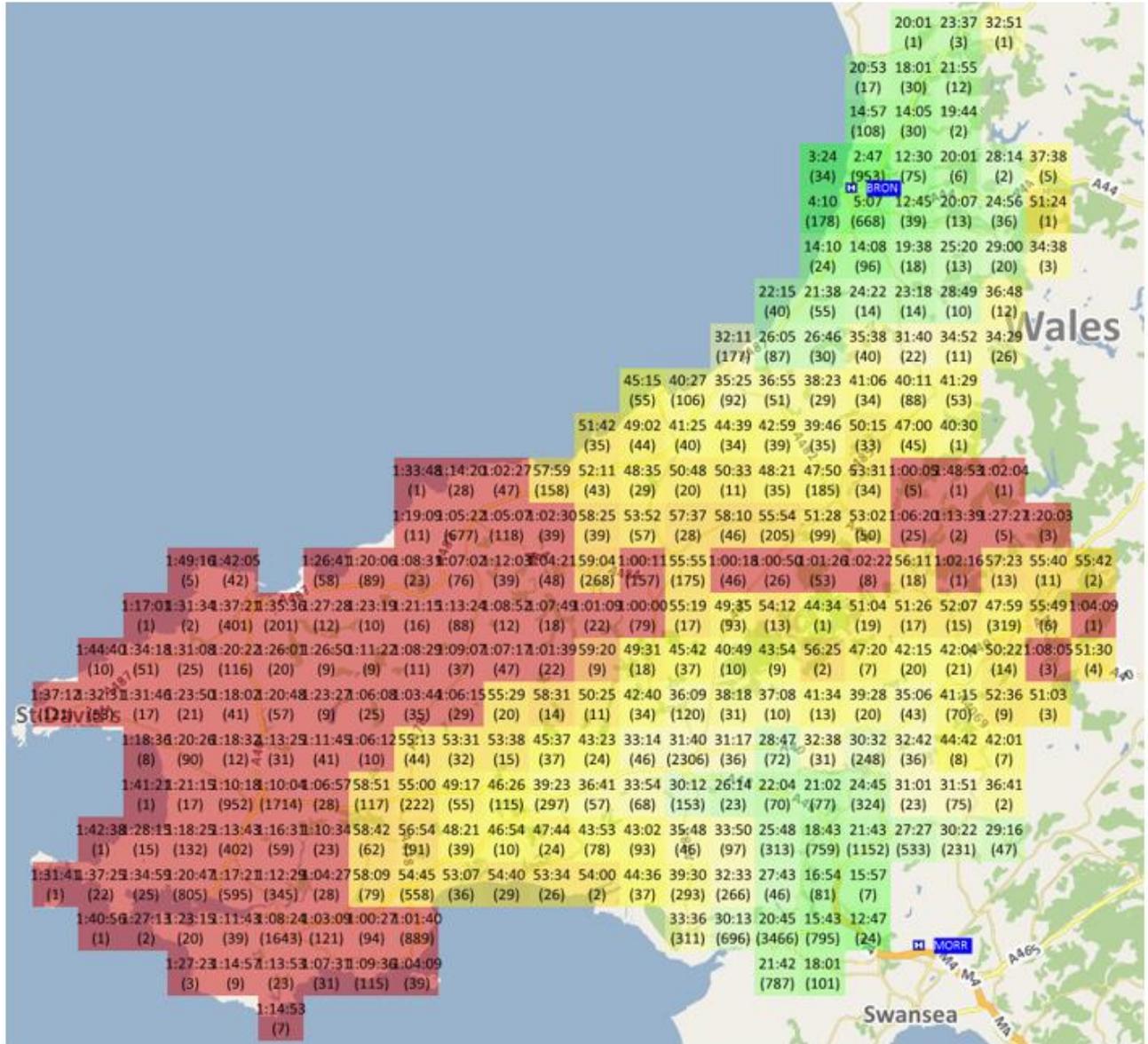


5.3.21. Note: The location of other hospitals is shown for reference purposes in BLUE points.

5.3.22. Scenario 4 - For the Baseline Bronglais and Morryston only

5.3.23. 22851 incidents are within 60mins of one of the 2 (67.6%).

Figure 5-5 – For the Baseline Bronglais and Morryston only

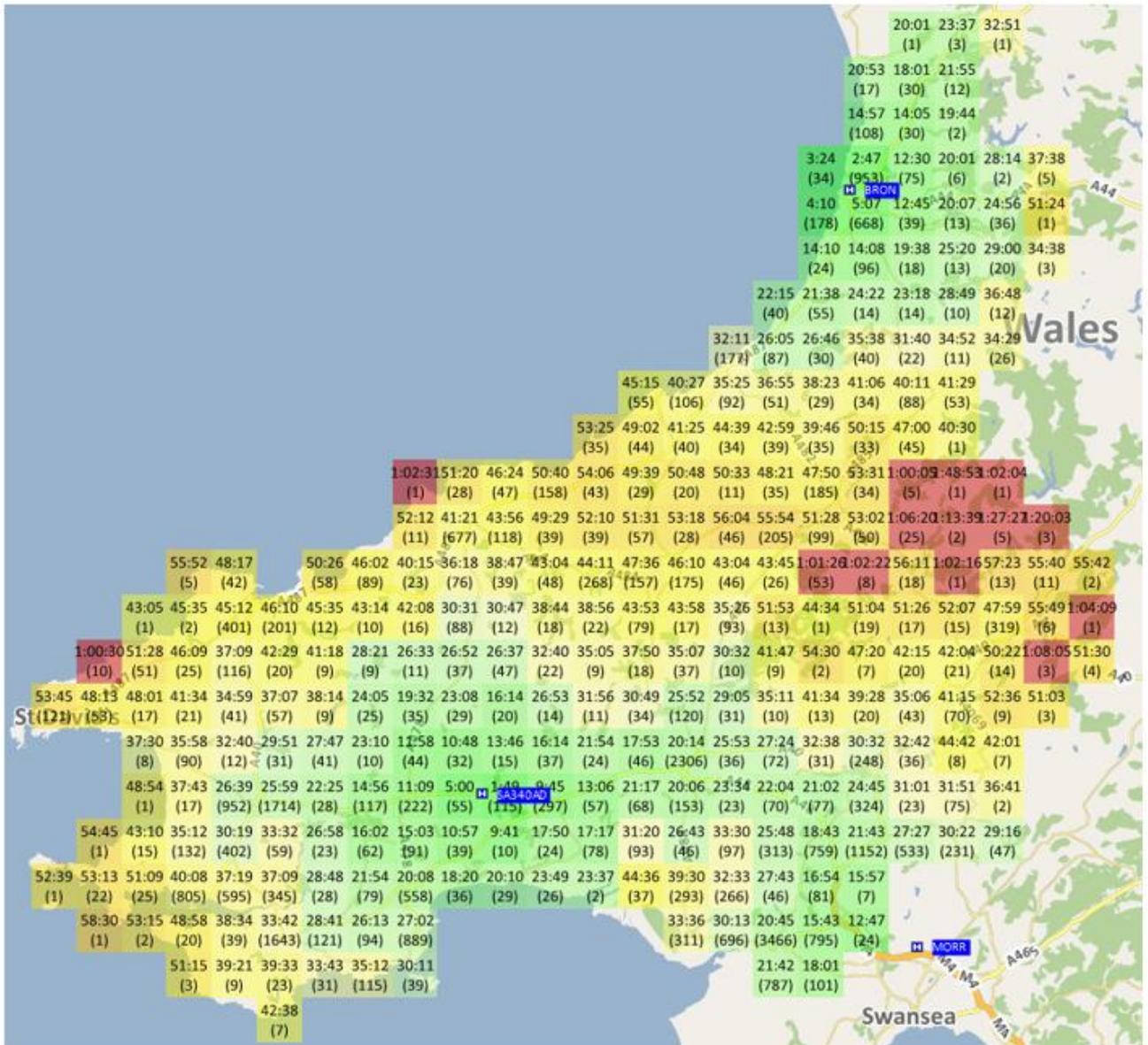


5.3.24. Note: The location of other hospitals is shown for reference purposes in BLUE points.

5.3.25. Scenario 5 - where a hospital is added at SA34 0AD (Whitland) (Centre) in addition to Bronglais and Morryston.

5.3.26. 33207 incidents are within 60mins of one of the 3 (98.2%).

Figure 5-6 – Where a hospital is added at SA34 0AD (Whitland) (Centre) in addition to Bronglais and Morryston.

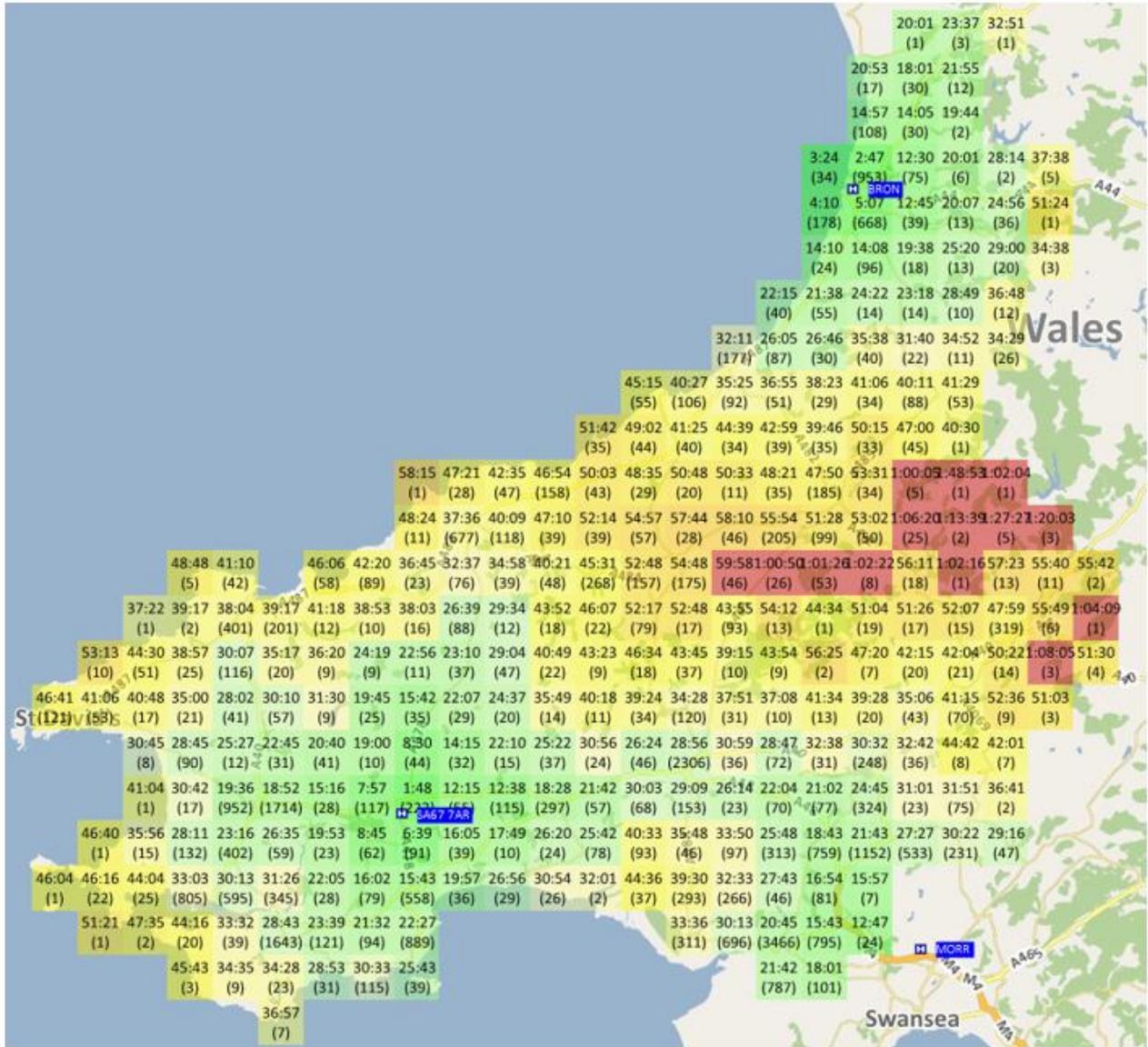


5.3.27. Note: The location of other hospitals is shown for reference purposes in BLUE points.

5.3.28. Scenario 6 - where a hospital is added at SA67 7AR (Narberth) (West) in addition to Bronglais and Morryston.

5.3.29. 33168 incidents are within 60mins of one of the 3 (98.1%).

Figure 5-7 – Where a hospital is added at SA67 7AR (Narberth) (West) in addition to Bronglais and Morryston.

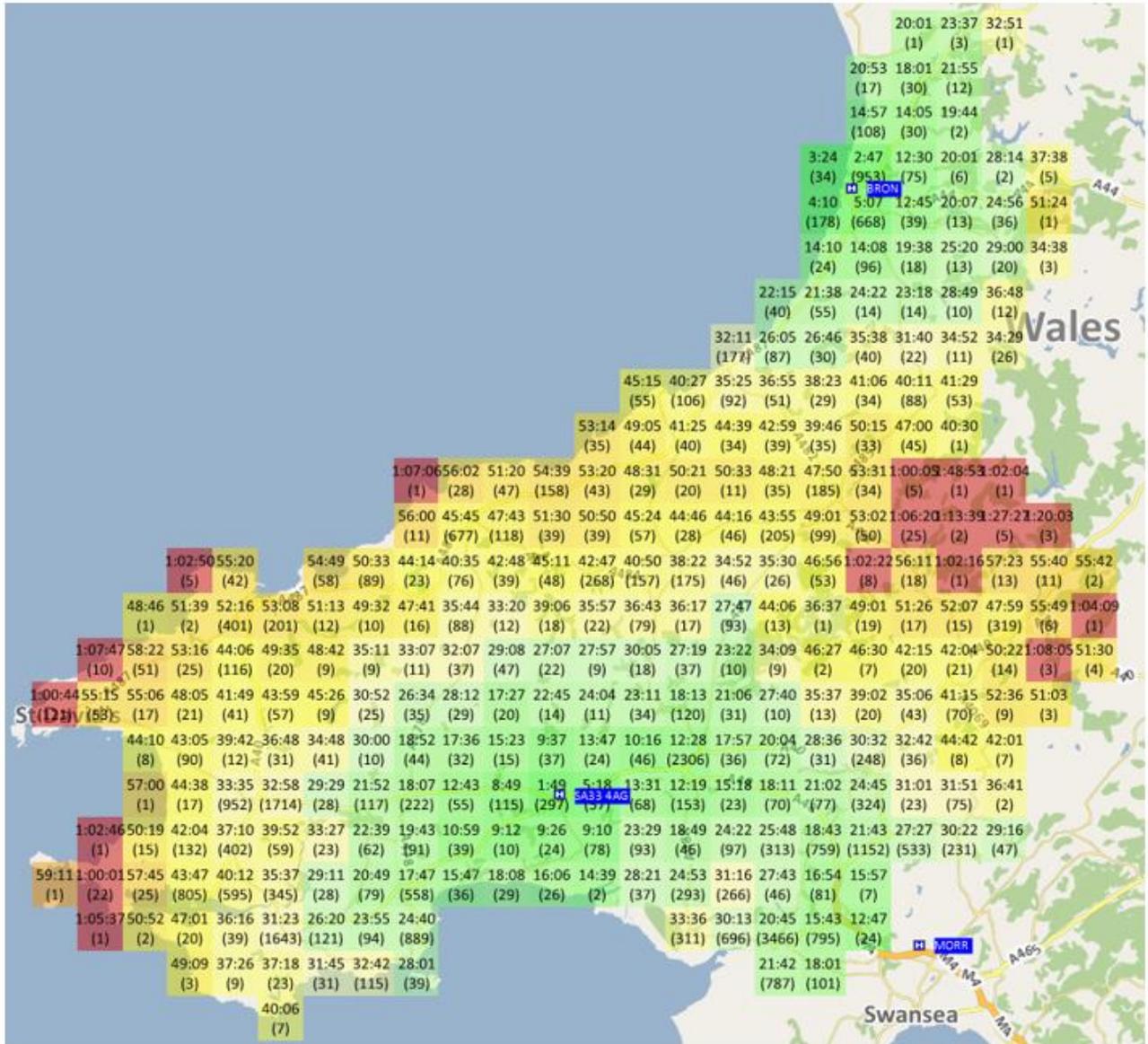


5.3.30. Note: The location of other hospitals is shown for reference purposes in BLUE points.

5.3.31. Scenario 7 - where a hospital is added at SA33 4AG (St Clears) (East) in addition to Bronglais and Morryston.

5.3.32. 33085 incidents are within 60mins of one of the 3 (97.9%).

Figure 5-8 – Where a hospital is added at SA33 4AG (St Clears) (East) in addition to Bronglais and Morryston.



5.3.33. Note: The location of other hospitals is shown for reference purposes in BLUE points.

5.3.34. **Table 5-1** below summarises the findings for each scenario.

Table 5-1 – Findings for Each Scenario

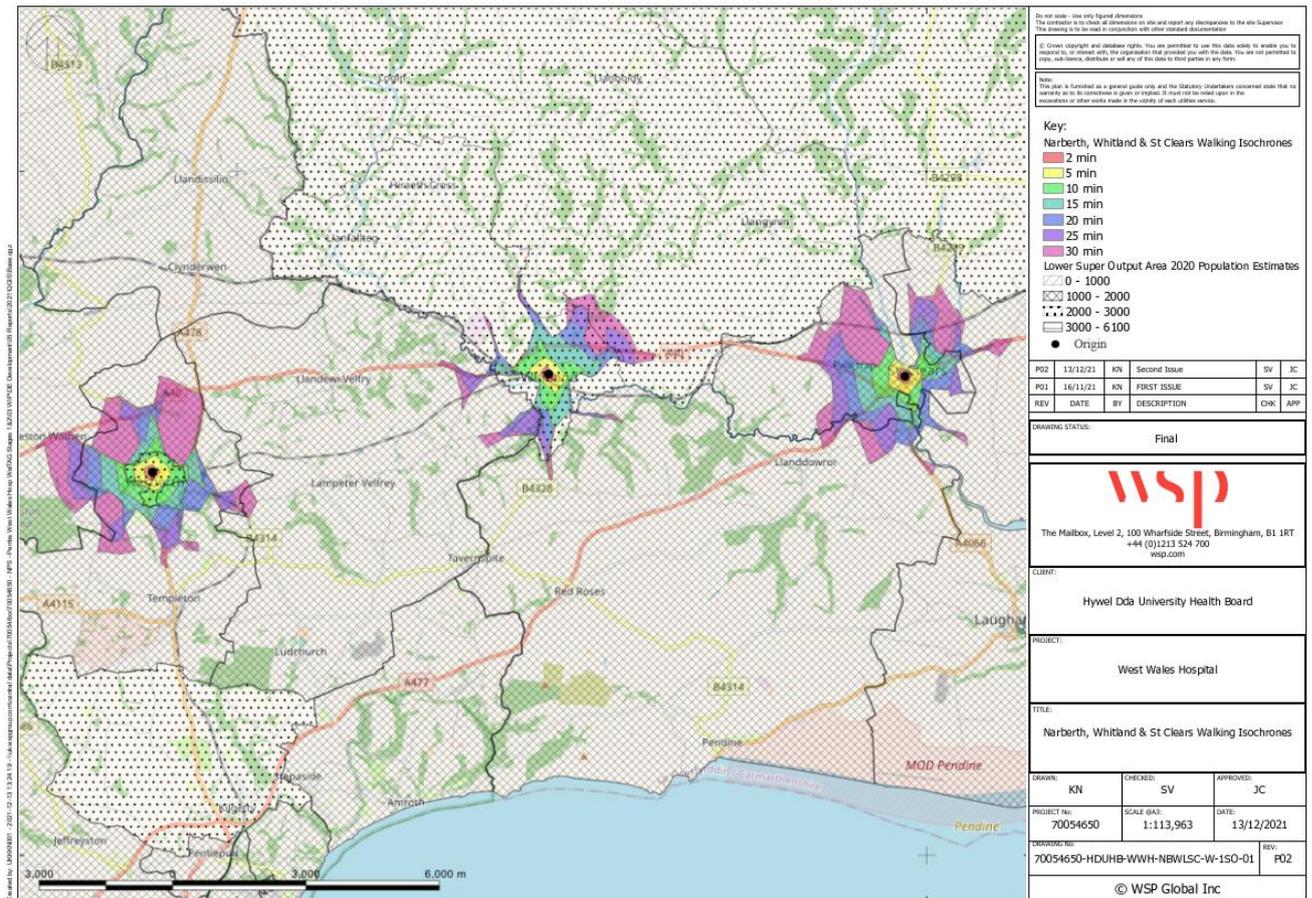
Ref	Scenario Description	The % of incidents within a 1hr travel time (non-lights-and-sirens speed)
1	Whitland only (SA34 0AD)	91.0% of incidents are within 1hr of the new hospital location of SA34 0AD (Whitland)
2	Narberth only (SA67 7AR)	89.4% of incidents are within 1hr of the new hospital location of SA67 7AR (Narberth)
3	St Clears only (SA33 4AG)	89.2% of incidents are within 1hr of the new hospital location of SA33 4AG (St Clears)
4	Baseline (Only Morryston & Bronglais)	67.7% of incidents are within 1hr of either Morryston or Bronglais
5	Whitland (SA34 0AD) + Bronglais + Morryston	98.2% of incidents are within 1hr of either SA34 0AD (Whitland) or Morryston or Bronglais
6	Narberth (SA67 7AR) + Bronglais + Morryston	98.1% of incidents are within 1hr of either SA67 7AR (Narberth) or Morryston or Bronglais
7	St Clears (SA33 4AG) + Bronglais + Morryston	97.9% of incidents are within 1hr of either SA33 4AG (St Clears) or Morryston or Bronglais

- 5.3.63. From the **Table 5-1**, Scenario 1, 2 and 3 relating to Whitland, Narberth and St Clears respectively shows that 91%, 89% and 89% of incidents within those areas are accessible by an ambulance within a one hour travel time. However, from Scenario 4 which forms the baseline for the study area and includes Bronglais and Morryston hospitals only, around 68% of incidents are accessible within the one hour travel time by ambulance from either hospital.
- 5.3.64. The analysis above suggests that locating a new hospital, and therefore critical care provision, in the vicinity of Aberystwyth will not be prudent, as fewer incidents can be accessed from that location compared to the other analysed areas.
- 5.3.65. The above analysis further indicates that the location of the proposed new hospital should ideally be between Narberth and St Clears.

WALKING

5.3.66. Walking as a mode of travel has the potential to replace short distance vehicle journeys and can also form part of a combined mode journey from places not within a reasonable walking distance. Therefore, walking isochrones at a typical walking speed of 4.8kph have been prepared for Narberth, St Clears and Whitland area and these are shown in **Figure 5-9** below.

Figure 5-9 – Narberth, Whitland and St Clears Walking Isochrones



5.3.67. **Figure 4-8** shows the accessible locations from each of the area within walking distance depending up on the location of the new hospital. However, whilst it is anticipated that the patients to the new hospital are likely to be transported by other modes of transport, visitors to the hospital could use walking mode of transport to the new hospital.

CYCLING

5.3.68. Cycling as a mode of travel has the potential to replace short and medium distance vehicle journeys. Cycling can be undertaken with normal bicycles and also with electric bike (e-bike) which will be a great option to travel longer distances.

5.3.69. Assuming an average cycling speed of 16kph using a normal bicycle, **Figure 5-10**, **Figure 5-11** and **Figure 5-12** shows cycling isochrones centred from the town centre of the Narberth, Whitland and St Clears areas respectively.

Figure 5-10 – Narberth Cycling Isochrones

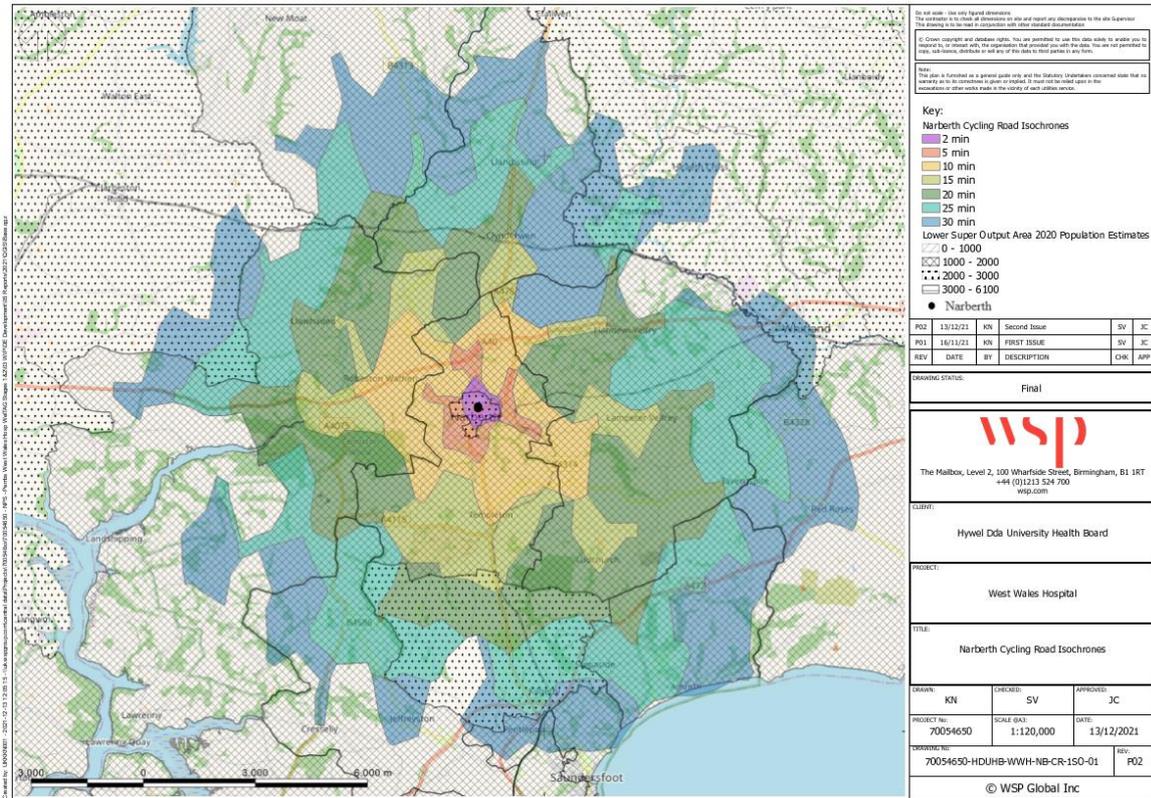


Figure 5-11 –Whitland Cycling Isochrones

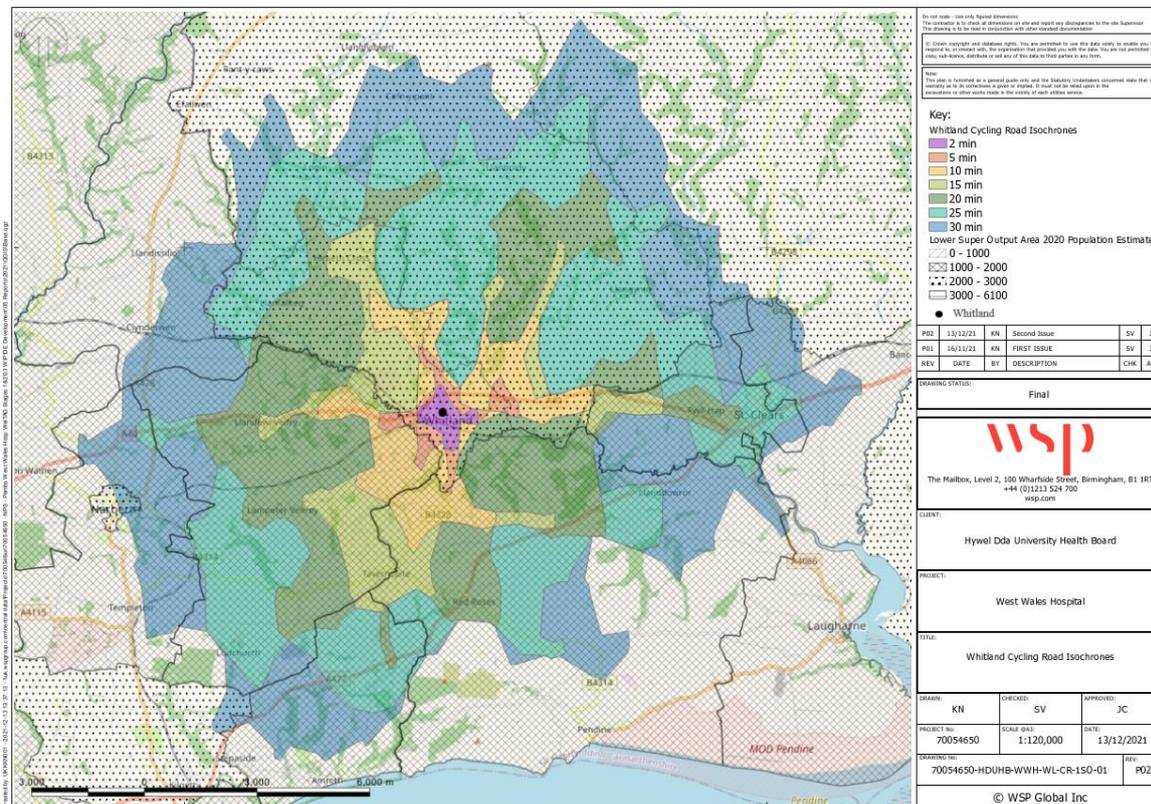
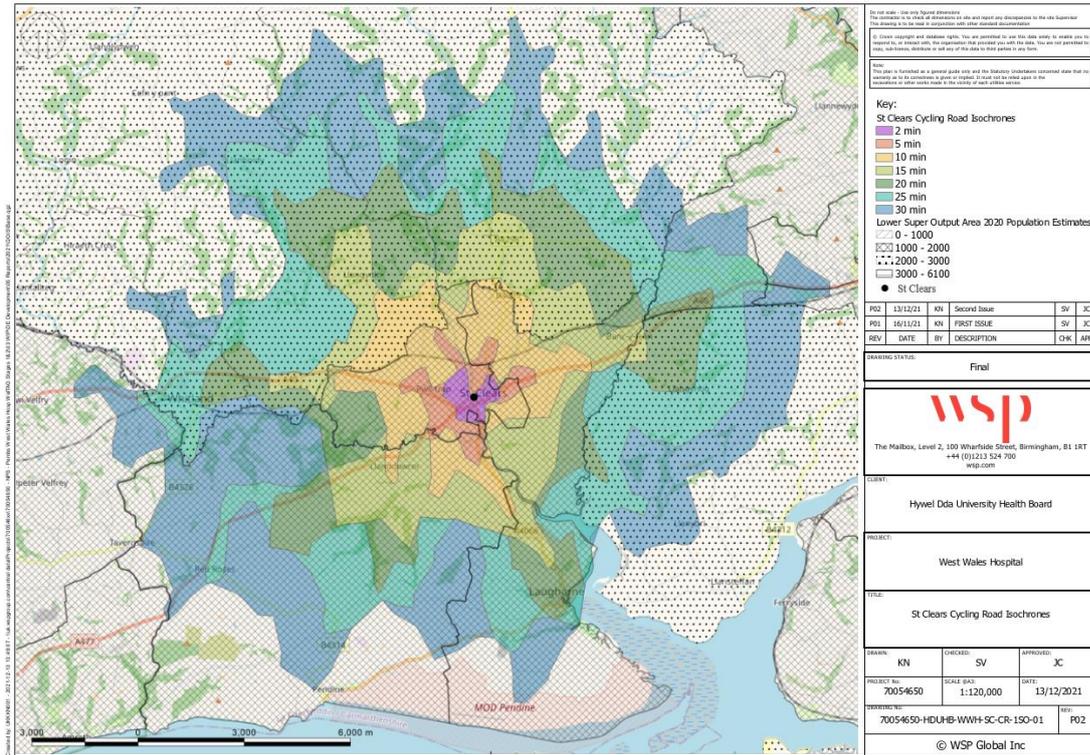


Figure 5-12 – St Clears Cycling Isochrones



5.3.70. Similarly, cycling isochrones have been prepared using electric bikes which travels with an average speed of 25kph. **Figure 5-13, Figure 5-14 and Figure 5-15** shows cycling isochrones with e-bike for Narberth, Whitland and St Clears areas.

Figure 5-13 – Narberth Cycling E-Bike Isochrones

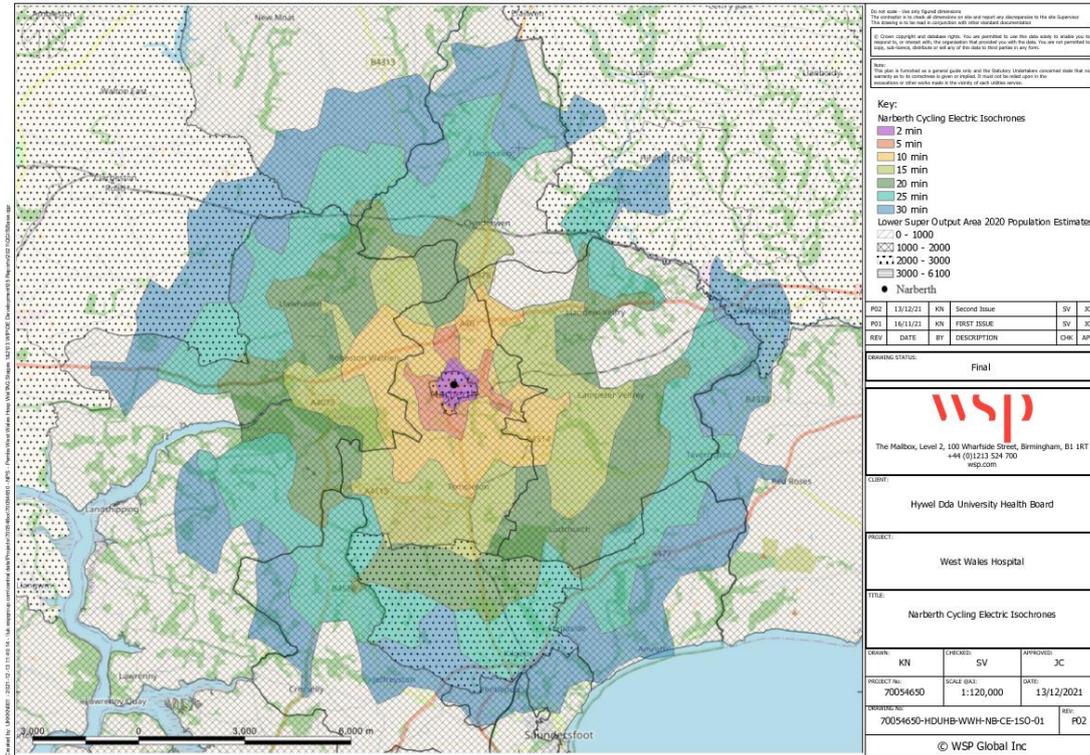


Figure 5-14 – Whitland Cycling E-Bike Isochrones

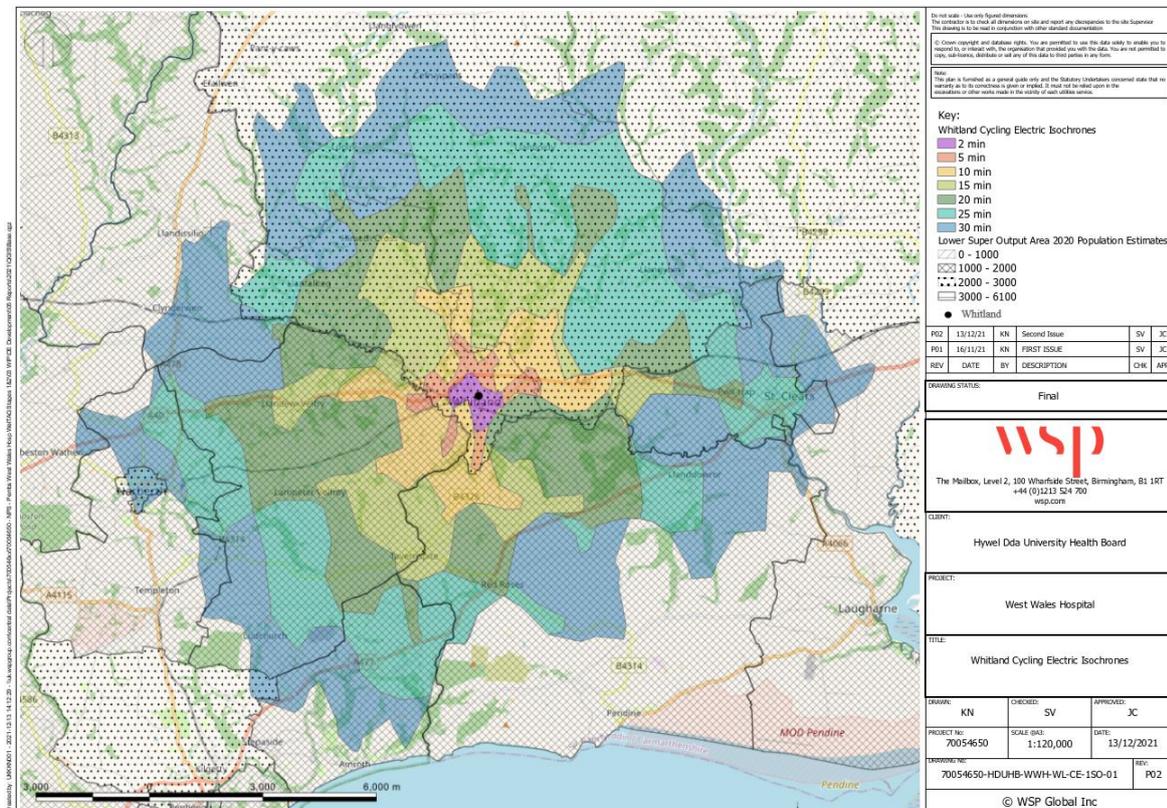
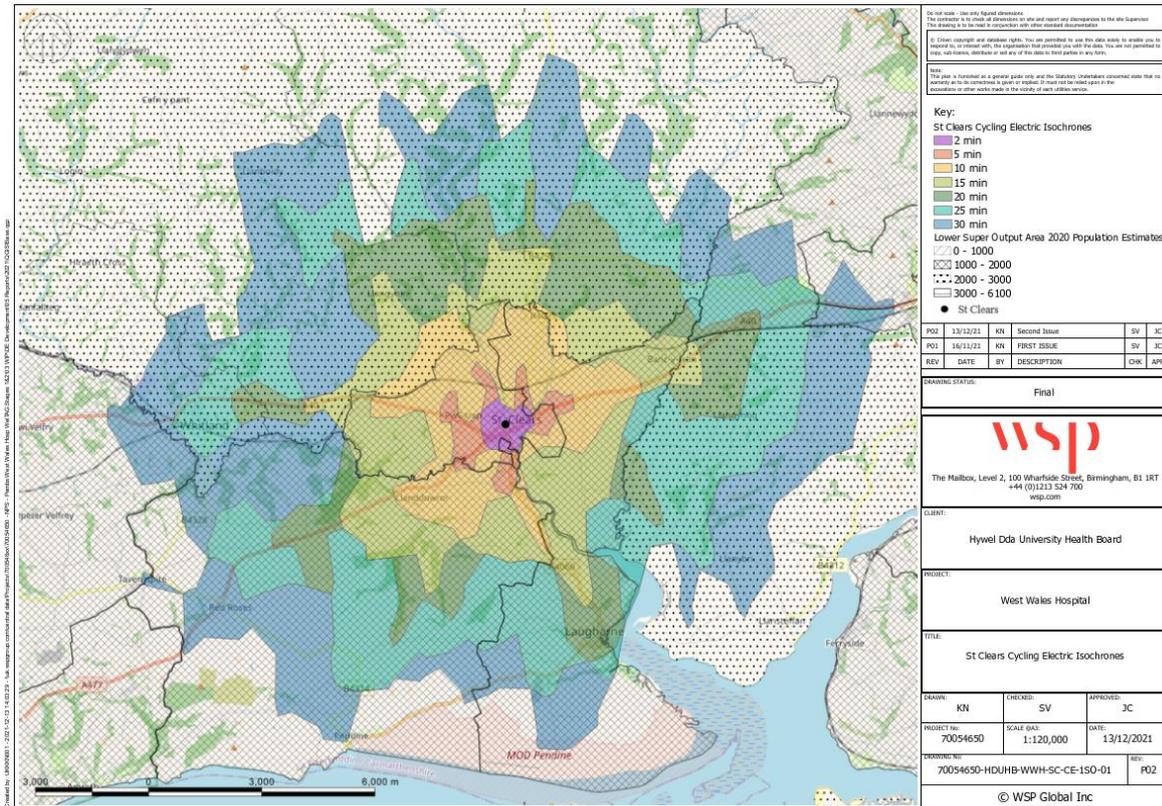
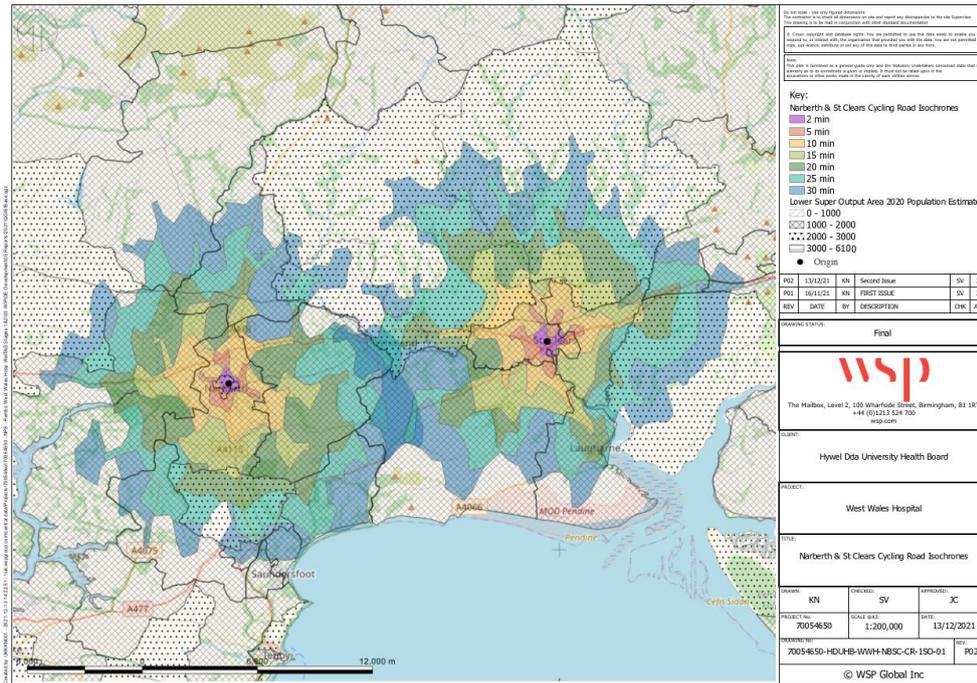


Figure 5-15 – St Clears Cycling E-Bike Isochrones



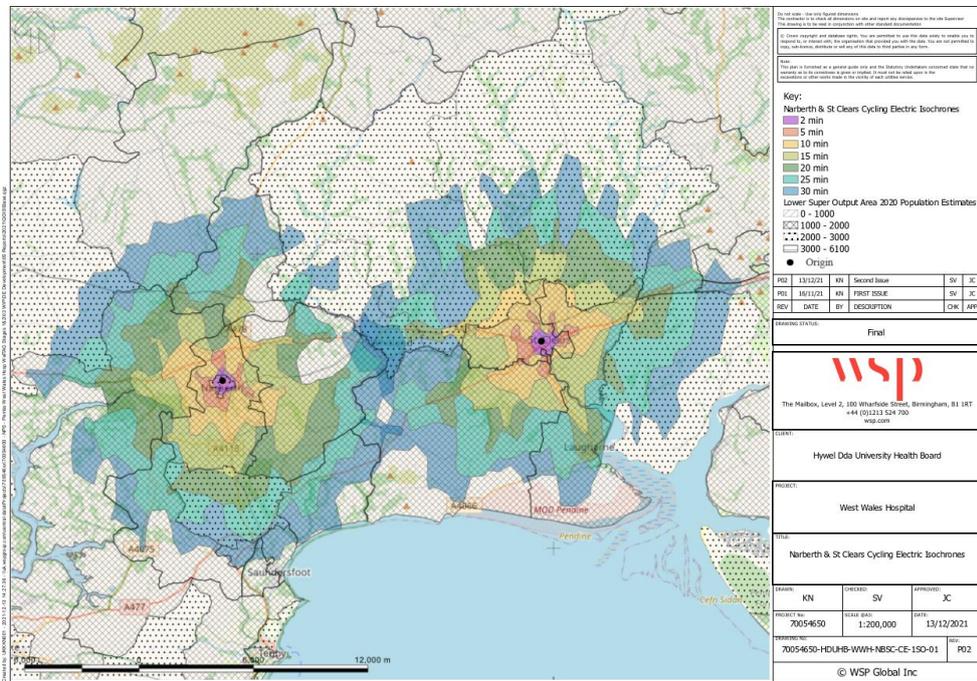
5.3.71. Based on **Figure 5-10** and **Figure 5-12**, it appears that there is good overlap of the cycling isochrones between Narberth and St Clears suggesting that the area within the Whitland can be accessible by cycling mode of transport. Accordingly, a combined cycling isochrone for Narberth and St Clears using a standard bicycle is shown in **Figure 5-16**.

Figure 5-16 – Narberth and St Clears Cycling Road Isochrones



5.3.72. Similarly, utilising **Figure 5-13** and **Figure 5-15**, a combined cycling isochrone using e-bike for Narberth and St clears is shown in **Figure 5-17**.

Figure 5-17 – Narberth and St Clears Cycling E-Bike Isochrones



PUBLIC TRANSPORT

5.3.73. The South West and Mid Wales Transport Model (SWMWTM) has been utilised to understand the travel times from Narberth and also St Clears to the wider surrounding network. Narberth and St

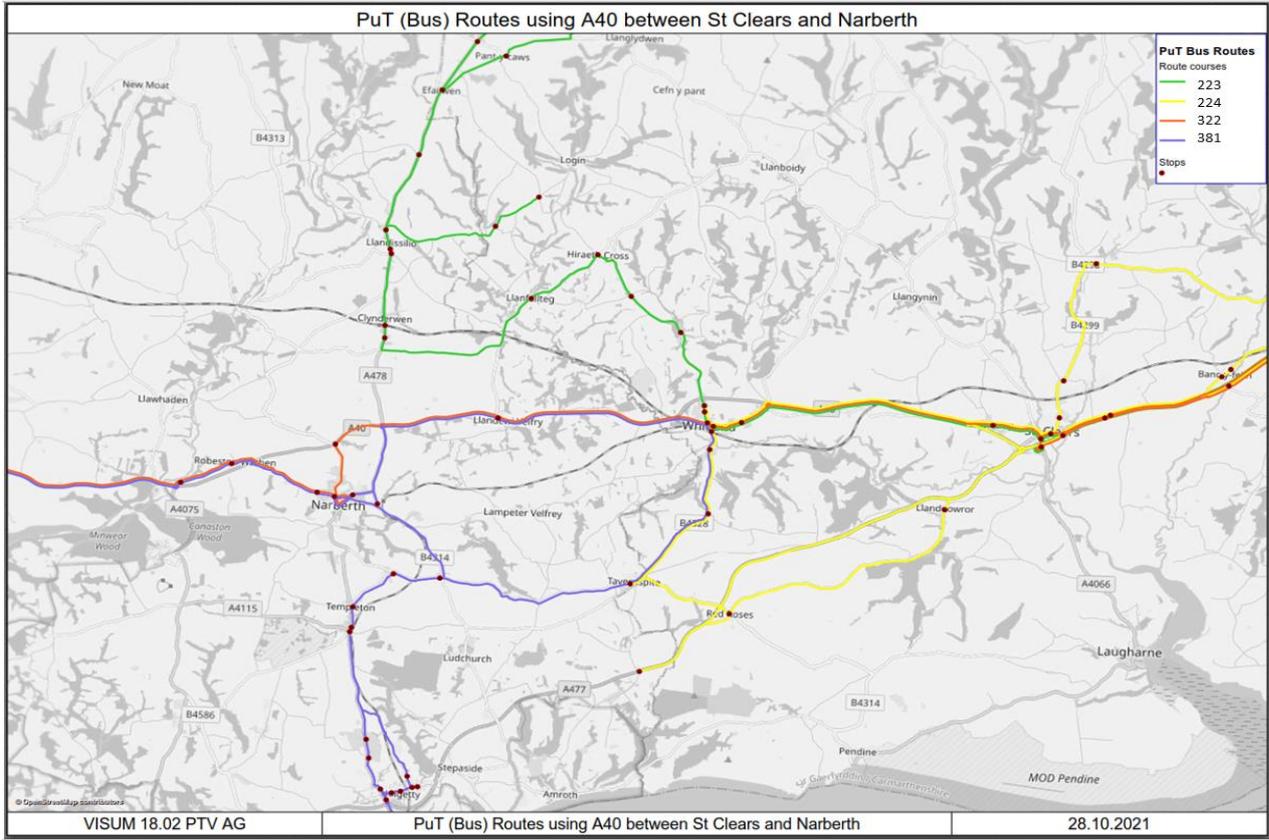
Cleares have been picked as these represent two extremities within the study area, and therefore demonstrate at high-level, accessibility to the study area between Narberth and St Clears. At the next stage, more specific area information will be determined, and more detailed analysis of specific areas within the study area (e.g. Whitland, Llanddewi Velfrey) will be undertaken. Travel times have been obtained for the morning peak, interpeak and evening peak periods using bus, rail and private car mode of transport.

- 5.3.74. The speeds utilised in the SWMWTM were based on the speed limits of the existing road network. The model incorporates the driver behaviour whilst extracting the travel time for each mode of transport.

Bus

- 5.3.75. The bus timetable information from SWMWTM has been extracted based on the 2019 Public Transport routes along the A40 between St Clears and Narberth coded in the model. However, the latest frequency and service information for the bus routes in the area is shown below.
- 223, Carmarthen - Glandwr service, operated by Jones Login, first Tuesday in each month and with a frequency of two services on that day.
 - 224, Carmarthen - Whitland service, operated by Taf Valley coaches, with five services from few stops running each weekday (Monday to Friday) excluding bank holidays.
 - 322, Haverfordwest - Carmarthen (via Narberth, Whitland, St Clears), operated by Taf Valley Coaches, with three services running each weekday (Monday to Friday) excluding bank holidays.
 - 381, Haverfordwest - Tenby (via Narberth, Kilgetty, Saundersfoot), operated by Taf Valley Coaches, with an hourly service running each weekday (Monday to Friday) excluding bank holidays.
- 5.3.76. The public transport routes along the A40 coded in the SWMWTM are shown in **Figure 5-18**.

Figure 5-18 – PT Routes in SWMWTM



- 5.3.77. The SWMWTM average bus travel time in minutes has been plotted to understand the accessibility via bus mode of transport. These are provided in **Appendix B** for morning, interpeak and evening peak periods for Narberth and St Clears.
- 5.3.78. The average bus travel time for the interpeak period which represents the worst case is shown in **Figure 5-19** and **Figure 5-20** for Narberth and St Clears. Areas with no colour represents travel times greater than 60 minutes. These figures also incorporate the 2020 population estimates as per Lower Super Output Area in Census.

Figure 5-19 – Bus Travel Time in Interpeak - Narberth

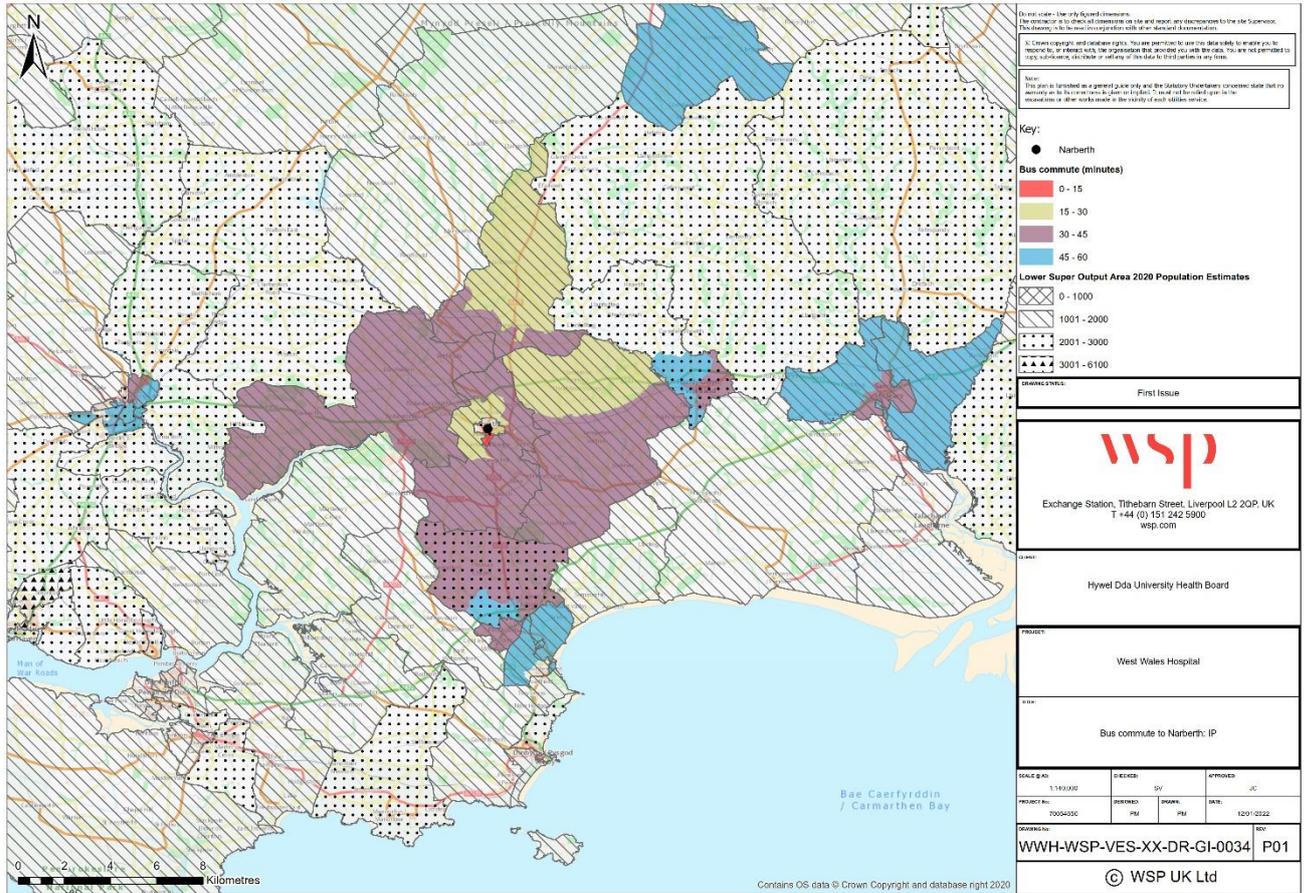
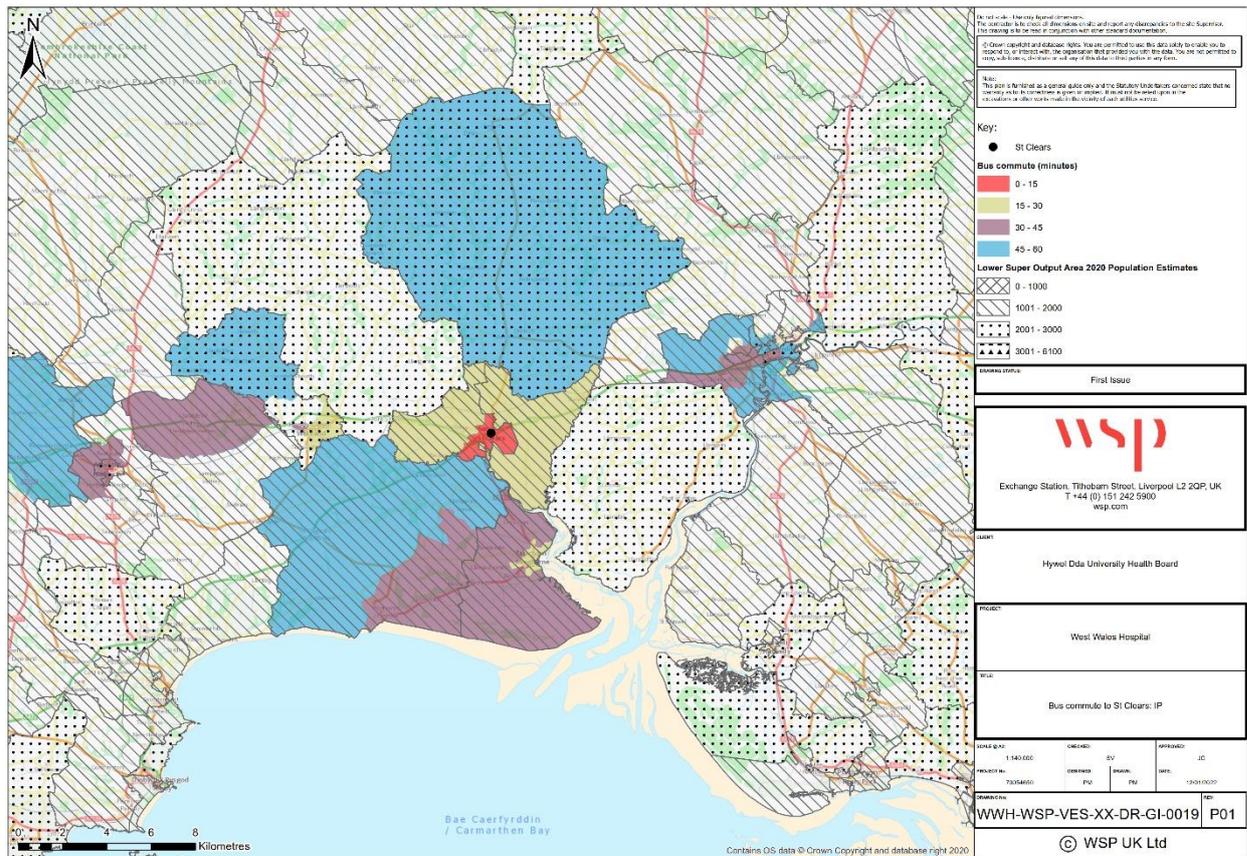


Figure 5-20 – Bus Travel Time in Interpeak – St Clears



- 5.3.79. To the west, Narberth appears to be accessible by bus from Haverfordwest in approximately 30-60 minutes, depending on the specific location. Also, to the east, the bus commute time from St Clears is between 30 and 60 minutes.
- 5.3.80. Bus commute time to St Clears from Narberth is approximately 30-45 minutes, whilst from Carmarthen, oscillates between 30 and 60 minutes, depending on the specific location of a bus stop.

Rail

- 5.3.81. Narberth Railway Station is on the West Wales Line, with two hourly service westbound to Pembroke Dock and eastbound to Carmarthen and Swansea from Monday to Saturday with four services in each direction on Sunday. In summer, on Saturdays a Great Western Railway service calls en-route to Pembroke Dock, and again on its way back to London Paddington.
- 5.3.82. Whitland Railway Station also located on the West Wales Line from Swansea. The station has an approximate hourly service (including Sundays) to and from Carmarthen and Swansea eastbound and every two hours westbound to each of Milford Haven and Pembroke Dock. Certain eastbound services continue onwards to Cardiff Central, Hereford and Manchester Piccadilly.
- 5.3.83. The services between Fishguard Harbour and Carmarthen (and stations further afield) also call (eight trains per day Mon-Sat, with one on Sundays, plus a 6-days-a-week night time service). In Summer, on Saturday Class 800 services between London Paddington and Pembroke Dock also serve Whitland.

- 5.3.84. The railway line splits to the west of Whitland with the services to Pembroke Dock serving Narberth, while the other line provides services to Milford Haven and Fishguard.
- 5.3.85. Clynderwen Railway Station is unmanned and is a request stop. Trains that stop at this station go to Milford Haven westbound and to Swansea, Cardiff Central, Crewe and Manchester Piccadilly eastbound. A basic two-hourly frequency runs Mon-Sat, with fewer trains on Sundays.

Swansea Bay and West Wales Metro

- 5.3.86. Transport for Wales is developing Metro concepts for a number of areas across Wales. The concepts are to provide an accessible, integrated and comprehensive network using a variety of modes such as heavy rail, tram-train, light rail and bus as appropriate to individual routes. Integrated ticketing and active travel (walking and cycling) links into the transport network are also important components. The Swansea Bay and West Wales Metro is one of these and the proposed improvements to both the rail and bus network are summarised in **Figure 5-21** and **Figure 5-22**.

Figure 5-21 – South Wales Mainline Programme

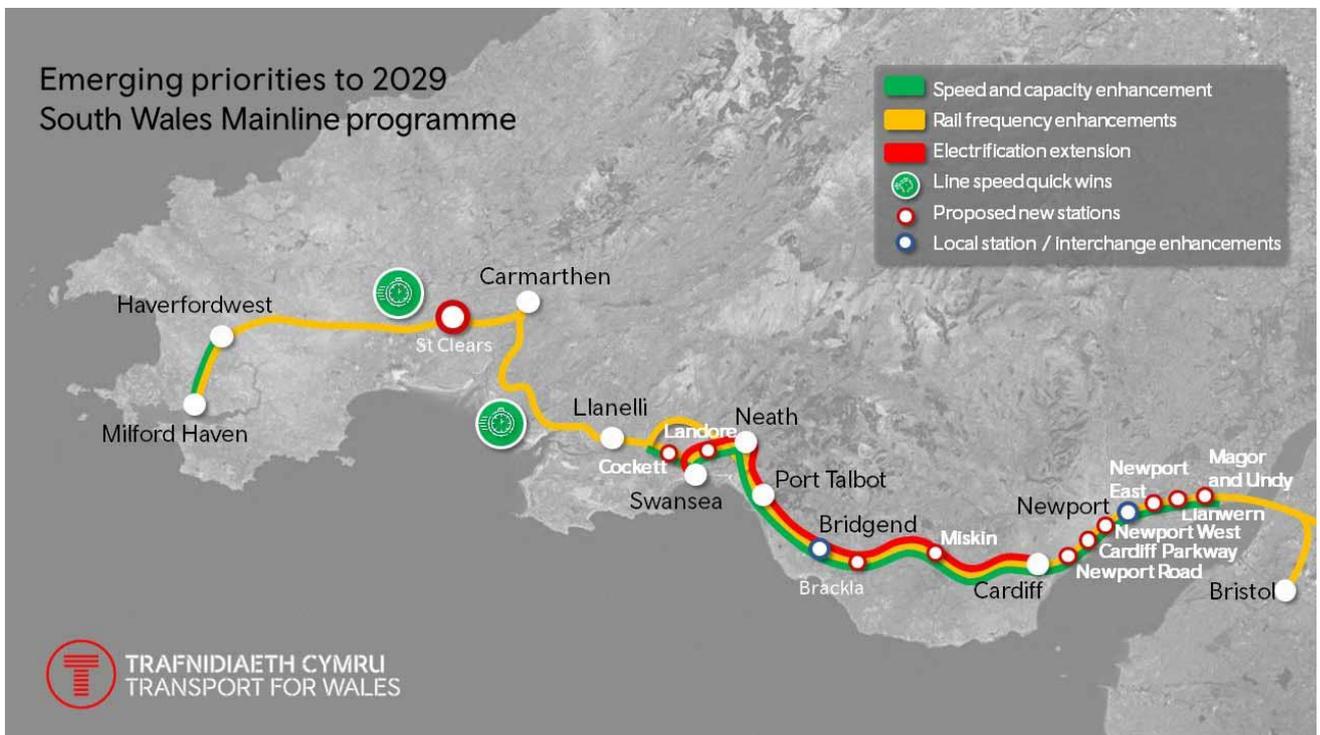


Figure 5-22 – Swansea Bay and West Wales Metro



Figure 5-21 and **Figure 5-22** demonstrate improvements to the rail and bus infrastructure covering the following:

South Wales Mainline

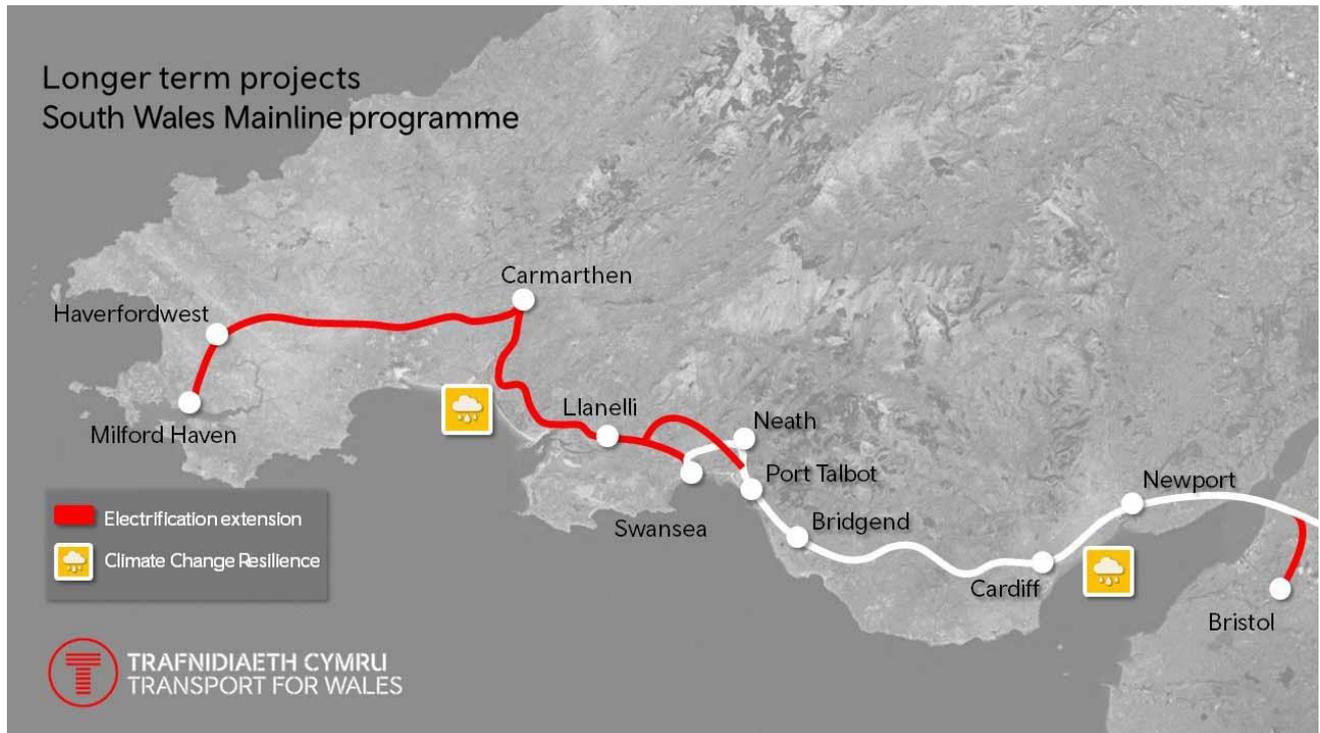
- frequency enhancements between Swansea and Milford Haven,
- line speed improvements between Llanelli and Whitland,
- speed and capacity enhancements between Milford Haven and Haverfordwest.
- new train stations proposed at St Clears, Cockett and Landore.

Swansea Bay and West Wales Metro

- further rail frequency enhancements including routes to Pembroke Dock and Fishguard.
- local station/interchange enhancements at Swansea, Llanelli, Carmarthen, Haverfordwest and Milford Haven.
- bus corridor improvements and integration between Milford Haven and Haverfordwest, Carmarthen and its hinterland and the Swansea/Llanelli/Neath Port Talbot area.

5.3.87. **Figure 5-23** illustrates the longer term projects which include electrification of the South Wales Mainline between Swansea and Milford Haven.

Figure 5-23 – Long term projects

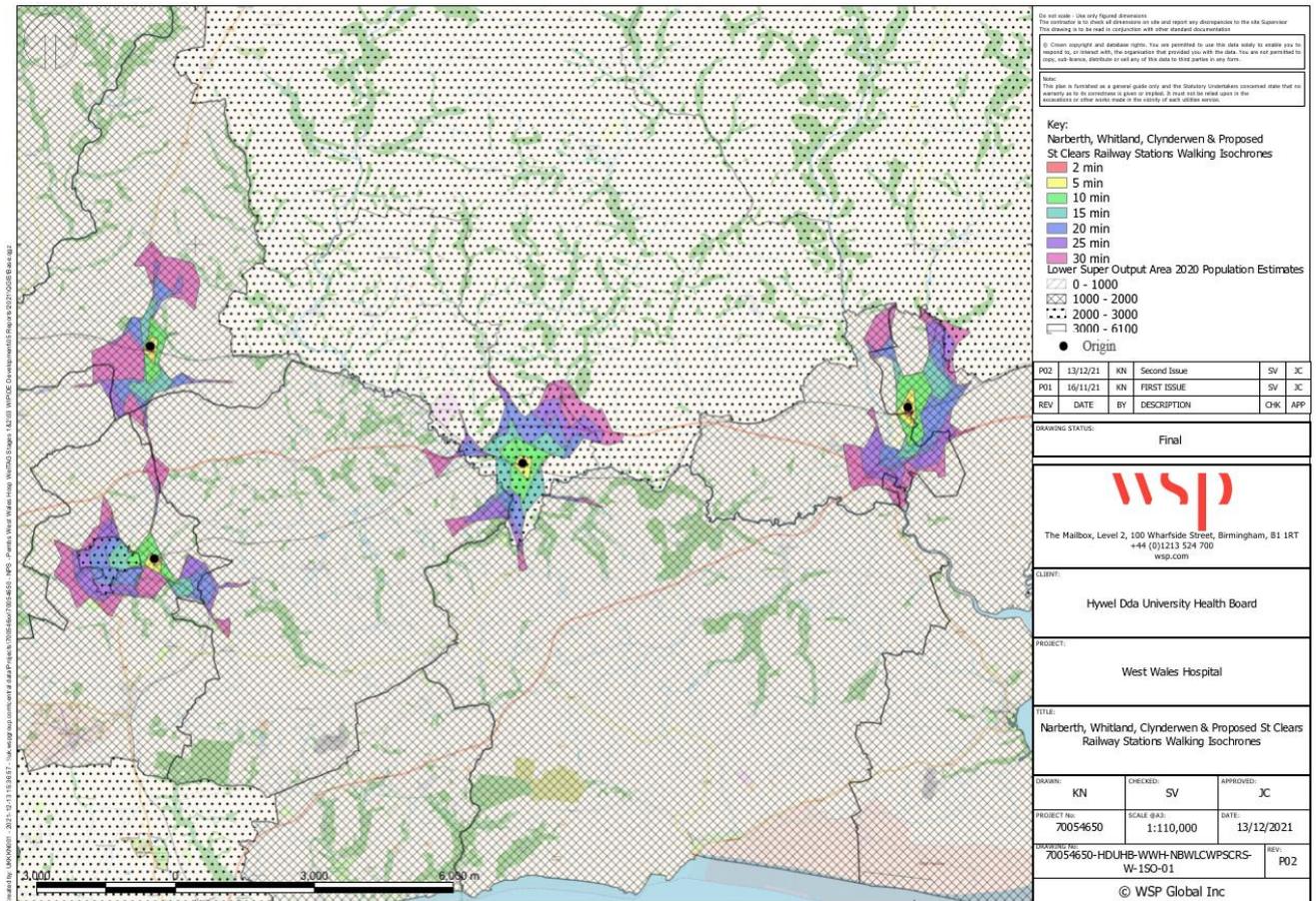


- 5.3.88. Work is currently underway to develop these proposals and has just finalised the WeITAG Stage 2 (October 2021) for the Swansea Bay and West Wales Metro. The report stated that as part of the WeITAG Stage 1 report, St Clears Station has received New Station Funding and considered as a committed scheme. St Clears Station closes the geographical gap in West Wales in access to rail network and type of services proposed to call at the Station will be South Wales to Manchester services.
- 5.3.89. WeITAG Stage 2 Final report has also identified Station improvements at Whitland, and the proposal includes improved parking, inter platform access, drop-off / interchange (buses, taxis, cars) and reuse of the station building. The additional demand at Whitland station is estimated at 13k per year as a result of improved parking (amount and security) and better access between platforms. The present value of costs for the station improvements are £2,967,885. The present value of benefits is £6,079,826 (£1,627,121 of journey time and user cost savings and £4,757,566 of external marginal benefits). The BCR value of 2.05. This scheme option also scored high classification in category value for money. The scheme has been recommended for Stage 3 assessment.

Walking, Cycling and E-bike Isochrones for Existing and Future Rail Stations

- 5.3.90. To identify the suitable location for the proposed new hospital, walking isochrones have also been undertaken for the three existing railway stations and proposed railway station in the vicinity of the study area. Walking isochrones for Narberth Railway Station, Clynderwen Railway station, Whitland Railway Station and St Clears Railway Station are shown in **Figure 5-24**. These figures also incorporate the 2020 population estimates as per Lower Super Output Area in Census.

Figure 5-24 – Walking Isochrones – Narberth, Whitland, Clynderwen and Proposed St Clears Railway Stations



5.3.91. Similarly, cycling isochrones have been prepared for the three existing railway stations: Narberth Railway Station, Clynderwen Railway Station and Whitland Railway Station and proposed St Clears Railway Station for normal bicycle and e-bike. These are shown in **Figure 5-25** and **Figure 5-26**.

Figure 5-25 – Standard bicycle Isochrones – Narberth, Whitland, Clynderwen and proposed St Clears Railway Stations

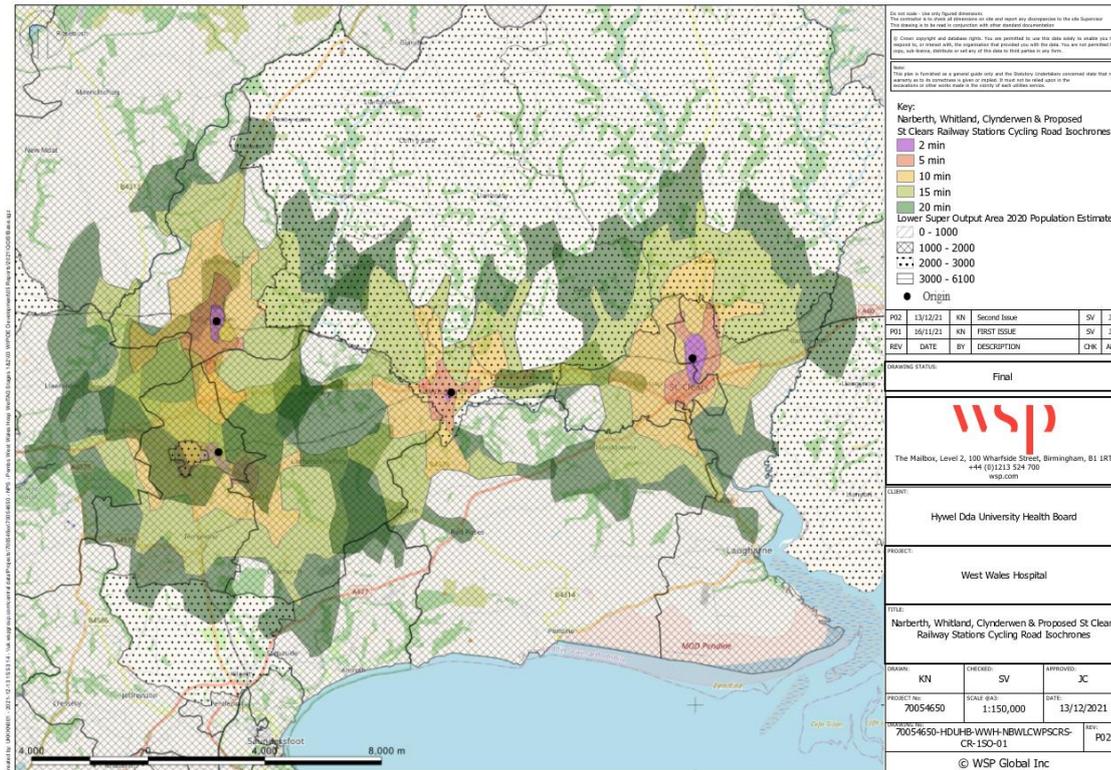
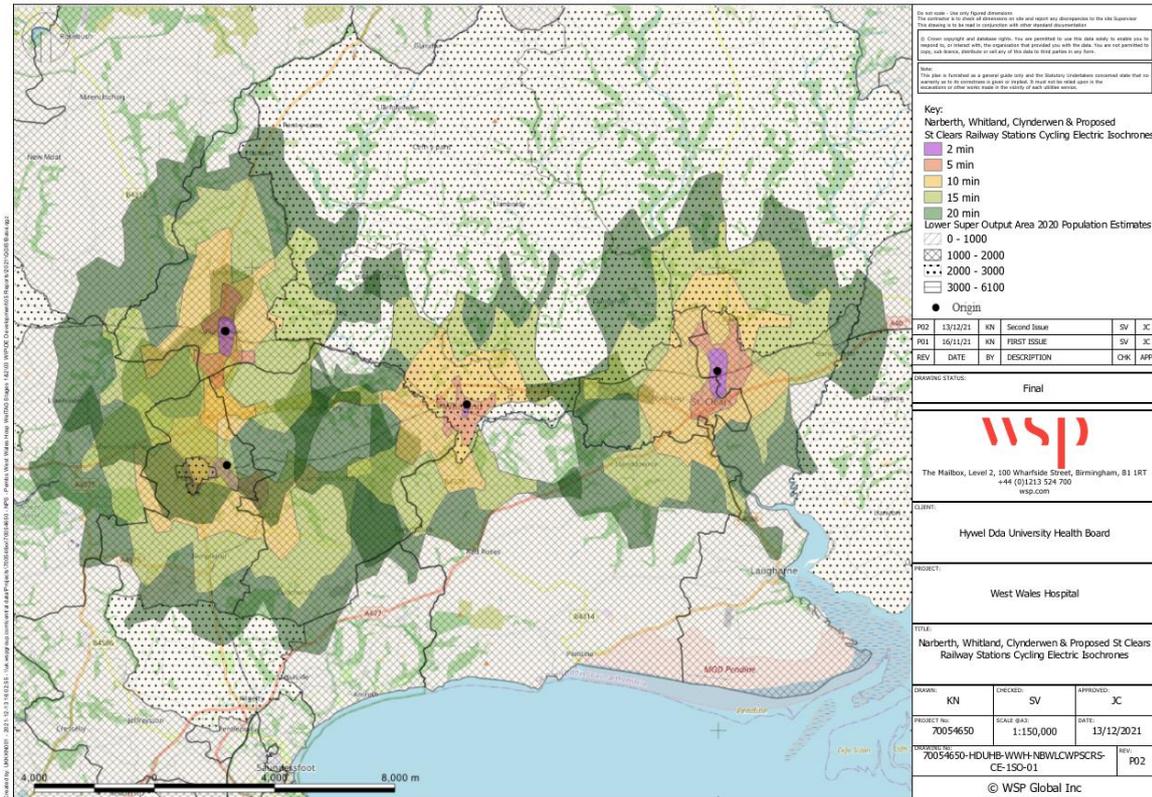


Figure 5-26 – E-bike Isochrones – Narberth, Whitland, Clynderwen and Proposed St Clears Railway Stations



- 5.3.92. Based on **Figure 5-25** and **Figure 5-26** as previously noted, there is good overlap of the cycling isochrones between the three existing railway stations.
- 5.3.93. The SWMWTM average rail travel time in minutes has been plotted to understand the accessibility via rail mode of transport. These are provided in **Appendix C** for morning, interpeak and evening peak periods for Narberth and St Clears.
- 5.3.94. The average rail travel time for the interpeak period which represents the worst case is shown in **Figure 5-27** and
- 5.3.95. **Figure 5-28** for Narberth and St Clears. Areas with no colour represents travel times greater than 60 minutes. These figures also incorporate the 2020 population estimates as per Lower Super Output Area in Census.

Figure 5-27 – Train Travel Time in Interpeak – Narberth

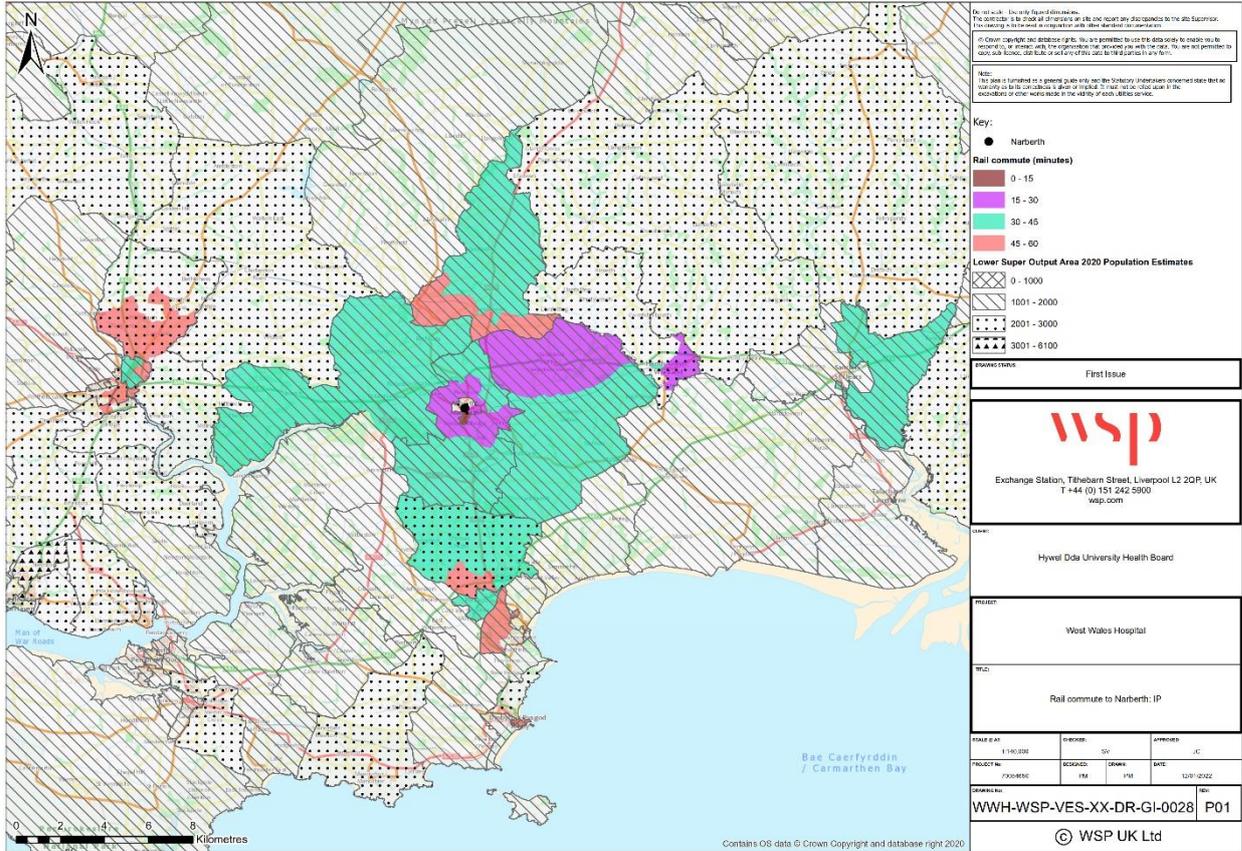
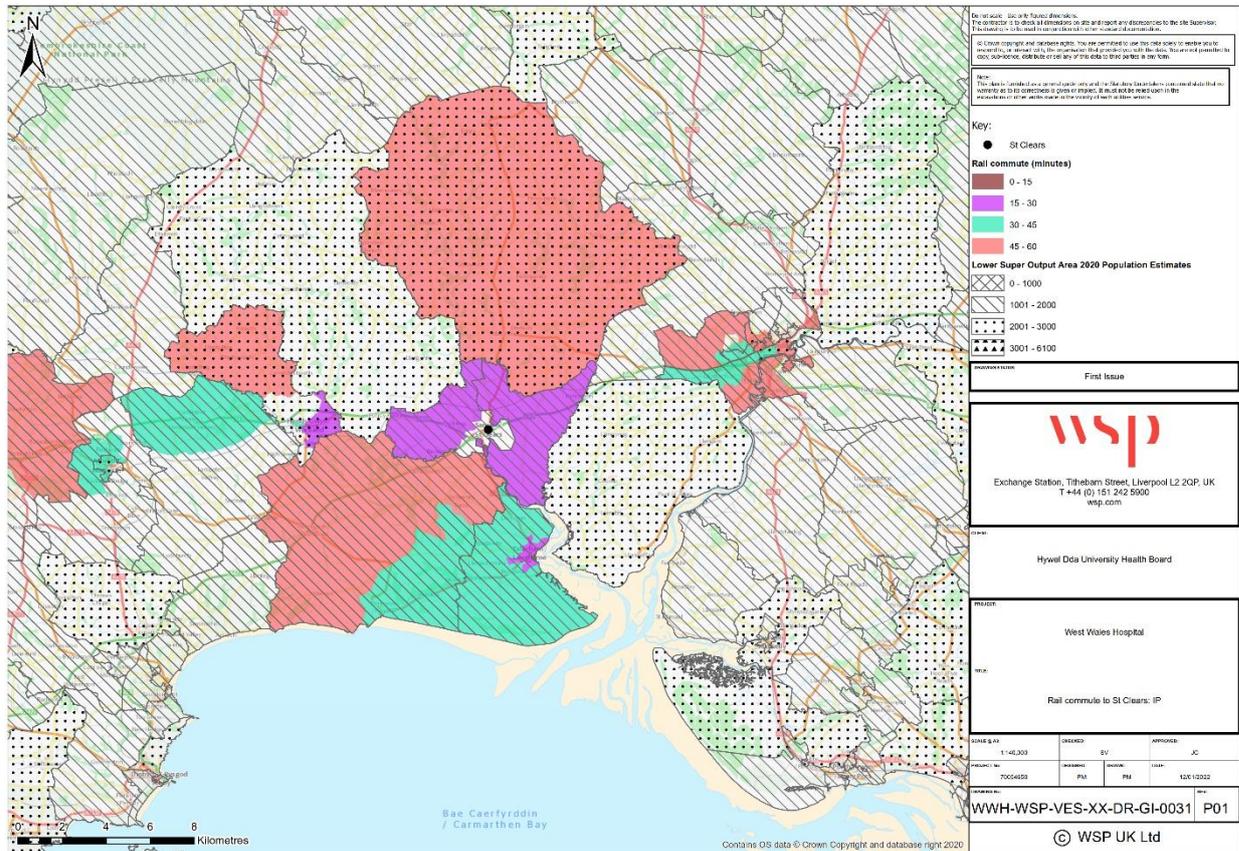


Figure 5-28 – Train Travel Time in Interpeak – St Clears



- 5.3.96. Similarly to the bus accessibility, it appears that Narberth can be accessed by train from Haverfordwest in the west and St Clears to the east in the time range of 30-45 minutes.
- 5.3.97. Likewise, the proposed St Clears railway station is expected to be within 45 minutes commute time from Narberth in the west and Carmarthen in the east.
- 5.3.98. It should be noted that improvements were also identified at Whitland Railway Station, provision of a new railway station at St Clears and wider Swansea Bay and West Wales Metro improvements, which could be beneficial for the new hospital if these improvements come into fruition.

PRIVATE CAR

- 5.3.99. The SWMWTM has been utilised to understand the travel times using a private car for Narberth and St Clears. Narberth and St Clears have been picked as these represent two extremities within the study area, and therefore demonstrate at high-level, accessibility to the study area between Narberth and St Clears. At the next stage when more specific area information will be determined, and more detailed analysis of specific areas within the study area (e.g. Whitland, Llanddewi Velfrey) will be undertaken.

5.3.100. The car commute travel times have been plotted to understand the accessibility via private car vehicles. These are provided in **Appendix D** for morning, interpeak and evening peak periods for Narberth and St Clears.

5.3.101. The average car commute travel time for the morning and evening peak periods to Narberth is shown in **Figure 5-29** and **Figure 5-30**, whilst the travel time in the same peak periods to St Clears is presented in **Figure 5-31** and **Figure 5-32**. For a better understanding of the accessibility of potential locations by a car, staff's usual place of residency postcodes have been plotted on the same plans.

Figure 5-29 – Car Commute Travel Time in the morning peak – Narberth

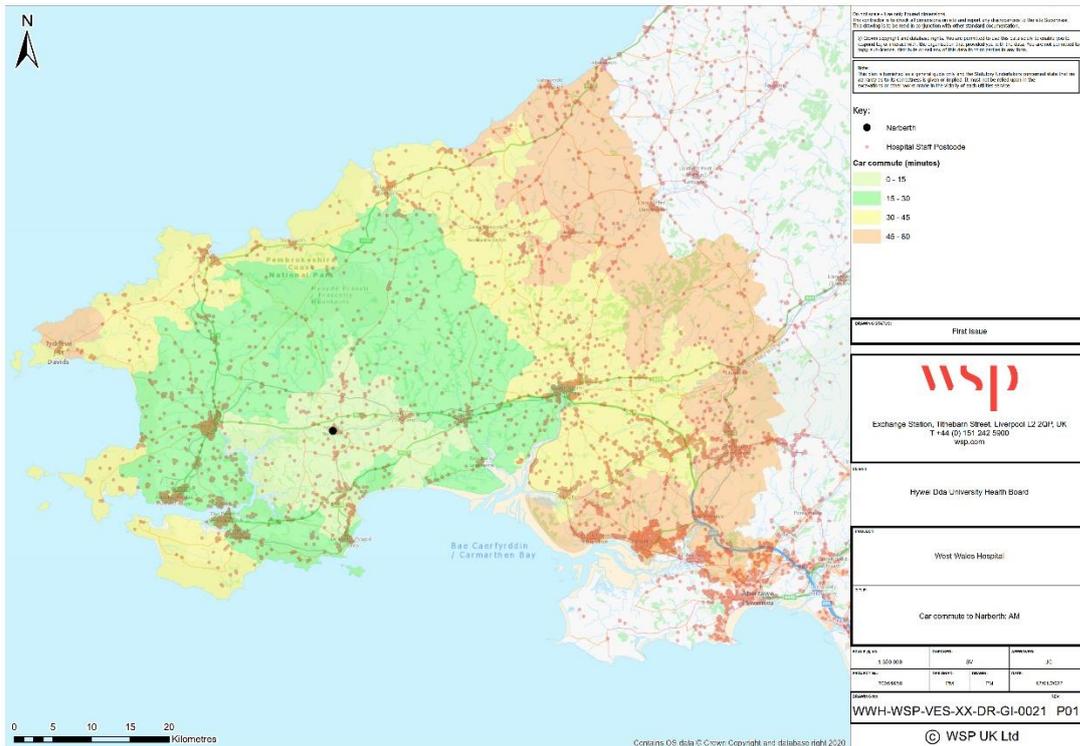
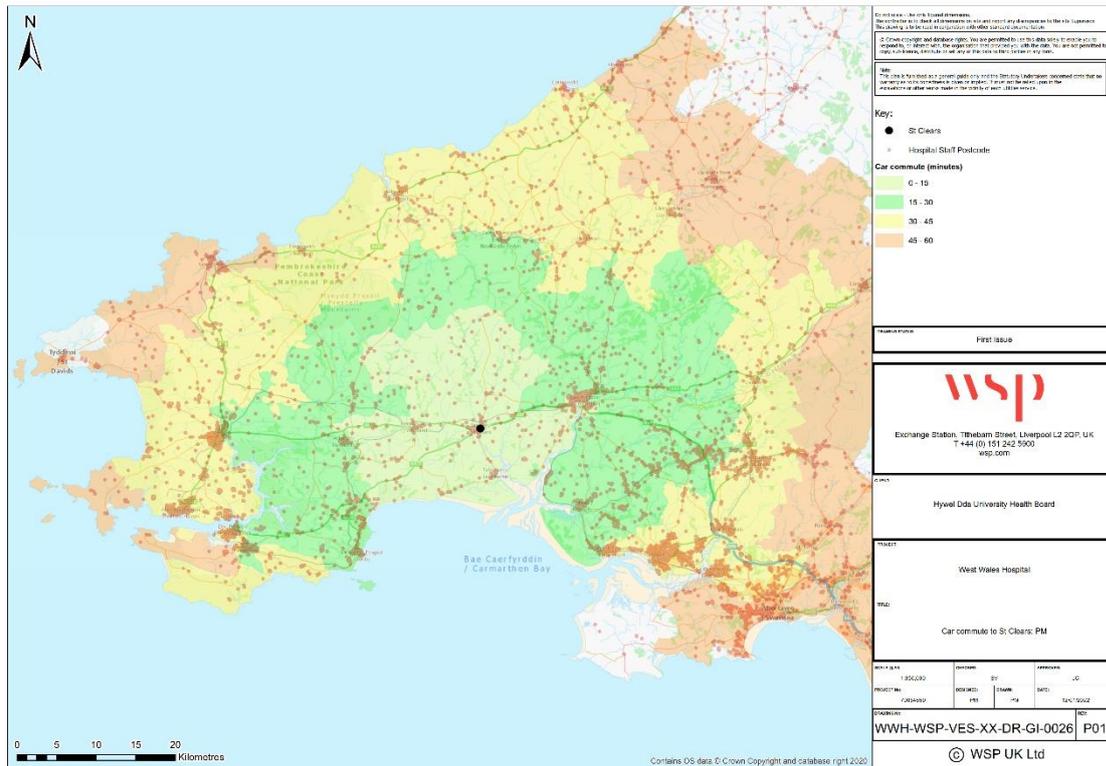


Figure 5-32 – Car Commute Travel Time in the evening peak – St Clears



- 5.3.102. The plans showing commute times to Narberth do not differ substantially between the time periods. The staff concentrated around Haverfordwest, Milford Haven, Pembroke and Pembroke Dock can access Narberth within maximum 30 minutes. However, the commute time for those living in Llanelli and Swansea is approximately 45-60 minutes.
- 5.3.103. The plans showing the car commute travel time to St Clears suggest that there is no staff concentration within 15 minutes to this location. However, the staff living in Carmarthen and east Carmarthenshire can reach St Clears within 30 minutes. Moreover, the majority of large staff concentration around Llanelli and Swansea can reach this location within 30-45 minutes in both peak periods.
- 5.3.104. The shown plans suggest that a wider area on the network can be accessible from St Clears when compared to Narberth within a one-hour drive time using private car.

5.4 HIGHWAY NETWORK PERFORMANCE

- 5.4.1. To understand the operation of highway network within and surrounding the study area in terms of traffic movements, the Spatial traffic data have been obtained from Google API, for a typical Weekday AM Peak, PM Peak and Interpeak periods and a Saturday Peak period, these are provided in **Figure 5-33**, **Figure 5-34**, **Figure 5-35** and **Figure 5-36** respectively.

Figure 5-33 – Typical Weekday AM Peak Average Speed Profile

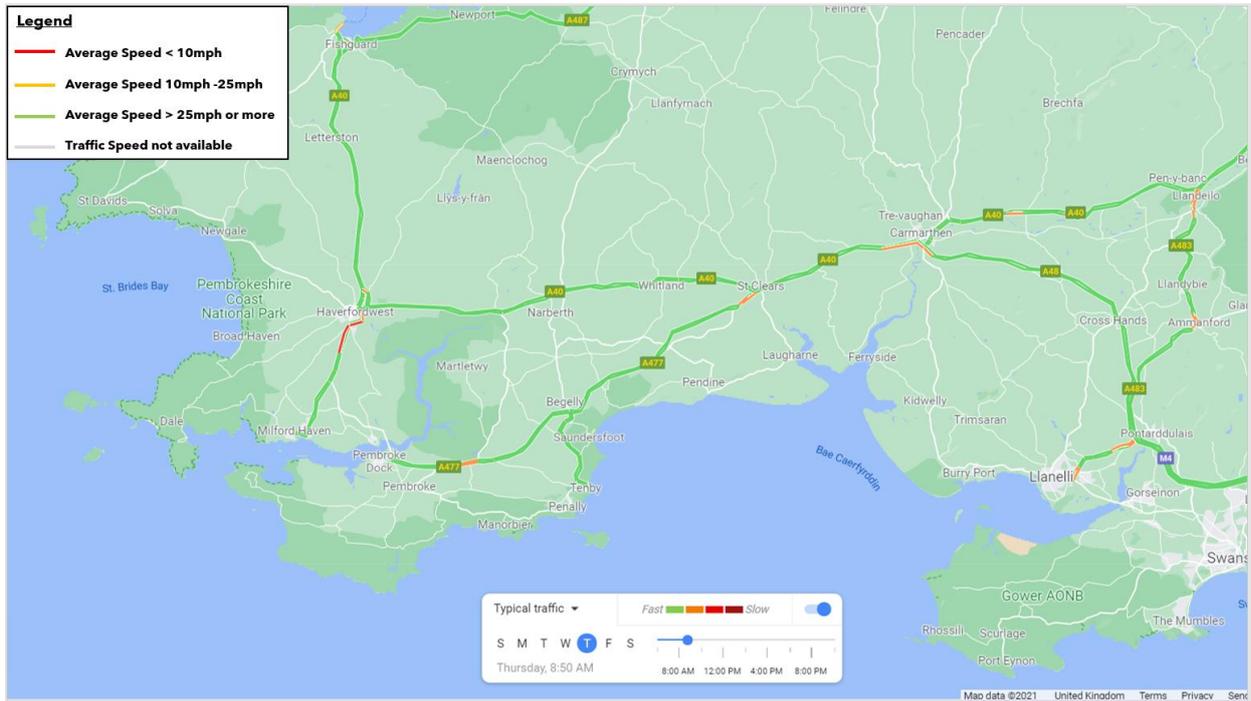


Figure 5-34 – Typical Weekday InterPeak Average Speed Profile

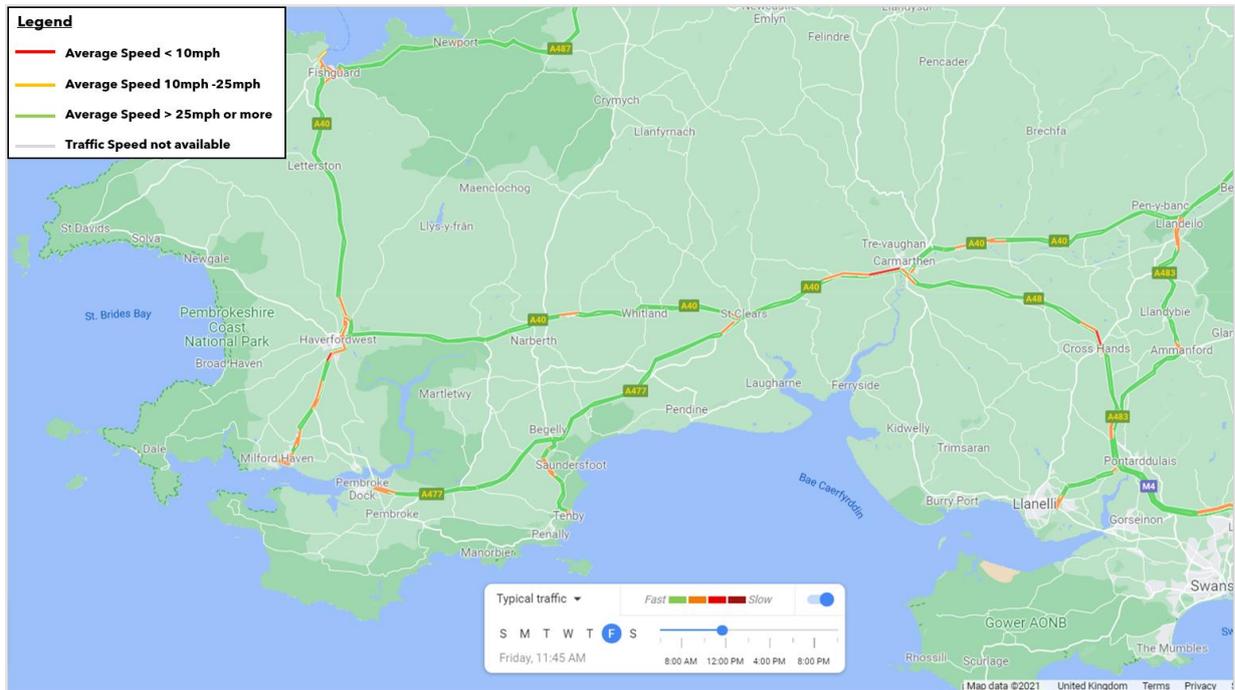


Figure 5-35 – Typical Weekday PM Peak Average Speed Profile

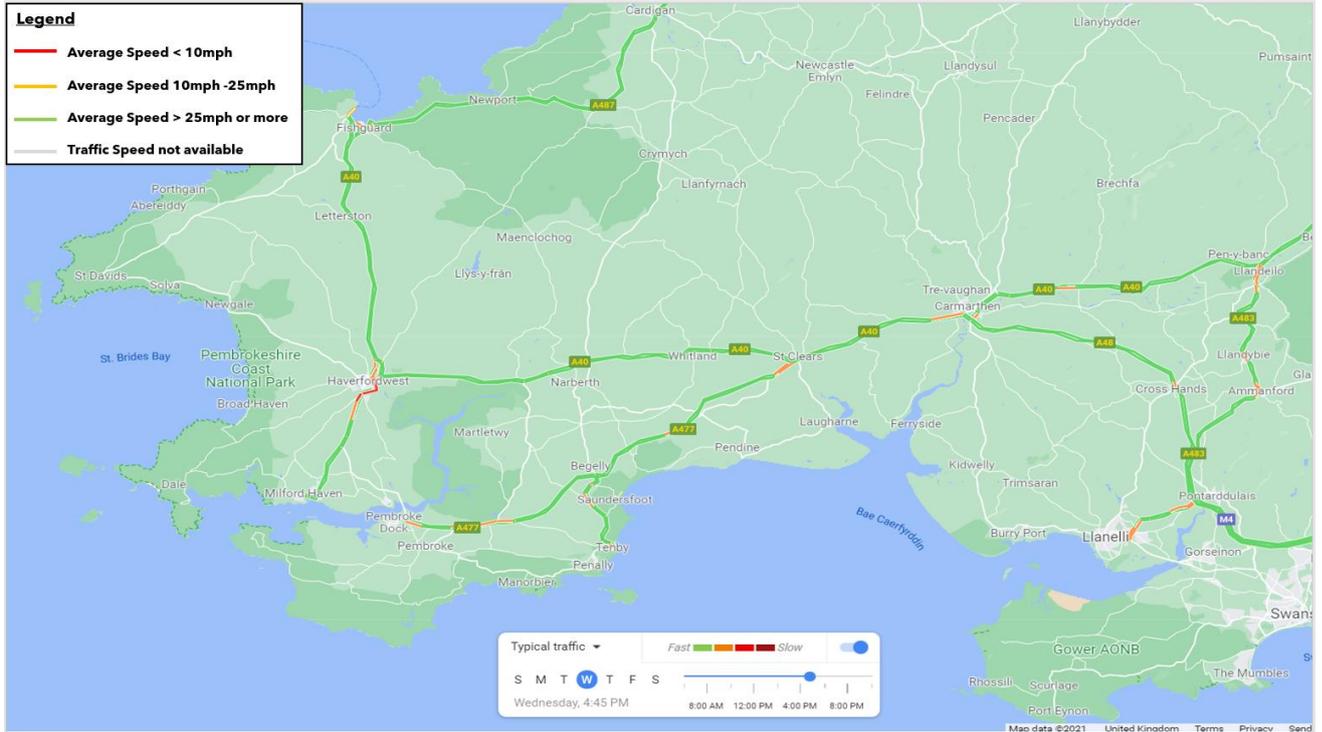
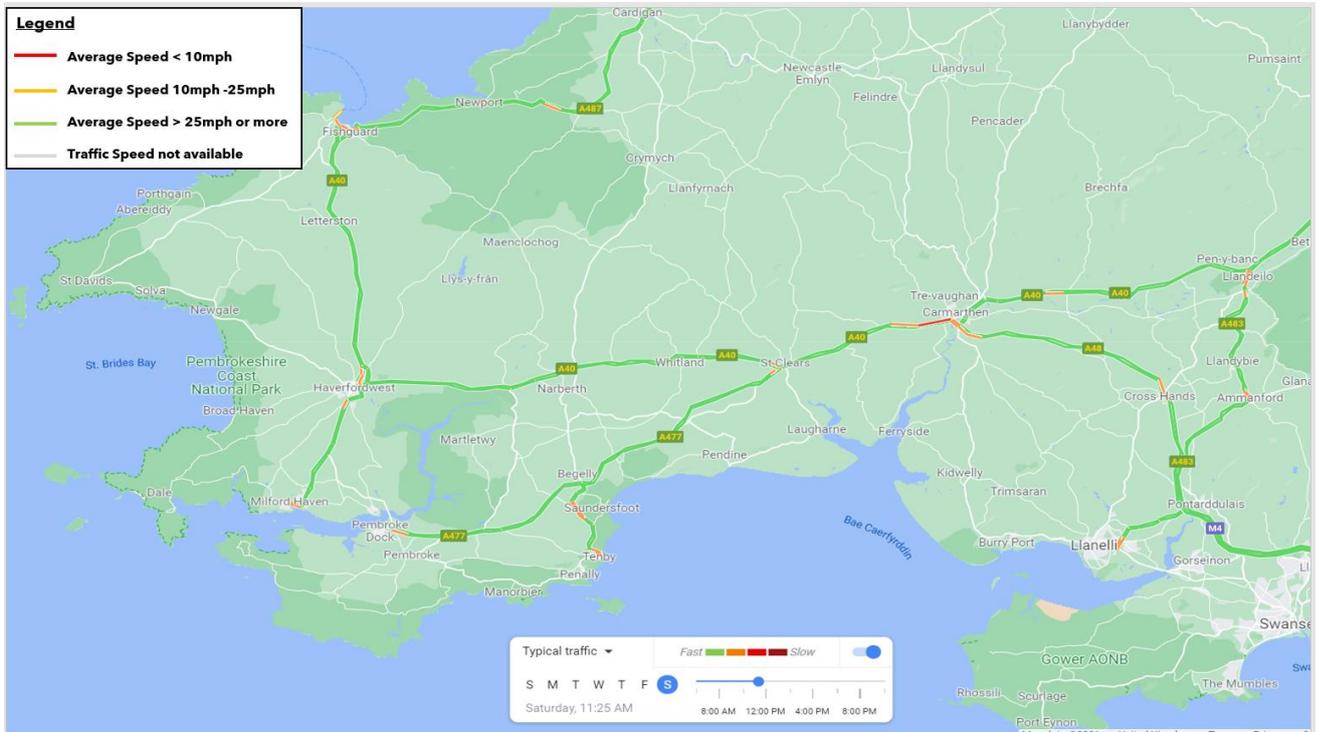


Figure 5-36 – Typical Weekday Saturday Peak Average Speed Profile



5.4.2. In the figures above, red routes indicate slow-moving traffic (<10mph) while green indicates typically uncongested conditions. They reveal the extent of any congestion issues in terms of traffic speeds within the study area.

- 5.4.3. As can be seen from the speed profile figures provided above, there are sections of the A40 from Llandeilo to Haverfordwest that experiences pockets of slow-moving traffic for most part of the weekday and in some cases weekends. These are very noticeable along the A40 between Carmarthen and Llandeilo, as well as junctions along the A40 in Haverfordwest, Narberth, St Clears and Carmarthen. In addition, sections of the A477 and A483 also experiences pockets of slow-moving traffic.
- 5.4.4. **Figure 5-37, Figure 5-38 and Figure 5-39** provides a close look of the traffic speed profile for the A40 junctions through Carmarthen, St Clears and Haverfordwest that experiences significant amount of slow moving traffic.

Figure 5-37 – A40 in the vicinity of Carmarthen - Average Speed Profile

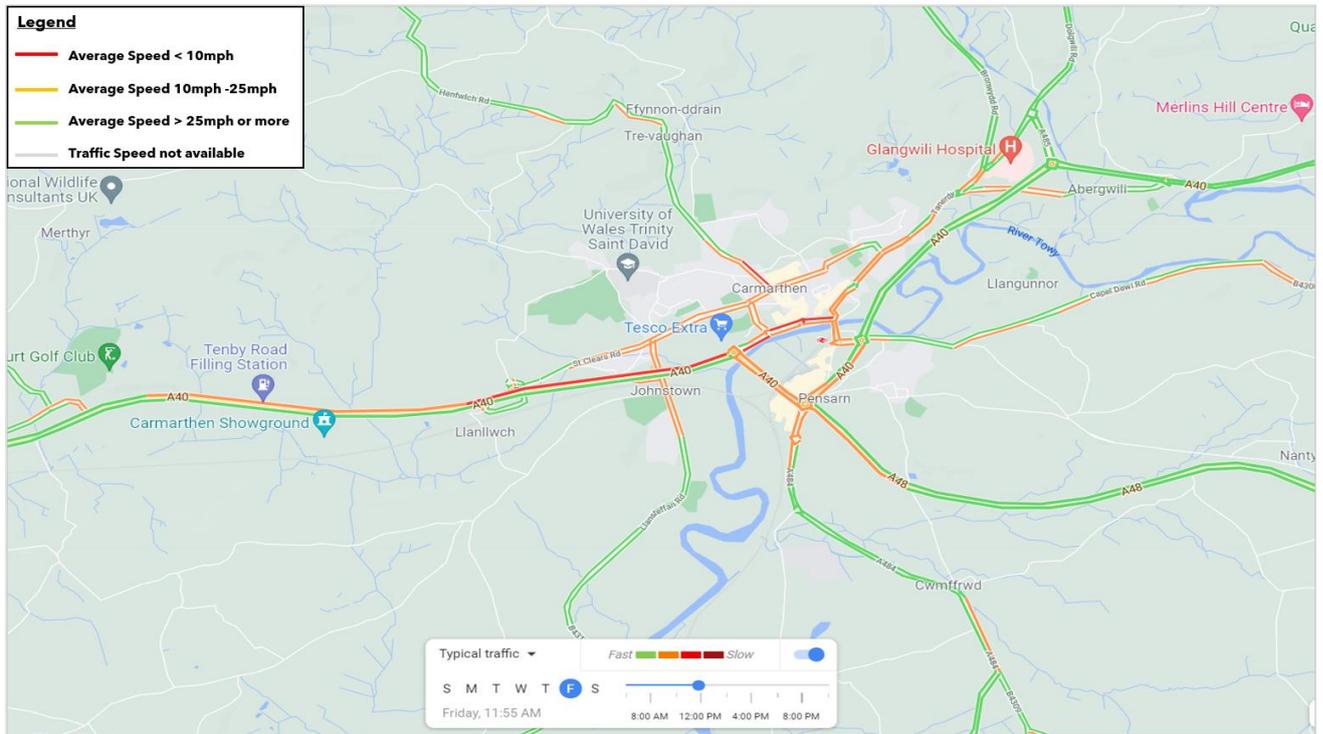


Figure 5-38 – A40 in the vicinity of Haverfordwest - Average Speed Profile

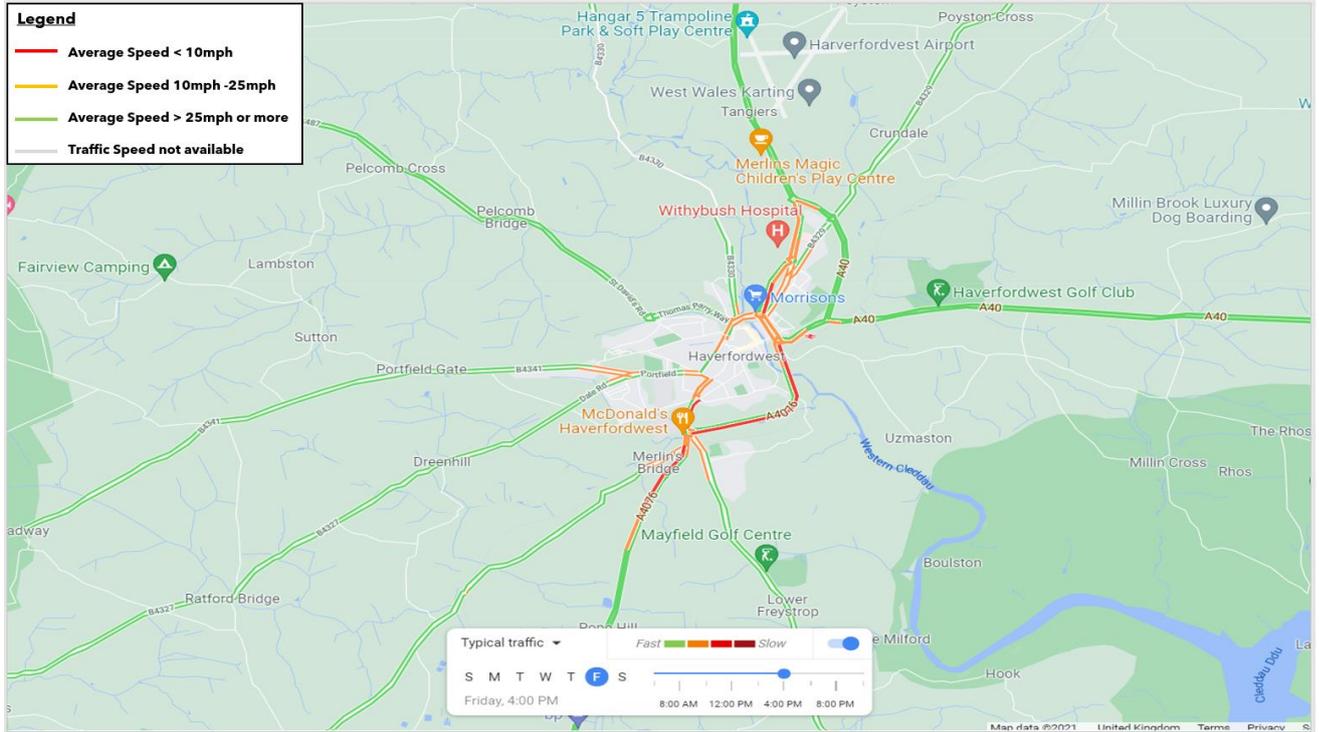
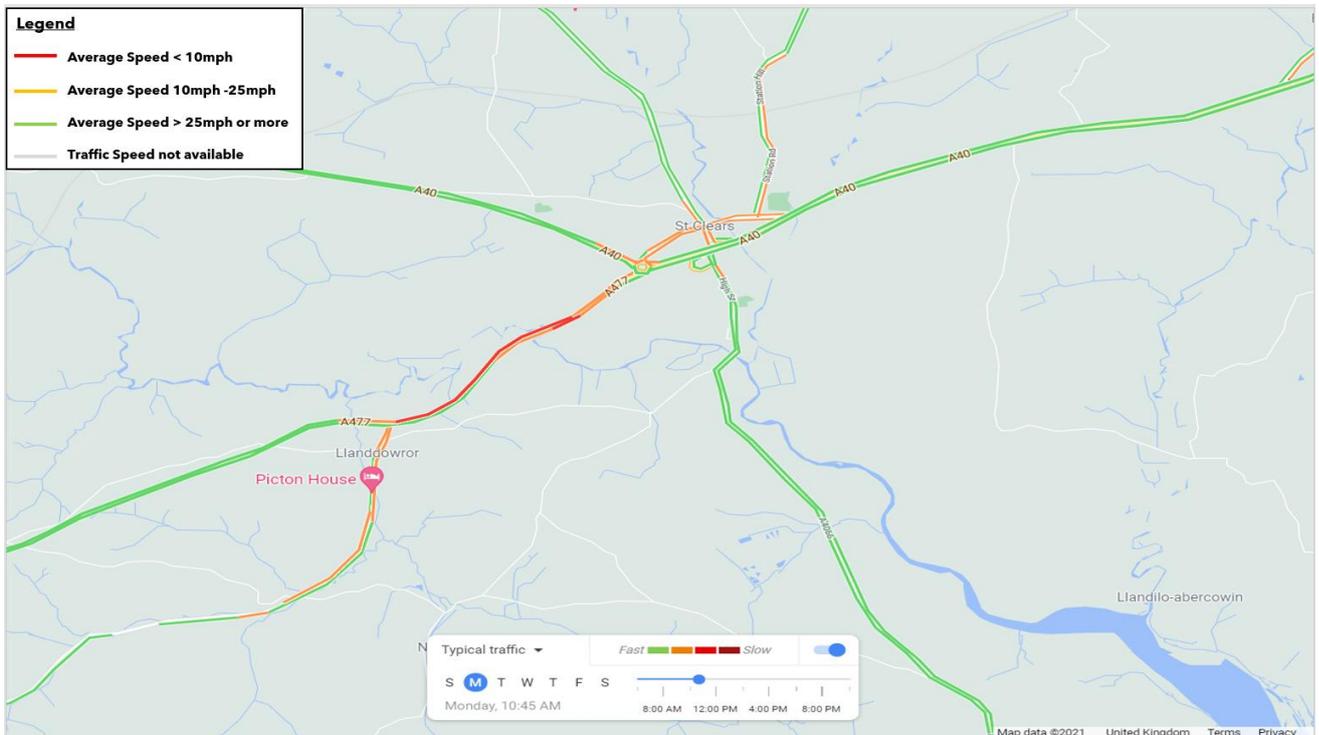


Figure 5-39 – A40 in the vicinity of St Clears - Average Speed Profile



HIGHWAY NETWORK CONNECTIVITY

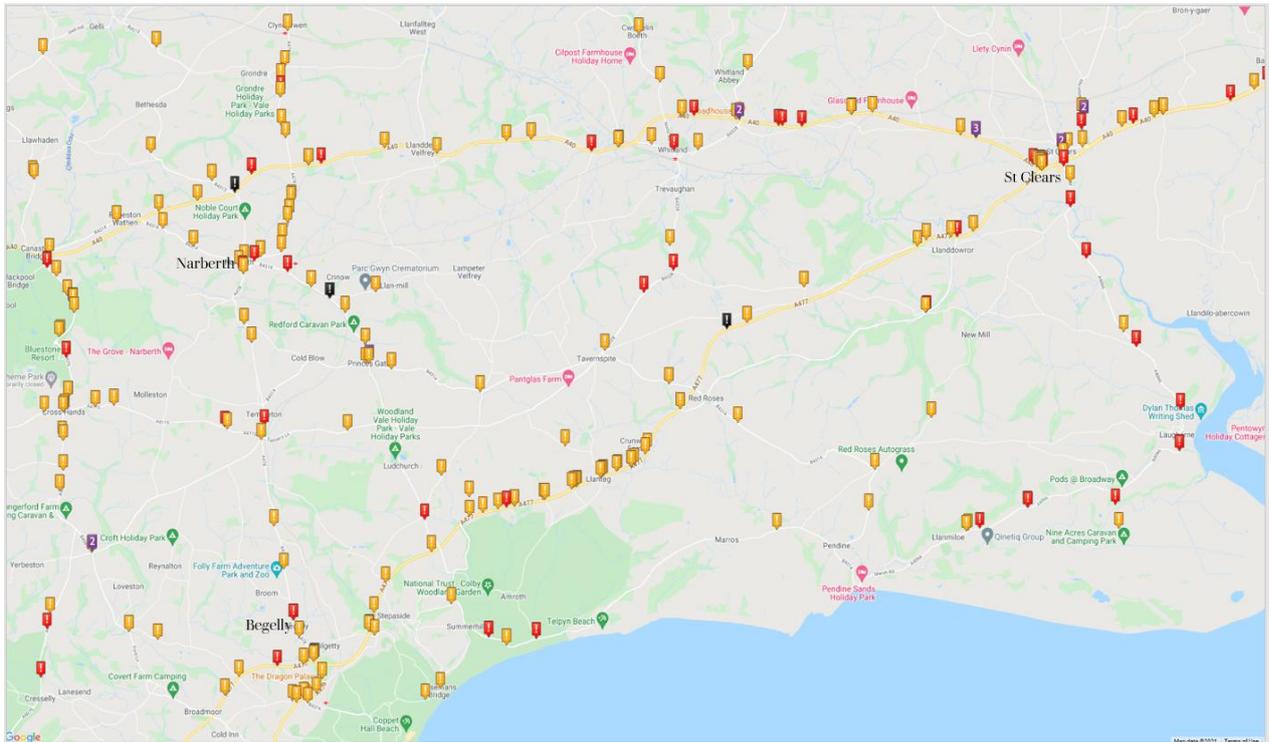
- 5.4.5. Connectivity from the south and north of the study area is deficient, with limited access to A class roads and to the northern parts of the country. The only available route is the A40 from Haverfordwest to Fishguard which experiences cases of congestion throughout the day. From Fishguard the A487 provides connection to Aberystwyth and areas beyond.
- 5.4.6. East to west connectivity is primarily via the A40 which experiences pockets of congestion along sections of its length from Llandeilo, Carmarthen, Llanddewi Velfrey and Haverfordwest.
- 5.4.7. In recent times, several improvement studies have taken place for sections of the A40 due to safety concerns and slow-moving traffic. Of notable mentions are the A40 Llanddewi Velfrey to Penblewin, the A40 Penblewin to Redstone Cross improvements studies and A40 Carmarthen to St Clears WeITAG Stage 2 report. The studies identified the following issues along the A40 is not only prevalent to the subject of the studies but also other sections of the A40:
- Poor visibility and substandard junction layout leading to severe road accidents.
 - Limited overtaking opportunities leading to poor journey time reliability and driver frustration.
 - Occasional convoys of heavy goods vehicles from the ferry ports and slow-moving agricultural vehicles contributing to periods of platooning and journey time unreliability, which is exacerbated by limited overtaking opportunities.
 - Seasonal spikes in traffic volumes along the A40 especially during the summer months leading to slow moving traffic.
 - There are many side road junctions and direct accesses to properties and agricultural fields off the A40, contributing to operational problems along the road.¹
 - Potential requirements for any changes in speed limits in the context of congestion, safety and air quality / carbon emissions.
- 5.4.8. As part of the development proposals for the new hospital, studies would have to be undertaken to assess the impact the new hospital would have along the A40 corridor, as well as the impact of the current state of the A40 on the new hospital. In addition to this, the A477, A438 and other routes within or surrounding the study area that experiences slow moving traffic or congestion would also have to be further investigated.

5.5 HIGHWAY SAFETY

- 5.5.1. In order to assess whether there are any safety concerns on the current highway network within the study area, Personal Injury Collision (PIC) data have been obtained from Crashmap for the five-year period from 1st January 2016 to 31st December 2020. It should be noted that 'Damage only' collisions have not been included as they are not consistently reported to the police and therefore could be misleading.
- 5.5.2. **Figure 5-40** shows the location of the PICs observed within the study area.

¹ <https://gov.wales/sites/default/files/publications/2021-09/a40-penblewin-to-redstone-cross-weltag-stages-1-and-2-report.pdf>

Figure 5-40 – Personal Injury Collisions within Study Area



5.5.3. **Table 5-2, Table 5-3 and Table 5-4** provides a breakdown of the PICs along the following key route with the study area respectively:

- A40 between Narberth and St Clears (19km in length);
- A477 between St Clears and Begelly (19km in length); and
- A478 between A40 and A477 (10km in length).

Table 5-2 – Personal Injury Collisions (PICs) – A40 between Narberth and St Clears

Level of Severity	2016	2017	2018	2019	2020	Total
Slight	3	5	8	6	4	26
Serious	2	2	0	4	0	8
Fatal	0	0	1	0	0	1
Total	5	7	9	10	4	35

Table 5-3 - Personal Injury Collisions (PICs) – A477 between St Clears and Begelly

Level of Severity	2016	2017	2018	2019	2020	Total
Slight	2	9	10	6	6	33

Serious	3	2	0	1	0	6
Fatal	0	0	1	1	0	2
Total	5	11	11	8	6	41

Table 5-4 - Personal Injury Collisions (PICs) – A478 between A40 and A477

Level of Severity	2016	2017	2018	2019	2020	Total
Slight	7	2	6	4	2	21
Serious	1	0	1	2	0	4
Fatal	0	0	0	1	0	1
Total	8	2	7	7	2	26

5.5.4. As can be seen in Figure 5-40 and Table 5-2 to Table 5-4, there has been a significant number of PICs occurring on the key routes within the study area, with a total of 4 fatal PICs recorded in the five year period.

5.5.5. It is therefore recommended that as part of the development proposals for the new hospital, further studies need to be undertaken to assess whether there are any safety issues on the existing highway network that are likely to be exacerbated as a result of additional traffic generated by the new hospital.

5.6 EXISTING MODE SPLIT ALONG THE A40 CORRIDOR ACCESSIBILITY LEVELS

5.6.1. The existing modal split data for 2019 base year has been obtained from the SWMWTM for a screen line to the west of Whitland passing through A40 and two railway lines.

5.6.2. The mode share data for the two-way daily trips from Narberth to Whitland and vice versa is shown in Table 5-5 below.

Table 5-5 – Mode Split from model

Direction	Vehicle Type	Purpose	2019 Daily Trips (in %)
Two Way trips – Narberth to Whitland &	Private Car	Car Business	13%
		Car Commute	18%

Whitland to Narberth		Car Other	46%
	LGV	LGV	10%
	HGV	HGV	5%
	Public transport - Bus	Bus	1%
	Public Transport - Rail	Rail	8%

5.6.3. Table 5-5 above shows that although the mode share is dominated by a private car. Although the accessibility through rail provision can be considered as adequate, the level of service provision, namely the frequency of the services is poor.

5.7 LOGISTICS

5.7.1. Hospitals are significant freight and passenger generators so will drive up LGV and HGV volumes and traffic mixing along arterial routes (A40 in this instance) for the provision of the operational and servicing elements.

5.7.2. There are two components to hospital logistics:

- The initial planning to mitigate the risks and optimise deliveries through Construction Logistics Planning for the physical development of the hospital; and
- Day-to-day servicing and delivery activity and operational considerations for enabling the site to function safely and efficiency.

5.7.3. Typically, hospital sites receive all means of goods throughout the course of a day although this does tend to be curtailed during the evening and out of typical network peak hours to minimise visual intrusion and noise/sound pollution.

Supply Chain

5.7.4. Generally, a large proportion of goods are moved by the NHS Supply Chain contractor which is centrally managed and includes inventory management and warehousing as well as delivery. There is some autonomy for sourcing locally and this is typically undertaken by other third-party groups.

5.7.5. A granular understanding of the NHS supply chain base would be required to understand how it operates in Wales including the location of distribution centres (local depots) and servicing activity (including trip types, goods moved and types of vehicles etc.) at later stages of the scheme development. The types of goods moved could be split between:

- Day Patient Care - likely responsive to needs and product availability (e.g PPE. laundry);
- Clinical Care - As above (e.g. gas cylinders);
- General Administration (Office) - a continual, drip demand; and
- Reverse logistics - Waste management e.g. clinical waste container movements.

5.7.6. Consolidation is already considered at the NHS Supply Chain level, but a new hospital will need to be introduced seamlessly to the network. Any local sourcing outside this framework will require good

planning to ensure goods head into a single site for distribution and includes factoring in porter services.

- 5.7.7. Hospital to hospital trips would likely take place in vans transporting bloods and medical science equipment, as well as patient documents, so consideration would need to be given to fleet efficiency and fleet mix to minimise carbon footprint.

Local Context

- 5.7.8. Indicative site locations at Narberth, Whitland and St Clears are beneficial in relation to the close location to the A40 which is a suitable, direct route from Glangwilli Hospital (Carmarthen) and facilities out to Haverfordwest and Pembroke. It is a major arterial link for a general freight and demand will likely fluctuate according to the port operation. There are a number of laybys along the route, however, the section between St Clears and Narberth is only a single carriageway, as opposed to the link to Carmarthen. Generally, the route can be considered as resilient, which is supported further by the presence of hard shoulders along the A40.

5.8 POTENTIAL TRANSPORT INTERVENTIONS

- 5.8.1. As part of the Swansea Bay and West Wales Metro WeITAG Stage 2 – Future Rail Improvements report, a committed scheme for St Clears Railway Station and also improvements for Whitland Railway Station have been progressed for Stage 3 analysis. This may also increase patronage of rail travel in the study area. This fits well into the narrative provided within the ‘South East Wales Transport Commission’², which suggests that in order for the modal shift to be achieved, the railway network requires increased capacity, increased frequency of services and integration with other modes.
- 5.8.2. Also, locating a new hospital within the identified area may elicit further active travel and public transport improvements within the region, supporting the transport users’ hierarchy as set out in the Wales Transport Strategy.
- 5.8.3. Any new active travel provision related to the hospital build, will follow the new Active Travel Act Guidance. This will ensure that all users’ needs are accommodated and will have a potential to support the modal shift across the communities.
- 5.8.4. It is considered that with an increased rail and bus travel demand to the new hospital, a demand responsive transport service may be provided to connect the hospital with the local train station. In case of the chosen location close to St Clears or Whitland, the service could connect users to the proposed and existing railway stations, respectively. However, if Narberth location was to be considered, the demand responsive service could connect the passengers to both, Narberth and Clunderwen railway stations, so the potential users would benefit from the wider choice of travel destinations and increased frequency. Currently, a similar demand responsive service operates in Newport³.

² <https://gov.wales/sites/default/files/publications/2020-11/south-east-wales-transport-commission-final-recommendations.pdf>

³ <https://www.newportbus.co.uk/drt-demand-responsive-transport>

- 5.8.5. Furthermore, increased travel demand can be addressed by the integration of travel modes, where the users would have the potential of a seamless change between the modes, in order to decrease the demand to travel by a private car. This could take form of a single ticket for rail / bus / e-bike hire or introduction of the Pay as You Go system, as announced by the Transport for Wales⁴.
- 5.8.6. Also, worth considering, is providing a transport hub within the potential hospital site. This would ensure the concentration of services, with a wide choice of transport provision for the passengers. This could also include live travel information not only for the bus services, but also for the local train station, for the benefit of users changing between the modes.
- 5.8.7. Another measure that could be introduced to support the modal shift among the staff and patients would be creating a bespoke public transport provision. This could be a dedicated bus service(s) connecting the hospital with the communities where staff and / or patients are travelling from and to the hospital. This would also provide the opportunity to synchronise the timetable with the staff's shift pattern, hospital's busiest periods, etc.
- 5.8.8. Although the use of private car is discouraged, some patients (and to less extent staff) would not be able to use the active travel or public transport as a mean of travel to the hospital. However, to recognise and support the changeable fleet mix in Wales and the United Kingdom, electric vehicle chargers should be provided within the site. As set out in Policy 12 of the Future Wales: The National Plan 2040⁵ document, 'Where car parking is provided for new non-residential development, planning authorities should seek a minimum of 10% of car parking spaces to have electric vehicle charging points'.

⁴ <https://www.walesonline.co.uk/news/wales-news/transport-wales-payment-methods-tapping-22626390>

⁵ <https://gov.wales/sites/default/files/publications/2021-02/future-wales-the-national-plan-2040.pdf>

6 KEY RISKS AND NEXT STEPS

6.1 KEY RISKS

6.1.1. A number of risks that may impact upon the ability to deliver the hospital have been identified. These are closely related to the vision, ambitions, and aspirations of the Health Board's transport workstream, as set out earlier within this document:

- The delivery of additional services and facilities in the community as part of the new clinical model may increase the level of inter-site transfer of equipment and staff, and as a consequence increase business mileage. In turn, the vehicle-related GHG emissions may increase;
- The existing challenges related to the sourcing of responsive taxi provision to support the transport of vulnerable patients may be exacerbated further, given the potential location of the new hospital away from the major regional taxi depots;
- Prioritising active travel and public transport may result in inadequate car parking capacity on the hospital's site. This in turn, may result in accessibility issues for some staff, patient and visitors;
- Inadequate control and enforcement of vehicles accessing the hospital site may lead to parking capacity issues, observed at some of the existing acute hospitals sites;
- The partner organisations may not possess sufficient resources to provide the level of support needed, to ensure effective delivery of the transport element of the AHMWW strategy;
- The level of pre-commencement assessment of the anticipated activity for the new clinical model may not be sufficiently detailed to provide an informed and robust analysis;
- The location of the new acute hospital site in a rural location, far from major settlements and transport hubs may increase the commuting distances and associated CO2 emissions. As a result, the staff may seek employment in organisations closer to their place of residence;
- It may be difficult to provide a frequent public transport service for the users required to travel from a rural place of residence to an acute hospital site also located in a rural setting;
- It is anticipated that recruiting volunteer community transport provision drivers may be challenging in the HDUHB area. The additional demand placed on these providers may result in deterioration of the service quality;
- The public transport sector's timetables may not align to a 7-day a week requirement in the new service configuration;
- A political change may impact future Wales transport strategies and associated priorities; and,
- The national issue of recruiting new drivers may have a negative impact on the public and community transport provision.

6.2 NEXT STEPS

6.2.1. Moving forward, the AHMWW's strategy delivery portfolio, including building the business case for provision of a new hospital, requires consideration of the key steps that need to be taken as part of the next stage of this work developing the transport case for not only the new acute hospital site but also the clinical model proposed and the inter-dependencies between sites and patients. This includes for all transport modes:

- Broader engagement with stakeholders:
 - While engagement with key partner organisations has already taken place, broader stakeholder engagement needs to be sought. This may include discussing potential future

transport strategies with staff, patient groups, potential suppliers and third sector partners. An engagement plan needs to be developed to outline this process.

- Also, engagement with the bus operators may be required to gauge their views on the potential services required / affected by the proposed changes.
- Modelling of future transport demand levels and accessibility:
 - This work needs to be undertaken once the location of the new acute hospital site has been established, and when there is further clarity in relation to the patterns of movement of patients, visitors, staff and goods throughout the system within the new acute hospital model. Transport for Wales needs to be engaged in this process to utilise the South West Wales Transport Model and Journey Time Accessibility Tool for Wales. This will support in assessing the impact of the new hospital on the local surrounding highway network, including impact on traffic levels and safety implications. It is envisaged this analysis will take a form of multi-modal assessment, including detailed analysis of public transport provision.
 - At the next stage when more specific area information is determined, more detailed accessibility analysis of specific areas within the study area (e.g. Whitland, Llanddewi Velfrey) needs to be undertaken.
- Mapping capacity to future demand:
 - A demand and capacity review needs to be undertaken in order to ascertain the requirement for the additional capacity or service provision to meet the future demand. This would require collaboration with the Welsh Ambulance Service to ensure that that future patient transport capacity is sufficient to meet anticipated levels of demand.
- Investigating required new transport services:
 - The workstream needs to assess the required provision of transport services to address the challenges set out within this report. The requirements for each service need to be explored, followed by building of the business cases to support implementation. A broad indication of the types of services that need to be considered has been provided in Chapter 2 of this report.
- Explore further the opportunities for remote working and reducing the need to travel:
 - It is considered that a further detailed assessment of the remote working will be required. With the increased home-working during the ongoing Covid-19 pandemic, a robust analysis and identification of potential benefits will be required. An investigation of developing a flexible working policy and investing in technology that will increase the feasibility of remote working will also be required.
- Integration of transport modes:
 - A further assessment of potential integration between the transport modes will be required. This may include the investigation of locating the bike (including e-bike) hire provision at the rail stations and hospital's site, ticketing integration between rail and bus, Park & Ride and car share opportunities.
- Supporting HDUHB to develop transport strategy and provide ongoing modelling/analysis support:

- This may include further and detailed analysis of interdependencies between the hospitals and other health service provision, investigating movement between the sites, including those delivering services in the communities.
- Transport Appraisal of short-listed sites:
 - The sites short-listed for the location of a new hospital will be appraised against the impact it may have on the social and environmental aspects, balanced against the economic drivers for delivering the new hospital. The appraisal may include a qualitative assessment of the site's impact on carbon reduction.

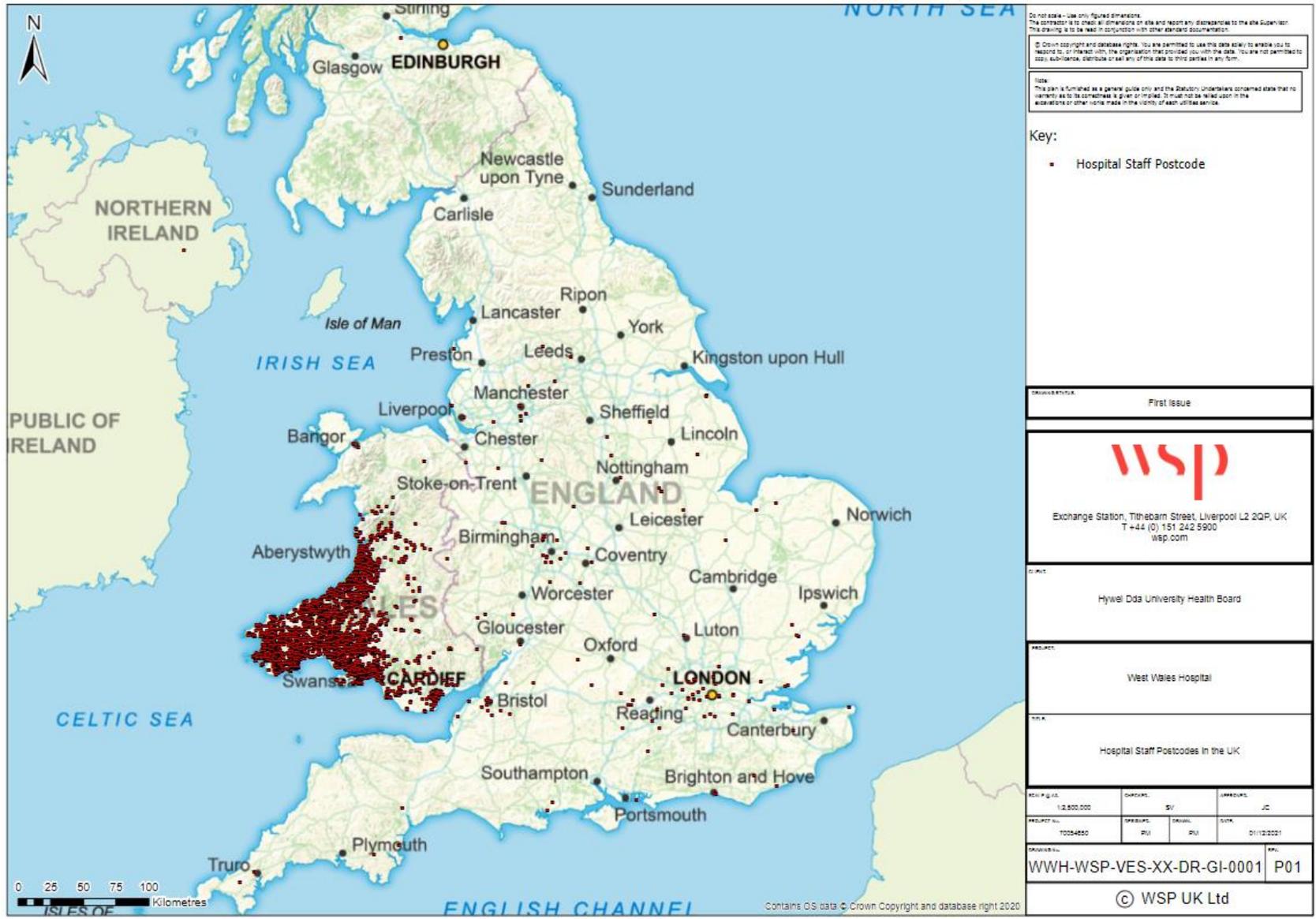
7 SUMMARY AND CONCLUSIONS

- 7.1.1. The proposed hospital is to provide facilities for emergency and planned care, therefore prior to the commencement of the Programme Business Case process the UHB identified, through public consultation, a zone between Narberth and St Clears as the optimum location for the proposed new Urgent & Planned Care Hospital. The key areas identified within the South West Wales region for the location of the new hospital are Narberth, Whitland and St Clears.
- 7.1.2. A key objective for the critical care facility is to have the A&E department accessible within an hour for most of the population within the study area. Hywel Dda University Health Board provided travel time analysis by an ambulance (non-blue light) for destinations to be reached in an hour for seven scenarios. The locations considered in the analysis were from Narberth, Whitland, St Clears across a baseline scenario which includes Bronglais and Morriston hospital.
- 7.1.3. This analysis suggests that a new hospital closer to Aberystwyth will not be ideal for provision of a critical care service since fewer incidents can be accessed from that location compared to the other areas. The analysis indicates that the location of the proposed new hospital should ideally be between Narberth and St Clears.
- 7.1.4. The report also reviews the accessibility of locations in Narberth, Whitland and St Clears from various modes of transport including walking and cycling. SWMWTM modelling work has been undertaken to demonstrate accessibility of Narberth and St Clears areas using bus, rail and private car.
- 7.1.5. The bus and rail commute analysis shows the study area has a good east-west connectivity by these modes. Narberth appears to be accessible by bus and rail from Haverfordwest and St Clears in approximately 30-45 minutes. Also, the bus and rail commute time to St Clears from Narberth and Carmarthen is approximately 30-45 minutes.
- 7.1.6. The bus and rail services (including the service frequency) within the study area, are inadequate and therefore, Welsh Government play a key role with improvements to these services which would be beneficial for sustainable travel. This in turn, would encourage greater use of public transport for accessing the health services when required. Clearly there will still be a need for private cars to access key services. However, we will seek to reduce this to the minimum.
- 7.1.7. It is considered that the Swansea Bay and West Wales Metro propose significant upgrade to the bus and rail network. This includes a new station at St Clears and an improvement to Whitland Railway Station.
- 7.1.8. An analysis of private car commute suggests that a wide area of the highway network can be accessible from St Clears, Whitland and Narberth within a one hour drive time. Provision for low emission vehicles should be considered as the scheme is developed following the sustainable hierarchy in Welsh Transport Strategy.
- 7.1.9. It should be noted that sections of the A40 suffer from slow moving traffic and congestion for most of the day. There are also safety concerns along several routes within the study area as a result of high PIC observed within the area. Further investigation should be undertaken once the proposed hospital location is identified.
- 7.1.10. Connectivity from the south and north corridor of the study area is limited suggesting location of the hospital should be in the east west corridor.
-

- 7.1.11. It is considered that the new hospital, will provide an abundance of other benefits, not directly related to the health service. As mentioned in previous sections, development of the new hospital will provide an opportunity for transport improvements, particularly around active travel and public transport provision, in line with the Wales Transport Strategy user hierarchy. It is important to work with partners such as Welsh Government and Transport for Wales, to ensure the potential transport interventions are considered and, if delivered, will maximise the realisation of benefits for staff, patients and local communities.
- 7.1.12. As it has been shown, the bus service provision along the main highway corridors is adequate. However, attention needs to be given to the staff and patients travelling from the communities located outside of the main corridors, ensuring sustainable travel choices are provided to them.
- 7.1.13. Furthermore, improving the active travel and transport provision chimes with the carbon reduction agenda, which subsequently provides the health and environmental benefits to wider society.
- 7.1.14. The analysis in this report shows that e-bikes have the potential to become a suitable alternative to a private car for the journeys which are considered to be too long when using a standard bicycle. It also broadens the spectrum of users, who may be more willing to use a bike with a motorised assist.
- 7.1.15. Overall, it is considered that the new hospital site has a potential to provide sustainable accessibility, using the active travel and public transport modes, in line with the Wales Transport Strategy and other policies promoting healthier lifestyles, clean air and carbon reduction.

Appendix A

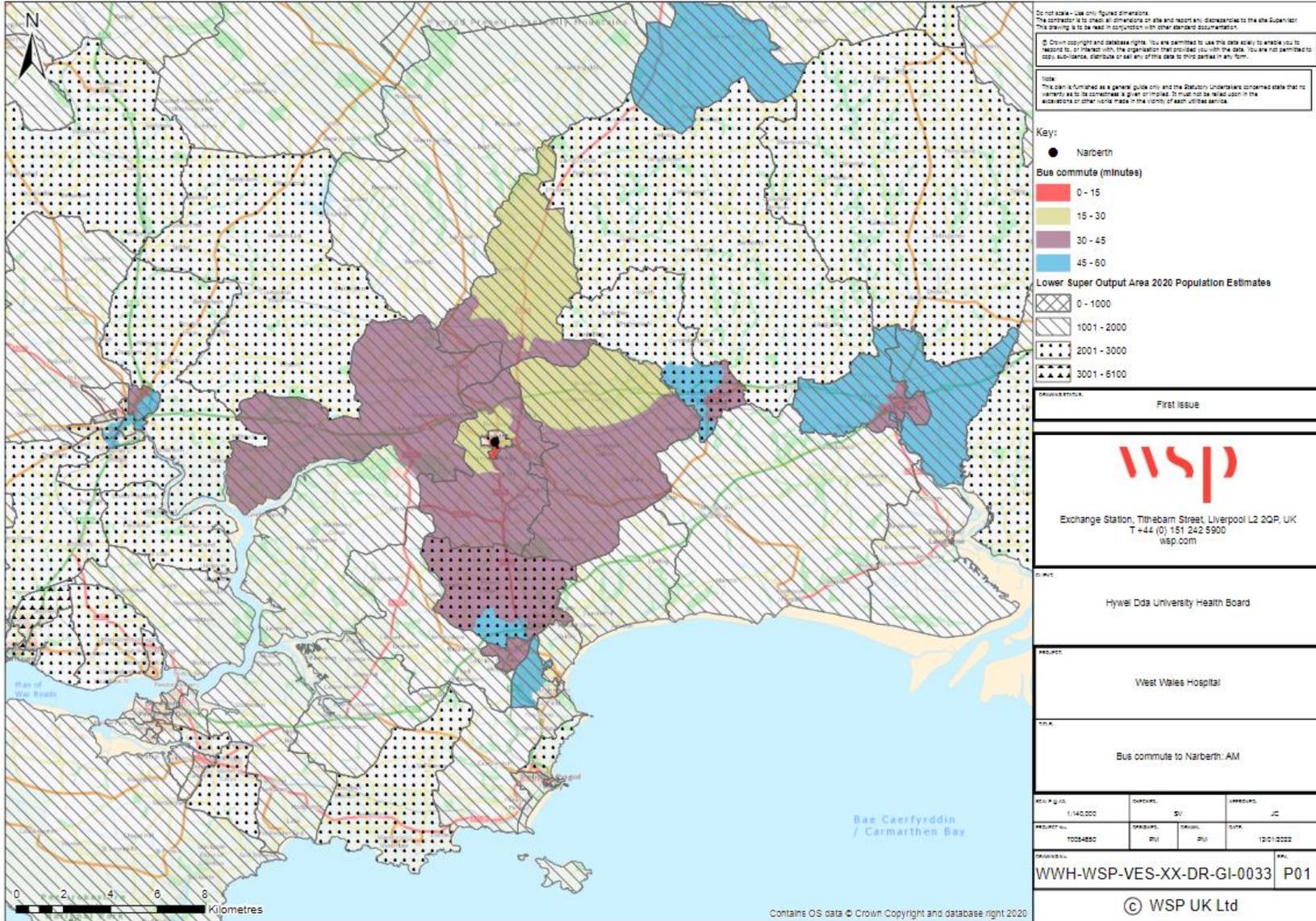
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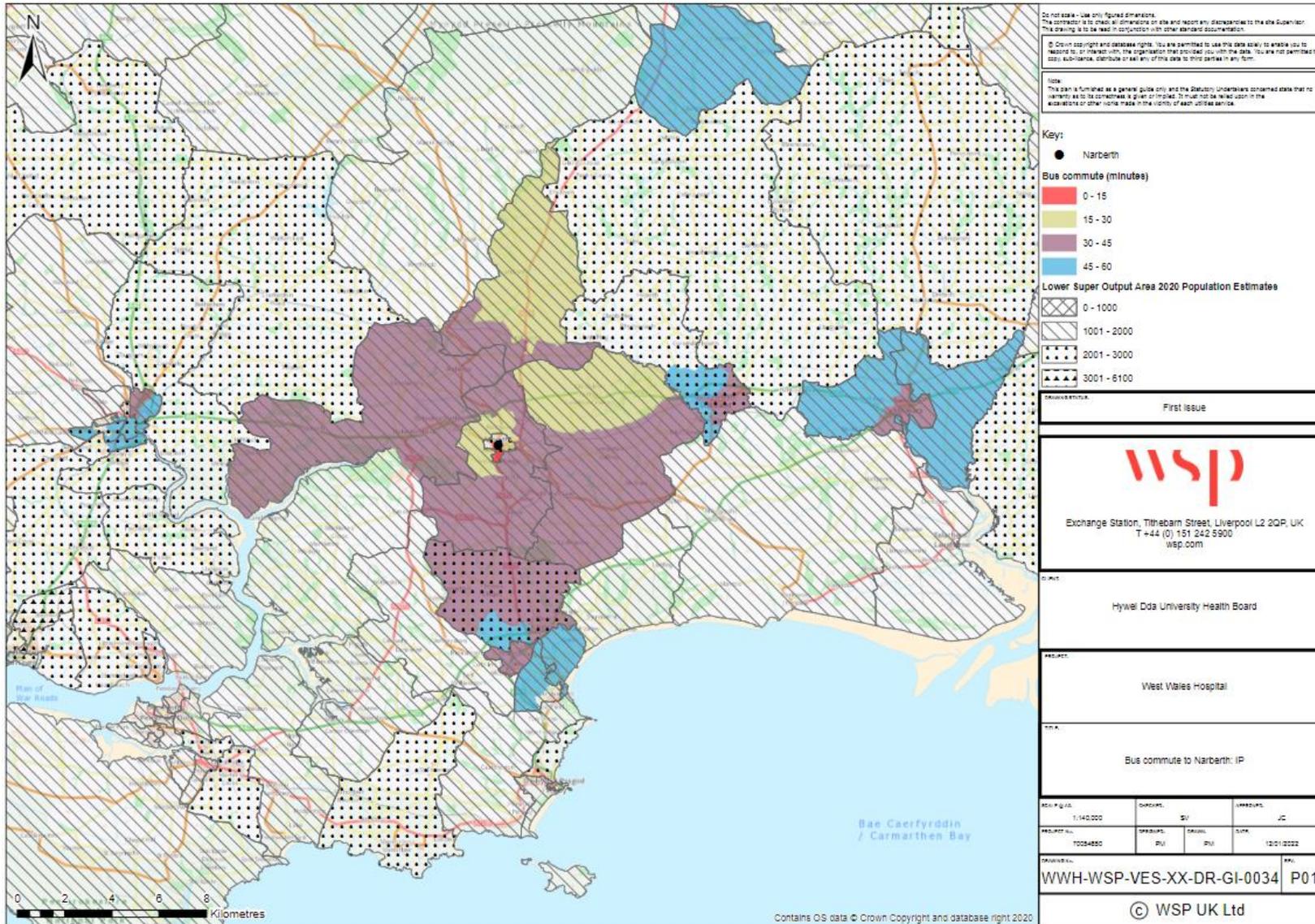


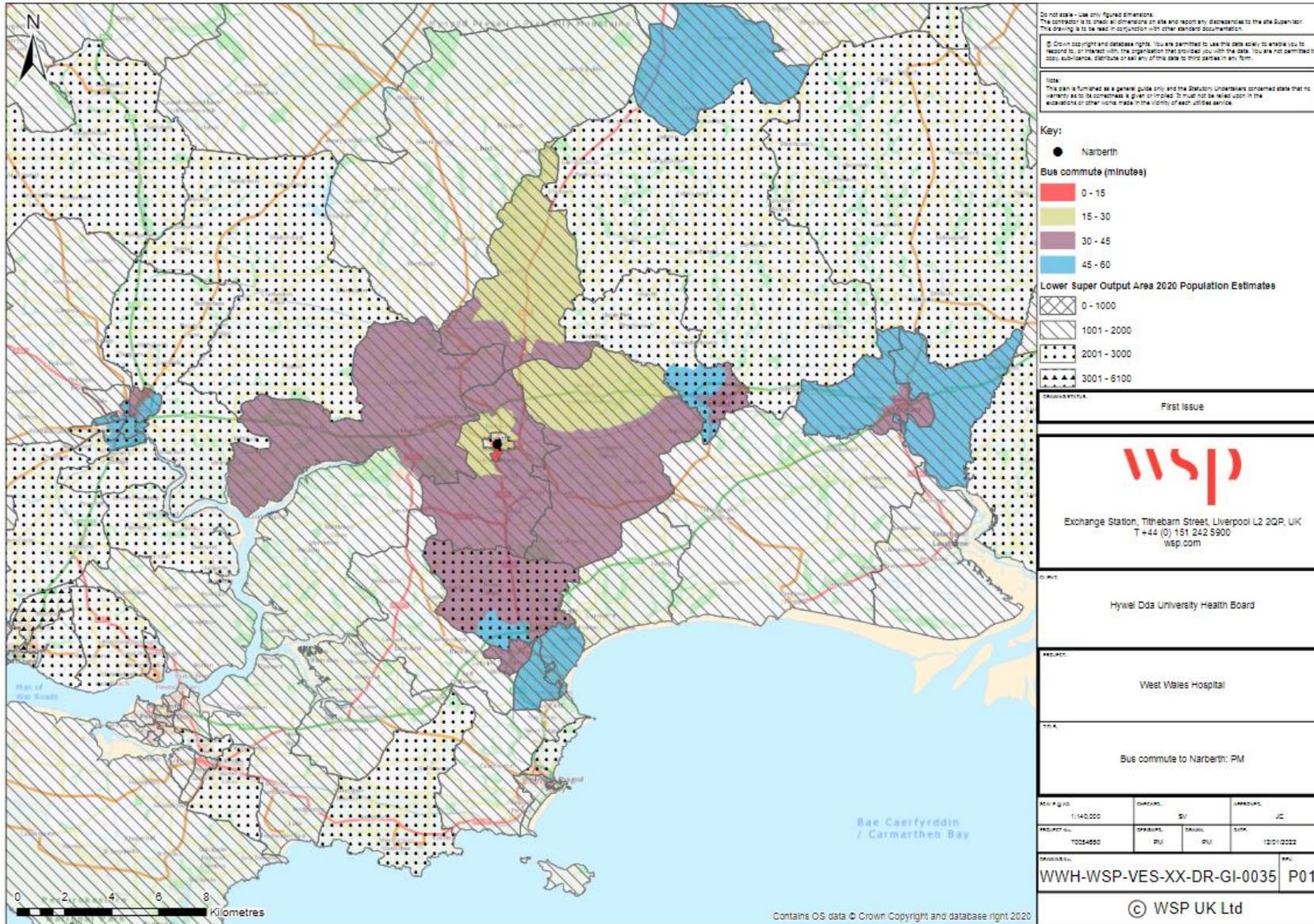


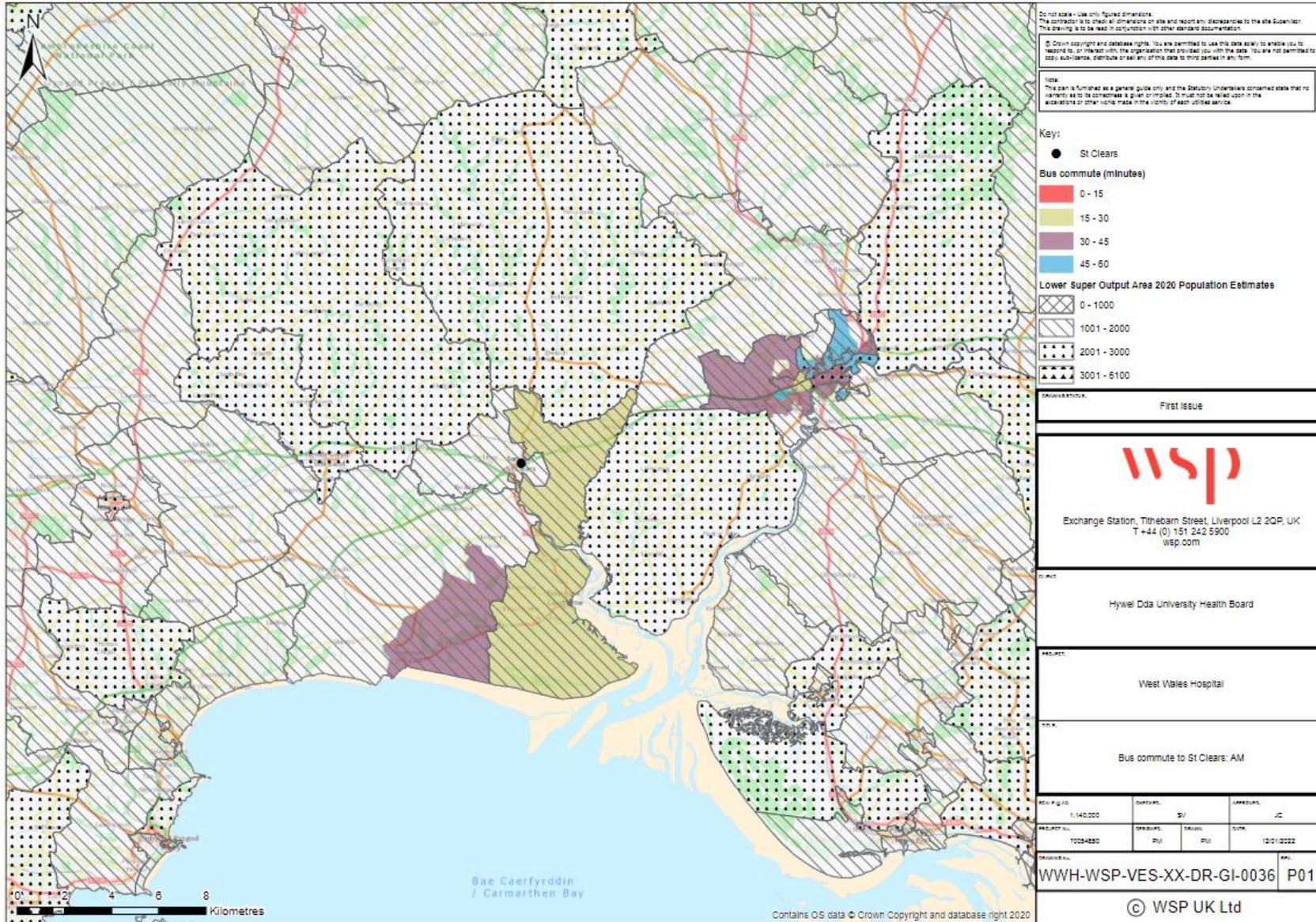
Appendix B

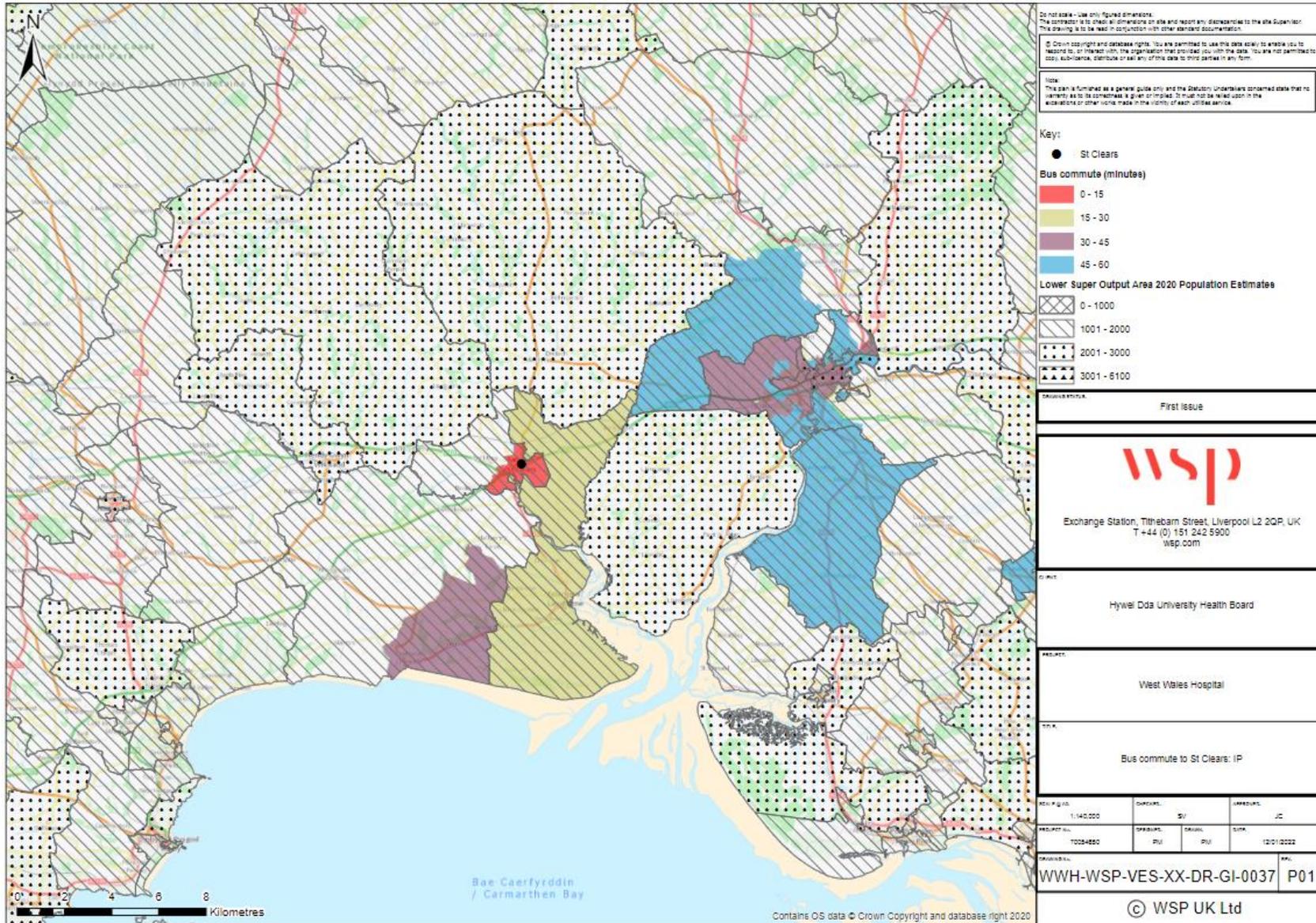
BUS TRAVEL TIME

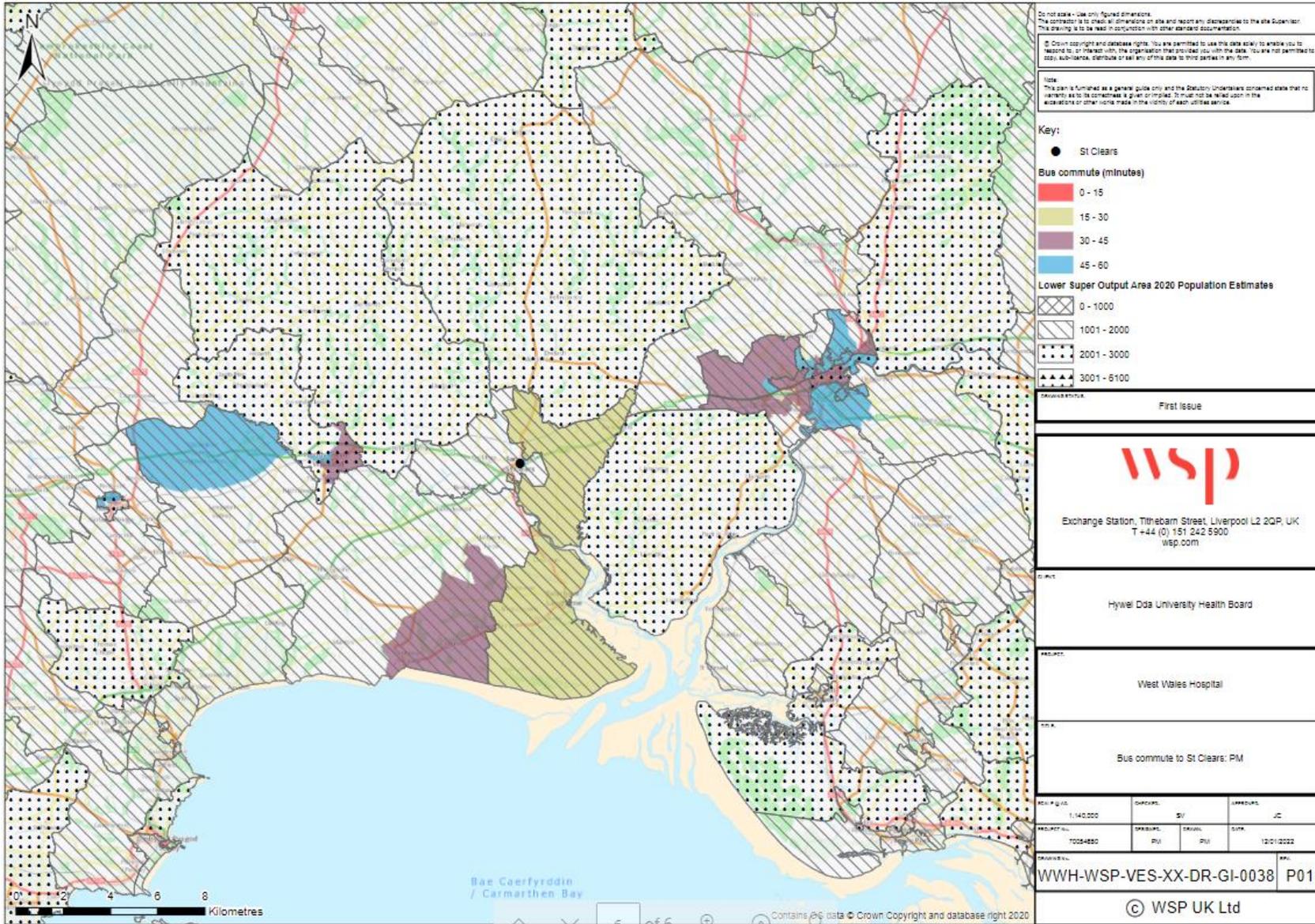










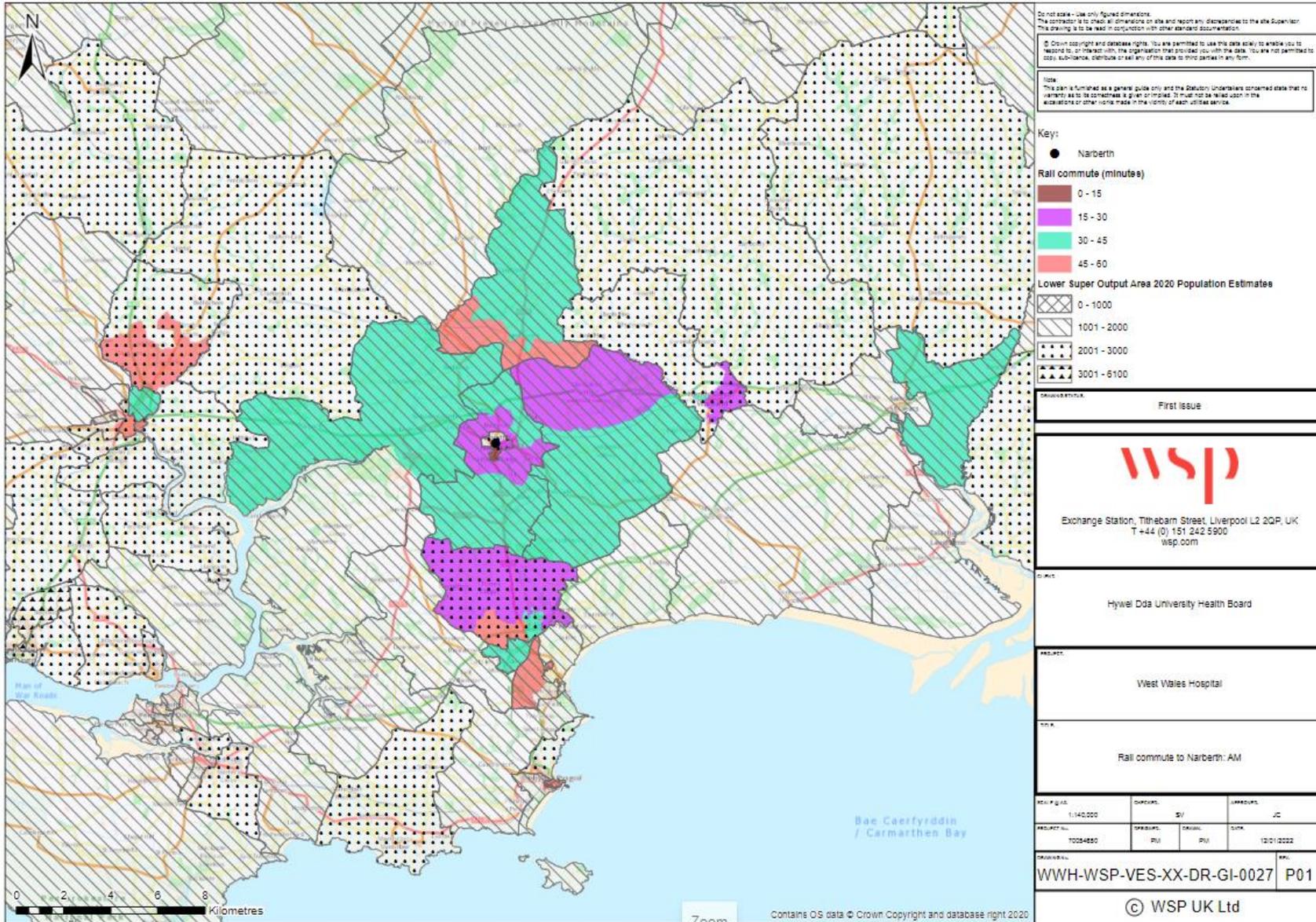


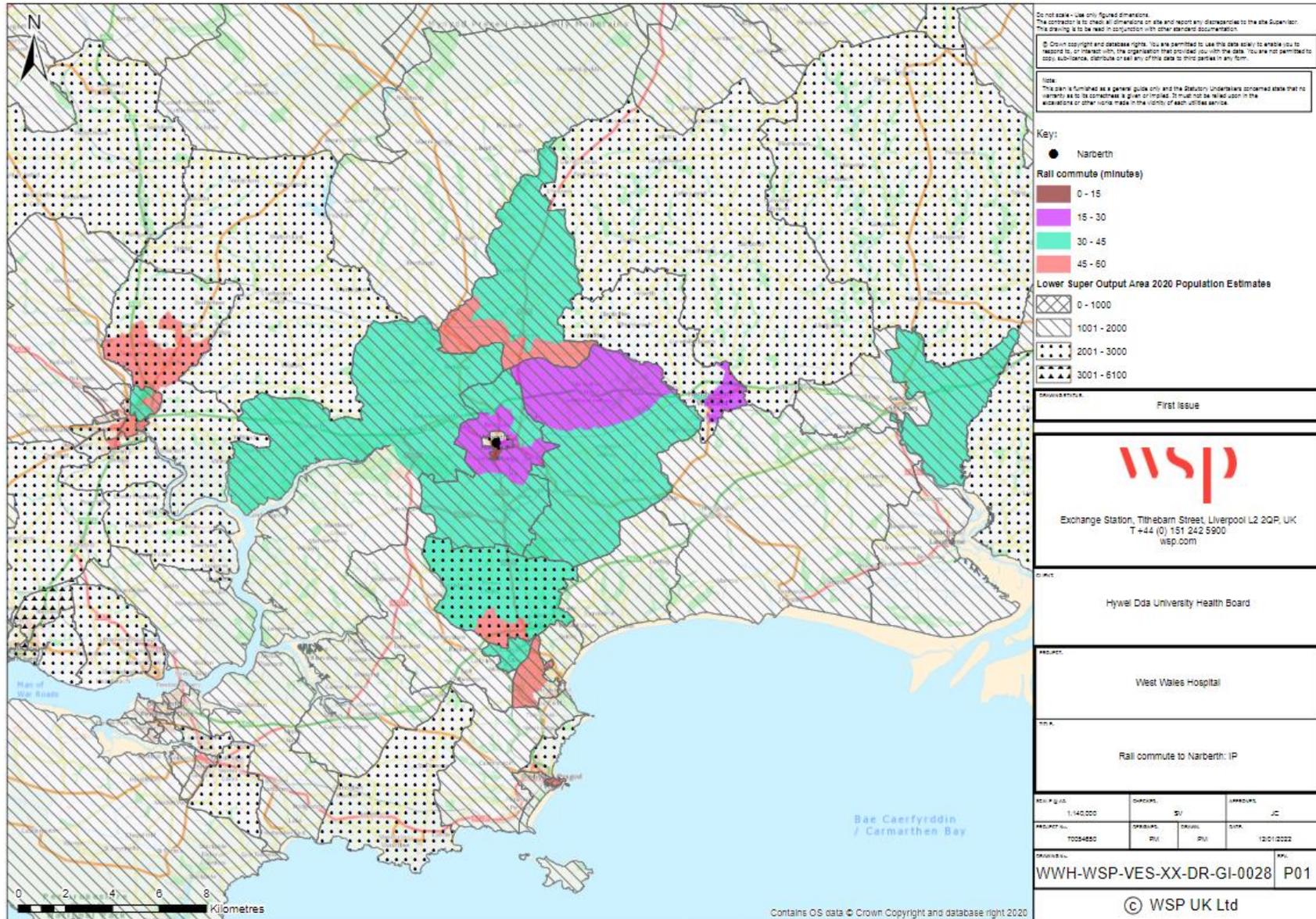


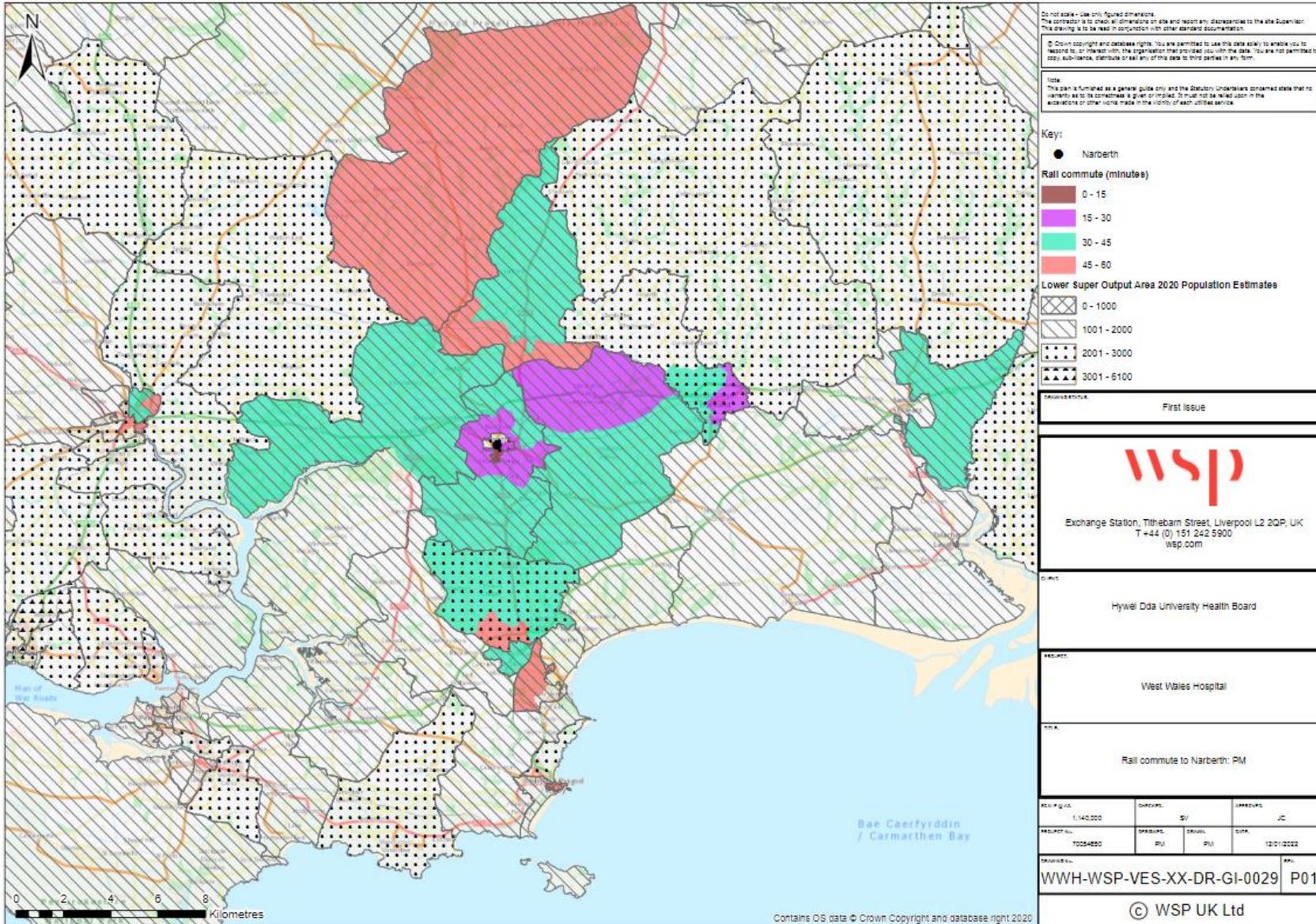
Appendix C

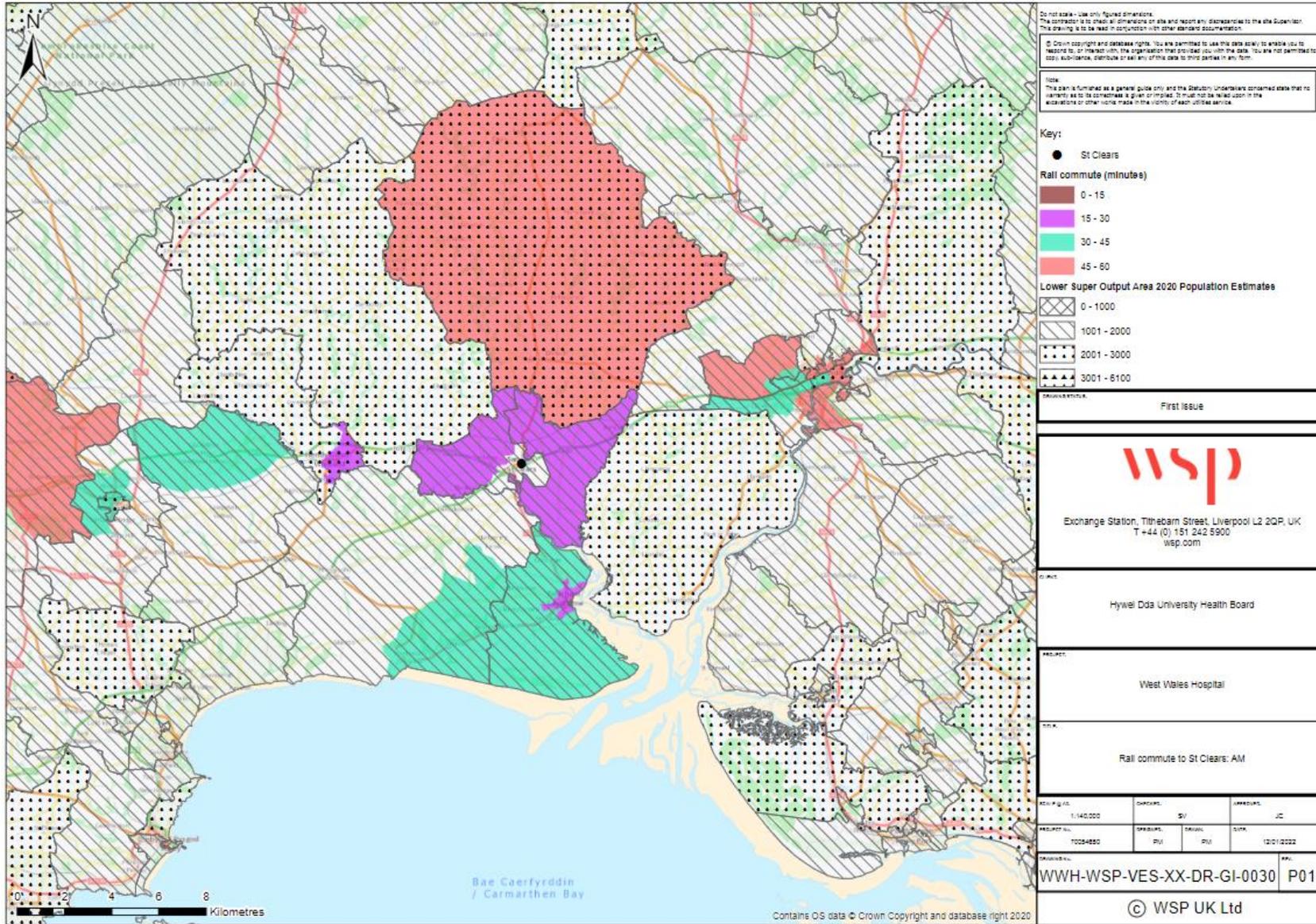
RAIL TRAVEL TIME

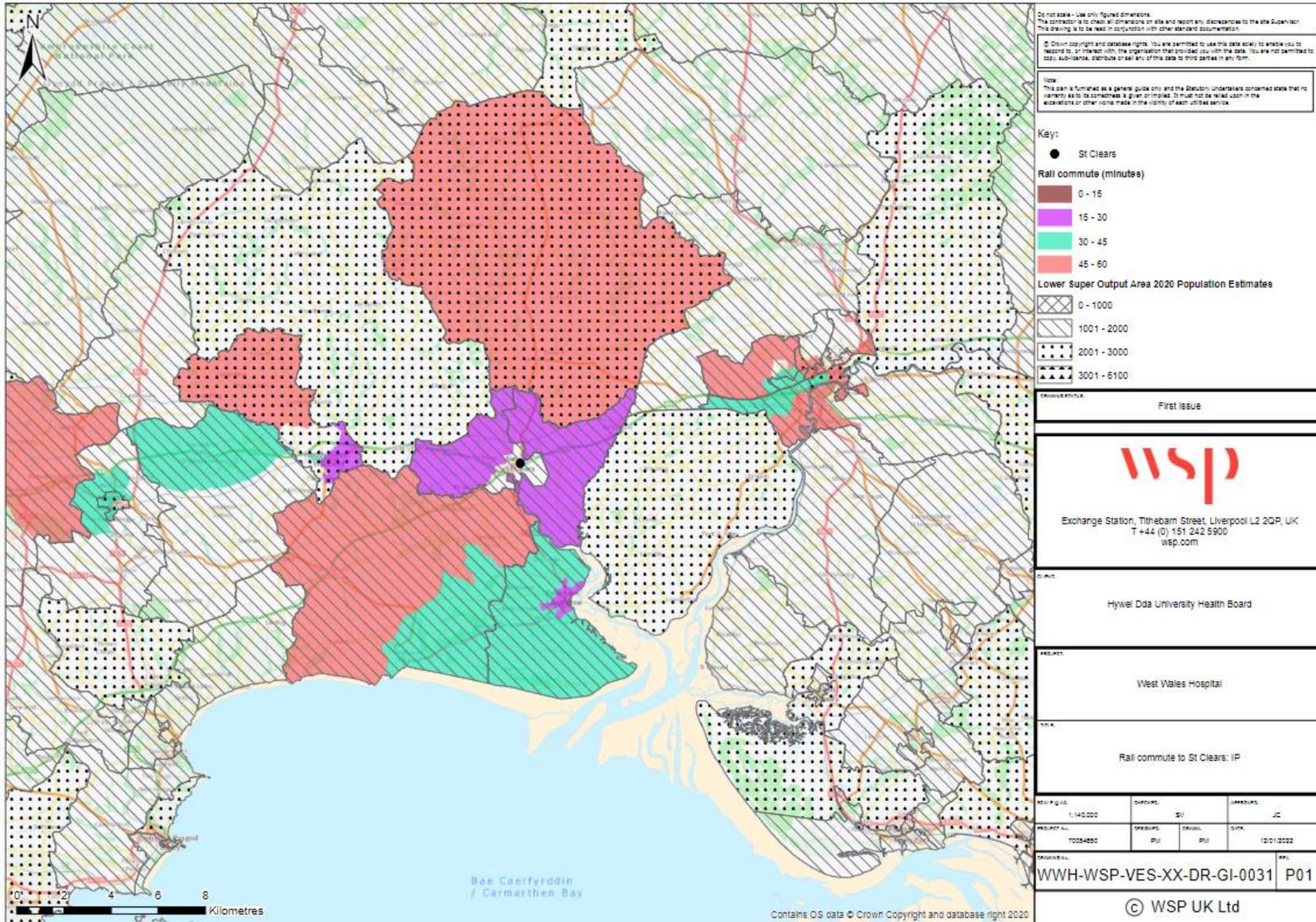


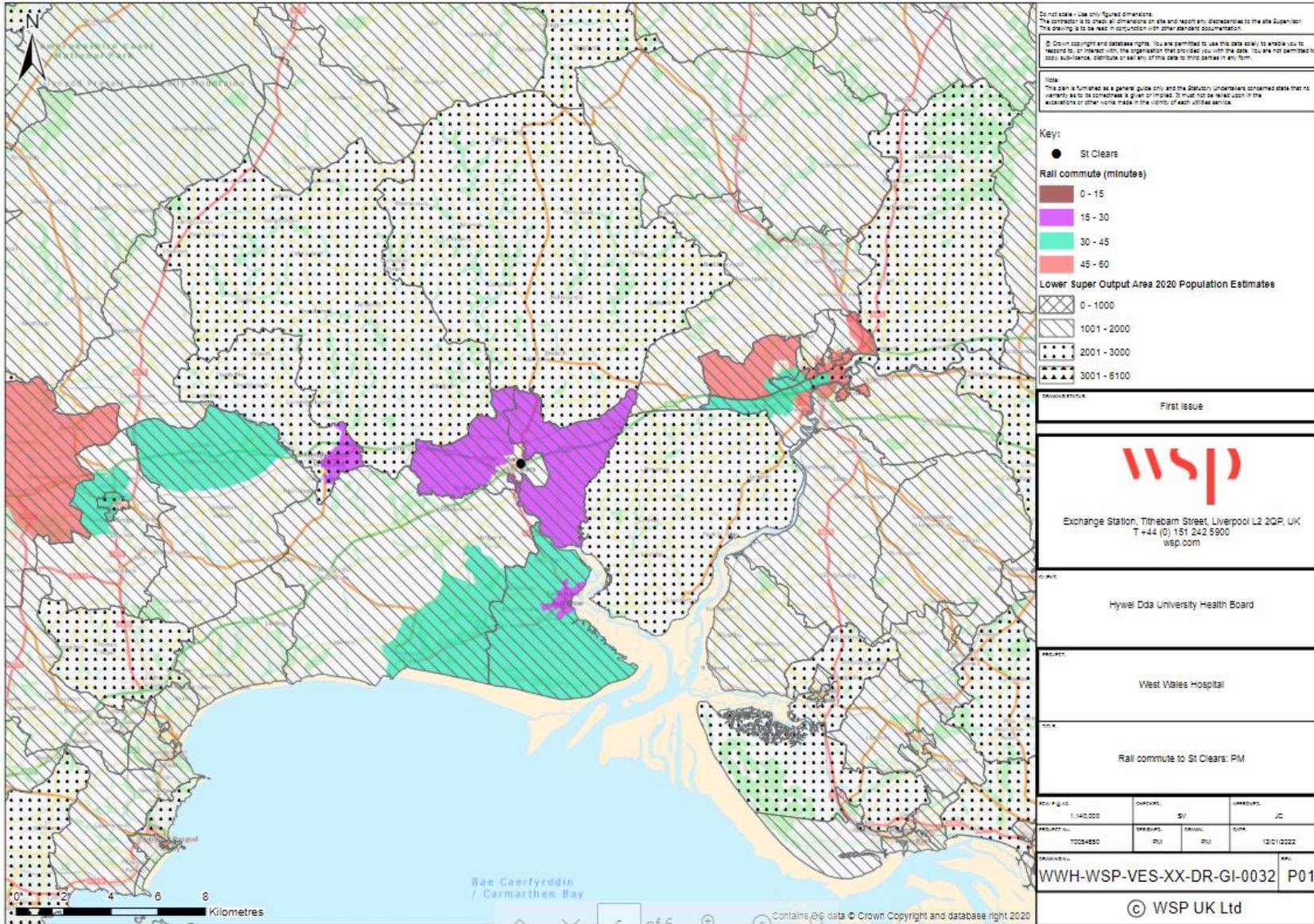






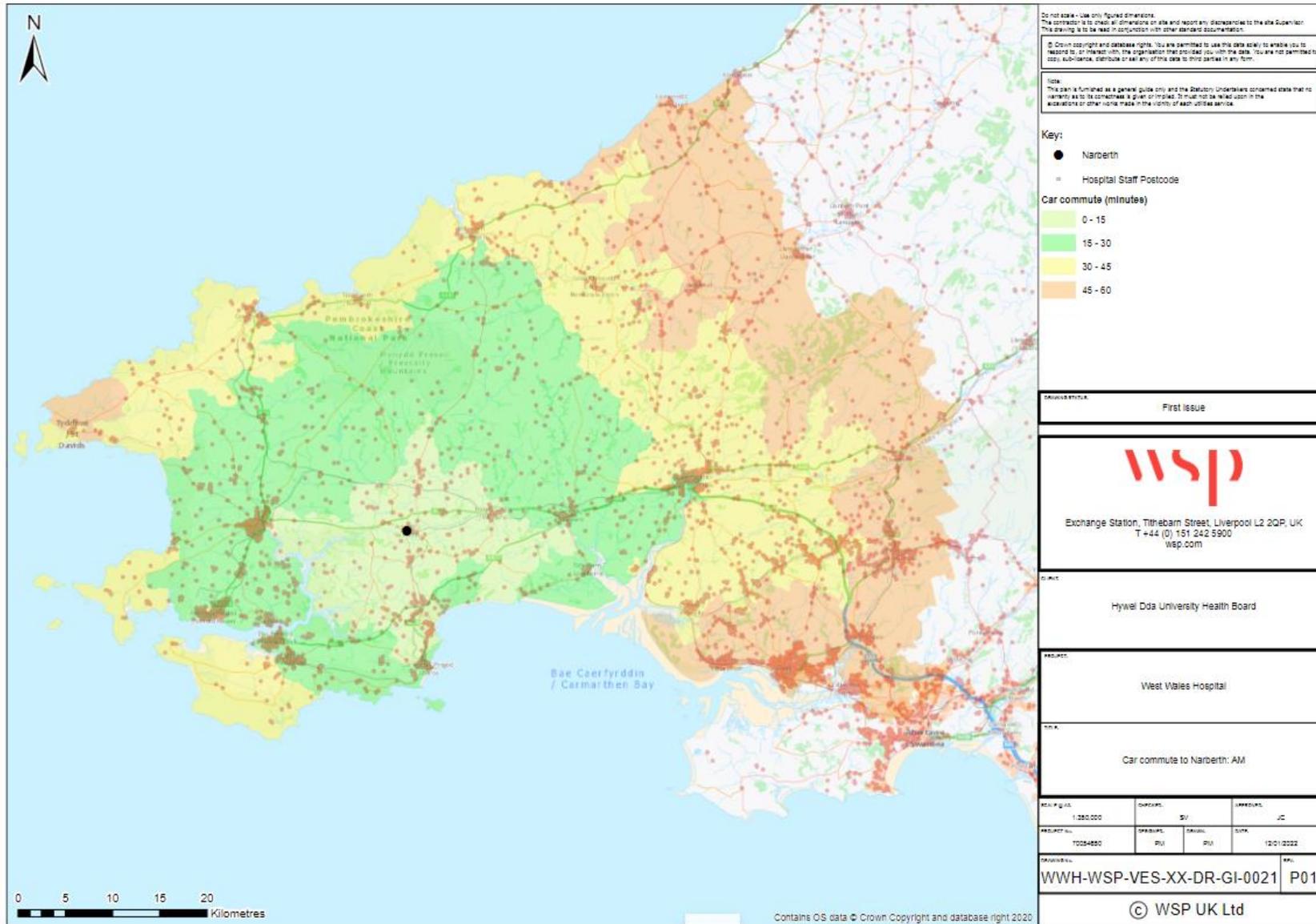


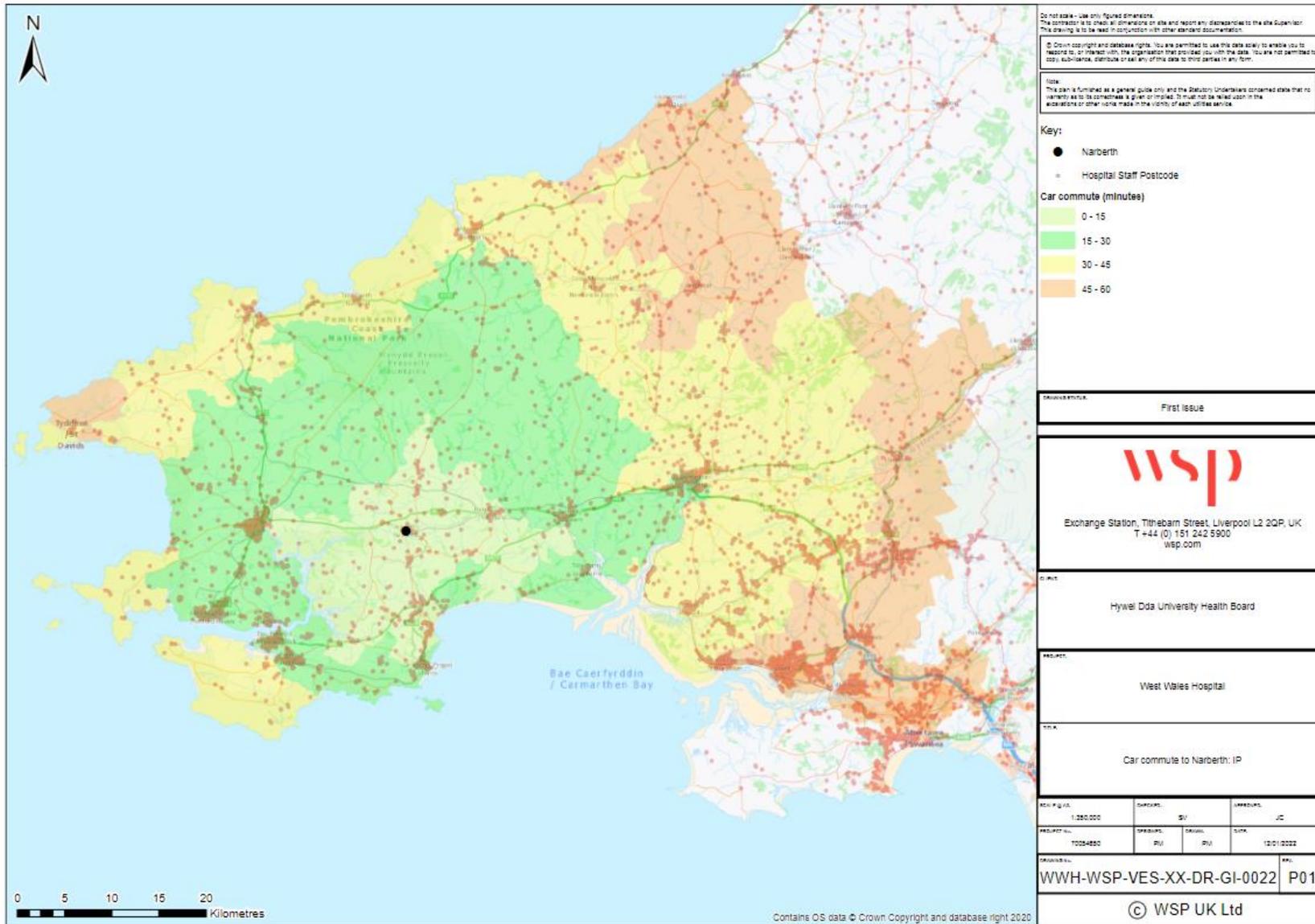


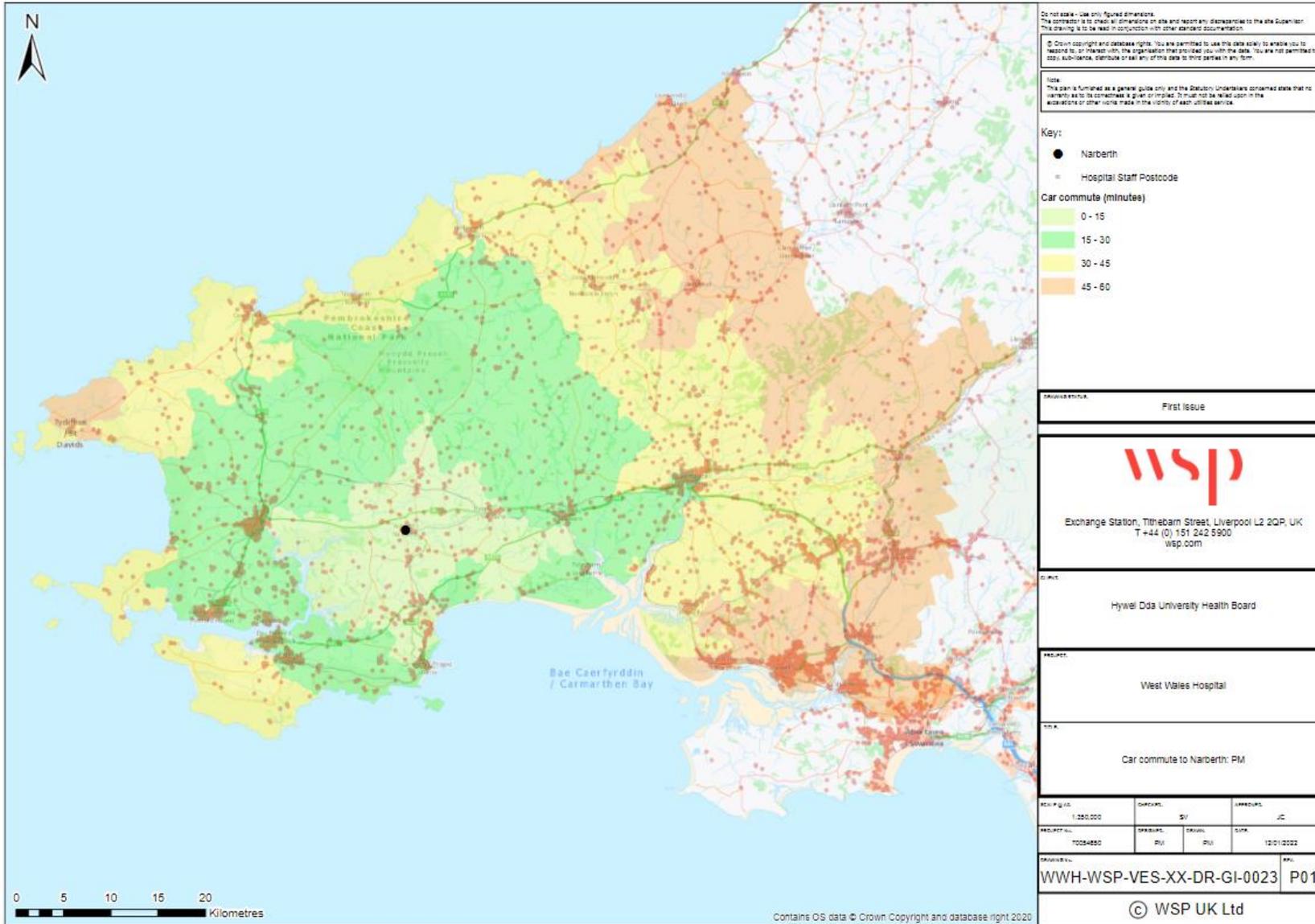


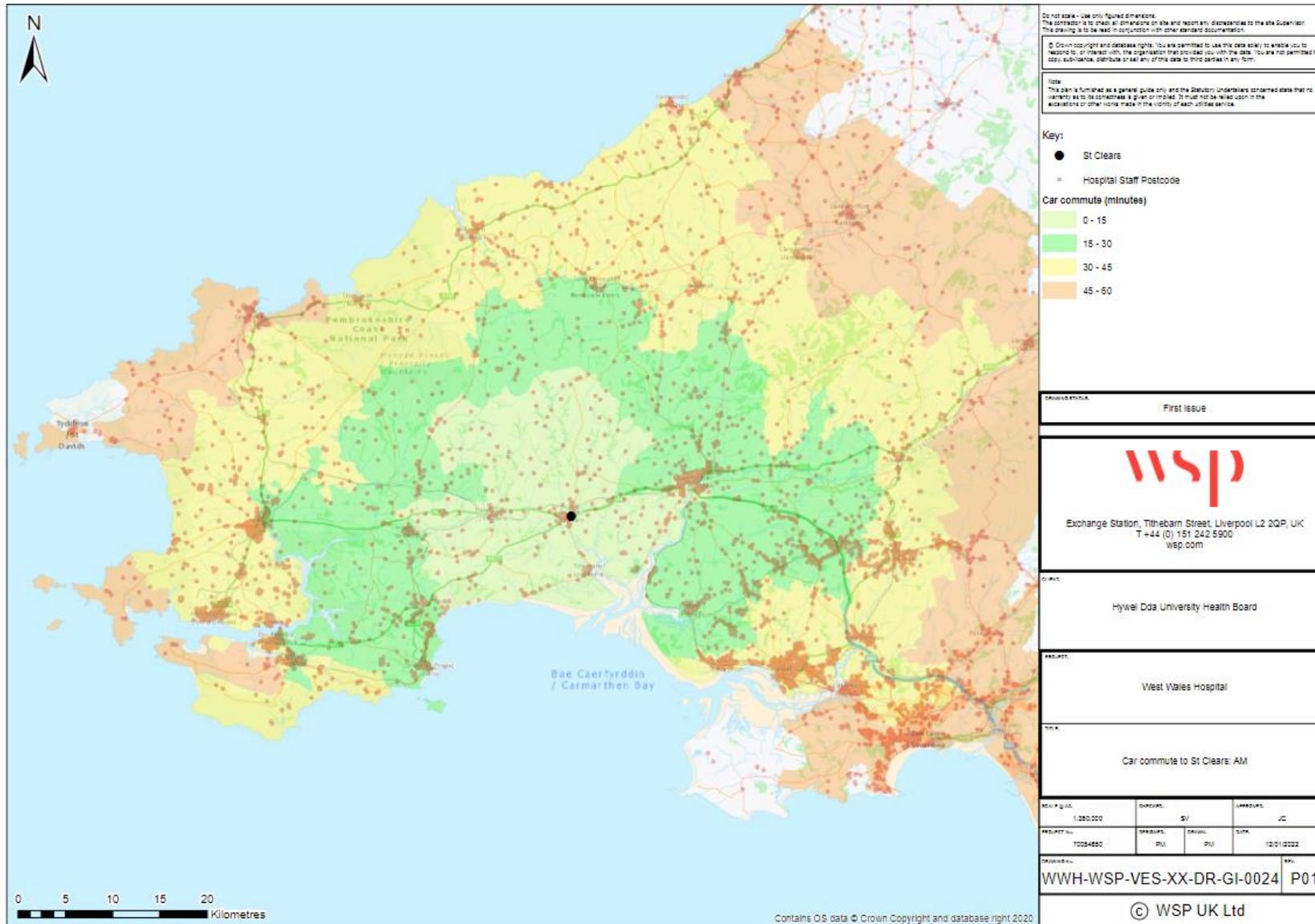
Appendix D

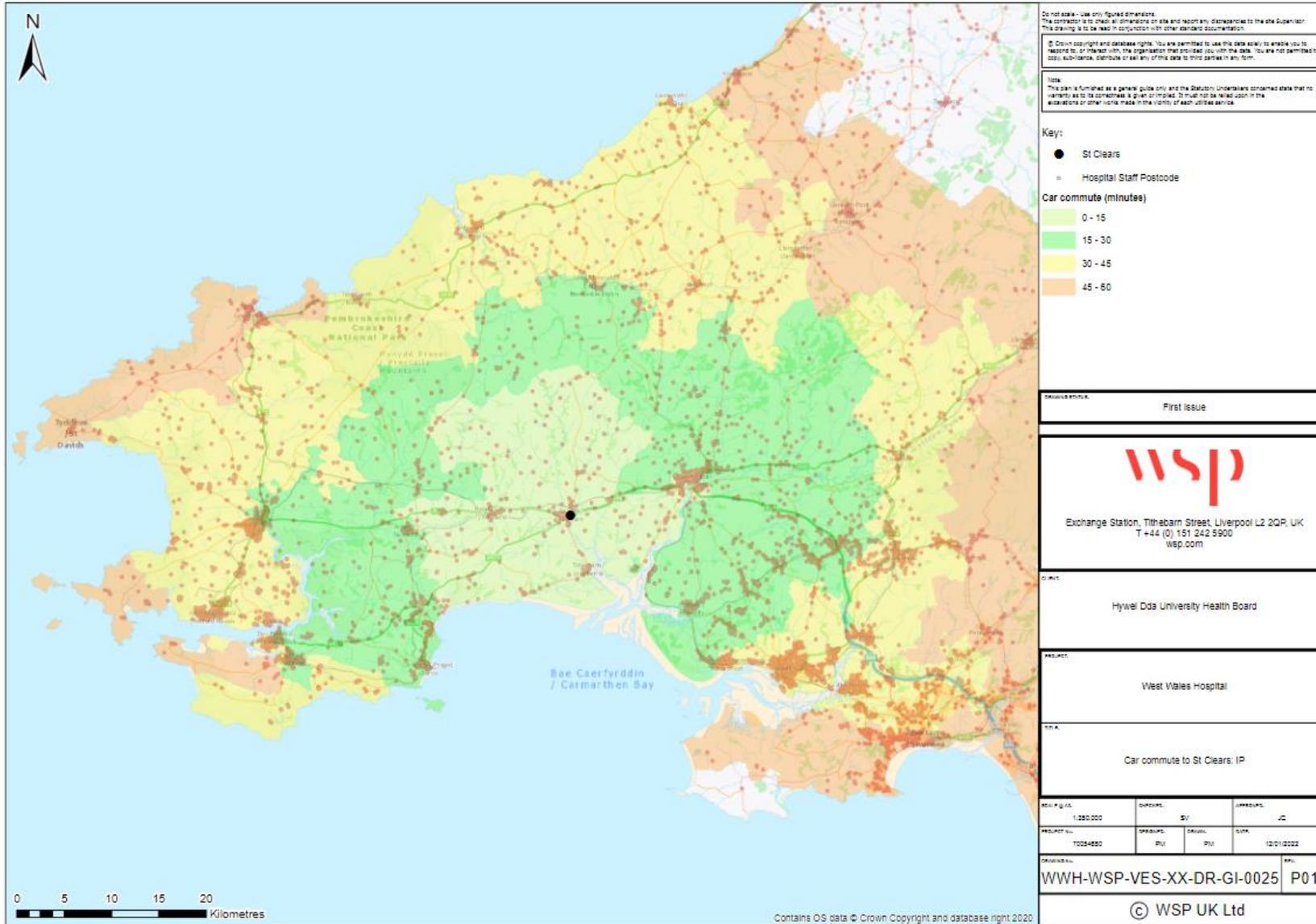
CAR TRAVEL TIME

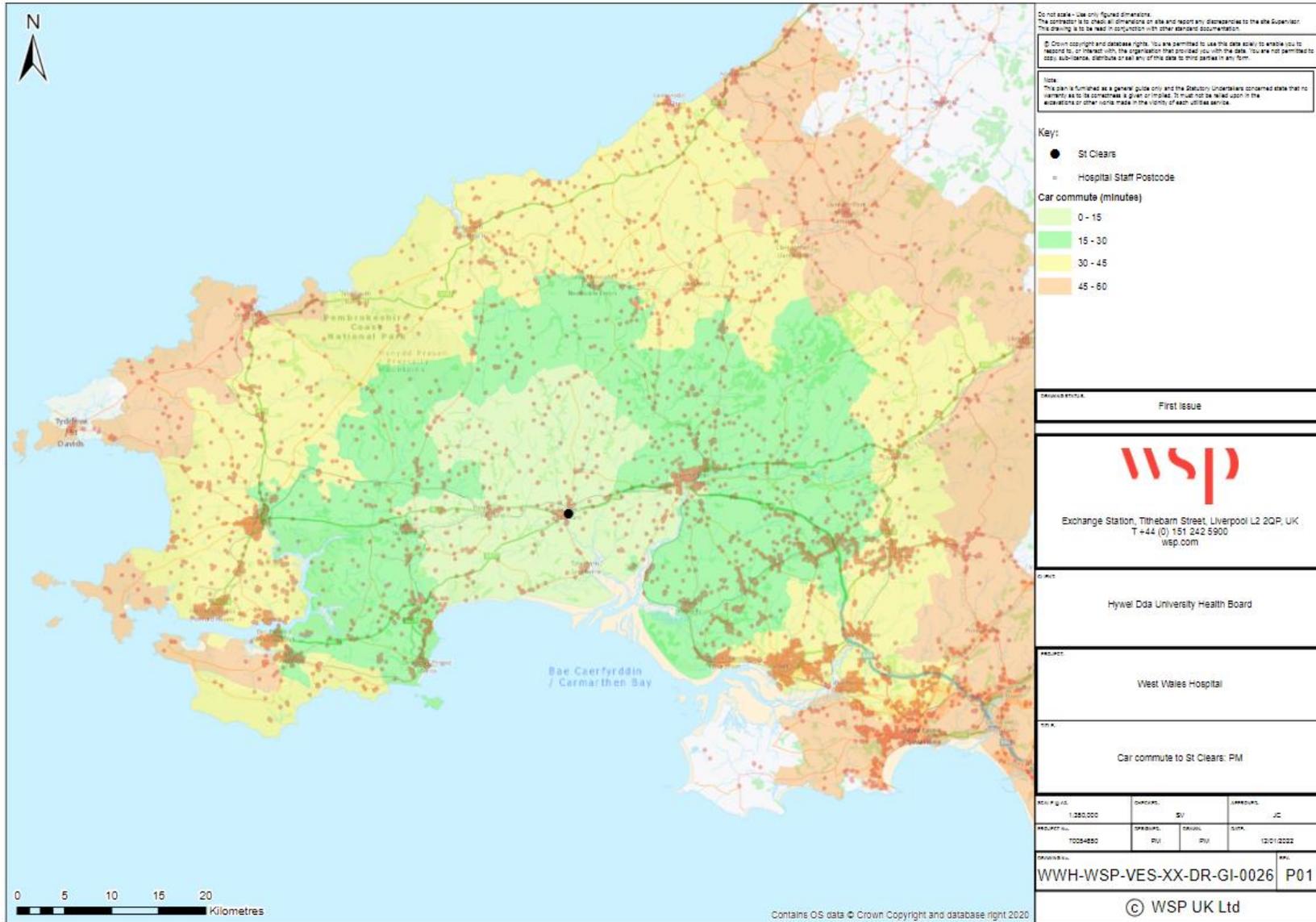














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