

Castle Cement Limited

Carbon Capture and Storage Project – Padeswood North Wales

Volume 4, Draft Technical Appendix 11.2

Travel Plan

RSK

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1 INTRODUCTION

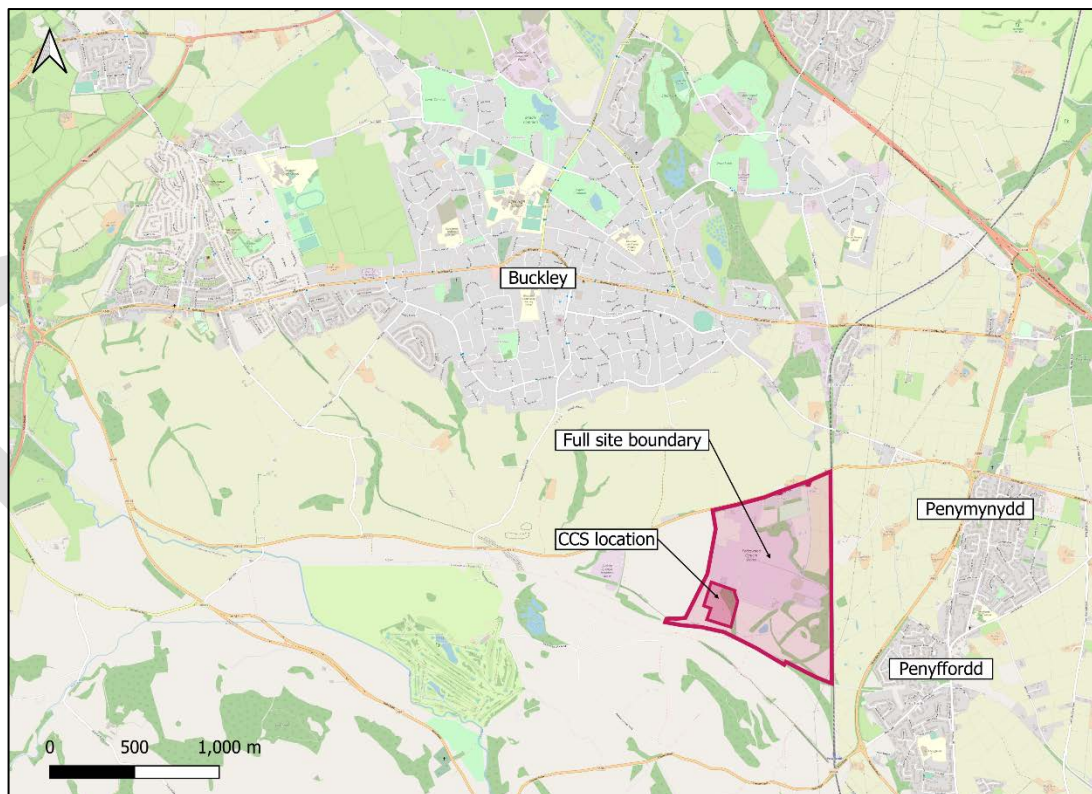
1.1.1 RSK has been instructed by Castle Cement Limited (hereafter referred to as the 'Applicant') to prepare a Travel Plan to support the development of a Carbon Capture and Storage project (hereafter referred to as the 'Proposed Development') at the existing Padeswood Cement Works, located north west of Penyffordd and accessed south off the A5118. This document is supported by associated assessments with the draft Environmental Statement (as provided in **Volume 2**) and Transport Statement (as provided in **Volume 4, Technical Appendix 11.1**).

1.2 Site location

1.2.1 The Site is located approximately 1.3km north west of Penyffordd village, 13km south west of the city of Chester. Access to the Site is provided via the existing main access to the cement works off the A5118 which borders the north of the Site and connects to the A55 approximately 2.5km to the north east. The A55 then provides connections to Chester and North Wales via the strategic road network.

1.2.2 The location of the Carbon Capture Plant in relation to the wider Site is illustrated in below. The detailed site layout plan has been included at **Appendix A**.

Figure A Site location plan



1.3 The need for a Travel Plan

- 1.3.1 A Travel Plan is an important tool for supporting sustainable access to a development. It provides a long-term strategy that seeks to deliver sustainable transport objectives through positive action. There are a number of challenges that Travel Plans can contribute towards meeting. These include minimising the potential increase in traffic generated to and from the Proposed Development and helping to reduce carbon emissions, by reducing the proportion of car trips. For the proportion of car trips to decrease, alternatives of getting to and from the Site are encouraged.
- 1.3.2 In addition, Travel Plans can help to promote more healthy lifestyles through increased walking and cycling. As a result, a Travel Plan forms a key stage in the forward planning process and is a 'living document' that needs to be regularly reviewed to ensure its effectiveness.

1.4 Travel Plan benefits

- 1.4.1 Travel Plans can result in a variety of benefits to the occupiers of a development and the wider community, as well as addressing a range of issues, including:
- Saving money, enabling users to gain financial control of transport expenditure;
 - Reducing traffic congestion, aiding the local economy;
 - Improving the health, stress and wellbeing of users of a development;
 - Improving the productivity of users;
 - Enabling organisational leadership to promote positive Corporate Social Responsibility;
 - Enhancing the reputation and relations with local communities;
 - Reducing the demand for car parking, enabling more efficient land use;
 - Cutting carbon emissions and their contribution to climate change;
 - Improving local air quality whilst reducing noise pollution; and
 - Promoting healthy lifestyles.

The Travel Plan should provide benefits to all parties, including the Applicant, site users and Flintshire County Council, which can help in gaining widespread commitment to its implementation and continuing operation.

1.5 Development information

- 1.5.1 The aim of the proposed project is to integrate the Applicant's Padeswood Cement Works into the HyNet North West network through the capture of CO₂ for

transportation and subsequent storage in Liverpool Bay CCS Limited's Liverpool Bay storage facilities.

1.6 Scope of the Travel Plan

1.6.1 The Travel Plan focuses on the accessibility of the Site. A package of measures to promote sustainable modes of transport available to the users of the Site is at the core of the objectives. The remainder of the Travel Plan is structured as follows:

- **Section 2: Travel Statement** – this provides an in-depth view of the different modes by which the Site can be accessed, looking at public transport availability as well as walking and cycling access. This section also considers proximity to local amenities from the Site.
- **Section 3: Objectives and Targets** – here, the goals of the Travel Plan are considered in promoting more sustainable means of transport. In addition, the targets section looks at projections of different modes of transport and which modes are likely to be able to achieve the greatest modal shift.
- **Section 4: Measures** – this looks at specific infrastructural and informational measures to be implemented and how these can promote sustainable travel to and from the Site.
- **Section 5: Monitoring** – this section considers how the Travel Plan will be monitored, including the measures discussed in **Section 4**.
- **Section 6: Action Plan** – an overview of the measures that will be implemented are provided here, alongside timescales for their delivery.

2 TRAVEL STATEMENT

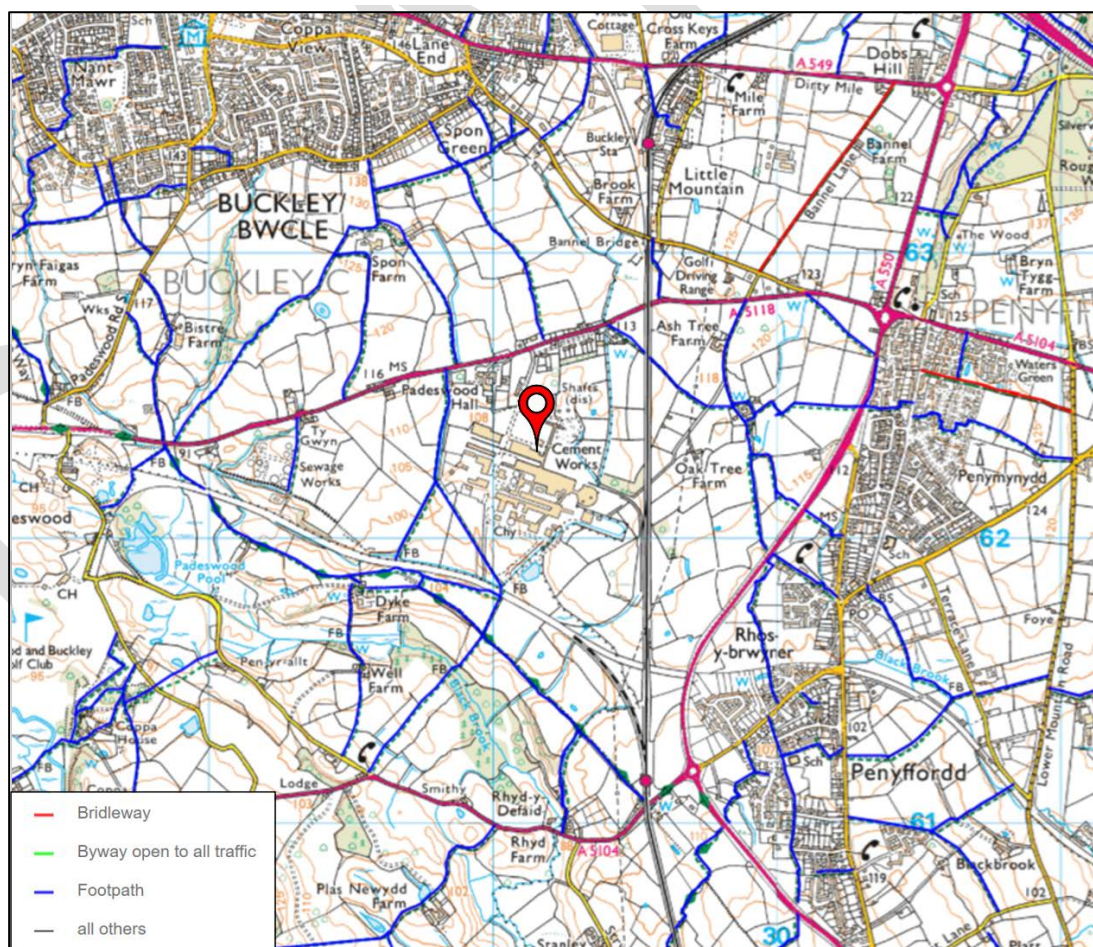
2.1.1 This section of the report presents the baseline conditions relating to the Site in terms of accessibility by sustainable modes of transport.

2.2 Pedestrian and cycle network

2.2.1 As shown in **Figure B**, the area surrounding the Site boundary has an extensive Public Right of Way (ProW) network which provides a good level of pedestrian accessibility to and from surrounding settlements.

2.2.2 ProW 301/56/20 which bisects the south-western portion of the Site in a north west to south east direction will be permanently relocated as part of the Proposed Development. This route will be diverted to run along the western Site boundary, but this will ensure that the route remains open and available for use by pedestrians travelling along this route between the Site and residential settlements to the south. Further details on the relocation of this ProW can be found in the accompanying Transport Statement (as provided in **Volume 4, Technical Appendix 11.2**).

Figure B Local public rights of way



Source: Flintshire County Council ProW Map Data

- 2.2.3 To the east of the Site on the A5118 there are sporadic areas of footway provision between the Site access and Penymynydd in areas with residential properties. Where there is no footway provision, grass verges line the carriageway.
- 2.2.4 At present, there are no dedicated cycle lanes within nearby vicinity of the Site. However, more confident cyclists would be able to travel on the A5118, a reasonably wide road that operates at 40 mph to the east. There are no National Cycle Network (NCN) routes in the area surrounding the Site, with the closest route (NCN 5) running along the coast of North Wales into Chester.

2.3 Access by public transport

Bus services

- 2.3.1 The closest bus stops to the Site are located on the A5118, approximately 100m to the east of the Site access junction. These stops are known as the ‘Padeswood Drive’ bus stops, and they are served by the T8 TrawsCymru service. **Table 1** outlines the routing and frequency of the service available from the local bus stops

Table A Bus timetable

Service	Route	First Bus	Last Bus	Frequency
T8 TrawsCymru	Corwen – Mold – Padeswood – Broughton – Chester	07:39 08:53	17:18 18:53	Hourly

Rail services

- 2.3.2 The nearest railway station is Buckley Station, which is located just under 1km north of the Site. Operated by the South Western Railway Line, the station predominantly serves trains between Wrexham and Bidston, and can be accessed within a 20-minute walk, or 6-minute cycle. Buckley Railway Station offers step free access throughout and benefits from 10 cycle storage spaces and a car park with 12 spaces.
- 2.3.3 Alternatively, Penyffordd Railway Station is located approximately 1.2km south east of the Site boundary. Pedestrians can use the ProW which runs along the western boundary of the Site and towards the south east to access this station on foot in approximately 18 minutes. Alternatively, using the local highway network, the station can be accessed within an approximately 12-minute cycle. The station offers direct

services to Wrexham and Bidston and provides two cycle parking spaces and 12 car parking spaces.

2.4 Summary

- 2.4.1 The Site is located within an existing network of PRowS which cater for pedestrians. Despite no dedicated cycle lanes available at present, the surrounding highway network could accommodate confident cyclists.
- 2.4.2 The local bus stop offers an hourly service to the surrounding areas and the Site is within 20-minutes walking distance of two railway stations which offer services to a number of nearby residential areas.

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3 OBJECTIVES AND TARGETS

- 3.1.1 Travel Plans seek to establish clear outcomes to be achieved in relation to transport based on key goals for the development. As such, this Travel Plan has been prepared based on the following objectives:
- Encourage sustainable movement of people to and from the Site; and to
 - Promote healthy lifestyles and a sustainable, vibrant new development.
- 3.1.2 The setting of targets is essential to ensure that the objectives of the Travel Plan are met. Targets should therefore be linked to the objectives and be SMART (Specific, Measurable, Achievable, Realistic and Time-related). The two-types of targets are Aims, which consider modal share and Actions which are non-quantifiable and represent milestones.
- 3.1.3 Targets will be measurable using indicators, which represent the results of monitoring. Indicators may also be used to highlight the progress of the Travel Plan without necessarily having a linked target.

3.2 Baseline modal split

- 3.2.1 [2021 Census data](#)¹ has been interrogated to provide a baseline modal split for the operation of the Carbon Capture Plant at Padeswood.
- 3.2.2 As the future members of staff at the Site are unknown, the initial travel patterns have been estimated using the TS061 dataset (method used to travel to work) for Flintshire, which covers the area in which the Site is located.
- 3.2.3 **Table 2** summarises the anticipated baseline modal split of the future users of the Proposed Development. The modal split includes those that mainly work at or from home.
- 3.2.4 It should be noted that the census modal share represents that of the wider workforce and may not be strictly representative of the specific land uses of the Proposed Development. This data was collected in 2021 during the Covid-19 pandemic when a high proportion of the workforce were working from home. As such, the baseline

¹ <https://www.ons.gov.uk/search?filter=datasets&page=1&topics=9724>

has been adjusted to exclude 'work from home' and proportionately increase other modes accordingly, as members of staff will be required to work on the Site.

Table B Baseline modal split – 2021 Census

Mode of Travel	Flintshire	
	Modal Split	Adjusted Split (excl. WFH)
Car (Single Occupancy Vehicle)	61.5%	78.9%
Car Share	5.1%	6.5%
Walking	5.4%	6.9%
Cycling	1.5%	2.0%
PT – Bus	2.3%	2.9%
PT – Rail/Tram	0.4%	0.5%
Other	1.8%	2.2%
Work from Home	22.0%	0.0%

3.3 Aims – modal share targets

- 3.3.1 Given the above adjusted Flintshire baseline for travel to work modal split, **Table 3** sets out targets for the Site. An initial target has been set to reduce single occupancy vehicle trips by 5% and increase other modes between 10-45%.

Table C Modal share targets

Mode	Baseline	Target reduction / increase	5-year target
Car (Single Occupancy Vehicle)	78.9%	Reduce by 5%	75.0%
Car Share	6.5%	Increase by 45%	9.5%
Walking	6.9%	Increase by 12%	7.8%
Cycling	2.0%	Increase by 10%	2.2%

Mode	Baseline	Target reduction / increase	5-year target
Public Transport	2.7%	Increase by 25%	3.3%
Work from Home	0.0%	No change	0.0%
Other	2.2%	No change	2.2%

- 3.3.2 In terms of the justification for these targets, the target for percentage of car share trips has been increased the most as this can be viewed as one of the easiest modal changes to encourage for a site in a more rural location where a large percentage share of employees can be expected to drive to work. Car sharing offers a viable alternative to single-occupancy vehicle trips, both increasing the sustainability of travel and reducing the cost.
- 3.3.3 Additionally small increases can be expected in the use of active travel and public transport as a result of the promotional measures that will be implemented by the Travel Plan Coordinator as part of the Travel Plan.
- 3.3.4 Following baseline surveys, an assessment will be made of whether the above targets can realistically be achieved. The targets may then be revised accordingly, in agreement with Flintshire County Council to ensure that they remain SMART. In subsequent years, the results of further monitoring will allow the targets to be reviewed and identify where further initiatives could be implemented to increase the effectiveness of the Travel Plan in order to reach the objectives.
- 3.3.5 In order to understand where best to target further initiatives, indicators of the use of non-Single Occupancy Vehicle modes will be monitored, as well as those measures that respondents have given a positive preference for – e.g., where responses have been received that favour cycling as a potential mode of travel, measures that could support an uptake in cycling will be supported.

3.4 Actions – milestone targets

- 3.4.1 The next section will set out the suite of measures that will be introduced at the Proposed Development in order to achieve a modal shift to meet the targets set out above.
- 3.4.2 To assess the success of the implementation of the Travel Plan, each initiative will have an action target, e.g., a milestone target for the completion of each measure. This will be monitored using the action plan set out in **Section 6**. The action plan will be reviewed at the same time as the travel surveys are carried out. Following the results of these surveys, and review of the implemented measures, the Travel Plan Coordinator will identify whether further measures could be introduced to promote sustainable travel.

4 MEASURES

4.1.1 A Travel Plan is the management tool for implementing measures that promote sustainable transport. A successful and cost-effective Travel Plan is one that implements measures that are relevant and realistic to the Proposed Development. Consultation with employees is therefore key to achieving support from those who the measures are targeted at. The following set of measures are proposed for the Proposed Development.

4.1.2 The Travel Plan includes complementary ‘hard’ and ‘soft’ measures that address the objectives set out in the previous chapter. Proposed measures for the Site will therefore be grouped under management (soft), infrastructural (hard), and informational (soft).

4.2 Management measures




Travel Plan Coordinator

The Carbon Capture Plant operator will appoint a Travel Plan Coordinator to manage travel related matters at the Site, who will oversee and implement the Travel Plan. The Travel Plan Coordinator will champion the aims of the plan, the role including but not limiting to:

- Leading on the implementation of the Travel Plan;
- Raising awareness of the Travel Plan and travel options available to those working at the Site, including the provision of resources in accessible formats where necessary;
- Promoting sustainable travel (through events, for example);
- To be the central point of contact for anyone requiring travel advice or information;
- Carry out monitoring of the Travel Plan; and
- Liaise with stakeholders on the achievements of the Travel Plan.


4.3 Infrastructural measures


Cycle Infrastructure

4.3.1  Cycle parking will be provided in a convenient and prominent position within the Site boundary for use by staff and visitors to the facility. A total of 28 new cycle parking spaces will be provided on-site .

4.3.2 The Proposed Development management are also encouraged to consider enrolling for the Government Cycle-to-Work scheme in order to assist employees in purchasing bicycles and cycle equipment.

Car Sharing Scheme

4.3.3  There is potential for individuals to share their car journeys with other employees as some are likely to reside in the same surrounding settlements. The Travel Plan Coordinator will encourage those who travel by Single Occupancy Vehicles to consider car sharing as a means of reducing the overall number of cars commuting to and from the Site.

4.3.4  Following the completion of construction, the Travel Plan Coordinator will consider the potential demand for car share parking spaces. Should there be a demand for this, the Travel Plan Coordinator will arrange for conveniently located space to be marked and signalled as such and will communicate this to all staff at the Site. In which case, more employees would be encouraged to participate in the car sharing scheme resulting in a reduced use of Single Occupancy Vehicles.



Electric Vehicle Charging

4.3.5 In order to encourage and support the take up of electric vehicles, 26 electric vehicle charging spaces will be provided on the Site. This accounts for 10% of the total marked parking bays that will be put in place as part of the Proposed Development.

4.4 Informational measures

Travel Noticeboard

A travel notice board should be set up in a common area of the Site, frequently used by the employees which will include, but not limited to, information on the following:

- Public transport timetables;
- Pedestrian network maps;
- Information on car sharing;
- Sustainable transport and journey planning websites; and
- Contact details for the Travel Plan Coordinator.

Informational Leaflets

4.4.1 The Travel Plan Coordinator will issue informational leaflets to staff, promoting alternative sustainable transport modes. Where appropriate, the leaflet will be issued electronically to reduce the Proposed Development's carbon footprint, eliminating the need to print and distribute copies. The information will include the following:



- An introduction to the leaflet, highlighting the purpose and key measures being implemented as well as contact details for the Travel Plan Coordinator;
- A map showing the location of the Proposed Development in relation to the local area, highlighting the nearby bus stops and railway stations within the vicinity of the Site;
- Directions to the Site by non-car modes;
- Bus timetable information of local services from nearby bus stops;
- Information about the benefits of car-sharing; and
- Information on the benefits of walking and cycling along with a map of the existing pedestrian network (including PRow).

4.4.2 The contents of the informational leaflets will be reviewed and updated by the Travel Plan Coordinator prior to publishing to ensure it is up to date. The information will be then regularly reviewed ensuring that employees are kept up to date with any changes, such as new bus timetables, withdrawn or new services, or new contact details.

Personalised Journey Planning

4.4.3 Targeting individual journeys can be the most effective way of reducing car travel and encouraging use of sustainable modes. This initiative is most effective for those who currently travel by car and have no constraints to travel by sustainable modes.



4.4.4 Employees will be invited to contact the Travel Plan Coordinator and would initially be directed to journey planning services, with the potential for targeted personalised travel planning, which may include maps, information about how and where to purchase public transport tickets, along with timetable information.

5 MONITORING STRATEGY

- 5.1.1 To establish the success of the Travel Plan, an effective monitoring and review process must be in place. Monitoring will ensure that there is compliance with the Travel Plan, assess the effectiveness of the measures and provide the opportunity for review.
- 5.1.2 In order to set specific targets, the Travel Plan Coordinator will carry out a travel survey for all members of staff based at the Proposed Development within three months of operation.
- 5.1.3 The travel survey will include questions based on mode of travel, what measures are most likely to assist in their decision to change mode and what barriers exist for those that travel by single occupancy car.

5.2 Monitoring

- 5.2.1 The monitoring of the Travel Plan is important for the following reasons:
- It will demonstrate to Flintshire County Council the effectiveness of the measures implemented and the progress being made towards the aims and objectives of the Travel Plan;
 - It justifies the commitment of the Travel Plan Coordinator and of other resources;
 - It maintains support for the Travel Plan by reporting successes, and;
 - It helps to identify any deficiencies within the Travel Plan, including any measures that are not effective.
- 5.2.2 Questionnaires will be distributed to all members of staff to monitor travel to and from the Site and to gain an understanding of travel habits. These surveys will be used to monitor the number of staff members travelling by Single Occupancy Vehicles and reasons why they are making such trips. The results can then be compared with the mode share targets identified earlier in the plan.
- 5.2.3 The Travel Plan Coordinator will maintain a monitoring table of progress of key Travel Plan targets based on the results of the travel surveys. This table will be published in the monitoring report for the stakeholders.

5.3 Review

- 5.3.1 The Travel Plan Coordinator will undertake a review of the Travel Plan following the results of each monitoring stage. This review will be important in assessing the effectiveness of the measures implemented and to identify areas where modification may be necessary. In particular, the following will be assessed:
- The level of car use at the Site; and
 - Comments received from members of staff.

- 5.3.2 When reviewing the effectiveness of the Travel Plan, the following questions will be asked:
- Which areas offer the greatest potential for change/improvement?
 - Were all of the initiatives implemented by the target dates?
 - How well used is each initiative/scheme?
 - How much did it cost to introduce?
 - Is the review process itself effective?
- 5.3.3 The Travel Plan Coordinator will compare the mode share statistics obtained from each monitoring period to the targets set for the Proposed Development. If in the case that the targets are not met, the Travel Plan Coordinator will discuss further mitigation measures with the Flintshire County Council, such as additional engagements with members of staff at the Proposed Development.
- 5.3.4 The Travel Plan Coordinator may choose to revise the targets, with agreement with the Flintshire County Council, in order to maintain a realistic goal for the aims and objectives of the Travel Plan.
- 5.3.5 The Travel Plan Coordinator will prepare a progress report to include the results of monitoring, details and success of measures implemented and an action plan for the forthcoming period. This will be submitted to Flintshire County Council for their use to support travel planning at a strategic level.

6 ACTION PLAN

6.1.1 The measures and initiatives summarised earlier will be implemented in order to target specific objectives of the Travel Plan within particular timescales. These have been included with the action plan, as set out in **Table D**.

Table D Indicative action plan

Action	Target Date	Responsibility
Management		
Travel Plan Coordinator	Upon operation	Applicant
Infrastructural		
Cycle Infrastructure	Upon completion	Applicant
Car Sharing Scheme	Upon operation	Travel Plan Coordinator
Electric Vehicle Charging	Upon completion	Applicant
Informational		
Travel Noticeboard	Upon operation	Travel Plan Coordinator
Travel Information Leaflet	Upon operation	Travel Plan Coordinator
Personalised Journey Planning	Ongoing	Travel Plan Coordinator
Monitoring and Review		
Undertake Travel Plan surveys in years 1, 3 and 5	Y1, Y3 and Y5	Travel Plan Coordinator
Analyse and report on surveys	Within 3 weeks of survey	Travel Plan Coordinator
Review use of car parking	Quarterly	Travel Plan Coordinator
Review use of cycle parking and associated facilities	Quarterly	Travel Plan Coordinator

7 REFERENCES

Office for National Statistics (2021). UK Census 2021. Available at:
<https://www.ons.gov.uk/search?filter=datasets&page=1&topics=9724>

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