

Technical Note

DWT197 – Proposed Primary School, The Spinney, Dinas Powys

October 2019

1. Introduction

This Technical Note has been produced by DW Transportation Limited on behalf of Mr Jonathan Powell (the 'Applicant'), who is seeking planning permission to change the use of the existing annexe building (Use Class C3 Dwelling Houses) at The Spinney, Twyncyn, Dinas Powys CF64 4AS (the 'Site'), to provide a school (Use Class D1).

There are a number of highway and transport matters pertaining to this change of use all of which have been duly considered within this technical note.

This document should be read alongside the other supporting planning documentation, in particular the planning statement produced by Reading Agricultural Consultants, the supporting statement by Thrings and the travel plan by DW Transportation.

There are two drawing appended to this note:

Drawing 01 Car Parking and Swept Path Analysis.

Drawing 02 Proposed Parking Layout at Bowls Club

Site Meeting

A meeting was held at the Site at the top (north) of the Twyncyn on Tuesday 10 September 2019. In attendance were representatives of Thrings, DW Transportation and Reading Agricultural Consultants and the Vale of Glamorgan transport team Leader, Lee Howells. At the meeting all of the Council's previously identified issues were discussed and ways forward for addressing these issues were discussed and agreed in principle. The specific issues can be summarised as follows:

1. Visibility splays of 2.4m x 43m required (speed survey);
2. No parking plan;
3. Access 4.5m for the first 10m / passing bays;
4. Details of staff numbers, type of commercial vehicle; and
5. No footways along Twyncyn.

The opinion of Mr Howells was that "none of the issues were insurmountable".

At the meeting it was confirmed that these issues could be addressed by:

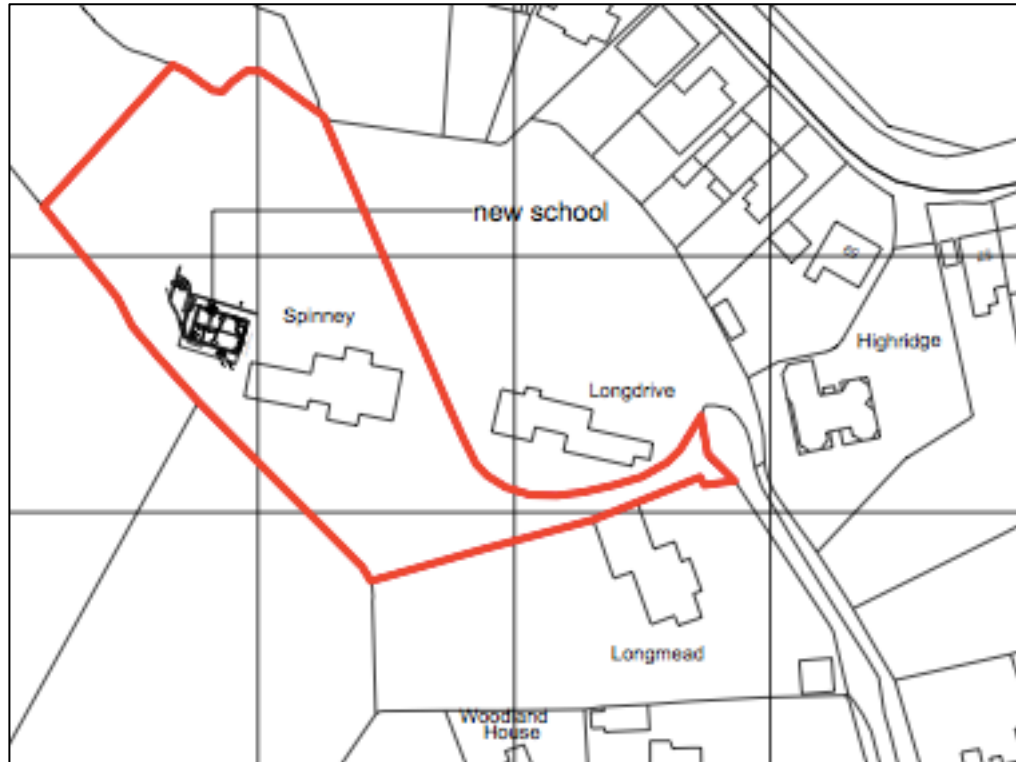
- Obtaining traffic data for Twyncyn (points 1 & 5); [see section 2]
- Providing a 1:200 scale parking drawing (point 2) [see Drawing 01]
- Confirming trip generation for the School (point 3); [see section 4]
- Confirming staff numbers (point 4) [see section 3]

2. Existing Situation

The Site is that of The Spinney, Twyncyn, Dinas Powys, which is a substantial residential property with an annexe building, ample parking and manoeuvring space and large gardens. The site is accessed via a 100m long shared private drive from the public highway at the northern end of Twyncyn.

The application area is shown on Figure 2-1.

Figure 2-1
Application Area



Existing Trip Generation

The existing annexe building has two floors, has a footprint area of approximately 69.5sqm and is a building enjoyed as part of the main house. Its main previous use was a home studio. The annexe as a stand-alone building is assumed to have no extant trip generation separate to that of the house.

Existing Twyncyn Traffic Flows

Traffic data was collected at Twyncyn using Automatic Traffic counters installed for 7 days from 14 September 2019. The data demonstrates that the greatest number of trips on any one weekday was 82 northbound and 85 southbound. During the school AM peak hour (0900-1000), six vehicles were recorded travelling northbound and five southbound. Assuming these vehicles are evenly profiled across the hour, this would equate to one vehicle every 10 minutes. It could therefore be concluded that, as a worst case, the walking bus could encounter one vehicle on Twyncyn on their journey to school.

This level of existing traffic, combined with the negligible number of staff trips, does not require the introduction of any mitigation for the proposed school to operate safely within the context of highway safety.

The raw ATC data may be provided on request by sending an email to info@dwtransportation.com

Access

Access to the Site is via a shared private drive commencing at the northern end of Twyncyn. The access road is tarmac single-lane with no footway. Twyncyn is a typical, historic, suburban road measuring approximately 5.5m wide with no footways.

Sustainability (Staff and Visitors)

The nearest bus stops are on St Andrew's Road, which are some 0.6km from the Site. This is an acceptable walking distance to a school and pedestrian facilities are provided which connect the bus stops with the private drive. Whilst the private drive does not have separate footway, it only serves three residential properties and so is very lightly trafficked with good levels of forward visibility and thus is not considered hazardous.

The nearest train station, Dinas Powys, is approximately 1.2km from the Site. This is well within the preferred maximum of 2km suggested by the Chartered Institute of Highways and Transportation and so rail is considered an acceptable mode of transport for travelling to/from the school.

The Sustrans website's online mapping indicates that the National Cycle Network does not pass through Dinas Powys. Therefore any visitors wishing to travel to the site by bicycle would need to make use of on-carriageway routes only.

Overall, the site is considered to be in a sustainable location with both bus and rail options being available.

Waste Collections

Waste is collected from the end of the private drive/top of Twyncyn. The applicant plans to make the school as sustainable as possible by composting food waste on Site. Pupils will be required to take any litter and recyclables home with them each day for recycling. As such, no additional waste collection vehicles will be generated.

Highway Safety

Historic accident records demonstrate that no personal injury accidents have been recorded on Twyncyn in the past 20 years. The adjacent highway network is therefore considered to be safe for all road users.

3. Proposed Development

The proposal seeks to change the use of the existing C3 dwelling house annexe building to The Spinney, Twyncyn, Dinas Powys to provide a school (D1 Use Class). The school will have capacity for 20 students, aged 10-12, and will employ two full-time teaching staff. There would no ancillary staff.

The school would operate from 10am – 4.30pm.

4. Trip Generation

The trip generation for the proposed school has been considered from first-principles (as opposed to using generic TRICS data), as this is considered to be the most accurate method.

In terms of staff, the assumption is that both teachers would travel to work separately by car. There will be no ancillary staff employed. School meals will not be provided and so no catering staff trips will be generated.

Whilst the staff trips would access the Site to park, parents/guardians would not be permitted access to the private drive. Parents will only be permitted to set down/pick-up at a specified location and this is discussed further in section 7.

School Trips

As part of the teaching curriculum, pupils would go on a school trip to a local place of educational interest such as museums, places of historic significance, science workshops etc. These trips would take place at a similar frequency to state schools (and not more than twice per month).

School trips would require the hire of a minibus, which would collect and drop off at the Bowls Club. Children would be carefully escorted to the Bowls Club in the same fashion as the normal daily walking bus.

There would be no other trips generated other than those detailed in this section.

The use of the Bowls Club for the duties outlined above is to be secured through a Unilateral Undertaking under a Section 106 Agreement.

5. Parking Strategy

The adopted parking standards for the Vale of Glamorgan advise that schools should be provided with the following levels of parking provision.

- 1 commercial vehicle space;
- 1 space per each member of teaching staff;
- 1 space per 2 ancillary staff;
- 3 visitor spaces (to include 1 space for disabled people); and
- Bus parking as required.

The proposed layout shown on **Drawing 01** demonstrates that the site will accommodate the following parking spaces.

Staff	2 spaces
Visitors	2 spaces

Given the scale and temporary nature of the proposed school, a commercial parking space is not considered necessary.

It is also considered that a dedicated disabled space would only be provided should the need arise.

Swept path analysis has been undertaken using a 5.5m long van. The analysis shows that this size vehicle can turn within the site without encroaching into parking spaces.

6. Emergency Vehicle Access

Emergency vehicle access to the site will be retained at all times.

7. Set Down and Pick Up

There are no proposals for a pick-up/set-down facility on the site. Whilst this is a requirement of the parking standards, it is considered that this would be more relevant to more traditional schools in the urban area. The proposed school is relatively small with a capacity for 20 pupils and is located outside of the urban area. Whilst such a facility would be of benefit, the applicant does not wish to attract vehicles to the site or the adjacent road network, as it is not considered appropriate due to the suburban/semi-rural location and the standard of highway infrastructure. However, it is recognised that pupils will require a means of accessing the school safely and so it is proposed that pupils are collected from a suitable meeting point (or points) on the public highway or public land by bus. Therefore the applicant has agreed terms with the Dinas Powys Bowling Club to allow parents to use the car park to set down and collect their children. Further information regarding this arrangement can be seen in the accompanying travel plan.

Not all parents will set down/pick up in this location. The school will operate a lift share scheme whereby some pupils will share a lift with a teacher. **Drawing 02** illustrates an indicative parking arrangement at the Bowls Club.

8. Impact of Proposed Development

The traffic impact of the proposed school would be negligible. The only new vehicle trips would be those generated by the two members of teaching staff. The negligible number of new vehicle trips would have no material impact on highway safety.

It has been demonstrated that the traffic volumes on Twyncyn are extremely low with only 6 cars per hour during the proposed school's set down/pick up periods. The impact on pedestrian safety would therefore be negligible.

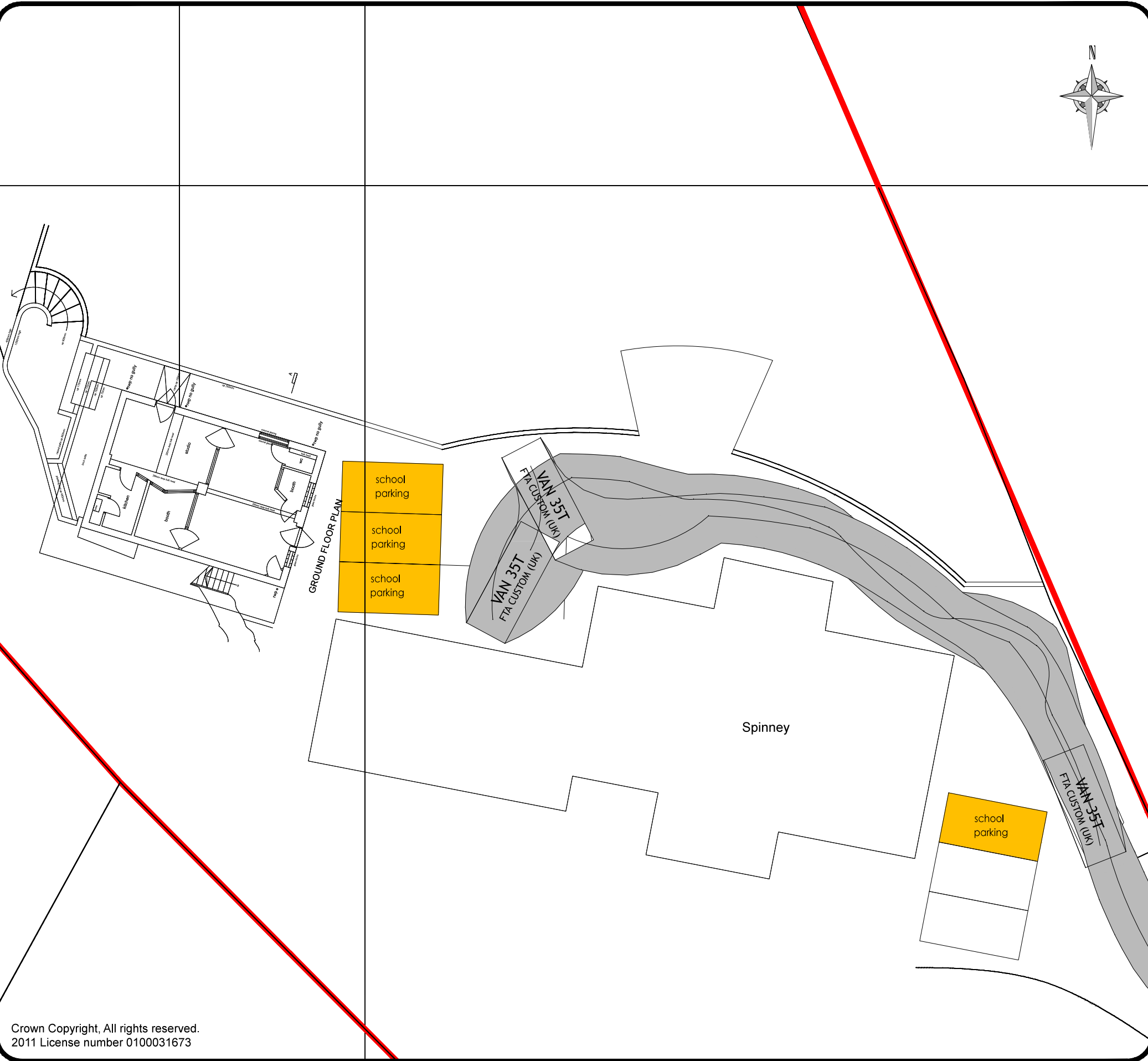
9. Summary

The proposed development would comprise a small school requiring a change of use of the existing annexe building at The Spinney, Twyncyn. Four parking spaces would be available on the site for two staff and two visitors. There would be space on the site to turn a small commercial vehicle.

The proposed school would generate very few vehicle trips. The only new trips to the Site would be those generated by the two members of teaching staff.

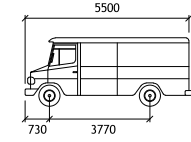
The proposed school is intended to be unobtrusive and operate with minimal disturbance to the surrounding residents. By applying a 'walking bus' system to get the children to school will mean that the impact on the highway network will be negligible and all pupils will have a safe, healthy and sustainable way of travelling to the school without any undue impacts on highway safety or the transport system.

As such, no reasons have been identified to suggest that the proposed development should not be supported and recommended for approval by the local highway authority.



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Notes



VAN 35T mm
 Width : 2080
 Track : 2080
 Lock to Lock Time : 6.0
 Steering Angle : 41.5

No.	Revision/Issue	Date

Client

Mr J Powell



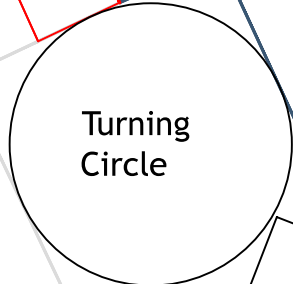
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Project
**PROPOSED SCHOOL
 THE SPINNEY, TWYNCYN
 DINAS POWYS**

Drawing
**PROPOSED PARKING LAYOUT
 AND SWEEP PATH ANALYSIS**

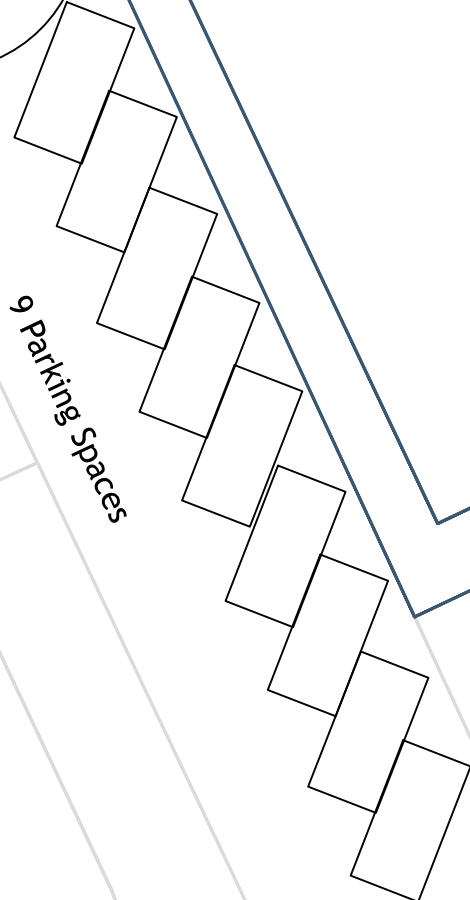
Project No DWT197	Drawing No. 01
Date 14.08.2019	
Scale 1:200@A3	

Bowling Green



Turning Circle

9 Parking Spaces



glas

Portway

Pav

41.8

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Project

PROPOSED SCHOOL
THE SPINNEY, TWYNCYN
DINAS POWYS

Drawing

PROPOSED PARKING LAYOUT
AT BOWLS CLUB

Project No

DWT197

Date

03.10.2019

Scale

1:250@A3

Drawing No.

02