



ACCESS APPRAISAL

February 2021



**10 Wynnstay Lane
Marford
Wrexham
SA43 3NN**



acstro

Table of Contents

1	Introduction	1
2	Existing Conditions	1
3	Visibility Requirements	3
4	Current Access Arrangement.....	4
5	Fallback Position	4
6	Conclusion	5

Appendices

Appendix 1 Existing Conditions

Appendix 2 Existing Visibility

Appendix 3 Fallback Position

Revision History

Issue 1	9 th February 2021	
Issue 2	17 th February 2021	

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1 Introduction

- 1.1 Acstro has been appointed to undertake an Access Appraisal in respect to development at 10 Wynnstay Lane, Marford, Wrexham.
- 1.2 Retrospective planning permission is sought for the construction of a new boundary wall and entrance to the property.
- 1.3 This Access Appraisal compares the current access arrangement (for which permission is sought) to the previous arrangement, which represents the fallback position. The conclusion of the Access Appraisal is that there is no material difference between the current arrangement and the fallback position.

2 Existing Conditions

- 2.1 No. 10 Wynnstay Lane is located on the southern side of the street and is approximately 50m to the west of the Stancliffe Avenue junction. Immediately to the west of the application site there is a speed limit transition, 20mph to the west and 30mph to the east.

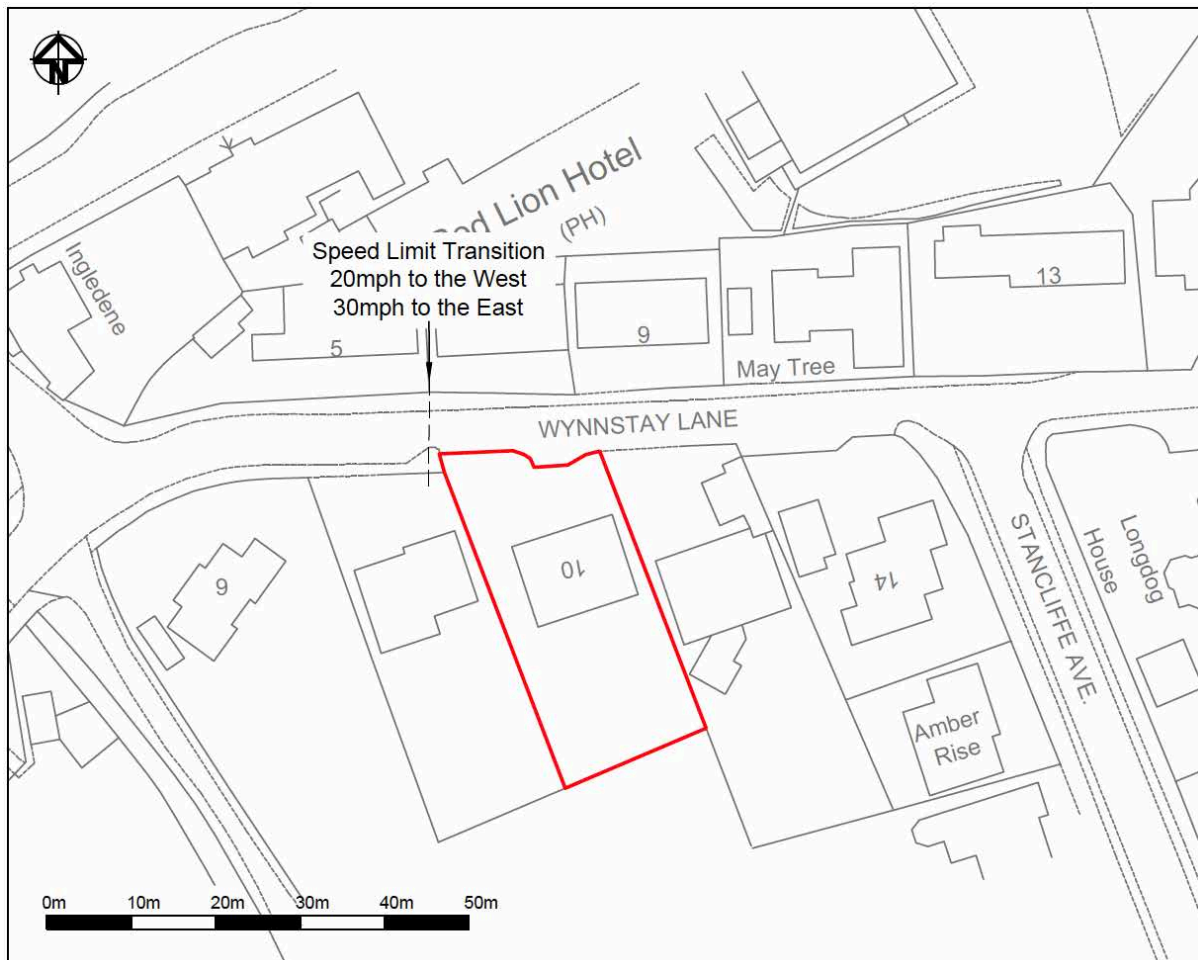


Figure 1 Location Plan

- 2.2 A more detailed plan of this section of Wynnstay Lane is provided as Appendix 1.

Appendix 1 Existing Conditions

- 2.3 Wynnstay Lane varies in width. To the east of the Stancliffe Avenue junction the carriageway is 4.8m wide. Immediately to the west of the Stancliffe Avenue junction the carriageway narrows to 3.9m and at this width can only accommodate single file traffic. At the north western corner of No. 10, the carriageway is 4.8m wide, then widens to 6.1m to the west of that.
- 2.4 Traffic approaching the application site from the either direction naturally slows due to the traffic calming effect of the narrowing carriageway. Traffic from the west is moving from a 6.1m wide carriageway into a section where there is an abrupt narrowing to 4.8m at the site's north western corner. Continuing eastwards drivers must negotiate a further narrowing to a single file section of street. In the opposite direction traffic must slow to negotiate the single file section of the street and, on passing this, then enters the 20mph speed limit area.
- 2.5 There is a 1m wide segregated footway along the northern side of the street.
- 2.6 In addition to No. 10, there are a number of properties that have a direct access onto this section of Wynnstay Lane; Nos. 6, 8 12 and 14 on the southern side and Nos. 5, 7, 9, 11 (May Tree) and 14.
- 2.7 A review of historic records has revealed that there have been no injury accidents recorded on this section of Wynnstay Lane since 1999 (as far back as records are publicly available). This demonstrates that the street and the numerous accesses that emerge onto it operates safely.



Figure 2 Injury Accident Record Search (1999 – 2020)

3 Visibility Requirements

- 3.1 Guidance on appropriate visibility provision at accesses and junctions is provided within TAN18, Manual for Streets (MfS1), Manual for Streets 2 (MfS2) and the Design Manual for Roads and Bridges (DMRB). The guidance of visibility requirements differs depending on the situation of the access and the speed of traffic passing.
- 3.2 The most recent of these documents is MfS2 (October 2010), provides clarification on which of the design standards should be followed in which situations.
- 3.3 MfS2 states in 1.3.2 that 'for any scheme affecting non-trunk roads, designers should start with MfS'.
- 3.4 Advice on these parameters is provided within section 10 of MfS2, which states that visibility from an access (Y-distance) should be based upon the stopping sight distance (SSD) for the speed of approaching traffic. SSD should be calculated based on the following formula:

$$SSD = vt + v^2/2(d + 0.1a)$$

Where:

v = speed (m/s)

t = driver perception/reaction time (seconds)

d = deceleration (m/s²)

a=longitudinal gradient (%)

- 3.5 Table 10.1 of MfS2 provides the relevant criteria for the formula and recommends that, where speeds are below 60kph (37mph) that driver perception/reaction time is taken as 1.5 seconds and that deceleration is taken as 0.45g.
- 3.6 Traffic approaching the site from the west is within the 20mph speed limit area and travelling through a traffic calmed area with speed reduction features such as road humps. Traffic approaching from this direction also encounter an abrupt narrowing of the carriageway at the north western corner of the site. Based on these factors and our observations on site it is considered that the speed of traffic approaching from this direction will be no more than 20mph. The SSD / Y-distance dimension for speeds of up to 20mph is 25m.
- 3.7 Whilst traffic approaching from the east is within a 30mph speed limit area, drivers will have had to slow to negotiate the single file section of the street and will be approaching the 20mph speed limit signs located at the north western corner of the site. Again, based on these factors and our observations on site it is considered that the speed of traffic approaching from this direction will be no more than 20mph.
- 3.8 The relevant SSD dimension should normally be visible from a point measured 2.4m back from the give-way line at the centre of the access (X-distance). However, this dimension can be reduced to 2m slow-speed situations where the flow from the minor arm of the junction is low. It is considered that this is a slow-speed situation and that a 2m X-distance is acceptable.
- 3.9 The recommended visibility splay dimensions would therefore be 2m x 25m.
- 3.10 However, research has been undertaken that has found that achieving these recommended visibility dimensions is not critical to the safe operation of the junction. It states that, "unless there is local evidence to the contrary, a reduction in visibility below recommended levels will not necessarily lead to a significant problem" (MfS2 10.4.2 & 10.5.9).

4 Current Access Arrangement

- 4.1 This section describes the current access arrangement, the access for which permission is sought. The access is shown in more detail in Appendix 2.

Appendix 2 Existing Visibility

- 4.2 The access to the property is 4.1m wide. Visibility splays of 2m x 6m and 2m x 10m are available to the west and east, respectively. It will be demonstrated in the following chapter that these visibility splays are not materially different to the previous access arrangement, the fallback position against which the development must be judged.
- 4.3 The visibility available from the access is comparable to that of other nearby accesses. Visibility from the access of the neighbouring property (No.12) is 2m x 9m to the west and 2m x 11m to the east. Opposite the application site the accesses to Nos. 7 and 9 provide visibility splays that range from 2m x 6m to 2m x 8m.
- 4.4 The available visibility from the application site's access and those of the neighbouring properties does not meet the recommended 2m x 25m dimension. However, the guidance is that "unless there is local evidence to the contrary, a reduction in visibility below recommended levels will not necessarily lead to a significant problem". The local evidence here is that there are no records of any injury accidents in the vicinity since at least 1999. This demonstrates that these accesses operate safely.

5 Fallback Position

- 5.1 A plan, based on OS mapping, that shows the property's previous access arrangement is shown in Appendix 3.

Appendix 3 Fallback Position

- 5.2 The position of the access is identical for which permission is sought.
- 5.3 The amount of visibility to the west that can be relied upon is restricted by the front boundary treatment of the property. There is no planning condition or covenant that prevents the landowner from growing a hedge, for example, along this front boundary and therefore visibility over the garden area cannot be relied upon. With this in mind, the visibility available in this direction is identical to that of the currently constructed access at 2m x 6m.
- 5.4 The amount of visibility to the west that can be relied upon is therefore identical whether the property's boundary is formed by a wall or a hedge. In fact, a wall boundary treatment is considered to be more favourable than a hedge when considering visibility issues. Whilst a wall provides a fixed boundary edge, a hedge, if not maintained, will grow and extend over the highway to the detriment of visibility from the property's access.
- 5.5 To the east, a visibility splay of 2m x 7m is available. This is less than the 2m x 10m splay that is available from the currently constructed access. In reality it is considered that the visibility in this direction is the same for both existing and fallback scenarios, with the discrepancy being attributable to differences between the topographic survey and OS mapping that have been used to compare the two.
- 5.6 It is clear therefore that the dimensions and available visibility from the currently constructed access is comparable to that of the previous access (fallback position).

6 Conclusion

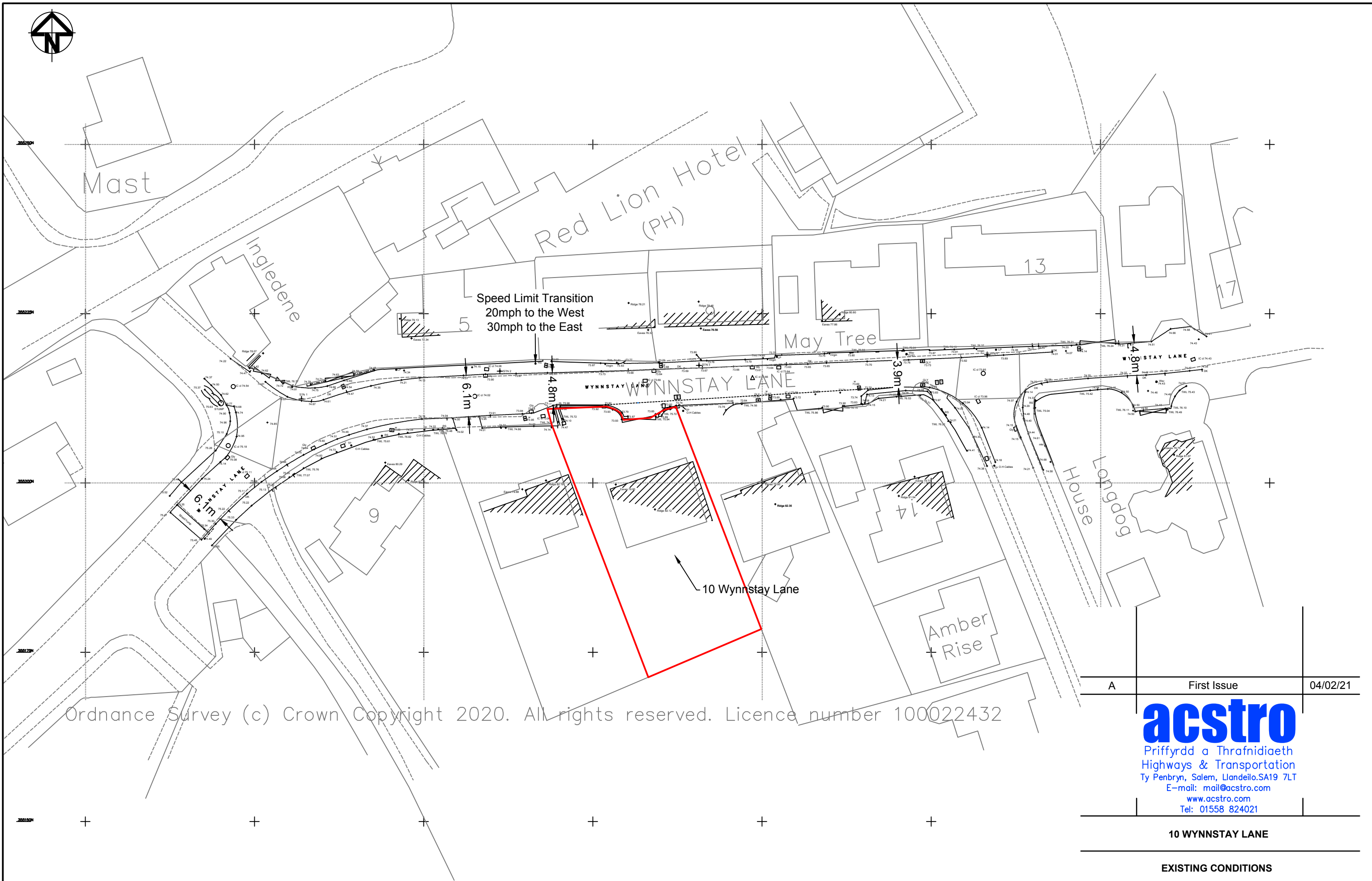
6.1 The salient issues are as follows:

- Retrospective planning permission for alterations to the access and front boundary of No. 10 Wynnstay Lane is sought;
- Wynnstay Lane narrows to a single file section of street to the east of the application site and is subject to a 20mph speed limit immediately to its west. Traffic approaching No. 10's access from both directions does so at low speed;
- Visibility from the currently constructed access is 2m x 6m to the west and 2m x 10m to the east. This is no different to the visibility available from the previous access that represents the fallback position;
- Wynnstay Lane has an excellent safety record with no recorded injury accidents since at least 1999;
- There are several other accesses nearby which provide similar levels of visibility. There is no evidence that these accesses are problematic and the absence of recorded accidents demonstrates that they have operated safely for many years.

6.2 Our conclusion is that the development for which retrospective permission is sought has no negative impact in terms of the safety of No. 10's access arrangement. Visibility from the access is identical to that of the fallback position and whilst that visibility is below recommended levels the evidence is that the access and those nearby that are comparable to it do operate safely.

6.3 As such there are no highway related issues that should prevent planning permission from being granted.

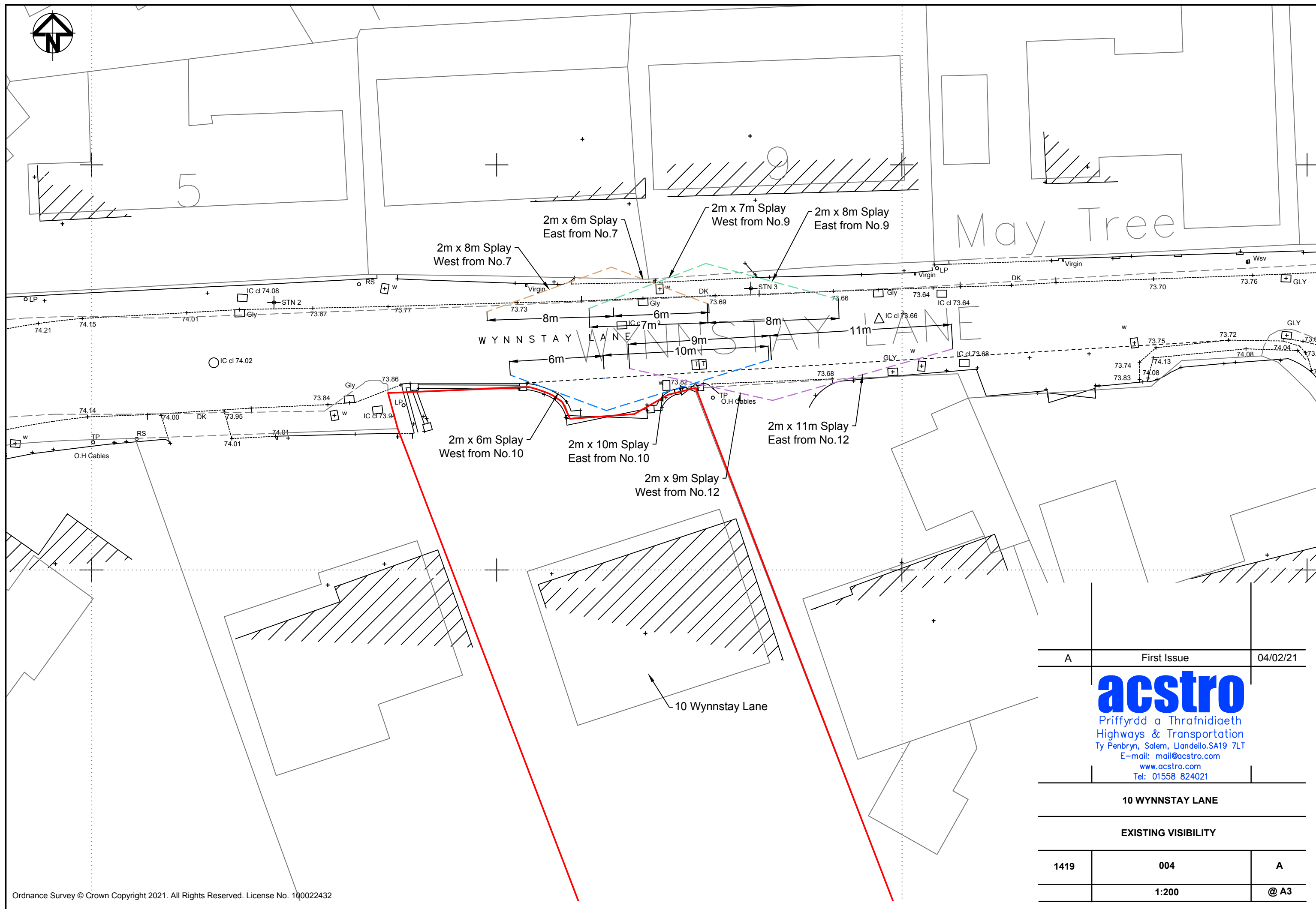
Appendix 1 Existing Conditions



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Appendix 2 Existing Visibility



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Appendix 3 Fallback Position



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May Tree

WYNNSTAY LANE

2m x 6m Splay
West from No.10

2m x 7m Splay
East from No.10

10 Wynnstay Lane

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