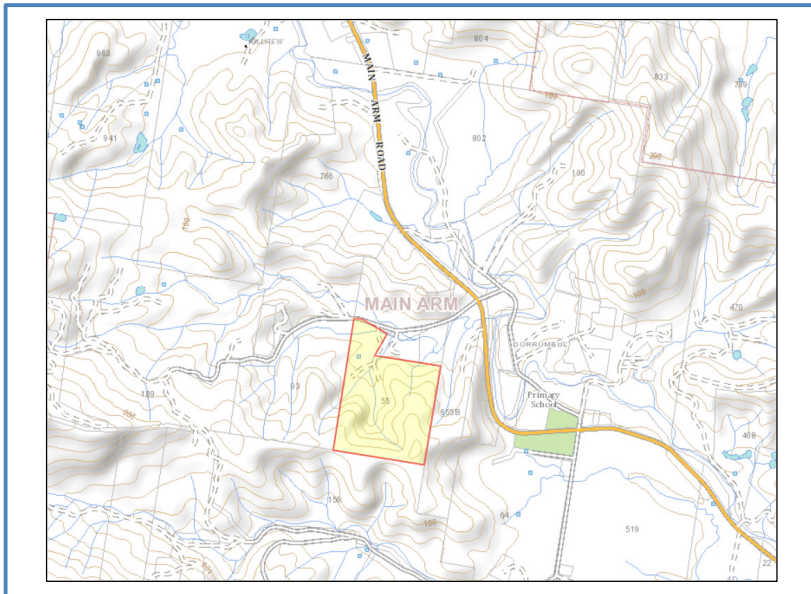


# TRAFFIC SAFETY ASSESSMENT

For A

## Low Impact Dwelling Entitlement Proposal



At  
55 Settlement Road  
MAIN ARM NSW 2482

Upon  
Land Title  
Lot 5 DP 585928

Date: SEPTEMBER 2021

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## 1 INTRODUCTION

This Traffic Safety Assessment been prepared to address driveway and traffic access matters associated with the formalisation of a dwelling entitlement via a planning proposal for the existing holding.

The site is formally identified as Lot 5 DP 585928 and has a site area of 23.6ha and is located at Settlement Road, Main Arm. The allotment has an irregular frontage to Settlement Road with an overall frontage length of 177m. The Settlement Road site frontage is of a gravel construction, being 4m wide pavement including shoulders on a 5m earthen formation.

Settlement Road is considered a minor rural road within Byron Shire Council's road hierarchy classification. It services nominally 30+ dwellings. The intersection of Settlement Road with Main Arm Road was recently been upgraded in year 2020 via black spot funding. Refer to Figure 1.0 below.



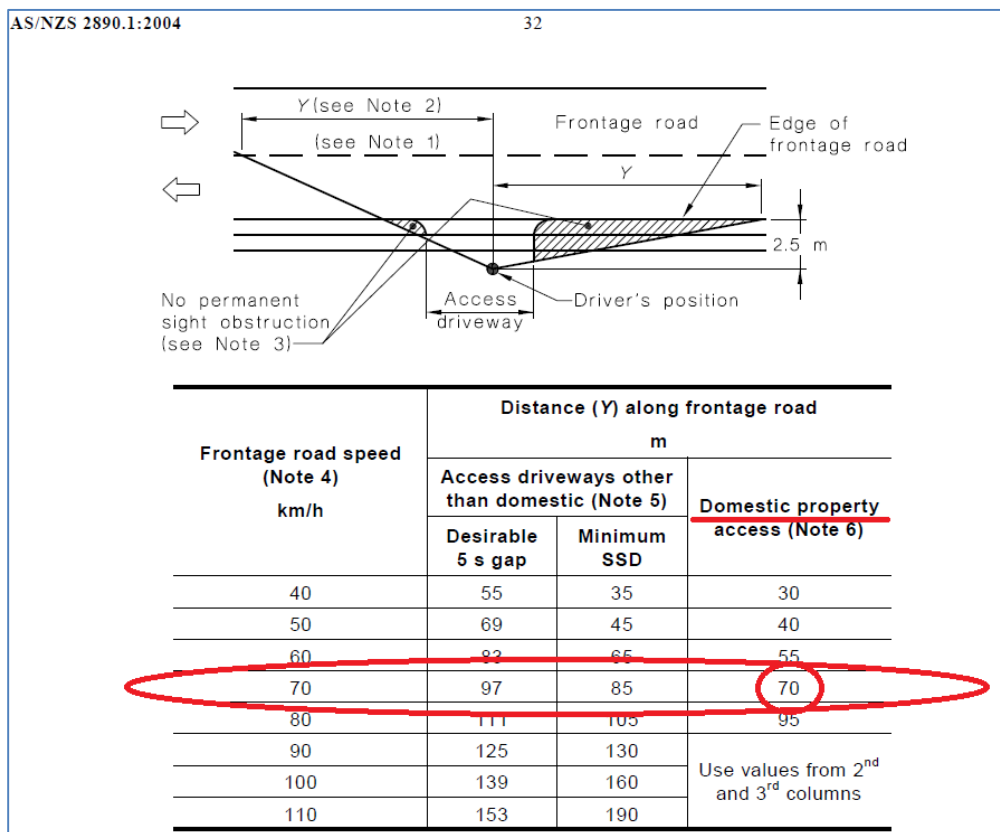
Figure 1.0 – Byron Shire Council Press Release of Main Arm Road Black Spot Upgrade

The first 350m of Settlement Road is of a 3m sealed width on 4m wide pavement. The balance of Settlement Road (170m) to the existing driveway access to this planning proposal is gravel pavement.

## 2 SIGHTLINE ACCESS TO THE SITE

A site inspection was undertaken on 10<sup>th</sup> August 2020 to assess sight lines and access options for the proposal to which sight distances were assessed as compliant based upon the following:

- No sign posted speed was present on Settlement Road, thereby NSW State speed limit of technically 100kph applies.
- Notwithstanding the speed limit, road topography dictates a lesser travel speed. The actual travel speed (ie via multiple drive by's and visual timing assessment of vehicles) ranged between 60kph to 70kph.
- Sight distance to the east was measured at 90m (require 70m to AS2890.1)
- Sight distance to the west was measured at 80m (require 70m to AS2890.1)



Extract – Figure 3.2 Sight Distance Requirements at Access Driveways (AS2890.1)

### 3 DRIVEWAY ENTRANCE COMPLIANCE

The site inspection identified that the existing driveway access would require localised upgrade improvement works to facilitate bushfire truck entry/exit to the property. A bushfire truck (MRV size) template was used with AutoTURN PRO software to assess the extent of new pavement / fencing works necessary. The works required as shown in Figure 3.3 below are:

- Widen driveway to 11m width at Settlement Road
- Transition from 11m width to 5m width, over a 10m length.
- If a rural gate is to be installed, needs to have a 5m opening width.



**Figure 3.3 Turning Template Assessment of Works Required**



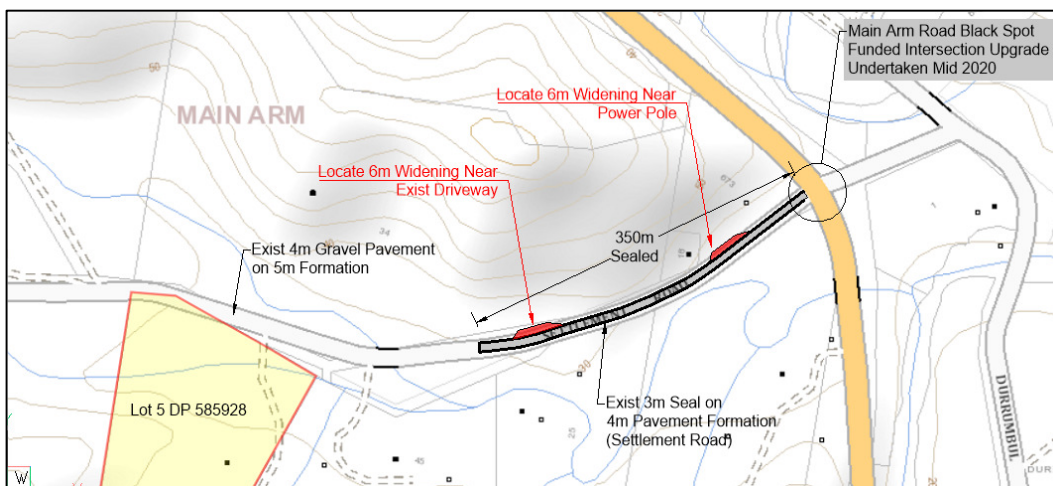
The existing internal driveway will require upgrade to provide a 4m gravel formation width. In addition, the internal driveway crosses a significant gully flow path which has a catchment area of 33Ha. Preliminary design assessment calculates that to provide a 1yr flood immunity, culverts required on the internal private driveway need to be 3 x 600 dia pipes.

#### 4 OTHER ROAD STANDARD MATTERS

The existing Settlement Road is less than the minimum public road geometric standard (ie 6m sealed pavement on 7m formation) that Byron Shire Council nominates for NEW SUBDIVISIONS as per the Northern Rivers Design Guideline. The ongoing management of existing roads of lesser geometric service standard is one to which Byron Shire Council manages in conjunction with the competing funding needs of the broader road network. To meet the incremental upgrade needs of the rural road network, Council has developed a Rural Roads Contribution Plan to which this development will be required to contribute.

The current rural roads contribution contribution levy is \$15,123 per 3 bedroom dwelling.

Consideration has also been had as to possible localised upgrades of Settlement Road (should it be determined as necessary) so as to improve passing bay opportunities between the planning proposal site and Main Arm Road. Such passing bay opportunities would facilitate a compliance with the minimum bushfire standard of passing bays at 200m distances. Refer to *Figure 4 – Existing Settlement Road and Passing Bay Options*.



**Figure 4 – Existing Settlement Road and Passing Bay Options**

## 5 COMPLIANCE SUMMARY OF PROPOSAL

This Traffic Safety Assessment has had regard to assessing the existing access to the development and confirms that:

- (i) Compliance with AS2890.1 driveway sight lines can be achieved;
- (ii) Bushfire truck access can be achieved via localised upgrade of the entrance as per the works identified in Figure 3.3.
- (iii) By installing 3 x 600dia culverts, the internal driveway will achieve a 1yr flood immunity.