



## Transport Planning Consultant



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## Introduction

Highways Development Control Support Ltd has been appointed to provide a Transport Statement to Kirklees Council Planning Authority in respect of proposals to construct one detached dwelling in the grounds adjacent to 23 Dunford Road, Holmfirth.

This statement supports an Outline Planning Application made by One 17 AD on behalf of Mr Tim Donlon.

The Transport Statement will cover the following;

- The local highway network
- The current use of the site
- The proposed use of the site
- Traffic generation
- Accessibility of the site for future residents
- The impact of the development on the local highway network in relation to vehicular trips

This statement will make reference to

- Kirklees Council Local Plan in relation to Policy PLP 21 Highway Safety and Access and Policy PLP 22 Parking.
- Reference will also be made to National Planning Policy Framework (NPPF) paragraphs 14, 32 & 39.
- Department for Transport Guidance - Manual for Streets and Manual for Streets 2 in relation walkable neighbourhoods and Stopping Sight Distances (SSD) / Visibility.

## Policy Context

Kirklees Council Local Plan PLP 21 Highway safety and access states ***“Proposals shall demonstrate that they can accommodate sustainable modes of transport and be accessed effectively and safely by all users.***

***New development will not be permitted if it adds highway safety problems or, in the case of development which will generate a substantial amount of trip generation, cannot be served adequately by the existing highway network.***

***Proposals shall demonstrate adequate information and mitigation measures to avoid a detrimental impact on highway safety and the local highway network. Proposals shall also consider any impacts on the Strategic Road Network.***

***All proposals shall:***

- a. Ensure the safe and efficient flow of traffic within the development and on surrounding highway network;***
- b. In locations where development is otherwise considered acceptable, new infrastructure or improvements on or off site may be required to ensure safe access from the highway network to the development site for pedestrians or disabled people, cyclists, public transport users, and private vehicles which will not materially add to highway safety problems or reduce the efficiency of the highway network;***
- c. Be accompanied by a supporting Transport Assessment or Transport Statement where the development would generate significant trip generation, providing detail as to impact on highway safety, air quality, noise and light restrictions;***
- d. Take into account changes in site levels and topography to ensure the development can be accessed easily and safely by all sections of the community and by different modes of transport;***
- e. Take into account the features of surrounding roads and footpaths and provide adequate layout and visibility to allow the development to be accessed safely;***
- f. Take into account access for emergency, service and refuse collection vehicles;***
- g. Have provision for electric vehicle charging points within the site layout;***
- h. Provide on-site safe, secure and convenient cycle parking/ storage facilities to encourage sustainable travel modes.***

Kirklees Council Local Plan PLP 22 Parking states ***“The provision of parking will be based on the following principles:***

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- a. In town, district and local centres, car parks close to the main shopping area will be for short stay use and peripheral car parks for long stay use;***
- b. Long stay parking in town centres will be reduced progressively in conjunction with improvements to sustainable transport opportunities, where appropriate;***
- c. Provision of non-residential parking in town centres will not be permitted unless it can be demonstrated that it is required for operational reasons. Where such provision is permitted appropriate arrangements will need to be put in place to provide management arrangements consistent with public parking in the centre;***
- d. Provision of residential parking schemes within town centres for private/motorcycles/and cycles will be permitted; where appropriate and where schemes can be shown to enhance residential developments in the town centre;***
- e. Car parking provision in new developments will be determined by the availability of public transport, the accessibility of the site, location of the development, local car ownership levels and the type, mix and use of the development.***
- f. New developments will incorporate flexibly designed minimum parking spaces for private cars, considering a range of solutions, to provide the most efficient arrangement for safe, secure and visually unobtrusive car parking within the site including a mix of on and off street parking in accordance with current guidance;***
- g. Provision will be made to meet the needs of cyclists for cycle parking in new developments;***
- h. Provision will be made to accommodate the needs of disable people for the parking of vehicles.***

Kirklees Highways Development Deliver Application advice Note refers to Kirklees Car Parking standard for residential development

- ***2-3 bedrooms – 2 spaces,***
- ***4 + bedrooms - 3 spaces***
- ***1 cycle space per dwelling***

***Garage measurements internal***

- ***6.0m x 3.0m (single)***
- ***6.0m x 6.0m (double)***
- ***1 electric vehicle charging point per dwelling (normally in the garage)***

NPPF para 14 states ***“At the heart of the National Planning Policy Framework is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking”***

NPPF para 32 states ***“All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:***

- ***the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;***
- ***safe and suitable access to the site can be achieved for all people; and***
- ***Improvements can be undertaken within the transport network that cost effectively limits the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.***

NPPF para 39 states ***“If setting local parking standards for residential and non-residential development, local planning authorities should take into account:***

- ***the accessibility of the development***
- ***the type, mix and use of development***
- ***the availability of and opportunities for public transport***
- ***local car ownership levels***
- ***an overall need to reduce the use of high-emission vehicle”***

This statement considers the proposed development in terms of its existing use, its location and the proposed use and how it relates to the above highways and planning policy.

This statement concludes the development is acceptable in terms of its impact on the local highway network.

## The local highway network

The site is located on Dunford Road B6106 130m south east of Holmfirth town centre. Dunford Road is a classified “B” road linking Holmfirth with the local areas of Hade Edge and Dunford Bridge to the south. Further destinations of Sheffield, Barnsley and Stockport can be accessed from the A628.

The site is located next door to 23 Dunford Road located on northern eastern side of the carriageway. Dunford Road has a carriageway width of 7.4m directly outside the site.

The footway is located on the opposite side to the west measuring 2.1 in width and provides pedestrian access down towards the centre of Holmfirth.

Traffic is subject to 30 mph speed limit on Dunford Road. There are no Traffic Regulation Orders within the vicinity of the site apart from a 10 metre length of double yellow lines on the opposite side of the carriageway

Street lighting is located on both sides of the carriageway.

The majority of on street parking occurs opposite the site of Dunford Road for existing residential properties.

Bus stops are located directly outside the site heading south and on the opposite side of the carriageway within 20m for services heading north down towards Holmfirth.

The photo below shows Dunford Road in context.



## Personal Injury Collisions

Details of recorded road traffic incidents within the vicinity of the site on Dunford Road were requested from CrashMap for the five year period between 2014 and 2018.

The data as received from CrashMap is included in the appendix xx

One road traffic incident between a vehicle and a motorcycle was recorded near to the proposed site of which there were two casualties, one recorded as serious and one as slight.

Details of the incident are limited but it would appear the vehicle was passing another moving vehicle on its offside and collided with motorcycle turning right.

It is not clear in terms of whether the motorcycle was turning right into or out of a private access and therefore no assumptions can be made.

Nevertheless, the data represents only one serious incident on Dunford Road which is in itself not a suggestion of a highways deficiency.

## Vehicle speeds on Dunford Road

Two separate speed surveys were carried out in accordance with TA 22/81 using a Unipar SL700 Laser Speed Meter on Friday 8<sup>th</sup> March 2019 to determine the 85<sup>th</sup> percentile speeds on Halifax Road.

The 85<sup>th</sup> percentile speeds are used to determine sight lines based on free-flowing traffic speeds in both directions.

A Speed Survey was undertaken for vehicles travelling on Dunford Road northbound downhill towards Holmfirth and southbound up Dunford Road away from Holmfirth.

The results of the speed survey are shown below:

|                               | Dunford Road Northbound<br>travelling down towards<br>Holmfirth | Dunford Road Southbound<br>travelling up towards Hade<br>Edge |
|-------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------|
| 85 <sup>th</sup> % ile speed  | <b>28.83 mph (46.39kph)</b>                                     | <b>34.22 mph (55.07kph)</b>                                   |
| Visibility requirements (MfS) | <b>43m</b>                                                      | <b>59m</b>                                                    |

Observations of vehicles passing the site travelling up Dunford Road were noted to be travelling at a distance of between 500 – 600mm from the boundary wall fronting the site based on the nearside edge of the vehicle track.

Full details of the survey data can be found in appendix C and D showing the collection of speeds, weather conditions and necessary calculations used in determining the stopping sight distances.

## Site access arrangements

The site benefits from an existing vehicular access to the frontage of the site directly onto Dunford Road.

The site access is approximately 5.1m wide fronted by dry stone wall approximately 1.2m in height above carriageway level.

Visibility measured 2.4m back from the carriageway edge is no more than 5.0m in either direction due to the height of wall fronting the site.



**Existing access arrangement on Dunford Road**

## The current use of the site

The site has previously contained a dwelling that was probably linked to the textile mills in the immediate locale, with the former dwelling being sited on the roadside at the foot of the sloping site. However, no physical evidence of this dwelling remains, apart from the former gate access, with the building being demolished most likely in the 1960's and the being site cleared to form an extended curtilage to an existing property on South Lane.

The site is currently used as parking for the applicant as and when required.

## The proposed use of the site

The development proposals are to construct a 4 bed detached dwelling with integral garage (3.4m x 6.0m internal) with electric charging point, parking for 3 vehicles and internal turning so that a vehicle can enter and exit the site in a forward gear.

The existing access will be utilised and the walls fronting the site reduced in height to 900mm above carriageway level.

The boundary walls fronting no 23 Dunford Road will also be lowered to a similar height as part of the development proposals thus leading a significant improvement in visibility for both the existing and future residents.

Visibility measured 2.4m back from the carriageway edge and extended 0.5m into the running lane of Dunford Road will be

| <b>Right (downhill<br/>towards Holmfirth<br/>town centre)</b> | <b>Left (uphill towards<br/>Hade Edge)</b> |
|---------------------------------------------------------------|--------------------------------------------|
| <b>2.4m x 25.0m</b>                                           | <b>2.4m x 18.0m</b>                        |

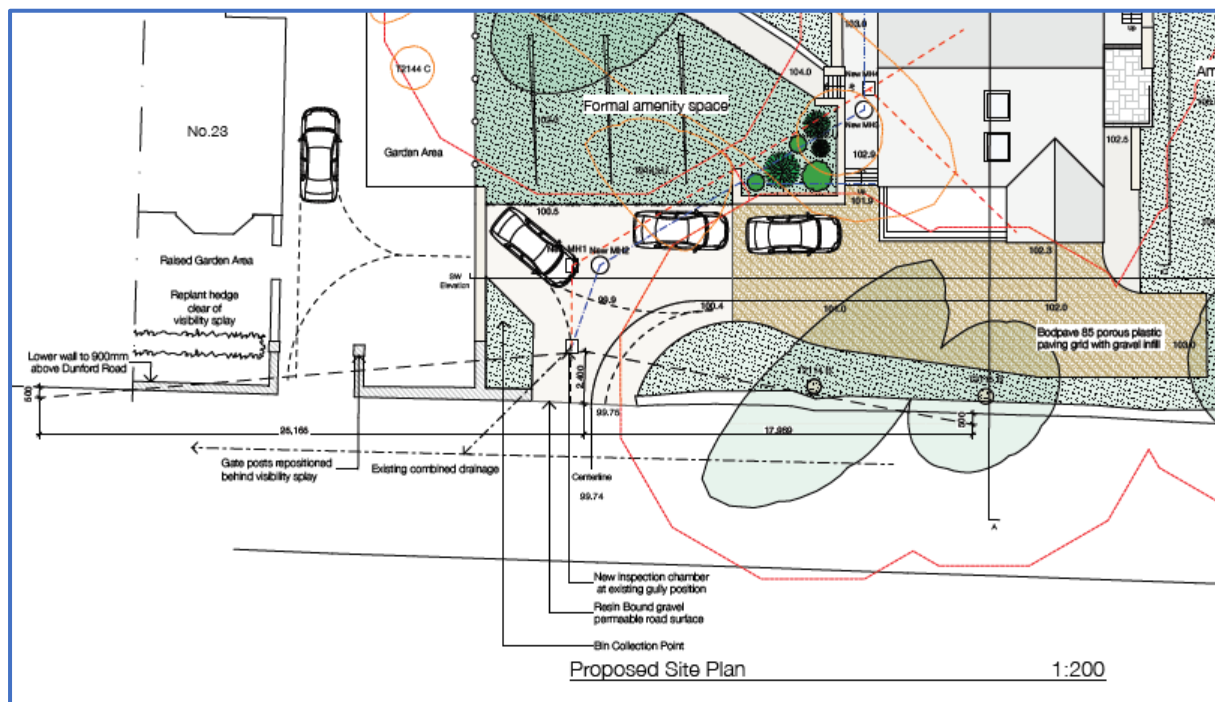
A land swap is also proposed where land currently in the ownership of the applicant will be transferred over to the residents at no 23 Dunford Road in order to provide internal turning thus allowing a vehicle to enter and exit Dunford Road in a forward gear.

This represents a major improvement in terms of access arrangements as they currently have to reverse into our out of their drive onto Dunford Road.

All refuse vehicle access arrangements will remain the same with a new collection point located adjacent to the access for ease of collection.

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The layout of the development is shown on One 17 Architects and Interior Designers drawing no – 3315 (0- ) 02 Rev B – Proposed Plans.



**Extract of dwg no – 3315 (0- ) 02 Rev B – Proposed Plans.**

## Traffic generation

Typical traffic generation from a privately owned dwelling such as a detached 5 bed dwelling is approximately 0.8 trips during the peak hour. This is based on an out of town / edge of town location.

During the morning peak hour (8-9am) this represents 1.0 vehicle movement outbound and a similar figure inbound during the evening peak (5-6pm). This compares to a typical traffic generation in region of 7 -8 vehicle movements over a 24 hour period.

## Accessibility of the site for future residents

The development site is located 130m south of Holmfirth town centre.

Manual for Streets refers to acceptable walking distances.

*It states “Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes (up to about 800m) walking distance of residential areas which residents may access comfortably on foot. However, this is not an upper limit and walking offers the greatest potential to replace short car trips, particularly those under 2km. Manual for Streets encourages a reduction in the need to travel by car through the creation of mixed use neighbourhoods with interconnected street patterns, where daily needs are within walking distance of most residents”*

Pedestrian movement along Dunford Road is by means of a 2.1m wide footway on the opposite side of the carriageway to the development site. It is a continuous link that provides pedestrian access into Holmfirth town centre; it is well lit, sufficiently wide and considered to be secure enough in terms of the number of residential properties that face directly out onto Dunford Road.

Cycling is more accessible and affordable than the car and there are health benefits to the uptake of cycling as a whole. Cycling allows people to reach destinations like Holmfirth as opposed to using a private car particularly if the trip is less than 5km.

This mode of travel is considered to be a worthwhile alternative to the use of a private vehicle for future residents.

In terms of local bus services, there are several bus services that pass the site Monday to Friday, with bus stops directly outside the site itself. These services are as follows:

| Bus Service | Route                                        | Daily frequency                      |
|-------------|----------------------------------------------|--------------------------------------|
| H7          | Holmfirth – Hepworth – Holmfirth             | 1 per day                            |
| 29          | Sheffield – Holmfirth                        | 7 per day                            |
| 257         | Holmfirth – Stalybridge – Holmfirth          | Wed only every hour 9.55am – 12.55pm |
| 310         | Hepworth – Holmfirth – Honley – Huddersfield | every 30 minutes                     |

With reference to the previous table, it is clear the development is well placed in relation to the opportunity to use public transport as part or all of a trip to Holmfirth. Further destinations are also achievable by bus such as Honley and Huddersfield.

## Visibility Requirements

As previously stated, visibility at the existing access measured 2.4m back from the carriageway edge is 5.0m in either direction. The 85<sup>th</sup> % ile wet weather speeds have been identified as 28.83mph down towards Holmfirth and 34.22 mph travelling up Dunford Road away from Holmfirth.

With reference to table 7.1 in Manual for Streets, the visibility requirements for a vehicle exiting the site are 43m looking uphill and 59 m looking downhill. See extract below;

**Table 7.1 Derived SSDs for streets (figures rounded).**

| Speed                                                    | Kilometres per hour | 16 | 20 | 24 | 25 | 30 | 32 | 40 | 45 | 48 | 50 | 60 |
|----------------------------------------------------------|---------------------|----|----|----|----|----|----|----|----|----|----|----|
|                                                          | Miles per hour      | 10 | 12 | 15 | 16 | 19 | 20 | 25 | 28 | 30 | 31 | 37 |
| SSD (metres)                                             |                     | 9  | 12 | 15 | 16 | 20 | 22 | 31 | 36 | 40 | 43 | 56 |
| SSD adjusted for bonnet length. See 7.6.4                |                     | 11 | 14 | 17 | 18 | 23 | 25 | 33 | 39 | 43 | 45 | 59 |
| Additional features will be needed to achieve low speeds |                     |    |    |    |    |    |    |    |    |    |    |    |

However, using the basic formula in MfS that takes into account gradient, the calculated Stopping Sight Distances / visibility requirement is 40.56m looking up hill and 46.78m looking downhill. See table below;

|                               | Dunford Road travelling downhill (Northbound) towards Holmfirth | Dunford Road travelling uphill (Southbound) towards Hade Edge |
|-------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------|
| 85 <sup>th</sup> % ile speed  | <b>28.83 mph (46.39 kph)</b>                                    | <b>34.22 mph (55.07 kph)</b>                                  |
| Visibility requirements (MfS) | <b>43m</b>                                                      | <b>59m</b>                                                    |
| Calculated SSD                | <b>40.56m</b>                                                   | <b>46.78m</b>                                                 |

As part of the development proposals, the frontage walls will be lowered to 900mm above carriageway level so as to provide improved visibility in either direction. Based on a 2.4m set back, the improved visibility (Y distance) looking uphill is 18.0m and 25.0m downhill. This is based on the Y distance being measured 0.5m from the boundary wall.

Manual for Streets 2 section 10.5.3 states

***“the Y distance represents the distance that a driver who is about to exit from the minor arm can see to the left and right along the main alignment. For simplicity it has previously been measured along the nearside kerb line of the main arm, although vehicles will normally be travelling at a distance from the kerb line. Therefore, a more accurate assessment of visibility splay is made by measuring to the nearside edge of the vehicle track.”...***

Whilst the improvements do not meet the criteria as set out in MfS with regard to the recommended visibility, the development offers a material increase in vision for vehicles exiting the site but also for vehicles on Dunford to see a vehicle emerging out of the development.

These sightlines are superior to other existing access points along Dunford Road.

Furthermore, Manual For Streets 2 section 10.5.9 states

***“the Y distance should be based on the recommended Stopping Sight Distance (SSD) values. However, based on the research referred to in section 10.4 unless there is local evidence to the contrary, a reduction in visibility below recommended levels will not necessarily lead to a significant problem.”***

Taking the above guidance into account, local evidence in the form of Personal Injury Collision data confirms there does not appear to be any evidence that would suggest a reduction in visibility would lead to a significant problem.

Therefore, whilst the improved access arrangements do not achieve the recommended SSD, based on research undertaken by Manual for Streets 2, it is reasonable to assume the access serving the new dwelling is acceptable for the purposes of serving a single dwelling.

## **The impact of the development on the local highway network in relation to vehicular trips**

The amount of additional traffic movements as a result of the development would be in the region of 1 vehicle in the morning peak and 1 vehicle during the evening peak hour. Over a 24 hour period the traffic generated by a single dwelling would be in the region of 6 – 8 movements.

It is therefore difficult to quantify whether the traffic generation as a figure is detrimental to highway safety to such an extent that it's contrary to Policy PLP21 of the Kirklees Local Plan.

Dunford Road and the surrounding highway network are more than adequate in terms of accommodating the additional traffic generated by the development. The typical fluctuations in peak hour traffic along Dunford Road are way above the 1 traffic movement associated with a single dwelling.

The NPPF favours development that “maximises the opportunity to travel by sustainable modes”. This is a sustainable development which is seen as a key part of the NPPF para 14.

The NPPF para 32 states “Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe; the residual cumulative impacts of this development are not considered to be severe in any way.

Based on the above, there are no compelling reasons to suggest the development would compromise highway safety and therefore it would difficult to substantiate a reason for refusal based on highway safety grounds.

## Conclusions

- The development proposals are to construct a 4 bed detached dwelling with integral garage (3.4m x 6.0m internal) with electric charging point, parking for 3 vehicles and internal turning so that a vehicle can enter and exit the site in a forward gear.
- The existing access will be utilised and the walls fronting the site reduced in height to 900mm above carriageway level.
- Visibility is significantly improved in both directions as a result of development.
- A land swap is also proposed where land currently in the ownership of the applicant will be transferred over to the residents at no 23 Dunford Road in order to provide internal turning thus allowing a vehicle to enter and exit Dunford Road in a forward gear.
- This represents a major improvement in terms of access arrangements as they currently have to reverse into our out of their drive onto Dunford Road.
- The traffic generation from a single dwelling is negligible in terms of its impact on the surrounding.
- Refuse collection will remain as part of the existing service level provision for properties along Dunford Road
- The site is located 130m south of Holmfirth Town Centre; however, it is located in a sustainable location being no more than a 10 minute walk (less than 800m) from Holmfirth town centre. This is in line with the aspirations of Manual for Streets in terms promoting Walkable Neighbourhoods.
- Cycling as a means of access is a credible alternative as opposed to using a private car to access Holmfirth town centre.
- The site benefits from having bus stops directly outside the site.
- There are four different bus services passing the frontage of the site. Destinations include the likes of Holmfirth, Honley and Huddersfield every 30 minutes.
- The proposals demonstrate that they can accommodate sustainable modes of transport and be accessed effectively and safely by all users which is in line with Kirklees Local Plan PLP 21.
- The proposals also comply with NPPF paragraphs 14 and 39 in terms of promoting sustainable development.
- The development will not create any residual cumulative impacts to such an extent that they are severe as stated in the NPPF paragraph 32.
- As a result, there are no highway related reasons why the development should not be granted planning approval.



## Appendix 1 – Speed Survey Data - Dunford Road – Travelling downhill (Northbound)

| Speed Survey Results |                       | Summary Statistics                 |       |                                               |       |
|----------------------|-----------------------|------------------------------------|-------|-----------------------------------------------|-------|
| Speed (mph)          | Frequency             | Value                              | mph   | kph                                           | (m/s) |
| 15                   |                       | Mean                               | 24.96 | 40.17                                         | 11.16 |
| 16                   | 5                     | Median                             | 24.50 | 39.43                                         | 10.95 |
| 17                   | 1                     | 85th Percentile                    | 28.83 | 46.39                                         | 12.89 |
| 18                   | 1                     | 15th Percentile                    | 20.44 | 32.89                                         | 9.14  |
| 19                   | 3                     | Standard Deviation                 | 4.19  | 6.74                                          | 1.87  |
| 20                   | 3                     | Stopping Sight Distance Parameters |       |                                               |       |
| 21                   | 7                     |                                    |       |                                               |       |
| 22                   | 13                    |                                    |       |                                               |       |
| 23                   | 4                     |                                    |       |                                               |       |
| 24                   | 10                    |                                    |       |                                               |       |
| 25                   | 13                    |                                    |       |                                               |       |
| 26                   | 6                     |                                    |       |                                               |       |
| 27                   | 16                    |                                    |       |                                               |       |
| 28                   | 4                     |                                    |       |                                               |       |
| 29                   | 6                     | Parameter                          | Value |                                               |       |
| 30                   | 3                     | v                                  | 12.89 | v - speed (m/s)                               |       |
| 31                   | 6                     | t                                  | 1.5   | t - driver perception-reaction time (seconds) |       |
| 32                   | 3                     | d                                  | 4.41  | d - deceleration (m/s <sup>2</sup> )          |       |
| 33                   | 1                     | a                                  | -5    | a - longitudinal gradient (%)                 |       |
| 34                   |                       | Calculated SSD(m)                  | 40.56 |                                               |       |
| 35                   | 2                     | Wet Weather speed 85th (mph)       | 28.83 |                                               |       |
| 36                   |                       | Wet Weather speed 85th (kph)       | 46.39 |                                               |       |
| 37                   |                       | M/S Visibility Requirement (m)     | 43    |                                               |       |
| 38                   |                       | DMRB Visibility Requirement (m)    | n/a   |                                               |       |
| 39                   |                       |                                    |       |                                               |       |
| 40                   |                       |                                    |       |                                               |       |
| 41                   |                       |                                    |       |                                               |       |
| Total Measurements   | 107                   |                                    |       |                                               |       |
| Survey Details       |                       |                                    |       |                                               |       |
| Time:                | 14:00 - 14:48         |                                    |       |                                               |       |
| Date:                | 08.03.19              |                                    |       |                                               |       |
| Road /Location       | Dunford Road          |                                    |       |                                               |       |
| Direction:           | Downhill (Northbound) |                                    |       |                                               |       |
| Weather:             | Wet / raining         |                                    |       |                                               |       |
| Surveyor             | Tim Robinson          |                                    |       |                                               |       |
| Speed Limit          | 30 mph                |                                    |       |                                               |       |

## Appendix 2 – Speed Survey Data - Dunford Road – Travelling uphill (Southbound)

| Speed Survey Results |                         | Summary Statistics                 |       |                                               |       |
|----------------------|-------------------------|------------------------------------|-------|-----------------------------------------------|-------|
| Speed (mph)          | Frequency               | Value                              | mph   | kph                                           | (m/s) |
| 16                   |                         | Mean                               | 28.98 | 46.64                                         | 12.96 |
| 17                   | 0                       | Median                             | 28.46 | 45.80                                         | 12.72 |
| 18                   | 2                       | 85th Percentile                    | 34.22 | 55.07                                         | 15.30 |
| 19                   | 2                       | 15th Percentile                    | 23.24 | 37.40                                         | 10.39 |
| 20                   | 3                       | Standard Deviation                 | 5.39  | 8.67                                          | 2.41  |
| 21                   | 0                       |                                    |       |                                               |       |
| 22                   | 6                       | Stopping Sight Distance Parameters |       |                                               |       |
| 23                   | 1                       | Parameter                          | Value |                                               |       |
| 24                   | 8                       | v                                  | 15.30 | v - speed (mph)                               |       |
| 25                   | 7                       | t                                  | 1.5   | t - driver perception-reaction time (seconds) |       |
| 26                   | 6                       | d                                  | 4.41  | d - deceleration (m/s <sup>2</sup> )          |       |
| 27                   | 10                      | a                                  | 5     | a - longitudinal gradient (%)                 |       |
| 28                   | 2                       |                                    |       |                                               |       |
| 29                   | 13                      | Calculated SSD(m)                  | 46.78 |                                               |       |
| 30                   | 10                      | Wet Weather speed 85th (mph)       | 34.22 |                                               |       |
| 31                   | 5                       | Wet Weather speed 85th (kph)       | 55.07 |                                               |       |
| 32                   | 5                       | MFS Visibility Requirement (m)     | 59    |                                               |       |
| 33                   | 4                       | DMRB Visibility Requirement (m)    | n/a   |                                               |       |
| 34                   | 5                       |                                    |       |                                               |       |
| 35                   | 5                       |                                    |       |                                               |       |
| 36                   | 2                       |                                    |       |                                               |       |
| 37                   | 1                       |                                    |       |                                               |       |
| 38                   | 2                       |                                    |       |                                               |       |
| 39                   | 3                       |                                    |       |                                               |       |
| 40                   | 2                       |                                    |       |                                               |       |
| 41                   | 1                       |                                    |       |                                               |       |
| 42                   | 1                       |                                    |       |                                               |       |
| Total Measurements   | 106                     |                                    |       |                                               |       |
| Survey Details       |                         |                                    |       |                                               |       |
| Time:                | 14:48 – 15:35           |                                    |       |                                               |       |
| Date:                | 08.03.19                |                                    |       |                                               |       |
| Road /Location       | Dunford Road, Holmfirth |                                    |       |                                               |       |
| Direction:           | Uphill (Southbound)     |                                    |       |                                               |       |
| Weather:             | Wet / raining           |                                    |       |                                               |       |
| Surveyor             | Tim Robinson            |                                    |       |                                               |       |
| Speed Limit          | 30mph                   |                                    |       |                                               |       |