APPENDIX A. HCC Response – Downend Road

Hampshire County Council

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Enquiries To	Nick Gammer	*My reference*	029637
Direct Line	01962 826994	*Your reference*	P/20/0912/OA
Date	20 October 2020	*Email*	farehamdc@hants.gov.uk

For the attention of Richard Wright

Dear Sir,

Land To The East Of Down End Road Fareham

Outline planning application with all matters reserved (except the means of access) for residential development, demolition of existing agricultural buildings and the construction of new buildings providing up to 350 dwellings, the creation of new vehicular access with footways and cycleways, together with associated highways, landscaping, drainage and utilities.

Thank you for the opportunity to comment on the above application. The application is for a residential development comprising up to 350 dwellings, with vehicular access provided onto Downend Road and improvements to the pedestrian provision along Cams Bridge.

Application History

Previous Application

The application was considered previously under reference P/18/0005/OA. Based on the information submitted, the Highway Authority raised no objection to the application subject to a number of mitigation measures. The application was refused by Fareham Borough Council.

Director of Economy, Transport and Environment
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Planning Appeal

The application was subsequently dismissed at appeal (P/18/0005/OA Land to East of Down End Road) appeal reference APP/A1720/W/3230015. The Appeal Inspector dismissed the appeal on the basis of concerns regarding the mitigation options proposed for pedestrian access over the railway bridge but regarded the site to be in a sustainable location. Fareham Borough Council are continuing to support development in this area as part of the draft Local Plan proposals.

This application looks to resolve the concerns of the inspector regarding pedestrian access over the bridge through a revised mitigation package and the applicant has been engaging with the Highway Authority on these matters since the appeal decision.

Cams Bridge Application

Planning permission has been granted under P/18/0001/OA for improvement works to Cams Bridge. These works directly relate to the provision of sustainable access to the proposed development and are set out as per the plans approved in principle under the granted planning permission.

Site Accessibility

Walking and Cycling

Pedestrian access points to the site are proposed in the following locations:

- To Downend Road at the vehicular site access;
- To 'The Thicket' via Cams Bridge;
- To 'Upper Cornaway Lane' via Footpath 117;
- To Lancaster Close via Footpath 117; and,
- Cycle access is to be provided at Cams Bridge, Downend Road and to Lancaster Close via Footpath 117.

These proposals are assessed individually below given the distribution of pedestrian trips and potential improvements proposed for all of the routes identified above.

Assignment of Pedestrian and Cycle Trips

It is noted that the proposed trip assignment and distribution has changed from that previously set out under the initial planning application as a result of discussions during the appeal process resulting in:

- Assigning bus and rail trips to the walking and cycling trips
- The updating of data from the 2016 National Travel Survey to the more recently available 2018 data.
- Updating the journey purpose assumptions

- Amendments to the distribution assumptions

The improvements to all routes other than those to Downend Road were considered acceptable throughout the appeal and therefore it is only the Downend Road works which are for further consideration within this application.

The variations to the trips assigned to Downend Road were amended marginally to 8.8% of all walking and cycling trips as opposed to the previously agreed 8%. The increase in walking and cycling trips overall though the updated travel survey data has resulted in the biggest change in the forecast daily flows along with including the bus and rail trips as walking trips. The revised figure for walking and cycling trips via Downend Road is 64 trips throughout the day on Downend Road as opposed to the previously set out 38 trips.

Pedestrian and Cycle Access Downend Road

Improvements have been proposed within the TA and shown on drawing ITB12212-GA-051C in the form of traffic signal shuttle working. This proposes a 2m wide footway and single carriageway working on the railway bridge controlled by traffic signals.

The general arrangement drawing is also supported by additional information regarding the design within drawings:

- ITB12212-GA-049 Rev F – Intervisibility Plan and stopping sight distance
- ITB12212-GA-051 Rev C – Downend Road Bridge Improvement – Traffic signal shuttle working – General Arrangement Plan
- ITB12212-GA-056 Rev B – Dimensions Plan
- ITB12212-GA-061 Rev A – Pedestrian Visibility Splays
- ITB12212-GA-062 Rev A– SSD Long Section on SB approach - 160m
- ITB12212-GA-063 Rev A– SSD Long Section on SB approach - 120m

The revised proposals for works at the Downend Road bridge differ from those previously proposed as they incorporate full time signalisation of the shuttle working arrangement at the bridge. The single lane working arrangement would be controlled by the traffic light control and means the queues and delay can be managed by the signal timings to reduce unnecessary delay. Also, by having signal controls it removes the need for driver judgement with regards gap acceptance which would naturally cause increases in potential delays at a more informal arrangement. The Highway Authority is also conscious of the impacts of the proposed arrangement with regards the recent accident history at and in the vicinity of the bridge. It is considered that the implementation of the signals along with other supportive measures being taken forward by Hampshire County Council's Safety Engineering Team as part of a programme to address existing road safety matters will aid with speed reduction on the approaches to the bridge.

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Modelling has been provided for the proposed improvement using industry standard software (Linsig). This modelling has assessed the operation of the proposed layout to a design year of 2026. This modelling shows a maximum queue of 6.1 PCU's in the AM peak period. The Highway Authority are aware of concerns regarding the queue at the signals extending back beyond the access to The Causeway. Whilst this is not borne out by the modelling undertaken, if this issue did arise, then 'Keep Clear' markings can be installed to ensure the junction is kept clear and able to continue operating.

With regards to delay as a result of the revised arrangement this has been assessed against the delay considered within the Appeal process. Delay was evidenced by Fareham Borough Council to be up to 425 seconds per vehicle with the priority working arrangement. The modelling produced at the appeal was a matter of considerable discussion due to the complexities in being able to robustly model this highway arrangement. Signal arrangements have a specific industry standard software (LINSIG) which is capable of modelling accurately how a junction will operate. It is more reliable due to the nature of the junction being under signal controlled timing arrangements. An appropriate LINSIG model has been provided for these proposals and this demonstrates an average delay of 25 seconds per vehicle. This is considerably lower than that forecast within the appeal supporting evidence put forward by Fareham within the appeal.

It is understood from the applicant and Network Rail's response to this application that discussions are ongoing regarding the parapet height requirements. The required height of the parapets is a matter to be determined by Network Rail and in the absence of confirmation and agreement of these requirements we are unable to confirm that should the parapets need to be raised that these works could be delivered by the applicant and would not be cost prohibitive. The Highway Authority therefore require assurance that these works can be undertaken before we could be sure that the shuttle working arrangement with improved footway provision can be provided. Therefore, the Highway Authority are requesting a pre-commencement condition which requires an Asset Protection Agreement to be in place with Network Rail prior to commencement of any development.

Pedestrian and Cycle Access via Cams Bridge

This is as agreed under planning application P/18/0001/OA and is shown in drawing ITB12212-GA-023 Rev B.

Pedestrian access via 'Upper Cornaway Lane' and Footpath 117

This route from the site goes from the north eastern corner of the development towards Northfields Park, eventually connecting to the existing Footpath 117 which provides access south along Upper Cornaway Lane towards Portchester.

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To accommodate the forecast increased pedestrian flows, improvements have been tabled in drawing number ITB12212-GA-020 Rev C. To maintain the rural nature of the route, resurfacing of the footpath is proposed to deliver a 1.8m – 2m 'rural style' path which would remain unlit. These improvements shall be delivered by means of a contribution.

Cycle Access to Lancaster Close

As previously agreed and set out within drawing ITB12212-GA-020 Rev C the improvements to Footpath 117 will include an upgrade to the connection to Lancaster Close to allow cycle access between the existing residential estate and the new development. This connection will provide a safe cycle route from the site to nearby amenities including the railway station and local primary schools.

It is considered that the HCC Public Right of Way team will be able to carry out all of these improvements to Footpath 117 within the timescales required for the development subject to the funding being provided prior to commencement.

A27 Cycle/Pedestrian Crossing

As part of the previously agreed walking and cycling strategy a new pedestrian and cycle refuge was proposed on the A27 south west of junction with The Thicket as shown in drawing ITB12212-GA-021 Rev B. The drawing has since been revised to revision C to incorporate changes to cycle connectivity between the A27 and The Thicket to provide access points to cyclists and a short section of shared use path.

The Highway Authority are satisfied with the proposal and this highway improvement should be secured as works for the developer to deliver within the S106 Agreement.

Pedestrian and Cycle Audit

To assist in considering sustainability of walking and cycling facilities, a pedestrian and cycle audit was carried out by the applicant, covering the site and nearby walkable routes. This review has highlighted potential improvements along the routes to improve existing infrastructure, and therefore sustainable travel routes from the site.

Some of the recommendations made by the audit include proposals to improve Downend Bridge, Cams Bridge and Upper Cornaway Lane. These have been assessed separately. Other recommendations involve the provision of dropped kerbs and tactile paving to improve the crossing points along some of the nearby residential roads.

A comprehensive plan of all pedestrian improvements associated with the site has been provided in figure T5 of the Transport Assessment. This includes the location of the

improvements to the main pedestrian/cycle accesses into the site, along with the further crossing point improvements to some of the wider residential roads in the area. The pedestrian and cycle audit improvements should be secured via contribution in a S106 agreement.

Public Transport

The site benefits from three regular commercial bus services (3, F3 and the Solent Ranger X4) all within a maximum 800m walk from the site. Whilst the walking distance is acknowledged to be above the recommended distance there is not any scope to redirect the services. The frequency of these services varies from every 10 minutes with Route 3, up to every 2 hours with Route F3. These buses provide regular access to Portchester, Fareham, Portsmouth and other commuter locations. This level of frequency makes the service attractive to prospective users and is considered in this case to overcome the additional walking distances. Pedestrians will access the bus stops along the A27 via the improved Cams Bridge link and the crossing facilities on the A27.

It is noted that the bus stops currently provided along the A27 are simple flag poles. Provision of bus shelters could be considered beneficial to encourage usage from the site in providing more attractive waiting facilities. Subject to the direct sustainable access route through Cams Bridge towards the A27, it is considered that current bus provision is acceptable with a contribution for improvements to waiting facilities and towards wider BRT improvements as identified through the Transforming Cities funding programme along the A27 corridor in Portchester.

Portchester Rail Station lies roughly 1,500m to the east of the site. Trains run regularly from this station and Fareham Railway Station lies 3km from the site, with a higher train frequency. Overall, Portchester Station sits within the 'reasonable walking distance' identified by the CIHT and Fareham Station within reasonable cycling distance therefore providing a suitable sustainable option of travel from the site.

Personal Injury Accident Data

Personal Injury Accident (PIA) data has been obtained from Hampshire Constabulary for a five-year period, spanning 1st July 2014 to 31 December 2019. This has been updated from the previous assessment.

The latest accident data provided identifies clusters of accidents along the A27 corridor primarily resulting in injuries to cyclists.

As set out within our previous responses to applications for development at this site a contribution is sought from the application towards improving safety of the A27 for vulnerable road users. The Road Safety Foundation has identified the route from the

Delme Roundabout to the M27 Junction 12 as one of the ten persistently higher risk roads (2009-2011 and 2012-2014). Hampshire County as the lead authority for the route is one of eight local authorities taking part in the Pathfinding Exercise to improve safety along each of the highest risk roads in Britain by considering and treating the whole route with appropriate countermeasures. In addition, Hampshire County Council are seeking funding through the Transforming Cities Fund to provide further improvements for sustainable modes along the corridor.

In addition to the above, it is noted that there was a fatal injury accident on Downend Road in June 2020. This accident has been investigated by the Casualty Reduction Partnership and several measures are being implemented with an aim of reducing speeds and increase conspicuousness of the Downend Road bridge. This includes clearing vegetation, introducing a gateway feature and road markings to aid with highlighting the 30mph terminal signs.

The implementation of the ghost island right turn lane, the junction to the development and signalisation of the bridge itself will support these measures in reducing vehicle speeds on the approach to the bridge.

Given the accident history and identified need for improvements for sustainable modes along the A27 as agreed previously a contribution should be made by the applicant towards improvements along this route due to the increase in both vehicle movements and additional pedestrian and cycle demand along the A27 as a result of the development.

Vehicular Access

Vehicle access is proposed via a ghost island right turn lane from Downend Road.

ATC data was collected in November 2016 which was previously agreed and demonstrated peak hours of 07:30 – 08:30 and 16:00-17:00. These surveys recorded 743 two-way movements in the morning peak and 553 in the evening peak. Surveys were undertaken in December 2019 by Hampshire County Council and the recorded values at this time have been compared to the 2016 data. Traffic levels were higher in the 2016 survey and therefore this data has been taken forward for analysis within the application. This approach is agreed.

Vehicular access to the site is shown proposed through a ghost island junction on Downend Road, in drawing number ITB12212-GA-014 Rev D. The vehicle access has been reviewed and is acceptable in principle to the Highway Authority. Consideration of an emergency access to Downend Road will be a matter dealt with at reserved matters.

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Access drawing number ITB12212-GA-014 Rev D also details the repositioning of the speed limit sign further north up Downend Road from its existing position close to Downend Bridge. It is recommended that the speed limit is moved further north to support the speed reduction on the approach to the amended layout on Downend Road. This can be concluded within a TRO application at the S278 stage.

Vehicle Trip Generation

The TA presents the proposed vehicular trip generation rates for the development during both the weekday AM and PM Peak Hours, and the daily total. The weekday trip rates have been calculated using the TRICS database of surveyed trip generation from similar sites.

These vehicular trip rates are presented as 0.531 (two way AM peak) and 0.584 (two-way PM peak), providing vehicular trips from the site as 186 in the AM and 204 in the PM. These vehicular trip rates are considered acceptable for this development.

Vehicle Trip Distribution

The distribution of residential development traffic is split, with commuting trips accounting for 46% of peak hour trips (identified through the 2011 Census Journey to Work dataset) and the remaining 54% distributed in accordance with a gravity model produced for this development.

The combination of results from the two distribution calculations identified Portsmouth as the main attractor with 17% of all trips, followed by Fareham (15%) and Portchester (10%). Both the Census Journey to Work Data and gravity model results provided are considered reasonable and proportionate.

Traffic Impact on The Ridgeway

Within this and the previous TA, the applicant has carried out an assessment of how many additional vehicles are predicted to use The Ridgeway when travelling to or from the development.

The Ridgeway provides direct vehicular access off the A27, providing an alternative vehicular route to Downend Road instead of utilising the A27/Downend Road signalised junction when heading eastbound. The junction with The Ridgeway/A27 does not allow vehicular access from Cams Hill back onto the A27 westbound, meaning the rerouting of traffic could only occur for vehicles heading to the east towards the proposed development. The TA sets out that within the AM and PM peak periods there are forecast a total of 20 trips in the AM peak and 47 in the PM peak which could potentially utilise The Ridgeway.

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An ANPR survey was carried out between 7 AM and 7 PM to ascertain how many vehicles currently use The Ridgeway when travelling to Downend Road. This identified a total of 321 movements travelling from the A27 to Downend Road along the Ridgeway within this time period. When compared with the total number of movements from the A27 to Downend Road this equates to 18.2% of the current overall trips between Delme Roundabout and Downend Road utilising this route.

When considering this percentage against the agreed distribution from the site, 4 vehicles are predicted to use The Ridgeway in the AM peak and 9 in the PM peak. The proposed increase in trips along The Ridgeway is therefore not considered to represent a significant increase in demand along this route.

Junction Modelling

The following junctions have been modelled as part of the previous application and this has not been revisited as part of this application. The Highway Authority are satisfied with the scope of the assessment and the proposed mitigation package agreed.

For clarity, the junctions assessed were as follows:

- Downend Road/Site Access;
- Downend Road/The Thicket;
- A27/The Thicket;
- Portsdown Hill/Swivelton Lane;
- A27 Portchester Road/Downend Road/Shearwater Avenue; and,
- A27 Portchester Road/Wallington Way/Eastern Way 'Delme Arms' roundabout.

The results of this review confirmed that all the non-signalised junctions are forecast to operate within practical capacity across all approaches in the AM and PM peak. No improvements are therefore sought by the Highway Authority at these junctions.

Whilst it should be noted that this application has not assumed the Romsey Avenue site as committed development the Highway Authority is satisfied that the cumulative impact has been suitably assessed within the Romsey Avenue application which has assumed the Downend Road site as committed development. The findings of that review do not change our approach to mitigation from this development.

Downend Road/A27 Signalised Junction

The need for improvements at this junction were previously explored in detail under the previous planning application. An improvement scheme has been agreed here and is shown in drawing ITB12212-GA-026. The works proposed include provision of two southbound approach lanes on Downend Road, implementation of MOVA technology and yellow line/ tracking markings. These mitigation works are considered acceptable in principle.

However, it should be noted that HCC is progressing Transforming City Fund (TCF) improvements on the A27, including this location. While there should be limited interaction between the TCF and developer schemes, the proposed development mitigation works may require minor amendments to coordinate with the planned TCF works. HCC should be contacted prior to detailed design work for the most recent TCF designs should the development come forward and the developer mitigation works constructed prior to the TCF scheme being constructed.

Should the TCF scheme be constructed in advance of the developer led improvement works, it may be that it is prudent in order to reduce impact on the travelling public that the TFC scheme deliver MOVA and associated replacement signal equipment. These works have been costed to date at £33,550. Under these circumstances the developer should provide an additional contribution of this value in lieu of carrying out these works and this should be secured within the s106 agreement.

Delme Roundabout

A proportionate contribution has been agreed between the Highway Authority and the applicant which is to be put to future works to improve capacity at Delme Roundabout and has been calculated based on the scope of works required to compensate for additional capacity requirements at the roundabout as a result of the proposed development. Works may be at the roundabout itself or be through other physical works which aid in reducing traffic demand at Delme roundabout such as BRT improvements.

Master Plan

A master plan has been submitted and included in Appendix G of the TA for the application and the applicant has confirmed that the site will be brought forward in accordance with the agreed masterplan.

The masterplan shows housing to be situated away from the Downend Road junction and surrounding the key walking and cycling routes to the development via Cams Bridge and Footpath 117. It is on the basis of the masterplan on which the walking and cycling trips distribution has been approved and therefore any future reserved matters application should be in broad accordance with this plan.

Internal Layout

The parking standards for the site are laid down by Fareham Borough Council (FBC) as the local parking authority, in accordance with their Residential Car and Cycle Parking Standards Supplementary Planning Document (SPD) as adopted in November 2009. It should be noted that any shortfall in parking provision has the potential to result in overspill parking that could become obstructive (both visually and physically) that could onwards become a concern to the Highway Authority for highway safety reasons. As

such, it would be requested that further applications make sure that parking fully conforms to the local Parking Standards to remove such concerns.

Details for tracking for a refuse vehicle and for waste collection points have not been provided within this application and are a matter to be addressed under reserved matters.

It is understood that a mix of S38 adopted areas and un-adopted areas are proposed for the roads and footways of the site, and whilst HCC would not object to the proposals for unadopted areas it would be advisable that the developer ensures that the roads and footways are designed to minimum industry standards and / or Hampshire County Council's best practice as set out in https://www.hants.gov.uk/transport/developers/constructionstandards. Onwards, an appropriate Private Management Plan should be put into place to deal with any future issues.

Regarding areas of the site where roads and footways are to be adopted, it should be noted that these 'planning application' consultee comments have been made utilising the plans submitted. Should adoption be required, the S38 process will still need to be undertaken in addition to any planning approval that may be granted by the Local Planning Authority, and the details of this process can be found via the following link - https://www.hants.gov.uk/transport/developers/constructionstandards. This process will require additional information to that submitted to date and require formal engineering drawings for assessment which may result in updates to the layout being required. As such, it is recommended that the developer engage with the S38 team at their earliest convenience.

For both S38 adopted areas as well as areas not proposed to be adopted, developers should also be made aware of the Advanced Payment Code (APC) that will be required by the Highway Authority. Details of this can be found via the following link - http://documents.hants.gov.uk/transport/APCProcess-Guidancedocumentforwebsitev22018-04-02.pdf

Travel Plan

The framework travel plan reference ITB12212-059B set out within this application is as previously agreed and therefore deemed acceptable. It should be noted that a the time of the reserved matters stage, the Framework Travel Plan submitted will need to be closely observed to ensure that all the measures concerning the design and layout in particular relation to the pedestrian and cycling connections are adequately covered.

Director of Economy, Transport and Environment
Stuart Jarvis BSc DipTP FCIHT MRTPI

Hampshire County Council

Recommendation

The highway authority raises no objection to this application, subject to the following conditions and obligations:

Conditions

- A Construction Management Plan shall be submitted to, and approved in writing by, the Local Planning Authority (in consultation with Hampshire County Council Highway Authority) before development commences. This should include construction traffic routes and their management and control, parking and turning provision to be made on site, measures to prevent mud being deposited on the highway, adequate provision for addressing any abnormal wear and tear to the highway, and a programme for construction.

Reason:
In the interests of highway safety

Provision of a Grampian condition for agreed details and provision from Network Rail in the form of an Asset Protection Agreement regarding any amendments to the parapet heights required in order to enable the improvement works at Downend Road Bridge as shown on drawing ITB12212-GA-051 Rev C

Obligations

- A contribution of £374,340 towards the following:
  - Mitigating the impact of development traffic at Delme Roundabout including provision for BRT;
  - Bus infrastructure improvements on the A27 in the vicinity of the site;
  - Implementing A27 safety measures to mitigate the impact of increased pedestrian and cycle movements from the development; and
  - Pedestrian and cycle audit improvements detailed in figure T5.
- Delivery of sustainable access improvements to Downend Road bridge as shown in principle on ITB12212-GA-051 Rev C
- Commitment to enter into a Common Law Dedication to secure Cams Bridge as a Public Right of Way footpath;
- Improvements to Cams Bridge as detailed in drawing number ITB12212-GA-023 Rev B;
- Provision of the crossing point detailed in drawing number ITB12212-GA-021 Rev C across the A27;
- Delivery of the site access as detailed in drawing number ITB12212-GA-014 Rev D;
- Payment of £18,480 for Improvement to Upper Cornaway Lane as detailed in drawing number ITB12212-GA-020 Rev C;

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- Delivery of the Downend Road/A27 capacity improvements scheme as shown on drawing ITB12212-GA-026 through a S278 agreement with the highway authority; or
- Payment of £33,500 in lieu of introducing MOVA at the Downend Road/A27 junction should the TCF scheme come forward ahead of the s278 works
- Payment (by developer) of HCC fees in respect of approval (£3,000) and monitoring (£15,000) of the Framework Travel Plan prior to commencement; and
- Provision of a bond, or other form of financial surety, in respect of the measures within the Travel Plan.

I trust the above is clear, but should you wish to discuss any of the above further, please do not hesitate to contact Nick Gammer on the number above.

Yours Faithfully,

Ben Clifton
Strategic Transport Manager

APPENDIX B. HCC PADR – Site Access

Hampshire County Council

Winnham Farm, Down End Road, Portchester

Pre-Application Design Review Report

Job No: **R.J505959.01**

Report No: **PAR 505959**

engineering CONSULTANCY

Stuart Jarvis BSc DipTP FCIHT MRTPI

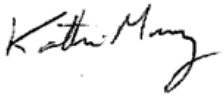
Director of Economy, Transport and Environment, The Castle, Winchester

Winnham Farm, Down End Road, Portchester

Prepared by: Matt Dyer Signed:  Date: 7/3/17

Checked by: Graham Redman Signed:  Date: 7th March 2017

Approved by: Kathie Murray Date: 8th March 2017

Signed: 

Report issued to Development Planning

Officer: Andrew Maclean Date: 8th March 2017

REPORT EXPIRY DATE: **2 Years after Issue**

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1. Scheme Details

1.1. Development Planning Officer

Name: Andrew Maclean

Tel: 01962 832496

1.2. Consultant Details

Name: i-Transport LLP

Address: Grove House, Lutyens Close, Chineham Court, Basingstoke, Hampshire RG24 8AG

Tel: 01256 338640

Contact: Nick Billingham (nick.billingham@i-transport.co.uk)

1.3. Developer

Name: Miller Homes

Address: TBC

1.4. Scheme Location

Downend Road, Portchester, Fareham.

1.5. Description of Highway Improvements

Provision of a new bell mouth junction, Option A onto the east side of Down End Road for the proposed residential development of 358 dwellings. Option B also provides a dedicated right turn lane into the site with a pedestrian refuge and footway on the southern side to improve pedestrian crossing facilities.

1.6. Estimate

Not submitted as only at pre-application stage.

1.7. Submitted Information

1.7.1. Drawings

Drawing no.	Rev	Drawing Title	Date Received
ITB12212-GA-001	B	Potential Site access (Priority Junction Option)	23rd February 2017

ITB12212-GA-002	B	Potential Site access (Ghost island Option)	23rd February 2017

1.7.2. Documents

Document no.	Rev	Document Title	Date Received
NB/ITB12212-010 TN		Pre-Application Design Review Technical Note	23rd February 2017

2. DESIGN CHECK DETAILS

2.1. Date documents received from Development Planning

Documents received 13th February 2017.

2.2. Date review meeting was held

An inception meeting was held on 20th February 2017 and whilst the submission was deemed complete, further details of accident data would be required.

2.3. Internal Consultations

No consultation has been undertaken at this stage of the design review.

2.4. Quality of Drawings etc. provided

The supplied drawings and background information supplied by the Consultant are sufficient for a pre-application review.

3. COMMENTS ON DESIGN

3.1. Horizontal Alignment

The geometric layouts shown on drawings ITB12212-GA-001 Rev B and ITB122212-GA-002 Rev B are generally suitable for this type of development.

Swept path information was not supplied. The S278 process will require swept path information using a supersize refuse vehicle and articulated lorry as it is likely that the entrance would be used for construction traffic. These vehicles could impact on the layouts submitted.

There is an existing junction into the proposed site and this is proposed to be closed off and a new access constructed approximately 5m to the south. The kerb radii are not known and whilst, it is proposed to construct a 5.5m wide access, there are concerns that this may be too tight for refuse vehicles and of a potential increased risk of rear shunt accidents due to left turning vehicles requirement to slow down considerably to make the turn.

It is recommended the junction is made wider with tapered approaches and larger radii.

Option B (Ghost Island) also shows a pedestrian refuge to the southern end of Down End Road. The southbound alignment appears to 'kink' at the kerb tie in point. This should be reviewed prior to detail design or planning (just in case there are land implications) to see if there are opportunities to 'smooth out' the alignment tie in near the railway bridge.

It is recommended the current speed limit is reduced by relocating the current 30mph limit further north. This will also require any current 40mph repeater signs to be relocated accordingly to accommodate the deceleration in speed limits and subsequently, a TRO will be required.

3.2. Vertical Alignment

Down End Road is on a gradient of approximately 2.5% from north to south. The proposed access would be a similar vertical alignment to the current access which falls away from the highway boundary. There is scope to improve the access gradient to prevent a sudden change in alignment from Down End Road.

There may be implications on land take with regards to impact on the existing hedgerow.

3.3. Drainage

There are existing gullies on the west side of Down End Road as the carriageway is slightly cantilevered as the alignment approaches the curve in the carriageway. Any potential widening for the implementation of the ghost island would create a 'balanced' carriageway profile and additional gullies will be required. It is not clear if the existing gullies connect directly to soakaways or a positive drainage system and this will need to be confirmed following NRSWA C2 Inquiry and subsequent drainage survey.

The consultant will need to ensure that the proposed access does not drain private water onto the public highway and that drainage is designed for the area of existing carriageway that will be kerbed as part of the proposed footway.

3.4. Other elements of design

Swept Paths

HCC recommend using a 'super size' refuse vehicle of 11.2m x 2.53m. Additional swept paths are required especially as it is assumed this will be used as the construction access for the development.

Sight visibilities / land take

Option A (Priority Junction) – Drg ITB12212-GA-001 shows visibility splays of 2.4m x 57m to the north and 2.4mx 52m to the south.

Option B (Ghost island) – Drg ITB12212-GA-002 shows visibility splays of 2.4m x 57m to the north and 2.4mx 52m to the south

Both options can achieve visibility splays of 2.4m x 120m to the north (down hill approach) and Manual for Streets guidance; using 2.5% gradient; indicates a minimum splay of 57m to the south which can be achieved by cutting back some of the hedge row. It should be noted that the drawings show the splay at 0.5m offset from the channel line whereas it should be to the actual channel line in accordance with TD42 if MfS criteria had not been established by speed checks.

Two automatic traffic counters (ATC) were installed in Down End Road at the northern and southern limits.

ATC 1(north) recorded 38.7mph N/B and 35.1mph S/B.

ATC 2(south) recorded 33.3mph N/B and 31.6mph S/B.

All of the above speeds were included adjustment for wet weather.

Feasibility RSA

A Stage 1 Road Safety Audit has been undertaken and the auditors have found no issues with either of the proposed options. However, there are concerns raised by this report on potential rear shunt incidents (Section 3.1 para 4). It is recommended a further audit is undertaken when the design option is revisited with regards to issues raised earlier in this report (swept paths and speed limit relocation).

Street Lighting

There is no street lighting within the immediate area although there is lighting to the south of the railway bridge.

It is likely that new lighting would be required opposite the new entrance however this can be confirmed by HCC Lighting should the scheme proceed any further.

Weight Restriction

There is a 7.5T weight restriction on the Network Rail railway bridge which will need to be taken into consideration for any construction traffic movements. Network Rail should also be contacted at the earliest opportunity to ascertain whether the proposed developments will give them cause for concern.

4. STATUTORY REQUIREMENTS

Orders. (line / side road)	n/a
Compulsory Purchase Orders.	n/a
Traffic Regulation Orders.	yes
Parking Restriction Orders.	n/a
Road Hump Regulation Consultations.	n/a
Public Consultation.	yes
Hedgerow Regulation Act.	yes
Footway Conversion	n/a

The process of any Statutory requirements will not be commenced until a written request is received from the Consultant; this should include an undertaking to pay all costs incurred.

Consultant to note that the procedure for dealing with any Statutory Requirements will normally take some four to six months, but in exceptional circumstances could exceed nine months. The scheme programme should take this into account.

Initial contact should be made with the Assistant Service Manager for Area

Office	Tel	Email
North	01256 764455	highways-transport.north@hants.gov.uk
East	01730 235800	highways-transport.east@hants.gov.uk
South	01329 824757	highways-transport.south@hants.gov.uk
West	023 8066 3311	highways-transport.west@hants.gov.uk

5. FUTURE SUBMISSIONS

5.1. Guidance

Consultant shall note that any future preliminary, combined or detail design submissions must be made in accordance with HCC's Section 278 Technical Submission Guidance, which can be found together with other important information for developers at;

http://www3.hants.gov.uk/roads/highways-developers/construction-standards.htm

Ordinary water consent information can be found at:

http://www3.hants.gov.uk/flooding/hampshireflooding/watercourses.htm

http://www3.hants.gov.uk/watercourse-consenting-leaflet-format.pdf

5.2. Considerations

The comments below are to assist the Consultant in future submissions.

5.2.1. Officers

Arboriculture

An ecological report is required as hedgerows may require removal to accommodate the new access and improve sightlines to the south.

Pedestrians

There is an existing footway on the west side of Down End Road but this does not continue south beyond the railway bridge but links up to a Public Right of Way to the west.

A trip generator provided in document NB/ITB12212-010 TN estimates that the majority of pedestrian movements from the new development will utilise the existing Cams Railway Bridge to the south of the site. It should be noted that this bridge also does not have a dedicated footway and there may be requirements for traffic calming / shared space design if it were to be used for alternative vehicle access. This link road is not currently public highway.

5.2.2. Preliminary Design Check

Sight visibilities / Land Plan

Consultant to confirm that all land required for visibility splays will be dedicated to the Highway Authority. A plan showing extent of existing highway, new development land for adoption and any third party land required is required.

Departures from DMRB / HCC Standards.

The Consultant is to provide an explanation of the case for inclusion of any departures or relaxation's to standards proposed, together with an assessment of risks involved in adopting such proposals, along with any mitigation measures proposed. An independent safety auditor's comment is also required.

The developer shall note that departures or relaxations will not be approved if their inclusion is considered inappropriate. Where proposals have been recommended for approval which are subsequently found to contain 'departures from standards' not previously indicated by the Developers Consultant it must be noted that acceptance of retrospective applications cannot be guaranteed.

Traffic speed surveys

The existing speed limit is to be confirmed. The 85th%ile speed of the site required if any Departures from Standard are included within proposals or if Consultant is applying Manual for Streets criteria.

Accident History Report.

The Consultant shall provide a narrative of the Accident History Report (5 years) from Hampshire Constabulary, contact the Force Statistical Officer (0845 045 4545) and identify any trends that are addressed by the proposals or that could exacerbated.

5.2.3. Combined Design Check

HCC Standard Detail Drawing/Specification

The Consultant shall provide a list of HCC Standard Details, including Revision suffix, relevant to the works. It should be noted that

The latest HCC standard details may be found at:

http://www3.hants.gov.uk/roads/highways-developers/construction-standards/standard-details.htm

Also, for all but the smallest schemes a Contract Document will be required. The Consultant must confirm they have based their specification on the latest HCC model contract document. This specification can be supplied, but will need to be made "scheme specific".

Road Markings and Signing

Submission to be in accordance with the Traffic Sign Regulations &General Directions and any Highway Authority's requirements. A fully detailed sign schedule will be required for larger schemes.

Pavement Design.

The Sub-Base shall be recycled granular material in accordance with HCC Clauses 891AR or 892 AR (Hampshire County Council Master Contract Documents). Virgin crushed rock Sub-Base may only be used

where it can be demonstrated that recycled or secondary materials are not available locally.

Furthermore, during the first week of construction work equilibrium CBR values shall be established.

Street Lighting Proposals.

The consultant should note that Southern Electric Contracting will not undertake any servicing works until a 'Certificate of Approval for Illuminated Street Furniture Installation' has been signed the HCC Street Lighting Engineer.

It is a requirement of the Consultant to consult the relevant Local Lighting Authority regarding any proposals. Written confirmation of the consultation will be required prior to commencement of works on site.

http://www3.hants.gov.uk/index/your-area/localpages/districts.htm or

http://www3.hants.gov.uk/index/council/localgov/parish.htm

Drainage Proposals.

To promote the use of recycled plastic, please consider HAPAS certified recycled plastics, such as twinwall drainage piping. Installation of such piping should be installed as per manufacturers recommendations.

Jetting of new drainage runs may be necessary at end of contract, in order to ensure all new pipe-work is free of debris and free running.

6. RECOMMENDATION ON PROPOSALS

RECOMMENDED COMBINED APPROACH DUE TO TRO REQUIREMENTS FOR RELOCATION OF 30/40 MPH SPEED LIMIT

The Highway Authority's preferred option for the site access is shown on drawing number ITB12212-GA-002 (Provision of Ghost Island)

This layout will provide a more conspicuous access to highway users on Down End Road to what will be a major housing development. The provision of the pedestrian refuge in the right turn lane hatching will help to reduce Down End Road vehicle speeds and provide pedestrians from the development a safer way of crossing Down End Road to access the footway network on the western side.

Departures from Standard could be required with regards to DMRB; as a result of restricted sight lines to the south due to the Railway Bridge and geometric layout of the right turn lane; however the speed checks provided indicate MfS Standards could be applied in this instance and potentially support the departures.

APPENDIX C. HCC Email of 8 October 2020

Rachel Stout

From: Tim Wall
Sent: 08 October 2020 17:07
To: Drury, Holly
Cc: Redman, Graham; Matthew Craddy; Rachel Stout
Subject: Downend Road - Revised Drawings
Attachments: Downend Road Revised Information Required; ITB12212-GA-049F.pdf; ITB12212-GA-014E.pdf; ITB12212-GA-062A.pdf; ITB12212-GA-061A.pdf; ITB12212-GA-063A.pdf; ITB12212-GA-051D.pdf; ITB12212-GA-056B.pdf; ITB12212-GA-052D.pdf; ITB12212-GA-054B.pdf; ITB12212-GA-053B.pdf; ITB12212-GA-055B.pdf

Importance: High

Holly / Graham,

Thanks for your time earlier.

Please see attached an updated set of drawings which reflect our discussions today, comprising:

- ITB12212-GA-014 Rev E – Site Access Arrangement – Ghost Island
- ITB12212-GA-049 Rev F – Downend Road Bridge – Proposed Signal Arrangement with Footway – Intervisibility Plan
- ITB12212-GA-051 Rev D – Downend Road Bridge – Proposed Signal Arrangement with Footway – General Arrangement
- ITB12212-GA-052 Rev D – Downend Road Bridge – Proposed Signal Arrangement with Footway – Vehicle Tracking – Articulated Vehicle
- ITB12212-GA-053 Rev B – Downend Road Bridge – Proposed Signal Arrangement with Footway – Vehicle Tracking – Large Refuse
- ITB12212-GA-054 Rev B – Downend Road Bridge – Proposed Signal Arrangement with Footway – Vehicle Tracking – Bus
- ITB12212-GA-055 Rev B – Downend Road Bridge – Proposed Signal Arrangement with Footway – Vehicle Tracking – 10m Rigid
- ITB12212-GA-056 Rev B – Downend Road Bridge – Proposed Signal Arrangement with Footway – Dimensions
- ITB12212-GA-061 Rev A – Downend Road Bridge – Proposed Signal Arrangement with Footway – Pedestrian Visibility Splay
- ITB12212-GA-062 Rev A – Downend Road Bridge – Proposed Signal Arrangement with Footway – 160m Visibility Splay to Signal Head (Southbound)
- ITB12212-GA-063 Rev A – Downend Road Bridge – Proposed Signal Arrangement with Footway – 120m Visibility Splay to Signal Head (Southbound)

I also attach my earlier e-mail with the explanation and rationale for the changes, along with the TG3 calculations.

I have also annotated the drawing list below (in Red) with the latest revision numbers so you are clear on what should be referenced in your response.

For the avoidance of doubt, the only change to the scheme is the movement north of the southbound stop line by 4m. The other changes to the drawing are changes to visibility splays and dimensions that we agreed earlier. Because the stop line is shown on all drawings, these have all been revised.

I understand that you will be in a position to respond to FBC on the application when you have heard from ITS (expected Monday) and that in the meantime you will update FBC on your response.

Please do let me know if you need anything further.

Kind regards
Tim

Tim Wall
Partner
for i-Transport LLP

T: 01256 338640
M: 07508 413269
E: tim.wall@i-transport.co.uk
W: www.i-transport.co.uk

Basingstoke Office: Grove House, Lutyens Close, Chineham Court, Basingstoke, RG24 8AG

From: Tim Wall <tim.wall@i-transport.co.uk>
Sent: 30 September 2020 10:36
To: Drury, Holly <holly.drury@hants.gov.uk>
Cc: Rachel Stout <rachel.stout@i-transport.co.uk>
Subject: RE: Carriageway Dimensions - Downend Road

Hi Holly – Apologies I was in Kent yesterday.

There is a lot of information so I can appreciate that it is hard to navigate.

In terms of what we are seeking approval for (all of which would be S278 works):

- ITB12212-GA-014 Rev D – Site Access Arrangement – This has been updated to ITB12212-GA-014 Rev E
- ITB12212-GA-021 Rev C – Pedestrian Crossing Refuge – A27 / The Thicket
- ITB12212-GA-026 – A27 / Downend Road / Shearwater Avenue Improvement
- ITB12212-GA-051 Rev C – Downend Road Bridge Improvement – Traffic signal shuttle working

The TA contained various other drawings which supplement the above and inform the mitigation package:

- ITB12212-GA-006 Rev B – Delme Roundabout Improvement (P1) – *This informed the contribution calculation for the A27*
- ITB12212-GA-013 Rev B – Swept Path Analysis – Access (Artic) – *This supports the access arrangement but is not a scheme drawing*
- ITB12212-GA-020 Rev C – Upper Cornaway Lane Improvement – *This informed the contribution calculation for Upper Cornaway Lane*
- ITB12212-GA-023 Rev B – Cams Bridge Improvement – *This is secured by separate planning consent – HCC will still want to secure its provision in this application under S106*
- ITB12212-GA-027– Delme Roundabout Improvement (P2) – *This informed the contribution calculation for the A27*
- ITB12212-GA-064 – Swept Path Analysis – Access (Refuse Vehicle) – *This supports the access arrangement but is not a scheme drawing*

In response to HCC EC comments on the PADR, we also submitted various other plans to provide the further information on the signal control at the bridge (all in Appendix M of the TA). These are explained in the technical note (12 August 2020), and comprise:

- ITB12212-GA-049 Rev E – Intervisibility Plan (showing SSD to signals and on approach – shows both 90/120m in line with posted speed limits / design speed, and 160m SB as requested by HCC). – This has been updated to ITB12212-GA-049 Rev F
- ITB12212-GA-051 Rev C – Downend Road Bridge Improvement – Traffic signal shuttle working – General Arrangement Plan – This has been updated to ITB12212-GA-051 Rev DE
- ITB12212-GA-056 Rev A – Dimensions Plan – This has been updated to ITB12212-GA-056 Rev B
- ITB12212-GA-061 – Pedestrian Visibility Splays – This has been updated to ITB12212-GA-061 Rev A
- ITB12212-GA-062– SSD Long Section on SB approach - 160m – This has been updated to ITB12212-GA-062 Rev A
- ITB12212-GA-063– SSD Long Section on SB approach - 120m – This has been updated to ITB12212-GA-063 Rev A

The following tracking drawings of the Downend Road improvement have also been updated:

- ITB12212-GA-052 Rev D – Downend Road Bridge – Proposed Signal Arrangement with Footway – Vehicle Tracking – Articulated Vehicle
- ITB12212-GA-053 Rev B – Downend Road Bridge – Proposed Signal Arrangement with Footway – Vehicle Tracking – Large Refuse
- ITB12212-GA-054 Rev B – Downend Road Bridge – Proposed Signal Arrangement with Footway – Vehicle Tracking – Bus
- ITB12212-GA-055 Rev B – Downend Road Bridge – Proposed Signal Arrangement with Footway – Vehicle Tracking – 10m Rigid

We are only really seeking in principle approval to the general arrangement plan (ITB12212-GA-051 Rev C), the other drawings simply supplement that.

I hope this helps to clarify matters, but I am around most of the day as needed to chat over.

Have you heard back from Jonathan yet?

If you do need any information presented, it would be good to know sooner rather than later please so we can address this and maintain on course for the November Committee.

Kind regards
Tim

Tim Wall
Partner
for i-Transport LLP

T: 01256 338640
M: 07508 413269
E: tim.wall@i-transport.co.uk
W: www.i-transport.co.uk

Basingstoke Office: Grove House, Lutyens Close, Chineham Court, Basingstoke, RG24 8AG

From: Drury, Holly <holly.drury@hants.gov.uk>
Sent: 29 September 2020 08:15
To: Tim Wall <tim.wall@i-transport.co.uk>
Subject: RE: Carriageway Dimensions - Downend Road

Ok Tim our team are getting very confused over which drawings you are seeking approval for due to the amount of information that has gone through the system.

Can you provide me with a list of drawings please that you are seeking approval of within the application.

I am also going to have a list of matters I will need a response to and probably a revised drawing. I doubt any changes would be considered material here so would require re-consultation (obviously up to Richard) however given the planning history here I need to ensure we have dotted the I's and crossed the t's at this stage, rather than deferring matters to be dealt with at the s278 stage.

Kind Regards
Holly
Holly Drury BSc (Hons) MSc MCIHT MSoRSA
Principal Transport Planner – Highways Development Planning
Strategic Transport
0370 779 3193

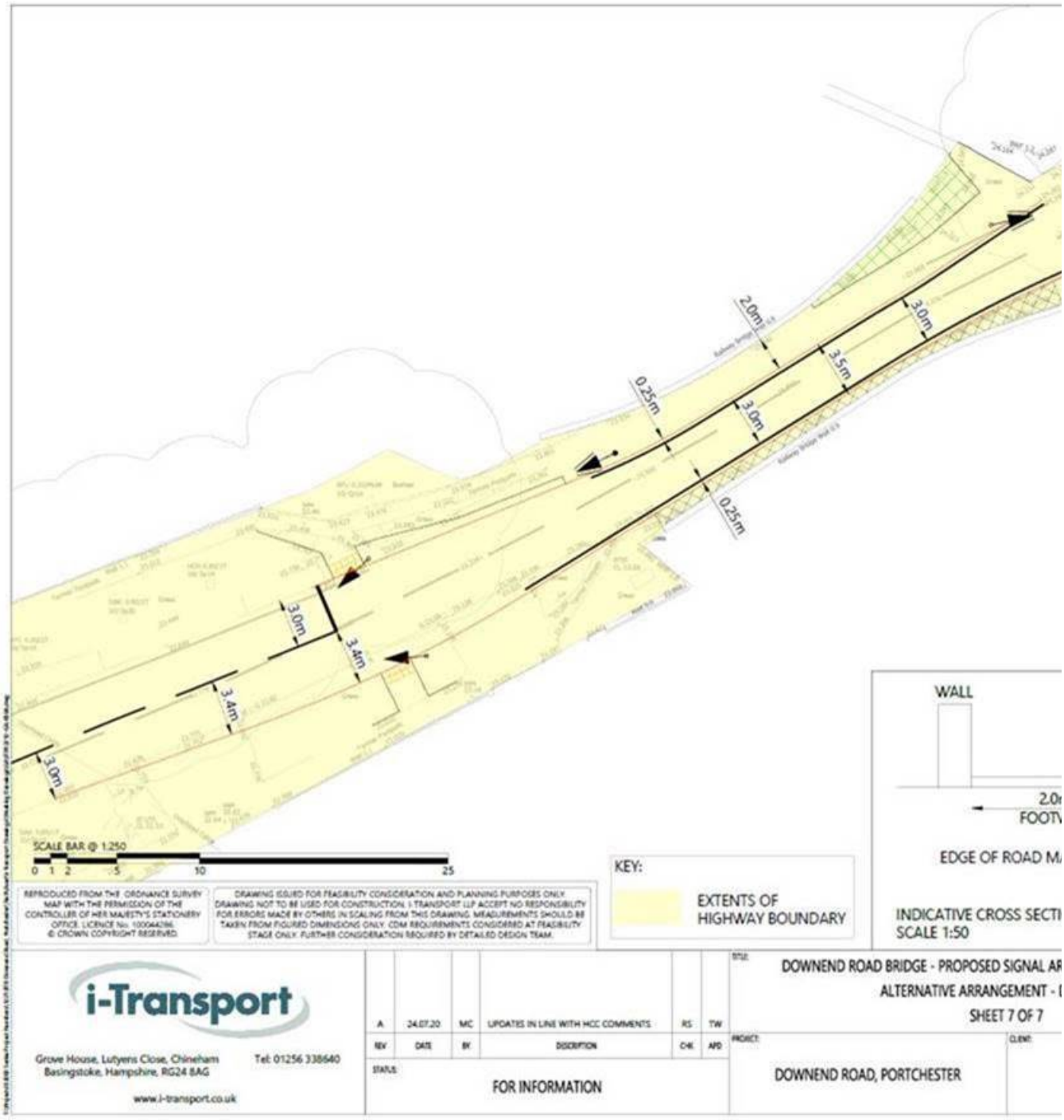
Hampshire County Council

Hampshire County Council operates a pre-application highway advice service for developers.
Hampshire County Council welcomes and encourages discussions before a developer submits a planning application. Please follow this link for further information

From: Tim Wall <tim.wall@i-transport.co.uk>
Sent: 28 September 2020 14:21
To: Drury, Holly <holly.drury@hants.gov.uk>
Subject: RE: Carriageway Dimensions - Downend Road

Hi Holly,

Appendix M of the TA provides the PADR response (in response to EC comments), which includes Drawing ITB12212-GA-056 Rev A – This includes dimensions on each lane, either side of the bridge, in each direction. See page 9 of 17 of the relevant part attached, also sent separately to EC a few weeks ago. Extract of the submitted drawing below.



Kind regards
Tim

i-Transport

Tim Wall
Partner
for i-Transport LLP

T: 01256 338640
M: 07508 413269
E: tim.wall@i-transport.co.uk
W: www.i-transport.co.uk

Basingstoke Office: Grove House, Lutyens Close,
Chineham Court, Basingstoke, RG24 8AG

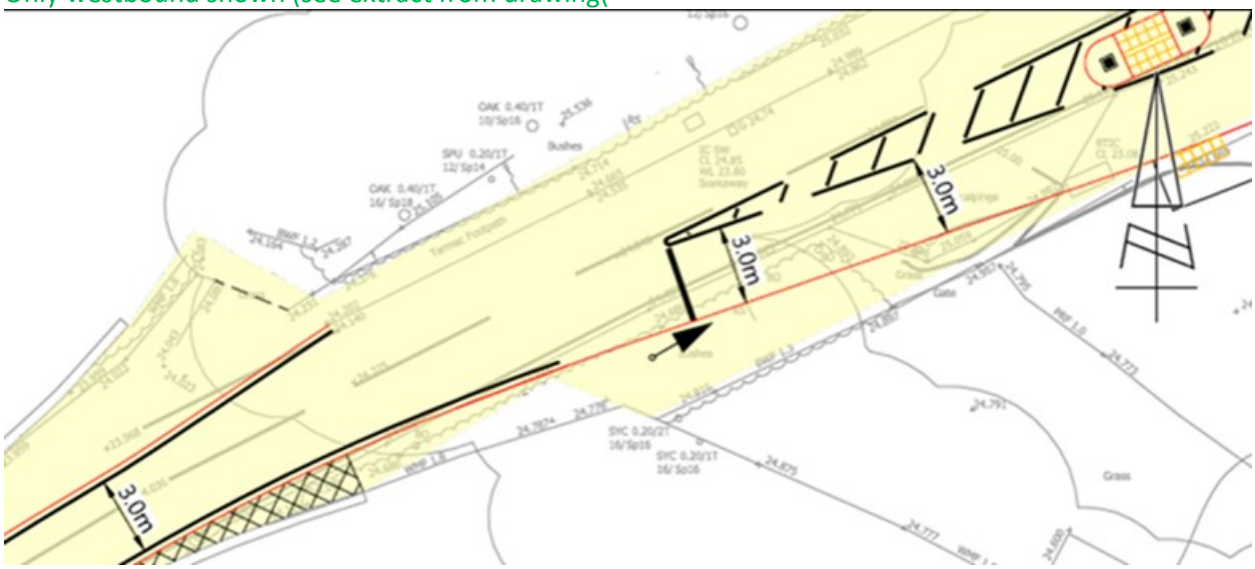
Coronavirus will not stop us working. Please continue to email or call us if you need assistance.

From: Drury, Holly <holly.drury@hants.gov.uk>
Sent: 28 September 2020 14:12
To: Tim Wall <tim.wall@i-transport.co.uk>
Subject: Carriageway Dimensions - Downend Road

Hi Tim

Drawing ITB12212-GA-051 Rev B

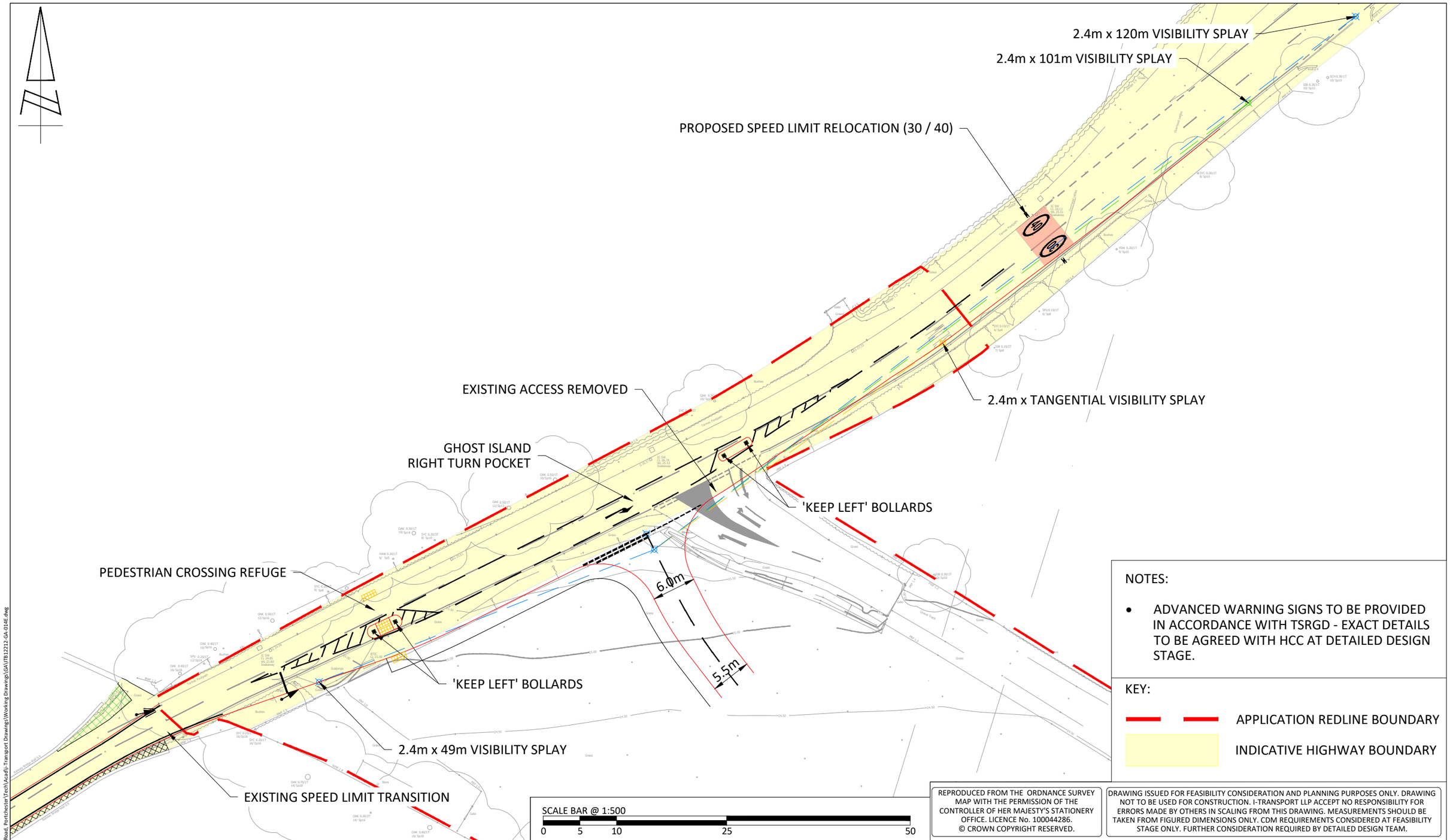
- The drawing is still missing dimensions for the eastbound lane, north side of the bridge despite HCC requiring a fully dimensioned drawing. Dimensions are shown on drawing appendix N drawing 56 A Only westbound shown (see extract from drawing(



Can we have a drawing with all dimensions please sent over. I don't see an issue with this and it being sent to the planning authority for reference, if nothing changes they wont need to reconsult on it.

I am still waiting comments from Jonathan and there may be some other questions coming your way.

Kind Regards
Holly
Holly Drury BSc (Hons) MSc MCIHT MSoRSA
Principal Transport Planner – Highways Development Planning
Hampshire County Council
2nd Floor EII Court West, Winchester
Hampshire, SO23 8UJ
0370 779 3193
E-mail: holly.drury@hants.gov.uk
Web: www.hants.gov.uk/highways



NOTES:

- ADVANCED WARNING SIGNS TO BE PROVIDED IN ACCORDANCE WITH TSRGD - EXACT DETAILS TO BE AGREED WITH HCC AT DETAILED DESIGN STAGE.

KEY:

APPLICATION REDLINE BOUNDARY

INDICATIVE HIGHWAY BOUNDARY

SCALE BAR @ 1:500

0 5 10 25 50

i-Transport

Grove House, Lutyens Close, Chineham
Basingstoke, Hampshire, RG24 8AG

Tel: 01256 338640
Fax: 01256 338644

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REV	DATE	BY	DESCRIPTION	CHK	APD
E	07.10.20	MC	UPDATED IN LINE WITH HCC COMMENTS	RS	TW
D	05.08.20	MC	UPDATED IN LINE WITH HCC COMMENTS	RS	TW
C	05.02.20	JD	RSA COMMENTS INCORP'D	RS	TW
B	14.01.20	MC	ALIGNMENT REVISED	TW	TW
A	26.10.17	MC	SITE BOUNDARY UPDATED	TW	TW

STATUS: FOR PLANNING

TITLE: SITE ACCESS ARRANGEMENT - GHOST ISLAND

PROJECT: DOWNEND ROAD, PORCHESTER

CLIENT: MILLER HOMES

SCALE @ A3:	CHECKED:	APPROVED:
1:500	TW	TW
FILE REF:	DRAWN:	DATE:
ITB12212	MC	18.08.17

DRAWING No: ITB12212-GA-014

PROJECT No: ITB12212

REV: E

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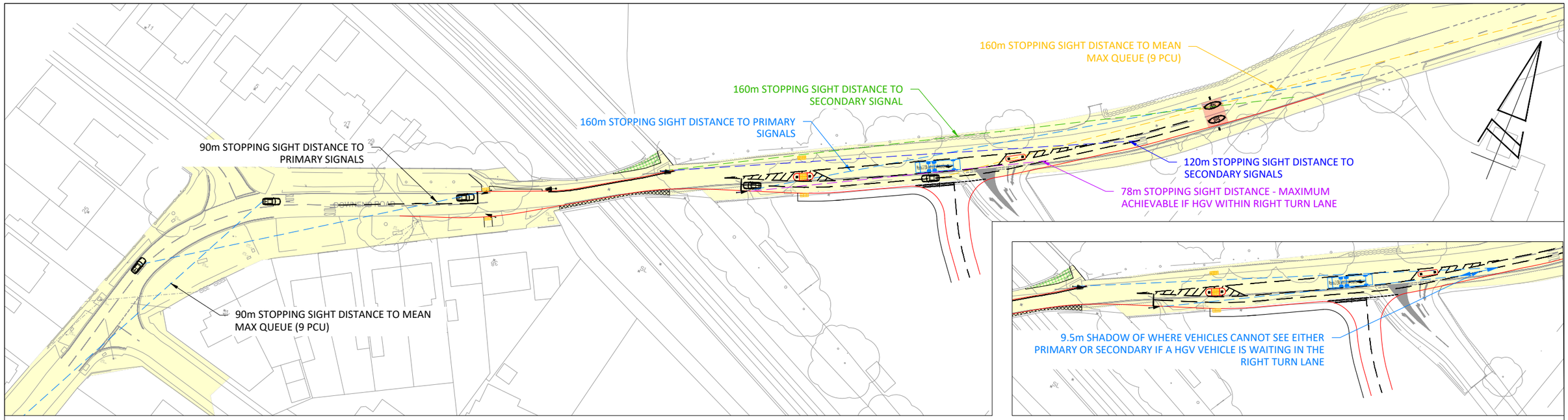

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SCALE BAR @ 1:1000

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Tel: 01256 338640

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REV	DATE	BY	DESCRIPTION	CHK	APD
F	06.10.20	MC	UPDATED IN LINE WITH HCC COMMENTS	TW	TW
E	24.07.20	MC	UPDATED IN LINE WITH HCC COMMENTS	TW	TW
D	18.03.20	MC	ALIGNMENT REVISED	TW	TW
C	28.02.20	JD	VISIBILITY SPLAYS UPDATED	TW	TW
B	05.02.20	JD	RSA COMMENTS INCORPORATED	TW	TW
A	15.01.20	MC	HIGHWAY ALIGNMENT REVISED	TW	TW

STATUS: FOR INFORMATION

TITLE: DOWNEND ROAD BRIDGE - PROPOSED SIGNAL ARRANGEMENT WITH FOOTWAY
INTERVISIBILITY PLAN
SHEET 2 OF 7

PROJECT: DOWNEND ROAD, PORTCHESTER

CLIENT: MILLER HOMES

DRAWN:	CHECKED:	APPROVED:
MC	TW	TW
PROJECT No:	SCALE @ A3:	DATE:
ITB12212	1:1000	22.11.19

DRAWING No: ITB12212-GA-049 REV: F

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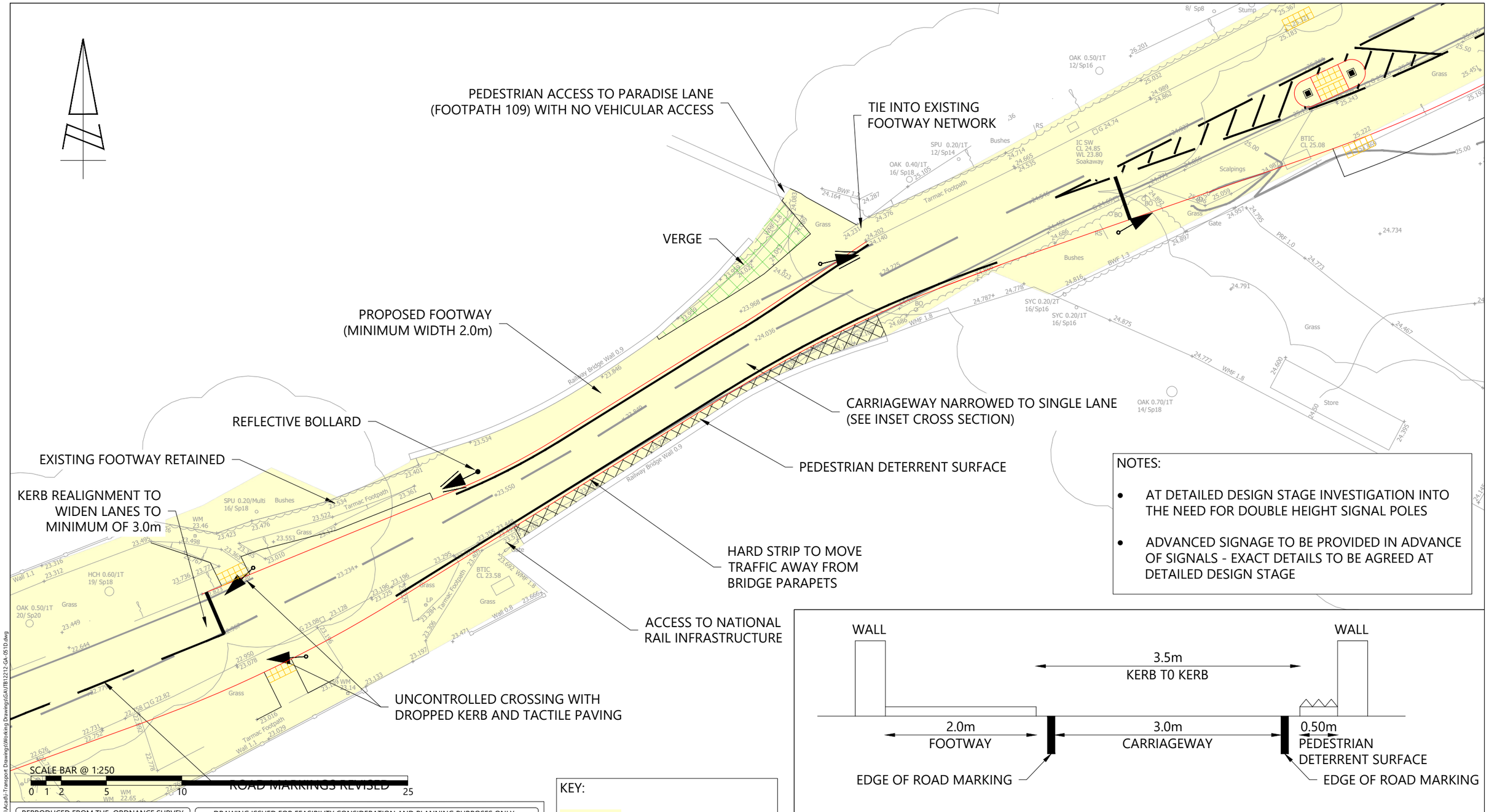

NOTES:

- AT DETAILED DESIGN STAGE INVESTIGATION INTO THE NEED FOR DOUBLE HEIGHT SIGNAL POLES
- ADVANCED SIGNAGE TO BE PROVIDED IN ADVANCE OF SIGNALS - EXACT DETAILS TO BE AGREED AT DETAILED DESIGN STAGE

INDICATIVE CROSS SECTION ACROSS BRIDGE
SCALE 1:50

SCALE BAR @ 1:50
0 1 2 5

KEY:

EXTENTS OF HIGHWAY BOUNDARY

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Basingstoke, Hampshire, RG24 8AG

Tel: 01256 338640

www.i-transport.co.uk

REV	DATE	BY	DESCRIPTION	CHK	APD
D	06.10.20	MC	UPDATED IN LINE WITH HCC COMMENTS	RS	TW
C	24.07.20	MC	UPDATED IN LINE WITH HCC COMMENTS	RS	TW
B	18.03.20	MC	PADR COMMENTS INCORPORATED	RS	TW
A	05.02.20	JD	RSA COMMENTS INCORPORATED	RS	TW

STATUS: FOR INFORMATION

TITLE: DOWNEND ROAD BRIDGE - PROPOSED SIGNAL ARRANGEMENT WITH FOOTWAY
GENERAL ARRANGEMENT
SHEET 1 OF 7

PROJECT: DOWNEND ROAD, PORTCHESTER

CLIENT: MILLER HOMES

DRAWN:	CHECKED:	APPROVED:
MC	TW	TW

SCALE @ A3:	DATE:
AS SHOWN	25.01.19

PROJECT No: ITB12212

DRAWING No: ITB12212-GA-051

REV: D

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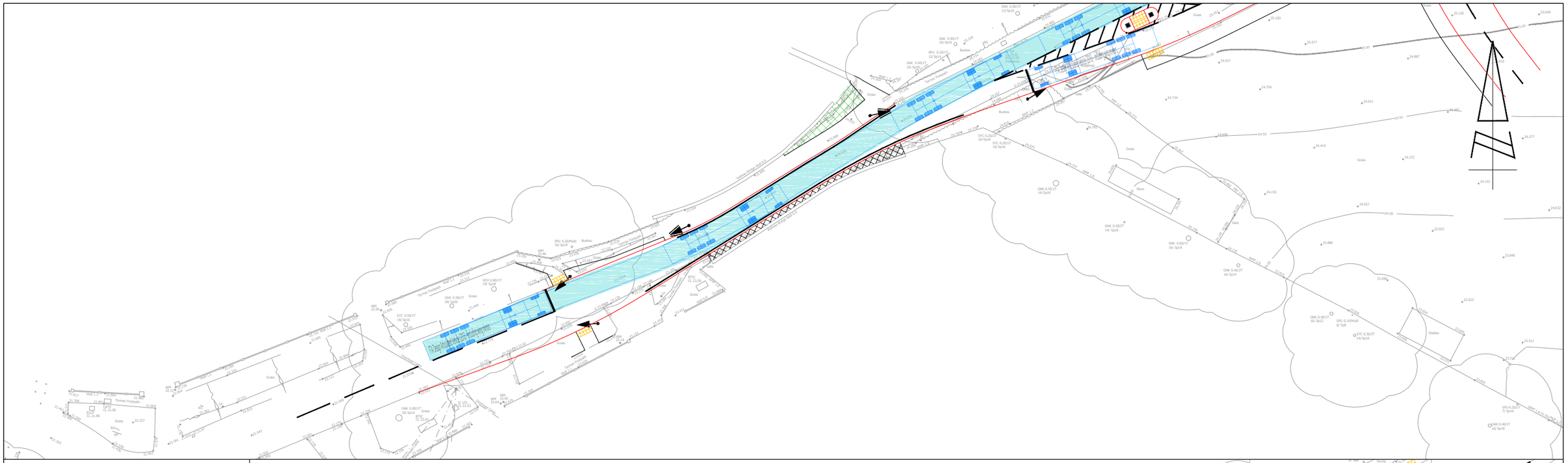

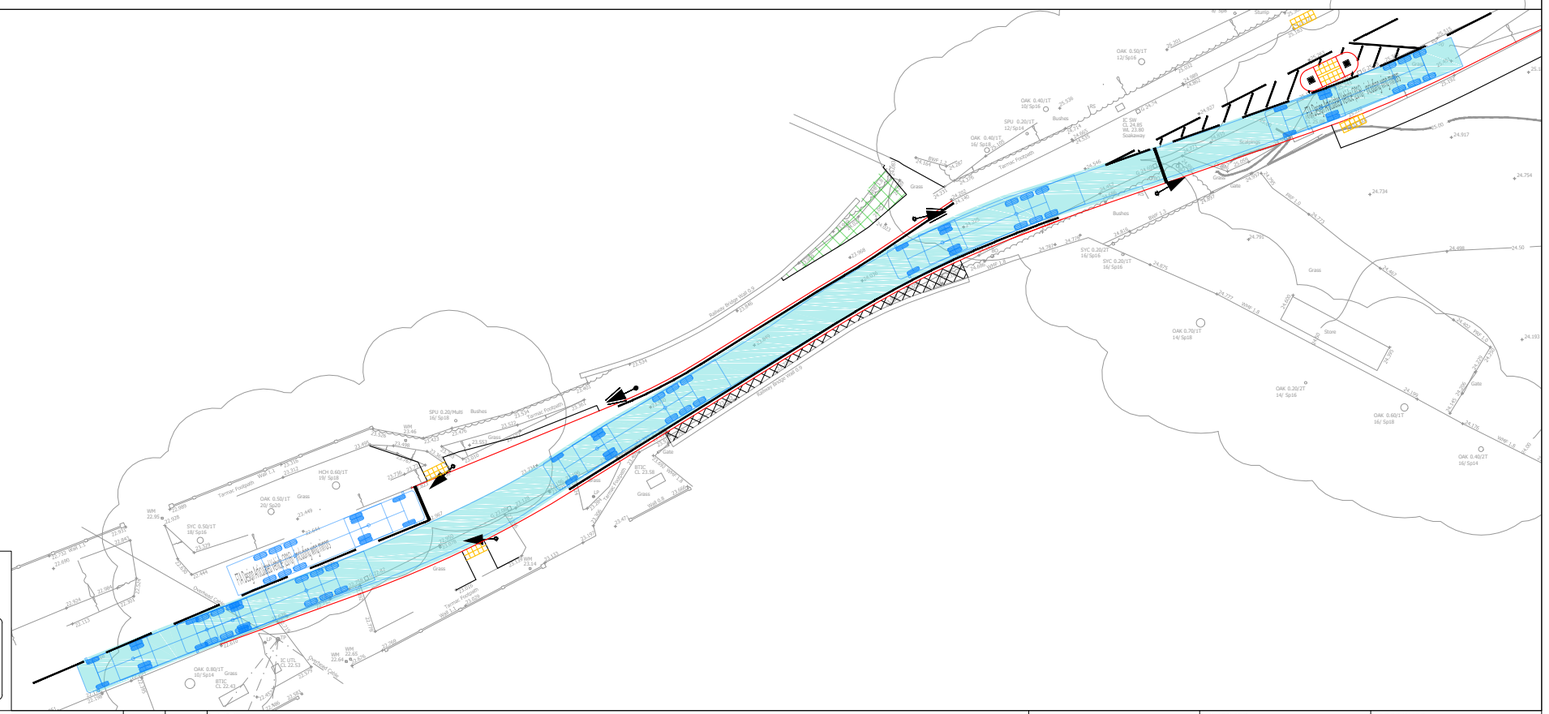

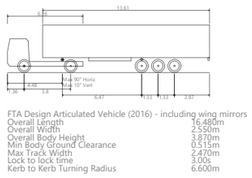

FTA Design Articulated Vehicle (2016) - including wing mirrors

Overall Length	16.485m
Overall Width	2.550m
Overall Body Height	3.870m
Min Body Ground Clearance	0.515m
Max Track Width	2.470m
Lock to lock time	3.00s
Kerb to Kerb Turning Radius	6.600m

SCALE BAR @ 1:500

0 5 10 25 50

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Grove House, Lutyens Close, Chineham
Basingstoke, Hampshire, RG24 8AG

Tel: 01256 338640

www.i-transport.co.uk

REV	DATE	BY	DESCRIPTION	CHK	APD
D	06.10.20	MC	UPDATES IN LINE WITH HCC COMMENTS	RS	TW
C	05.08.20	MC	UPDATES IN LINE WITH HCC COMMENTS	RS	TW
B	18.03.20	MC	ALIGNMENT REVISED	RS	TW
A	05.02.20	JD	RSA COMMENTS INCORPORATED	RS	TW

STATUS: FOR INFORMATION

TITLE: DOWNEND ROAD BRIDGE - PROPOSED SIGNAL ARRANGEMENT WITH FOOTWAY (GENERAL ARRANGEMENT) VEHICLE TRACKING - ARTICULATED VEHICLE SHEET 3 OF 7

PROJECT: DOWNEND ROAD, PORTCHESTER

CLIENT: MILLER HOMES

DRAWN:	CHECKED:	APPROVED:
MC	TW	TW

SCALE @ A3:	DATE:
1:500	25.11.19

PROJECT No: ITB12212

DRAWING No: ITB12212-GA-052

REV: D

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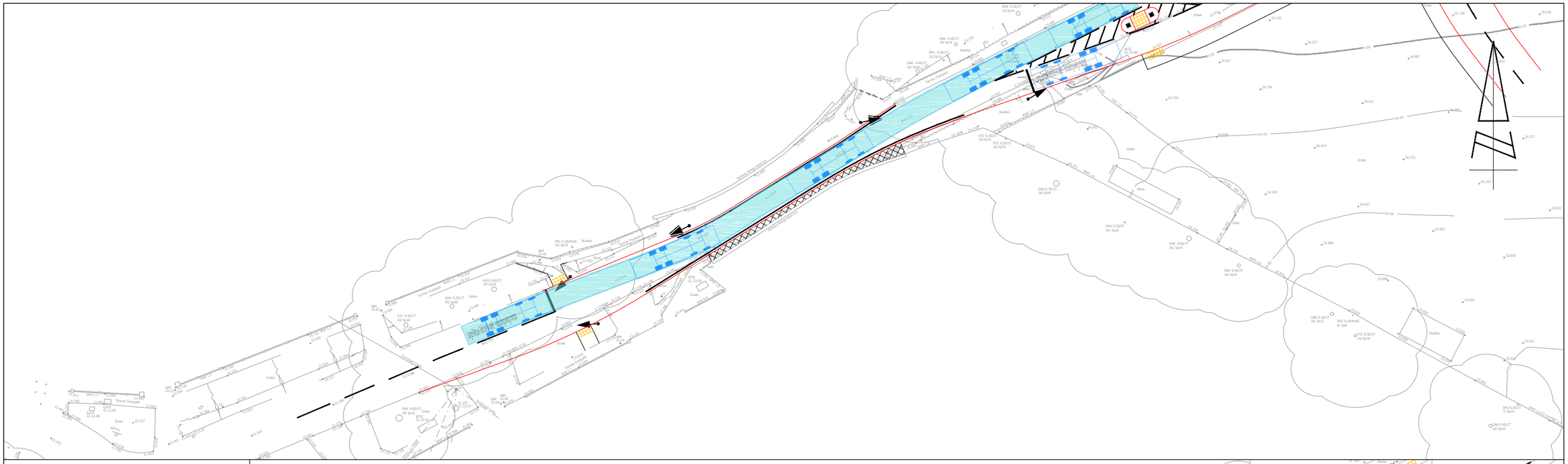

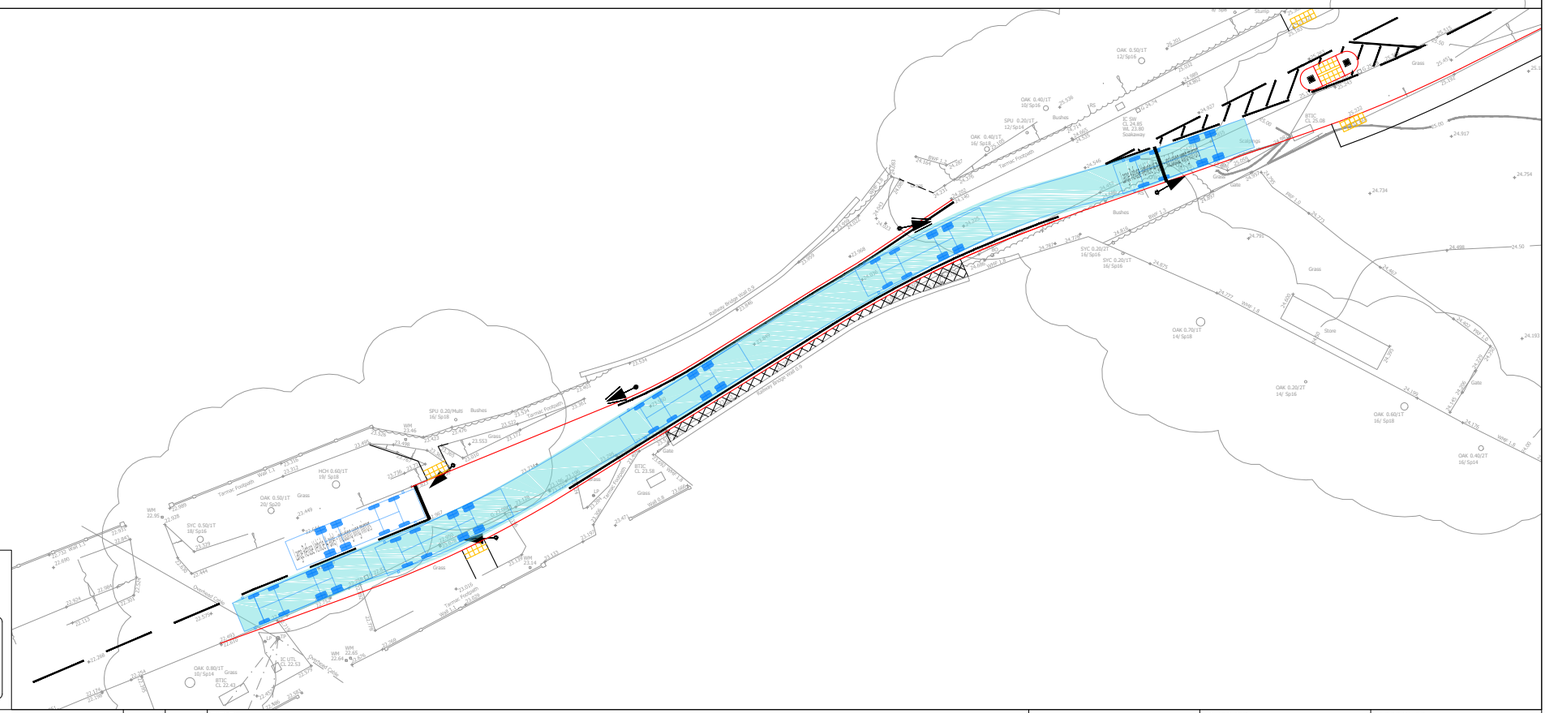

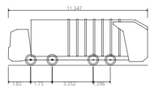

Large Refuse Vehicle (4 axle) - including wing mirrors

Overall Length	11.347m
Overall Width	2.500m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	6.00s
Wall to Wall Turning Radius	11.330m

SCALE BAR @ 1:500

0 5 10 25 50

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REV	DATE	BY	DESCRIPTION	CHK	APD
B	06.10.20	MC	UPDATES IN LINE WITH HCC COMMENTS	RS	TW
A	05.08.20	MC	UPDATES IN LINE WITH HCC COMMENTS	RS	TW

STATUS: FOR INFORMATION

TITLE: DOWNEND ROAD BRIDGE - PROPOSED SIGNAL ARRANGEMENT WITH FOOTWAY (GENERAL ARRANGEMENT) VEHICLE TRACKING - LARGE REFUSE
SHEET 4 OF 7

PROJECT: DOWNEND ROAD, PORTCHESTER

CLIENT: MILLER HOMES

DRAWN:	CHECKED:	APPROVED:
MC	TW	TW

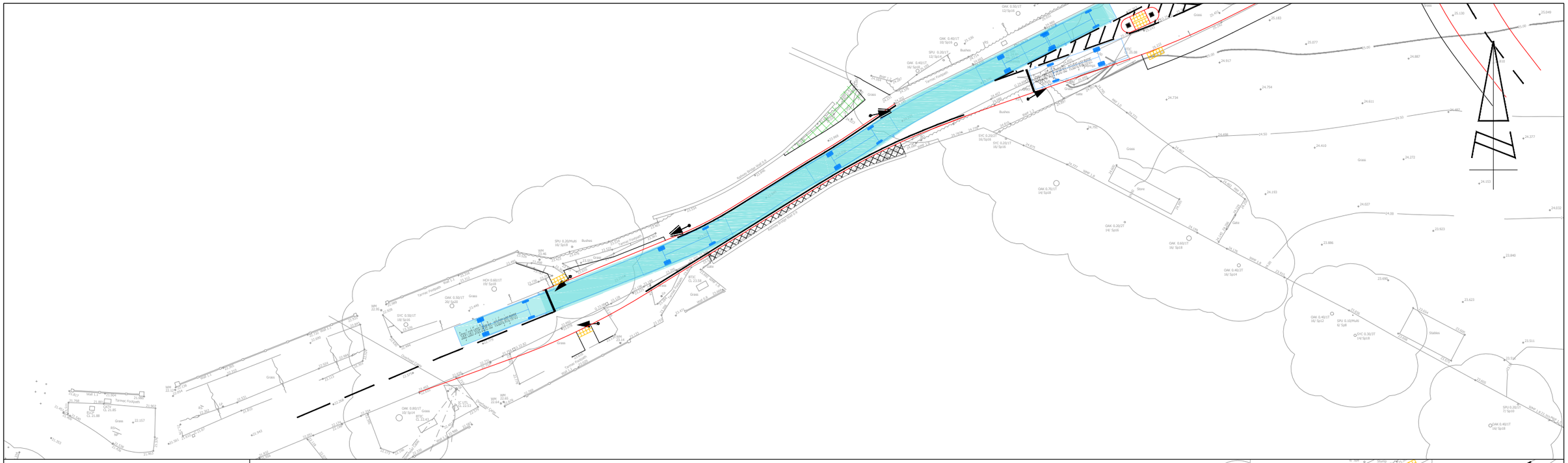
SCALE @ A3:	DATE:
1:500	19.03.20

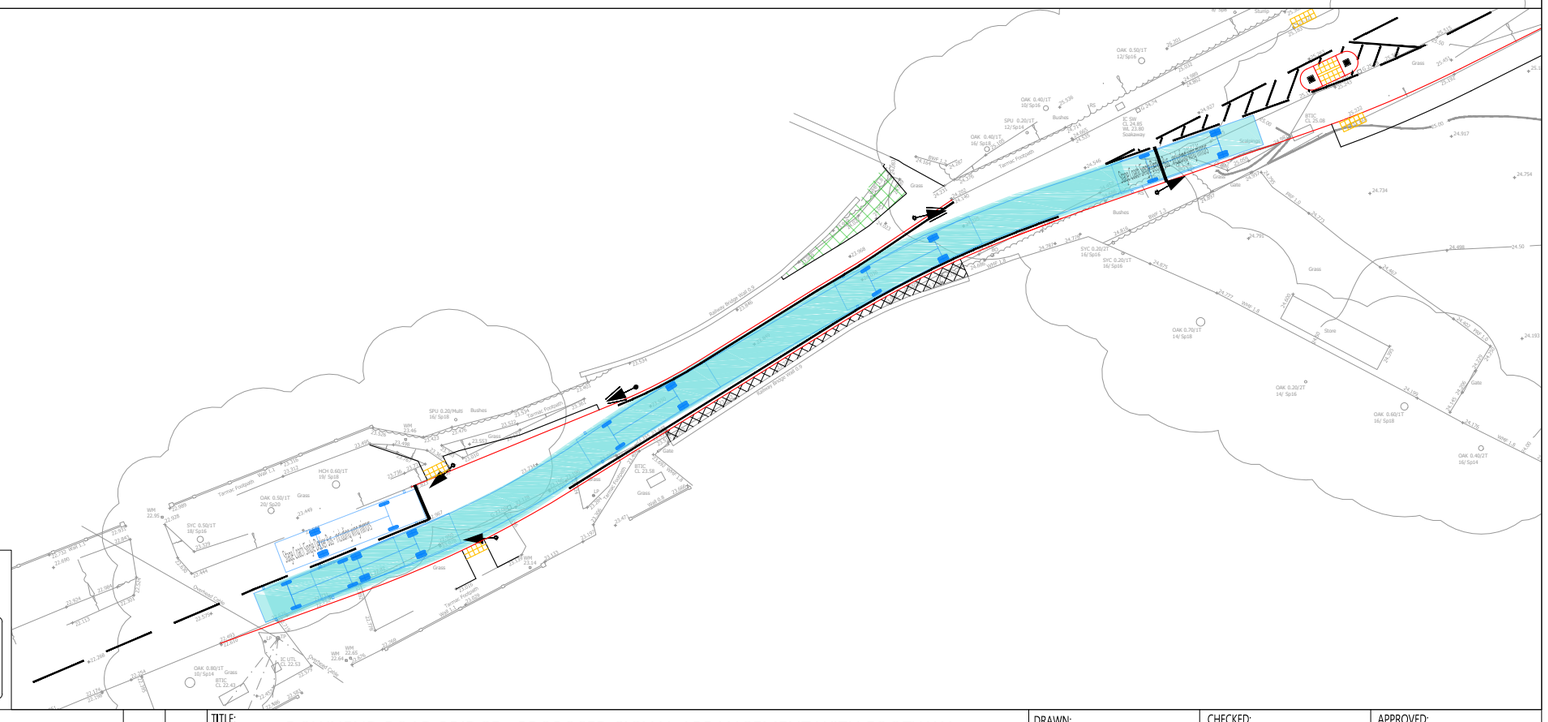
PROJECT No: ITB12212

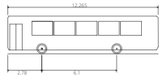
DRAWING No: ITB12212-GA-053

REV: B

T:\Projects\12000 Series Project Numbers\12212\TB Downend Road, Portchester\Tech\Acad\i-Transport Drawings\Working Drawings\GA\ITB12212-GA-053B.dwg







Stage Coach Single Decker Bus - including wing mirrors

Overall Length	12.265m
Overall Width	2.550m
Overall Body Height	3.069m
Min Body Ground Clearance	0.329m
Track Width	2.350m
Lock to lock time	4.00s
Wall to Wall Turning Radius	11.157m

SCALE BAR @ 1:500

0 5 10 25 50

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REV	DATE	BY	DESCRIPTION	CHK	APD
B	06.10.20	MC	UPDATES IN LINE WITH HCC COMMENTS	RS	TW
A	05.08.20	MC	UPDATES IN LINE WITH HCC COMMENTS	RS	TW

STATUS: FOR INFORMATION

TITLE: DOWNEND ROAD BRIDGE - PROPOSED SIGNAL ARRANGEMENT WITH FOOTWAY (GENERAL ARRANGEMENT) VEHICLE TRACKING - BUS
SHEET 5 OF 7

DRAWN:	CHECKED:	APPROVED:
MC	TW	TW

SCALE @ A3:	DATE:
1:500	19.03.20

PROJECT: DOWNEND ROAD, PORTCHESTER

CLIENT: MILLER HOMES

PROJECT No: ITB12212

DRAWING No: ITB12212-GA-054

REV: B

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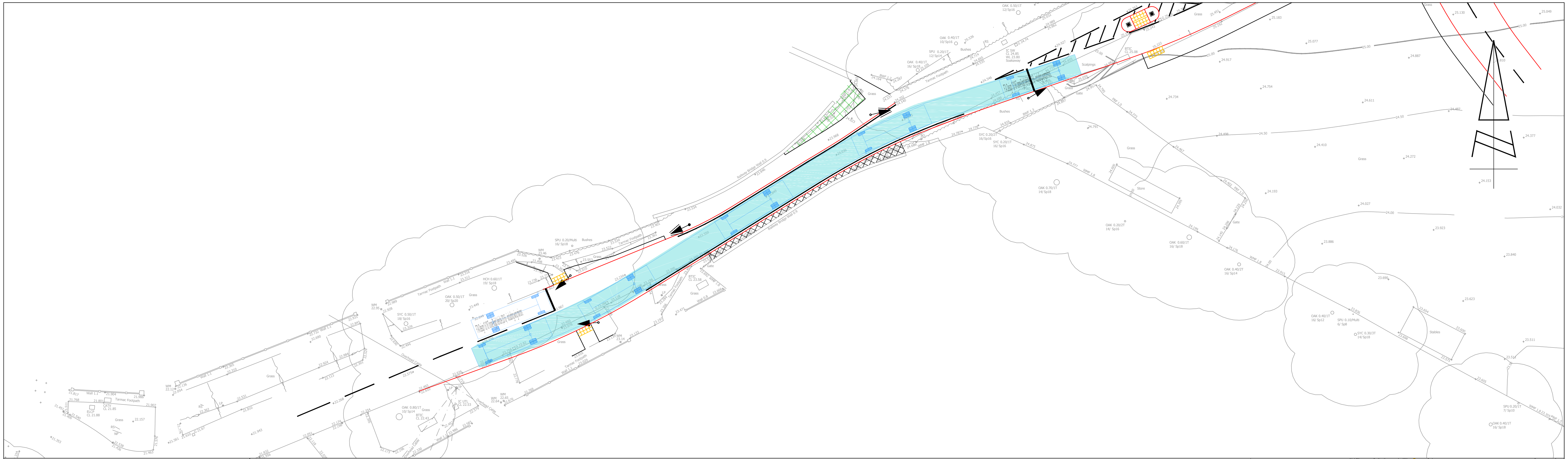

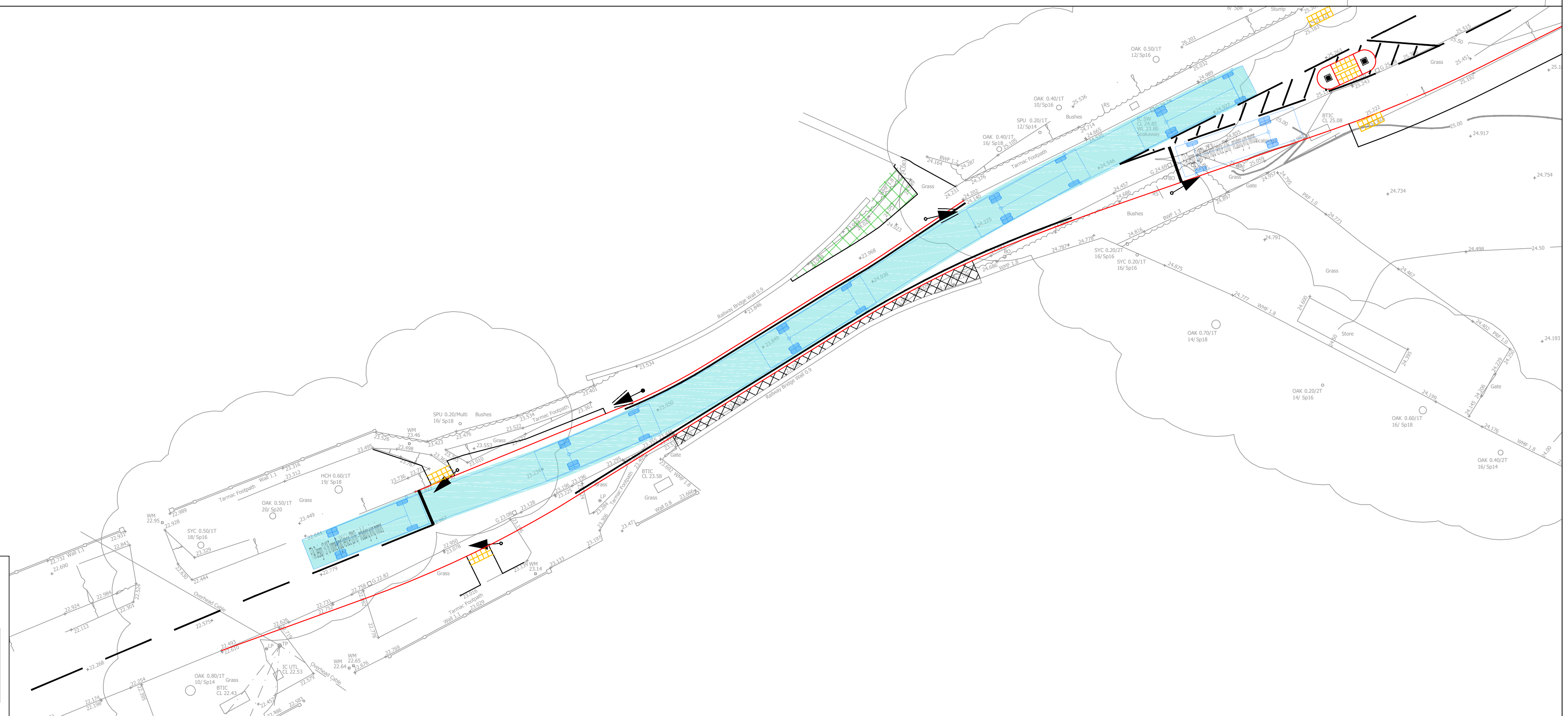

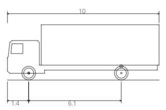

FTA Design 13/18 Tonne Rigid Vehicle (2016) - including wing mirrors

Overall Length	10.000m
Overall Width	2.550m
Overall Body Height	3.645m
Min Body Ground Clearance	0.440m
Track Width	2.470m
Lock to lock time	3.00s
Kerb to Kerb Turning Radius	11.000m

SCALE BAR @ 1:500

0 5 10 25 50

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B	06.10.20	MC	UPDATES IN LINE WITH HCC COMMENTS	RS	TW
A	05.08.20	MC	UPDATES IN LINE WITH HCC COMMENTS	RS	TW

STATUS: FOR INFORMATION

TITLE: DOWNEND ROAD BRIDGE - PROPOSED SIGNAL ARRANGEMENT WITH FOOTWAY (GENERAL ARRANGEMENT) VEHICLE TRACKING - 10m RIGID
SHEET 6 OF 7

PROJECT: DOWNEND ROAD, PORTCHESTER

CLIENT: MILLER HOMES

DRAWN: MC	CHECKED: TW	APPROVED: TW
SCALE @ A3: 1:500	DATE: 19.03.20	
PROJECT No: ITB12212		
DRAWING No: ITB12212-GA-055	REV: B	

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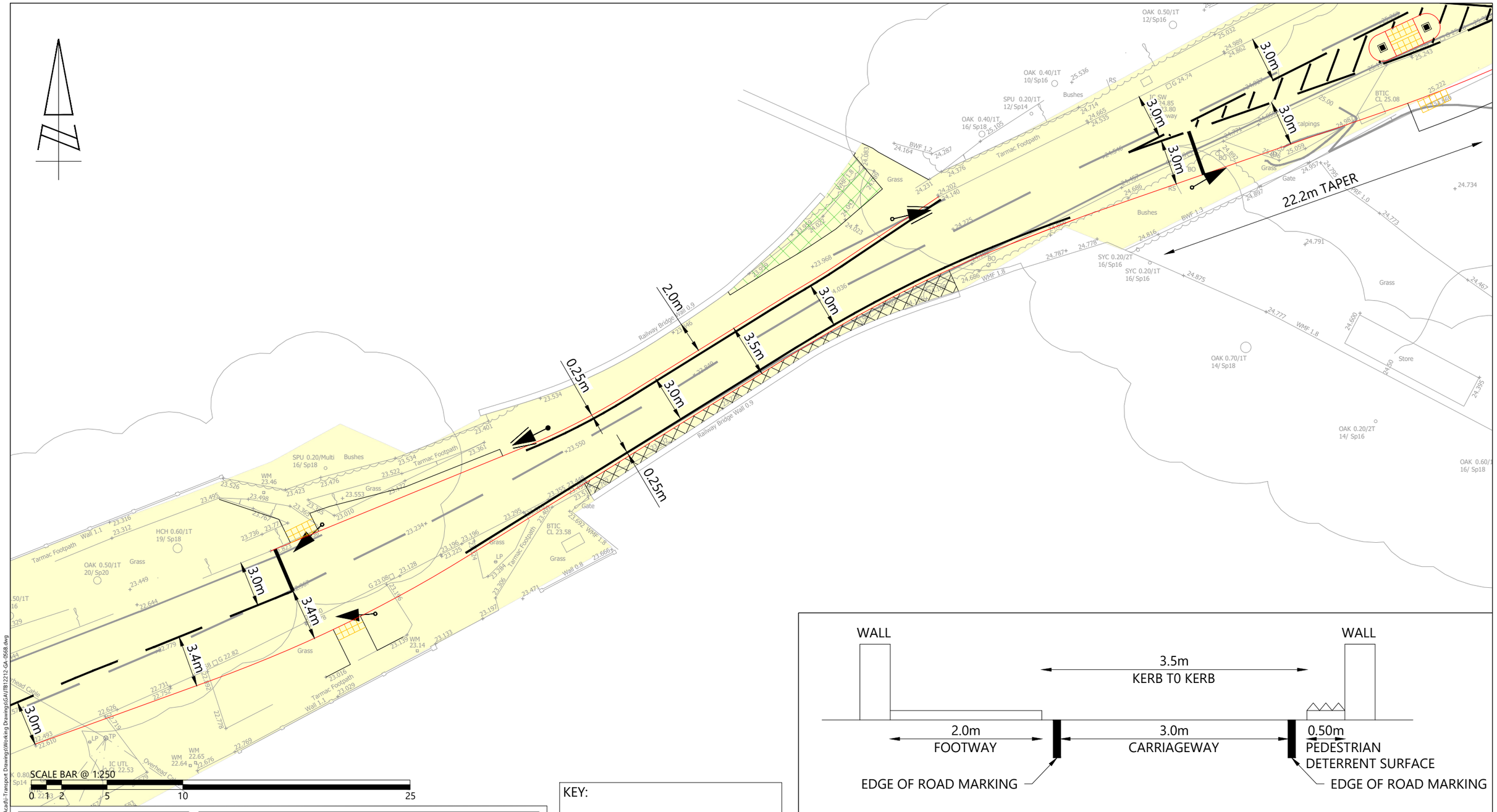

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KEY:

EXTENTS OF HIGHWAY BOUNDARY

INDICATIVE CROSS SECTION ACROSS BRIDGE
SCALE 1:50

SCALE BAR @ 1:50
0 1 2 5

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REV	DATE	BY	DESCRIPTION	CHK	APD
B	08.10.20	MC	UPDATES IN LINE WITH HCC COMMENTS	RS	TW
A	24.07.20	MC	UPDATES IN LINE WITH HCC COMMENTS	RS	TW

STATUS: FOR INFORMATION

TITLE: DOWNEND ROAD BRIDGE - PROPOSED SIGNAL ARRANGEMENT WITH FOOTWAY
GENERAL ARRANGEMENT - DIMENSIONS
SHEET 7 OF 7

PROJECT: DOWNEND ROAD, PORTCHESTER

CLIENT: MILLER HOMES

DRAWN:	CHECKED:	APPROVED:
MC	TW	TW

SCALE @ A3:	DATE:
AS SHOWN	19.03.20

PROJECT No: ITB12212

DRAWING No: ITB12212-GA-056

REV: B

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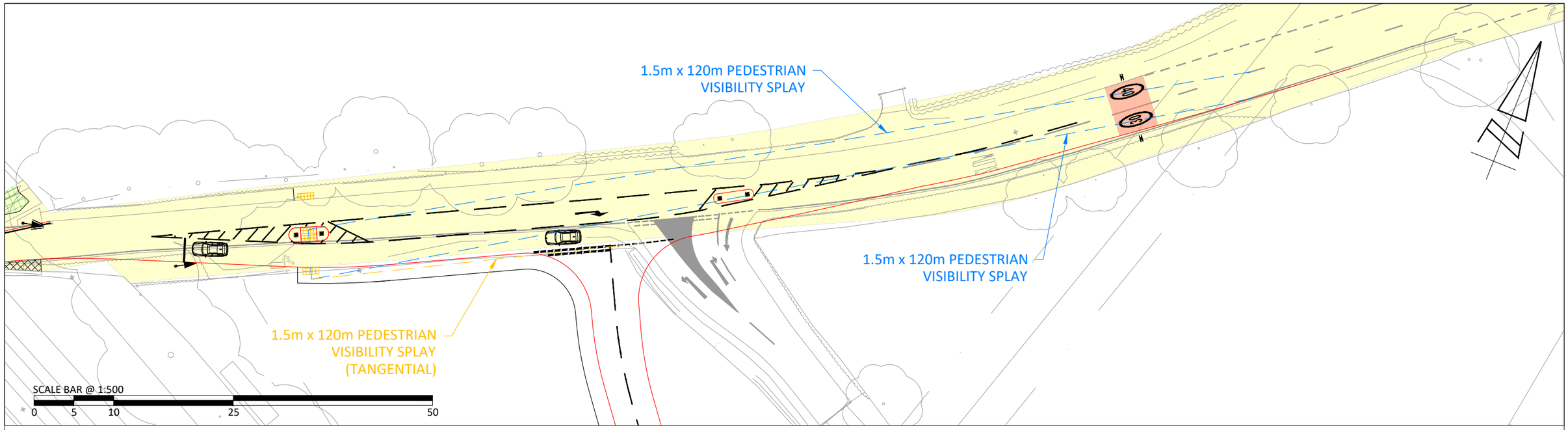

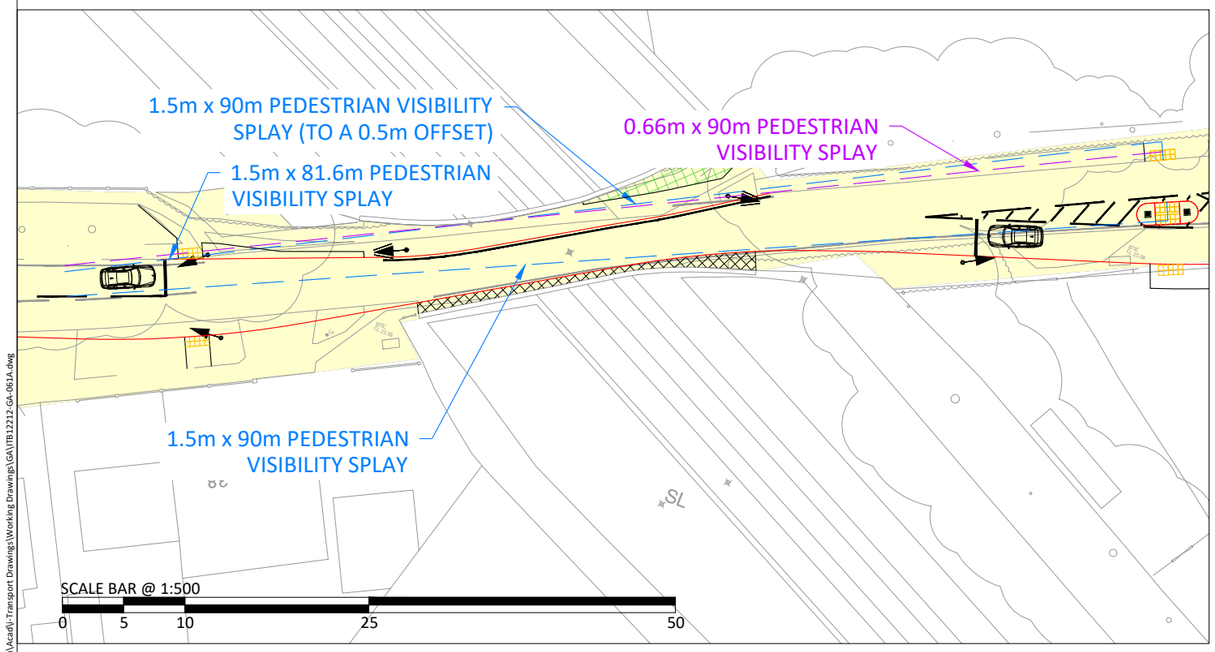

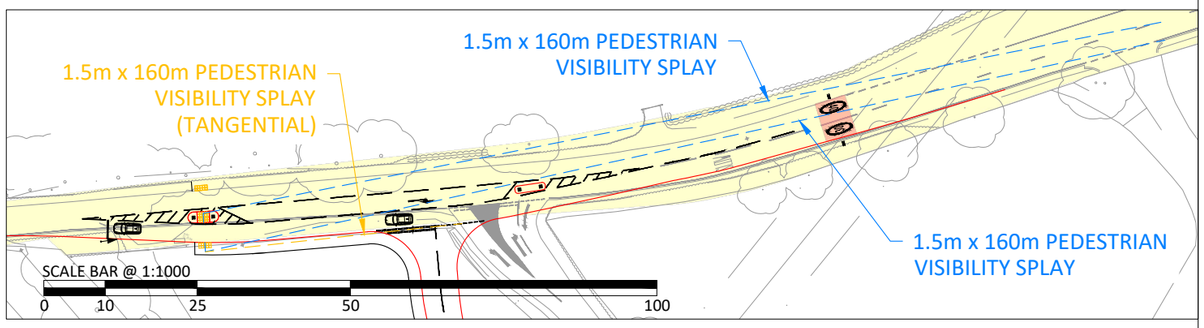

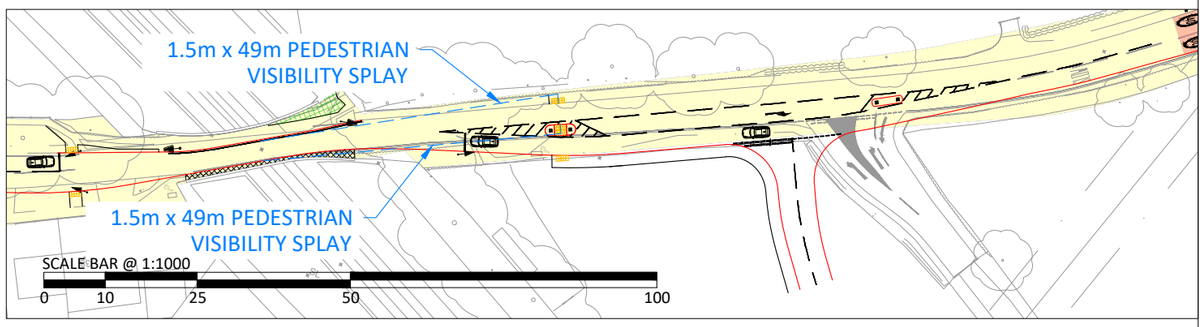

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REV	DATE	BY	DESCRIPTION	CHK	APD
A	06.10.20	MC	UPDATES IN LINE WITH HCC COMMENTS	TW	TW

STATUS: FOR INFORMATION

TITLE: DOWNEND ROAD BRIDGE - PROPOSED SIGNAL ARRANGEMENT WITH FOOTWAY PEDESTRIAN VISIBILITY SPLAY

PROJECT: DOWNEND ROAD, PORTCHESTER

CLIENT: MILLER HOMES

DRAWN:	CHECKED:	APPROVED:
MC	TW	TW
PROJECT No:	SCALE @ A3:	DATE:
ITB12212	AS SHOWN	24.07.20
DRAWING No:		REV:
ITB12212-GA-061		A

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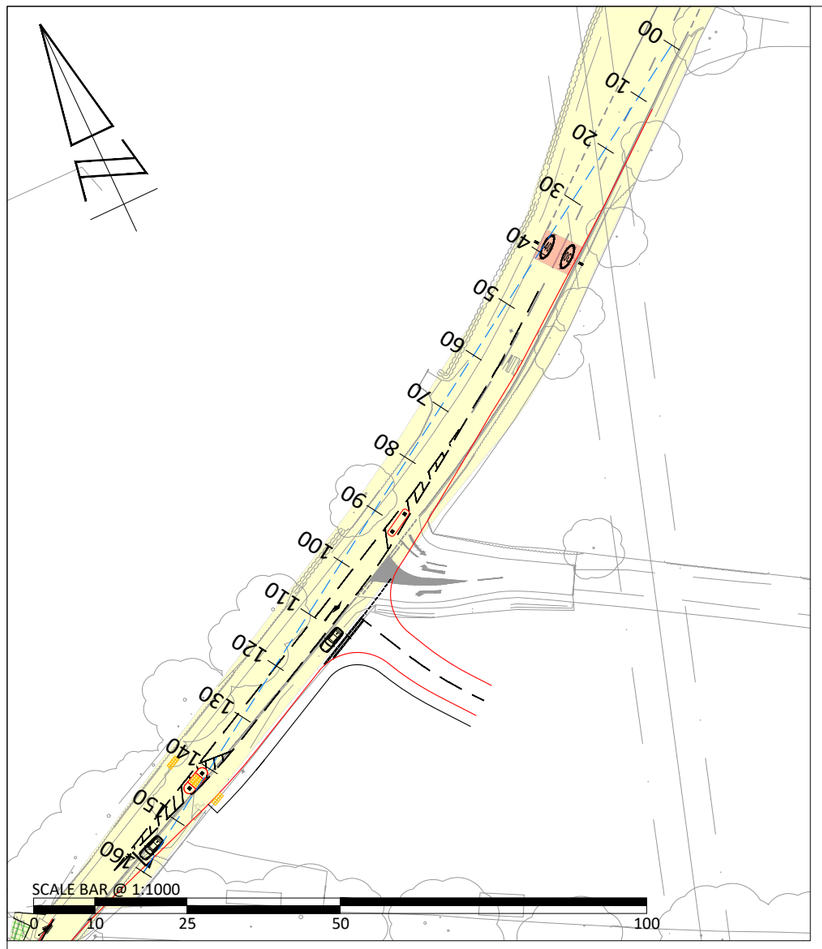
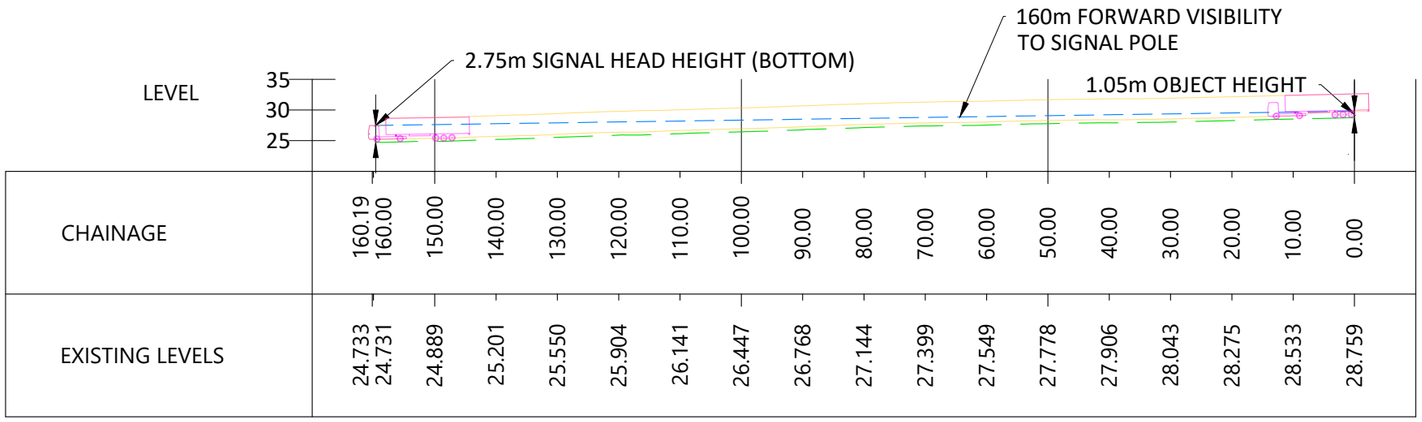
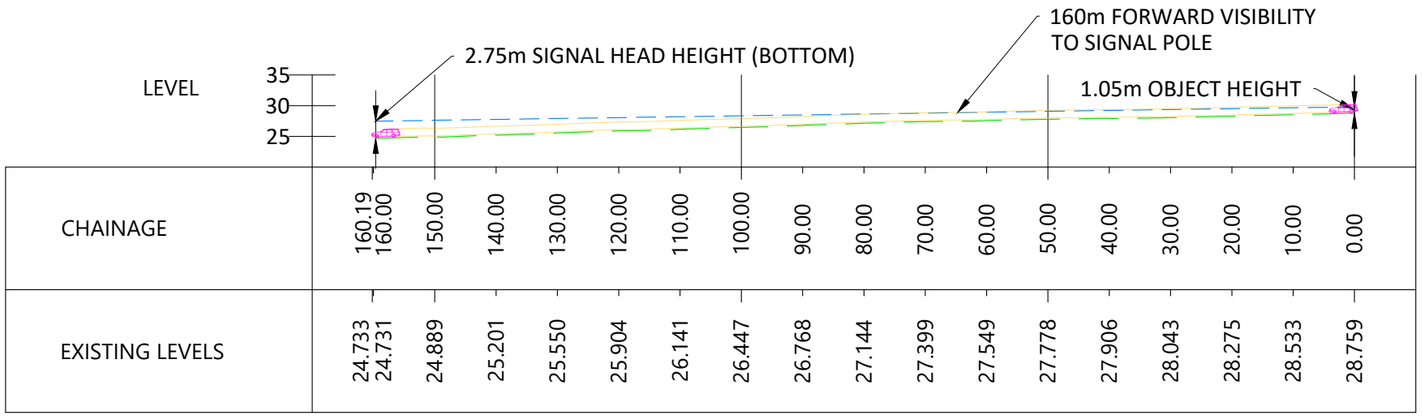
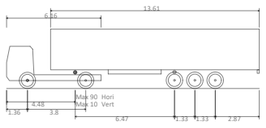


LONGSECTION OF 160m FORWARD VISIBILITY - WITH 16.5m ARTICULATED VEHICLE
SCALE: H 1:1000,V 1:1000. DATUM: 20.000



LONGSECTION OF 160m FORWARD VISIBILITY - WITH CAR
SCALE: H 1:1000,V 1:1000. DATUM: 20.000





FTA Design Articulated Vehicle (2006)

O erall Length	16.480m
O erall Width	2.550m
O erall Bod Height	3.870m
Min Bod Ground Clearance	0.515m
Max Track Width	2.470m
Lock to lock time	3.00s
erb to erb Turning Radius	6.600m

Estate Car (2006)

O erall Length	4.710m
O erall Width	1.804m
O erall Bod Height	1.442m
Min Bod Ground Clearance	0.207m
Max Track Width	1.756m
Lock to lock time	4.00s
erb to erb Turning Radius	5.950m

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REV	DATE	BY	DESCRIPTION	CHK	APD
A	08.10.20	MC	UPDATE IN LINE WITH HCC COMMENTS	TW	TW

STATUS: FOR INFORMATION

TITLE: DOWNEND ROAD BRIDGE - PROPOSED SIGNAL ARRANGEMENT WITH FOOTWAY
160m VISIBILITY SPLAY TO SIGNAL HEAD (SOUTHBOUND)

PROJECT: DOWNEND ROAD, PORTCHESTER

CLIENT: MILLER HOMES

DRAWN:	CHECKED:	APPROVED:
MC	TW	TW
PROJECT No:	SCALE @ A3:	DATE:
ITB12212	AS SHOWN	24.07.20

DRAWING No: ITB12212-GA-062

REV: A

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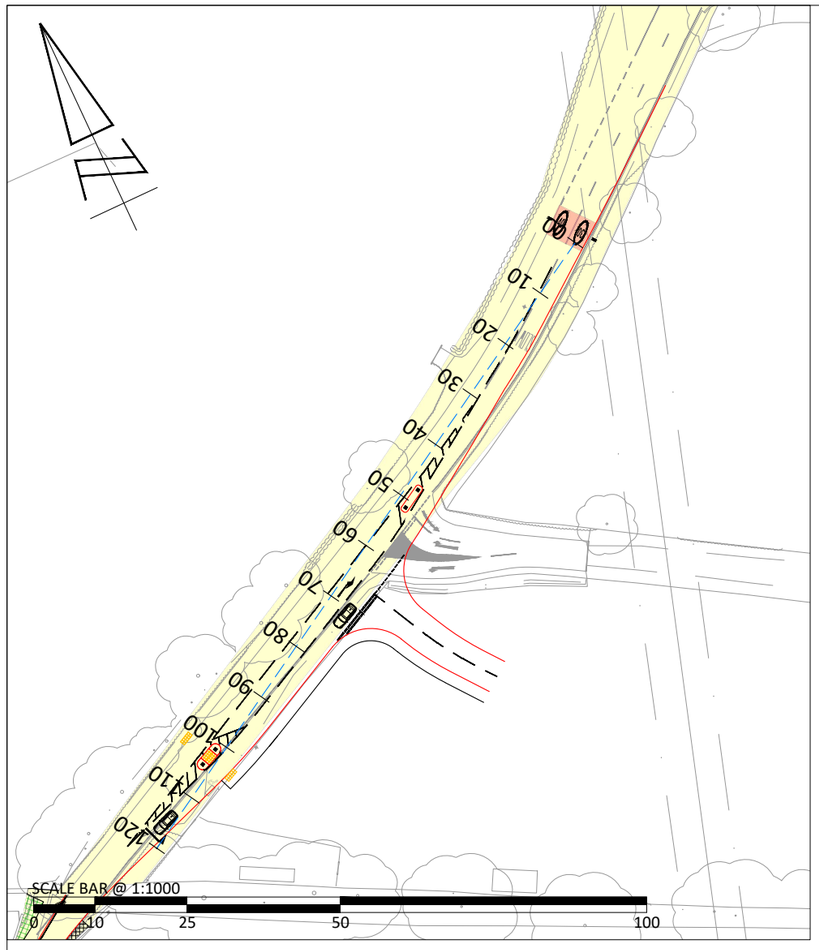
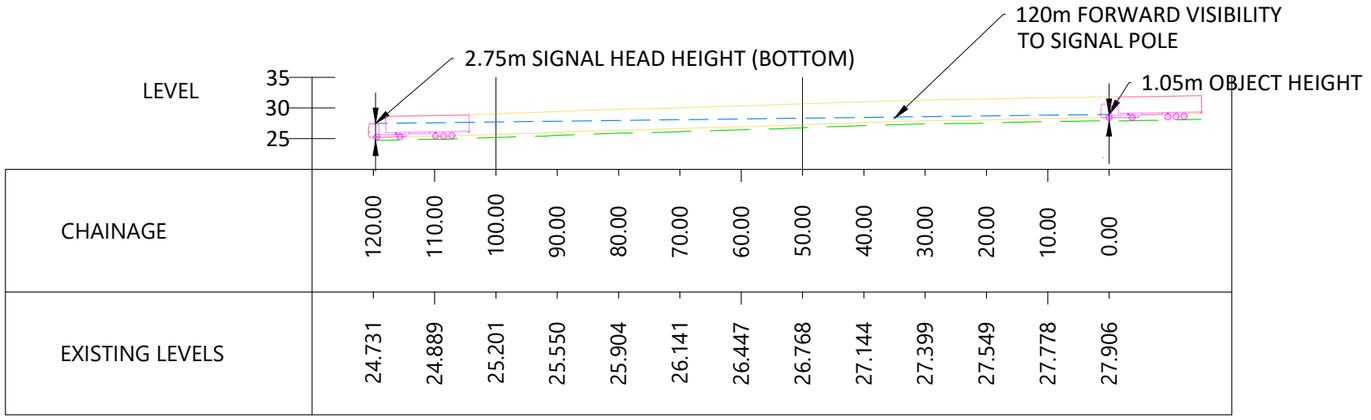
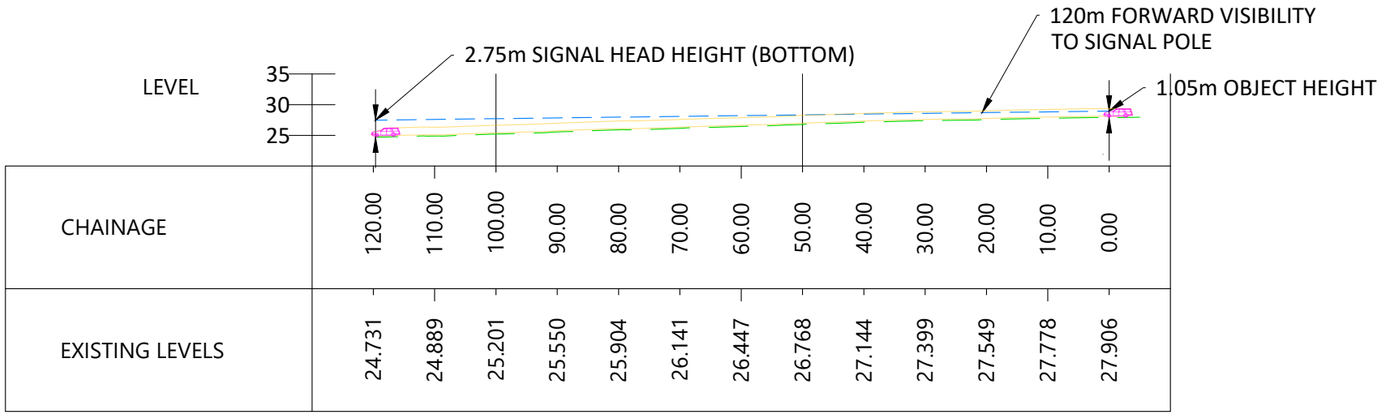


LONGSECTION OF 120m FORWARD VISIBILITY - WITH 16.5m ARTICULATED VEHICLE
SCALE: H 1:1000,V 1:1000. DATUM: 20.000

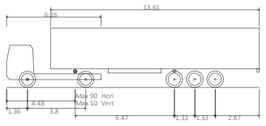


CHAINAGE	120.00	110.00	100.00	90.00	80.00	70.00	60.00	50.00	40.00	30.00	20.00	10.00	0.00
EXISTING LEVELS	24.731	24.889	25.201	25.550	25.904	26.141	26.447	26.768	27.144	27.399	27.549	27.778	27.906

LONGSECTION OF 120m FORWARD VISIBILITY - WITH CAR
SCALE: H 1:1000,V 1:1000. DATUM: 20.000



CHAINAGE	120.00	110.00	100.00	90.00	80.00	70.00	60.00	50.00	40.00	30.00	20.00	10.00	0.00
EXISTING LEVELS	24.731	24.889	25.201	25.550	25.904	26.141	26.447	26.768	27.144	27.399	27.549	27.778	27.906



FTA Design Articulated Vehicle (2016)

O erall Length	16.480m
O erall Width	2.550m
O erall Bod Height	3.870m
Min Bod Ground Clearance	0.515m
Max Track Width	2.470m
Lock to lock time	3.00s
erb to erb Turning Radius	6.600m

Estate Car (2006)

O erall Length	4.710m
O erall Width	1.804m
O erall Bod Height	1.442m
Min Bod Ground Clearance	0.207m
Max Track Width	1.756m
Lock to lock time	4.00s
erb to erb Turning Radius	5.950m

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REV	DATE	BY	DESCRIPTION	CHK	APD
A	08.10.20	MC	UPDATES IN LINE WITH HCC COMMENTS	TW	TW

STATUS: FOR INFORMATION

TITLE: DOWNEND ROAD BRIDGE - PROPOSED SIGNAL ARRANGEMENT WITH FOOTWAY
120m VISIBILITY SPLAY TO SIGNAL HEAD (SOUTHBOUND)

PROJECT: DOWNEND ROAD, PORTCHESTER

CLIENT: MILLER HOMES

DRAWN:	CHECKED:	APPROVED:
MC	TW	TW
PROJECT No:	SCALE @ A3:	DATE:
ITB12212	AS SHOWN	24.07.20
DRAWING No:		REV:
ITB12212-GA-063		A

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Rachel Stout

From: Tim Wall
Sent: 08 October 2020 10:51
To: Drury, Holly; Redman, Graham
Cc: Mundy, Jonathan; Matthew Craddy; Rachel Stout
Subject: Downend Road Revised Information Required
Attachments: DE Rd NB StoppingSightDistanceCalculator (32).xlsx; DE Rd SB StoppingSightDistanceCalculator (32).xlsx

Hi Holly,

Please see some drawings to chat through later.

See also my comments below in Blue which I hope help.

Kind regards
Tim

Tim Wall
Partner
for i-Transport LLP

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M: 07508 413269
E: tim.wall@i-transport.co.uk
W: www.i-transport.co.uk

Basingstoke Office: Grove House, Lutyens Close, Chineham Court, Basingstoke, RG24 8AG

From: Drury, Holly <holly.drury@hants.gov.uk>
Sent: 01 October 2020 16:39
To: Tim Wall <tim.wall@i-transport.co.uk>
Cc: Redman, Graham <Graham.Redman@hants.gov.uk>; Mundy, Jonathan <jonathan.mundy@hants.gov.uk>; Gammer, Nick <Nick.Gammer@hants.gov.uk>
Subject: Downend Road Revised Information Required

Hi Tim

I have received comments from our engineering team and our ITS team and these are set out below. As a result we do require a revised drawings. As you are aware matters here are particularly sensitive and I need to be sure that the footprint of the scheme is reflected appropriately at the planning stage, and within the approved drawings. If we agree any amendments first before you resubmit to the authority this should allow us to hopefully address these last few issues swiftly and provide a positive response to the planning authority. These are the last outstanding matters to be resolved.

Document TW/RS/ITB 12212-053b

- Section 4.5.12 demonstrates that 85%ile speeds have increased from 2016 to 2019. Visibility splays to TG3 have not been shown on the drawing but it is noted that a 160m visibility splay has been shown which demonstrates that the required visibility can be achieved.

We now have three speed surveys for southbound speeds, two below 40mph, the latest a little above (37.5mph, 39.2mph and 44.5mph). I don't believe this demonstrates an increase in speeds, just variation in the surveys.

DE Rd is a 40mph speed limit and the works that we are proposing will help to reduce speeds on approach.

On the basis of the existing 40mph speed limit, visibility of 120m is all that is required vs DMRB and was already demonstrated on the drawing.

Taking the highest recorded southbound speed, 44.5mph, and using HCC's TG3 calculator (with a -3% gradient), provides an SSD requirement of 101m, so within the 120m already shown. We have nevertheless added a 101m splay to the 120m splay already provided in the revised drawing (ITB12211-GA-014 Rev D) and include the TG3 calculation. We have also updated the northbound splay, based on recorded speeds immediately north of the bridge, 33.3mph (with a 2% uphill gradient), resulting in an SSD requirement of 49m (again calculation attached).

Drawing ITB12212-GA-014 Rev D

- In order for the design to comply with TG3 and as you are required to update the drawing anyway can you please demonstrate the visibility splay re-calculated to the current vehicle speeds and shown to the channel line. I do have a note that the visibility splays are not in accordance with the 2019 recorded speeds at 59m northbound. I am seeking some clarity on this but have been unable to do so before sending this email and didn't want to delay. We can catch up on this matter early next week.

As above, we already demonstrated a 120m splay to the channel line which is in excess of the TG3 requirement even using the highest recorded speed. We have nevertheless added a further splay based on TG3 calculation of the highest speed (101m north). In practice much greater visibility is achievable from the junction.

Drawing ITB12212-GA-051 Rev B

- Can the taper angle and all dimensions be shown on this drawing please. The taper may need extending and whilst I acknowledge this is possible it would be sensible to show it on the drawing correctly at this stage, so the extent of the verge loss can be understood at planning.

Drawing ITB12212-GA-051 Rev D is provided to demonstrate additional dimensions. We need to bear in mind we are at outline planning stage here and inevitably there is always some design evolution during the detailed design process.

Drawings ITB12212-GA-052 Rev B, 053, 054, 055 (Tracking Drawings)

- All drawings indicate there is a pinch point on the north side of the bridge at the stop line for westbound traffic. The tracks runs indicate a conflict point that will require the stop line to be moved further north. Moving the stop line further back will also address the forward visibility issues outlined in drawing ***ITB12212-GA-049 Rev.*** *See detailed comments under this drawing.*

The earlier tracking shows that even the largest legal vehicles can pass on the road, so we are not clear what the conflict point is. Only 0.2% of all vehicles on DE Rd are HGVs.

Nevertheless, we have relocated the southbound stop line 4m east/north which provides greater space between opposing vehicles. See updated tracking Drawings ITB12212-GA-052D, 053B, 054B & 055B.

Drawing ITB12212-GA-061

- The introduction of CD143 requires the pedestrian visibilities to have minimum "X" is 1.5m and "y" is measured to channel line, not 0.5m offset. This has changed since the original application was made. Whilst the current location can be considered at the detailed design stage for a departures from standard if amendments are being made to the design at this stage then the island should be located to

maximise the achievable "y" distance. It is obviously fundamental that a crossing is provided on Downend Road from the site and I would like to understand if there is any scope to move the right turn lane slightly further north to accommodate the required visibility splay for the crossing? Or does this have knock on implications for the achievability of the junction visibility requirements?

The current crossing location optimises visibility at the pedestrian crossing, whilst also maximising the RTL dimensions. Moving the access north would not achieve visibility to the right of the access. Other than reducing the length of the RTL there is no scope to amend the island location.

Nevertheless, this should not be required, and the current pedestrian crossing is suitable (no issues raised in the RSA).

Northbound observed speeds are 33.5mph (immediately north of the bridge, less to the south). Based on TG3 this requires a SSD of 49m (calculation attached – the same as the NB access visibility). Using an x-distance of 1.5m, this is achievable to the channel line, see Drawing ITB12212-GA-061A.

The drawing also demonstrates the maximum achievable visibility to the channel line (85.7m at 1.5m x distance) as well as 1.5m x 90m to a 0.5 m offset and a 0.66m x 90m to the channel line.

On this basis, the existing location complies with TG3 in any event and no departure should be required. In any event, a 90m splay can be achieved to a small off-set, which means in practical and safety terms, all vehicles will be visible at this point. The scheme, through road narrowing, is likely to reduce northbound speeds anyway.

Drawing ITB12212-GA-049 Rev E, 062 (Horizontal and Vertical forward vis Drawings)

- We have a significant concern regarding the provision of 160m forward visibility to the primary signal. As shown on drawing 49E the visibility line passes directly through the central refuge in advance of the primary signal which would include high level signs. These signs would obscure visibility to the primary signal at 160m reducing it below the necessary distance. This visibility splay also cuts into the vegetation on the west side of the road. Over time left unchecked this vegetation will further reduce forward visibility to the primary signal. Moving the stop line and primary signal to the north (eg 3-5 metres) to the position of the existing 30mph sign should reinstate the 160m visibility by avoiding the signs on the refuge and the vegetation on the offside. It would also address the tracking issue identified in point 1. The stop line should therefore be relocated accordingly.

The stop line has been moved north / east by 4m. The 160m splay now avoids the island and offside vegetation.

As above, SSD of 101m is adequate for the highest observed SB speeds (44.5mph). 160m SSD relates to a posted speed limit of 50mph, or an actual speed of nearly 60mph (using TG3) and is far beyond what is required to achieve a safe design.

Kind Regards
Holly
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Stopping Sight Distance Calculator

Formula for calculating SSD (from Manual for Streets 2): SSD = vt + v2/2(d+0.1a)

v = Speed of vehicle (m/s)
t = driver perception-reaction time (seconds)
d = deceleration rate (m/s)
a = longditudinal gradient (%)

Fill in the white boxes only

Enter the vehicle 85%ile speed below (see also the note)

33.3 mph 14.886 m/s

v = 14.886 m/s

t = 1.5 taken from MfS2 table 10.1

d = 4.415 Vehicle type Light vehicles

a = 2 +ve for upgrades and -ve for downgrades

SSD = 46 m

SSD adjusted for bonnet length (MfS only) = 49 m (SSD + 2.4m)

Conversions

mph to kph 0.0

kph to mph 0.0

Table 10.1 MfS2

Design speed	Vehicle Type	Reaction Time t (s)	Deceleration rate d (m/s) (ie factor x 9.81)	Standard
60kph and below	Light vehicles	1.5	0.450 g	MfS2
	HGV's	1.5	0.375 g	MfS2
	Buses	1.5	0.375 g	MfS2
Above 60kph	All vehicles 1	2	0.375 g (Absolute minimum)	TD9/93
	All vehicles 2	2	0.250 g (Desirable minimum)	TD9/93

NOTE: To convert dry weather spot speed to the wet weather journey speed deduct 4kph for single carriageways, 8kph for dual carriageways.

Stopping Sight Distance Calculator

Formula for calculating SSD (from Manual for Streets 2): SSD = vt + v2/2(d+0.1a)

v = Speed of vehicle (m/s)
t = driver perception-reaction time (seconds)
d = deceleration rate (m/s)
a = longditudinal gradient (%)

Fill in the white boxes only

Enter the vehicle 85%ile speed below (see also the note)

44.5 mph 19.893 m/s

v = 19.893 m/s

t = 2 taken from MfS2 table 10.1

d = 3.679 Vehicle type All vehicles 1

a = -3 +ve for upgrades and -ve for downgrades

SSD = 98 m

SSD adjusted for bonnet length (MfS only) = 101 m (SSD + 2.4m)

Conversions

mph to kph 0.0

kph to mph 0.0

Table 10.1 MfS2

Design speed	Vehicle Type	Reaction Time t (s)	Deceleration rate d (m/s) (ie factor x 9.81)	Standard
60kph and below	Light vehicles	1.5	0.450 g	MfS2
	HGV's	1.5	0.375 g	MfS2
	Buses	1.5	0.375 g	MfS2
Above 60kph	All vehicles 1	2	0.375 g (Absolute minimum)	TD9/93
	All vehicles 2	2	0.250 g (Desirable minimum)	TD9/93

NOTE: To convert dry weather spot speed to the wet weather journey speed deduct 4kph for single carriageways, 8kph for dual carriageways.

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Working Draft

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