

CHILDREN AND ADULTS OVERVIEW AND SCRUTINY COMMITTEE

20 OCTOBER 2010

BARNSOLE SCHOOLS – DEVELOPMENT OF NEW SCHOOL BUILDINGS

REVISED OPTION APPRAISAL

Report from: Chris McKenzie – Head of School Organisation & Student Services

Author: Cathy Arnold – Capital Programme Manager & Sarah Woods – Capital Project Manager

Summary

The report supplements the report of 9 September 2010, which describes the options that have been considered for the redevelopment of school buildings for the Barnsole Schools to support the amalgamation of the infant and junior schools. This report further investigates the two options A and E as requested by the committee, with particular regard to road safety.

1. Budget and Policy Framework

- 1.1 The proposals to redevelop the school buildings for the amalgamated Barnsole Schools is consistent with the provisions of the Primary Strategy for Change. Contract award for the build contractor at gateway 3 of the procurement process, is a matter for Cabinet due to the value of the contract.
- 1.2 Proposals to formally change a planned admission number are undertaken as part of the consultation on admissions arrangements, with changes to existing arrangements subject to Cabinet approval.

2. Background

- 2.1 On 12 May 2009, Cabinet (decision 76/2009) agreed to consult on a proposal to amalgamate Barnsole Infant School with Barnsole Junior School.

- 2.2 On 15 December 2009 (decision: 208/2009) Cabinet “authorised the Director of Children and Adult Services, in consultation with the Portfolio Holder for Children's Services, to publish full proposals including statutory notices relating to the closure of Barnsole Junior School and the prescribed alterations to Barnsole Infant School”.
- 2.3 In addition, (decision: 209/2009) the Cabinet agreed, “to delegate authority to the Director of Children and Adult Services, in consultation with the Portfolio Holder for Children's Services to determine whether to approve the proposals at the end of the statutory representation period, if no objections are received.”
- 2.4 Following publication of the statutory notice and full proposals on 25 January 2010, no objections or responses were received by the end of the statutory representation period on 7 March 2010.
- 2.5 In line with decision 209/2009, the Director of Children and Adult Services, in consultation with the Portfolio Holder for Children's Services approved the proposals to amalgamate Barnsole Infant and Junior School.
- 2.6 Following approval by the Director of Children and Adult Services, in consultation with the Portfolio Holder for Children's Services, architects were commissioned to carry out a feasibility study. The study was intended to investigate a number of options around the development of the buildings on the existing Barnsole Infant and Junior School sites. In addition the Cabinet agreed (decision 210/2009), subject to the outcome of the above decisions, and once initial feasibility work has been completed, to give consideration to the possibility of bringing forward building works, for completion before amalgamation. The outcomes of the feasibility study into the building project to be presented to the Children and Adult Services Overview and Scrutiny committee for consideration and comment.
- 2.7 Previous investigations had shown that it would not be possible to build a new two form of entry primary school on the detached Brasenose playing field, due to restrictive covenants on the land.
- 2.8 Further to the Overview and Scrutiny Committee meeting on 9 September 2010, committee members asked for more detailed proposals on options A & E, with particular regard to road safety.

3. Options

- 3.1 A number of options have been investigated to assess how the location of the two buildings on opposite sides of Sturdee Avenue can be best dealt with. Options A & E have been developed in more detail with particular emphasis on the road safety aspects of each. These options are set out in the following table. Drawings of each of the options plus the existing school layout are shown in appendix A and a full summary

of the advantages and disadvantages of each scheme are shown in appendix B.

Option	Summary
A	Relocation of the both schools' entrances to Sturdee Avenue, with improved pedestrian access and traffic calming measures. A new nursery, staff room and refurbishment of around 50% of the infant building. A new hall in the junior building and refurbishment of 85% of the building.
E	Re-routing of Sturdee Avenue to provide one site. A new extension to the infant building to accommodate all pupils and demolition of the existing junior building. Landscape works to the junior site to provide sports pitches.

- 3.2 Work has been undertaken with Medway Council's Road Safety Team to investigate the options A & E with particular regard to the health and safety of pupils, their families and staff approaching the schools both on foot and vehicular access. The Road Safety Team have provided a full report, which is included as Appendix C and is referred to as appropriate within this report, with reference to relevant sections of the report shown in brackets.
- 3.3 According to Department of Transport (DfT) approved 'travel to school' census data this year, 448 of the 496 combined pupils on roll at Barnsole Infant and Junior Schools currently walk to school [90.3%], 38 travel by car [7.6%], 8 car share [1.6%], 1 pupil travels by bus [0.2%] and 1 by train [0.2%].
- 3.4 When comparing travel to school census data between 2009 and 2010, both schools have demonstrated an increase in walk to school levels, an achievement that Medway Council's Road Safety team are keen to continue working with the school to both maintain and improve upon through our range of sustainable travel initiatives.
- 3.5 Currently, neither school have an established Walking Bus route in place, resulting in a large number of parents and other family members dropping off and collecting pupils each day. The addition of such an initiative would not only enhance pupil's road safety skills but also help alleviate congestion outside the school at peak travel times. The scatter map (Appendix D) shows the home locations of the existing pupils.
- 3.6 Medway Council's Road Safety team have previously worked with both Barnsole schools to develop a School Travel Plan and the schools have since participated in the 'Walk to School Week' campaign and associated walk to school challenges led by the Road Safety team.

Option A

3.7 Appendix C includes an indication of possible highways developments, which could be included as part of the Option A scheme to improve road safety. The proposal includes a new raised pedestrian crossing located outside the facing entrances of the infant and junior buildings. This could be a controlled crossing point, rather than the existing zebra crossing which is currently operated with a crossing patrol person for morning drop off and afternoon collection times. The raised crossing would also help to reduce the speed of the traffic passing the school entrances. In this proposal the width of the carriageway is reduced to 6 metres, which will also help to reduce the speed of traffic and matches widths provided on the remaining length of Sturdee Avenue (point 3.2.5)

3.8 The pupil entrance to the junior site in Sturdee Avenue would be maintained and improved to provide a waiting area for parents and carers away from the highway and is shown in the site plan in appendix A. During the detailed design stage an access strategy will be developed to ensure the retention of multiple entrances to the junior site to avoid congestion resulting from a single entrance. Consideration could be given to erecting barriers to the footpath from the entrances to the end of Sturdee Avenue, where it joins Barnsole Road. This would ensure pedestrians used the controlled crossing. Bollards could also be used to stop cars parking adjacent to the schools entrances. The bus stop on the entrance of Sturdee Avenue from Barnsole Road would be relocated past the entrance to the school. Consideration could be given to the provision of a 20 mph school zone, which with suitable gateway signing and features would enhance any the traffic calming measures and improve their effectiveness (point 3.3.1)

3.9 Estimated costs for Option A are outlined as follows:

New buildings/refurbishments	£1,927,015
Demolition/Landscaping	£ 300,000
Highways costs	£ 80,000
Fees	£ 498,472
Contingencies	<u>£ 561,097</u>
	£3,366,584

3.10 The above cost does not represent a confirmed final cost for the scheme as the design has not been developed in detail, and is subject to change following more detailed design and survey commissions. A contingency cost of 20% has been allowed for at this stage, due to the early stage of design development.

3.11 In a recent meeting held with the school, the headteacher has requested that officers give consideration to setting the school's capacity at 3 forms of entry with a planned admission number (PAN) of 90 should Option A be taken forward as the preferred option. The

buildings in option A would be sufficient to accommodate this capacity, and the school are concerned about the impact on their budgets if they were to continue in the existing buildings with fewer pupils overall.

- 3.12 The planned admission numbers for Barnsole Infant and Junior schools were 90 prior to the decision to amalgamate the two schools, with both schools operating with 3 forms of entry. The decision to amalgamate Barnsole Infant and Barnsole Junior schools included a decision to reduce the planned admission number for the new school to 60. In addition a decision to reduce the planned admission number to 60 from September 2011, was agreed as part of the last round of consultation on admissions arrangements for Medway Schools.
- 3.13 Barnsole Infant School's intake for reception in September 2010 was 86, and reception year numbers in the area are expected to increase over the next few years as a result of an increase in the birth rate in the area. Officers would therefore recommend that further analysis be undertaken to review pupil numbers at Barnsole and in the wider area, and give consideration to the possibility of changing the schools planned admission number to 90, should Option A be taken forward as the preferred option.
- 3.14 Consultation on changes to the admissions arrangements for September 2012 entry, will start around November 2011, and reported to Children and Adults Overview and Scrutiny committee in the spring prior to a decision on any proposed changes from Cabinet.

Option E

- 3.15 Appendix C also includes an indication of possible highways developments, which could be included as part of the Option E scheme to re-route Sturdee Avenue. It closes the current entrance from Barnsole Road and uses School Lane to exit Barnsole Road. The road would then be extended to the east of the current junior school site to rejoin the existing Sturdee Avenue route. The Road Safety Team has investigated the implications of this option within their report. The following points have been highlighted:
- Recognition of the need to minimise land-take for the diverted road means it is not possible to achieve a road alignment conforming to current design standards (point 2.1.1 of appendix C)
 - Safety concerns have been raised about the double bend layout of the proposed new road from Sturdee Avenue (point 2.3.1).
 - The most appropriate location for a crossing in terms of visibility would be most 20 metres from the new junction with Barnsole Road, but this could only be achieved at the expense of residents' parking (point 2.2.4)
 - It is highly probable that Sturdee Avenue is a main corridor for public utility services. A search would be required to determine the precise level of service provision within the length of proposed

closure (point 2.4.1). It is assumed that the cost of diverting any services along the new road would be significant. The alternative would be to agree easements with each utility to allow them unimpeded access to their services at all times (point 2.4.2)

Costs for Option E are outlined as follows

New buildings/refurbishments	£2,072,740
Demolition/Landscaping	£ 900,000
Highways costs	£ 600,000
Fees	£ 600,288
Contingencies	<u>£ 834,605</u>
	£5,007,633

- 3.16 A contingency of 20% has been allowed for under this scheme, due to the early stage of design development. The potential risk of cost escalation on this scheme is also higher, due to the higher number of complex risks, such as the location of services.

4. Advice and analysis

- 4.1 Option E is the more expensive option, with a higher percentage of the budget being spent on alterations to the highway and demolition/landscaping. The diversion of the road would not in itself improve the safety near the school, as confirmed by the Road Safety report (point 4.1), which states that, this option could “result in an overall increase in accident occurrence.”
- 4.2 Option A, using the raised table crossing option is feasible, readily achievable and subject to appropriate detailed design would not raise any road safety issues which could not be addressed (point 4.4)
- 4.3 Funding for the Barnsole project is provided by the Department for Education (DfE) and they state “Local Authorities are expected to maximise the impact of primary capital funding by strategically combining funding with other resource including schools' DFC, devolved LA funding and other local and national funding from other sources”.
- 4.4 Option E would require significant additional funding to be identified by the Council.
- 4.5 Medway Council Highways have advised that funding for this scheme is not currently available and would have to be diverted from other priority schemes should Members wish to pursue this option.
- 4.6 Alternatively, the overall prioritisation and allocation of funding for projects within the Council's primary capital programme would need to be reviewed and funding diverted from other schemes to fund the additional cost of the scheme.

- 4.7 The report from Road Safety Officers along with the design of a new waiting area for parents, and the plans to retain current pedestrian entrances, address the concerns about road safety raised, and as a result Officers would recommend Option A as the preferred option.
- 4.8 Option A, would give the school the flexibility to increase it's planned admission number to 90, which the school have indicated that would like officers to consider.

5. Risk Management

- 5.1 The following risks have been identified in connection with both options:

Risk	Description	Action to avoid or mitigate risk
Planning permission not granted	<p>Option A – scheme has more remodelling and less new build.</p> <p>Option E – Building extension is close to residential housing and could be contentious. There may be objection to the proposals to re-route the road.</p>	<p>Early meeting with planners to incorporated feedback as detailed design is developed.</p> <p>Early consultation with residents to take views into consideration.</p>
Schemes unable to meet current design standards for road re-route	<p>Option A – not applicable</p> <p>Option E – in order to take less of the junior site, the road layout would not comply with current design standards.</p>	More land given over to new road layout.
Cost escalation for traffic calming and/or road re-route	<p>Option A – Costs may escalate as construction progresses</p> <p>Option E – Costs may escalate due to uncertainty around highways works.</p>	Appropriate detailed surveys to be undertaken before construction.

<p>Delays to the delivery of new teaching and learning spaces for KS2 pupils</p>	<p>Option A - Scheme is adapting existing accommodation and could be delivered in a short timescale.</p> <p>Option E - Scheme would require a detailed phased programme to delivery the new key stage two building, which may follow the re-routing of Sturdee Avenue. This will take around 4 years overall.</p>	<p>Develop detailed phasing and decanting programme to mitigate delays and disruption to learning.</p> <p>Develop programme in consultation with the school to try to limit disruption to teaching and learning.</p>
<p>Insufficient accommodation during construction and following completion of project to accommodate all pupils on roll.</p>	<p>Option A – Scheme includes sufficient accommodation to accommodate all pupils currently on roll at the school.</p> <p>Option E – Provides insufficient accommodation for all pupils currently on roll at the school, as the completed building would provide for 2 forms of entry, where the school has been a 3 form of entry school, up to and including September 2010</p>	<p>No mitigation required for Option A.</p> <p>Temporary accommodation would need to be included as part of option E, for up to 6 years, subject to planning permission being granted.</p>
<p>Council may not own sub-soil of Sturdee Avenue (see 8.2)</p>	<p>Option A – not applicable</p> <p>Option E – sub-soil of Sturdee Avenue may not be owed by Medway Council and could not be incorporated into school site.</p>	<p>Early legal investigations into the ownership of the sub-soil to ascertain position and possible challenge.</p>

6. Consultation

- 6.1 Officers have undertaken significant consultation to date and particular investigatory works have been undertaken with Medway Council's Road Safety Team. Officers have visited the school site with Councillor Royle to see first hand the issues around both schemes, and taken on the views of the head teacher and governors. The governing body will be meeting on Thursday 14 October and have been asked to provide formal feedback on both options.

7. Implications for looked after children

- 7.1 All options would provide enhanced facilities for all children including looked after children.

8. Financial and legal implications

Financial implications

- 8.1 The estimated costs of options A and E are outlined in paragraphs 3.9 and 3.15 respectively. Funding for the building costs will need to be met from the Primary Capital Funding allocated by the DfE. No new land will be required for the new buildings and so there will be no related costs for land acquisition. If option E is chosen, the estimated cost increases by approximately £1.6 million. Members would need to reprioritise the capital programme and decide which schemes could be delayed or reduced to release funds.

Legal implications

- 8.2 The Council owns the site of the existing infant school and junior school and can undertake works to develop the schools on these sites. The council as Highways Authority can undertake works to the road network. However, the Council has no evidence that it owns the subsoil of Sturdee Avenue at the junction with Barnsole Road. If the Council were to proceed with Option E it would need to extinguish the highway rights over part of Sturdee Avenue, which would mean that ownership of the land would revert to the owner of the sub-soil. Where there is no evidence of the owner of the sub-soil (which is often the case where a highway has been in existence for many years) there is a legal presumption (the *ad medium filum* rule) which states that the owner of land adjoining the highway is presumed, in the absence of any evidence to the contrary, to own the subsoil as far as the middle of the road. As the Council owns the land either side of the road, in the absence of any other person being able to demonstrate that they have ownership of the sub-soil, the Council could rely upon this principle to assert ownership. However, at this stage there is no way of knowing whether anyone else has evidence of ownership (although it is unlikely) and this poses a risk to proceeding with Option E.

9. Recommendations

- 9.1 That Option A is recommended for further design development and subsequent presentation to Cabinet for approval at gateway 3 contract award.
- 9.2 That officers review the planned admission numbers for Barnsole and the wider area, and consult on an increase to a PAN of 90 as part of the consultation on admissions arrangements if considered necessary following that review.

Lead officer contact

Chris McKenzie, Head of School Organisation & Student Services, Level 4, Gun wharf, 01634 334013, chris.mckenzie@medway.gov.uk

Background papers

Feasibility Reports completed by Scott Brownrigg Architects and Hawkins
Brown Architects

Determination report for the Director of Children and Adult Services, in
consultation with the Portfolio Holder for Children's Services to approve the
amalgamation – 30 March 2010

Barnsole School Road Safety Report – October 2010

Existing School Layout

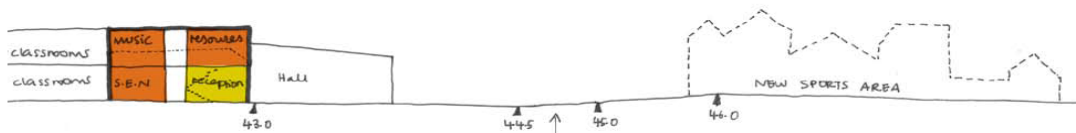


Hawkins\ Brown

Option E

Hawkins\ Brown

6.0 Option 03
New 2FE KS2 Block
Road closed off



Option	Description	Advantages	Disadvantages	Funding
<p>A</p>	<p>Option A brings the two building entrances closer together, relocating the entrance of the junior building to Sturdee Avenue. This option will provide a new hall and with use of canopies, this will give a welcoming visual connection with the infant building. A raised pedestrian crossing and adjacent traffic calming measures will be developed to provide easier access between the two sites and lead to a new infant entrance with similar canopy design. A new primary staff room will be built above the entrance to the same design as the juniors to enhance and add uniformity to both buildings and improve connectivity. A new nursery with external play area will provide a fully integrated foundation stage for the first time. Refurbishment of around 50% of the infants building will improve the teaching and learning accommodation, and allow year 3 pupils to be housed within this part of the school. This will then allow a smoother transition between key stages 1 & 2. The junior building will be more fully refurbished with a new hall and significant remodeling to the existing hall area, including a new double height area. This will significantly improve the natural light levels to this and adjacent internal spaces. The ground floor classrooms will be given direct access to external learning spaces and walls will be removed to make larger flexible, more exciting environments for learning. Re-use of some external buildings will provide a new internal and external dining courtyard.</p> <p>External landscaping to provide exciting and inspiring outside learning and social spaces will be included over the joint site</p>	<ul style="list-style-type: none"> • Entrances to both sites now face each other • New raised staff area on key stage 1 site is on the same level and is closer to key stage 2 site and creates a united primary staff room • New hall and staff rooms help the visual connection between the sites and provide a welcoming entrance gateway • Potential for an improved car park area • Limited amount of disruption to the school during construction • Enhances the existing buildings rather than starting again • A new nursery with external play area • New soft landscaping and internal/external connections in the key stage 2 building • Enables greater flexibility and future proofing particularly in the key stage 2 building • Proposed raised crossing would provide easier access between the two existing sites • Scheme gives flexibility for larger year groups currently in the school to continue to be accommodated in suitable accommodation. • The majority of investment will be used to remodel existing accommodation, which will directly benefit pupils, staff and families, ensuring a high return on investment. 	<ul style="list-style-type: none"> • Key stage 1 and key stage 2 pupils are on different sites and movements are required between the sites • No car parking on the key stage 2 site • Remote playing field • Temporary loss of play space during construction 	<p>Estimated costings are provided within the report</p>

Option	Description	Advantages	Disadvantages	Funding
E	<p>Option E considered re-rerouting Sturdee Avenue to link the two sites together. This has been discussed with planners and their initial concerns are that a simple road is being replaced with a more complicated route.</p>	<ul style="list-style-type: none"> • School on one site • New nursery with external play area • Direct access to play and sports areas • Improved parking 	<ul style="list-style-type: none"> • Limited and severely compromised external play/learning spaces on school site • Large amount of school disruption during construction and landfill • No flexibility or future-proofing • School accommodation will only meet minimum BB99 requirements • New two-storey extension close to residential area – likely to be contentious at planning application stage • Large area of landscaping will be costly • Traffic redirected around site via new road infrastructure • Planning delay and risk of delaying overall programme with associated inflationary costs 	<p>Estimated costings are provided within the report</p>

DRAFT

BARNSOLE PRIMARY SCHOOL

1.0 INTRODUCTION

- 1.1 A feasibility study has been prepared by Hawkins\Brown LLP Architects in respect of the proposed refurbishment/remodelling of Barnsole Primary School following amalgamation of the Junior and Infant Schools.
- 1.2 The Junior and Infant Schools are presently located on either side of Sturdee Avenue, which forms a barrier to free movement between the schools. Hawkins\Brown have considered various options to address or overcome this problem. Further consideration is to be given to two of the options put forward.
- 1.3 The first is the proposed diversion of Sturdee Avenue along the eastern and southern perimeters of the Junior School joining Barnsole Avenue on the line of School Avenue. This option would effectively unite the Junior and Infant schools on one site.
- 1.4 The second option considered is the provision of a raised crossing in Sturdee Avenue, which would form a traffic calmed pedestrian and vehicle link between the two school sites. Although this proposal would not overcome the problem of separation, an improvement in the level of connection between the sites could be achieved.

2.0 DIVERSION OF STURDEE AVENUE

2.1 Design Considerations

- 2.1.1 The diversion of Sturdee Avenue around the site of the Infant School requires the provision of a double bend alignment. In recognition of the need to minimise land-take for the diverted road it is not possible to achieve a road alignment conforming to current design standards.
- 2.1.2 Sturdee Avenue is a public highway with no imposed restrictions on traffic movements. The alignment will therefore be required to accommodate maximum legal

limit vehicles. The road layout provided will need as a minimum requirement to allow such a vehicle and an oncoming car to pass safely on bends.

2.1.3 Similarly Sturdee Avenue is a bus route and the layout provided will be required to allow oncoming buses to pass each other safely on both bends.

2.1.4 School Avenue presently provides an area of parking reserved for residents. The proposed layout should ideally recognise this and maintain a similar level of provision.

2.1.5 Bus stops, both Gillingham inbound and outbound are presently located in Sturdee Avenue in close proximity to the schools. These will need to be replaced within the diverted route.

2.1.6 In association with the schools and bus stops there is presently a zebra crossing located alongside the entrance into the Infant School. In order to maintain safety standards for pedestrians it will be necessary to provide a comparable facility within the diversion.

2.1.7 School Avenue is presently a cul-de-sac with infrequent traffic movement and the layout of its junction with Barnsole Road is consistent with low traffic usage. The diversion of Sturdee Avenue would require an upgrade in junction geometry to reflect its change in status and increase in traffic flows.

2.1.8 The diversion will effectively place properties No's 15 and 17 Sturdee Avenue in a cul-de-sac and the layout will need to recognise this and provide facilities to allow refuse vehicles and delivery vehicles to turn without reversing into or from the main carriageway.

2.2 Diverted Road Layout

2.2.1 A possible road layout conforming to the above design criteria is shown on Dg. No. 1/01. The swept paths of the design vehicles are shown on Dg. No. 1/02 and Dg. No. 1/03. The layout is considered to be the absolute minimum provision consistent with the identified vehicle movements and the need to minimise land-take.

2.2.2 Residents parking is shown in a similar location to the existing provision and takes advantage of the space created within the highway by the required increase in radius of the left turn exit into Barnsole Road.

2.2.3 The outbound bus stop is located opposite residents parking and in order to be DDA compliant in ensuring buses can align with the kerb at the boarding point, the inbound stop is located on the nearest available length of straight kerbline immediately following the first bend.

2.2.4 Two alternative locations are shown for a possible zebra crossing. These are determined by the length of road available following the provision of bus stops and residents parking.

2.2.5 A turning head facility is provided at properties No's 15 and 17 Sturdee Avenue to allow service and refuse vehicles accessing these properties to return to the main carriageway without reversing onto it.

2.3 Safety Issues Raised by the Diverted Road

2.3.1 As referred to in paragraph 2.1.1 the alignment of the diverted road does not conform with current design standards. In particular the horizontal curves required to minimise school property land-take are considerably below recommended values. As a consequence, the double bend layout could be perceived to be a road safety concern especially in respect of Gillingham bound traffic, which would have a long straight approach to the first bend. The only measure in mitigation of this problem would be the provision of warning signs, which taking into consideration the proliferation of road signs in general, would not necessarily be effective in reducing traffic speed to appropriate levels in order to safely negotiate the bend.

2.3.2 The corner of property No. 2 Sturdee Avenue would be located within the visibility envelope of Gillingham bound traffic turning left into the proposed bend immediately following the property. Irrespective of the type of boundary treatment provided at this property, forward visibility for vehicles entering the bend would be limited to somewhat less than 20 metres. This is considerably less than Highways Agency standards, which require an absolute minimum value of 50 metres to be maintained on 30 mph speed limit roads. In mitigation it could be considered that that vehicle approach speeds would be reduced to a level below 30 mph as a result of the sharp bend.

Alternative visibility requirements for speeds lower than 30 mph are provided in Manual for Streets, a publication used in the design of lightly trafficked residential streets. Guidelines in this document suggest that 20 metres forward visibility is appropriate for vehicle speeds of approximately 16 to 19 mph. Although it is questionable whether Manual for Streets would be appropriate for use in this instance, it is considered doubtful that the speed of vehicles entering the bend would be consistently below the required value of 20 mph to comply with the requirements of these guidelines.

2.3.3 Forward visibility provided on the inside of the first bend for drivers approaching from Barnsole Road would be dependent on the location and form of boundary treatment selected for use on this part of the redeveloped school site. Any fence or wall provided at the back of the footway would fall within the visibility envelope and have a detrimental impact on the required visibility standards referred to in paragraph 2.3.2. This would need to be taken into consideration when determining the land use of the school site.

2.3.4 Although the location of the zebra crossing is flexible, Local Transport Note 2/95, the Design of Pedestrian Crossings, requires a minimum intervisibility distance of 40 metres to be maintained between drivers and pedestrians. Taking into consideration the constraints in determining the location for a crossing as referred to in paragraph 2.2.4, it is unlikely this standard could be achieved. The most appropriate location for a crossing in terms of visibility would be some 20 metres from the new junction with Barnsole Road, but this could only be achieved at the expense of residents' parking. It should also be recognised that the proposed school layout shown would create a pedestrian desire line crossing the diverted route on the line of the existing footway on the southwest side of Sturdee Avenue towards the new school entrance. There is concern that this route would be followed by children walking to and from school raising concerns for their safety.

2.3.5 The improvements in the geometry of the existing School Avenue junction would increase visibility for drivers entering Barnsole Road. However, visibility would still be below recommended values for this category of junction especially to the left where it would be obstructed by the boundary wall to property No. 60. Visibility to the right would be dependent on the school boundary treatment, but any fence or wall constructed at the back of the new footway would be within the required visibility splay. It is to be noted that visibility at the existing Sturdee Avenue junction is of a

much higher standard and any reduction of this standard would have a negative impact on road safety.

2.4 Public Utility Services

2.4.1 It is highly probable that Sturdee Avenue is a main corridor for public utility services carrying gas, water, electricity, telecom and drainage pipes and ducts as a minimum. A search would be required to determine the precise level of service provision within the length of the proposed closure.

2.4.2 It is assumed that the cost of diverting any services along the new road would be prohibitive. The alternative would be to agree easements with each utility affected to allow them unimpeded access to their services at all times.

2.4.3 Planned maintenance or improvement works could presumably be arranged during school holidays, but emergency works would need to be carried out at any time, irrespective of whether it is during the school day. Although this would not impact on road safety, it could raise safety issues within the school, and would need to be taken into consideration if it is decided to proceed further with this option.

2.4.4 The line of the Sturdee Avenue diversion crosses the footway on the southwest side of Sturdee Avenue and straddles the footway on the north east side of School Avenue. Any public utility services located in these footways would require to be either diverted or protected. A search would be required to determine which services would be affected.

2.5 Estimated Costs

2.5.1 The estimated cost for the option to divert Sturdee Avenue around the school is £600,000.

2.5.2 The costs do not include for any demolition works within the existing Junior School, nor the provision of any fencing or other treatment to the new school boundary.

2.5.3 Allowance is made in the estimate for provision of a new boundary wall to property No. 2 Sturdee Avenue.

2.5.4 As referred to in paragraph 2.4.4 it is likely that diversion/protection works will be required to existing public utility services where the new carriageway crosses or straddles the existing footways. A sum of £50,000 has been included to cover the cost of such work, but can only be considered as provisional pending detailed investigation of existing service supplies.

3.0 RAISED CROSSING

3.1 Design Considerations

3.1.1 A raised crossing or other feature provided incorporating vertical deflection will be required to comply with The Highways (Road Humps) Regulations 1999.

3.1.2 The layout will be required to incorporate existing features and facilities within the affected length of Sturdee Avenue, i.e. bus stops, zebra crossing and lay by facilities.

3.2 Raised Crossing Layout

3.2.1 A possible layout conforming with the above design criteria is shown on Dg. No. 2/01.

3.2.2 A flat top table is provided incorporating both a zebra crossing and vehicular access into and between the two school sites.

3.2.3 The Highways (Road Humps) Regulations 1999 require that a road hump provided at a zebra crossing be centred about the crossing. In order to minimise the length of the table, and therefore increase its effectiveness as a speed reducing feature, the zebra has been relocated to the northwest of its present location and closer to the school entrances to accommodate both pedestrian and vehicular crossings on the table.

3.2.4 In order to accommodate the table the existing lay by fronting properties No's 15 and 17 is relocated.

3.2.5 The width of carriageway fronting the schools is reduced to 6 metres which is more compatible to lower speeds and matches widths provided on the remaining lengths of Sturdee Avenue. It would also provide increased footway widths raising the possibility

of landscaped planters or suitable street furniture to enhance the environment at the school entry points.

3.2.6 The Gillingham outbound bus stop is relocated to the opposite side of the zebra crossing as a safety measure to improve intervisibility between pedestrians and approaching traffic.

3.3 Alternative Raised Crossing Layouts

3.3.1 The layout shown is provided to illustrate what may be achievable in terms of traffic calming at the school entrances. It should be recognised that this is only one possible option and could be varied or amended as considered appropriate during detail design. Consideration could be given for example to the provision of a 20 mph school zone, which with suitable gateway signing and features would enhance any traffic calming features and improve their effectiveness.

3.3.2 It is possible that a scheme more in sympathy with the school environment and more effective in controlling vehicle speeds between the school sites could be achievable if consideration were given to this requirement during design of the re-modelled school layout and entrance requirements.

3.4 Safety Issues Raised by Raised Crossing

3.4.1 In works of this nature it is anticipated that any safety issues would be identified and satisfactorily addressed during detailed design.

3.5 Estimated Costs

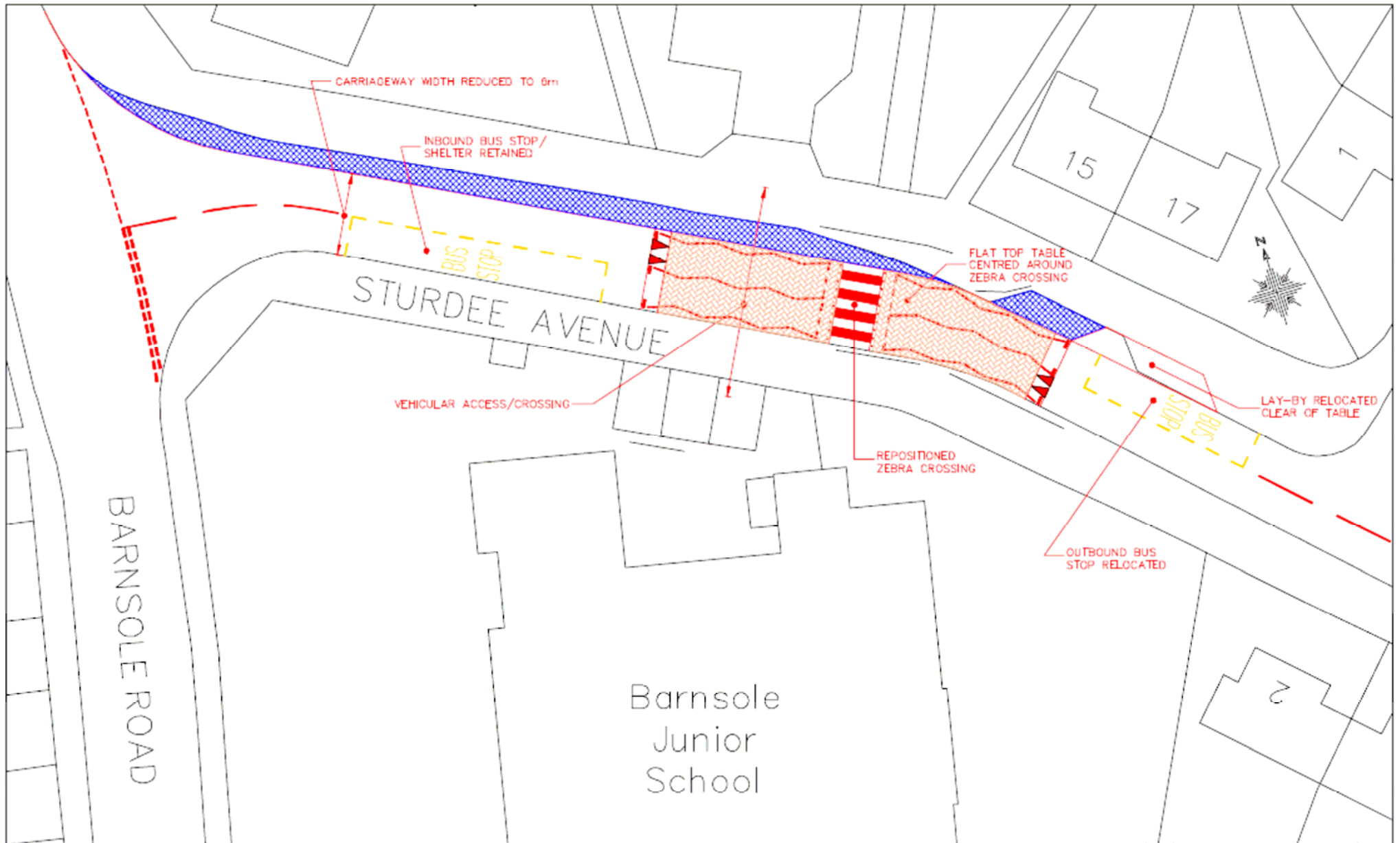
3.5.1 The estimated cost for the option to provide a raised crossing is £80,000.

3.5.2 This cost is based on the layout shown on Dg. No. 2/01 without the use of enhanced materials or the provision of landscaping or street furniture.

3.5.2 Alternative layouts and the use of enhanced materials and features would be likely to increase the cost of the works.

4.0 SUMMARY

- 4.1 Although the option to divert Sturdee Avenue around the school site appears more attractive in that it would provide a united site for the Primary School, its alignment and layout would raise several road safety issues, which could not be readily addressed and as a consequence could result in an overall increase in accident occurrence.
- 4.2 The closure of Sturdee Avenue would require easements to be agreed with any public utilities, which have services in the affected road. These would allow the utilities the right of access to their services at all times.
- 4.3 It is to be noted that the diversion option would result in an overall net loss of school land. The layout shown on Dg. No. 1/01, which minimises land-take, would require approximately 1,100 sq.m. of the existing Junior School site, compared to 800 sq.m. gained by the closure of Sturdee Avenue. Improvements in the alignment to help address the identified safety issues would result in a greater net loss.
- 4.4 The raised table option is feasible, readily achievable and subject to appropriate detailed design would not raise any road safety issues which could not be addressed.
- 4.5 Various alternative raised table layouts are possible which would give the opportunity to provide an enhanced and attractive environment within the highway between the school sites.
- 4.6 The estimated costs of the respective options are:
- | | |
|--------------------------|----------|
| Sturdee Avenue diversion | £600,000 |
| Raised crossing | £80,000 |



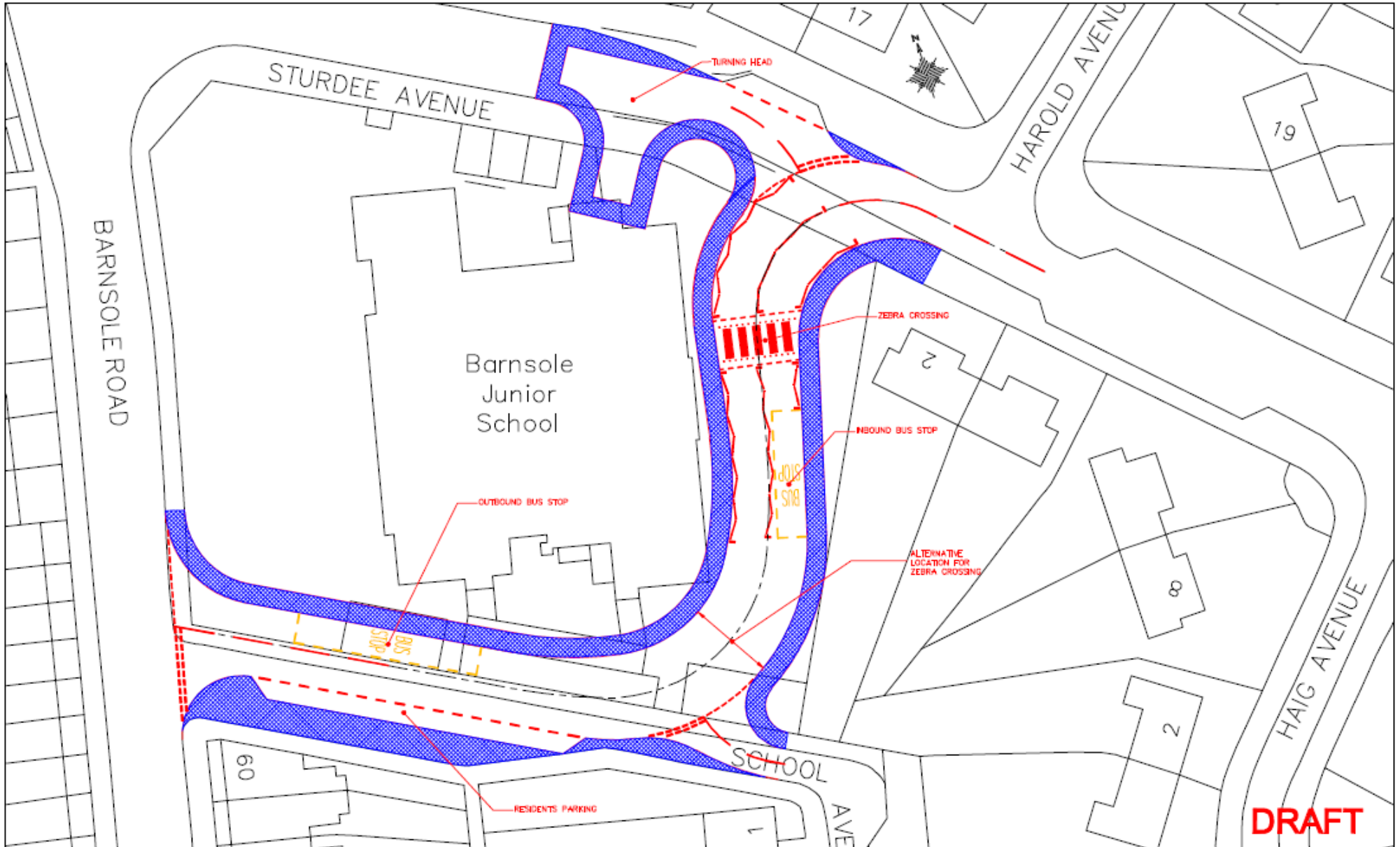
Medway
 DIRECTOR OF REGENERATION,
 COMMUNITY AND CULTURE
 ELAN WINDUP
 DICKEN ROAD
 CHUCKINGHAM
 KENT
 ME4 4TR
 MEDWAY (01634) 339333

PROJECT	Barnsole School Development		
TITLE	Proposed Raised Crossing General Layout		

INDEX / AMENDMENT / DESCRIPTION	DATE
ISSUED FOR	2/01
TRACED	DRAWN
CHECKED	ORIGINAL Dwg SIZE
	DATE

REVISION
 2/01
 KB (BS)
 A3
 Sep'10
 SCALE 1:250

This may be a restricted technical specification drawing and should not be published or distributed outside of the project. Any use of this drawing for any other purpose without the written consent of the author is prohibited. The author is not responsible for any errors or omissions in this drawing. The author is not responsible for any damage or injury caused by the use of this drawing.



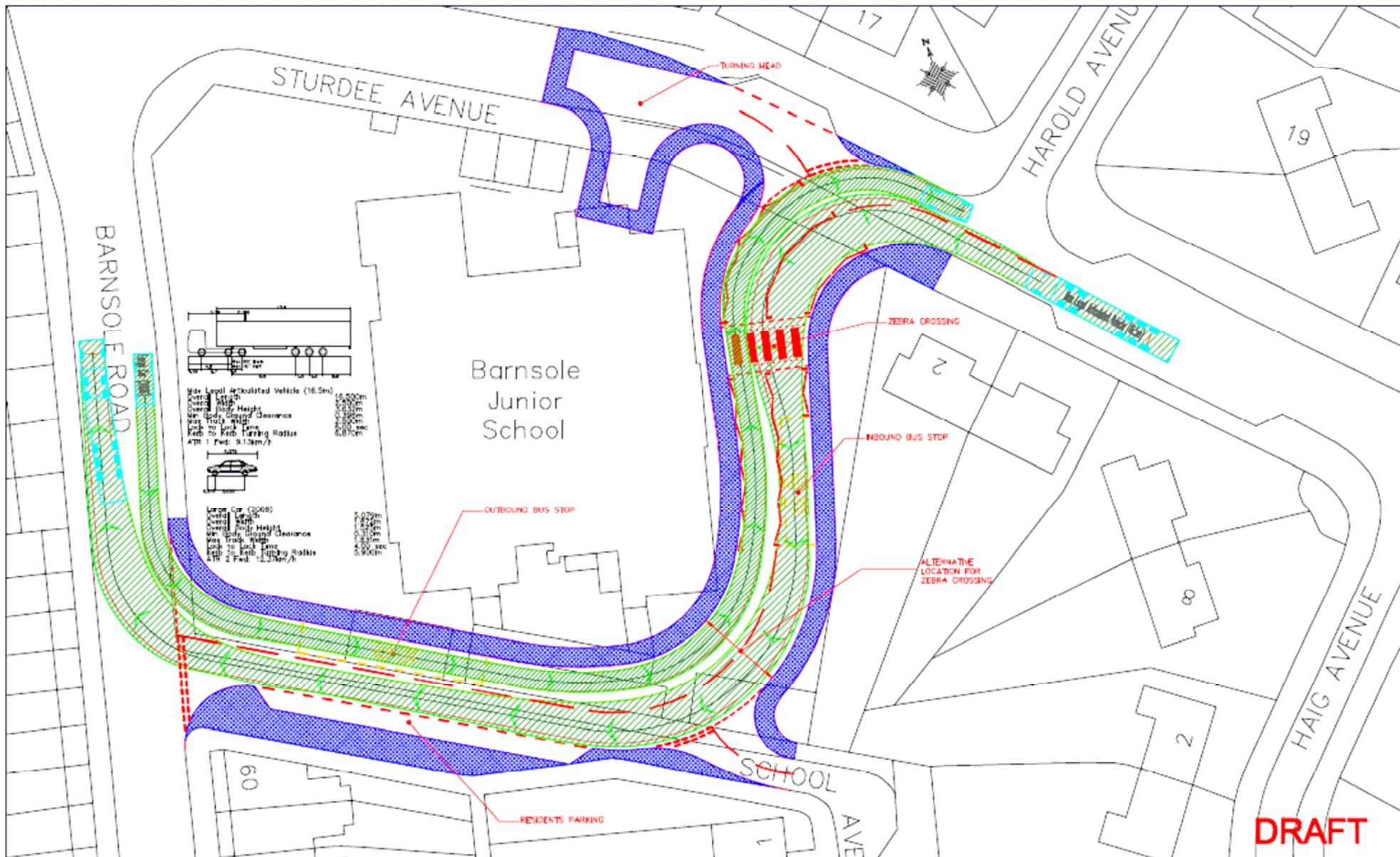
DRAFT



DIRECTOR OF REGENERATION,
COMMUNITY AND CULTURE
GUN WHARF
DOCK ROAD
CHATHAM
KENT
ME4 4TR MEDWAY (01634) 333333

This map is reproduced from/derived from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office. Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. 100004200, 2009.

PROJECT		Barnsole School Development	
TITLE		Proposed Diversion Of Sturdee Avenue General Layout	
INDEX	AMENDMENT / DESCRIPTION	DATE	
ISSUED FOR			
DRAWING NUMBER	1/01	REVISION	
TRACED	DRAWN KB(BS)	SCALE 1:250	
CHECKED	ORIGINAL DWS SIZE A2	DATE Sept10	



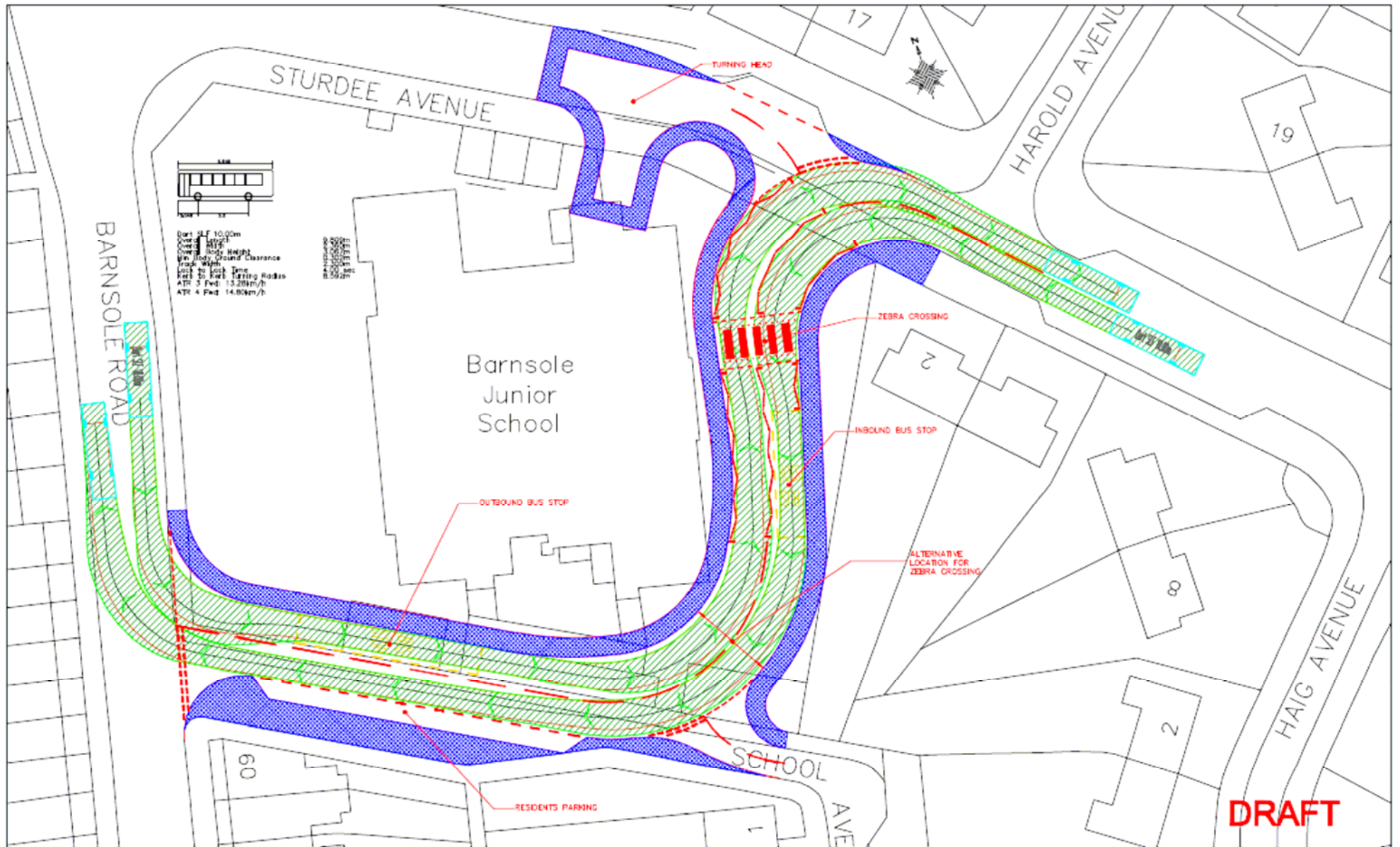
DRAFT

Medway Council
 DIRECTOR OF REGENERATION,
 COMMUNITY AND CULTURE
 GUN WHARF
 DOCK ROAD
 CHATHAM
 KENT
 ME4 4TR
 MEDWAY (01634) 333333

PROJECT	Barnsole School Development	
TITLE	Proposed Diversion Of Sturdee Avenue Autotracks 1 & 2	

INDEX	AMENDMENT / DESCRIPTION	DATE
ISSUED FOR:		
DRAWING NUMBER	1/02	REVISION
TRACED	DRAWN KB(BS)	SCALE 1:250
CHECKED	ORIGINAL DRG SIZE A2	DATE Sept10

This map is reproduced from a survey upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office. © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. 10004001, 003



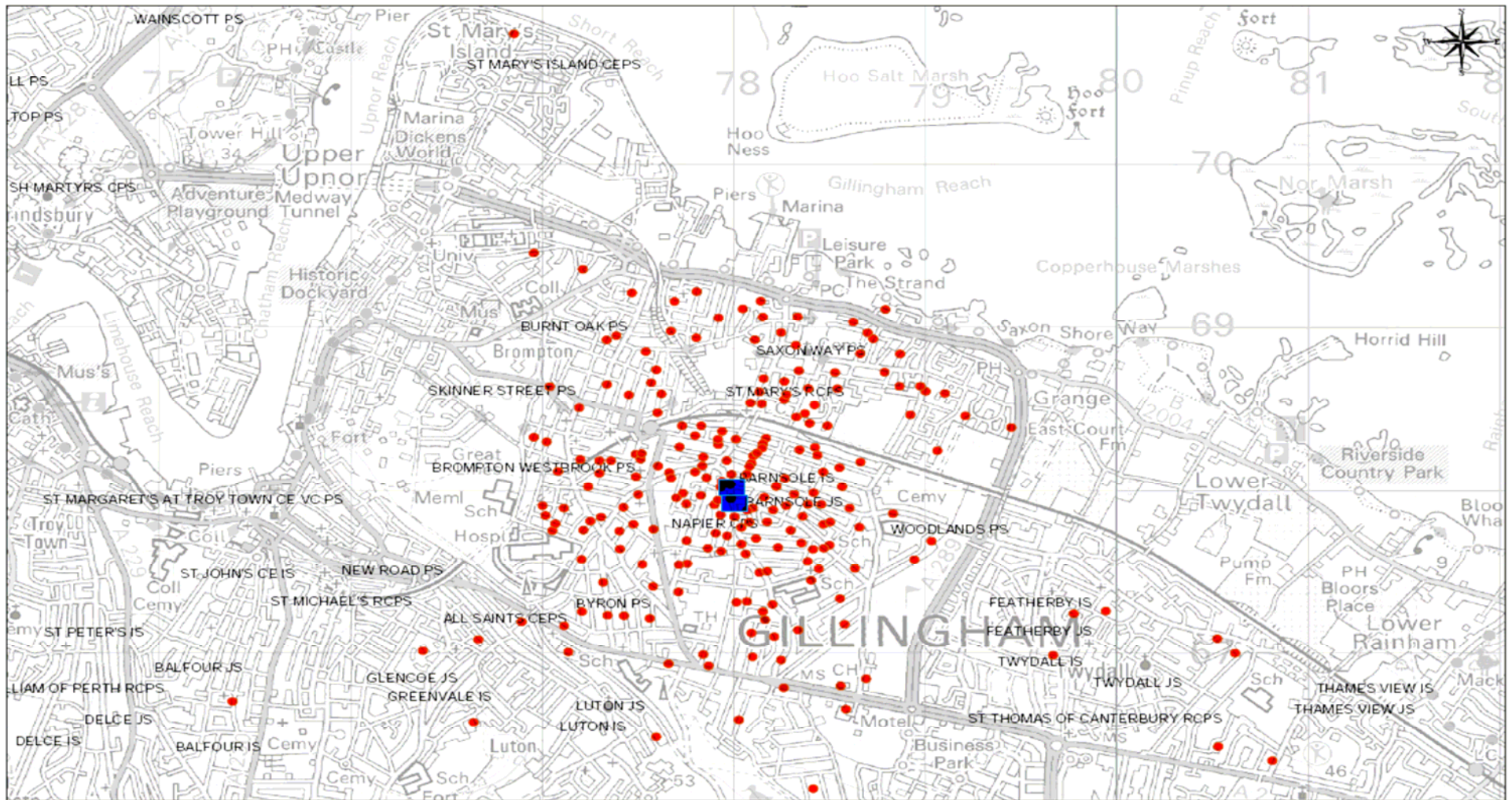
DRAFT



DIRECTOR OF REGENERATION,
COMMUNITY AND CULTURE
GUN WHARF
DOCK ROAD
CHATHAM
KENT
ME4 4TR
MEDWAY (01634) 333333

PROJECT		Barnsole School Development	
TITLE		Proposed Diversion Of Sturdee Avenue Autotracks 3 & 4	
INDEX	AMENDMENT / DESCRIPTION	DATE	
ISSUED FOR:			
DRAWING NUMBER	1/03	REVISION	
TRACED	DRAWN KB (BS)	SCALE 1:250	
CHECKED	ORIGINAL DRG SIZE A2	DATE Sept10	

This map is reproduced from the Council's Open Access Survey and is the property of the Council. It is not to be used for any other purpose without the Council's permission. Unauthorised reproduction infringes the Council's copyright and may be a criminal offence.



Barnsole Schools - Travel to school (one point may represent more than one pupil)

Reproduced from/based upon the Ordnance Survey Mapping with the permission of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. Medway Council Licence No. 105024225, 2010