



**NAS Thames Valley School,
Conwy Close, Reading,
Proposed Expansion**

Transport Assessment

on behalf of

The National Autistic Society

INTERMODAL TRANSPORTATION

IT1288

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1 INTRODUCTION

- 1.1 Intermodal Transportation Ltd (ITL), an independent consultancy specialising in highway engineering and transportation planning, has been instructed by Simul Consultants Ltd on behalf of the National Autistic Society (NAS) to produce a Transport Assessment (TA) to support a planning application for the proposed expansion to the existing NAS Thames Valley School. The existing school has in the order of 50 pupils and 43.5 full time equivalent members of staff, the proposed expansion would create availability to cater for an additional 60 students and 35 members of staff. Those additional students and staff would be split between a first floor extension of the existing school and a new 6th form block.
- 1.2 ITL were involved with the planning application for the existing school and prepared a TA and Travel Plan (TP) for that proposal.
- 1.3 In producing this report, representatives of ITL visited the site in July 2017 and have liaised closely with the project team.
- 1.4 The scope of this report was discussed and agreed with Reading Borough Council (RBC) (please see the scoping correspondence at Appendix A of this report) prior to its commencement. As a result of the scoping discussions this TA will include the following:
- - An audit of accessibility of the site by alternative transport modes, i.e. by walking, cycling and public transport;
 - Summary of the results of the recent turning movement counts on one typical weekday during the AM and PM school peak periods at the following junctions: -
 - The site access and egress junctions;
 - The junction of Conwy Close / The Meadway / Combe Road;
 - The junction of The Meadway / Church End Lane; and
 - The junction of The Meadway / Dunsfold Road.
 - Analysis of / a summary of the results of the recent on-site parking surveys along with those within the vicinity of the site;
 - Quantification of the likely level of traffic attracted by the development proposal.
In that regard, for highway capacity analysis purposes, it is proposed to calculate the likely level of traffic attracted by the proposal using existing travel survey data for student and staff journeys to / from the existing school and / or the results of the recent in / out traffic counts at the school site;



- Distribution of the development traffic within the study area on the basis of observed turning proportions;
- Identification of the level of traffic associated with the adjacent committed housing development;
- Assessment of the performance of the junctions of Conwy Close / Meadway / Combe Road, The Meadway / Church End Lane and The Meadway / Dunsfold Road during the AM and PM school peak hours with the development proposal and the aforementioned committed development in place for the anticipated year of full occupation of the school, i.e. 2024;
- Consideration of the Personal Injury Accident (PIA) record within the study area;
- Consideration of the layout of the proposed development, including the adequacy of the access and turning arrangements; and
- Justification of the proposed car parking provision at the development.

1.5 A draft TP for the school has been prepared and submitted under separate cover.



2 SITE LOCATION AND LOCAL ROAD NETWORK

Site Location

- 2.1 The application site is positioned between Meadway Sports Centre to the south and The Meadway to the north. Part of the site is currently occupied by the Stepping Stones nursery building. The site is bounded to the north by The Meadway, whilst Conwy Close forms the site's eastern boundary. The Meadway Sports Centre forms the site's southern boundary, whilst Dunsfold Road and a small section of the Meadway Sports Centre car park area collectively form the site's western boundary. The site location in the local and wider context is shown in Drawing IT1288/TA/01 of this report.

Local Road Network

- 2.2 Vehicular access to the existing school is currently achieved from the leisure centre access road, whilst egress is achieved directly on to Conwy Close. The leisure centre access runs in an east to west direction adjacent to the leisure centre building's northern elevation. The access road connects with Conwy Close at a simple priority 'T' junction adjacent to the leisure centre building's north eastern corner and is subject to a non enforceable 20mph speed limit. The access road is 6.2m in width near Conwy Close with a footway along its southern edge at present. Plate 1 below shows a view of the leisure centre access including the school site entrance, whilst Plate 2 shows a view of the school site egress.

Plate 1: A view of the site access



Plate 2: A view of the site egress



- 2.3 Conwy Close runs in a north to south direction and approximately 100m north of the leisure centre access road forms a 4 arm priority crossroads junction with The Meadway and Combe Road. Conwy Close is typically 6.2m in width and has a 2.5m footway along its western edge. Observations indicate that vehicles do not appear to be travelling at excessive speeds on Conwy Close. Plate 3 over the page shows a view north on Conwy Close adjacent to the site.

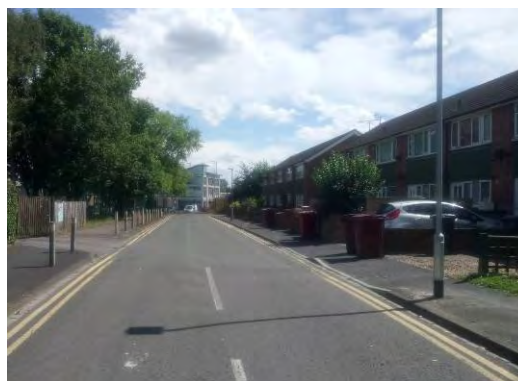


Plate 3: A view north on Conwy Close



- 2.4 Vehicular access to the western part of the site is currently achievable in 2 locations on Dunsfold Road. Dunsfold Road is a cul-de-sac that runs in a north to south direction adjacent to the site's western boundary and forms a priority 'T' junction with The Meadway approximately 25m west of the signal controlled junction of The Meadway and Church End Lane. Plate 4 below shows a view looking in to Dunsfold Road.

Plate 4: A view into Dunsfold Road



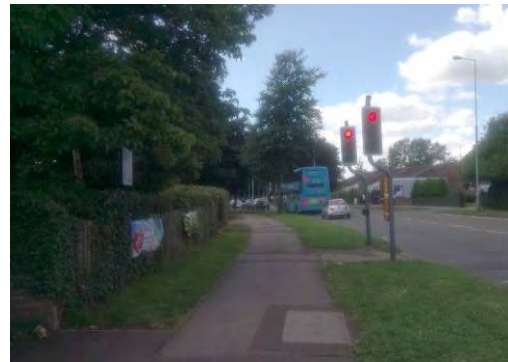
- 2.5 The Meadway runs in an east to west direction within the vicinity of the site and is 9.3m in width with footways along both sides within the vicinity of Conwy Close. The Meadway is subject to a 30mph speed limit and is street lit. Approximately 18m west of Conwy Close there is the westbound signal stop line for the junction of The Meadway with ChurchEnd Lane. There is a keep clear marking across the mouth of Conwy Close in an attempt to ensure that vehicles queuing at the crossing do not block access to the Conwy Close. Plates 5 and 6 over the page show views looking east and west respectively along The Meadway from Conwy Close.



Plate 5: A view east on The Meadway



Plate 6: A view west on The Meadway



- 2.6 In the east, The Meadway leads to Reading town centre, changing in name to Tilehurst Road before forming a large roundabout / priority controlled gyratory with Waverley Road and Liebenrood Road. Adjacent to the site's north western corner The Meadway forms a 3 arm signal controlled junction with Church End Lane, the former being the through route at the junction. The junction includes pedestrian crossing facilities and as such there are good pedestrian crossing facilities on The Meadway within the vicinity of the site, this junction being located less than 100m from the pelican crossing just west of Conwy Close.
- 2.7 Further west, approximately 1.2km from Conwy Close, The Meadway forms a 3 arm mini-roundabout junction with School Road. The latter being the through route at the junction.



3 PROPOSED DEVELOPMENT

- 3.1 The development proposal involves the extension of the existing school, and provision of a 6th Form Vocational skills block on the site of the former Stepping Stones nursery building on the western portion of the site.
- 3.2 The school currently has an internal area of approximately 1,649m² and accommodates 50 pupils aged 5 – 16 years and 43.5 full time equivalent members of staff, excluding visiting therapists, education psychologists and volunteers. The proposed 750m² first floor extension to the existing school would accommodate an additional 30 students and 15 members of staff. The construction of the 6th form Vocational skills block is proposed to have an internal floor area of 1,500m² and would accommodate an additional 30 students and 20 staff. The site plans for the proposal showing the phase 1 and phase 2 site layout are contained at Appendix B of this report. As shown on the site plans at Appendix B a temporary construction compound for the phase 1 proposal is proposed at the southern end of Dunsfold Road.
- 3.3 ITL are advised that the proposed first floor extension (phase 1) should be available for the 2019 academic year and that the 6th form block (phase 2) should be available for the 2021 academic year. Furthermore, ITL are advised that the additional pupil spaces for both phases would be phased in over a 3 year period such that the first floor extension would see pupils transitioning in between September 2019 and July 2022, whilst the corresponding dates for the 6th form block would be in between September 2021 and July 2024.
- 3.4 It is proposed that the existing drop off / pick up area on the eastern side of the school site would be expanded to include a total of 8 drop off / pick up spaces in conjunction with the development proposals. In addition, 9 standard car parking spaces, 1 disabled car parking space and a motorcycle parking area would be provided in that location. At present the area includes 4 drop off / pick up spaces, 2 visitor spaces and 1 additional space. It is proposed that the amendments to the drop off / pick up area would be implemented prior to the opening of the first floor extension of the existing school. The two existing mini-bus parking spaces located in that area would be removed and the mini-buses, which are not used for everyday travel, would be located off-site.
- 3.5 Staff parking would be expanded in conjunction with the development proposals and a 2 phased approach would be taken in relation to the expansion of the parking. Phase 1, which would be implemented prior to the opening of the first floor extension of the existing school would involve the provision of 8 spaces on the western side of the school. The spaces would be accessed using the existing access / egress on to Dunsfold Road. Phase 2 of the expansion of the on-site car parking would be implemented prior to the



opening of the 6th form block and would involve the extension of the existing staff car parking area at the site resulting in the provision of 10 further car parking spaces at the site.

- 3.6 At present, excluding drop off / pick up spaces but including 3 disabled spaces, there are a total of 37 car parking spaces at the site. Following the implementation of phase 1, excluding drop off / pick up spaces but including 4 disabled spaces, there would be a total of 53 car parking spaces at the site, whilst the corresponding figure following the implementation of phase 2 would be 63 car parking spaces.
- 3.7 The site access arrangements on the eastern side of the site, i.e. from Conwy Close, would not be amended in conjunction with the proposals.



4 ACCESSIBILITY BY NON-CAR TRANSPORT MODES

Introduction

- 4.1 Given the nature of the proposal the majority of pupils would be transported to the site by car or taxi. This is borne out by the results of a recent travel survey (13th June 2017) at the existing school, the results of which are summarised in Table 4.1 below, the full results of the survey are contained at Appendix C. However, a reasonable proportion of the staff would be expected to travel to / from the site by modes other than the private car (please see the travel survey results summarised below). In addition, the possibility of some pupils using alternative transport modes in order to travel to / from the site, in particular the sixth form students, should not be ruled out.

Table 4.1: Recent travel survey results

Mode	Mode Share %	
	Pupils	Staff
Walk	6	11
Cycle	0	0
Car	19	70
Car share	-	6
Taxi	75	0
Motorcycle	-	2
Public transport	0	11

Note: Pupil trips recorded as with a parent assumed to be by car

Bus

- 4.2 It is generally recognised that the maximum convenient walking distance in order to access urban bus services is around 500m. This walking distance to a bus stop emerged from theoretical studies and has been supported by research undertaken for the National Travel Survey (NTS).



- 4.3 The nearest bus stops to the site are located on The Meadway; the eastbound stop being located approximately 80m west of Conwy Close, whilst the westbound stop is located approximately 130m east of the same point.
- 4.4 The Meadway is a reasonably significant corridor in to Reading centre and therefore the adjacent bus stops are, as shown below in Table 4.2, served by frequent bus services: -

Table 4.2: Bus services operating within the vicinity of the site

Bus Route	Route Summary	Monday to Friday	
		First Bus – Last Bus	Frequency
15	Reading town centre – Dee Road Estate – Calcot, IKEA	0513-2321	30min
33 / 33A	Reading town centre – Prospect Park – Tilehurst Triangle	0543-2336	10min
991	Denefield School - Prospect School - Coley Park - Whitley Wood	0802-1520	School Bus
LH2	Calcot – Meadway Precinct – Little Heath	0834-1548	School Bus

Note: First and last bus times relate to times bus call at the stops nearest the site

- 4.5 It is therefore concluded that the school is accessible by bus. Notwithstanding the latter, it is accepted that the bus is unlikely to play a significant role in the transport of children to / from the site. However, it is considered that a reasonable proportion of staff at the expanded school could utilise the bus services within close proximity in order to access the site.

Walking

- 4.6 To set the walk-in catchment of the school in context it should be recognised that the 2015 National Travel Survey indicates that 76% of journeys under one mile (1.6km) are undertaken on foot. As such this distance is considered acceptable to provide an indication of the likely walk-in catchment for the development site.
- 4.7 In the light of the above, a 1.6km 'as the crow flies' walk contour has been plotted from the approximate centre of the development site in order to illustrate the potential walk-in catchment of the school. The 'as the crow flies' contour is shown on drawing IT1288/TA/02 of this report.



- 4.8 Therefore, it is apparent that the school is ideally located in order to encourage trips on foot being, as shown on drawing IT1288/TA/02, located within walking distance of a significant number of residential dwellings.

Cycling

- 4.9 There are, as shown on the Reading cycle map, cycleways running within close proximity of the application site. In that regard, Route 50 passes approximately 400m west of the site on New Lane Hill, whilst a connecting route between Route 5 in the north and Route 50 passes adjacent to the site on Church End Lane / The Meadway / Routh Lane.
- 4.10 Route 50 is an on-carriageway route within the vicinity of the site and links the Tilehurst area around the site with Prospect Park in the east and Kensington Road recreation ground beyond that point.
- 4.11 The combination of the provision of adequate cycle parking (see section 7) at the school and the existing cycle facilities already in the area means that the opportunity exists for staff to cycle to / from the school.



5 TRIP ATTRACTION

- 5.1 The likely number of person trips (both vehicular and by alternative modes) that would be attracted to the proposed expansion of the school has been calculated on the basis of the likely pupil and staff numbers associated with the proposed expansion using the modal split of pupils and staff as recorded in the recent travel survey at the existing school.
- 5.2 In that regard, the derived modal split for the existing NAS Thames Valley school has been applied to the maximum number of pupils at each aspect of the school expansion in order to calculate the likely worst case maximum pupil trip numbers during the school AM (0800 – 0900) and PM (1500 – 1600) peak hours. In order to ensure a robust traffic assessment 6th form pupils have been assumed to display the same modal split as the existing pupils at the school. In reality it is considered that a higher proportion of 6th form pupils would be likely to arrive at the site unaccompanied via non-car modes. In addition, for robust assessment from a traffic attraction perspective it has been assumed that the school day at the 6th form block would commence and end at the same time as the main school. However, as discussed in section 7 it is envisaged that as part of the management of the on-site drop off / pick up facilities the start and end of the 6th form day would be staggered by 45 minutes when compared to the existing school. The results of the pupil trip attraction calculations are shown below in Table 5.1.

Table 5.1: Development pupil person trip attraction

Mode	Mode Share %	AM Peak Hour				PM Peak Hour			
		Extension of existing school		6 th Form Block		Extension of existing school		6 th Form Block	
		Arrivals	Depart	Arrivals	Depart	Arrivals	Depart	Arrivals	Depart
Walk	6	2	0	2	0	0	2	0	2
Cycle	0	0	0	0	0	0	0	0	0
Car	19	6	0	6	0	0	6	0	6
Taxi	75	22	0	22	0	0	22	0	22
Public transport	0	0	0	0	0	0	0	0	0



- 5.3 For the purposes of calculating the likely number of vehicular trips attracted to the proposal it has been assumed that each pupil person trip by car shown in Table 5.1 above would be a parent / adult accompanied trip and would result in a corresponding departure during the school AM peak hour and an arrival during the school PM peak hour. In addition, by comparing the travel survey results to the results of the recent traffic and parking counts it has been calculated / assumed that each car and taxi would have an average occupancy of 2.14 pupils. On this basis the likely number of vehicular trips attracted to the proposed school during the school AM and PM peak hours in conjunction with pupil transport is shown in Table 5.2 below.

Table 5.2: Development pupil related vehicular trips

Time Period	Arrivals		Departures	
	Extension	6 th Form Block	Extension	6 th Form Block
AM Peak Hour	13	13	13	13
PM Peak Hour	13	13	13	13

- 5.4 The derived modal split for the existing NAS Thames Valley school has been applied to the maximum number of staff at each aspect of the school expansion in order to calculate the likely worst case maximum staff trip numbers during the school AM (0800 – 0900) and PM (1500 – 1600) peak hours. For robust assessment from a traffic attraction perspective it has been assumed that the school day at the 6th form block would commence and end at the same time as the main school.
- 5.5 It is considered that, unlike pupil related trips, staff trips would not be concentrated into 1 hour at the start of the school day and 1 hour at the end of the school day. In relation to the latter, it is considered that in the AM staff arrivals at the site would be spread over a 2 hour period, whilst in the PM staff departures would be spread over a 3 hour period. The likely staff flows during the typical school AM and PM peak hours taking this in to consideration are shown over the page in Table 5.3.



Table 5.3: Development staff person trip attraction

Mode	Mode Share %	AM Peak Hour				PM Peak Hour			
		Extension of existing school		6 th Form Block		Extension of existing school		6 th Form Block	
		Arrivals	Depart	Arrivals	Depart	Arrivals	Depart	Arrivals	Depart
Walk	11	1	0	1	0	0	1	0	1
Cycle	0	0	0	0	0	0	0	0	0
Car	70	6	0	7	0	0	4	0	5
Car share	6	1	0	1	0	0	1	0	0
Taxi	0	0	0	0	0	0	0	0	0
Motorcycle	2	0	0	0	0	0	0	0	0
Public transport	11	1	0	1	0	0	1	0	1

5.6 Table 5.4 below shows the total AM and PM peak hour vehicle trips associated with the proposed school.

Table 5.4: Total development vehicular trip attraction

Time Period	Arrivals		Departures	
	Extension	6 th Form Block	Extension	6 th Form Block
AM Peak Hour	19	20	13	13
PM Peak Hour	13	13	17	18

5.7 Table 5.4 above indicates that there are likely to be an additional 32 and 30 two way vehicle movements during the school AM and PM peak hours respectively as a result of phase 1 of the development proposal. This quantum of vehicle movements should not be



regarded as material in the context of the local road network.

- 5.8 The total expected additional traffic movements attracted to the site as a result of phases 1 and 2 of the development proposal combined in the year 2024 are 65 and 61 two way movements during the school AM and PM peak hours respectively.
- 5.9 The performance of the junction of Conwy Close / The Meadway / Combe Road, the junction of The Meadway / Dunsfold Road and the junction of The Meadway / Church End Lane during the school AM and PM peak hours with the development proposal in place are considered in the next chapter of this report.



6 NETWORK PERFORMANCE

- 6.1 Within this section, as agreed with RBC, the performance of the junctions of Conwy Close / The Meadway / Combe Road, The Meadway / Dunsfold Road and The Meadway / Church End Lane are assessed. As indicated in the previous section the phase 1 traffic flows are not regarded as material and as such the with development capacity assessments have been undertaken on the basis that both development phases have been implemented.
- 6.2 Manual classified turning movement counts, the results of which are contained at Appendix D, were undertaken at the above junctions and at the site access and egress junctions on Wednesday 21 June 2017. The surveys were conducted between 0730 and 0930 and again between 1430 and 1630 in order to ensure that the existing school peak hours were observed. Parking surveys were also conducted at the site, the adjacent leisure centre car park and on the local road network within 300m of the site during the same time periods. The results of the traffic and parking surveys are contained at Appendix D.
- 6.3 The traffic survey results at Appendix D have been interrogated to establish that on the day of the survey the school AM and PM peak hours were as follows: -
- | | |
|----------------|-------------|
| AM Peak Hour - | 0800 – 0900 |
| PM Peak Hour - | 1515 - 1615 |
- 6.4 The observed traffic flows on the local road network during the time periods shown above are shown on drawings IT1288/TA/03 and TA/04 of this report respectively.
- 6.5 It was agreed during the scoping discussions for this project that the development traffic would be distributed based on observed turning proportions.
- 6.6 The total development vehicular flows shown in Table 5.4 of this report have been distributed on the local road network during the typical school AM and PM peak hours in accordance with observed turning proportions and are shown on drawings IT1288/TA/05 and TA/06 of this report respectively.
- 6.7 It was agreed with RBC prior to the commencement of this assessment that the capacity assessments would be undertaken for the assumed year of full occupation of the school, which on the basis of the information set out in chapter 3 of this report is assumed to be 2024. As such the NTM / TEMPRO growth factors shown in Table 6.1 below were calculated for the purposes of raising the observed flows to the design year.



Table 6.1: NTM / TEMPRO 2017 – 2024 Growth factors

Time Period	Growth Factors
AM Peak Hour	1.131
School PM Peak Hour*	1.143

* The school PM peak hour coincides with the TEMPRO inter-peak period

- 6.8 The growth factors shown above in Table 6.1 have been applied as relevant to the observed traffic flows shown on drawings IT1288/TA/03 and TA/04 in order to derive the 2024 observed AM and PM school peak hour traffic flows shown on drawings IT1288/TA/07 and TA/08 of this report respectively.
- 6.9 During the scoping discussions for this project it was agreed that the traffic levels associated with the recently approved residential planning application on the land to the west of Conwy Close directly opposite the site should be included within this assessment as committed development flows. Those flows have been extracted from Table 3-3 of the Transport Statement (TS) report for that application and, as no traffic distribution was included in the report, were distributed within the study area for this application in accordance with observed turning proportions. The PM flows shown in Table 3-3 of the TS report for the proposed development on land opposite the application site relate to the traditional road network PM peak hour, i.e. 17:00 – 18:00, and as such, they have been adjusted using a factor of 1.27 calculated from the TRICS data contained at Appendix B of the TS report for the adjacent housing scheme such that they relate to the school PM peak hour.
- 6.10 The committed development traffic flows distributed as discussed above are shown on drawings IT1288/TA/09 and TA/10. The committed development flows shown on drawings IT1288/TA/09 and TA/10 were then added as relevant to the 2024 observed flows shown on drawings IT1288/TA/07 and TA/08 in order to derive the 2024 base plus committed AM and PM school peak hour traffic flows shown on drawings IT1288/TA/11 and TA/12 of this report respectively.
- 6.11 In order to provide the basis for a robust assessment the proposed school peak hours have been assumed to coincide with the existing school peak hours above and the development traffic flows shown on drawings IT1288/TA/05 and TA/06 have therefore been added, as relevant, to the flows shown on drawings IT1288/TA/11 and TA/012 in order to derive the 2024 base plus committed plus development AM and PM school peak hour traffic flows shown on drawings IT1287/TA/13 and TA/14 of this report.



- 6.12 The junction of Conwy Close / The Meadway / Combe Road was initially assessed for the 2024 base plus committed plus development (phases 1 and 2) AM and PM school peak hour scenarios using the PICADY software package within the junctions 8 software suite. The full print outs from those assessments are contained at Appendix E of this report and summarised below in Table 6.2 for ease of reference.

Table 6.2: 2024 Base Plus Committed Plus Development AM and PM school peak hour PICADY assessment results at Conwy Close / Meadway / Combe Road junction

Arm	AM Peak Hour		PM Peak Hour	
	Max RFC	Max Q	Max RFC	Max Q
The Meadway (east)	0.09	0.10	0.10	0.11
Conwy Close	0.45	0.79	0.84	4.25
The Meadway (west)	0.38	0.61	0.14	0.16
Combe Road	0.36	0.56	0.30	0.42

- 6.13 The analysis results shown in Table 6.2 demonstrate that, even on the basis of the series of robust assumptions adopted within this assessment, the junction of Conwy Close / The Meadway / Combe Road would operate acceptably during the school AM and PM peak hours in 2024, i.e. following the full occupation of the proposed expanded school (phases 1 and 2). As such it was not considered necessary to run further capacity assessments at the junction.
- 6.14 The signal controlled junction of The Meadway / Church End Lane was initially assessed for the 2018 observed AM and PM school peak hour scenarios using the TRANSYT software package. The full print outs from those assessments along with a TRANSYT link diagram are contained at Appendix F of this report and summarised over the page in Table 6.3 for ease of reference.
- 6.15 As with the assessments at the time of the planning application for the existing school, a 60 second cycle time was used to analyse the performance of the junction. In addition, intergreen timings calculated using empirical formulae on the basis of the likely conflict points at the junction were utilised. During ITL's site visits the pedestrian stage at the junction was not observed to be called on a frequent basis and even when it was called it was not observed to have a significant impact on the operation of the junction in capacity terms. Therefore, the junction has been analysed on a simple 2 stage basis, i.e. on the basis that the pedestrian stage is not called.



- 6.16 Due to the close proximity of the junction of The Meadway with Dunsfold Road to the signal controlled junction of The Meadway with Church End Road and the likely interaction of the two junctions, the junction of The Meadway with Dunsfold Road was included in the TRANSYT network for the signal controlled junction as a priority controlled node.

Table 6.3: 2018 Observed AM and PM school peak hour TRANSYT assessment results

Link	AM Peak Hour		PM Peak Hour	
	% Saturation	Mean Max Q	% Saturation	Mean Max Q
The Meadway / Church End Road (signal controlled node)				
101 – The Meadway (east) ahead and right	44	5	55	7
102 – The Meadway (east) right turn dummy link	25	1	17	1
103 – Church End Lane (left and right)	71	6	67	5
104 – The Meadway (west) ahead and left	68	10	47	5
The Meadway / Dunsfold Road (priority controlled node)				
201 – The Meadway (east) ahead and left	34	0	40	0
202 – The Meadway (west) ahead	40	0	30	0
203 – Dunsfold Road (left and right)	3	0	3	0
204 – The Meadway (west)	1	0	1	0

- 6.17 The levels of forecast queuing during the AM peak hour shown in Table 6.3 at the junction of The Meadway with Church End Road are consistent with the average observed queues on-site (see the survey results at Appendix D) and therefore it is considered that the TRANSYT model is acceptably replicating actual conditions on site.



6.18 In the light of the above the TRANSYT model was then run for the 2024 base plus committed plus development (phases 1 and 2) AM and PM school peak hour scenarios and the results of the analyses are shown below in Table 6.4.

Table 6.4: 2024 Base Plus Committed Plus Development AM and PM school peak hour TRANSYT assessment results

Link	AM Peak Hour		PM Peak Hour	
	% Saturation	Mean Max Q	% Saturation	Mean Max Q
The Meadway / Church End Road (signal controlled node)				
101 – The Meadway (east) ahead and right	52	6	66	9
102 – The Meadway (east) right turn dummy link	39	1	24	1
103 – Church End Lane (left and right)	82	8	72	6
104 – The Meadway (west) ahead and left	79	13	57	7
The Meadway / Dunsfold Road (priority controlled node)				
201 – The Meadway (east) ahead and left	39	0	46	0
202 – The Meadway (west) ahead	46	0	35	0
203 – Dunsfold Road (left and right)	3	0	3	0
204 – The Meadway (west)	1	0	1	0

6.19 The analysis results shown in Table 6.4 above demonstrate that the performance of the junction at the full occupation of the proposed school would not be markedly different from the current operation of the junction. In that regard, the analysis results show that, even on the basis of the series of robust assumptions adopted within this assessment, and with the committed development traffic added the junction would operate acceptably following the opening of the proposed school during the school AM and PM peak hours in 2024, i.e. the year of full occupation of both proposed development phases.



7 OTHER HIGHWAY ISSUES

Parking

- 7.1 The latest parking standards in the context of new development in Reading Borough are contained in the October 2011 RBC publication '*Revised Parking Standards and Design*'. The car parking requirements contained in that document are maximum standards, whilst the cycle parking standards are minimums. The RBC standards have been derived on a zonal basis with the study site being located in zone 3. At the time of the planning application for the provision of the existing school ITL were advised that pupils at the school are unlikely to make their own way to the site, i.e. they are unlikely to travel unaccompanied. As such, it is considered that, as previously, the primary education parking standards represent the applicable education parking standards in the context of the extension of the existing school. The RBC primary school standards are summarised below in Table 7.1.

Table 7.1: Reading Borough Council parking standards

Land Use	Car Parking Standard (maximum)	Cycle Parking Standard (minimum)
Primary Education	1 per Full Time Equivalent (FTE) member of staff plus 1 drop off space per 10 pupils.	1 space per 5 FTE members of staff plus 1 space per 15 pupils (years 1-3) and 1 space per 10 pupils (years 4-6).
Secondary Education	1 per Full Time Equivalent (FTE) member of staff.	10% of building users (FTE staff and students) up to 500 <i>Plus</i> 7% for building users in the range 501-1000 <i>Plus</i> 5% for building users over 1000

- 7.2 The RBC standards also indicate that in car parks of up to 200 spaces 3 or 5% of the spaces (whichever is the greater) should be disabled spaces.
- 7.3 If the standards shown above in Table 7.1 are applied as relevant to the likely additional numbers of pupils and staff at the extension of the existing school, i.e. the phase 1



development proposal, it can be calculated that a maximum of 15 additional car parking spaces and 3 additional pick up / drop off spaces could be provided at the site.

- 7.4 It is considered that the RBC secondary education parking standards represent the applicable education parking standards in the context of the proposed sixth form block. If the secondary education standards shown above in Table 7.1 are applied as relevant to the likely additional numbers of staff at the proposed sixth form block, i.e. the phase 2 development proposal, it can be calculated that a maximum of 20 additional car parking could be provided at the site. The RBC secondary education parking standards do not include for drop off / pick up provision and given that sixth form pupils may arrive at the site via non-car modes and that the school has confirmed that the sixth form day would be staggered by 45 minutes from that of the existing school it is considered that additional drop off / pick up spaces are not needed for the proposed sixth form block.
- 7.5 The parking survey results contained at Appendix D indicate that the existing staff car parking at the site is operating at / close to capacity at present. As such, as indicated in section 3 of this report, staff parking would be expanded in conjunction with the development proposals and a 2 phased approach would be taken in relation to the expansion of the parking. Phase 1, which would be implemented prior to the opening of the first floor extension of the existing school would involve the provision of 8 spaces on the western side of the school and, through reconfiguration of the existing layout, the provision of 8 additional spaces on the eastern side of the school. The spaces on the western side of the school would be accessed using the existing access / egress on to Dunsfold Road, whilst the 8 additional spaces on the eastern side of the school would be accessed via the existing access off Conwy Close. Phase 2 of the expansion of the on-site car parking would be implemented prior to the opening of the 6th form block and would involve the extension of the existing staff car parking area at the site resulting in the provision of 10 further car parking spaces at the site.
- 7.6 At present, excluding drop off / pick up spaces but including 3 disabled spaces, there are a total of 37 car parking spaces at the site. Following the implementation of phase 1, excluding drop off / pick up spaces but including 4 disabled spaces, there would be a total of 53 car parking spaces at the site, whilst the corresponding figure following the implementation of phase 2 would be 63 car parking spaces.
- 7.7 As such, phase 1 would lead to an increase in spaces, excluding drop off / pick up, of 16 spaces and phase 2 a further 10 spaces. The staff travel survey data summarised earlier in this report indicates that 70% of staff drive to the site so if a total of 35 additional staff members are expected as a result of both phases of the development 25 could be expected to drive. Therefore the provision of a total of 26 additional spaces should be regarded as acceptable and would provide 1 spare / visitor space.
-



- 7.8 As part of the phase 1 proposals the existing drop off / pick up area would be reconfigured resulting in the provision of a total of 8 drop off / pick up spaces to serve the proposed 80 pupil expanded school. It can therefore be seen that the proposed drop off / pick up provision post implementation of the extension of the existing school would be consistent with the Council's maximum primary education parking standard of 1 space per 10 pupils.
- 7.9 In relation to cycle parking, application of the above standards (the year 1-3 pupil standard is considered to apply) as relevant to the details for the extension of the existing school results in the calculation of a minimum requirement of 3 staff and 2 pupil cycle parking spaces for that aspect of the proposal. It is, however, considered that pupils of the existing school would be extremely unlikely to cycle to the site and therefore no pupil cycle parking provision is proposed for that aspect of the proposal.
- 7.10 Application of the secondary education standards to the proposed sixth form block results in the calculation of a minimum requirement of 5 cycle parking spaces for that aspect of the proposal.
- 7.11 On the basis of the discussions in paragraphs 7.9 and 7.10 above, it can be calculated that 4 new Sheffield cycle stands would be required as a result of both phases of the development proposal.
- 7.12 As indicated in the previous chapter, in addition to the on-site parking surveys, observations of parking in the adjacent leisure centre car park and on the local road network within 300m of the site were also undertaken on Wednesday 21 June 2017. The surveys were undertaken between 0730 and 0930 and again between 1430 and 1630 and 15 minute observations of parking levels were undertaken.
- 7.13 The parking survey results at the adjacent leisure centre car park indicate to a reasonable level of spare capacity (approximately 40% spare capacity or 40 spaces was the minimum level observed during the surveys). In addition, the surveys also indicate that there is spare on street parking capacity within 300m of the site. In relation to the latter, during all time slots of the survey there were as a minimum 140 'legal' on-street parking spaces available within 300m of the site.

Personal Injury Accident Investigation

- 7.14 As agreed during the scoping stage of the project, ITL have investigated the PIA record of the local road network. In that regard, ITL requested PIA data from Reading Borough Council (RBC) for the latest available 3 year period. The search area of the PIA data included Conwy Close, The Meadway from a point approximately 100m west of Dunsfold Road to a point approximately 100m east of Conwy Close and also extended



100m north along Church End Lane and Combe Road from their junctions with the Meadway.

- 7.15 The obtained data shows that within the area provided there were 2 PIAs, both of which were classified as slight.
- 7.16 Neither of the recorded incidents involved pedestrians or cyclists and neither occurred at times of peak activity at the school, the two incidents occurred at 13:34 and 18:30 respectively.
- 7.17 In the light of the above, it is concluded that the local road network within the vicinity of the site does not appear to have an adverse highway safety record involving school traffic, pedestrians or cyclists.



8 CONCLUSIONS

- 8.1 Intermodal Transportation Ltd (ITL), an independent consultancy specialising in highway engineering and transportation planning, has been instructed by Simul Consultants Ltd on behalf of the National Autistic Society (NAS) to produce a Transport Assessment (TA) to support a planning application for the proposed expansion to the existing NAS Thames Valley School.
- 8.2 ITL were involved with the planning application for the existing school and prepared a TA and Travel Plan (TP) for that proposal.
- 8.3 The school currently has an internal area of approximately 1,649m² and accommodates 50 pupils aged 5 – 16 years and 43.5 full time equivalent members of staff, excluding visiting therapists, education psychologists and volunteers. The proposed 750m² first floor extension to the existing school would accommodate an additional 30 students and 15 members of staff. The construction of the 6th form vocational skills block is proposed to have an internal floor area of 1,500m² and would accommodate an additional 30 students and 20 staff.
- 8.4 ITL are advised that the proposed first floor extension (phase 1) should be available for the 2019 academic year and that the 6th form block (phase 2) should be available for the 2021 academic year. Furthermore, ITL are advised that the school should reach full occupancy over a 3 year period.
- 8.5 In producing this report, representatives of ITL visited the site in July 2017 and have liaised closely with the project team. The scope of this report was discussed and agreed with Reading Borough Council (RBC) prior to its commencement.
- 8.6 Staff parking would be expanded in conjunction with the development proposals and a 2 phased approach would be taken in relation to the expansion of the parking. Phase 1, which would be implemented prior to the opening of the first floor extension of the existing school would involve the provision of 8 spaces on the western side of the school and, through reconfiguration of the existing layout, the provision of 8 additional spaces on the eastern side of the school. The spaces on the western side of the school would be accessed using the existing access / egress on to Dunsfold Road, whilst the 8 additional spaces on the eastern side of the school would be accessed via the existing access off Conwy Close. Phase 2 of the expansion of the on-site car parking would be implemented prior to the opening of the 6th form block and would involve the extension of the existing staff car parking area at the site resulting in the provision of 10 further car parking spaces at the site.



- 8.7 In addition, it is proposed that the existing drop off / pick up area on the eastern side of the school site would be expanded to include a total of 8 drop off / pick up spaces in conjunction with the development proposals.
- 8.8 It is demonstrated in section 7 of this report that the amended staff car parking and drop off / pick up provision at the site following the implementation of the development proposal would accord with the requirements of the RBC parking standards.
- 8.9 The site access arrangements on the eastern side of the site, i.e. from Conwy Close, would not be amended in conjunction with the proposals.
- 8.10 The accessibility of the application site by alternative transport modes has been examined and it is apparent that the site is ideally located to encourage trips by alternative transport modes, particularly staff trips. A draft Travel Plan has also been prepared and submitted under separate cover.
- 8.11 The likely number of additional person trips (both vehicular and by alternative modes) that would be attracted to the school as a result of the proposal has been calculated. The calculation was undertaken on the basis of the likely additional maximum pupil and staff numbers at the school and the likely modal split for journeys to / from the site calculated from a recent travel survey at the existing school was applied to each. In addition, by comparing the travel survey results to the results of the traffic and parking counts for this study it has been calculated / assumed that each car and taxi transporting pupils to / from the site would have an average occupancy of 2.14 pupils.
- 8.12 As agreed with RBC, the performance of the junctions of Conwy Close / The Meadway / Combe Road, The Meadway / Dunsfold Road and The Meadway / Church End Lane were assessed as part of this study. The phase 1 traffic flows are not regarded as material and as such the with development capacity assessments were undertaken on the basis that both development phases had been implemented. The results of the capacity assessments, which also took in to account the level of traffic generated by the committed housing scheme opposite the site to the east of Conwy Close, confirm that the local road network would not be materially affected by the likely additional level of traffic attracted to the school as a result of the proposed expansion.
- 8.13 As agreed during the scoping stage of the project, ITL have investigated the PIA record of the local road network for the latest available 3 year period. On the basis of the assessment of the PIA data it has been concluded that the local road network within the vicinity of the site does not appear to have an adverse highway safety record involving school traffic, pedestrians or cyclists.

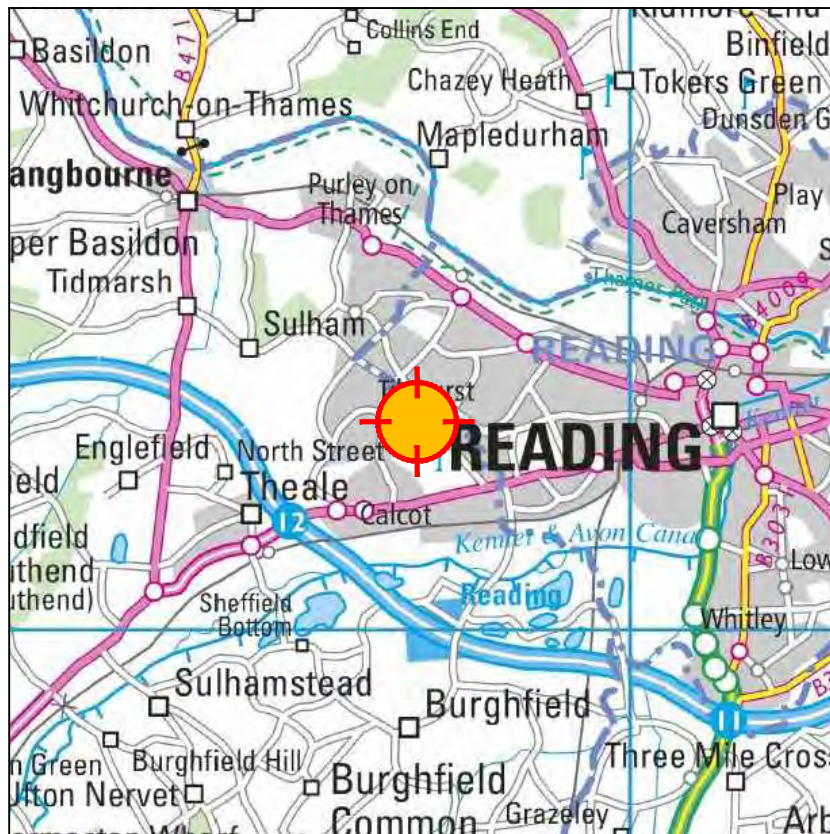


- 8.14 In the light of the investigations summarised within this report it is concluded that the proposal to expand the NAS Thames Valley school off Conwy Close should be regarded as acceptable from a highways and transportation perspective.

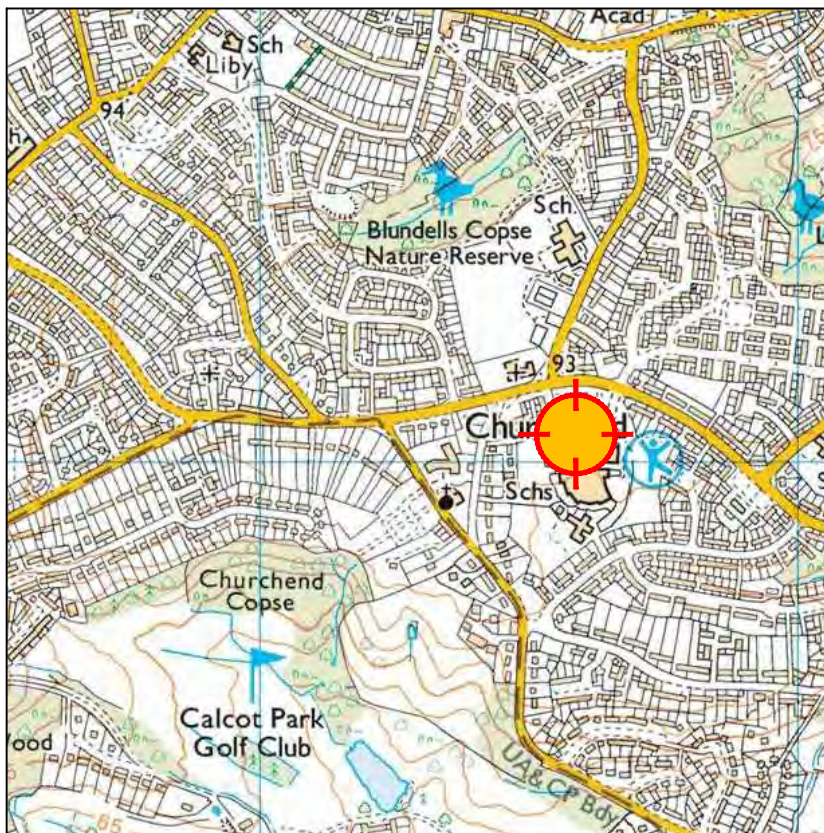
Drawings



WIDER CONTEXT



LOCAL CONTEXT



SITE LOCATION

IT Project:
**PROPOSED EXPANSION,
NAS THAMES VALLEY
SCHOOL**

Rev:
-

Drawing Title:
**SITE LOCATION
IN THE LOCAL AND
WIDER CONTEXT**

Sheet 1 of 1

Rev	Description	Date
-----	-------------	------

Client:
**NATIONAL AUTISTIC
SOCIETY**

Drawn By:
MK

Approved By:
JB

Drawing No:
IT1288/TA/01

CAD File:
IT1288 TA 01.dwg

A4

Notes:
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Date:
SEP 2017

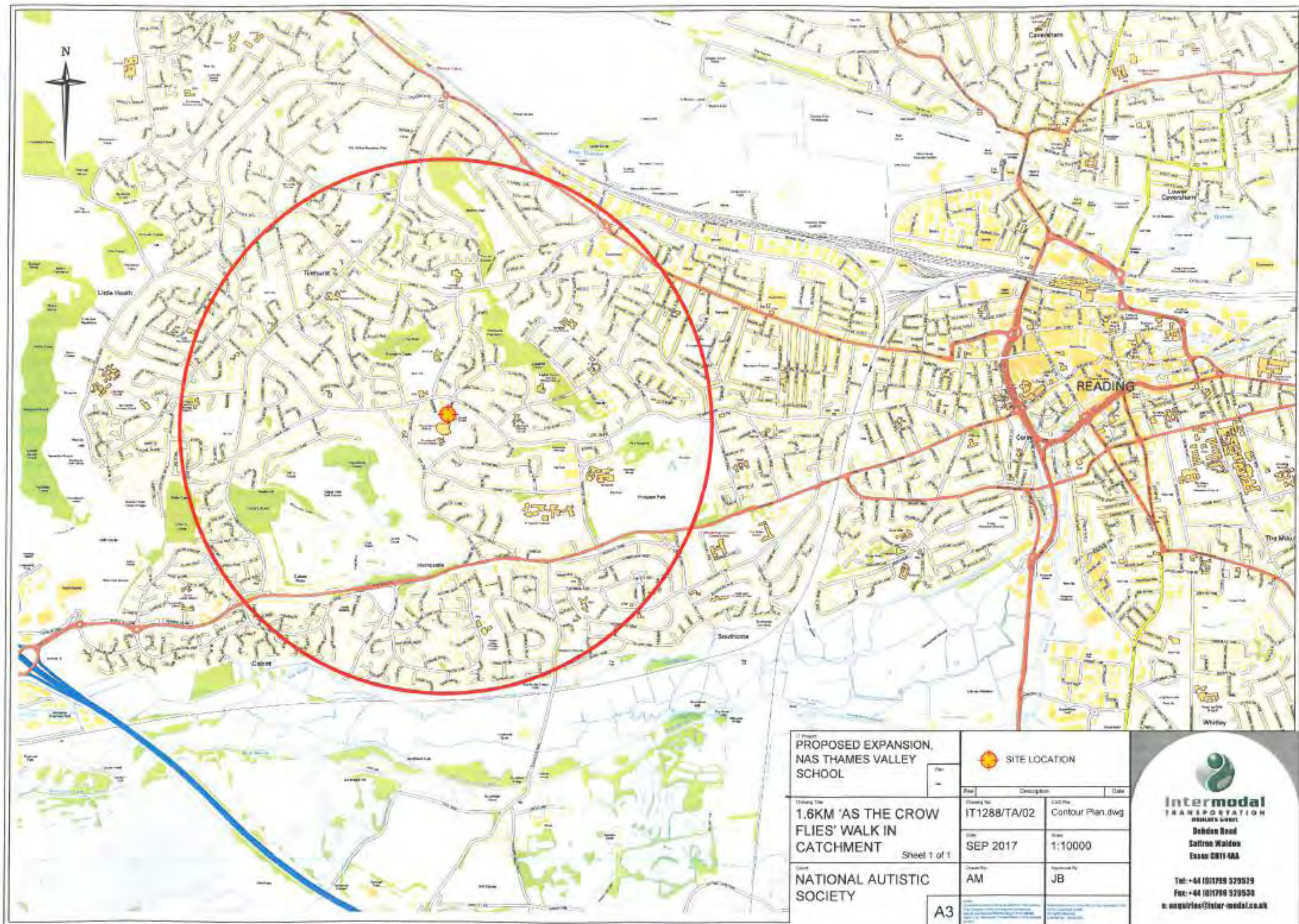
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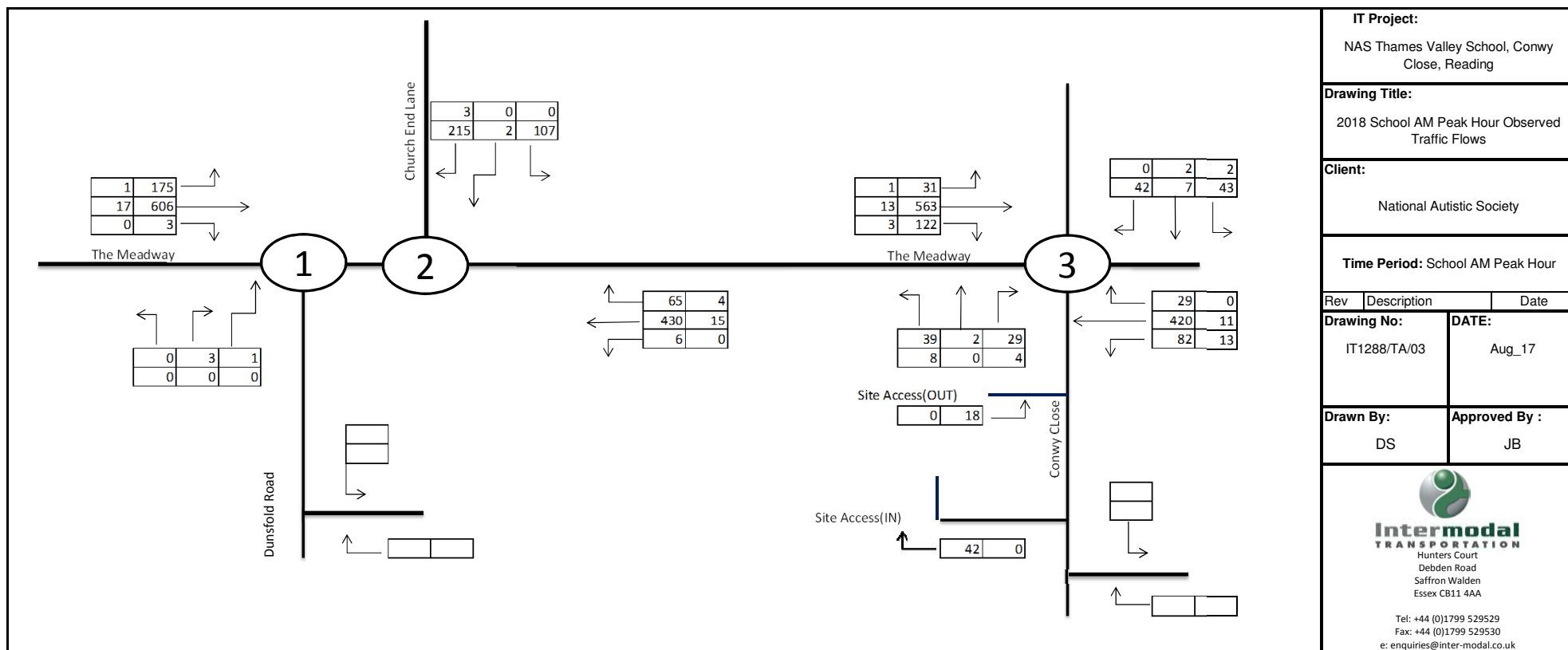


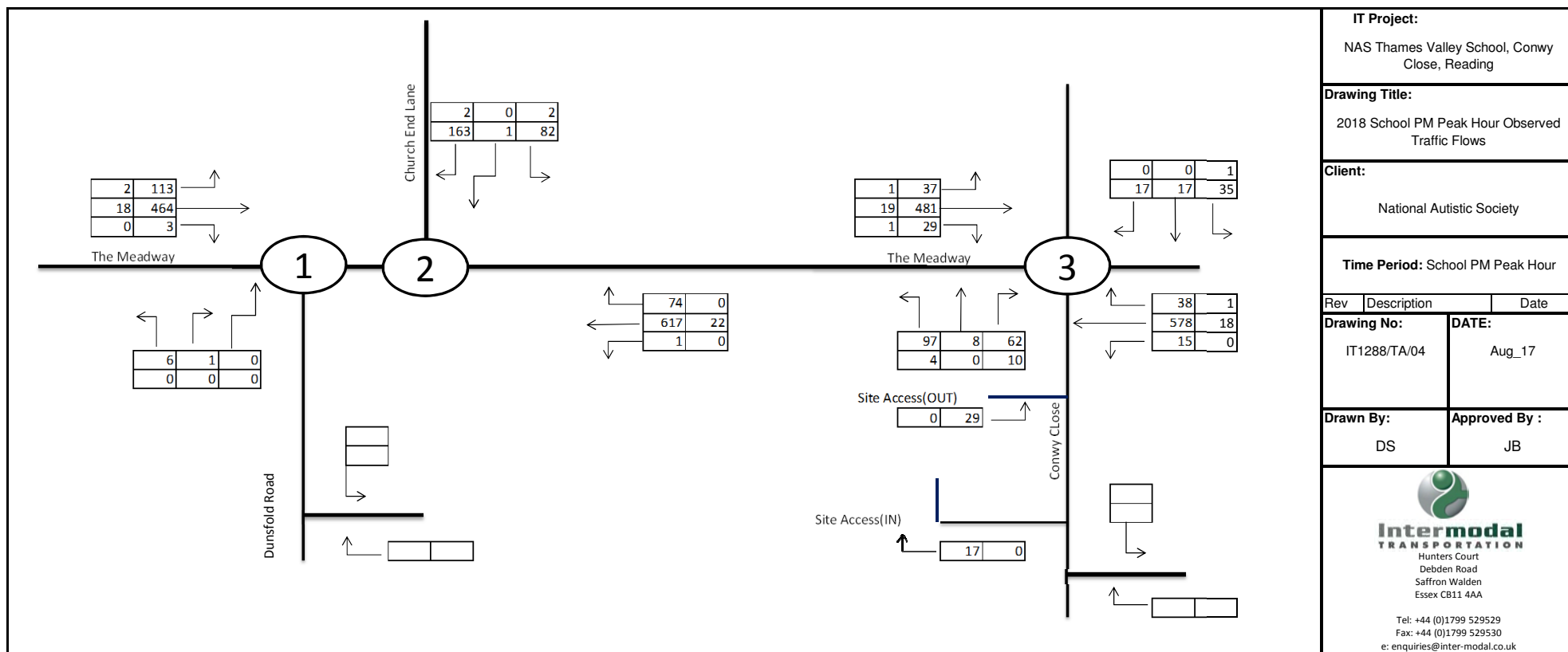
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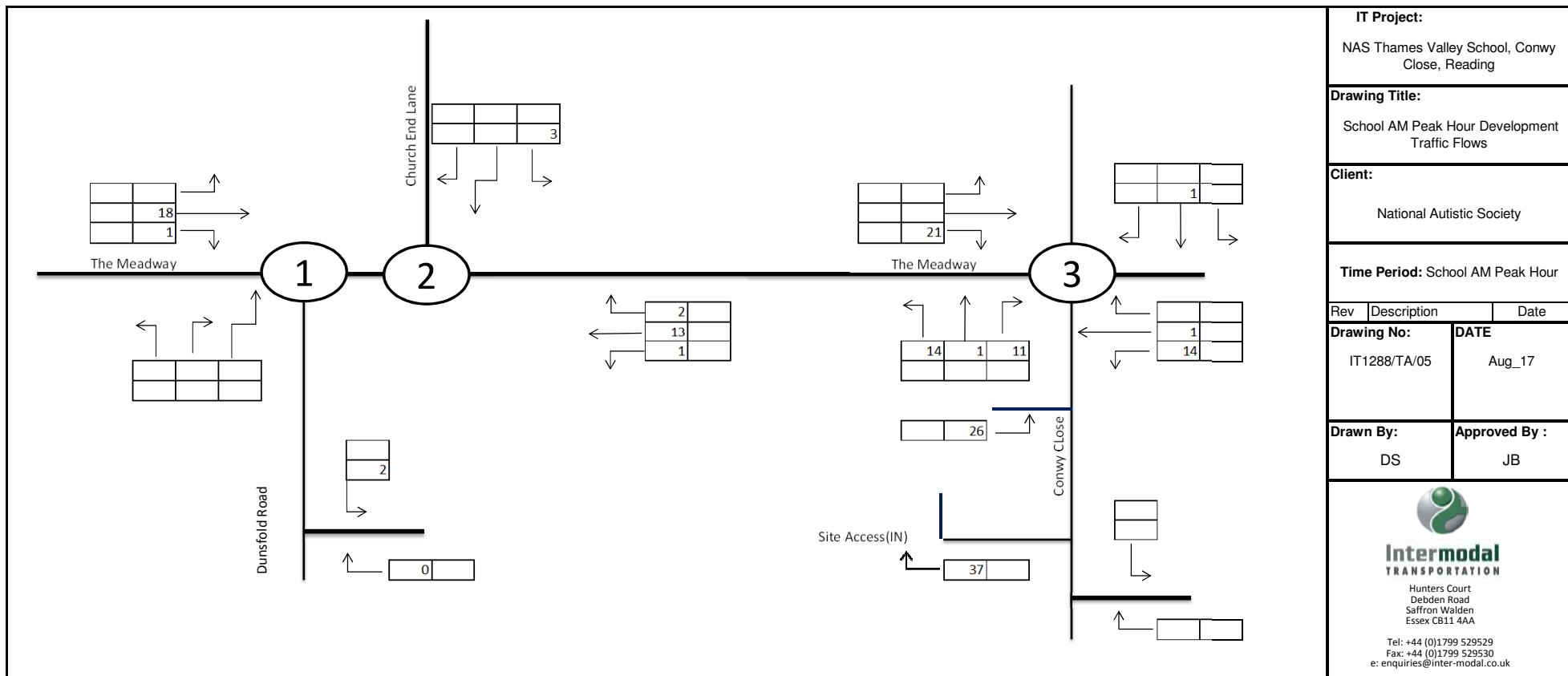
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Saffron Walden
Essex CB11 4AA

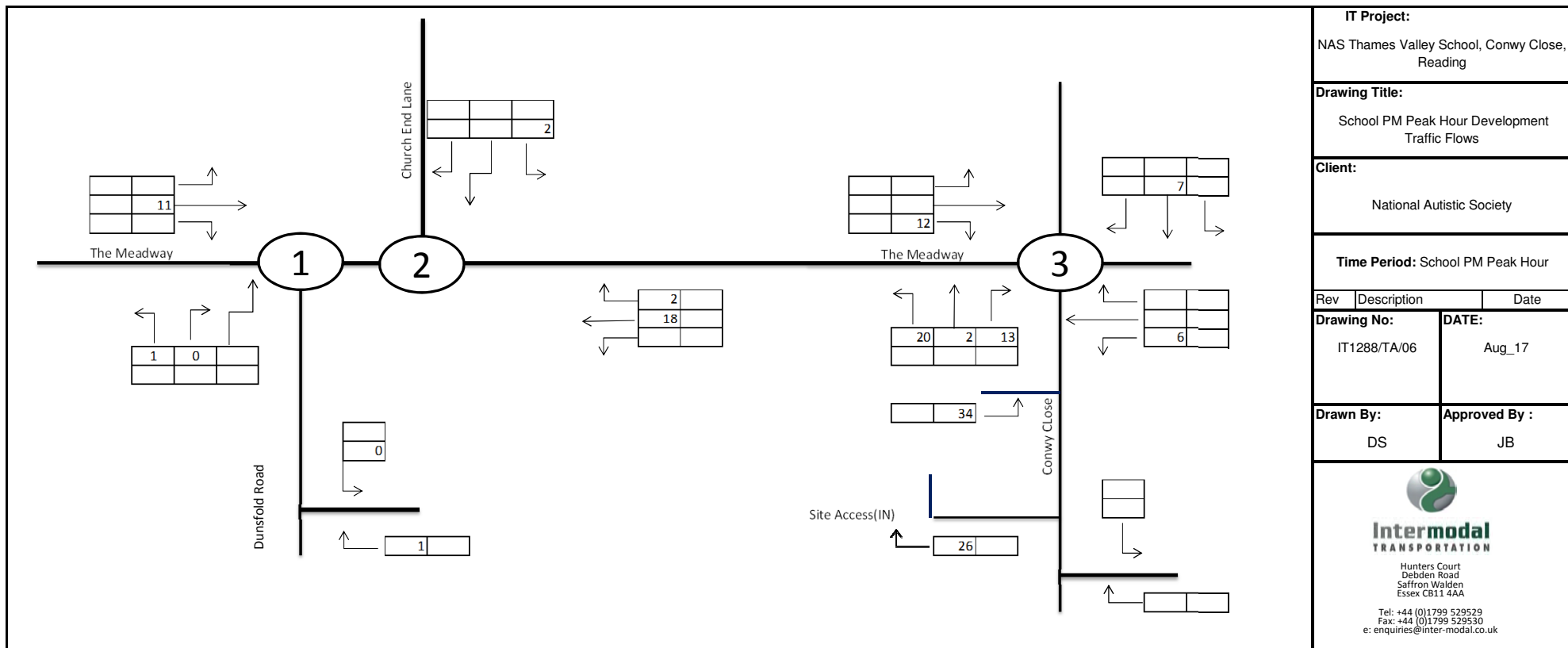
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e: enquiries@inter-modal.co.uk

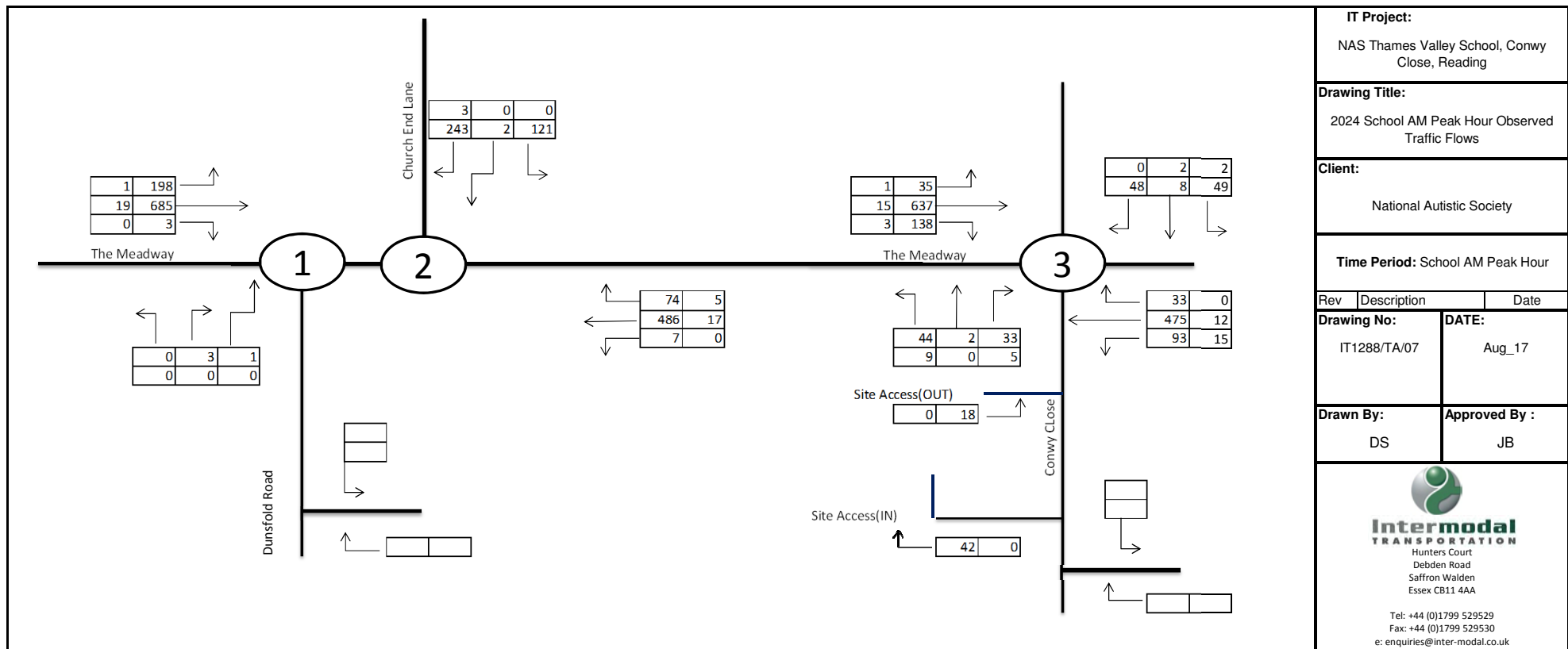


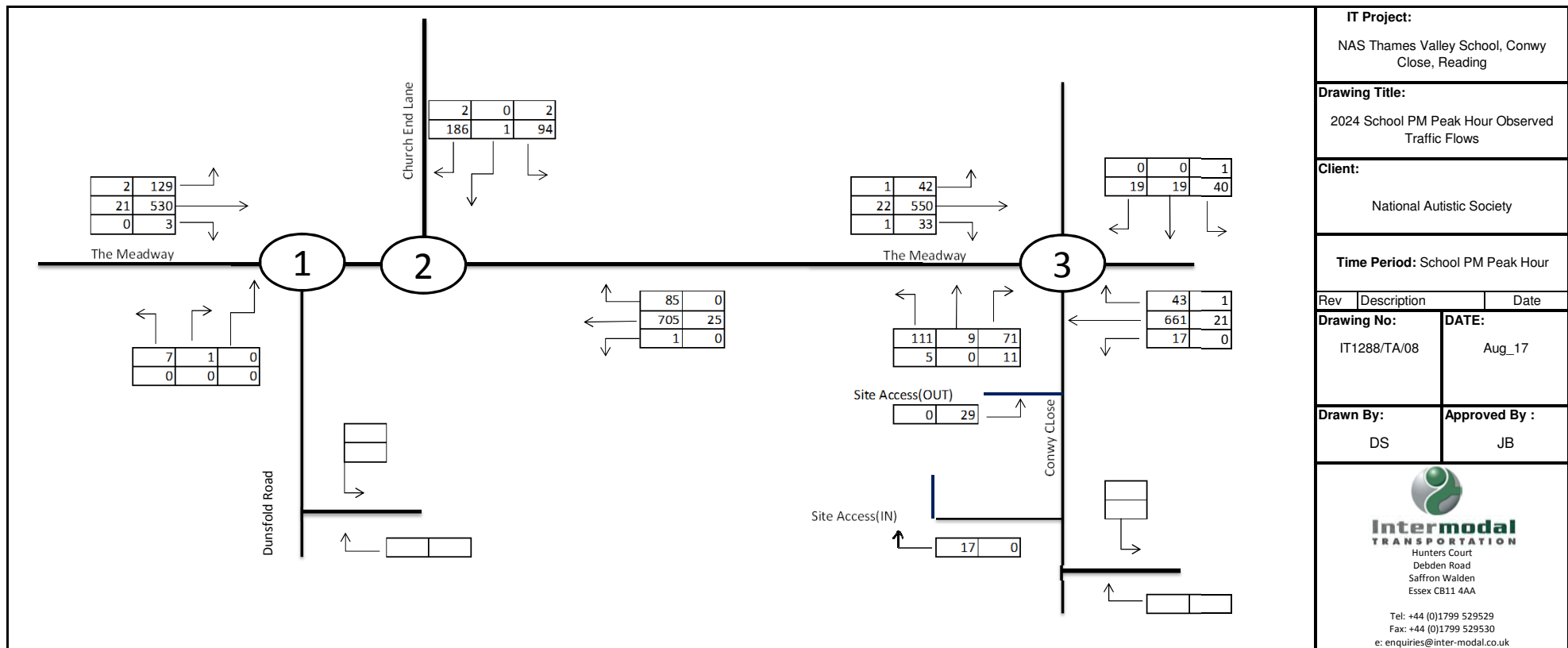


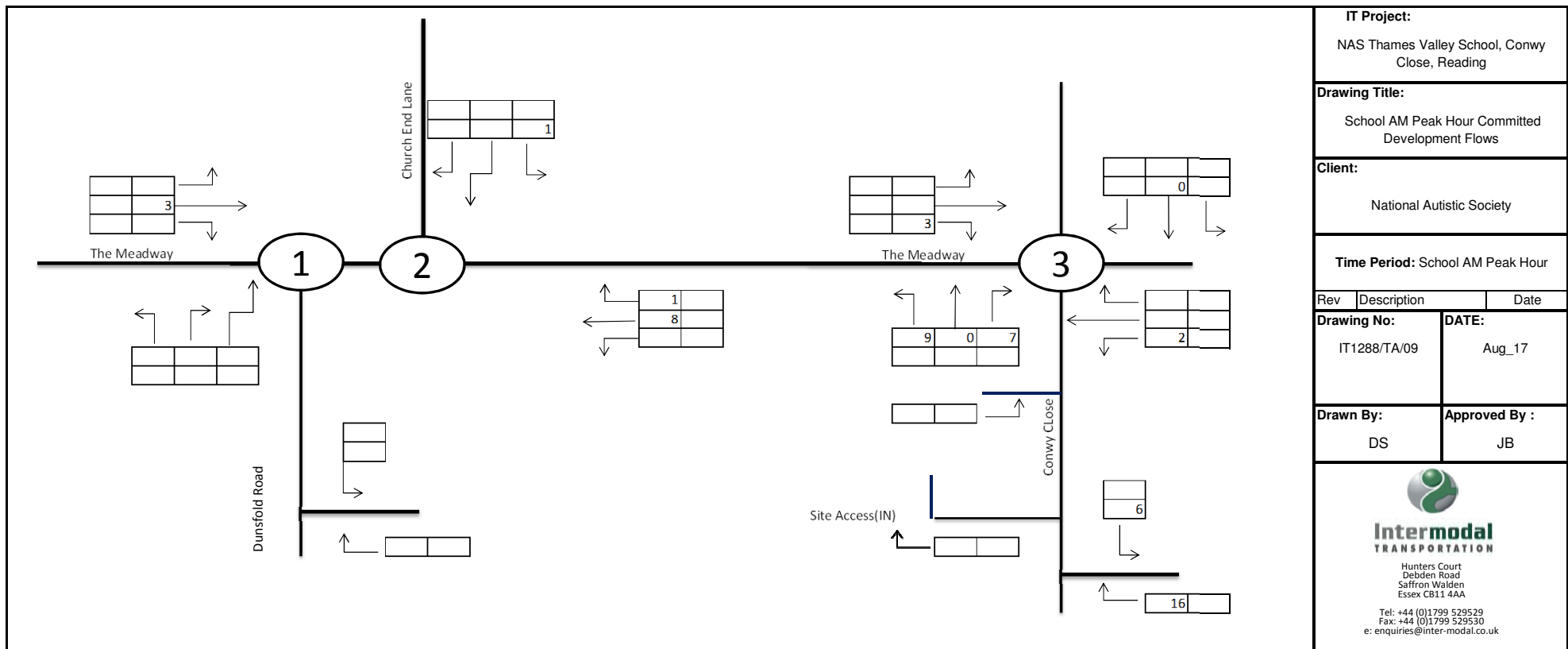


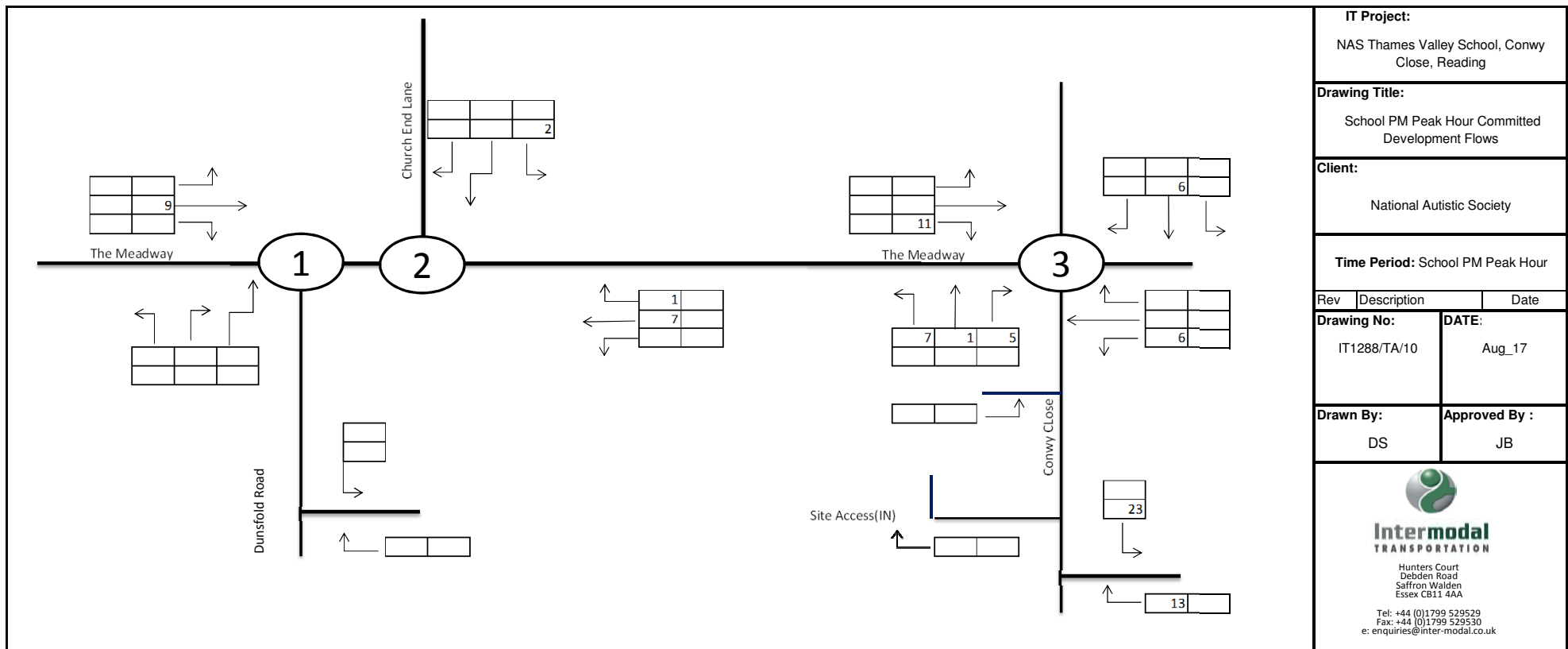












IT Project:

NAS Thames Valley School, Conwy Close, Reading

Drawing Title:

School PM Peak Hour Committed Development Flows

Client:

National Autistic Society

Time Period: School PM Peak Hour

Rev	Description	Date
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Drawing No:

IT1288/TA/10

DATE:

Aug_17

Drawn By:

DS

Approved By :

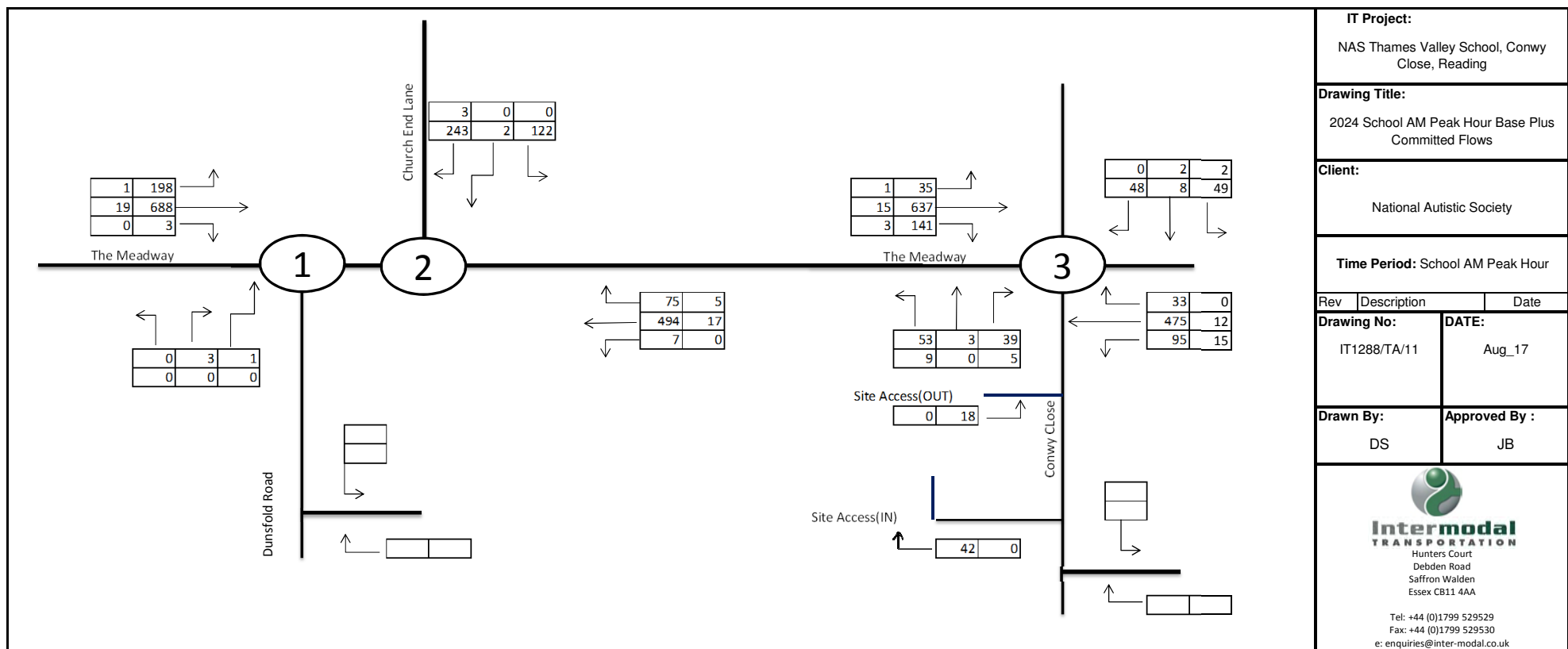
JB

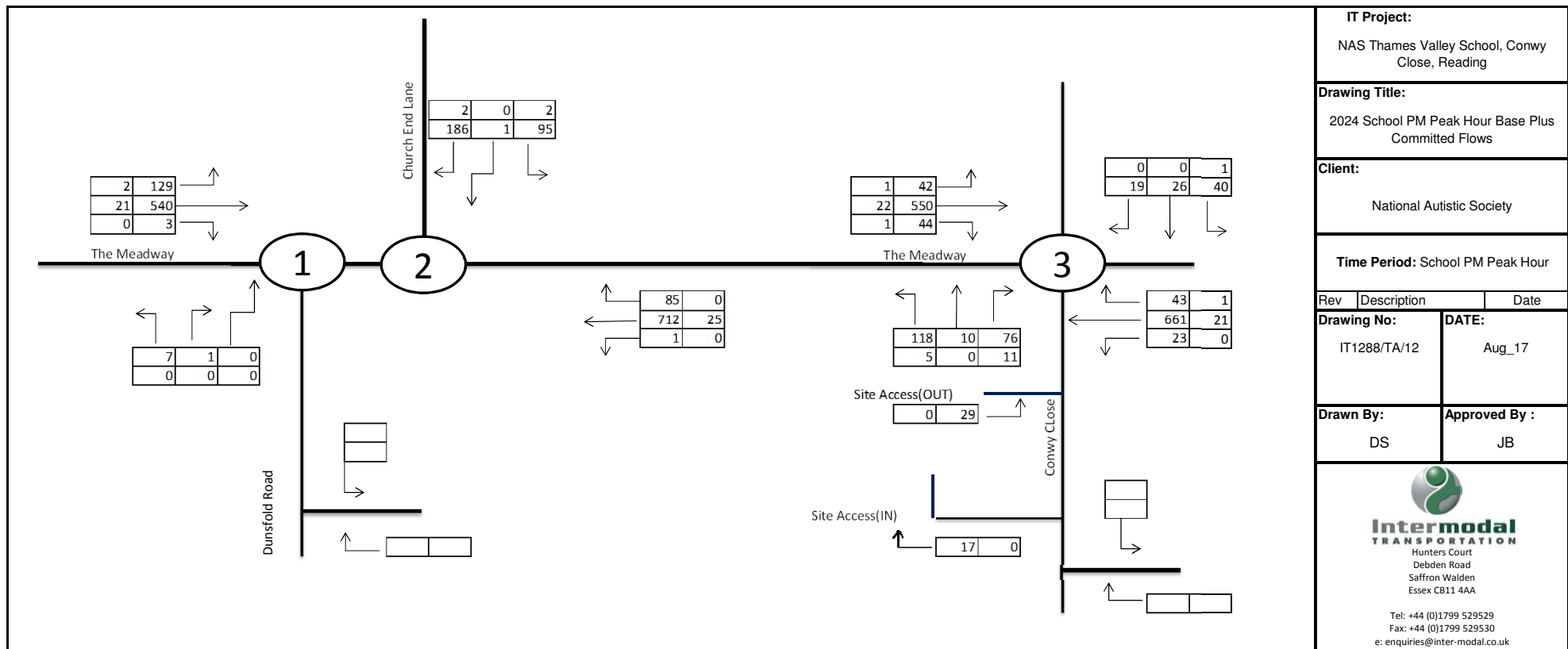


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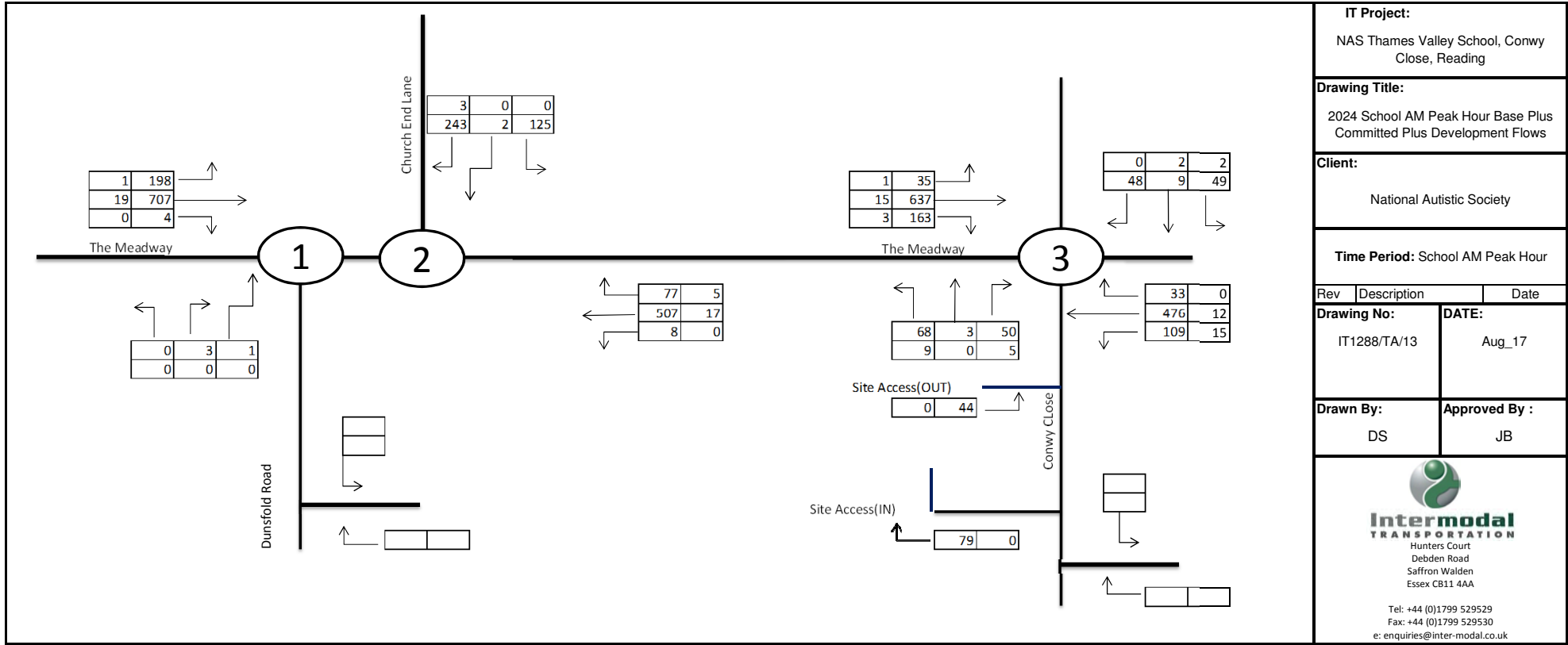
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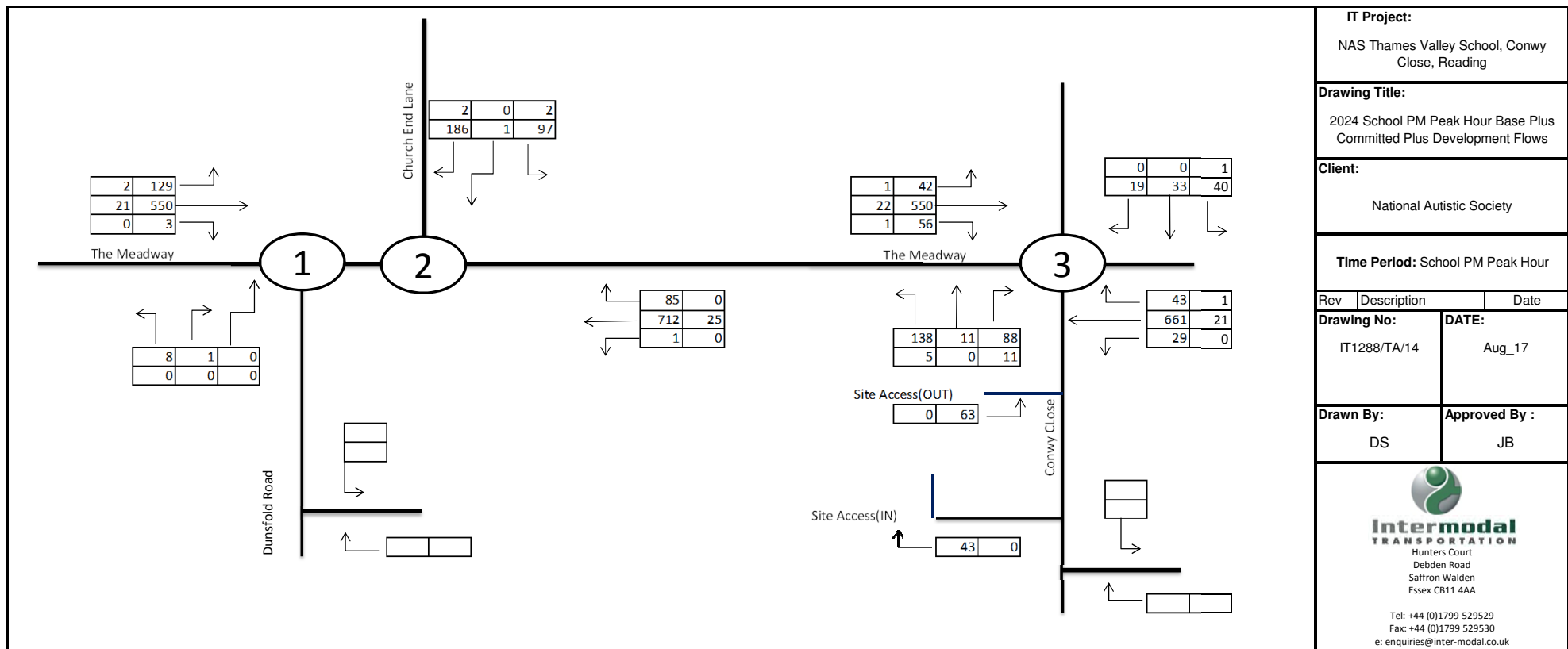
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Fax: +44 (0)1799 529530
e: enquiries@inter-modal.co.uk





IT Project: NAS Thames Valley School, Conwy Close, Reading		
Drawing Title: 2024 School PM Peak Hour Base Plus Committed Flows		
Client: National Autistic Society		
Time Period: School PM Peak Hour		
Rev	Description	Date
Drawing No: IT1288/TA/12		DATE: Aug_17
Drawn By: DS		Approved By : JB
 Intermodal TRANSPORTATION Hunters Court Debden Road Saffron Walden Essex CB11 4AA Tel: +44 (0)1799 529529 Fax: +44 (0)1799 529530 e: enquiries@inter-modal.co.uk		





IT Project:		
NAS Thames Valley School, Conwy Close, Reading		
Drawing Title:		
2024 School PM Peak Hour Base Plus Committed Plus Development Flows		
Client:		
National Autistic Society		
Time Period: School PM Peak Hour		
Rev	Description	Date
Drawing No:		DATE:
IT1288/TA/14		Aug_17
Drawn By:		Approved By :
DS		JB
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Appendix A

Scoping Correspondence

Justin Bass

From: Lucas, Natalie <Natalie.Lucas@reading.gov.uk>
Sent: 12 July 2017 11:44
To: 'Justin Bass'
Cc: 'simul consultants'; reza.farahmand@inter-modal.co.uk
Subject: RE: NAS THAMES VALLEY SCHOOL, READING

Dear Justin

Thank you for your email and the scope for the proposed NAS school.

I can confirm that I am happy with the proposed scope. As I advised in our telephone conversation, there are existing parking issues in the area and any proposals must provide adequate parking provisions in accordance with our adopted SPD.

Please contact me if you need to discuss anything further.

Kind regards

Natalie Lucas
Transport Development Control Officer
Transport | Environment & Neighbourhood Services

Reading Borough Council
Civic Offices, Bridge Street, Reading, RG1 2LU

0118 937 4703 (74703)
Wednesday - Friday

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From: Justin Bass [mailto:justin.bass@inter-modal.co.uk]
Sent: 06 July 2017 12:41
To: Lucas, Natalie
Cc: 'simul consultants'; reza.farahmand@inter-modal.co.uk
Subject: RE: NAS THAMES VALLEY SCHOOL, READING

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Natalie

Further to my email below and our subsequent telephone conversation we would confirm that the agreed traffic and parking surveys for this study, which as requested additionally included on-street parking beat surveys within 300m of the site, were undertaken on Wednesday 21st June. As promised, further to our discussions we write in order to confirm the scope of the Transport Assessment (TA) for the proposal and set out our suggested TA scope below. In that regard, we propose that the TA includes: -

- An audit of accessibility of the site by alternative transport modes, i.e. by walking, cycling and public transport;
- Summary of the results of the recent turning movement counts on one typical weekday during the AM and PM school peak periods at the following junctions: -
 - The site access and egress junctions;
 - The junction of Conwy Close / The Meadway / Combe Road;
 - The junction of The Meadway / Church End Lane; and
 - The junction of The Meadway / Dunsfold Road.
- Analysis of / a summary of the results of the recent on-site parking surveys along with those within the vicinity of the site;
- Quantification of the likely level of traffic generated by the development proposal. In that regard, for highway capacity analysis purposes, we propose to calculate the likely level of traffic attracted by the proposal using existing travel survey data for student and staff journeys to / from the existing school and / or the results of the recent in / out traffic counts at the school site;
- Distribution of the development traffic within the study area on the basis of observed turning proportions;
- Identification of the level of traffic associated with the adjacent committed housing development;
- Assessment of the performance of the junctions of Conwy Close / Meadway / Combe Road, The Meadway / Church End Lane and The Meadway / Dunsfold Road during the AM and PM school peak hours with the development proposal and the aforementioned committed development in place for the anticipated year of full occupation of the school;
- Consider the Personal Injury Accident (PIA) record within the study area;
- Consideration of the layout of the proposed development, including the adequacy of the access and turning arrangements; and
- Justification of the proposed car parking provision at the development.

In addition to the above, we are also commissioned to update the school's Travel Plan (TP) in the light of the development proposal and as part of the TP update we will refer to recently recorded travel survey data at the school.

We trust that this message is sufficient for your immediate needs and welcome your earliest confirmation that you are in agreement with our proposed study scope. In the meantime, however, please do not hesitate to contact us should you have any queries or wish to discuss this matter further.

Regards

Justin

Justin Bass
Technical Director

Intermodal
TRANSPORTATION
Hunters Court
Debden Road
Saffron Walden
Essex CB11 4AA



tel: 01799 529529

fax: 01799 529530

mob: 07843 274863

e: justin.bass@inter-modal.co.uk

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From: Justin Bass [<mailto:justin.bass@inter-modal.co.uk>]
Sent: 14 June 2017 13:07
To: 'natalie.lucas@reading.gov.uk' <natalie.lucas@reading.gov.uk>
Cc: 'simul consultants' <simul@me.com>; 'reza.farahmand@inter-modal.co.uk' <reza.farahmand@inter-modal.co.uk>
Subject: NAS THAMES VALLEY SCHOOL, READING

Dear Natalie

We understand that in April 2017 you provided pre-application advice in relation to the proposed expansion of the NAS Thames Valley School on Conwy Close, Reading under the application number 170125. We have been instructed to prepare a Transport Assessment and Updated Travel Plan to accompany the planning submissions for the proposals and would be grateful if we could have an initial discussion in relation to the scope of the traffic and parking surveys that we propose next week as part of our investigations. Our understanding is that the proposals involve extension of the existing school which would add 30 new students and 15 additional staff and additionally the provision of a 6th Form Vocational skills block which will add a further 30 FTE students and 20 additional staff. The existing school has in the order of 50 pupils and 37 members of staff.

We effectively propose the same study area for this study as was examined in the Transport Assessment for the original school proposal in 2013 and as such propose manual turning counts at the following junctions between 0730 and 0930 and then again between 1430 and 1630: -

- The site access and egress junctions;
- The junction of Conwy Close / The Meadway / Combe Road; and
- The junction of The Meadway / Church End Lane.

In addition to the traffic counts we propose the following parking surveys during the same time periods as the traffic counts, i.e. 0730 – 0930 and 1430 – 1630: -

- 15 minute beats of the school car park, the adjacent leisure centre car park and the potential parking area to the rear of the school; and
- Observations of the use of the drop off / pick up area at the front of the school including duration of stay for vehicles using that area.

We trust that this message is sufficient for your immediate needs and welcome your earliest indication that you are in agreement with our proposed survey strategy. In the meantime, however, please do not hesitate to contact us should you have any queries or wish to discuss this matter further.

Regards

Justin

Justin Bass
Technical Director



tel: 01799 529529

fax: 01799 529530

mob: 07843 274863

e: justin.bass@inter-modal.co.uk

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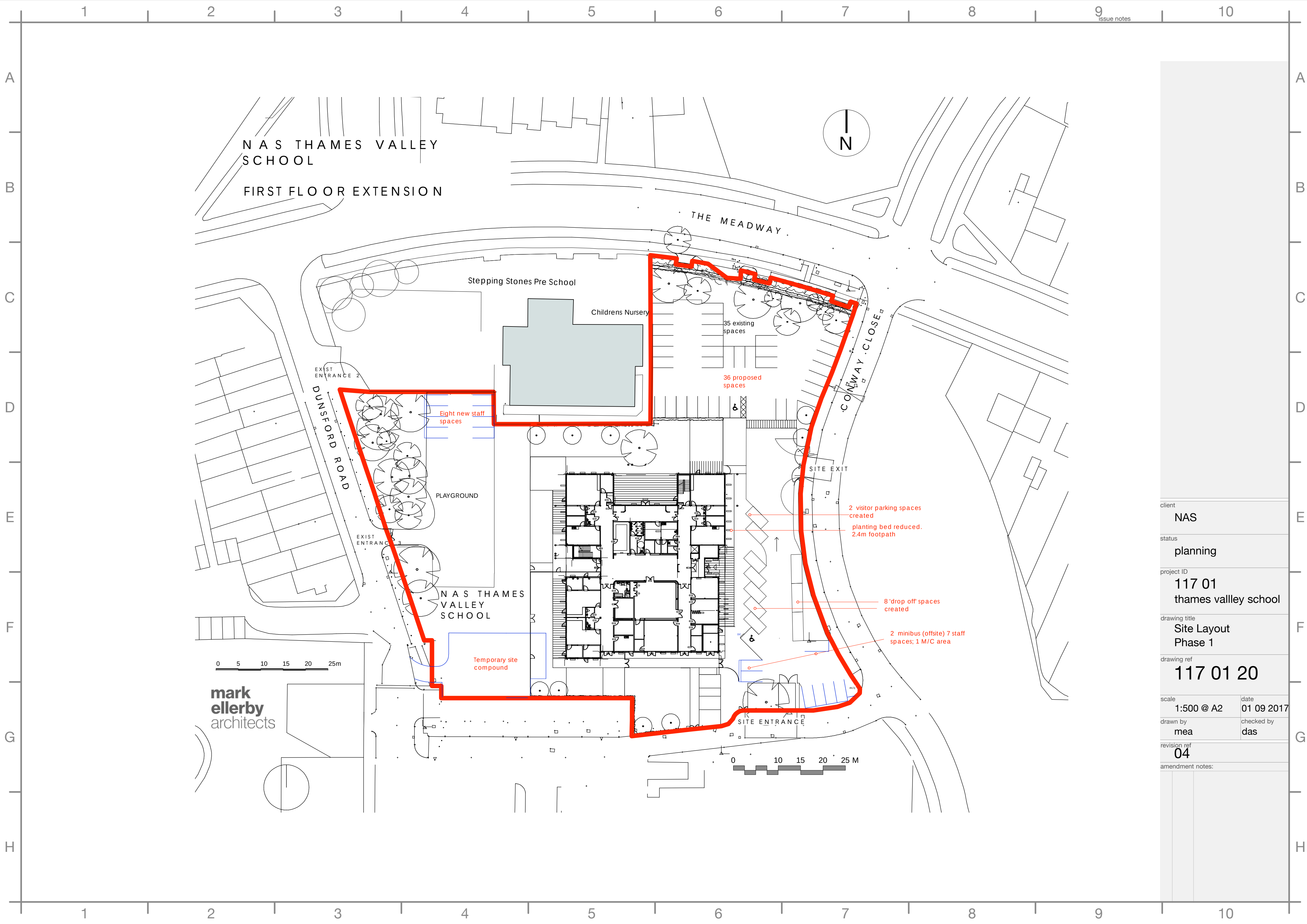
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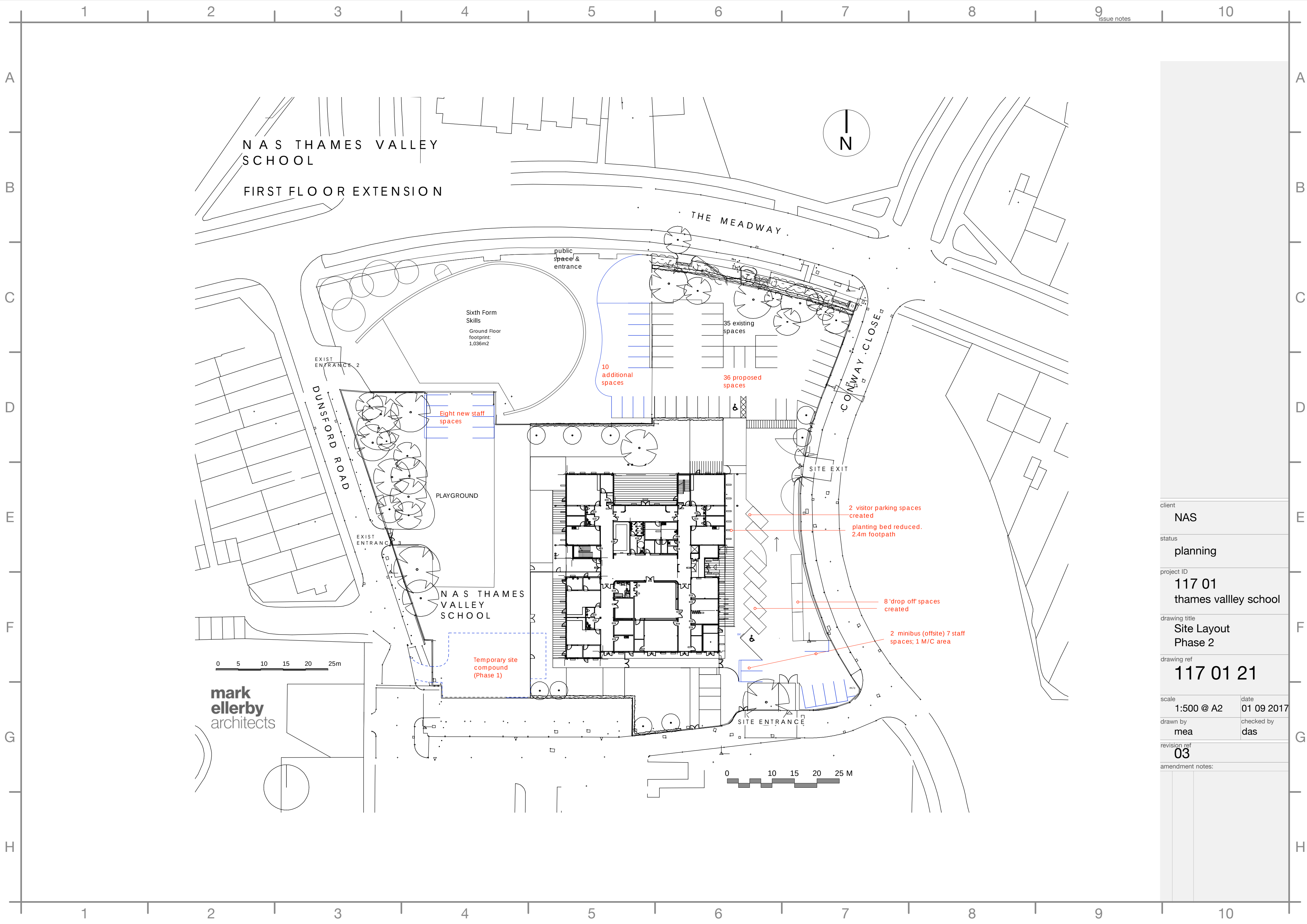
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Appendix B

Proposed Site Plan



client	NAS	
status	planning	
project ID	117 01 thames vallley school	
drawing title	Site Layout Phase 1	
drawing ref	117 01 20	
scale	1:500 @ A2	date 01 09 2017
drawn by	mea	checked by das
revision ref	04	
amendment notes:		



client	NAS	
status	planning	
project ID	117 01 thames vallley school	
drawing title	Site Layout Phase 2	
drawing ref	117 01 21	
scale	1:500 @ A2	date 01 09 2017
drawn by	mea	checked by das
revision ref	03	
amendment notes:		

Appendix C

Travel Survey Results

Travel Data
Date: 13th June 2017

Parent 9	Bus 0	Walk 5	Taxi 36	Postcode	FT/PT
			✓	RG42 3AQ	FT
✓				RG30 1DA	FT
			✓	RG2 0AN	FT
		✓		RG30 6XH	FT
			✓	RG2 8PD	FT
			✓	RG4 5LX	FT
			✓	RG18 0TD	FT
✓				RG30 4BX	FT
			✓	RG14 2PW	FT
			✓	RG14 6HA	FT
✓		✓		RG30 4LF	FT
			✓	RG14 2PX	FT
			✓	RG17 8PT	FT
			✓	RG12 8XN	FT
			✓	RG1 6AT	FT
			✓	SL2 3ST	FT
		✓		RG30 1HP	FT
			✓	SL6 8AP	FT
		✓		RG30 6TR	FT
			✓	RG14 7QW	FT
			✓	RG14 7WH	FT
			✓	RG19 3QZ	FT
			✓	RG4 9TD	FT
			✓	RG7 1QY	6 Hours a week
			✓	GU14 7DX	FT
			✓	RG31 5AN	FT
			✓	SL6 2PT	FT
			✓	RG12 8UR	FT
✓				RG30 2EP	FT
			✓	SL6 4DY	FT
			✓	RG7 6NZ	2 Hours a week
✓				RG30 4HX	FT
			✓	RG20 8XQ	FT
✓				GU47 8HX	FT
✓				RG30 2SP	FT
✓		✓		RG31 5HG	FT
			✓	RG30 1BS	FT
			✓	RG8 7HY	FT
			✓	RG7 3YU	FT
			✓	RG6 1NU	FT
✓				RG26 5DY	FT
			✓	RG14 2HL	FT
			✓	GU52 7LE	FT
			✓	RG1 8EG	FT
			✓	RG2 7SA	FT
			✓	RG2 8JA	FT
			✓	RG2 7QL	FT
			✓	RG4 5BX	FT

Travel Data
Date: 13th June 2017

Drive	Bus	Walk	Carshare	Motobike	Postcode	Role	FT /P T
✓					RG31 7YR	Teacher	FT
✓					RG306NG	Business Manager	FT
✓					RG30 4YT	LM	PT
✓					RG30 3NB	LM	FT
✓					RG1 6SW	Teacher	FT
✓					RG8 8LN	Senior LM	PT
			✓		RG64AD	Assistant Principal	FT
✓					RG54PZ	Teacher	PT
			✓		RG6 3EZ	Deputy Principal	FT
	✓				RG1 7YR	LM	FT
✓					RG6 3DA	LM	PT
✓					RG41 4EQ	LM	FT
✓					RG194FH	Teacher	PT
✓					RG301DS	LM	FT
✓					SL0 9PJ	Ausism LP	FT
	✓				RG67DJ	LM	FT
✓					Rg31 5HL	LM	FT
✓					RG1 6JS	LM	FT
✓					RG2 8RW	LM	PT
✓					RG30 4GX	LM	FT
✓					RG30 6HY	CLEANER	PT
✓					RG30 6HY	FACILITIES MANAGER	FT
	✓				RG30 2DU	TEACHER	FT
		✓			RG30 6NE	LM	FT
✓					RG18 3HJ	EDUCATIONAL PSYCHOLOGIST	FT
✓					RG30 2PF	TEACHER	FT
✓					RG31 5AD	LM	FT
✓					RG31 4DR	LM	FT
✓					RG6 1NB	TEACHER	FT
		✓			RG30 4LX	CLEANER	PT
	✓				RG30 1DG	LM	FT
✓					RG30 6HX	LM	PT
		✓			RG30 4NN	CLEANER	PT
✓					RG317YL	BUSINESS SUPPORT COORDINATOR	PT
			✓		RG8 7JT	SENIOR LM	FT
✓					RG8 7JT	FAMILY LIASON	FT
✓					RG302PP	LM	PT
		✓			RG30 2QP	ADMIN ASSISTANT	PT
				✓	LN6 5SP	IT TECH	PT
	✓				RG6 1JL	LM	FT
✓					RG6 4BX	LM	FT
✓					RG31 7YX	LM	PT
✓					RG31 5EB	LM	FT
		✓			RG304NE	HR ASSISTANT	PT

		✓			RG30 4JN	TEACHER	FT
✓					RG63AP	LM	FT
✓					HP22 5XY	PRINCIPAL	FT
✓					SN6 7SE	ASSISTANT PRINCIPAL	FT
✓					RG30 6UP	LM	FT
✓					RG21 5NR	TEACHER	FT
✓					RG304HP	LM	FT
✓					RG30 2PN	LM	FT
	✓				RG7 5BS	LM	FT

Appendix D

Traffic and Parking Survey Results

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 21ST JUNE 2017

LOCATION : THAMES VALLEY SCHOOL, THE MEADWAY, READING

DUNSFOLD CLOSE / THE MEADWAY / CHURCH END LANE

	DUNSFOLD CLOSE OUT LEFT TO THE MEADWAY WEST							DUNSFOLD CLOSE OUT AND AHEAD INTO CHURCH END LANE NORTH							DUNSFOLD CLOSE OUT RIGHT TO THE MEADWAY EAST						
	CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT	
0730-0745	0					0		0					0		0					0	
0745-0800	0					0		0					0		1					1	
0800-0815	0					0		0					0		2					2	
0815-0830	0					0		0					0		0					0	
0830-0845	0					0		1					1		1					1	
0845-0900	0					0		0					0		0					0	
0900-0915	2					2		1					1		7					7	
0915-0930	2					2		1					1		2					2	
0730-0930	4	0	0	0	0	4		3	0	0	0	0	3		13	0	0	0	0	13	
0730-0830	0	0	0	0	0	0		0	0	0	0	0	0		3	0	0	0	0	3	
0745-0845	0	0	0	0	0	0		1	0	0	0	0	1		4	0	0	0	0	4	
0800-0900	0	0	0	0	0	0		1	0	0	0	0	1		3	0	0	0	0	3	
0815-0915	2	0	0	0	0	2		2	0	0	0	0	2		8	0	0	0	0	8	
0830-0930	4	0	0	0	0	4		3	0	0	0	0	3		10	0	0	0	0	10	

	DUNSFOLD CLOSE OUT LEFT TO THE MEADWAY WEST							DUNSFOLD CLOSE OUT AND AHEAD INTO CHURCH END LANE NORTH							DUNSFOLD CLOSE OUT RIGHT TO THE MEADWAY EAST						
	CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT	
1430-1445	0					0		0				1	1		0					0	
1445-1500	2					2		0					0		2					2	
1500-1515	1					1		0					0		2		1			3	
1515-1530	2				1	3		0					0		0					0	
1530-1545	3					3		0					0		0					0	
1545-1600	0					0		0					0		0					0	
1600-1615	0					0		0					0		1					1	
1615-1630	1					1		0					0		0					0	
1430-1630	9	0	0	0	1	10		0	0	0	0	1	1		5	0	1	0	0	6	
1430-1530	5	0	0	0	1	6		0	0	0	0	1	1		4	0	1	0	0	5	
1445-1545	8	0	0	0	1	9		0	0	0	0	0	0		4	0	1	0	0	5	
1500-1600	6	0	0	0	1	7		0	0	0	0	0	0		2	0	1	0	0	3	
1515-1615	5	0	0	0	1	6		0	0	0	0	0	0		1	0	0	0	0	1	
1530-1630	4	0	0	0	0	4		0	0	0	0	0	0		1	0	0	0	0	1	

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 21ST JUNE 2017

LOCATION : THAMES VALLEY SCHOOL, THE MEADWAY, READING

COMBE ROAD /THE MEADWAY / CONWY CLOSE

	CONWY CLOSE OUT LEFT TO THE MEADWAY WEST							CONWY CLOSE OUT AHEAD TO COMBE ROAD NORTH							CONWY CLOSE OUT RIGHT TO THE MEADWAY EAST						
	CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT	
0730-0745	2					2		0					0		2					2	
0745-0800	4				1	5		1					1		0					0	
0800-0815	5		1			6		1					1		2					2	
0815-0830	3		1			4		0					0		3					3	
0830-0845	7					7		1					1		6					6	
0845-0900	16	1	5			22		0					0		14		4			18	
0900-0915	9		2			11		2		1			3		11		4			15	
0915-0930	4					4		1					1		3					3	
0730-0930	50	1	9	0	1	61		6	0	1	0	0	7		41	0	8	0	0	49	
0730-0830	14	0	2	0	1	17		2	0	0	0	0	2		7	0	0	0	0	7	
0745-0845	19	0	2	0	1	22		3	0	0	0	0	3		11	0	0	0	0	11	
0800-0900	31	1	7	0	0	39		2	0	0	0	0	2		25	0	4	0	0	29	
0815-0915	35	1	8	0	0	44		3	0	1	0	0	4		34	0	8	0	0	42	
0830-0930	36	1	7	0	0	44		4	0	1	0	0	5		34	0	8	0	0	42	

	CONWY CLOSE OUT LEFT TO THE MEADWAY WEST							CONWY CLOSE OUT AHEAD TO COMBE ROAD NORTH							CONWY CLOSE OUT RIGHT TO THE MEADWAY EAST						
	CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT	
1430-1445	5					5		0					0		3					3	
1445-1500	3					3		0					0		2					2	
1500-1515	7					7		0					0		6					6	
1515-1530	19		4			23		6					6		16		9			25	
1530-1545	37				3	40		0					0		17		1	1		19	
1545-1600	23					23		2					2		11			1		12	
1600-1615	11					11		0					0		5			1		6	
1615-1630	11					11		1					1		3					3	
1430-1630	116	0	4	0	3	123		9	0	0	0	0	9		63	0	10	3	0	76	
1430-1530	34	0	4	0	0	38		6	0	0	0	0	6		27	0	9	0	0	36	
1445-1545	66	0	4	0	3	73		6	0	0	0	0	6		41	0	10	1	0	52	
1500-1600	86	0	4	0	3	93		8	0	0	0	0	8		50	0	10	2	0	62	
1515-1615	90	0	4	0	3	97		8	0	0	0	0	8		49	0	10	3	0	62	
1530-1630	82	0	0	0	3	85		3	0	0	0	0	3		36	0	1	3	0	40	

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 21ST JUNE 2017

LOCATION : THAMES VALLEY SCHOOL, THE MEADWAY, READING

DUNSFOLD CLOSE / THE MEADWAY / CHURCH END LANE

	THE MEADWAY WEST LEFT TURN TO CHURCH END LANE NORTH						THE MEADWAY WEST STRAIGHT AHEAD TO THE MEADWAY EAST						THE MEADWAY WEST RIGHT TURN TO DUNSFOLD CLOSE					
	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT
0730-0745	35					35	150	1	2		1	154	0					0
0745-0800	40	1		1		42	147	1	2	1	4	155	0					0
0800-0815	44					44	150	1	3	2	7	163	0					0
0815-0830	32					32	164		2	2	5	173	0					0
0830-0845	55			1	1	57	140		7	4	3	154	2					2
0845-0900	41	1				42	108	2	2		4	116	1					1
0900-0915	39	1				40	139	2	3	1	3	148	2					2
0915-0930	35					35	133	1	3		2	139	1					1
0730-0930	321	3	0	2	1	327	1131	8	24	10	29	1202	6	0	0	0	0	6
0730-0830	151	1	0	1	0	153	611	3	9	5	17	645	0	0	0	0	0	0
0745-0845	171	1	0	2	1	175	601	2	14	9	19	645	2	0	0	0	0	2
0800-0900	172	1	0	1	1	175	562	3	14	8	19	606	3	0	0	0	0	3
0815-0915	167	2	0	1	1	171	551	4	14	7	15	591	5	0	0	0	0	5
0830-0930	170	2	0	1	1	174	520	5	15	5	12	557	6	0	0	0	0	6

	THE MEADWAY WEST LEFT TURN TO CHURCH END LANE NORTH						THE MEADWAY WEST STRAIGHT AHEAD TO THE MEADWAY EAST						THE MEADWAY WEST RIGHT TURN TO DUNSFOLD CLOSE					
	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT
1430-1445	18					18	61	3	3	1	2	70	0					0
1445-1500	27					27	71	1	3		2	77	2					2
1500-1515	49	1		1	1	52	77		1		1	79	0					0
1515-1530	27					27	95	1	6	1	1	104	1					1
1530-1545	25	1	1		1	28	118	2	1	3	2	126	1					1
1545-1600	25					25	114	1	4	1		120	1					1
1600-1615	32			1		33	107	1	2	1	3	114	0					0
1615-1630	46					46	83	1	3		2	89	1				1	2
1430-1630	249	2	1	2	2	256	726	10	23	7	13	779	6	0	0	0	1	7
1430-1530	121	1	0	1	1	124	304	5	13	2	6	330	3	0	0	0	0	3
1445-1545	128	2	1	1	2	134	361	4	11	4	6	386	4	0	0	0	0	4
1500-1600	126	2	1	1	2	132	404	4	12	5	4	429	3	0	0	0	0	3
1515-1615	109	1	1	1	1	113	434	5	13	6	6	464	3	0	0	0	0	3
1530-1630	128	1	1	1	1	132	422	5	10	5	7	449	3	0	0	0	1	4

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 21ST JUNE 2017

LOCATION : THAMES VALLEY SCHOOL, THE MEADWAY, READING

COMBE ROAD /THE MEADWAY / CONWY CLOSE

	THE MEADWAY WEST LEFT TURN TO COMBE ROAD NORTH						THE MEADWAY WEST STRAIGHT AHEAD TO THE MEADWAY EAST						THE MEADWAY WEST RIGHT TURN TO CONWY CLOSE					
	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT
0730-0745	5					5	153	1	2		2	158	9					9
0745-0800	2					2	143	2	2	1	4	152	17					17
0800-0815	5		1			6	139	1	2	2	7	151	31					31
0815-0830	10					10	133		2	3	6	144	37					37
0830-0845	7					7	138		5	4	3	150	21		2			23
0845-0900	8					8	110	2	1		5	118	29		1		1	31
0900-0915	6	1				7	155	2	3	1	3	164	12					12
0915-0930	4					4	133	1	3		2	139	14					14
0730-0930	47	1	1	0	0	49	1104	9	20	11	32	1176	170	0	3	0	1	174
0730-0830	22	0	1	0	0	23	568	4	8	6	19	605	94	0	0	0	0	94
0745-0845	24	0	1	0	0	25	553	3	11	10	20	597	106	0	2	0	0	108
0800-0900	30	0	1	0	0	31	520	3	10	9	21	563	118	0	3	0	1	122
0815-0915	31	1	0	0	0	32	536	4	11	8	17	576	99	0	3	0	1	103
0830-0930	25	1	0	0	0	26	536	5	12	5	13	571	76	0	3	0	1	80

	THE MEADWAY WEST LEFT TURN TO COMBE ROAD NORTH						THE MEADWAY WEST STRAIGHT AHEAD TO THE MEADWAY EAST						THE MEADWAY WEST RIGHT TURN TO CONWY CLOSE					
	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT
1430-1445	3	1	1			5	70	2	2	1	2	77	3					3
1445-1500	5	1				6	75		2		2	79	1		1			2
1500-1515	13					13	75				1	76	6		2			8
1515-1530	2			1	1	4	121	2	5			129	8		1			9
1530-1545	13					13	114	2	1	3	4	124	10					10
1545-1600	14					14	105	1	4	1		111	7					7
1600-1615	6					6	109	2	2	1	3	117	3					3
1615-1630	6		1			7	76	1	2		2	81	6					6
1430-1630	62	2	2	1	1	68	745	10	18	6	15	794	44	0	4	0	0	48
1430-1530	23	2	1	1	1	28	341	4	9	1	6	361	18	0	4	0	0	22
1445-1545	33	1	0	1	1	36	385	4	8	3	8	408	25	0	4	0	0	29
1500-1600	42	0	0	1	1	44	415	5	10	4	6	440	31	0	3	0	0	34
1515-1615	35	0	0	1	1	37	449	7	12	5	8	481	28	0	1	0	0	29
1530-1630	39	0	1	0	0	40	404	6	9	5	9	433	26	0	0	0	0	26

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 21ST JUNE 2017

LOCATION : THAMES VALLEY SCHOOL, THE MEADWAY, READING

DUNSFOLD CLOSE / THE MEADWAY / CHURCH END LANE

	CHURCH END LANE OUT LEFT TO THE MEADWAY EAST							CHURCH END LANE OUT AND AHEAD INTO DUNSFOLD CLOSE							CHURCH END LANE OUT RIGHT TO THE MEADWAY WEST					
	CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT
0730-0745	17				1	18		1					1		64	1				65
0745-0800	14	1				15		0					0		49					49
0800-0815	23					23		0					0		56					56
0815-0830	16			1	1	18		1				1	2		51	1			1	53
0830-0845	25					25		0					0		50					50
0845-0900	39				2	41		0					0		54	2				56
0900-0915	27	1				28		0					0		46	2				48
0915-0930	16					16		0					0		21					21
0730-0930	177	2	0	1	4	184		2	0	0	0	1	3		391	6	0	0	1	398
0730-0830	70	1	0	1	2	74		2	0	0	0	1	3		220	2	0	0	1	223
0745-0845	78	1	0	1	1	81		1	0	0	0	1	2		206	1	0	0	1	208
0800-0900	103	0	0	1	3	107		1	0	0	0	1	2		211	3	0	0	1	215
0815-0915	107	1	0	1	3	112		1	0	0	0	1	2		201	5	0	0	1	207
0830-0930	107	1	0	0	2	110		0	0	0	0	0	0		171	4	0	0	0	175

	CHURCH END LANE OUT LEFT TO THE MEADWAY EAST							CHURCH END LANE OUT AND AHEAD INTO DUNSFOLD CLOSE							CHURCH END LANE OUT RIGHT TO THE MEADWAY WEST					
	CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT
1430-1445	15					15		0					0		28	1				29
1445-1500	8					8		1					1		32					32
1500-1515	15					15		0					0		37	1				38
1515-1530	36	1			1	38		0					0		47	1		1		49
1530-1545	19			2		21		0					0		34					34
1545-1600	12					12		1					1		44					44
1600-1615	10	1				11		0					0		34	1			1	36
1615-1630	5					5		0					0		20					20
1430-1630	120	2	0	0	3	125		2	0	0	0	0	2		276	4	0	1	1	282
1430-1530	74	1	0	0	1	76		1	0	0	0	0	1		144	3	0	1	0	148
1445-1545	78	1	0	0	3	82		1	0	0	0	0	1		150	2	0	1	0	153
1500-1600	82	1	0	0	3	86		1	0	0	0	0	1		162	2	0	1	0	165
1515-1615	77	2	0	0	3	82		1	0	0	0	0	1		159	2	0	1	1	163
1530-1630	46	1	0	0	2	49		1	0	0	0	0	1		132	1	0	0	1	134

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 21ST JUNE 2017

LOCATION : THAMES VALLEY SCHOOL, THE MEADWAY, READING

COMBE ROAD /THE MEADWAY / CONWY CLOSE

	COMBE ROAD OUT LEFT TO THE MEADWAY EAST							COMBE ROAD STRAIGHT AHEAD TO CONWY CLOSE							COMBE ROAD OUT RIGHT TO THE MEADWAY WEST					
	CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT
0730-0745	11	1				12		0				1	1		4				1	5
0745-0800	6					6		1					0		7	1				8
0800-0815	8		1			9		0		1			2		8					8
0815-0830	7					7		0					0		9					9
0830-0845	17					17		1					1		15					15
0845-0900	8		1	1		10		3	1				4		10					10
0900-0915	3	1				4		0					0		5					5
0915-0930	7					7		2					2		4	2				6
0730-0930	67	2	2	1	0	72		7	1	1	0	1	10		62	3	0	0	1	66
0730-0830	32	1	1	0	0	34		1	0	1	0	1	3		28	1	0	0	1	30
0745-0845	38	0	1	0	0	39		2	0	1	0	0	3		39	1	0	0	0	40
0800-0900	40	0	2	1	0	43		5	1	1	0	0	7		42	0	0	0	0	42
0815-0915	35	1	1	1	0	38		4	1	0	0	0	5		39	0	0	0	0	39
0830-0930	35	1	1	1	0	38		6	1	0	0	0	7		34	2	0	0	0	36

	COMBE ROAD OUT LEFT TO THE MEADWAY EAST							COMBE ROAD STRAIGHT AHEAD TO CONWY CLOSE							COMBE ROAD OUT RIGHT TO THE MEADWAY WEST					
	CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT
1430-1445	4	1				5		0					0		9					9
1445-1500	10					10		0					0		5					5
1500-1515	16					16		2				1	3		3					3
1515-1530	6				1	7		1					1		1					1
1530-1545	12					12		3				1	4		3				1	4
1545-1600	6		1			7		8					8		8					8
1600-1615	9					9		4					4		4					4
1615-1630	9					9		2					2		2					2
1430-1630	72	1	1	0	1	75		20	0	0	0	2	22		35	0	0	0	1	36
1430-1530	36	1	0	0	1	38		3	0	0	0	1	4		18	0	0	0	0	18
1445-1545	44	0	0	0	1	45		6	0	0	0	2	8		12	0	0	0	1	13
1500-1600	40	0	1	0	1	42		14	0	0	0	2	16		15	0	0	0	1	16
1515-1615	33	0	1	0	1	35		16	0	0	0	1	17		16	0	0	0	1	17
1530-1630	36	0	1	0	0	37		17	0	0	0	1	18		17	0	0	0	1	18

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 21ST JUNE 2017

LOCATION : THAMES VALLEY SCHOOL, THE MEADWAY, READING

DUNSFOLD CLOSE / THE MEADWAY / CHURCH END LANE

	THE MEADWAY EAST LEFT TURN TO DUNSFOLD CLOSE							THE MEADWAY EAST STRAIGHT AHEAD TO THE MEADWAY EAST							THE MEADWAY EAST RIGHT TURN TO CHURCH END LANE NORTH					
	CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT
0730-0745	0					0		84	1	3			89		8					8
0745-0800	0					0		101	4	2	1	3	111		13	1				14
0800-0815	0					0		106	1	4			111		15		1			16
0815-0830	0					0		81				1	83		14		2			16
0830-0845	4					4		110		2		1	113		20	1				21
0845-0900	2					2		114	2	6	1		123		12					12
0900-0915	0					0		71	3	4			78		16	1				17
0915-0930	1					1		81	6	3			90		7					7
0730-0930	7	0	0	0	0	7		748	17	24	3	6	798		105	3	3	0	0	111
0730-0830	0	0	0	0	0	0		372	6	9	2	5	394		50	1	3	0	0	54
0745-0845	4	0	0	0	0	4		398	5	8	2	5	418		62	2	3	0	0	67
0800-0900	6	0	0	0	0	6		411	3	12	2	2	430		61	1	3	0	0	65
0815-0915	6	0	0	0	0	6		376	5	12	2	2	397		62	2	2	0	0	66
0830-0930	7	0	0	0	0	7		376	11	15	1	1	404		55	2	0	0	0	57

	THE MEADWAY EAST LEFT TURN TO DUNSFOLD CLOSE							THE MEADWAY EAST STRAIGHT AHEAD TO THE MEADWAY EAST							THE MEADWAY EAST RIGHT TURN TO CHURCH END LANE NORTH					
	CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT
1430-1445	1					1		116	4	2	1	1	124		12					12
1445-1500	1					1		112		3			115		16					16
1500-1515	0					0		111	2	5	1		119		24	1				25
1515-1530	1					1		146	1	5	2		154		21					21
1530-1545	0					0		144	1	5		4	154		20					20
1545-1600	0					0		164	2	3			169		15					15
1600-1615	0					0		133	2	3	2		140		18					18
1615-1630	0					0		157	1	2	1	1	162		30					30
1430-1630	3	0	0	0	0	3		1083	13	28	7	6	1137		156	1	0	0	0	157
1430-1530	3	0	0	0	0	3		485	7	15	4	1	512		73	1	0	0	0	74
1445-1545	2	0	0	0	0	2		513	4	18	3	4	542		81	1	0	0	0	82
1500-1600	1	0	0	0	0	1		565	6	18	3	4	596		80	1	0	0	0	81
1515-1615	1	0	0	0	0	1		587	6	16	4	4	617		74	0	0	0	0	74
1530-1630	0	0	0	0	0	0		598	6	13	3	5	625		83	0	0	0	0	83

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 21ST JUNE 2017

LOCATION : THAMES VALLEY SCHOOL, THE MEADWAY, READING

COMBE ROAD /THE MEADWAY / CONWY CLOSE

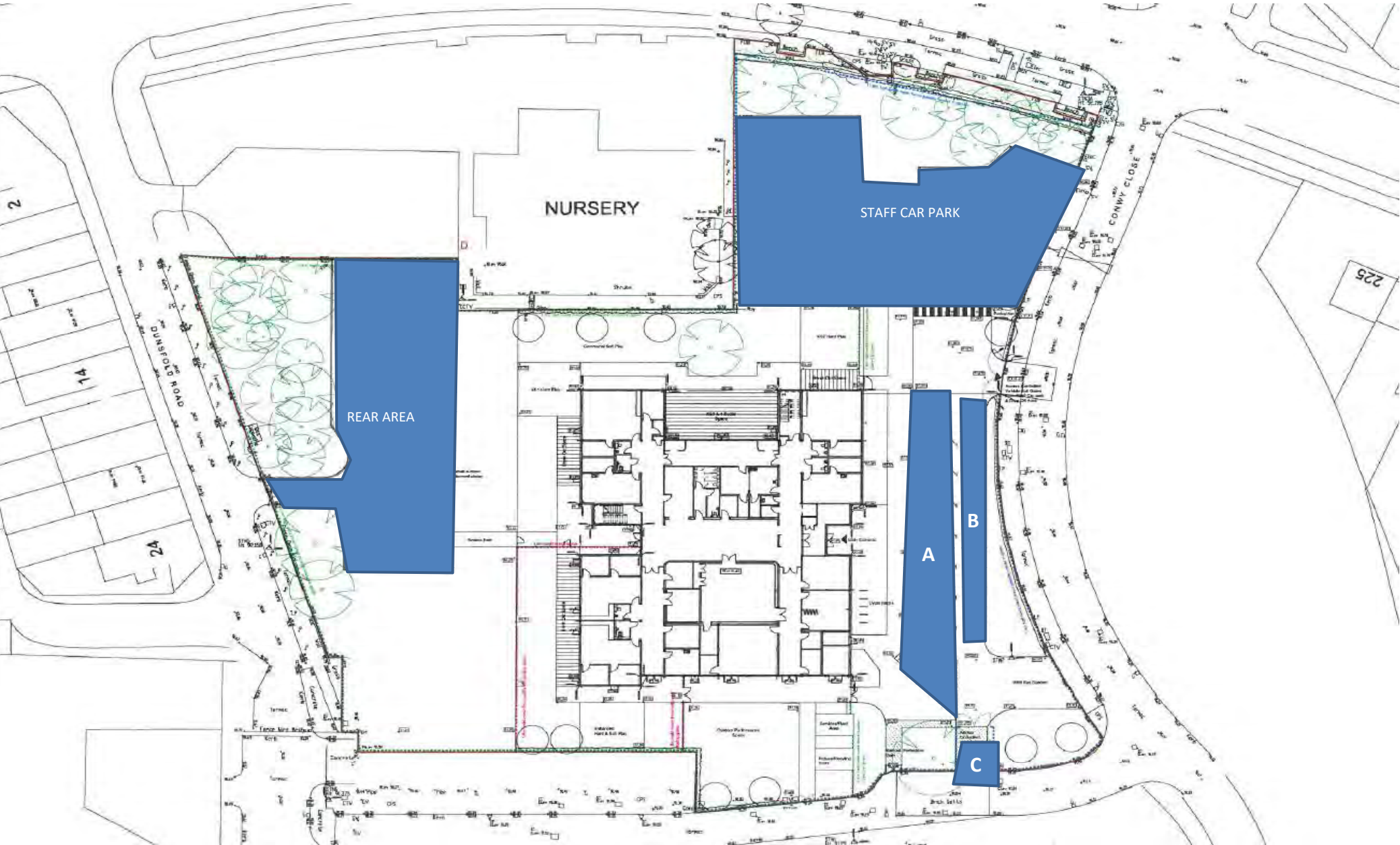
	THE MEADWAY EAST LEFT TURN TO CONWY CLOSE							THE MEADWAY EAST STRAIGHT AHEAD TO THE MEADWAY EAST							THE MEADWAY EAST RIGHT TURN TO COMBE ROAD NORTH					
	CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT
0730-0745	5					5		86	1	3			90		4	1				5
0745-0800	5			1		6		103	4	2	1	2	112		1					1
0800-0815	26					26		108	1	4			113		7					7
0815-0830	17		2			19		83		1	1	1	86		9					9
0830-0845	10		4	1		15		112	1	2		1	116		4					4
0845-0900	15		7			22		102	1	1	1		105		9					9
0900-0915	14					14		73	4	2			79		2					2
0915-0930	4					4		81	4	3			88		5					5
0730-0930	96	0	13	2	0	111		748	16	18	3	4	789		41	1	0	0	0	42
0730-0830	53	0	2	1	0	56		380	6	10	2	3	401		21	1	0	0	0	22
0745-0845	58	0	6	2	0	66		406	6	9	2	4	427		21	0	0	0	0	21
0800-0900	68	0	13	1	0	82		405	3	8	2	2	420		29	0	0	0	0	29
0815-0915	56	0	13	1	0	70		370	6	6	2	2	386		24	0	0	0	0	24
0830-0930	43	0	11	1	0	55		368	10	8	1	1	388		20	0	0	0	0	20

	THE MEADWAY EAST LEFT TURN TO CONWY CLOSE							THE MEADWAY EAST STRAIGHT AHEAD TO THE MEADWAY EAST							THE MEADWAY EAST RIGHT TURN TO COMBE ROAD NORTH					
	CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT
1430-1445	4		3			7		115	4	2	1	1	123		11		1			12
1445-1500	5		2			7		121		3		0	124		9					9
1500-1515	7		7			14		125	3	5	1		134		4					4
1515-1530	9					9		148	1	1	2		152		11					11
1530-1545	3					3		124	1	5			130		10					10
1545-1600	1					1		148	2	3			153		7	1				8
1600-1615	1			1		2		136	2	3	2		143		8			1		9
1615-1630	4					4		174	1	2	1	1	179		8					8
1430-1630	34	0	12	1	0	47		1091	14	24	7	2	1138		68	1	1	1	0	71
1430-1530	25	0	12	0	0	37		509	8	11	4	1	533		35	0	1	0	0	36
1445-1545	24	0	9	0	0	33		518	5	14	3	0	540		34	0	0	0	0	34
1500-1600	20	0	7	0	0	27		545	7	14	3	0	569		32	1	0	0	0	33
1515-1615	14	0	0	1	0	15		556	6	12	4	0	578		36	1	0	1	0	38
1530-1630	9	0	0	1	0	10		582	6	13	3	1	605		33	1	0	1	0	35

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 21ST JUNE 2017

LOCATION : THAMES VALLEY SCHOOL, THE MEADWAY, READING



K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 21ST JUNE 2017

LOCATION : THAMES VALLEY SCHOOL, THE MEADWAY, READING

QUEUES RECORDED IN TOTAL NUMBER OF VEHICLES

	DUNSFOLD CLOSE / THE MEADWAY / CHURCH END LANE			
	DUNSFOLD CLOSE	THE MEADWAY WEST	CHURCH END LANE	THE MEADWAY EAST
07:35	0	6	9	5
07:40	0	13	8	4
07:45	0	10	5	5
07:50	0	10	6	3
07:55	0	15	10	0
08:00	0	8	7	3
08:05	0	12	4	9
08:10	0	4	3	7
08:15	0	18	8	4
08:20	0	6	8	5
08:25	0	25+	9	9
08:30	0	23	5	7
08:35	0	6	6	4
08:40	0	6	7	12
08:45	0	24	7	14
08:50	0	18	9	4
08:55	0	18	8	18
09:00	0	10	7	5
09:05	0	23	9	10
09:10	0	15	9	6
09:15	0	9	4	6
09:20	0	2	2	3
09:25	0	15	3	0
09:30	0	3	3	0
14:35	0	2	3	5
14:40	0	2	0	4
14:45	0	2	2	10
14:50	0	3	3	0
14:55	0	3	3	7
15:00	0	6	2	8
15:05	0	7	3	12
15:10	0	8	3	3
15:15	0	9	4	10
15:20	0	1	4	7
15:25	0	3	8	10
15:30	0	19	9	5
15:35	0	8	9	4
15:40	0	10	6	12
15:45	0	6	3	5
15:50	0	9	4	9
15:55	0	3	2	10
16:00	0	8	2	5
16:05	0	6	2	4
16:10	0	7	8	3
16:15	0	3	2	0
16:20	0	7	6	4
16:25	0	1	2	10
16:30	0	10	2	7

	COMBE RD / CONWY CL	
	COMBE ROAD	CONWY CLOSE
07:35	0	0
07:40	2	0
07:45	2	0
07:50	1	0
07:55	0	0
08:00	0	0
08:05	4	1
08:10	1	0
08:15	0	0
08:20	2	0
08:25	1	1
08:30	0	0
08:35	0	0
08:40	5	0
08:45	2	1
08:50	2	0
08:55	3	7
09:00	1	4
09:05	1	4
09:10	0	0
09:15	0	0
09:20	1	2
09:25	1	0
09:30	0	0
14:35	0	3
14:40	1	0
14:45	0	0
14:50	0	0
14:55	1	0
15:00	0	0
15:05	3	2
15:10	0	0
15:15	0	0
15:20	0	12
15:25	0	20
15:30	0	8
15:35	0	5
15:40	2	7
15:45	0	4
15:50	0	2
15:55	0	4
16:00	0	2
16:05	1	2
16:10	0	2
16:15	0	0
16:20	0	1
16:25	0	0
16:30	0	0

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 21ST JUNE 2017

LOCATION : THAMES VALLEY SCHOOL, THE MEADWAY, READING

	STEPPING STONES NURSERY	SPORTS CENTRE CAR PARK			THAMES VALLEY SCHOOL STAFF CAR PARK			DUNSFOLD RD ON STREET	SPORT CENTRE RD ON STREET	CONWY CLOSE ON STREET
	PARKED	PARKED			PARKED			PARKED	PARKED	PARKED
	REGULAR	REGULAR	DISABLED	TOTAL	REGULAR	DISABLED	TOTAL	REGULAR	REGULAR	REGULAR
07:30	0	15	0	15	2	0	2	0	0	0
07:45	0	17	0	17	3	0	3	0	0	0
08:00	0	18	0	18	6	0	6	1	1	0
08:15	0	21	0	21	21	0	21	0	1	0
08:30	2	25	0	25	22	0	22	0	0	0
08:45	5	31	0	31	23	3	26	0	0	0
09:00	12	47	2	49	26	3	29	0	0	0
09:15	11	46	2	48	28	3	31	0	0	0
09:30	5	57	3	60	28	3	31	0	0	0
TOTAL BAYS	17	101	3	104	29	3	32			

	STEPPING STONES NURSERY	SPORTS CENTRE CAR PARK			THAMES VALLEY SCHOOL STAFF CAR PARK			DUNSFOLD RD ON STREET	SPORT CENTRE RD ON STREET	CONWY CLOSE ON STREET
	PARKED	PARKED			PARKED			PARKED	PARKED	PARKED
	REGULAR	REGULAR	DISABLED	TOTAL	REGULAR	DISABLED	TOTAL	REGULAR	REGULAR	REGULAR
14:30	3	31	0	31	26	3	29	0	0	0
14:45	4	29	0	29	26	3	29	0	0	0
15:00	5	29	0	29	26	3	29	0	0	0
15:15	1	28	0	28	22	3	25	0	0	0
15:30	0	28	0	28	22	3	25	0	0	0
15:45	0	31	0	31	12	2	14	0	0	0
16:00	0	20	0	20	12	1	13	0	0	0
16:15	0	20	0	20	12	1	13	0	0	0
16:30	0	21	0	21	11	0	11	0	0	0
TOTAL BAYS	17	101	3	104	29	3	32			

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 21ST JUNE 2017

LOCATION : THAMES VALLEY SCHOOL, THE MEADWAY, READING

TIME VEHICLES INTO SCHOOL DROPPING OF STUDENTS	TIME VEHICLE LEFT	AREA OF ACTIVITY (SEE MAP)	DURATION OF STAY	TYPE OF VEHICLE
08:10:20	08:29:30	A	0:19:10	TAXI
08:12:45	08:29:15	A	0:16:30	TAXI
08:19:42	08:30:53	A	0:11:11	TAXI
08:22:28	08:31:00	A	0:08:32	TAXI
08:25:26	08:30:10	A	0:04:44	TAXI
08:29:01	08:30:20	A	0:01:19	TAXI
08:29:50	08:30:25	A	0:00:35	CAR
08:31:00	08:31:50	A	0:00:50	TAXI
08:31:15	08:32:56	A	0:01:41	TAXI
08:36:32	08:37:35	A	0:01:03	CAR
08:36:50	08:38:45	A	0:01:55	CAR
08:44:00	08:46:51	A	0:02:51	CAR
08:46:00	08:47:25	A	0:01:25	TAXI
08:47:54	08:50:10	A	0:02:16	TAXI
08:48:49	08:50:18	A	0:01:29	TAXI
08:49:00	08:51:10	A	0:02:10	TAXI
08:49:20	08:58:20	A	0:09:00	TAXI
08:56:40	08:57:45	A	0:01:05	CAR
09:02:30	09:04:00	A	0:01:30	CAR
09:14:02	09:18:21	A	0:04:19	CAR
09:18:30	09:20:10	A	0:01:40	CAR

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 21ST JUNE 2017

LOCATION : THAMES VALLEY SCHOOL, THE MEADWAY, READING

TIME VEHICLES INTO SCHOOL DROPPING OF STUDENTS	TIME VEHICLE LEFT	AREA OF ACTIVITY (SEE MAP)	DURATION OF STAY	TYPE OF VEHICLE
14:56:00	15:39:30	STAFF CAR PARK	0:43:30	CAR
14:58:45	15:37:12	A	0:38:27	TAXI
15:08:30	15:38:23	A	0:29:53	TAXI
15:17:15	15:40:22	A	0:23:07	TAXI
15:17:25	15:38:55	A	0:21:30	TAXI
15:21:40	15:37:30	STAFF CAR PARK	0:15:50	CAR
15:23:11	15:35:10	A	0:11:59	CAR
15:23:16	15:35:25	A	0:12:09	TAXI
15:23:52	15:40:00	C - INSIDE GATE	0:16:08	TAXI
15:24:00	15:36:55	A	0:12:55	TAXI
15:26:35	15:39:10	STAFF CAR PARK	0:12:35	TAXI
15:27:32	15:38:45	STAFF CAR PARK	0:11:13	TAXI
15:27:50	15:36:05	STAFF CAR PARK	0:08:15	TAXI
15:29:00	15:38:14	A - HATCHED MARKINGS	0:09:14	TAXI
15:29:25	15:37:20	B	0:07:55	TAXI
15:31:50	15:37:20	STAFF CAR PARK	0:05:30	TAXI
15:32:00		STAFF CAR PARK	REMAINED AT 16:30	CAR
15:35:15	15:40:15	A	0:05:00	TAXI
15:38:04		A	REMAINED AT 16:30	CAR
15:38:14	15:39:50	A - HATCHED MARKINGS	0:01:36	CAR
			0:00:00	

LOCATION : THAMES VALLEY SCHOOL, READING

[illegible]

K&M TRAFFIC SURVEYS

DATE : 21st JUNE 2017

DAY : WEDNESDAY

LOCATION : THAMES VALLEY SCHOOL, READING

ROAD NAME	ZONE	RESTRICTION	METRES	5 METRES = 1 SPACE	14:30			14:30-14:45			14:45			14:45-15:00			15:00			15:15			15:30			15:45			16:00			16:15			16:30		
					PAKED	OBSEVED SPACES	%STREET STRESS	PARKING AVAILABLE	PAKED	OBSEVED SPACES	%STREET STRESS	PAKED	OBSEVED SPACES	%STREET STRESS	PAKED	OBSEVED SPACES	%STREET STRESS	PAKED	OBSEVED SPACES	%STREET STRESS	PAKED	OBSEVED SPACES	%STREET STRESS	PAKED	OBSEVED SPACES	%STREET STRESS	PAKED	OBSEVED SPACES	%STREET STRESS	PAKED	OBSEVED SPACES	%STREET STRESS	PAKED	OBSEVED SPACES	%STREET STRESS		
CHURCH END LANE	1	KERB BUILD OUT	17.2																																		
		DROP KERB	4.7																																		
		UNRESTRICTED	57.3	10	0	10	0.0%	10	0	10	0.0%	10	0	10	0.0%	0	10	0.0%	0	10	0.0%	0	10	0.0%	0	10	0.0%	0	10	0.0%	0	10	0.0%				
THE MEADWAY	2	ACCESS DROP KERB	12.2																																		
		TRAFFIC LIGHTS WOULDN'T PARK/UNRESTRICTED	29.5																																		
		UNRESTRICTED - but parking would cause congestion	25.9																																		
		BUS STOP	17.8																																		
		DROP KERB	13.4																																		
COMBE RD	3	PEDESTRIAN CROSSING	34.2																																		
		DOUBLE YELLOW LINES	16.9																																		
		LAYBY-UNRESTRICTED	13.9	2	2	0	100.0%	0	2	0	100.0%	0	2	0	100.0%	2	0	100.0%	2	0	100.0%	2	0	100.0%	2	0	100.0%	1	1	50.0%	1	1	50.0%				
WARNFORD RD	4	TOO NARROW-UNRESTRICTED	21.3		2																																
		DROP KERB	43.6																																		
		UNRESTRICTED	111.1	19	7	10	41.2%	11.47826087	2	8	9	47.1%	11.47826087	1	7	10	41.2%	9	8	52.9%	1	8	9	47.1%	1	6	11	35.3%	10	4	71.4%	7	7	50.0%			
BOURTON CLOSE	5	DROP KERB	20																																		
		UNRESTRICTED	26.8	4	0	4	0.0%	4	0	4	0.0%	4	0	4	0.0%	0	4	0.0%	0	4	0.0%	0	4	0.0%	0	4	0.0%	0	4	0.0%	0	4	0.0%				
		NO RESTRICTION BUT WOULDN'T PARK	8																																		
WARNFORD RD	6	TOO NARROW-UNRESTRICTED	21																																		
		UNRESTRICTED	36.7	6	1	5	16.7%	5	1	5	16.7%	5	1	5	16.7%	0	6	0.0%	0	6	0.0%	0	6	0.0%	0	6	0.0%	0	6	0.0%	0	6	0.0%				
		DROP KERB	70.3																																		
		TOO NARROW-UNRESTRICTED	74.8																																		
COMBE RD	8	UNRESTRICTED	36.9	7	0	7	0.0%	7	0	7	0.0%	7	0	7	0.0%	0	7	0.0%	0	7	0.0%	0	7	0.0%	0	7	0.0%	0	7	0.0%	0	7	0.0%				
		DROP KERB	14.7																																		
HARDWICK RD	9	UNRESTRICTED	97.1	18	1	17	5.6%	17	1	17	5.6%	17	1	17	5.6%	1	17	5.6%	1	17	5.6%	1	17	5.6%	1	17	5.6%	1	17	5.6%	1	17	5.6%				
		DROP KERB	33.4																																		
		UNRESTRICTED	97.1	18	4	13	23.5%	14	4	13	23.5%	14	4	13	23.5%	4	13	23.5%	5	13	29.4%	5	13	29.4%	5	12	29.4%	5	12	29.4%	5	12	29.4%				
COMBE RD	10	LAYBY-UNRESTRICTED	22.4	6	3	3	50.0%	3	3	3	50.0%	3	3	3	50.0%	4	2	66.7%	3	3	50.0%	4	2	66.7%	4	2	66.7%	4	2	66.7%	4	2	66.7%				
		UNRESTRICTED	37.6	7	4	2	66.7%	3	4	2	66.7%	3	4	2	66.7%	4	2	66.7%	5	1	83.3%	5	1	83.3%	5	1	83.3%	5	1	83.3%	4	2	66.7%				
		DROP KERB	12.8																																		
	12	UNRESTRICTED	56.5	10	5	4	55.0%	5	5	4	55.0%	5	5	4	55.0%	5	4	55.0%	5	4	55.0%	7	2	77.8%	6	3	66.7%	6	3	66.7%	7	2	77.8%	7	2	77.8%	
		LAYBY-UNRESTRICTED	13.2	3	2	1	66.7%	3	2	1	66.7%	1	2	1	66.7%	2	1	66.7%	2	1	66.7%	2	1	66.7%	2	1	66.7%	2	1	66.7%	2	1	66.7%				
		UNRESTRICTED	52	9	6	3	66.7%	3	6	3	66.7%	3	6	3	66.7%	6	3	66.7%	6	3	66.7%	6	3	66.7%	7	2	77.8%	7	2	77.8%	8	1	88.9%				
		LAYBY-UNRESTRICTED	13.1	3	2	1	66.7%	3	2	1	66.7%	1	2	1	66.7%	2	1	66.7%	2	1	66.7%	2	1	66.7%	2	1	66.7%	2	1	66.7%	2	1	66.7%				
	14	DROP KERB	8.1																																		
		UNRESTRICTED	140.6	27	12	14	46.2%	15	12	14	46.2%	15	12	14	46.2%	13	13	50.0%	11	15	42.3%	13	13	50.0%	12	14	46.2%	12	14	46.2%	13	13	50.0%				
		DROP KERB	14.4																																		
	THE MEADWAY	15	DOUBLE YELLOW LINES	16.7																																	
UNRESTRICTED - but parking would cause congestion			61.8																																		
DROP KERB			80.6																																		
LAYBY-UNRESTRICTED			86.7	17	11	2	84.6%	6.461538462	10	3	76.9%	6.461538462	10	3	76.9%	10	3	76.9%	10	3	76.9%	11	2	84.6%	10	3	76.9%	12	1	92.3%	12	1	92.3%				
BUS STOP			18.6																																		
DROP KERB			133.5																																		
CONWY CLOSE	17	UNRESTRICTED - but parking would cause congestion	98																																		
		BUS STOP	15.6																																		
THE MEADWAY	19	DOUBLE YELLOW LINES	92																																		
		DOUBLE YELLOW LINES	91																																		
		PEDESTRIAN CROSSING	33.6																																		
DUNSOLD RD	20	UNRESTRICTED - but parking would cause congestion	51.5																																		
		TRAFFIC LIGHTS WOULDN'T PARK/UNRESTRICTED	39.6																																		
THE MEADWAY	21	DOUBLE YELLOW LINES	92.5																																		
		DOUBLE YELLOW LINES	82.3																																		
		UNRESTRICTED - but parking would cause congestion	70.7	1																																	
ROUTH LANE	23	DROP KERB	4.1																																		
		UNRESTRICTED	62.6	11	6	2	75.0%	5.454545455	5	3	62.5%	5.454545455	5	3	62.5%	5	3	62.5%	6	2	75.0%	7	1	87.5%	7	1	87.5%	6	2	75.0%	5	3	62.5%				
		DROP KERB	13.4																																		
		DROP KERB	39.9																																		
		TOO NARROW-UNRESTRICTED	36.9																																		
THE MEADWAY	25	UNRESTRICTED	77.9	15	1	14	6.7%	14	1	14	6.7%	14	1	14	6.7%	0	15	0.0%	0	15	0.0%	0	15	0.0%	0	15	0.0%	0	15	0.0%	0	15	0.0%				
		DROP KERB	54.4																																		
		UNRESTRICTED - but parking would cause congestion	15.9																																		
		UNRESTRICTED - but parking would cause congestion	103.3																																		
		DROP KERB	36.8																																		
CORWEN RD	27	DOUBLE YELLOW LINES	53.8																																		
		DOUBLE YELLOW LINES	27.1																																		
		UNRESTRICTED - but parking would cause congestion	48.5																																		
ASH RD	28	DROP KERB	34.2																																		
		DOUBLE YELLOW LINES	31.1																																		
		UNRESTRICTED	27.2	4	0	4	0.0%	4	0	4	0.0%	4	0	4	0.0%	0	4	0.0%	0	4	0.0%	0	4	0.0%	0	4	0.0%	0	4</								

KEY:

- = DROPPED KERB
- = DROPPED KERB ACCESS
- = PEDESTRIAN CROSSING
- = BUS STOP
- = UNRESTRICTED LAY BY
- = UNRESTRICTED TOO NARROW
- = UNRESTRICTED BUT WOULD NOT PARK
- = UNRESTRICTED TRAFFIC LIGHTS
- = DOUBLE YELLOW LINE
- = KERB BUILD OUT
- = SCHOOL KEEP CLEAR
- BLANK = UNRESTRICTED





Appendix E

PICADY Assessments

Junctions 8				
PICADY 8 - Priority Intersection Module				
Version: 8.0.6.541 [19821,26/11/2015] © Copyright TRL Limited, 2017				
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Filename: 2024 AM_PM Base Plus Comm Plus Dev.arc8

Path: P:\IT 1280-1289\IT 1288 NAS Thames Valley Reading\May 2017 Work\Calcs & Drawings\PICADY

Report generation date: 25/07/2017 13:07:38

« (Default Analysis Set) - 2024 AM BASE PLUS COMM PLUS DEV,

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	Queue (Veh)	Delay (s)	RFC	LOS
A1 - 2024 AM BASE PLUS COMM PLUS DEV				
Stream B-ACD	0.79	21.69	0.45	C
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-
Stream A-D	0.10	9.52	0.09	A
Stream D-ABC	0.56	17.57	0.36	C
Stream C-D	-	-	-	-
Stream C-A	-	-	-	-
Stream C-B	0.61	12.40	0.38	B

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle.

"D1 - 2024 AM BASE PLUS COMM PLUS DEV, " model duration: 07:45 - 09:15

"D2 - 2024 PM BASE PLUS COMM PLUS DEV, " model duration: 07:45 - 09:15

Run using Junctions 8.0.6.541 at 25/07/2017 13:07:37

File summary

Title	The Meadway / Conwy Close / Combe Road
Location	Reading
Site Number	
Date	25/07/2017
Version	
Status	(new file)
Identifier	
Client	NAS Thames Valley
Jobnumber	
Enumerator	
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perHour	s	-Min	perMin

(Default Analysis Set) - 2024 AM BASE PLUS COMM PLUS DEV,

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2024 AM BASE PLUS COMM PLUS DEV,	2024 AM BASE PLUS COMM PLUS DEV			ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	A,B,C,D	16.30	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	The Meadway East		Major
B	B	Conwy Close		Minor
C	C	(untitled)	The Meadway west	Major
D	D	(untitled)	Combe Road	Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	9.00		0.00		2.20	100.00		
C	9.00		0.00		2.20	100.00		

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.50										30	20
D	One lane	3.40										100	100

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	631.874	-	-	-	-	-	-	0.213	0.304	0.213	-	-	-
1	B-A	522.023	0.083	0.209	0.209	-	-	-	0.131	0.299	-	0.209	0.209	0.104
1	B-C	668.391	0.089	0.225	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	522.023	0.083	0.209	0.209	-	-	-	0.131	0.299	0.131	-	-	-
1	B-D, offside lane	522.023	0.083	0.209	0.209	-	-	-	0.131	0.299	0.131	-	-	-
1	C-B	631.874	0.213	0.213	0.304	-	-	-	-	-	-	-	-	-
1	D-A	714.398	-	-	-	-	-	-	0.241	-	0.095	-	-	-
1	D-B, nearside lane	583.207	0.147	0.147	0.334	-	-	-	0.233	0.233	0.092	-	-	-
1	D-B, offside lane	583.207	0.147	0.147	0.334	-	-	-	0.233	0.233	0.092	-	-	-
1	D-C	583.207	-	0.147	0.334	0.117	0.233	0.233	0.233	0.233	0.092	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	617.00	100.000
B	ONE HOUR	✓	121.00	100.000
C	ONE HOUR	✓	834.00	100.000
D	ONE HOUR	✓	106.00	100.000

Turning Proportions

Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To			
From		A	B	C	D
	A	0.000	109.000	475.000	33.000
	B	50.000	0.000	68.000	3.000
	C	637.000	162.000	0.000	35.000
	D	49.000	9.000	48.000	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

		To			
From		A	B	C	D
	A	0.00	0.18	0.77	0.05
	B	0.41	0.00	0.56	0.02
	C	0.76	0.19	0.00	0.04
	D	0.46	0.08	0.45	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		A	B	C	D
	A	1.000	1.138	1.025	1.000
	B	1.100	1.000	1.132	1.000
	C	1.024	1.019	1.000	1.029
	D	1.040	1.222	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To				
		A	B	C	D
From	A	0.0	13.8	2.5	0.0
	B	10.0	0.0	13.2	0.0
	C	2.4	1.9	0.0	2.9
	D	4.0	22.2	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-ACD	0.45	21.69	0.79	C
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.09	9.52	0.10	A
D-ABC	0.36	17.57	0.56	C
C-D	-	-	-	-
C-A	-	-	-	-
C-B	0.38	12.40	0.61	B

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (Veh/hr)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	End Queue (Veh)	Delay (s)	LOS
B-ACD	91.10	89.87	0.00	383.20	0.238	0.31	12.225	B
A-B	82.06	82.06	0.00	-	-	-	-	-
A-C	357.60	357.60	0.00	-	-	-	-	-
A-D	24.84	24.63	0.00	483.78	0.051	0.05	7.837	A
D-ABC	79.80	78.88	0.00	422.13	0.189	0.23	10.462	B
C-D	26.35	26.35	0.00	-	-	-	-	-
C-A	479.57	479.57	0.00	-	-	-	-	-
C-B	121.96	120.74	0.00	516.60	0.236	0.31	9.066	A

Main results: (08:00-08:15)

Stream	Total Demand (Veh/hr)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	End Queue (Veh)	Delay (s)	LOS
B-ACD	108.78	108.23	0.00	349.32	0.311	0.44	14.897	B
A-B	97.99	97.99	0.00	-	-	-	-	-
A-C	427.02	427.02	0.00	-	-	-	-	-
A-D	29.67	29.60	0.00	454.65	0.065	0.07	8.468	A
D-ABC	95.29	94.90	0.00	381.08	0.250	0.33	12.561	B
C-D	31.46	31.46	0.00	-	-	-	-	-
C-A	572.65	572.65	0.00	-	-	-	-	-
C-B	145.63	145.22	0.00	496.45	0.293	0.41	10.237	B

Main results: (08:15-08:30)

Stream	Total Demand (Veh/hr)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	End Queue (Veh)	Delay (s)	LOS
B-ACD	133.22	131.91	0.00	299.31	0.445	0.77	21.334	C
A-B	120.01	120.01	0.00	-	-	-	-	-
A-C	522.98	522.98	0.00	-	-	-	-	-
A-D	36.33	36.23	0.00	414.78	0.088	0.09	9.508	A
D-ABC	116.71	115.81	0.00	321.92	0.363	0.55	17.390	C
C-D	38.54	38.54	0.00	-	-	-	-	-
C-A	701.35	701.35	0.00	-	-	-	-	-
C-B	178.37	177.59	0.00	468.66	0.381	0.60	12.335	B

Main results: (08:30-08:45)

Stream	Total Demand (Veh/hr)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	End Queue (Veh)	Delay (s)	LOS
B-ACD	133.22	133.16	0.00	298.96	0.446	0.79	21.688	C
A-B	120.01	120.01	0.00	-	-	-	-	-
A-C	522.98	522.98	0.00	-	-	-	-	-
A-D	36.33	36.33	0.00	414.54	0.088	0.10	9.518	A
D-ABC	116.71	116.67	0.00	321.52	0.363	0.56	17.566	C
C-D	38.54	38.54	0.00	-	-	-	-	-
C-A	701.35	701.35	0.00	-	-	-	-	-
C-B	178.37	178.34	0.00	468.62	0.381	0.61	12.399	B

Main results: (08:45-09:00)

Stream	Total Demand (Veh/hr)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	End Queue (Veh)	Delay (s)	LOS
B-ACD	108.78	110.07	0.00	348.86	0.312	0.46	15.154	C
A-B	97.99	97.99	0.00	-	-	-	-	-
A-C	427.02	427.02	0.00	-	-	-	-	-
A-D	29.67	29.77	0.00	454.28	0.065	0.07	8.483	A
D-ABC	95.29	96.18	0.00	380.52	0.250	0.34	12.698	B
C-D	31.46	31.46	0.00	-	-	-	-	-
C-A	572.65	572.65	0.00	-	-	-	-	-
C-B	145.63	146.38	0.00	496.40	0.293	0.42	10.308	B

Main results: (09:00-09:15)

Stream	Total Demand (Veh/hr)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	End Queue (Veh)	Delay (s)	LOS
B-ACD	91.10	91.68	0.00	382.65	0.238	0.32	12.399	B
A-B	82.06	82.06	0.00	-	-	-	-	-
A-C	357.60	357.60	0.00	-	-	-	-	-
A-D	24.84	24.91	0.00	483.25	0.051	0.05	7.856	A
D-ABC	79.80	80.22	0.00	421.50	0.189	0.24	10.560	B
C-D	26.35	26.35	0.00	-	-	-	-	-
C-A	479.57	479.57	0.00	-	-	-	-	-
C-B	121.96	122.40	0.00	516.52	0.236	0.31	9.145	A

Junctions 8				
PICADY 8 - Priority Intersection Module				
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Report generation date: 25/07/2017 13:08:12

« (Default Analysis Set) - 2024 PM BASE PLUS COMM PLUS DEV,

» Junction Network

» Arms

» Traffic Flows

» Entry Flows

» Turning Proportions

» Vehicle Mix

» Results

Summary of junction performance

	Queue (Veh)	Delay (s)	RFC	LOS
A1 - 2024 PM BASE PLUS COMM PLUS DEV				
Stream B-ACD	4.25	63.59	0.84	F
Stream A-B	-	-	-	-
Stream A-C	-	-	-	-
Stream A-D	0.11	8.77	0.10	A
Stream D-ABC	0.42	15.00	0.30	B
Stream C-D	-	-	-	-
Stream C-A	-	-	-	-
Stream C-B	0.16	9.46	0.14	A

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle.

"D1 - 2024 AM BASE PLUS COMM PLUS DEV, " model duration: 07:45 - 09:15

"D2 - 2024 PM BASE PLUS COMM PLUS DEV, " model duration: 07:45 - 09:15

Run using Junctions 8.0.6.541 at 25/07/2017 13:08:11

File summary

Title	The Meadway / Conwy Close / Combe Road
Location	Reading
Site Number	
Date	25/07/2017
Version	
Status	(new file)
Identifier	
Client	NAS Thames Valley
Jobnumber	
Enumerator	
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perHour	s	-Min	perMin

(Default Analysis Set) - 2024 PM BASE PLUS COMM PLUS DEV,

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2024 PM BASE PLUS COMM PLUS DEV,	2024 PM BASE PLUS COMM PLUS DEV			ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	A,B,C,D	41.13	E

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	The Meadway East		Major
B	B	Conwy Close		Minor
C	C	(untitled)	The Meadway west	Major
D	D	(untitled)	Combe Road	Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
A	9.00		0.00		2.20	100.00		
C	9.00		0.00		2.20	100.00		

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.50										30	20
D	One lane	3.40										100	100

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	631.874	-	-	-	-	-	-	0.213	0.304	0.213	-	-	-
1	B-A	522.023	0.083	0.209	0.209	-	-	-	0.131	0.299	-	0.209	0.209	0.104
1	B-C	668.391	0.089	0.225	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	522.023	0.083	0.209	0.209	-	-	-	0.131	0.299	0.131	-	-	-
1	B-D, offside lane	522.023	0.083	0.209	0.209	-	-	-	0.131	0.299	0.131	-	-	-
1	C-B	631.874	0.213	0.213	0.304	-	-	-	-	-	-	-	-	-
1	D-A	714.398	-	-	-	-	-	-	0.241	-	0.095	-	-	-
1	D-B, nearside lane	583.207	0.147	0.147	0.334	-	-	-	0.233	0.233	0.092	-	-	-
1	D-B, offside lane	583.207	0.147	0.147	0.334	-	-	-	0.233	0.233	0.092	-	-	-
1	D-C	583.207	-	0.147	0.334	0.117	0.233	0.233	0.233	0.233	0.092	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	733.00	100.000
B	ONE HOUR	✓	236.00	100.000
C	ONE HOUR	✓	648.00	100.000
D	ONE HOUR	✓	92.00	100.000

Turning Proportions

Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

		To			
From		A	B	C	D
	A	0.000	29.000	661.000	43.000
	B	88.000	0.000	137.000	11.000
	C	550.000	56.000	0.000	42.000
	D	40.000	33.000	19.000	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

		To			
From		A	B	C	D
	A	0.00	0.04	0.90	0.06
	B	0.37	0.00	0.58	0.05
	C	0.85	0.09	0.00	0.06
	D	0.43	0.36	0.21	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		A	B	C	D
	A	1.000	1.000	1.032	1.023
	B	1.125	1.000	1.036	1.000
	C	1.040	1.018	1.000	1.024
	D	1.025	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To				
		A	B	C	D
From	A	0.0	0.0	3.2	2.3
	B	12.5	0.0	3.6	0.0
	C	4.0	1.8	0.0	2.4
	D	2.5	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-ACD	0.84	63.59	4.25	F
A-B	-	-	-	-
A-C	-	-	-	-
A-D	0.10	8.77	0.11	A
D-ABC	0.30	15.00	0.42	B
C-D	-	-	-	-
C-A	-	-	-	-
C-B	0.14	9.46	0.16	A

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (Veh/hr)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	End Queue (Veh)	Delay (s)	LOS
B-ACD	177.67	174.51	0.00	395.39	0.449	0.79	16.082	C
A-B	21.83	21.83	0.00	-	-	-	-	-
A-C	497.64	497.64	0.00	-	-	-	-	-
A-D	32.37	32.10	0.00	508.57	0.064	0.07	7.553	A
D-ABC	69.26	68.53	0.00	440.25	0.157	0.18	9.662	A
C-D	31.62	31.62	0.00	-	-	-	-	-
C-A	414.07	414.07	0.00	-	-	-	-	-
C-B	42.16	41.79	0.00	498.86	0.085	0.09	7.870	A

Main results: (08:00-08:15)

Stream	Total Demand (Veh/hr)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	End Queue (Veh)	Delay (s)	LOS
B-ACD	212.16	209.93	0.00	360.88	0.588	1.35	23.490	C
A-B	26.07	26.07	0.00	-	-	-	-	-
A-C	594.23	594.23	0.00	-	-	-	-	-
A-D	38.66	38.58	0.00	487.28	0.079	0.09	8.022	A
D-ABC	82.71	82.42	0.00	400.15	0.207	0.26	11.319	B
C-D	37.76	37.76	0.00	-	-	-	-	-
C-A	494.44	494.44	0.00	-	-	-	-	-
C-B	50.34	50.24	0.00	475.12	0.106	0.12	8.471	A

Main results: (08:15-08:30)

Stream	Total Demand (Veh/hr)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	End Queue (Veh)	Delay (s)	LOS
B-ACD	259.84	250.15	0.00	310.87	0.836	3.77	52.525	F
A-B	31.93	31.93	0.00	-	-	-	-	-
A-C	727.77	727.77	0.00	-	-	-	-	-
A-D	47.34	47.23	0.00	457.97	0.103	0.11	8.763	A
D-ABC	101.29	100.67	0.00	342.07	0.296	0.41	14.874	B
C-D	46.24	46.24	0.00	-	-	-	-	-
C-A	605.56	605.56	0.00	-	-	-	-	-
C-B	61.66	61.49	0.00	442.40	0.139	0.16	9.447	A

Main results: (08:30-08:45)

Stream	Total Demand (Veh/hr)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	End Queue (Veh)	Delay (s)	LOS
B-ACD	259.84	257.91	0.00	310.71	0.836	4.25	63.589	F
A-B	31.93	31.93	0.00	-	-	-	-	-
A-C	727.77	727.77	0.00	-	-	-	-	-
A-D	47.34	47.34	0.00	457.92	0.103	0.11	8.767	A
D-ABC	101.29	101.27	0.00	341.15	0.297	0.42	15.004	B
C-D	46.24	46.24	0.00	-	-	-	-	-
C-A	605.56	605.56	0.00	-	-	-	-	-
C-B	61.66	61.65	0.00	442.37	0.139	0.16	9.455	A

Main results: (08:45-09:00)

Stream	Total Demand (Veh/hr)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	End Queue (Veh)	Delay (s)	LOS
B-ACD	212.16	223.10	0.00	360.67	0.588	1.52	27.936	D
A-B	26.07	26.07	0.00	-	-	-	-	-
A-C	594.23	594.23	0.00	-	-	-	-	-
A-D	38.66	38.77	0.00	487.19	0.079	0.09	8.029	A
D-ABC	82.71	83.31	0.00	399.02	0.207	0.27	11.426	B
C-D	37.76	37.76	0.00	-	-	-	-	-
C-A	494.44	494.44	0.00	-	-	-	-	-
C-B	50.34	50.51	0.00	475.07	0.106	0.12	8.484	A

Main results: (09:00-09:15)

Stream	Total Demand (Veh/hr)	Entry Flow (Veh/hr)	Pedestrian Demand (Ped/hr)	Capacity (Veh/hr)	RFC	End Queue (Veh)	Delay (s)	LOS
B-ACD	177.67	180.38	0.00	395.11	0.450	0.84	16.967	C
A-B	21.83	21.83	0.00	-	-	-	-	-
A-C	497.64	497.64	0.00	-	-	-	-	-
A-D	32.37	32.45	0.00	508.42	0.064	0.07	7.563	A
D-ABC	69.26	69.57	0.00	439.66	0.158	0.19	9.736	A
C-D	31.62	31.62	0.00	-	-	-	-	-
C-A	414.07	414.07	0.00	-	-	-	-	-
C-B	42.16	42.27	0.00	498.75	0.085	0.09	7.887	A

Appendix F

TRANSYT Assessments

1

2024 AM Base Plus Dev
T R A N S Y T
~~~~~  
TRAffic Network StudY Tool

(C) COPYRIGHT 1996,2001 - TRL Limited, Crowthorne, Berkshire, RG45 6AU, UK  
0Implementation for IBM-PC or compatible  
0Program TRANSYT 11, Analysis Program Version 1.6  
0Run with file:- "2024 AM BASE PLUS DEV.DAT" at 10:01 on 25/07/17  
0NAS Thames Valley 2024 AM Base Plus Dev

PARAMETERS CONTROLLING DIMENSIONS OF PROBLEM :

~~~~~

NUMBER OF NODES = 1
NUMBER OF LINKS = 8
NUMBER OF OPTIMISED NODES = 1
MAXIMUM NUMBER OF GRAPHIC PLOTS = 0
NUMBER OF STEPS IN CYCLE = 60
MAXIMUM NUMBER OF SHARED STOPLINES = 0
MAXIMUM NUMBER OF TIMING POINTS = 2
MAXIMUM LINKS AT ANY NODE = 4

CORE REQUESTED = 4278 WORDS
CORE AVAILABLE = 72000 WORDS

.
0 DATA INPUT :-

~~~~~

0CARD CARD  
NO. TYPE

( 1)= TITLE:- NAS Thames Valley 2024 AM Base Plus Dev

| 0CARD NO. | CARD TYPE | CYCLE TIME (SEC) | NO. OF STEPS PER CYCLE | TIME EFFECTIVE-1-1200 MINS. | GREEN DISPLACEMENTS START (SEC) | EQUISAT END (SEC) | 0=UNEQUAL FLOW SETTINGS 0=NO 1=YES | CRUISE-SPEEDS 10-200 % | OPTIMISE 0=NONE 1=O/SET 2=FULL | EXTRA COPIES FINAL OUTPUT | HILL-CLIMB 1=FULL | DELAY VALUE P PER PCU-H | STOP VALUE P PER |      |     |
|-----------|-----------|------------------|------------------------|-----------------------------|---------------------------------|-------------------|------------------------------------|------------------------|--------------------------------|---------------------------|-------------------|-------------------------|------------------|------|-----|
| 2)=       | 1         | 60               | 60                     | 120                         | 2                               | 3                 | 1                                  | 0                      | 0                              | 1                         | 2                 | 0                       | 0                | 1290 | 235 |

0CARD CARD LIST OF NODES TO BE OPTIMISED

NO. TYPE

3)= 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0

| CARD NO. | CARD TYPE | NODE NO. | STAGE 1 CHANGE MIN | STAGE 2 CHANGE MIN | STAGE 3 CHANGE MIN | STAGE 4 CHANGE MIN | STAGE 5 CHANGE MIN | STAGE 6 CHANGE MIN | STAGE 7 CHANGE MIN |   |   |   |   |
|----------|-----------|----------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---|---|---|---|
| 4)=      | 12        | 1        | 0                  | 12                 | 0                  | 12                 | 0                  | 0                  | 0                  | 0 | 0 | 0 | 0 |

0

## LINK CARDS: GIVEWAY DATA

| CARD NO. | CARD TYPE | LINK NO. | PRIORITY LINK1 NO. | LINKS LINK2 NO. | LINK1 ONLY % FLOW | GIVEWAY A1 X100 | COEFFS. A2 X100 | LINK LENGTH | STOP WT.X100 | MAX FLOW | DELAY WT.X100 | DISPSN X100 |
|----------|-----------|----------|--------------------|-----------------|-------------------|-----------------|-----------------|-------------|--------------|----------|---------------|-------------|
| 5)=      | 30        | 102      | 104                | 0               | 0                 | 50              | 0               | 0           | 0            | 1000     | 0             | 0           |
| 6)=      | 30        | 203      | 201                | 202             | 0                 | 22              | 19              | 0           | 0            | 690      | 0             | 0           |
| 7)=      | 30        | 204      | 201                | 0               | 0                 | 50              | 100             | 0           | 0            | 1700     | 0             | 0           |

0

## LINK CARDS: FIXED DATA

| CARD NO. | CARD TYPE | LINK NO. | EXIT NODE | FIRST START STAGE | LAG | GREEN END STAGE | LAG | SECOND START STAGE | LAG | GREEN END STAGE | LAG | LINK LENGTH | STOP WT.X100 | SAT FLOW | DELAY WT.X100 | DISPSN X100 |
|----------|-----------|----------|-----------|-------------------|-----|-----------------|-----|--------------------|-----|-----------------|-----|-------------|--------------|----------|---------------|-------------|
| 8)=      | 31        | 101      | 1         | 1                 | 5   | 2               | 0   | 0                  | 0   | 0               | 0   | 100         | 0            | 1983     | 0             | 0           |
| 9)=      | 31        | 102      | 1         | 1                 | 5   | 2               | 3   | 0                  | 0   | 0               | 0   | 18          | 0            | 1492     | 0             | 0           |
| 10)=     | 31        | 103      | 1         | 2                 | 5   | 1               | 0   | 0                  | 0   | 0               | 0   | 100         | 0            | 1716     | 0             | 0           |
| 11)=     | 31        | 104      | 1         | 1                 | 5   | 2               | 0   | 0                  | 0   | 0               | 0   | 100         | 0            | 1963     | 0             | 0           |
| 12)=     | 31        | 201      | 0         | 0                 | 0   | 0               | 0   | 0                  | 0   | 0               | 0   | 20          | 0            | 2000     | 0             | 0           |
| 13)=     | 31        | 202      | 0         | 0                 | 0   | 0               | 0   | 0                  | 0   | 0               | 0   | 100         | 0            | 2000     | 0             | 0           |
| 14)=     | 31        | 203      | 0         | 0                 | 0   | 0               | 0   | 0                  | 0   | 0               | 0   | 50          | 0            | 690      | 0             | 0           |
| 15)=     | 31        | 204      | 0         | 0                 | 0   | 0               | 0   | 0                  | 0   | 0               | 0   | 100         | 0            | 500      | 0             | 0           |

0

## LINK CARDS: FLOW DATA

| CARD NO. | CARD TYPE | LINK NO. | TOTAL FLOW | UNIFORM FLOW | ENTRY 1 LINK NO. | CRUISE FLOW | SPEED | ENTRY 2 LINK NO. | CRUISE FLOW | SPEED | ENTRY 3 LINK NO. | CRUISE FLOW | SPEED | ENTRY 4 LINK NO. | CRUISE FLOW | SPEED |
|----------|-----------|----------|------------|--------------|------------------|-------------|-------|------------------|-------------|-------|------------------|-------------|-------|------------------|-------------|-------|
| 16)=     | 32        | 101      | 613        | 0            | 0                | 0           | 30    | 0                | 0           | 0     | 0                | 0           | 0     | 0                | 0           | 0     |
| 17)=     | 32        | 102      | 82         | 0            | 101              | 69          | 20    | 0                | 0           | 0     | 0                | 0           | 0     | 0                | 0           | 0     |
| 18)=     | 32        | 103      | 373        | 0            | 0                | 0           | 30    | 0                | 0           | 0     | 0                | 0           | 0     | 0                | 0           | 0     |
| 19)=     | 32        | 104      | 929        | 0            | 202              | 924         | 30    | 203              | 10          | 30    | 0                | 0           | 0     | 0                | 0           | 0     |
| 20)=     | 32        | 201      | 780        | 0            | 101              | 532         | 30    | 103              | 249         | 30    | 0                | 0           | 0     | 0                | 0           | 0     |
| 21)=     | 32        | 202      | 924        | 0            | 0                | 0           | 30    | 0                | 0           | 0     | 0                | 0           | 0     | 0                | 0           | 0     |
| 22)=     | 32        | 203      | 10         | 0            | 0                | 0           | 30    | 0                | 0           | 0     | 0                | 0           | 0     | 0                | 0           | 0     |
| 23)=     | 32        | 204      | 10         | 0            | 0                | 0           | 30    | 0                | 0           | 0     | 0                | 0           | 0     | 0                | 0           | 0     |

0\*\*\*\*\*END OF SUBROUTINE TINPUT\*\*\*\*\*

.

0 60 SECOND CYCLE 60 STEPS

0INITIAL SETTINGS

- (SECONDS)

| 0 | NODE NO | NUMBER OF STAGES | STAGE 1 | STAGE 2 | STAGE 3 | STAGE 4 | STAGE 5 | STAGE 6 | STAGE 7 |
|---|---------|------------------|---------|---------|---------|---------|---------|---------|---------|
|---|---------|------------------|---------|---------|---------|---------|---------|---------|---------|

| 0 | LINK NUMBER | 1       | 2       | 0   | 39    | DEGREE OF SAT | MEAN PER CRUISE | MEAN TIMES | -----DELAY----- | UNIFORM | RANDOM+ OVERSAT | COST OF DELAY | ----STOPS---- | MEAN STOPS /PCU | COST OF STOPS | ----QUEUE---- | MEAN MAX. | AVERAGE EXCESS | PERFORMANCE INDEX. WEIGHTED SUM OF ( ) VALUES | EXIT NODE | GREEN START | TIMES START | END       | END       |
|---|-------------|---------|---------|-----|-------|---------------|-----------------|------------|-----------------|---------|-----------------|---------------|---------------|-----------------|---------------|---------------|-----------|----------------|-----------------------------------------------|-----------|-------------|-------------|-----------|-----------|
|   |             | (PCU/H) | (PCU/H) | (%) | (SEC) | (SEC)         | (U+R+O=MEAN Q)  | (PCU-H/H)  | (\$/H)          | (%)     | (\$/H)          | (PCU)         | (PCU)         | (PCU)           | (PCU)         | (PCU)         | (PCU)     | (PCU)          | (PCU)                                         |           | 1ST         | 2ND         | (SECONDS) | (SECONDS) |

| 2024 AM Base Plus Dev |                                              |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
|-----------------------|----------------------------------------------|-----------|---------|----|----|-----------------|-----------------|-----------------|-----------------|---------|------|-------------|-------|--------|----|
| 101                   | 613                                          | 1983      | 53      | 12 | 11 | 1.3 +           | 0.6 (           | 23.8)           | 59 (            | 4.1)    | 7    | 27.9        | 1     | 5      | 39 |
| 102                   | 82                                           | 1492      | 42      | 3  | 27 | 0.2 +           | 0.4 (           | 7.9)            | 108 (           | 0.4)    | 2    | 8.4         | 1     | 5      | 42 |
| 103                   | 373                                          | 1716      | 77      | 12 | 35 | 2.0 +           | 1.6 (           | 47.3)           | 110 (           | 4.6)    | 7    | 51.9        | 1     | 44     | 0  |
| 104                   | 928                                          | 1963      | 81      | 12 | 18 | 2.5 +           | 2.1 (           | 60.2)           | 83 (            | 8.7)    | 14   | 69.0        | 1     | 5      | 39 |
| 201                   | 779                                          | 2000      | 39      | 2  | 1  | 0.0 +           | 0.3 (           | 4.1)            | 2 (             | 0.2)    | 0    | 4.3         |       |        |    |
| 202                   | 924                                          | 2000      | 46      | 12 | 2  | 0.0 +           | 0.4 (           | 5.5)            | 3 (             | 0.3)    | 0    | 5.8         |       |        |    |
| 203                   | 10                                           | 690       | 3       | 6  | 5  | 0.0 +           | 0.0 (           | 0.2)            | 0 (             | 0.0)    | 0    | 0.2         |       |        |    |
| 204                   | 10                                           | 500       | 1       | 12 | 1  | 0.0 +           | 0.0 (           | 0.0)            | 0 (             | 0.0)    | 0    | 0.0         |       |        |    |
| 0                     | TOTAL                                        | TOTAL     | MEAN    |    |    | TOTAL           | TOTAL           | TOTAL           | TOTAL           | PENALTY |      | TOTAL       |       |        |    |
|                       | DISTANCE                                     | TIME      | JOURNEY |    |    | UNIFORM         | RANDOM+         | COST            | COST            | FOR     |      | PERFORMANCE |       |        |    |
|                       | TRAVELLED                                    | SPENT     | SPEED   |    |    | DELAY           | OVERSAT         | OF              | OF              | EXCESS  |      | INDEX       |       |        |    |
|                       | (PCU-KM/H)                                   | (PCU-H/H) | (KM/H)  |    |    | (PCU-H/H)       | (PCU-H/H)       | (\$/H)          | (\$/H)          | (\$/H)  |      | (\$/H)      |       |        |    |
| 0                     | 302.5                                        | 21.7      | 14.0    |    |    | 6.1             | 5.4             | ( 149.2) + (    | 18.4)           | + (     | 0.0) | =           | 167.6 | TOTALS |    |
| 0*****                |                                              |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 0                     |                                              |           |         |    |    | CRUISE          | DELAY           | STOPS           | TOTALS          |         |      |             |       |        |    |
|                       |                                              |           |         |    |    | LITRES PER HOUR | LITRES PER HOUR | LITRES PER HOUR | LITRES PER HOUR |         |      |             |       |        |    |
| 0                     | FUEL CONSUMPTION PREDICTIONS                 |           |         |    |    | 19.4            | + 13.3          | + 9.3           | =               | 41.9    |      |             |       |        |    |
| 0                     |                                              |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
|                       | NO. OF ENTRIES TO SUBPT                      | =         | 1       |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
|                       | NO. OF LINKS RECALCULATED=                   |           | 8       |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| .                     |                                              |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 0                     | 60 SECOND CYCLE                              | 60 STEPS  |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 0                     | INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- |           | 9       |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
|                       | - (SECONDS)                                  |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 1                     | 2                                            | 0         | 39      |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 0                     | TOTAL                                        | TOTAL     | MEAN    |    |    | TOTAL           | TOTAL           | TOTAL           | TOTAL           | PENALTY |      | TOTAL       |       |        |    |
|                       | DISTANCE                                     | TIME      | JOURNEY |    |    | UNIFORM         | RANDOM+         | COST            | COST            | FOR     |      | PERFORMANCE |       |        |    |
|                       | TRAVELLED                                    | SPENT     | SPEED   |    |    | DELAY           | OVERSAT         | OF              | OF              | EXCESS  |      | INDEX       |       |        |    |
|                       | (PCU-KM/H)                                   | (PCU-H/H) | (KM/H)  |    |    | (PCU-H/H)       | (PCU-H/H)       | (\$/H)          | (\$/H)          | (\$/H)  |      | (\$/H)      |       |        |    |
| 0                     | 302.5                                        | 21.7      | 14.0    |    |    | 6.1             | 5.4             | ( 149.2) + (    | 18.4)           | + (     | 0.0) | =           | 167.6 | TOTALS |    |
| 0                     |                                              |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
|                       | NO. OF ENTRIES TO SUBPT                      | =         | 3       |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
|                       | NO. OF LINKS RECALCULATED=                   |           | 22      |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| .                     |                                              |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 0                     | 60 SECOND CYCLE                              | 60 STEPS  |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 0                     | INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- |           | 9       | 24 |    |                 |                 |                 |                 |         |      |             |       |        |    |
|                       | - (SECONDS)                                  |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 1                     | 2                                            | 0         | 39      |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 0                     | TOTAL                                        | TOTAL     | MEAN    |    |    | TOTAL           | TOTAL           | TOTAL           | TOTAL           | PENALTY |      | TOTAL       |       |        |    |
|                       | DISTANCE                                     | TIME      | JOURNEY |    |    | UNIFORM         | RANDOM+         | COST            | COST            | FOR     |      | PERFORMANCE |       |        |    |
|                       | TRAVELLED                                    | SPENT     | SPEED   |    |    | DELAY           | OVERSAT         | OF              | OF              | EXCESS  |      | INDEX       |       |        |    |
|                       | (PCU-KM/H)                                   | (PCU-H/H) | (KM/H)  |    |    | (PCU-H/H)       | (PCU-H/H)       | (\$/H)          | (\$/H)          | (\$/H)  |      | (\$/H)      |       |        |    |
| 0                     | 302.5                                        | 21.7      | 14.0    |    |    | 6.1             | 5.4             | ( 149.2) + (    | 18.4)           | + (     | 0.0) | =           | 167.6 | TOTALS |    |
| 0                     |                                              |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
|                       | NO. OF ENTRIES TO SUBPT                      | =         | 3       |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
|                       | NO. OF LINKS RECALCULATED=                   |           | 22      |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| .                     |                                              |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 0                     | 60 SECOND CYCLE                              | 60 STEPS  |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 0                     | INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- |           | 9       | 24 |    |                 |                 |                 |                 |         |      |             |       |        |    |
|                       | - (SECONDS)                                  |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 1                     | 2                                            | 0         | 39      |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 0                     | TOTAL                                        | TOTAL     | MEAN    |    |    | TOTAL           | TOTAL           | TOTAL           | TOTAL           | PENALTY |      | TOTAL       |       |        |    |
|                       | DISTANCE                                     | TIME      | JOURNEY |    |    | UNIFORM         | RANDOM+         | COST            | COST            | FOR     |      | PERFORMANCE |       |        |    |
|                       | TRAVELLED                                    | SPENT     | SPEED   |    |    | DELAY           | OVERSAT         | OF              | OF              | EXCESS  |      | INDEX       |       |        |    |
|                       | (PCU-KM/H)                                   | (PCU-H/H) | (KM/H)  |    |    | (PCU-H/H)       | (PCU-H/H)       | (\$/H)          | (\$/H)          | (\$/H)  |      | (\$/H)      |       |        |    |
| 0                     | 302.5                                        | 21.7      | 14.0    |    |    | 6.1             | 5.4             | ( 149.2) + (    | 18.4)           | + (     | 0.0) | =           | 167.6 | TOTALS |    |
| 0                     |                                              |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
|                       | NO. OF ENTRIES TO SUBPT                      | =         | 3       |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
|                       | NO. OF LINKS RECALCULATED=                   |           | 22      |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| .                     |                                              |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 0                     | 60 SECOND CYCLE                              | 60 STEPS  |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 0                     | INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- |           | 9       | 24 |    |                 |                 |                 |                 |         |      |             |       |        |    |
|                       | - (SECONDS)                                  |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 1                     | 2                                            | 0         | 39      |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 0                     | TOTAL                                        | TOTAL     | MEAN    |    |    | TOTAL           | TOTAL           | TOTAL           | TOTAL           | PENALTY |      | TOTAL       |       |        |    |
|                       | DISTANCE                                     | TIME      | JOURNEY |    |    | UNIFORM         | RANDOM+         | COST            | COST            | FOR     |      | PERFORMANCE |       |        |    |
|                       | TRAVELLED                                    | SPENT     | SPEED   |    |    | DELAY           | OVERSAT         | OF              | OF              | EXCESS  |      | INDEX       |       |        |    |
|                       | (PCU-KM/H)                                   | (PCU-H/H) | (KM/H)  |    |    | (PCU-H/H)       | (PCU-H/H)       | (\$/H)          | (\$/H)          | (\$/H)  |      | (\$/H)      |       |        |    |
| 0                     | 302.5                                        | 21.7      | 14.0    |    |    | 6.1             | 5.4             | ( 149.2) + (    | 18.4)           | + (     | 0.0) | =           | 167.6 | TOTALS |    |
| 0                     |                                              |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
|                       | NO. OF ENTRIES TO SUBPT                      | =         | 3       |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
|                       | NO. OF LINKS RECALCULATED=                   |           | 22      |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| .                     |                                              |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 0                     | 60 SECOND CYCLE                              | 60 STEPS  |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 0                     | INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- |           | 9       | 24 |    |                 |                 |                 |                 |         |      |             |       |        |    |
|                       | - (SECONDS)                                  |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 1                     | 2                                            | 0         | 39      |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 0                     | TOTAL                                        | TOTAL     | MEAN    |    |    | TOTAL           | TOTAL           | TOTAL           | TOTAL           | PENALTY |      | TOTAL       |       |        |    |
|                       | DISTANCE                                     | TIME      | JOURNEY |    |    | UNIFORM         | RANDOM+         | COST            | COST            | FOR     |      | PERFORMANCE |       |        |    |
|                       | TRAVELLED                                    | SPENT     | SPEED   |    |    | DELAY           | OVERSAT         | OF              | OF              | EXCESS  |      | INDEX       |       |        |    |
|                       | (PCU-KM/H)                                   | (PCU-H/H) | (KM/H)  |    |    | (PCU-H/H)       | (PCU-H/H)       | (\$/H)          | (\$/H)          | (\$/H)  |      | (\$/H)      |       |        |    |
| 0                     | 302.5                                        | 21.7      | 14.0    |    |    | 6.1             | 5.4             | ( 149.2) + (    | 18.4)           | + (     | 0.0) | =           | 167.6 | TOTALS |    |
| 0                     |                                              |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
|                       | NO. OF ENTRIES TO SUBPT                      | =         | 3       |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
|                       | NO. OF LINKS RECALCULATED=                   |           | 22      |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| .                     |                                              |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 0                     | 60 SECOND CYCLE                              | 60 STEPS  |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |
| 0                     | INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- |           | 9       | 24 |    |                 |                 |                 |                 |         |      |             |       |        |    |
|                       | - (SECONDS)                                  |           |         |    |    |                 |                 |                 |                 |         |      |             |       |        |    |

(PCU-KM/H) (PCU-H/H) (KM/H) (PCU-H/H)(PCU-H/H) (\$/H) 2024 AM Base Plus Dev (\$/H) (\$/H) (\$/H) (\$/H)  
 0 302.5 21.7 14.0 6.1 5.4 ( 149.2) + ( 18.4) + ( 0.0) = 167.6 TOTALS  
 0

NO. OF ENTRIES TO SUBPT = 3  
 NO. OF LINKS RECALCULATED= 22

0 60 SECOND CYCLE 60 STEPS  
 0INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9 24 -1  
 - (SECONDS)

| 1          | 2         | 59      | 39        |           |          |         |        |         |             |        |
|------------|-----------|---------|-----------|-----------|----------|---------|--------|---------|-------------|--------|
| 0 TOTAL    | TOTAL     | MEAN    | TOTAL     | TOTAL     | TOTAL    | TOTAL   | TOTAL  | PENALTY | TOTAL       |        |
| DISTANCE   | TIME      | JOURNEY | UNIFORM   | RANDOM+   | COST     | COST    | COST   | FOR     | PERFORMANCE |        |
| TRAVELLED  | SPENT     | SPEED   | DELAY     | OVERSAT   | OF       | OF      | OF     | EXCESS  | INDEX       |        |
|            |           |         | DELAY     | DELAY     | DELAY    | STOPS   | QUEUES |         |             |        |
| (PCU-KM/H) | (PCU-H/H) | (KM/H)  | (PCU-H/H) | (PCU-H/H) | (\$/H)   | (\$/H)  | (\$/H) | (\$/H)  | (\$/H)      |        |
| 0 302.5    | 21.6      | 14.0    | 5.9       | 5.6       | ( 148.5) | ( 18.1) | ( 0.0) | =       | 166.6       | TOTALS |
| 0          |           |         |           |           |          |         |        |         |             |        |

NO. OF ENTRIES TO SUBPT = 5  
 NO. OF LINKS RECALCULATED= 36

0 60 SECOND CYCLE 60 STEPS  
 0INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9 24 -1 9  
 - (SECONDS)

| 1          | 2         | 59      | 39        |           |          |         |        |         |             |        |
|------------|-----------|---------|-----------|-----------|----------|---------|--------|---------|-------------|--------|
| 0 TOTAL    | TOTAL     | MEAN    | TOTAL     | TOTAL     | TOTAL    | TOTAL   | TOTAL  | PENALTY | TOTAL       |        |
| DISTANCE   | TIME      | JOURNEY | UNIFORM   | RANDOM+   | COST     | COST    | COST   | FOR     | PERFORMANCE |        |
| TRAVELLED  | SPENT     | SPEED   | DELAY     | OVERSAT   | OF       | OF      | OF     | EXCESS  | INDEX       |        |
|            |           |         | DELAY     | DELAY     | DELAY    | STOPS   | QUEUES |         |             |        |
| (PCU-KM/H) | (PCU-H/H) | (KM/H)  | (PCU-H/H) | (PCU-H/H) | (\$/H)   | (\$/H)  | (\$/H) | (\$/H)  | (\$/H)      |        |
| 0 302.5    | 21.6      | 14.0    | 5.9       | 5.6       | ( 148.5) | ( 18.1) | ( 0.0) | =       | 166.6       | TOTALS |
| 0          |           |         |           |           |          |         |        |         |             |        |

NO. OF ENTRIES TO SUBPT = 3  
 NO. OF LINKS RECALCULATED= 22

0 60 SECOND CYCLE 60 STEPS  
 0INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9 24 -1 9 24  
 - (SECONDS)

| 1          | 2         | 59      | 39        |           |        |        |        |         |             |  |
|------------|-----------|---------|-----------|-----------|--------|--------|--------|---------|-------------|--|
| 0 TOTAL    | TOTAL     | MEAN    | TOTAL     | TOTAL     | TOTAL  | TOTAL  | TOTAL  | PENALTY | TOTAL       |  |
| DISTANCE   | TIME      | JOURNEY | UNIFORM   | RANDOM+   | COST   | COST   | COST   | FOR     | PERFORMANCE |  |
| TRAVELLED  | SPENT     | SPEED   | DELAY     | OVERSAT   | OF     | OF     | OF     | EXCESS  | INDEX       |  |
|            |           |         | DELAY     | DELAY     | DELAY  | STOPS  | QUEUES |         |             |  |
| (PCU-KM/H) | (PCU-H/H) | (KM/H)  | (PCU-H/H) | (PCU-H/H) | (\$/H) | (\$/H) | (\$/H) | (\$/H)  | (\$/H)      |  |

0 302.5 21.6 14.0 5.9 5.6 ( 148.5) + ( 18.1) + ( 0.0) = 166.6 TOTALS

0  
NO. OF ENTRIES TO SUBPT = 3  
NO. OF LINKS RECALCULATED= 22

.  
0 60 SECOND CYCLE 60 STEPS

0INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9 24 -1 9 24 1  
- (SECONDS)

|            |           |         |    |           |           |              |        |          |             |              |
|------------|-----------|---------|----|-----------|-----------|--------------|--------|----------|-------------|--------------|
| 1          | 2         | 54      | 34 |           |           |              |        |          |             |              |
| 0 TOTAL    | TOTAL     | MEAN    |    | TOTAL     | TOTAL     | TOTAL        | TOTAL  | PENALTY  | TOTAL       |              |
| DISTANCE   | TIME      | JOURNEY |    | UNIFORM   | RANDOM+   | COST         | COST   | FOR      | PERFORMANCE |              |
| TRAVELLED  | SPENT     | SPEED   |    | DELAY     | OVERSAT   | OF           | OF     | EXCESS   | INDEX       |              |
|            |           |         |    | DELAY     | DELAY     | DELAY        | STOPS  | QUEUES   |             |              |
| (PCU-KM/H) | (PCU-H/H) | (KM/H)  |    | (PCU-H/H) | (PCU-H/H) | (\$/H)       | (\$/H) | (\$/H)   | (\$/H)      |              |
| 0 302.5    | 21.6      | 14.0    |    | 5.9       | 5.6       | ( 148.5) + ( | 18.1)  | + ( 0.0) | =           | 166.6 TOTALS |

0  
NO. OF ENTRIES TO SUBPT = 8  
NO. OF LINKS RECALCULATED= 57

.  
0 60 SECOND CYCLE 60 STEPS

0INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9 24 -1 9 24 1 -1  
- (SECONDS)

|            |           |         |    |           |           |              |        |          |             |              |
|------------|-----------|---------|----|-----------|-----------|--------------|--------|----------|-------------|--------------|
| 1          | 2         | 54      | 34 |           |           |              |        |          |             |              |
| 0 TOTAL    | TOTAL     | MEAN    |    | TOTAL     | TOTAL     | TOTAL        | TOTAL  | PENALTY  | TOTAL       |              |
| DISTANCE   | TIME      | JOURNEY |    | UNIFORM   | RANDOM+   | COST         | COST   | FOR      | PERFORMANCE |              |
| TRAVELLED  | SPENT     | SPEED   |    | DELAY     | OVERSAT   | OF           | OF     | EXCESS   | INDEX       |              |
|            |           |         |    | DELAY     | DELAY     | DELAY        | STOPS  | QUEUES   |             |              |
| (PCU-KM/H) | (PCU-H/H) | (KM/H)  |    | (PCU-H/H) | (PCU-H/H) | (\$/H)       | (\$/H) | (\$/H)   | (\$/H)      |              |
| 0 302.5    | 21.6      | 14.0    |    | 5.9       | 5.6       | ( 148.5) + ( | 18.1)  | + ( 0.0) | =           | 166.6 TOTALS |

0  
NO. OF ENTRIES TO SUBPT = 5  
NO. OF LINKS RECALCULATED= 36

.  
0 60 SECOND CYCLE 60 STEPS

0FINAL SETTINGS OBTAINED WITH INCREMENTS :- 9 24 -1 9 24 1 -1 1  
- (SECONDS)

|   |      |           |       |       |       |       |       |       |       |
|---|------|-----------|-------|-------|-------|-------|-------|-------|-------|
| 0 | NODE | NUMBER    | STAGE | STAGE | STAGE | STAGE | STAGE | STAGE | STAGE |
|   | NO   | OF STAGES | 1     | 2     | 3     | 4     | 5     | 6     | 7     |

|        |      |      |        |        |                |                 |                                                                                                                    |                 |             |      |         |               |      |       |
|--------|------|------|--------|--------|----------------|-----------------|--------------------------------------------------------------------------------------------------------------------|-----------------|-------------|------|---------|---------------|------|-------|
| 1      | 2    | 54   | 34     |        |                |                 |                                                                                                                    |                 |             |      |         |               |      |       |
| 0 LINK | FLOW | SAT  | DEGREE | MEAN   | TIMES          | -----DELAY----- | ---- <td>-----QUEUE-----</td> <td>PERFORMANCE</td> <td>EXIT</td> <td>GREEN</td> <td>TIMES</td> <td></td> <td></td> | -----QUEUE----- | PERFORMANCE | EXIT | GREEN   | TIMES         |      |       |
| NUMBER | INTO | FLOW | OF     | PER    | PCU            | UNIFORM         | RANDOM+ COST                                                                                                       | MEAN            | COST        | MAX. | AVERAGE | INDEX.        | NODE | START |
|        | LINK |      | SAT    | CRUISE |                | OVERSAT         | OF                                                                                                                 | STOPS           | OF          |      | EXCESS  | WEIGHTED SUM  |      | END   |
|        |      |      |        | DELAY  | (U+R+O=MEAN Q) | DELAY           |                                                                                                                    | /PCU            | STOPS       |      |         | OF ( ) VALUES |      | 1ST   |
|        |      |      |        |        |                |                 |                                                                                                                    |                 |             |      |         |               |      | 2ND   |

| 2024 AM Base Plus Dev          |                 |         |       |       |                 |                   |            |         |                 |             |        |           |                 |  |  |
|--------------------------------|-----------------|---------|-------|-------|-----------------|-------------------|------------|---------|-----------------|-------------|--------|-----------|-----------------|--|--|
| (PCU/H)                        | (PCU/H)         | (%)     | (SEC) | (SEC) | (PCU-H/H)       | (\$/H)            | (%)        | (\$/H)  | (PCU)           | (PCU)       | (\$/H) | (SECONDS) |                 |  |  |
| 101                            | 613             | 1983    | 52    | 12    | 10              | 1.2 + 0.5 ( 22.1) | 56 ( 3.9)  | 6       | 26.0            | 1           | 59     | 34        |                 |  |  |
| 102                            | 82              | 1492    | 39    | 3     | 24              | 0.2 + 0.3 ( 7.1)  | 101 ( 0.4) | 1       | 7.5             | 1           | 59     | 37        |                 |  |  |
| 103                            | 373             | 1716    | 82    | 12    | 41              | 2.1 + 2.1 ( 55.3) | 119 ( 5.0) | 8       | 60.3            | 1           | 39     | 54        |                 |  |  |
| 104                            | 928             | 1963    | 79    | 12    | 16              | 2.3 + 1.8 ( 54.1) | 78 ( 8.2)  | 13      | 62.4            | 1           | 59     | 34        |                 |  |  |
| 201                            | 779             | 2000    | 39    | 2     | 1               | 0.0 + 0.3 ( 4.1)  | 2 ( 0.2)   | 0       | 4.3             |             |        |           |                 |  |  |
| 202                            | 924             | 2000    | 46    | 12    | 2               | 0.0 + 0.4 ( 5.5)  | 3 ( 0.3)   | 0       | 5.8             |             |        |           |                 |  |  |
| 203                            | 10              | 690     | 3     | 6     | 5               | 0.0 + 0.0 ( 0.2)  | 0 ( 0.0)   | 0       | 0.2             |             |        |           |                 |  |  |
| 204                            | 10              | 500     | 1     | 12    | 1               | 0.0 + 0.0 ( 0.0)  | 0 ( 0.0)   | 0       | 0.0             |             |        |           |                 |  |  |
| 0 TOTAL                        | TOTAL           | MEAN    |       |       | TOTAL           | TOTAL             | TOTAL      | TOTAL   | PENALTY         | TOTAL       |        |           |                 |  |  |
| DISTANCE                       | TIME            | JOURNEY |       |       | UNIFORM         | RANDOM+           | COST       | COST    | FOR             | PERFORMANCE |        |           |                 |  |  |
| TRAVELLED                      | SPENT           | SPEED   |       |       | DELAY           | OVERSAT           | OF         | OF      | EXCESS          | INDEX       |        |           |                 |  |  |
| (PCU-KM/H)                     | (PCU-H/H)       | (KM/H)  |       |       | (PCU-H/H)       | (PCU-H/H)         | (\$/H)     | (\$/H)  | (\$/H)          | (\$/H)      |        |           |                 |  |  |
| 0 302.5                        | 21.6            | 14.0    |       |       | 5.9             | 5.6               | ( 148.5)   | ( 18.1) | ( 0.0)          | = 166.6     | TOTALS |           |                 |  |  |
| *****                          |                 |         |       |       |                 |                   |            |         |                 |             |        |           |                 |  |  |
| 0                              | CRUISE          |         |       |       | DELAY           |                   |            |         | STOPS           |             |        |           | TOTALS          |  |  |
| 0 FUEL CONSUMPTION PREDICTIONS | LITRES PER HOUR |         |       |       | LITRES PER HOUR |                   |            |         | LITRES PER HOUR |             |        |           | LITRES PER HOUR |  |  |
| 0                              | 19.4            |         |       |       | + 13.2          |                   |            |         | + 9.1           |             |        |           | = 41.7          |  |  |
| NO. OF ENTRIES TO SUBPT = 3    |                 |         |       |       |                 |                   |            |         |                 |             |        |           |                 |  |  |
| NO. OF LINKS RECALCULATED= 22  |                 |         |       |       |                 |                   |            |         |                 |             |        |           |                 |  |  |
| PROGRAM TRANSYT FINISHED       |                 |         |       |       |                 |                   |            |         |                 |             |        |           |                 |  |  |

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2024 PM Base Plus Dev  
T R A N S Y T  
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TRAffic Network StudY Tool

(C) COPYRIGHT 1996,2001 - TRL Limited, Crowthorne, Berkshire, RG45 6AU, UK
 Implementation for IBM-PC or compatible
 Program TRANSYT 11, Analysis Program Version 1.6
 Run with file:- "2024 PM BASE PLUS DEV.DAT" at 10:33 on 25/07/17
 NAS Thames Valley 2024 PM Base + Dev

PARAMETERS CONTROLLING DIMENSIONS OF PROBLEM :

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NUMBER OF NODES = 1  
 NUMBER OF LINKS = 8  
 NUMBER OF OPTIMISED NODES = 1  
 MAXIMUM NUMBER OF GRAPHIC PLOTS = 0  
 NUMBER OF STEPS IN CYCLE = 60  
 MAXIMUM NUMBER OF SHARED STOPLINES = 0  
 MAXIMUM NUMBER OF TIMING POINTS = 2  
 MAXIMUM LINKS AT ANY NODE = 4

CORE REQUESTED = 4278 WORDS  
 CORE AVAILABLE = 72000 WORDS

.  
 DATA INPUT :-

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0CARD CARD
 NO. TYPE

(1)= TITLE:- NAS Thames Valley 2024 PM Base + Dev

0CARD NO.	CARD TYPE	CYCLE TIME (SEC)	NO. OF STEPS PER CYCLE	TIME EFFECTIVE-GREEN PERIOD 1-1200 MINS.	EFFECTIVE-GREEN DISPLACEMENTS START (SEC)	EFFECTIVE-GREEN END (SEC)	EQUISAT SETTINGS 0=NO 1=YES	0=UNEQUAL FLOW 1=EQUAL	CRUISE-SPEEDS SCALE 10-200	CRUISE-SPEEDS CARD32 50-200	0=TIMES 1=SPEEDS	OPTIMISE 0=NONE 1=O/SET 2=FULL	EXTRA COPIES FINAL OUTPUT	HILL-CLIMB 0=0 1=FULL	DELAY VALUE P PER	STOP VALUE P PER
2)= 1	1	60	60	120	2	3	1	0	0	0	1	2	0	0	1290	235

0CARD CARD LIST OF NODES TO BE OPTIMISED

NO. TYPE

0CARD NO.	CARD TYPE	NODE NO.	STAGE 1 CHANGE	STAGE 1 MIN	STAGE 2 CHANGE	STAGE 2 MIN	STAGE 3 CHANGE	STAGE 3 MIN	STAGE 4 CHANGE	STAGE 4 MIN	STAGE 5 CHANGE	STAGE 5 MIN	STAGE 6 CHANGE	STAGE 6 MIN	STAGE 7 CHANGE	STAGE 7 MIN
3)= 2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

0 LINK CARDS: GIVEWAY DATA

CARD	CARD	LINK	PRIORITY LINKS LINK1 LINK2	LINK1 ONLY	LINK2 ONLY	GIVEWAY COEFFS. A1 A2	LINK	STOP	MAX	DELAY	DISPSN
4)= 12	1	0	12	0	12	0	0	0	0	0	0

NO.	TYPE	NO.	NO.	NO.	% FLOW	X100	X100				LENGTH	WT.X100	FLOW	WT.X100	X100
5)=	30	102	104	0	0	50	0	0	0	0	100	0	1000	0	0
6)=	30	203	201	202	0	22	19	0	0	0	50	0	690	0	0
7)=	30	204	201	0	0	50	100	0	0	0	20	0	1700	0	0

LINK CARDS: FIXED DATA

CARD NO.	CARD TYPE	LINK NO.	EXIT NODE	FIRST		GREEN		SECOND		GREEN		LINK LENGTH	STOP WT.X100	SAT FLOW	DELAY WT.X100	DISPSN X100
				START STAGE	LAG	END STAGE	LAG	START STAGE	LAG	END STAGE	LAG					
8)=	31	101	1	1	5	2	0	0	0	0	0	100	0	1983	0	0
9)=	31	102	1	1	5	2	3	0	0	0	0	18	0	1492	0	0
10)=	31	103	1	2	5	1	0	0	0	0	0	100	0	1716	0	0
11)=	31	104	1	1	5	2	0	0	0	0	0	100	0	1963	0	0
12)=	31	201	0	0	0	0	0	0	0	0	0	20	0	2000	0	0
13)=	31	202	0	0	0	0	0	0	0	0	0	100	0	2000	0	0
14)=	31	203	0	0	0	0	0	0	0	0	0	50	0	690	0	0
15)=	31	204	0	0	0	0	0	0	0	0	0	100	0	500	0	0

LINK CARDS: FLOW DATA

CARD NO.	CARD TYPE	LINK NO.	TOTAL FLOW	UNIFORM FLOW	ENTRY 1			ENTRY 2			ENTRY 3			ENTRY 4		
					LINK NO.	FLOW	CRUISE SPEED	LINK NO.	FLOW	CRUISE SPEED	LINK NO.	FLOW	CRUISE SPEED	LINK NO.	FLOW	CRUISE SPEED
16)=	32	101	823	0	0	0	30	0	0	0	0	0	0	0	0	0
17)=	32	102	85	0	101	85	20	0	0	0	0	0	0	0	0	0
18)=	32	103	289	0	0	0	30	0	0	0	0	0	0	0	0	0
19)=	32	104	704	0	202	702	30	203	10	30	0	0	0	0	0	0
20)=	32	201	928	0	101	738	30	103	190	30	0	0	0	0	0	0
21)=	32	202	702	0	0	0	30	0	0	0	0	0	0	0	0	0
22)=	32	203	10	0	0	0	30	0	0	0	0	0	0	0	0	0
23)=	32	204	10	0	0	0	30	0	0	0	0	0	0	0	0	0

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0INITIAL SETTINGS

0	NODE NO	NUMBER OF STAGES	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	STAGE 6	STAGE 7
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Ø	1 LINK NUMBER	2 FLOW INTO LINK	0 SAT FLOW	41 DEGREE OF SAT	MEAN PER PCU CRUISE	TIMES PCU	-----DELAY----- UNIFORM RANDOM+ COST OVERSAT OF	----STOPS----	----QUEUE----	PERFORMANCE INDEX.	EXIT NODE	GREEN TIMES START END
	(PCU/H)	(PCU/H)	(%)	(SEC)	(SEC)	DELAY (U+R+O=MEAN Q) (PCU-H/H)	DELAY (\$/H)	MEAN STOPS /PCU (%)	COST OF STOPS (\$/H)	MEAN AVERAGE EXCESS (PCU) (PCU)	WEIGHTED SUM OF () VALUES (\$/H)	1ST END (SECONDS)
101	823	1983	67	12	12	1.7 + 1.0 (35.5)		65 (6.0)		10	41.5	1 5 41
102	86	1492	25	3	10	0.1 + 0.2 (3.0)		58 (0.2)		1	3.3	1 5 44
103	289	1716	67	12	33	1.6 + 1.0 (34.2)		104 (3.4)		5	37.7	1 46 0
104	703	1963	58	12	10	1.3 + 0.7 (26.3)		58 (4.6)		8	30.9	1 5 41
201	928	2000	46	2	2	0.0 + 0.4 (5.6)		3 (0.3)		0	5.9	
202	702	2000	35	12	1	0.0 + 0.3 (3.5)		2 (0.2)		0	3.7	

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203	10	690	3	6	5	0.0 +	0.0 (	0.2)	0 (0.0)	0	0.2
204	10	500	1	12	1	0.0 +	0.0 (	0.1)	0 (0.0)	0	0.1
0 TOTAL		TOTAL	MEAN			TOTAL	TOTAL	TOTAL	TOTAL	PENALTY	TOTAL
DISTANCE		TIME	JOURNEY			UNIFORM	RANDOM+	COST	COST	FOR	PERFORMANCE
TRAVELLED		SPENT	SPEED			DELAY	OVERSAT	OF	OF	EXCESS	INDEX
						DELAY	DELAY	DELAY	STOPS	QUEUES	
(PCU-KM/H)	(PCU-H/H)	(KM/H)				(PCU-H/H)	(PCU-H/H)	(\$/H)	(\$/H)	(\$/H)	(\$/H)
0 273.4	17.5	15.6			4.8	3.6	(108.3)	+ (14.8)	+ (0.0)	=	123.1 TOTALS
0*****											
0		CRUISE			DELAY		STOPS		TOTALS		
		LITRES PER HOUR			LITRES PER HOUR		LITRES PER HOUR		LITRES PER HOUR		
0FUEL CONSUMPTION PREDICTIONS		17.5			+ 9.7		+ 7.5		=	34.6	
0											
NO. OF ENTRIES TO SUBPT = 1											
NO. OF LINKS RECALCULATED= 8											
.											
0 60 SECOND CYCLE 60 STEPS											
0INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9											
- (SECONDS)											
1	2	0	41								
0 TOTAL		TOTAL	MEAN			TOTAL	TOTAL	TOTAL	TOTAL	PENALTY	TOTAL
DISTANCE		TIME	JOURNEY			UNIFORM	RANDOM+	COST	COST	FOR	PERFORMANCE
TRAVELLED		SPENT	SPEED			DELAY	OVERSAT	OF	OF	EXCESS	INDEX
						DELAY	DELAY	DELAY	STOPS	QUEUES	
(PCU-KM/H)	(PCU-H/H)	(KM/H)				(PCU-H/H)	(PCU-H/H)	(\$/H)	(\$/H)	(\$/H)	(\$/H)
0 273.4	17.5	15.6			4.8	3.6	(108.3)	+ (14.8)	+ (0.0)	=	123.1 TOTALS
0											
NO. OF ENTRIES TO SUBPT = 3											
NO. OF LINKS RECALCULATED= 22											
.											
0 60 SECOND CYCLE 60 STEPS											
0INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9 24											
- (SECONDS)											
1	2	36	17								
0 TOTAL		TOTAL	MEAN			TOTAL	TOTAL	TOTAL	TOTAL	PENALTY	TOTAL
DISTANCE		TIME	JOURNEY			UNIFORM	RANDOM+	COST	COST	FOR	PERFORMANCE
TRAVELLED		SPENT	SPEED			DELAY	OVERSAT	OF	OF	EXCESS	INDEX
						DELAY	DELAY	DELAY	STOPS	QUEUES	
(PCU-KM/H)	(PCU-H/H)	(KM/H)				(PCU-H/H)	(PCU-H/H)	(\$/H)	(\$/H)	(\$/H)	(\$/H)
0 273.4	17.5	15.6			4.8	3.6	(108.3)	+ (14.8)	+ (0.0)	=	123.1 TOTALS
0											
NO. OF ENTRIES TO SUBPT = 4											
NO. OF LINKS RECALCULATED= 29											
.											
0 60 SECOND CYCLE 60 STEPS											
0INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9 24 -1											
- (SECONDS)											

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1	2	35	17							
0 TOTAL	TOTAL	MEAN	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	PENALTY	TOTAL	
DISTANCE	TIME	JOURNEY	UNIFORM	RANDOM+	COST	COST	FOR	EXCESS	PERFORMANCE	
TRAVELLED	SPENT	SPEED	DELAY	OVERSAT	OF	OF	QUEUES	INDEX		
(PCU-KM/H)	(PCU-H/H)	(KM/H)	(PCU-H/H)	(PCU-H/H)	(\$/H)	(\$/H)	(\$/H)	(\$/H)		
0 273.4	17.5	15.7	4.6	3.8	(107.4)	+ (14.5)	+ (0.0)	=	121.9	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 36

.
0 60 SECOND CYCLE 60 STEPS
0INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9 24 -1 9
- (SECONDS)

1	2	35	17							
0 TOTAL	TOTAL	MEAN	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	PENALTY	TOTAL	
DISTANCE	TIME	JOURNEY	UNIFORM	RANDOM+	COST	COST	FOR	EXCESS	PERFORMANCE	
TRAVELLED	SPENT	SPEED	DELAY	OVERSAT	OF	OF	QUEUES	INDEX		
(PCU-KM/H)	(PCU-H/H)	(KM/H)	(PCU-H/H)	(PCU-H/H)	(\$/H)	(\$/H)	(\$/H)	(\$/H)		
0 273.4	17.5	15.7	4.6	3.8	(107.4)	+ (14.5)	+ (0.0)	=	121.9	TOTALS

NO. OF ENTRIES TO SUBPT = 3
NO. OF LINKS RECALCULATED= 22

.
0 60 SECOND CYCLE 60 STEPS
0INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9 24 -1 9 24
- (SECONDS)

1	2	35	17							
0 TOTAL	TOTAL	MEAN	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	PENALTY	TOTAL	
DISTANCE	TIME	JOURNEY	UNIFORM	RANDOM+	COST	COST	FOR	EXCESS	PERFORMANCE	
TRAVELLED	SPENT	SPEED	DELAY	OVERSAT	OF	OF	QUEUES	INDEX		
(PCU-KM/H)	(PCU-H/H)	(KM/H)	(PCU-H/H)	(PCU-H/H)	(\$/H)	(\$/H)	(\$/H)	(\$/H)		
0 273.4	17.5	15.7	4.6	3.8	(107.4)	+ (14.5)	+ (0.0)	=	121.9	TOTALS

NO. OF ENTRIES TO SUBPT = 3
NO. OF LINKS RECALCULATED= 22

.
0 60 SECOND CYCLE 60 STEPS
0INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9 24 -1 9 24 1
- (SECONDS)

1	2	34	16							
0 TOTAL	TOTAL	MEAN	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	PENALTY	TOTAL	
DISTANCE	TIME	JOURNEY	UNIFORM	RANDOM+	COST	COST	FOR	EXCESS	PERFORMANCE	

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TRAVELLED	SPENT	SPEED	DELAY	OVERSAT DELAY	OF DELAY	OF STOPS	EXCESS QUEUES	INDEX	
(PCU-KM/H)	(PCU-H/H)	(KM/H)	(PCU-H/H)	(PCU-H/H)	(\$/H)	(\$/H)	(\$/H)	(\$/H)	
0 273.4	17.5	15.7	4.6	3.8	(107.4)	+ (14.5)	+ (0.0)	= 121.9	TOTALS

0
 NO. OF ENTRIES TO SUBPT = 4
 NO. OF LINKS RECALCULATED= 29

.
 0 60 SECOND CYCLE 60 STEPS
 0 INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9 24 -1 9 24 1 -1
 - (SECONDS)

1	2	34	16							
0 TOTAL	TOTAL	MEAN	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	PENALTY	TOTAL	
DISTANCE	TIME	JOURNEY	UNIFORM	RANDOM+	COST	COST	COST	FOR	PERFORMANCE	
TRAVELLED	SPENT	SPEED	DELAY	OVERSAT	OF	OF	OF	EXCESS	INDEX	
(PCU-KM/H)	(PCU-H/H)	(KM/H)	(PCU-H/H)	(PCU-H/H)	(\$/H)	(\$/H)	(\$/H)	(\$/H)	(\$/H)	
0 273.4	17.5	15.7	4.6	3.8	(107.4)	+ (14.5)	+ (0.0)	= 121.9	TOTALS	

0
 NO. OF ENTRIES TO SUBPT = 5
 NO. OF LINKS RECALCULATED= 36

.
 0 60 SECOND CYCLE 60 STEPS
 0 FINAL SETTINGS OBTAINED WITH INCREMENTS :- 9 24 -1 9 24 1 -1 1
 - (SECONDS)

0	NODE	NUMBER	STAGE	STAGE	STAGE	STAGE	STAGE	STAGE	STAGE								
	NO	OF STAGES	1	2	3	4	5	6	7								
0	LINK	FLOW	SAT	DEGREE	MEAN	TIMES	-----DELAY-----	-----STOPS-----	-----QUEUE-----	PERFORMANCE	EXIT	GREEN	TIMES				
	NUMBER	INTO	FLOW	OF	PER	PCU	UNIFORM	RANDOM+	COST	MEAN	COST	MEAN	AVERAGE	INDEX.	NODE	START	START
		LINK		SAT	CRUISE		(U+R+O=MEAN Q)	OVERSAT	OF	STOPS	OF	MAX.	EXCESS	WEIGHTED SUM		END	END
			(PCU/H)	(PCU/H)	(%)	(SEC)	(PCU-H/H)	(\$/H)	(\$/H)	(%)	(\$/H)	(PCU)	(PCU)	OF () VALUES		1ST	2ND
						(SEC)								(\$/H)		(SECONDS)	
	101	823	1983	66	12	11	1.6 + 0.9	(32.6)	61	(5.7)	9			38.3	1	39	16
	102	86	1492	24	3	9	0.1 + 0.2	(2.8)	54	(0.2)	1			3.0	1	39	19
	103	289	1716	72	12	37	1.7 + 1.3	(38.5)	111	(3.7)	6			42.2	1	21	34
	104	703	1963	57	12	10	1.2 + 0.7	(24.2)	55	(4.4)	7			28.6	1	39	16
	201	928	2000	46	2	2	0.0 + 0.4	(5.6)	3	(0.3)	0			5.9			
	202	702	2000	35	12	1	0.0 + 0.3	(3.5)	2	(0.2)	0			3.7			
	203	10	690	3	6	5	0.0 + 0.0	(0.2)	0	(0.0)	0			0.2			
	204	10	500	1	12	1	0.0 + 0.0	(0.1)	0	(0.0)	0			0.1			
0	TOTAL	TOTAL	MEAN	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	PENALTY	TOTAL				
	DISTANCE	TIME	JOURNEY	UNIFORM	RANDOM+	COST	COST	COST	COST	COST	COST	FOR	PERFORMANCE				
	TRAVELLED	SPENT	SPEED	DELAY	OVERSAT	OF	OF	OF	OF	OF	OF	EXCESS	INDEX				
	(PCU-KM/H)	(PCU-H/H)	(KM/H)	(PCU-H/H)	(PCU-H/H)	(\$/H)	(\$/H)	(\$/H)	(\$/H)	(\$/H)	(\$/H)	(\$/H)	(\$/H)				

						2024 PM Base Plus Dev		
0	273.4	17.5	15.7	4.6	3.8	(107.4) + (14.5) + (0.0)	=	121.9 TOTALS
0*****								
0		CRUISE	DELAY	STOPS	TOTALS			
		LITRES PER HOUR	LITRES PER HOUR	LITRES PER HOUR	LITRES PER HOUR			
0	FUEL CONSUMPTION PREDICTIONS	17.5	+	9.6	+	7.3	=	34.4
0								
	NO. OF ENTRIES TO SUBPT	=	3					
	NO. OF LINKS RECALCULATED=	22						
PROGRAM TRANSYT FINISHED								