

Appendix M to the Environmental Statement: Transport Assessment Supplemental Technical Note 1

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1.0 Introduction

CH2M have been appointed by the Environment Agency to deliver the design, statutory Environmental Impact Assessment and planning elements of the Oxford Flood Alleviation Scheme (OFAS) (known as 'The Scheme').

The Scheme aims to:

- Reduce flood damages to at least 1000 homes and businesses currently at risk in Oxford;
- Reduce flood impacts on transport infrastructure and utilities in Oxford, particularly to Botley and Abingdon Roads, the railway line and the sewerage system;
- Safeguard Oxford's reputation as a thriving centre of commerce that is open for business; and
- Create and maintain new recreational amenities, wildlife habitat, and naturalised watercourses accessible from the centre of Oxford.

The Scheme will consist of the construction of a two-stage channel. The first stage channel will replace some of the existing watercourses and ditches and will flow all year. When river levels are normal, or lower, the second stage of the channel will be mostly dry although when river levels are sufficiently high, water will flow along it.

The works involve the construction of various new defences such as bunds and walls together with many new culverts, bridges and other small structures that are required to maintain access routes.

As part of the planning application and consenting process, a Transport Assessment (TA) has been produced along with a Construction Traffic Management Plan (CTMP). These have been submitted to the Local Planning Authority.

During the consultation phase of the planning application, highway and transport related matters have been raised by the Local Highway Authority, Highways England and the Oxford Bus Company. Further detail is provided on these matters in an additional supplementary technical note in Annex D of this ES Addendum (which now forms Appendix M to the Environmental Statement). This note considers the following concerns raised by the Oxford Bus Company:

1. Impacts due to the reduction in available P&R parking at Redbridge

2. The shared access at Seacourt P&R

2.0 Redbridge Park and Ride Impacts

Construction of the scheme will require a section of the Redbridge P&R car park to be temporarily used as a site compound while a small section will be permanently lost as part of the scheme's final arrangement.

2.1 Current Redbridge P&R Occupancy Trends

The Transport Monitoring Team at Oxfordshire County Council (OxCC) have provided occupancy data for Redbridge P&R based upon traffic counters located at the public vehicular entrance and exit of the site. This data is summarised in Tables 2.1 to 2.3 below and provided in full electronically, due to the quantity of data supplied.

Table 2.1

*Redbridge P&R five day (Monday to Friday) average occupancy
01/01/2017 to 13/07/2018*

Hour beginning	Vehicles in	Vehicles out	Occupancy	Available spaces
00:00	0	2	-1	1163
01:00	0	1	-2	1163
02:00	0	0	-2	1163
03:00	0	0	-2	1163
04:00	0	0	-2	1163
05:00	7	1	4	1159
06:00	45	3	46	1117
07:00	165	16	196	967
08:00	188	13	371	792
09:00	133	10	493	670
10:00	99	13	579	584
11:00	81	25	635	528
12:00	56	41	650	513
13:00	42	56	637	526
14:00	28	71	593	570
15:00	20	95	518	645
16:00	26	155	389	774
17:00	24	180	233	930
18:00	17	117	133	1030
19:00	7	42	98	1065

Table 2.1

*Redbridge P&R five day (Monday to Friday) average occupancy
01/01/2017 to 13/07/2018*

Hour beginning	Vehicles in	Vehicles out	Occupancy	Available spaces
20:00	5	27	77	1086
21:00	4	18	63	1100
22:00	3	20	46	1117
23:00	1	7	40	1123

Table 2.2

*Redbridge P&R Saturday average occupancy 01/01/2017 to
13/07/2018*

Hour beginning	Vehicles in	Vehicles out	Occupancy	Available spaces
00:00	1	3	-2	1163
01:00	1	1	-3	1163
02:00	0	1	-4	1163
03:00	0	0	-4	1163
04:00	1	1	-4	1163
05:00	2	0	-2	1163
06:00	11	1	7	1156
07:00	24	4	28	1135
08:00	53	6	75	1088
09:00	92	10	158	1005
10:00	127	16	269	894
11:00	128	28	369	794
12:00	105	44	430	733
13:00	86	53	463	700
14:00	56	68	451	712
15:00	33	94	389	774
16:00	22	113	298	865
17:00	20	119	199	964
18:00	19	72	146	1017
19:00	8	37	117	1046

Table 2.2

*Redbridge P&R Saturday average occupancy 01/01/2017 to
13/07/2018*

Hour beginning	Vehicles in	Vehicles out	Occupancy	Available spaces
20:00	5	25	97	1066
21:00	3	19	81	1082
22:00	3	30	55	1108
23:00	2	11	45	1118

Table 2.3

*Redbridge P&R Sunday average occupancy 01/01/2017 to
13/07/2018*

Hour beginning	Vehicles in	Vehicles out	Occupancy	Available spaces
00:00	1	4	-3	1163
01:00	1	2	-4	1163
02:00	0	1	-4	1163
03:00	0	1	-5	1163
04:00	0	1	-5	1163
05:00	0	0	-5	1163
06:00	3	1	-2	1163
07:00	14	2	9	1154
08:00	21	3	28	1135
09:00	43	7	64	1099
10:00	86	10	140	1023
11:00	81	13	208	955
12:00	59	29	237	926
13:00	42	43	236	927
14:00	25	51	210	953
15:00	12	64	159	1004
16:00	10	66	104	1059
17:00	9	59	53	1110
18:00	6	25	35	1128
19:00	5	14	26	1137

Table 2.3

Redbridge P&R Sunday average occupancy 01/01/2017 to 13/07/2018

Hour beginning	Vehicles in	Vehicles out	Occupancy	Available spaces
20:00	3	10	19	1144
21:00	2	6	15	1148
22:00	1	6	10	1153
23:00	1	4	8	1155

Note that all 'available spaces' calculations in tables 2.1 to 2.3 are based upon the maximum capacity arrangement of 1163 spaces

Tables 2.1 to 2.3 demonstrate that the maximum average occupancy occurs between midday and 1pm on a weekday peaking at 650 vehicles leaving 513 free spaces.

2.2 Temporary Construction Impacts

During construction the southern section of Redbridge P&R is to be used as a site compound. The loss of spaces due to the compound were calculated at 300 at the TA stage (although this was erroneously reported as 30 in the TA itself). Further detail provided by OxCC Transport Monitoring Team during the consultation phase has allowed a more accurate calculation of this temporary loss which equates to 380 spaces, and this recalculated number has been agreed with Oxford City Council, the owners of the Redbridge P&R site. It should be noted that this is an expected worst-case scenario. Following a detailed review of the scheme, the appointed contractor may reduce the size of the compound thus maintaining a greater number of available spaces during the works.

2.3 Permanent Scheme Impacts

When completed, the scheme will require a permanent reduction of 45 public parking spaces at Redbridge P&R.

3.0 Concerns Raised by the Oxford Bus Company

This section discusses in detail concerns in section 1.0 raised by the Oxford Bus Company and, through providing additional details, explains the mitigation proposed. Matter 1 - Impacts due to the reduction in available parking spaces at Redbridge P&R

The Oxford Bus Company raised an objection to the scheme based upon the loss they may incur due to a reduction in available spaces at the Redbridge P&R site due to the temporary construction compound. Using the information outlined above the potential shortfall in spaces, compared to an average day, during the works can be calculated. This is provided below in table 3.1.

Table 3.1*Impacts of construction compound on availability of spaces at Redbridge P&R*

Average Day	Average maximum occupancy	Available spaces	Spaces used by construction compound	Remaining spaces/shortfall
Weekday	650	513	380	133
Saturday	463	700	380	320
Sunday	237	926	380	546

Table 3.1 demonstrates that should the chosen contractor use the largest available area for the construction compound at Redbridge P&R there would remain 99 available spaces within the site during periods of maximum occupancy.

However, should a shift towards sustainable modes by local users leading to an increase in the use of the Park and Ride occur prior to or during the works, it is recognised that this available parking capacity could be rapidly exhausted. In this instance, rather than a decision not to use P&R facilities, it is likely users would simply plan journeys based upon an alternative P&R site. The proposed extension to Seacourt P&R, which is expected to be partially built prior to the start of scheme construction works will add, on completion, 450 spaces to the total available at P&R sites throughout Oxfordshire. As discussed with the Highway Authority, this more than offsets the spaces taken up by the construction compound at Redbridge P&R. Therefore, on balance, we do not believe that the temporary loss of up to 380 parking spaces within the Redbridge P&R site would present a 'severe' highway related impact, as set out in National Planning Policy Framework (NPPF), to prevent approval of the scheme's planning application.

3.1 Matter 2 - The shared access at Seacourt P&R

Although not raising the issue as an objection, the Oxford Bus Company request further information relating to the potential interaction of scheme related construction traffic and bus services at the Seacourt P&R access. This access is proposed to be shared by both buses and scheme traffic which the Oxford Bus Company believe may contribute to delays in services. The Outline Construction Traffic Management Plan (CTMP) submitted in section 7.2 of the TA supporting the application outlines methods that will provide positive control over scheme related traffic thus reducing the risk of delays to any service buses. However, in order to assist stakeholders in determining whether this offers adequate mitigation during construction works, this note provides further detail on how such control could be achieved. Although it should be recognised that the chosen contractor may operate a different methodology to achieve the same goal.

A delivery or vehicle management system, such as that provided by Datascope, is proposed be used to monitor construction vehicle movements and ensure timely arrival and departure of vehicles. Such a system allows the active management of site traffic to ensure vehicles only approach or leave the site at specific times. This active management provides positive control over scheme traffic.

Applying this operational principle to Seacourt P&R means that site traffic, for example, can be held at location 1 shown on figure 3.1 while a bus which has picked up users passes the site junction. Construction traffic held at location 1 will then be released from the site queuing behind bus services at the signalised junction providing access to Seacourt P&R, location 2.

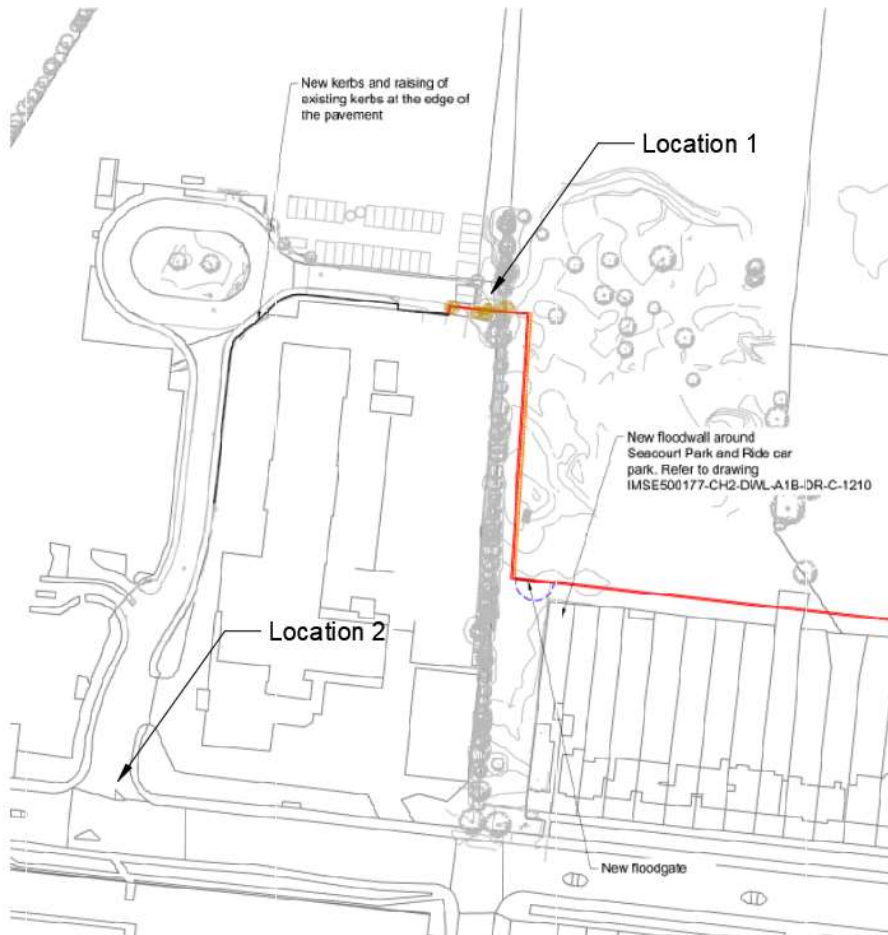


Figure 3.1 – Seacourt P&R potential operation

Section 7.2.6 of the TA also outlines measures which will be taken to alleviate the impact of the scheme on the highway network. These measures will also assist in reducing the impact of scheme traffic on bus services. These are

- Movements will be timed outside peak periods (usually considered to be 08:00 to 09:00 and 17:00 to 18:00).
- Abnormal load routes and movements will be agreed and timed in consultation with highway authorities and the local police.
- The contractor will provide temporary signage to control site traffic and reinforce identification of the permitted routes for construction traffic

Section 7.2.4 of the TA also sets out the establishment of a Transport Monitoring Working Group (TMWG) which will consist of representatives from

- Contractor
- Local Highway Authority
- Highways England
- Public transport operators
- Parish councils
- Environment Agency

Thus, the TMWG will provide the Oxford Bus Company with an ongoing voice as the scheme progresses in which they can raise any concerns arising during construction. This includes any unforeseen interaction between bus services and construction traffic within Seacourt P&R should it occur.

The combination of these mitigation measures will therefore act to limit the impact of the scheme on the punctuality and availability of bus services during construction works. Therefore, as with those matters discussed in section 3.1, we do not believe any impact on bus services as a result of the shared use of Seacourt P&R would be considered a 'severe' highway impact.

4.0 Conclusion

This technical note provides additional detail to that presented in the TA and demonstrates that impacts at Redbridge P&R and Seacourt P&R will not present 'severe' highway related issues, as set out in NPPF, to the availability of car parking spaces and the punctuality of bus services.