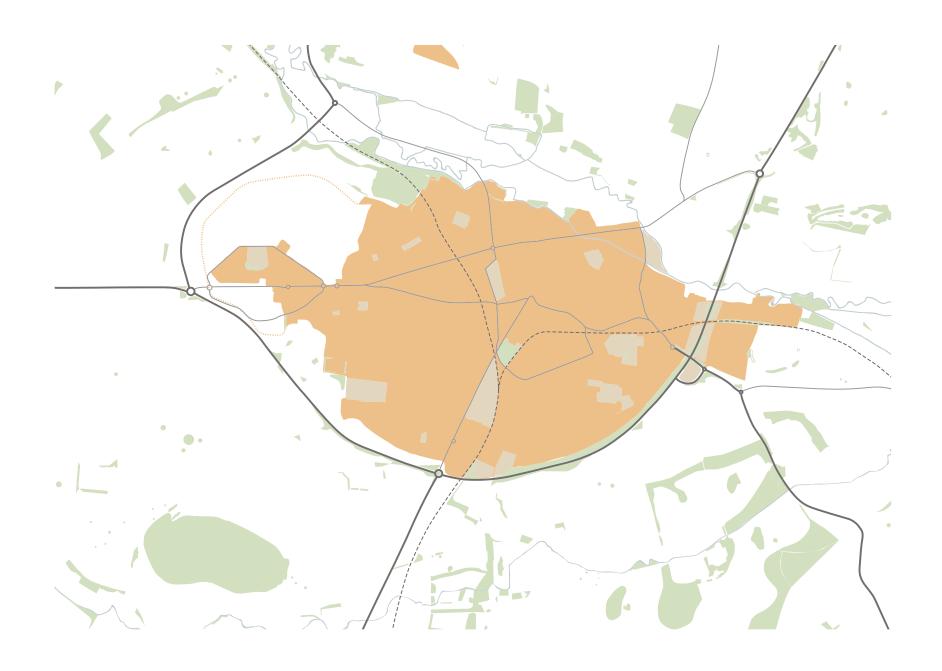
Site Comparison











SITE COMPARISONS TRANSPORT AND ACCESS

INTRODUCTION

This section describes the design process for developing a suitable Park and Ride configuration and access for sites J and SR. Key factors considered when designing the site from a transport and highways perspective include the need to provide adequate capacity for traffic, and to give buses connecting the site with the town centre priority over other vehicular traffic. Furthermore; measures to minimise the visual intrusion of the sites are identified, this is important given that both sites are located within the Dorset Area of Outstanding Natural Beauty.

SITE J ACCESS

The site benefits from being conveniently located for those travelling to Dorchester from Weymouth on the A354. According to the Dorchester Transport and Environment Plan SATURN model this movement accounts for 39% of the total arrivals into Dorchester. It is therefore suggested that a Park and Ride site located at site J will reduce traffic movement across Stadium Roundabout in the peak periods.

The location of the access to site J was determined by the surface and ground water appraisal and the proximity of Stadium Roundabout. The access is situated towards the south of the site, to avoid encroachment onto the area of flood storage. The advantage of this location is that the access is significantly removed from Stadium Roundabout and therefore minimiae the potential for it to impact on the strategic road network.

The chosen junction configuration affords Park and Ride buses serving the site the highest level of priority. Car and coach movements are separated from outbound bus movements to ensure services operate punctually and are therefore attractive for commuters to use. The bus circulation lane and bus stop are kept separate from the parking area to ensure that delays to buses caused by vehicles searching for and manoeuvring into spaces is minimised. Additionally, an opportunity exists for buses to exit the site nearer to Stadium Roundabout, giving them priority ahead of other vehicles leaving the parking and ride. Alternatively, this could provide an entry point for buses, removing the need for traffic signals.

A right turn lane is provided on the A354, sheltering north bound traffic turning into the site. This also allows vehicles travelling north on the A354 to bypass traffic using the Park and Ride site with minimal delay.

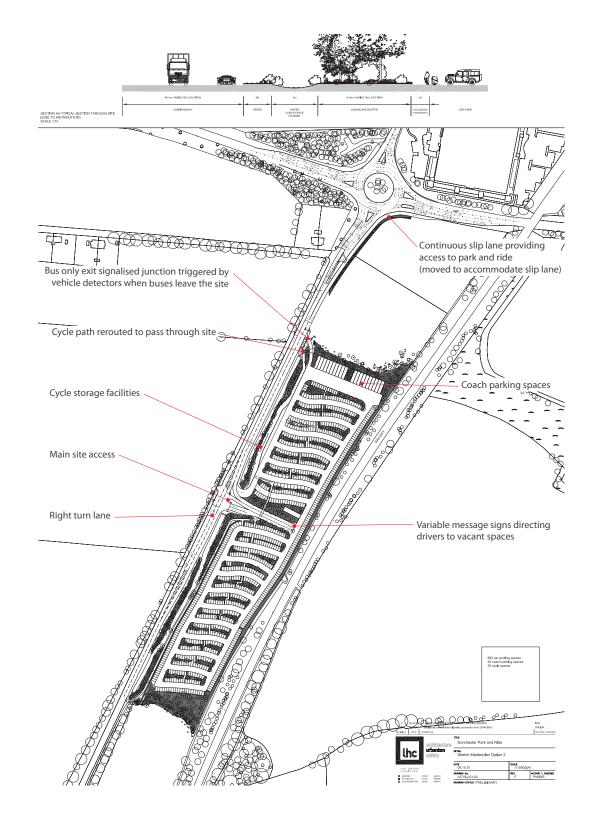
The right turn lane is complementary to the committed improvements at Stadium Roundabout. An additional slip lane will be provided between the eastern and southern arms of Stadium Roundabout. This will be a continuous lane, enabling traffic approaching from the east to bypass the roundabout, and access the Park and Ride easily without delay.

The main access and potential I bus only exit will be signalised. Signals at the bus only exit will be triggered by vehicle detectors, so that traffic on the A354 will only be stopped when buses emerge from the site, and the resultant delay to cars will be minimised.

The access arrangements provide sufficient space for 882 cars, 20 coaches, and 30 cycle parking spaces. Car parking spaces are dispersed either side of the central access road, and users will be directed to vacant spaces on entering the site using variable message signs, these are located at. The coach parking spaces are situated on the northern border of the site.

The site will be accessible for cyclists. Highways Agency previously identified a cycle path located on the south eastern quarter of stadium roundabout. The position of the path will be altered to accommodate the proposed slip lane, as shown in bold on the masterplan. The alignment of the existing cycle path along the south bound carriageway of the A354 will also be altered. The path will be redirected to pass within the boundary of the site. This is to improve the ease of access to the cycle parking area that is located directly next to the sheltered bus stopping facilities.

The Stage One report identified a package of measures to ensure that passengers using the Park and Ride bus are able to move between the site and Dorchester town centre quicker than by car. The measures include a section of bus lane on Weymouth Road, and alterations to the junction between Weymouth Avenue and Maiden Castle road that



will displace the traffic queues that normally build up further north on the railway bridge, enabling the Park and Ride buses to jump ahead of the congestion.

TRANSPORT AND ACCESS

SITE SR ACCESS

The landscape and townscape appraisal for site SR identified that the site is overlooked by Maiden Castle, located approximately 1.5km to the south. The visual impact of the development on the landscape has been the main determinant of the location and form of the access.

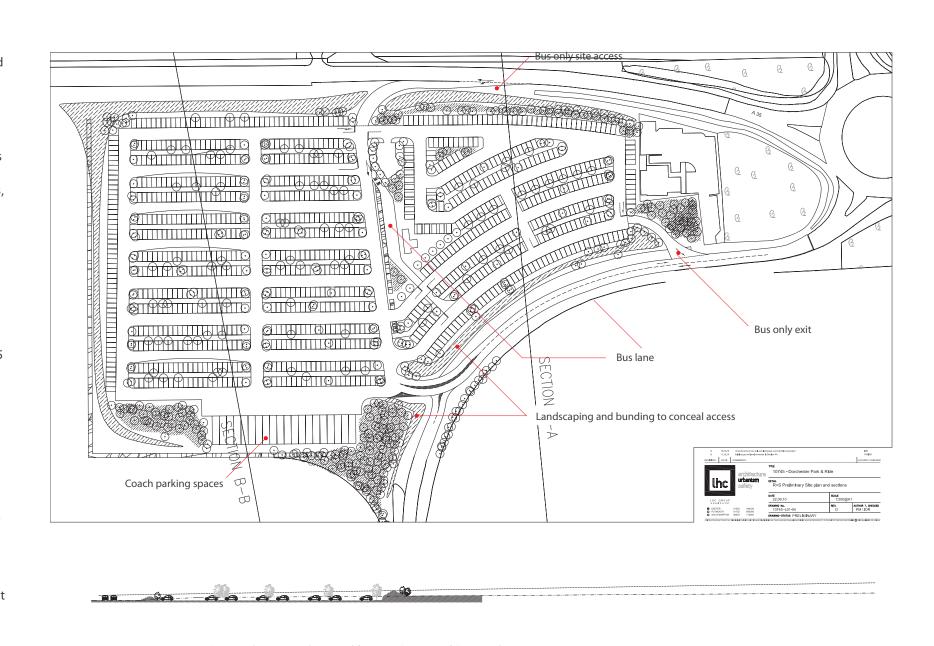
The access from the local road that runs past the site (C53) is designed to minimise visual intrusion through landscaping and bunding. Given the low volumes of traffic using the C53, a priority junction is the most suitable design for the access. Given that the majority of movements on the C53 will be traffic entering and exiting the Park and Ride site, the road will be reprioritised, with traffic bypassing the site needing to give way to those using it.

Car and coach, and Park and Ride bus movements have been kept separate to afford services between the Park and Ride and the town centre the highest level of priority. Access for Park and Ride buses is taken directly from the A35 trunk road, whilst cars and coaches access the site via the parallel C53. This prevents the bus being delayed by traffic entering the site and searching for spaces. A similar access configuration is already used at Arle Court Park and Ride in Cheltenham. A bus lane is provided on site to ensure that delays to Park and Ride buses by vehicles circulating and manoeuvring into spaces are minimised.

The exit for cars and coaches, and Park and Ride buses are also separate. Both exits are onto the C53, but Park and Ride buses leave the site nearer to Monkey's Jump Roundabout, and are therefore given priority ahead of other vehicles exiting the Park and Ride.

The access configuration identified in the provides sufficient remaining space to accommodate 953 car spaces, 20 coach spaces and 30 cycle stands. Coach parking spaces are situated towards the south western corner of the site. This is the lowest part of the site, enabling coaches to be hidden from view by planting when viewed from Maiden Castle.

Park and ride buses could link the site with the town centre via two routes, either via the A37 and The Grove, or the Bridport Road through Poundbury.



revision

PLANNING - LANDSCAPE & VISUAL ASSESSMENT

'Landscape' and 'Visual' assessments have been undertaken for sites J and SR. The Landscape assessment is concerned with effects on an environmental resource, i.e. the landscape resources and landscape character. Visual effects are assessed as the potential impacts of the Scheme on the visual amenity of people living in, and using the area.

LANDSCAPE SITE J

Site features for site J are illustrated on the Figure opposite which also indicates the location of an ephemeral stream; valley features and flood areas.

The study area is defined by the Zone of Theoretical Visability of the Scheme, that is, the area of land from which the Scheme is predicted to be visible. For site J this is shown in the Figures below.

The results of both the Landscape and Visual Assessments for site J are summarised below:

Landscape Constraints including designations	Landscape Impacts	Visual Impacts	Mitigation
Within Dorset AONB North east of Maiden Castle Scheduled Ancient Monument (SAM)	Negative impact on open rural landscape outside the urban edge of Dorchester	Clearly visible from Maiden Castle SAM	Substantial native woodland belt alongside A354 and native tree and hedge planting within site to create overlapping effect to screen views from Maiden Castle
		Potential near - mid distance oblique views from local properties	Off-site planting to screen signalised junctions
		Views from public rights of way	

Visual Assessment Summary Table Site J

Receptor Groups and Sensitivity	Potential Impacts
Residents in scattered properties within ZTV:	Moderate adverse
High	Slight adverse
Recreational walkers/cyclists: High	Slight adverse
Road users: Medium/Low	Moderate adverse
Rail travellers: Medium/Low	

MITIGATION SITE J

Primary mitigation measures;

- Through the high quality design of the hard landscape and street furniture;
- Through the planting of a native woodland belt along the western boundary of the car park alongside the A354. The belt would be established alongside the proposed conveyance channel. The channel itself would be of flexible design, as both swale and piped sections, and would 'weave' into the buffer planting giving an informal green corridor along this perimeter zone. The belt would be planted with locally occurring native species of trees and shrubs including oak, ash, hazel, hawthorn, holly, honeysuckle, dog rose, and field maple. Plant material would be local provenance;
- Through the planting of locally occurring native species hedges, trees and small copses within the car park, species as above, to create overlapping effect to screen and filter views in from Maiden Castle;
- Through the restriction of external lighting to the minimum required for safety and amenity. Minimal lighting of lowest potential column height, shrouded lamps and generally high quality design to reduce trespass, glare and spillage, and by restricting usage to the minimum periods required.
- Off-site planting to screen views of signalised car and bus entry/exit points from Maiden Castle

Secondary mitigation measures;

- Proposed planting to include a proportion of trees within the car park at 'Extra Heavy Standard' size as specimen trees for immediate effect which would help integrate the scheme into the Herringston parkland character of the agricultural landscape to the east.
- Enhancement;
- Establishment of potential wetland area between the car park and the A35

- Planting to the perimeter of the flood area/potential
 wetland area between the car park and the A35, with
 occasional clear stemmed specimens to integrate
 with the surrounding landscape pattern, subject
 to Environment Agency approval; scrub mosaic on
 railway embankment; dense highway tree planting
 alongside the A35; and proposed planting groups
 with specimen trees within the proposed car parking
 area. Species to include hawthorn, hazel and goat
 willow
- Planting to the southern fringes of the site to help integrate the scheme into the local landscape pattern and form a link to the proposed perimeter tree belt.

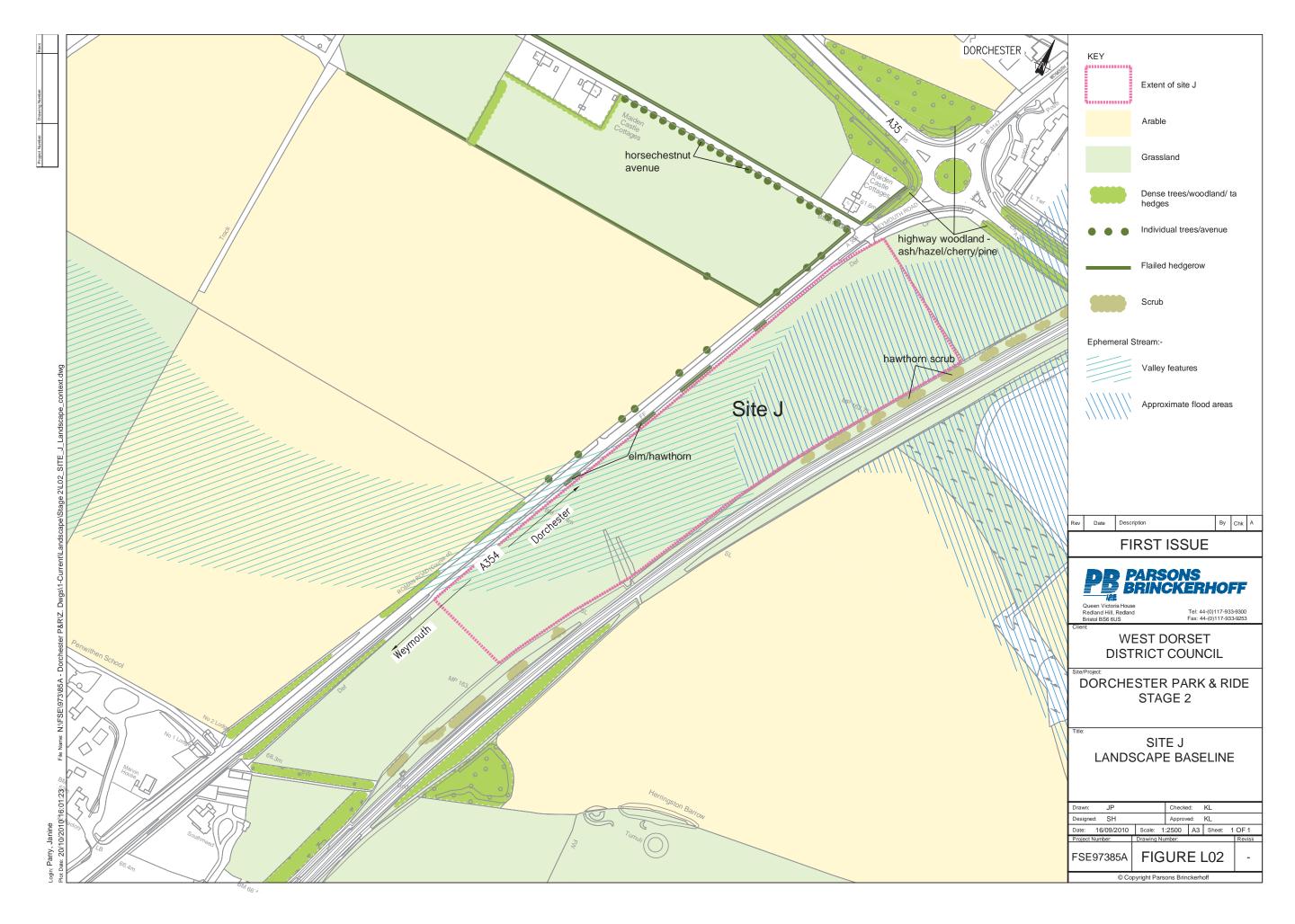
SUMMARY - SITE J

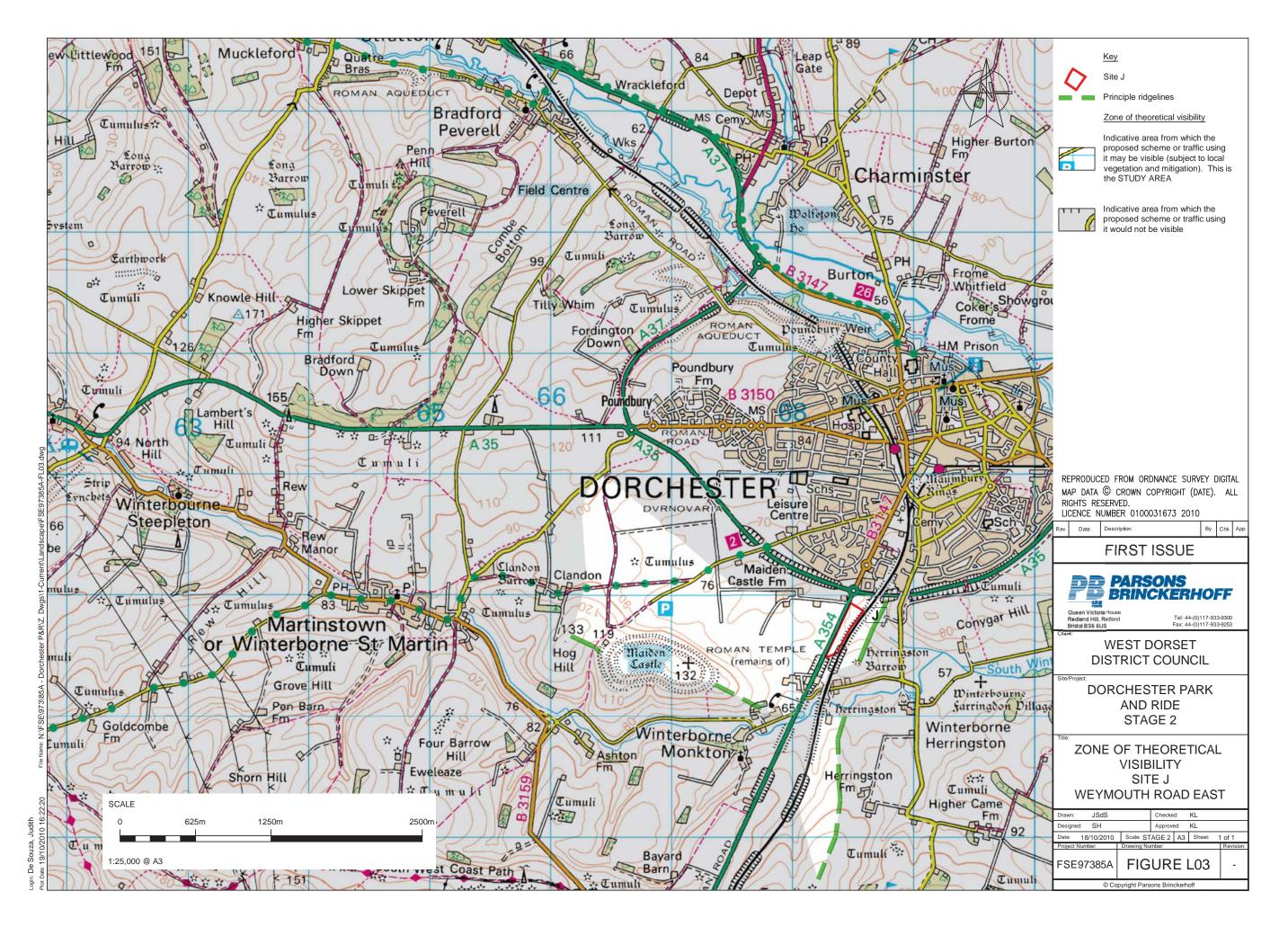
Summary assessment score: Moderate adverse

The scheme would be;

- visually intrusive and will adversely impact on the landscape.
- not possible to fully mitigate for. Whilst dense planting would screen the scheme from key viewpoints the site would be partly visible in the winter months when the landscape is at its most open.
- will have an adverse impact on a landscape of recognised quality or on vulnerable and important characteristic features or elements.

Qualitative comments: Impact on open, rolling chalk downland would change the local character and be visually intrusive in the highly valued landscape of the Dorset AONB and from Maiden Castle SAM. There is potential for screening with substantial native woodland belt alongside A354 and native tree and hedge planting within site to create overlapping effect to screen views from Maiden Castle. There are potential amenity benefits through planting specimen trees within the car park which would help integrate the scheme into the landscape pattern to the east.







Viewpoint 1 View from Maiden Castle looking north east towards Site J



Viewpoint 2 View from A354, near Weymouth Road/Stadium Roundabout, looking south into Site J

Viewpoint locations shown on Figure LO4

WEST DORSET DISTRICT COUNCIL

DORCHESTER PARK & RIDE STAGE 2

SITE J VISUAL BASELINE PHOTOGRAPHS (SHEET 1 OF 3)

Drawn: JP		Checked: KL					
Designed: SH		Approved: KL					
Date:	23/09/2010	Scale:	NTS	АЗ	Sheet	1	OF 3
Project Number:		Drawing Number:			Revisio		
FSE97385A FIGURE L05			1				
© Copyright Parsons Brinckerhoff							

LANDSCAPE SITE SR

The ZTV, visual baseline and photographs for Site SR are shown on figures opposite and below respectively.

The results of both the Landscape and Visual Assessments for site SR are summarised below:

Landscape Constraints including designations	Landscape Impacts	Visual Impacts	Mitigation
Within Dorset AONB North east of Maiden Castle SAM	Negative impact on landscape pattern and open character of chalk downland	Clearly visible from Maiden Castle SAM.	1.5m high bunds, together with cut and fill/localised falls to north, to screen parking from views in from Maiden Castle
		Potential mid distance oblique views from local properties	Small copses at key locations
		Views from public rights of way	Off-site planting to screen signalised junctions
		Distant views from Charlton Down	
		Distant views from Hardy Monument and South Dorset Ridgeway	

Visual Assessment Summary Table Site SR

24

Receptor Groups and Sensitivity	Potential Impacts
Residents in scattered properties within ZTV: High	Moderate adverse
Recreational walkers/cyclists: High	Slight adverse
Road users: Medium/Low	Slight adverse
Café users: Medium/Low	Moderate adverse

MITIGATION SITE SR

Mitigation of adverse landscape and visual impacts can be achieved by avoidance, reduction, remedying of, or compensation for the impact. Primary mitigation measures are those included in the design of the proposed development, which will inherently achieve one of the above, such as avoidance. Secondary mitigation measures are those applied to the final design, which further mitigate any remaining adverse effects. They are summarised as follows:

Primary mitigation measures;

- Through the high quality design of the hard landscape and street furniture;
- Through the creation of bunds, approximate height 1.5m, to the northern, western and southern edges of the car park;
- Through the planting of small woodlands/copses of locally occurring native trees and shrubs including oak, ash, hazel, hawthorn, holly, honeysuckle, dog rose, and field maple at key locations on the car park boundary. Plant material would be local provenance;
- Planting native trees within the car park, planting staggered to reduce regularity when viewed from Maiden Castle;
- Through the restriction of external lighting to the minimum required for safety and amenity. Minimal lighting of lowest potential column height, shrouded lamps and generally high quality design to reduce trespass, glare and spillage and by restricting usage to the minimum periods required;
- Off-site planting to screen views of signalised car entry/exit point on the C53 minor road to Martinstown from Maiden Castle
- Secondary mitigation measures;

 Proposed planting to include a number of trees on the north side of the car park at 'Extra Heavy Standard' size as specimen trees to integrate with avenue planting proposed as part of off-site mitigation planting as promoted within Poundbury Development Brief and with the specimen trees planted within the western fringes of Poundbury near Monkeys Jump roundabout.

SUMMARY - SITE SR

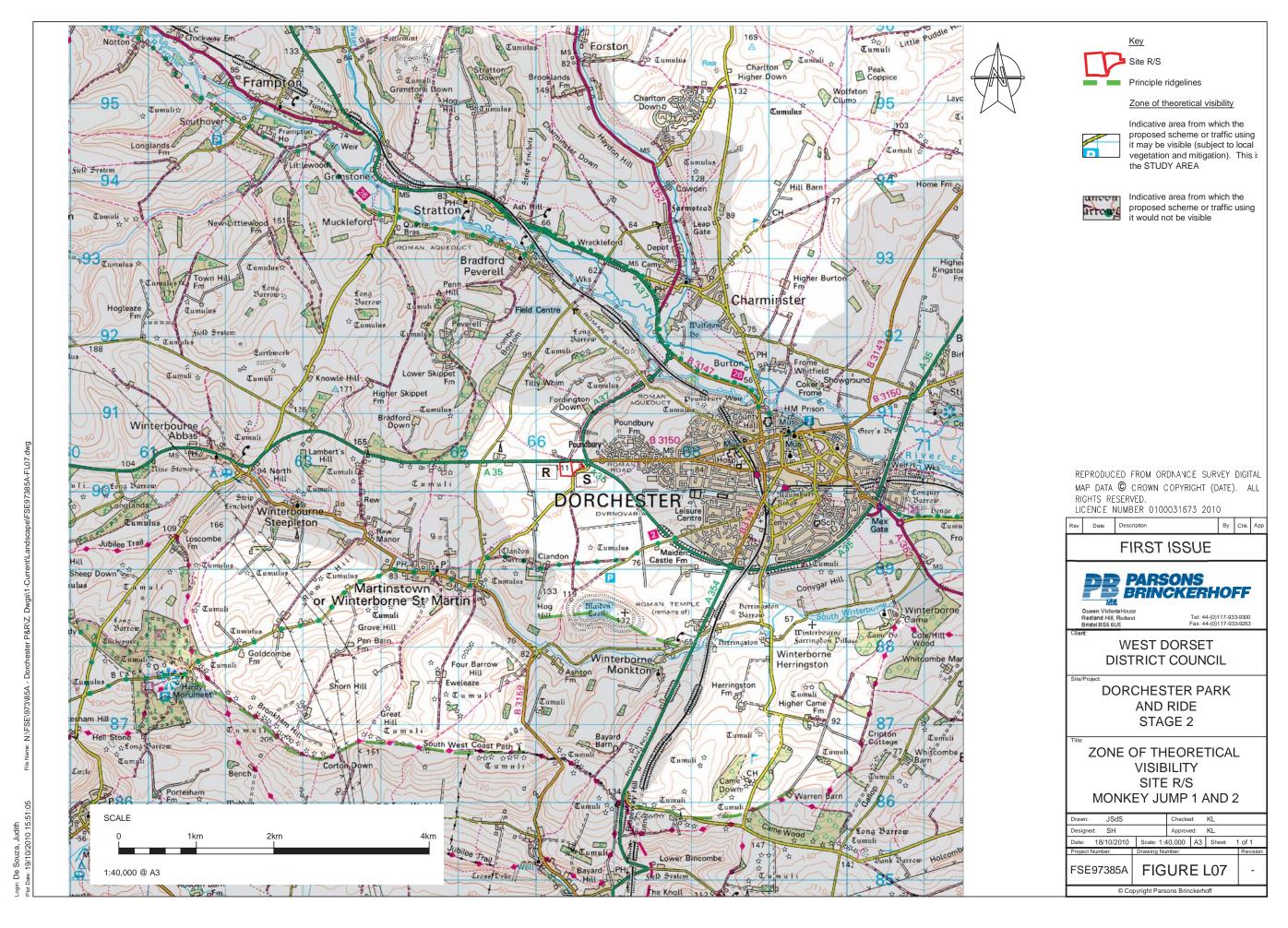
Summary assessment score: Moderate adverse

The scheme would be;

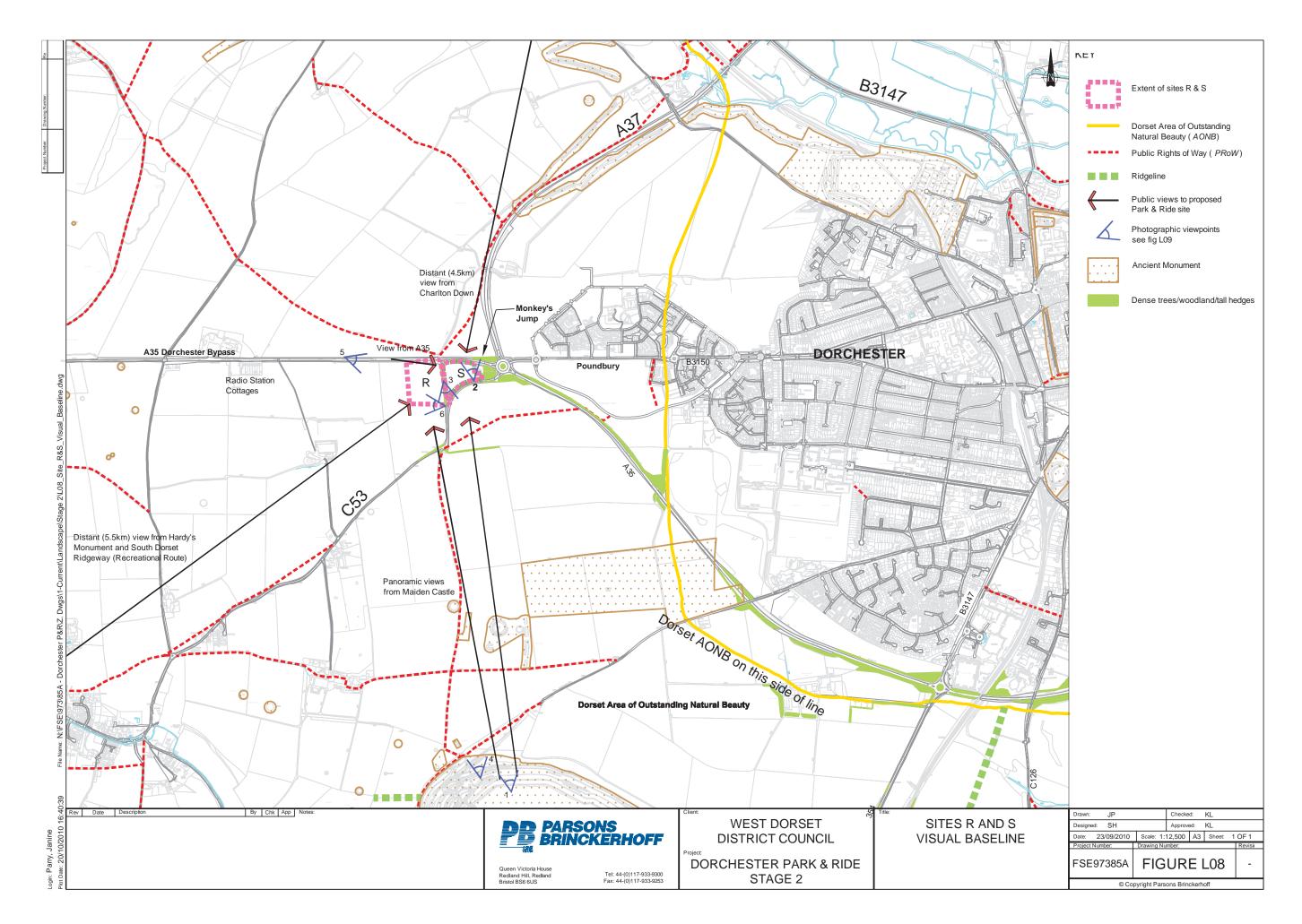
- out of scale with the landscape, and at odds with the local pattern and landform.
- visually intrusive and will adversely impact on the landscape.
- not possible to fully mitigate for, that is, mitigation will not prevent the scheme from scarring the landscape in the longer term as some features of interest will be partly destroyed or their setting reduced or removed.
- will have an adverse impact on a landscape of recognised quality or on vulnerable and important characteristic features or elements.

The impact of the scheme on open, rolling chalk downland would change local character and be visually intrusive in the highly valued landscape of the Dorset AONB and from Maiden Castle SAM. Advantage could be made of gentle fall to north to minimise visual impact on views from the south. Whilst screen planting could integrate with established and recently planted belts/copses within the changing landscape in the vicinity of Poundbury this would be out of character with the intrinsically open, rural landscape of the downlands.

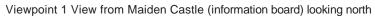
revision



2



©Buro Happold





Viewpoint 2 View from verge south of S looking north

Viewpoint locations shown on Figure L08

Tel: 44-(0)117-933-9300 Fax: 44-(0)117-933-9253

WEST DORSET DISTRICT COUNCIL

DORCHESTER PARK & RIDE STAGE 2

SITES R AND S VISUAL BASELINE PHOTOGRAPHS (SHEET 1 OF 3)

 Designed:
 SH
 Approved:
 KL

 Date:
 23/09/2010
 Scale:
 NTS
 A3
 Sheet:
 1 OF 3
 FSE97385A FIGURE L09 © Copyright Parsons Brinckerhoff

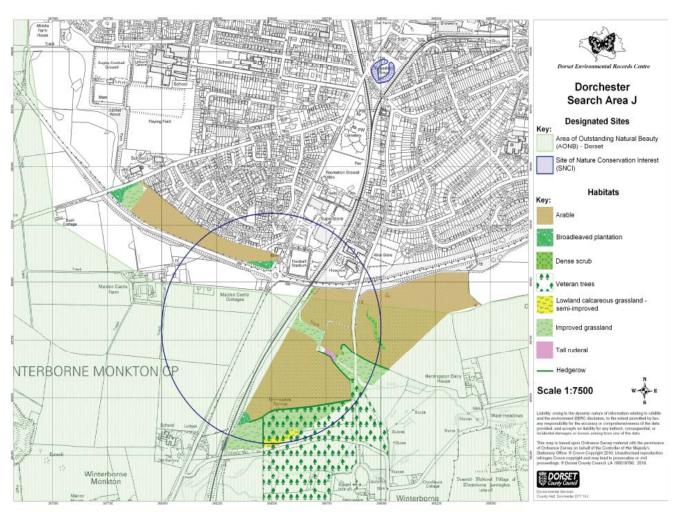
PLANNING - ECOLOGY

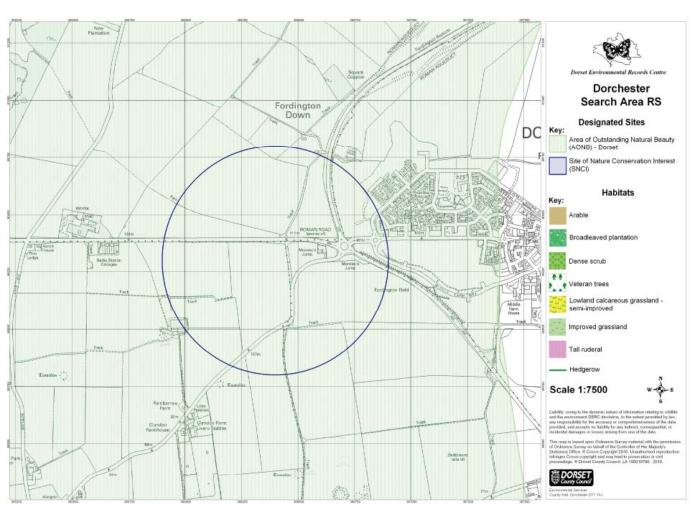
A desktop ecological appraisal has been undertaken of all sites to establish the potential impact of the Park and Ride. Comprehensive details of the evaluation, undertaken in accordance with statutory guidance and more recent best practice guidance, are contained in a separate technical report. A summary of the findings are presented here for sites J and SR.

The desktop approach has been required at this stage due to the sensitivity of the project and for both sites surveys are recommended for the next stage to determining the presence of any notable habitats (such as existing hedgerows), presence of badgers, dormice, bats.

Additionally, bird surveys should be undertaken for sites SR and reptile surveys for J. For site SR there are habitats with the potential to support some rare or notable botanical species.







28

The results of the desktop assessment for the two sites are summarised and reported as follows.

SITE J

- Notable Habitats: Areas of chalk grassland occur in close vicinity of Site J. Chalk grasslands are of notable conservation value and occur on both the UK and Dorset BAP (listed as lowland calcareous grassland)
- Badgers: The desk study returned two records of Badger within the 500 m search radius.
- Otter: No records were returned for otter within the 500 m search radius for site J, neither is there any suitable otter habitat was identified during the aerial photography assessment.
- Dormice: No records for dormouse were returned within the 500 m search radius for site J.
- Bats: The desk study returned on record of a bat species unknown (Chiroptera sp.). This record was collected by the Dorset Mammal Group.
- Birds: Within the search radius of Scheme Option J, records of birds were for two species only; Eurasian teal (Anas crecca) and Mediterranean gull, (Larus melanocephalus) both amber listed species. Option J consists of arable land bordered by hedgerows to the west, east and south, which is likely to be of interest to farmland breeding birds. Accordingly, this species group would warrant further investigation in a detailed assessment of the developmental proposal.
- Herpetiles: Although no records were returned for reptiles for Site J it is considered that an additional survey of the embankment is required due to the high potential for this habitat type to support species of reptile.
- Invertebrates: The desk study returned no records for invertebrates for Site.
- Flora: The only floral records returned from the desk study were for two species of moss. Both occurring at Site J; Squirrel tail moss (Leucodon sciuroides) and Prince of Wales Feather Moss (Leptodon smithii) are not considered to be rare species but are used to determine habitat type. There were no records of invasive plant species returned for the search radius.

SITE SR

- Notable Habitats: Areas of habitat that are listed in the Dorset BAP and may be found within the search radius of Site SR include; broad-leaved plantation and species rich hedgerows. Areas of chalk grassland occur in close vicinity of Scheme Option M. Chalk grasslands are of notable conservation value and occur on both the UK and Dorset BAP (listed as lowland calcareous grassland).
- Badger: The desk study returned three records of badger within the 500 m search radius for Site SR.
- Otter: No records were returned for otter within the 500 m search radius for site J, neither is there any suitable otter habitat was identified during the aerial photography assessment.
- Dormice: No records for dormouse were returned within the 500 m search radius for Site SR.
- Bats: No records for bats were returned for Scheme Option SR from the desk-based study.
- Birds: Records returned for site SR returned some notable bird species including skylark (Alauda arvensis), corn bunting (Emberiza calandra), and common linnet all Red listed and UKBAP species. Skylark and corn bunting are of particular note as they are ground nesting birds and particularly sensitive to a range of disturbances.
- Herpetiles: The desk study returned no records for reptiles or amphibians for Site SR.
- Invertebrates: The desk study returned no records for invertebrates for Site SR.
- Flora: There were no rare or notable botanical records returned within the search radius of Site SR. There were no records of invasive plant species returned for the search radius.

Summaries for the ecological receptors at Scheme Option SR are presented in the table below.

Receptor	Biodiversity Value	
	Site J	Site SR
Notable Habitats	Low	Low
Badger	Medium	Medium
Otter	Low	Low
Dormouse	Medium	Medium
Bats	High	High
Birds	Medium	High
Herpetiles	Medium	Low
Invertebrates	Low	Low
Flora	Low	Low

Based upon the statutory (Design Manual for Roads and Bridges) approach both have equal impacts during the construction and operation phase. It is important to remember that this high end options appraisal is based entirely on desk based results and aerial photography to carry out a site assessment. The initial site walkover or Phase 1 habitat assessment may rule out some of the recommended survey works by the same token the need for additional surveys may also be realised during this stage of site assessment.

MITIGATION

To mitigate impacts of the development proposal it is considered likely that schemes such as buffer zones, habitat management and creation, sensitive lighting schemes, noise management and air quality management as well as designing of a water management scheme may be implemented.

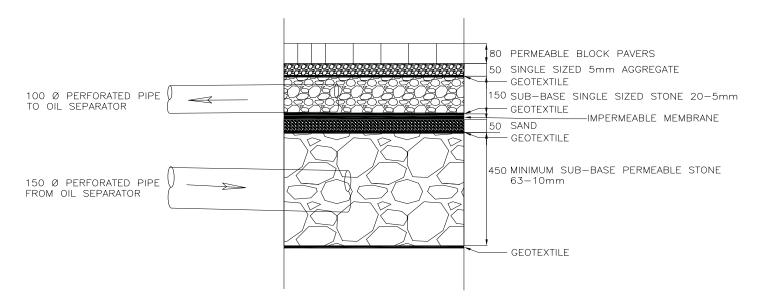
To mitigate habitat loss it is considered likely that schemes such as designing of a habitat management plan that involves creation of similar habitat types or translocation of habitats on site may be implemented. An effective habitat management scheme may reduce the impact of habitat loss on species abundance and diversity.

PLANNING - WATER

CAR PARK DRAINAGE DESIGN

The car park structure is expected to be broadly comparable between each location. Both locations must adopt Sustainable Drainage Systems (SuDS) to mitigate potential consequence on groundwater recharge, flows and levels, and to control surface water runoff.

A typical section through both car parks, illustrating a potential build-up, is presented here.



PERMEABLE CAR PARK CONSTRUCTION WITH SOAKAWAY BENEATH

SCALE 1:10

SITE J

Measures to protect the associated aquifer will be necessary within the car park design to prevent potential pollution of groundwater arising from car park runoff. There are a number of licensed abstractions in the vicinity of Site J which may be used for private potable supply. The facility must not compromise the integrity of these and, if a potential pathway is apparent, measures to isolate the car park from such sources will be necessary.

It is recognised that there are areas within the field that are susceptible to seasonal flooding.

The proposed arrangement, set out in the masterplan, has addressed both ground water and surface water concerns. The footprint of the car park has been determined to avoid encroachment on the low lying ground and maintains a conveyance channel capturing surface water flow derived from ground water and road runoff along Weymouth Road. Consideration was given to utilising land immediately adjacent to the A35. However, topographic data for this area highlights the potential extent of flooding extending through this area.

The consequence, for Site J, in responding to flood risk has been to displace the car park footprint southwards uphill, potentially increasing the visual impact. Mitigation has included softening the surfacing detail at the extremities of the site (areas where traffic is anticipated to be lightest), using permeable cellular systems.

SITE SR

There is no perceived flood risk associated with Site SR

©Buro Happold