

Low:

- Residents; where there would be a change in an oblique view or from a minor window.
- People in their workplace.
- Commuters using roads and railway.

### ***Maiden Castle***

There are open views to Sites J and K from Maiden Castle and to a lesser extent to Site L. There are views to the southern edge of Site R/S but the topography of this combined site has a subtle fall towards the A35 away from the skyline.

There is a glimpsed view to Site I which sits within the urban context of Dorchester.

### ***Public Rights of Way***

Views from the majority of the footpaths, cycleways and bridleways south west of Dorchester are generally open and expansive as there are few hedgerows containing views out.

### ***A35, A354***

There are views of Sites R/S from the A35. There are views of Sites J and K from the A354.

### ***Railway***

There are views of Sites I, J and K from trains on the Dorchester to Weymouth railway line.

## **6.2.6 Potential Landscape and Townscape Impacts and Mitigation**

The nature of potential impacts of the different site options are given in qualitative comments within the worksheets and summarised in the tables below.

A summary of the Landscape and Townscape Impact of each site is provided in Table 6—3.

Site	Ref	Impact
Cricket Ground	I	Townscape: Moderate adverse
Weymouth Road East	J	Landscape: Moderate adverse
Weymouth Road West 1	K	Landscape: Moderate adverse
Weymouth Road West 2	L	Landscape: Moderate adverse
Bypass North	M	Townscape: Slight adverse
Bypass North	M	Landscape: Slight adverse
Monkeys Jump 1 and 2	R/S	Landscape: Moderate adverse

**Table 6—3 Summary Landscape and Townscape Appraisal Table**

### 6.2.7 Landscape Constraints and Impacts Summary Table

Site	Ref.	Landscape/ Townscape Constraints Including Designations	Landscape, Townscape and Visual Impacts	Scope for Mitigation
Cricket ground	I	Adjacent to Conservation Area (CA)	Negative impact on setting of CA, including cemetery and chapels. Negative visual impact on adjacent housing.	Some scope for screening around edges.
Weymouth Road East	J	Within Dorset AONB North east of Maiden Castle SAM	Clearly visible from Maiden Castle SAM. Negative visual impact within AONB.	Some scope for screening with substantial native woodland belt alongside A354 and native tree and hedge planting within site to create overlapping effect to filter/screen views from Maiden Castle.
Weymouth Road West 1	K	Within Dorset AONB North east of Maiden Castle SAM	Negative impact on landscape pattern and open character. Negative visual impact within AONB and on views from Maiden Castle.	Very limited scope to create screen as planting would also have a negative impact on open character.
Weymouth Road West 2	L	Adjacent to AONB. Within Land of Local Landscape Importance (LLLL)	Negative impact on open countryside south of Dorchester within the AONB, and on views from Maiden Castle.	Some scope for screening with substantial native woodland planting to south and east to integrate with existing hedgerows and mature trees.
Bypass North	M	Amenity Open Space Allocation	Impact on character of open space/green buffer on edge of town. Negative visual impact on housing to north.	Scope for screening or screening/mounding to north, south and west.
Monkeys Jump 1 and 2	R and S	Within Dorset AONB North of Maiden Castle SAM	Negative impact on; open countryside west of Dorchester within the AONB, and potentially on views from Maiden Castle.	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. Some scope for screen mounding.

### 6.2.8 Potential Indicative Visual Impacts Summary Table

Site	Ref.	Receptor Groups and Sensitivity	Potential Impacts
Cricket ground	I	Residents: High Recreational walkers/cyclists: High Road users: Medium/Low Rail travellers: Medium/Low	Moderate adverse Moderate adverse Slight adverse Slight adverse
Weymouth Road East	J	Recreational walkers/cyclists, including visitors to Maiden Castle: High Road users: Medium/Low Rail travellers: Medium/Low	Moderate adverse Slight adverse Slight adverse
Weymouth Road West 1	K	Recreational walkers/cyclists, including visitors to Maiden Castle: High Road users: Medium/Low Rail travellers: Medium/Low	Substantial adverse Slight adverse Slight adverse
Weymouth Road West 2	L	Recreational walkers/cyclists, including visitors to Maiden Castle: High Road users: Medium/Low Rail travellers: Medium/Low	Moderate adverse Slight adverse No change
Bypass North	M	Residents: High Road users: Medium/Low	Moderate adverse Slight adverse
Monkeys Jump 1 and 2	R and S	Recreational walkers/cyclists, including visitors to Maiden Castle: High Road users: Medium/Low	Moderate adverse Slight adverse

#### References:

- West Dorset Landscape Character Assessment, West Dorset District Council, February 2009.
- Dorset Area of Outstanding Natural Beauty: Conserving Character, Dorset AONB, 2008.
- Dorchester Park and Ride Report into Site Assessment, (Version 2) West Dorset District Council, December 2007, unpublished.
- West Dorset Local Plan 2006.



**Site I - Cricket Ground Townscape Worksheet. Refer to Table 2, Townscape Impact Significance Criteria (WebTAG), in Section 2 of Stage 1 Landscape Appraisal**

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Changes in do minimum	Impact	Additional Mitigation
Layout	Green open space next to main road spine. Residential areas mainly cul de sacs. Tennis/squash club and other leisure/recreation buildings and associated car parking to south	Local	Open space relatively uncommon	Local	Open green space not substitutable	No known changes	Moderate adverse	
Density and mix	Medium density residential areas and recreational buildings, car showroom and forecourt to south on Weymouth Avenue.	Local	Common	Local	Replaceable	No known changes	Moderate adverse	

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Changes in do minimum	Impact	Additional Mitigation
Scale	Mixed: large-scale single storey recreational buildings; small-scale 2 storey residential properties to east and west, small scale pair of stone chapels with cemetery	Local	Common	Local	Scale of cemetery buildings not replaceable	No known changes	Proposals would be out of scale with surrounding townscape.  Moderate adverse	

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Changes in do minimum	Impact	Additional Mitigation
Appearance	Green space managed and maintained as cricket ground. Several mature lime trees near perimeter. Mainly mid- late 20 <sup>th</sup> century housing to west and east. Mainly 2 storey brick with some tile hanging, tiled roofs. Single storey recreational buildings, brick. New cricket pavilion brick and sheet cladding with tin roof.	Local	Common	Local	Replaceable	No known changes	Moderate adverse	
Human interaction	Open public access; free car parking, dog walking. Footpath/cycleway passes through site	Local	Common	Local	Hierarchy of public access could be replaced in scheme	No known changes	Slight adverse	

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Changes in do minimum	Impact	Additional Mitigation
Cultural	<p>Adjacent to cemetery within Conservation Area. Maiden Castle Rd to north west, part of Dorchester Conservation Area, includes early 20<sup>th</sup> century villas some of which overlook site.</p> <p>Weymouth Avenue trees locally significant as part of avenue character of the town, highly valued</p>	Local	Common	Local	Setting in relation to CA not substitutable	No known changes	Moderate adverse	
Land use	Recreation; cricket ground and associated pavilion, cricket nets	Local	Relatively uncommon in suburbs	Local	Use not substitutable in town setting	No known changes	Moderate adverse	
Summary of character	Attractive, open and overlooked recreation ground providing valuable green space in urban area	Local	Uncommon and highly valued locally	Local	Green space not replaceable in urban area	No known changes	Moderate adverse	



Reference Source(s): West Dorset Local Plan; Site visits, and Personal communication with West Dorset District Council, Dorset County Council, and Dorset AONB Partnership officers.

Summary assessment score: Moderate adverse

Qualitative comments: There would be negative impacts on the Dorchester Conservation Area, particularly the setting of the cemetery, and local housing. The proposals would result in loss of valuable recreational green space and change the character of the area which would have adverse effect on the townscape.

**Weymouth Road East Site J Landscape Worksheet. Refer to Table 1, Landscape Impact Significance Criteria (WebTAG), in Section 2 of Stage 1 Landscape Appraisal**

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Changes in do minimum	Impact	Additional Mitigation
Pattern	Large field within broad, open and rolling downland to south of Dorchester	Local	Not uncommon on urban edge of Dorchester	Local	Not replaceable within	Rural pattern would be urbanised by change in land use.  Moderate adverse		
Tranquillity	Traffic noise from A385 and A35 and trains on railway embankment	Local	Not uncommon on urban edge of Dorchester	Local	Tranquillity already lost	Further loss of tranquillity due to lighting and car and bus manoeuvring. Slight adverse	Minimal lighting	

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Changes in do minimum	Impact	Additional Mitigation
Cultural	Maiden castle Scheduled Ancient Monument approx 1km to SW. Within Dorset Area of Outstanding Natural Beauty (AONB). Within an area where cropmarks have been recorded that could be remains of barrows. Weymouth Avenue and A385 on line of ancient route from Dorchester to the Ridgeway to the south. Parkland landscape to east	Local	Cultural setting not uncommon on southern edge of Dorchester but uncommon county wide context	Regional and local	Cultural setting not substitutable	Settings affected. Slight adverse		

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Changes in do minimum	Impact	Additional Mitigation
Landcover	Rough pasture within field. Scrub on railway embankment to east. Highway tree planting adjacent to northern boundary with A35 to north. Sparse hedge along part of west boundary; occasional elm/hawthorn	Local	Common on town fringes	Local	Grassland replaceable	Loss of pasture but not woody vegetation.  Neutral		

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Changes in do minimum	Impact	Additional Mitigation
Summary of character	Within the attractive, open and rolling landscape of the Dorset Area of Outstanding Natural Beauty (AONB). However the proximity to busy roads, roundabout, railway and large scale development on southern edge of Dorchester has an urbanising effect. New blacktop/concrete pin-kerb 3m wide footway/cycleway also detrimental to rural character	Regional and local	Not uncommon but highly valued on urban edges	Regionally and locally important; site is within Nationally important Dorset AONB	Open rural character on town fringe not substitutable	Impact on views from Maiden Castle SAM. Impact on open landscape within the AONB would change character.  Moderate adverse	In addition to planting along roadside and within site minimum use of cut-off lighting, signage and lining, use of local materials and low key approach to design detailing, eg flush edges, shared surfaces to minimise landscape and visual impact in rural setting	

Reference Source(s): West Dorset Landscape Character Assessment, West Dorset District Council, February 2009. Dorset Area of Outstanding Natural Beauty: Conserving Character, Dorset AONB, 2008. Dorchester Park and Ride Report into Site Assessment, West Dorset District Council, December 2007, unpublished. West Dorset Local Plan 2006. Site visit. Personal communication with. West Dorset District Council, Dorset County Council, and Dorset AONB Partnership officers.

Summary assessment score: Moderate adverse

Qualitative comments: Impact on open, rolling chalk downland would change character and be visually intrusive in highly valued landscape of the Dorset AONB and from Maiden Castle SAM. Some scope for screening with substantial native woodland belt alongside A354 and native tree and hedge planting within site to create overlapping effect to filter/screen views from Maiden Castle.

**Site K Weymouth Road East Landscape Worksheet Refer to Table 1, Landscape Impact Significance Criteria (WebTAG), in Section 2 of Stage 1 Landscape Appraisal**

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Changes in do minimum	Impact	Additional Mitigation
Pattern	Large field within broad, open and rolling downland to south of Dorchester. Strong field pattern to west of A385; large, open fenced fields with no hedges	Local	Not uncommon on urban edge of Dorchester	Local	Field would be severed and pattern fragmented. Not replaceable	Open, rural pattern would be urbanised by change in land use.  Moderate adverse		
Tranquillity	Traffic noise from A385 and A35	Local	Not uncommon on urban edge of Dorchester	Local	Tranquillity already lost	Further loss of tranquillity due to lighting and car and bus manoeuvring.  Slight adverse	Minimal lighting	

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Changes in do minimum	Impact	Additional Mitigation
Cultural	Maiden Castle Scheduled Ancient Monument approx 0.9km to SW. Within Dorset Area of Outstanding Natural Beauty (AONB). Within an area where cropmarks have been recorded that could be remains of barrows. Weymouth Avenue and A385 on line of ancient route from Dorchester to the Ridgeway to the south. Parkland landscape to east	Local	Cultural setting not uncommon on southern edge of Dorchester but uncommon county wide context	Regional and local	Cultural setting not substitutable	Settings affected. Slight adverse		
Landcover	Arable field. Mixed native hedge on northern boundary	Local	Common on town fringes	Local	Substitutable	Neutral		



Features	Description	Scale it matters	Rarity	Importance	Substitutability	Changes in do minimum	Impact	Additional Mitigation
Summary of character	Within the attractive, open and rolling landscape of Dorset Area of Outstanding Natural Beauty (AONB).	Regional and local	Not uncommon but highly valued on urban edges	Regionally and locally important; site is within the Dorset AONB	Open rural character not substitutable	Impact on views from Maiden Castle SAM. Impact on open landscape within the AONB would change character.  Moderate adverse	Planting for screening purposes would be out of character and result in landscape and visual impacts. Local materials and low key approach to design detailing, eg flush edges, shared surfaces to minimise landscape and visual impact in rural setting	

Reference Source(s): West Dorset Landscape Character Assessment, West Dorset District Council, February 2009. Dorset Area of Outstanding Natural Beauty: Conserving Character, Dorset AONB, 2008. Dorchester Park and Ride Report into Site Assessment, West Dorset District Council, December 2007, unpublished. West Dorset Local Plan 2006. Site visit. Personal communication with. West Dorset District Council, Dorset County Council, and Dorset AONB Partnership officers.

Summary assessment score: Moderate adverse

Qualitative comments: Impact on open, rolling chalk downland would change character and be visually intrusive in highly valued landscape of the Dorset AONB and from Maiden Castle SAM. Site could not be effectively screened because planting would be out of character in this open setting and would result in additional landscape and visual impacts.

**Site L Weymouth Road West 2 Landscape Worksheet. Refer to Table 1, Landscape Impact Significance Criteria (WebTAG), in Section 2 of Stage 1 Landscape Appraisal**

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Impact	Additional Mitigation
Pattern	Large field on northern edge of broad, open and rolling downland to south of Dorchester.	Local	Not uncommon on urban edge of Dorchester	Local	Field would be severed and pattern fragmented. Not replaceable	Open, rural pattern would be urbanised by change in land use. Slight adverse	
Tranquillity	Traffic noise from A35 and A385	Local	Not uncommon on urban edge of Dorchester	Local	Tranquillity already lost	Further loss of tranquillity due to lighting and car and bus manoeuvring. Slight adverse	Minimal lighting

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Impact	Additional Mitigation
Cultural	Maiden Castle Scheduled Ancient Monument approx 1km to SW. Within Land of Local Landscape Importance (LLLI). Adjacent to the Dorset Area of Outstanding Natural Beauty (AONB. Within an area where cropmarks have been recorded that could be remains of barrows. Weymouth Avenue and A385 on line of ancient route from Dorchester to the Ridgeway to the south. Parkland landscape to east	Local	Cultural setting not uncommon on southern edge of Dorchester but uncommon county wide context	Regional and local	Cultural setting not substitutable	Settings affected. Slight adverse	

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Impact	Additional Mitigation
Landcover	Pasture. Highway tree planting along northern edge. Gappy mixed native hedge on southern boundary and avenue of mature horse chestnut trees along lane to south	Local	Common on town fringes	Local	Grassland substitutable	Neutral	

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Impact	Additional Mitigation
Summary of character	Adjacent to the Dorset AONB. Within Land of Local Landscape Importance (LLLI)	Local	Not uncommon but highly valued on urban edges	Locally important; site is within open area adjoining Dorchester the retention of which is essential to the character of the settlement.	Open character not substitutable	Impact on views from Maiden Castle SAM. Impact on open landscape in LLLI and adjacent to AONB would change character. Moderate adverse	Planting for screening purposes to south west and east. Use of local materials and low key approach to design detailing, eg flush edges, shared surfaces to minimise landscape and visual impact in rural setting

Reference Source(s): West Dorset Landscape Character Assessment, West Dorset District Council, February 2009. Dorset Area of Outstanding Natural Beauty: Conserving Character, Dorset AONB, 2008. Dorchester Park and Ride Report into Site Assessment, West Dorset District Council, December 2007, unpublished. West Dorset Local Plan 2006. Site visit. Personal communication with. West Dorset District Council, Dorset County Council, and Dorset AONB Partnership officers..

Summary assessment score: Moderate adverse

Qualitative comments: Impact on open landscape of local importance adjoining Dorchester would result in change of character. There would be negative visual impacts on the adjacent Dorset AONB and on views from Maiden Castle SAM. Site could be screened by tree planting to integrate with existing mature tree planting on fringes.

**Site M Worksheet 1      Environment: Townscape. Refer to Table 2, Townscape Impact Significance Criteria (WebTAG), in Section 2 of Stage 1**  
**Landscape Appraisal**

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Changes in do minimum	Impact	Additional Mitigation
Layout	Adjacent to A35, Dorchester Bypass and Weymouth Avenue, housing to north of site laid out in crescents and cul-de-sacs	Local	Common	Local	Replaceable	No known changes	Neutral	
Density and mix	Semi detached/terraced housing. Jehovah's Witness Hall and car park adjacent	Local	Common	Local	Replaceable	No known changes	Neutral	
Scale	Contrasts between open space, small scale 2- storey housing and massing of large scale football stadium and superstore to east	Local	Common	Local	Scale of open space not replaceable	No known changes	Slight adverse	



Features	Description	Scale it matters	Rarity	Importance	Substitutability	Changes in do minimum	Impact	Additional Mitigation
Appearance	Field managed for arable crops. Discontinuous tree/shrub/hedge boundaries along rear gardens of adjacent housing	Local	Common	Local	Open space not replaceable	No known changes	Loss of open space. Slight adverse	
Human interaction	No footpaths within site area or links to adjacent housing	Local	Common	Local	Replaceable	No known changes	Neutral	
Cultural	Site to west of Weymouth Avenue and trees locally significant as part of avenue character of the town, highly valued	Local	Common	Local	Significance unknown, dependent on site access requirements	No known changes	Neutral	

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Changes in do minimum	Impact	Additional Mitigation
Land use	Amenity open space allocation in local plan; arable field.  Housing to north, trunk road to south. Superstore and football stadium to east	Local	Relatively uncommon in urban context	Local	Unlikely that Amenity open space substitutable in town setting	No known changes	Slight adverse	
Summary of character	Site is within urban context of Dorchester	Local	Open space uncommon and highly valued locally	Local	Green space not replaceable in urban area	No known changes	Slight adverse	

Reference Source(s): West Dorset Local Plan. Site visit. Personal communication with. West Dorset District Council, Dorset County Council, and Dorset AONB Partnership officers

Summary assessment score: Slight adverse

Qualitative comments: Site is located to the north of the A35 Dorchester Bypass and within the urban context of Dorchester. Site could be screened from adjacent housing by tree planting and possibly landscape mounding.

**Site M Bypass North Landscape Worksheet. Refer to Table 1, Landscape Impact Significance Criteria (WebTAG), in Section 2 of Stage 1 Landscape Appraisal**

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Impact	Additional Mitigation
Pattern	Large field forms open space on southern edge of Dorchester	Local	Uncommon on urban edge of Dorchester	Local	Field would be severed and pattern fragmented. Not replaceable	Pattern of open space would be lost. Slight adverse	
Tranquillity	Traffic noise from A35 and Weymouth Avenue	Local	Common	Local	Tranquillity already lost	Further loss of tranquillity due to lighting and car and bus manoeuvring. Slight adverse	Minimal lighting
Cultural	Proximity to ancient route of Weymouth Avenue only apparent link to past	Local	Common	Local	Substitutable	Neutral	

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Impact	Additional Mitigation
Landcover	Arable. Highway tree planting along southern edge. Some tree and hedge planting, including evergreen species, along boundary with housing on northern fringe	Local	Common on town fringes	Local	Substitutable	Neutral	
Summary of character	Field has open character within urban context of Dorchester	Local	Uncommon and valued on urban edges	Locally important; site forms a local open area	Site within urban context of Dorchester	Impact on amenity open space within in urban edge Slight adverse	Low key approach to design detailing, eg flush edges, shared surfaces to minimise landscape and visual impact in urban edge setting

Reference Source(s): West Dorset Landscape Character Assessment, West Dorset District Council, February 2009. Dorset Area of Outstanding Natural Beauty: Conserving Character, Dorset AONB, 2008. Dorchester Park and Ride Report into Site Assessment, West Dorset District Council, December 2007, unpublished. West Dorset Local Plan 2006. Site visit. Personal communication with. West Dorset District Council, Dorset County Council, and Dorset AONB Partnership officers.

Summary assessment score: Slight adverse

Qualitative comments: Site is located to the north of the bypass and within urban context of Dorchester. Site could be screened from adjacent housing and open landscape within the Dorset Area of Outstanding Natural Beauty to the west by tree planting and possibly mounding.

**Sites R & S Combined Monkey's Jump Landscape Worksheet. Refer to Table 1, Landscape Impact Significance Criteria (WebTAG), in Section 2 of Stage 1 Landscape Appraisal**

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Impact	Additional Mitigation
Pattern	Straight-sided arable and grass fields on hilltop within broad, open and rolling downland to south and west of Dorchester. Site slopes in gentle fall to north.	Local	Not uncommon on urban edge of Dorchester	Local	Not replaceable	Moderate adverse	
Tranquillity	Traffic noise from the A35 and Monkey's Jump Roundabout	Local	Not uncommon on urban edge of Dorchester	Local	Tranquillity already lost	Further loss of tranquillity due to lighting and car and bus manoeuvring. Slight adverse	Minimal lighting

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Impact	Additional Mitigation
Cultural	Maiden Castle Scheduled Ancient Monument approx 1.5km to S. Within Dorset Area of Outstanding Natural Beauty (AONB).	Local	Cultural setting not uncommon on southern edge of Dorchester but uncommon in county wide context	Regional and local	Cultural setting not substitutable	Settings affected. Slight adverse	

Features	Description	Scale it matters	Rarity	Importance	Substitutability	Impact	Additional Mitigation
Landcover	Grassland within site S/arable within Site R. Flailed blackthorn hedge on east side of R adjacent to lane running from north to south between Sites R and S. Highway tree planting; in belt south of roundabout, on roundabout island and along eastbound carriageway of A35 (north of site S only).	Local	Common on town fringes	Local	Grassland replaceable	Loss of pasture. Potential to retain hedge within scheme design.  Neutral	



Features	Description	Scale it matters	Rarity	Importance	Substitutability	Impact	Additional Mitigation
Summary of character	Within the attractive, open and rolling landscape of the Dorset Area of Outstanding Natural Beauty (AONB). However the proximity to busy roads, print works approx 0.6km to east, roundabout, Monkey's Jump services (McDonalds) and the Poundbury development on the western side of Dorchester has an urbanising effect, detrimental to rural character	Regional and local	Not uncommon but highly valued on urban edges	Regionally and locally important; site is within Nationally important Dorset AONB	Open rural character on town fringe not substitutable	Impact on views from Maiden Castle SAM. Impact on open landscape within AONB would change character. Moderate adverse	In addition to planting along roadside and minimum use of cut-off lighting, signage and lining. Low key approach to design detailing, eg flush edges, shared surfaces to minimise landscape and visual impact in rural setting. Some potential for linear mound features to create screen.

Reference Source(s): West Dorset Landscape Character Assessment, West Dorset District Council, February 2009. Dorset Area of Outstanding Natural Beauty: Conserving Character, Dorset AONB, 2008. Dorchester Park and Ride Report into Site Assessment, West Dorset District Council, December 2007, unpublished. West Dorset Local Plan 2006. Site visit. Personal communication with. West Dorset District Council, Dorset County Council, and Dorset AONB Partnership officers.

Summary assessment score: Moderate adverse

Qualitative comments: Impact on open, rolling chalk downland would change character and be visually intrusive in the nationally designated 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. Some scope for screen mounding.

### **6.3 Surface and Ground Water Appraisal**

The following evaluation addresses the water aspects of the appraisal, both within the initial assessment and for the more detailed evaluation of the short-listed locations.

#### **6.3.1 Consultation**

The evaluation in 2007 undertook a range of consultations, and the responses to this have been made available to inform the appraisal. These were, with desk study evaluation, used to inform the initial assessment of the 20 sites to determine relative sensitivity of each, and potential impediments to delivery of a functional scheme.

Further consultation has been undertaken within this appraisal, including dialogue with the Environment Agency and Network Rail (see Appendix C ).

Extracted elements of the 2007 consultation are presented in Appendix A , with subsequent (2010) feedback within Appendix B .

The 2007 responses from the Environment Agency (EA) were based on limited data, and are therefore relatively generic in form. However, there are clear directions in respect of the site appraisal:

- All sites will require a formal Flood Risk Assessment (FRA) as they are over one hectare in size. Most, but not all, sites lie within Flood Zone 1 (low risk and outside mapped fluvial floodplain areas) and the FRA for these lower risk sites would need to focus on surface water runoff. Higher risk sites within Zone 2 or 3 will require justification for their selection (potentially including sequential and exceptions tests – see table 1), and consideration of the impacts of inundation (flooding) for the lifetime of the proposed development.
- The FRA must consider other sources of flooding (groundwater flooding, problem drainage areas, fluvial flooding and any areas already known to be susceptible to flooding outside the mapped floodplain adopted by EA).
- All sites will require a Surface Water Management Strategy in accordance with PPS25.
- All sites are located on a major aquifer, with most within a groundwater Source Protection Zone (SPZ).
- In accordance with EA guidance the works should, where possible, adopt Sustainable Drainage Systems (SuDS) to mitigate potential consequence on groundwater recharge, flows and levels, and to control surface water runoff.

Flood Risk Vulnerability Classification	Zone 1	Zone 2	Zone 3a	Zone 3b
Essential Infrastructure - Essential transport infrastructure, strategic utility infrastructure, including electricity generating power stations	✓	✓	e	e
High vulnerability - Emergency services, basement dwellings caravans and mobile homes intended for permanent residential use	✓	e	✗	✗
More Vulnerable - Hospitals, residential care homes, buildings used for dwelling houses, halls of residence, pubs, hotels non residential uses for health services, nurseries and education	✓	✓	e	✗
Less Vulnerable - Shops, offices, restaurants, general industry, agriculture, sewerage treatment plants	✓	✓	✓	✗
Water compatible development - Flood control infrastructure, sewerage infrastructure, docks, marinas, ship building, water-based recreation etc.	✓	✓	✓	✓
Key				
Development is appropriate	✓			
Development should not be permitted	✗			
Exception test required	e			

**Table 6—4 Flood Risk Vulnerability Classification**

### 6.3.2 Long List Appraisal

The following table identifies the designated and informal flood and groundwater issues associated with the 20 sites. These are ranked 1 to 5 – with 1 equating to least suitable and 5 being most suitable.

Ref	Name	EA Flood Zone 2 or 3	Other flood risk	SPZ	Comment	Rank
A	Stinsford			No		5
B	Birkin House			No		5
C	Kingston Maurward			No		5
D	London Road	<b>2, 3</b>		1	Within Floodplain	1
E	Coker's Frome Show Ground			1	Historic landfill, Inner SPZ	1
F	King Georges Field	<b>2</b>		N/A	Within Floodplain	2
G	A35/A352 Junction			2		4
H	Bypass South			2		4
I	Cricket Ground			2		4
J	Weymouth Road East		<b>Yes</b>	2	Historic landfill to east of railway embankment Ephemeral Stream, flooding	3
K	Weymouth Road West 1			2		4
L	Weymouth Road West 2			2		4
M	Bypass North			2		4
N	Poundbury South			2		3
O	Poundbury Middle			2		4
P	Poundbury East			1	Inner SPZ	2
Q	Poundbury North			2		4
R	Monkeys Jump 1			2		4
S	Monkeys Jump 2			2		4
T	Wolfeton House	<b>3</b>		N/A		1

**Table 6—5 Long List Selection Matrix**

Based on this list, it was recommended that Sites D and T be discounted on the basis of their proximity to the main river and location within high risk functional flood plain to the north of the town. Site F also lies within the flood plain, albeit Zone 2 (medium risk) and should be discounted if other, lower risk, sites are available (Sequential Approach).

In addition, sites within Inner SPZ will require a detailed hydrogeological risk assessment and potentially increased levels of protection within the design. It is recommended that they be discounted if other suitable, lower vulnerability, locations exist. These include Sites D, E and P.

Finally, recognition must be given to the informal flood risk associated with sites located within the ephemeral stream and associated flood plain including J and M. These sites are unlikely to be suitable for services facilities including fuel storage, unless no practical alternative exists.

The following sites have been selected for further evaluation, based principally on their suitability by location, albeit recognising that there are potential underlying constraints within the selection:

Site Reference	Site Name
I	Cricket Ground
J	Weymouth Road East
K	Weymouth Road West 1
L	Weymouth Road West 2
M	Bypass North
R & S	Monkeys Jump 1 & 2

**Table 6—6 Shortlisted Sites**

### 6.3.3 Short List - Key Issues

Water risk issues associated with the sites can be categorised into two broad areas, specifically those external risks that impact on the various sites and those impacts arising from the potential development of each site that could impact externally on neighbours. These are interconnected, in that mitigation to reduce flood inundation could impact adjacent sites through reduction in flood storage capacity.

### 6.3.4 Flood Risk

All sites will require a formal Flood Risk Assessment as they are over one hectare in size. All shortlisted sites lie within Flood Zone 1 (low risk and outside mapped fluvial floodplain areas) and the FRA for these lower risk sites would need to focus on surface water runoff. However, the FRA must consider other sources of flooding (groundwater flooding, problem drainage areas, fluvial flooding).

None of the selected sites lie within the present day floodplain, as mapped by the EA, so are theoretically not at risk from inundation. However, the FRA will need to address the impacts of climate change on the proposed site and therefore map the impact of any future floodplain extent, and must take account of any areas of unmapped floodplain. This is of significance given the topographic profile of the sites close to the Stadium Roundabout and the anecdotal evidence of flooding within the field (Site J), corroborated by visual observation of the ground profile, and plant types.

### 6.3.5 Site J

While the presence of areas of flood plain in the proximity of the car park site does not preclude development, three key factors will need to be incorporated in the design.

1. there should be no encroachment or restriction on the existing conveyance channel and storage capacity within the field;
2. the run off from the car park must be attenuated to ensure that the flood contribution from the surface area does not result in increased flooding or impact on adjacent properties/structures;
3. The design will need to ensure no contamination of the watercourse, by inclusion of oil interceptors.

The provision of a conveyance channel to capture and carry surface water flow in the valley feature within the catchment area towards Maiden Castle as well as road run off from the A354 is feasible, albeit at some cost in land take. Initial appraisal by the masterplanning team has suggested creation of a swale running parallel and close to the main road, with the car park sited on the land parcel to the east, abutting the railway embankment. The channel is not expected to require substantial width, assuming the car park will be elevated above the existing field level (a prerequisite of forming sufficient attenuation and interception). Formation of the car park is expected to require import of permeable fill to form a sub-base/plinth.

Surface water runoff from the car park itself will be addressed through SuDS design solutions (see below).

The EA response states that, while the site is in Flood Zone 1, the lower northern area of the site is prone to significant surface water flooding, therefore infiltration will be poor. Soakaways are likely to prove unsuitable within this lower area and the northern extent of the car park must therefore be curtailed to prevent both to provide infiltration and to avoid loss of flood storage within the lower part of the field, on the line of the flood plain indicated on the Rendel Geotechnics Figure 8, developed as part of their assessment of flood risk to Castle Park in 1995 (See Appendix E). It should be noted that the flood profile indicated on the plan does not appear to acknowledge the impact of the railway embankment and A35 on the flood plain, and obviously does not take account of more recent features including Tesco, the Stadium and the works at Poundbury. It is not clear what the conveyance route now is to the north of the A35, but it is unlikely to be as extensive as indicated, given the range of residential and commercial property on this alignment.

Within the area, the plan suggests a potential flood plain that extends some distance up the slope to the south, suggesting potential flood depths that would have consequence for the A35 and the commercial land to the north. Nevertheless, there is clearly potential for flooding and standing water adjacent to the field boundary running perpendicular to the embankment and A354.

There is no obvious provision of a culvert or drain running through the railway embankment, and to date access to the field has not been possible to verify the arrangement. Clearly, some form of drainage structure exists. In

the absence of information, it is not possible to propose appropriate modifications at this stage. However, maintenance and vegetation clearance within the inlet and discharge elements (which it is assumed exist) may be appropriate and would accelerate transmission. Options to increase the drain capacity by engineering intervention, either by expanding the existing culvert or provision of supplementary drainage, have not been examined at this stage, pending a response from Network Rail.

Measures to attenuate flooding might include creation of pond and other wetland features in the lower part of the field, although this could have archaeological implications given the proximity of the Roman road, and may be of limited value if seasonal ground water levels are at ground level.

#### **6.3.6 Sites K and L**

These have low risk of inundation, but runoff would contribute to flooding on the A354 and/or in the field designated Site J. SuDS design will therefore be required.

#### **6.3.7 Site M**

The site has low risk of flooding, but proximity to residential property to the north, along with the indicated flood plain associated with the ephemeral stream, would mean that run off across the property boundary would be significantly less acceptable than with any other site within the short-list.

#### **6.3.8 Site I**

The site lies below the B3147. While inundation is unlikely, it is anticipated that surface water drainage in this area is currently though a combination of sports drainage, percolation and, potentially, run off to the south, towards Tesco. The car park structure will be required to attenuate peak flows to prevent any change in existing conditions. Attenuation can include some short term flooding within the car park, the maximum depth should not exceed 200mm.

#### **6.3.9 Site R/S**

The Monkey's Jump site is located on the crest of the ridge, to the west of Dorchester. While, potentially, there is small risk of inundation from higher ground to the west, the topography suggests this is extremely unlikely. The site potentially drains both northwards, across the A35, and south into the valley features leading to the ephemeral stream and Site J. Attenuation and SuDS features will be required to protect groundwater, and these should be sufficient to attenuate runoff into these existing pathways.

#### **6.3.10 Groundwater and SuDS Provision**

All sites are located on a major aquifer and all are within groundwater Source Protection Zone (SPZ) 2 (see Appendix D).



Sources Protection Zones are defined as follows:

**SPZ1 – Inner protection zone**

Defined as the 50 day travel time from any point below the water table to the source. This zone has a minimum radius of 50m.

**SPZ2 – Outer protection zone**

Defined by a 400 day travel time from a point below the water table. This zone has a minimum radius of 250 or 500m around the source, depending on the size of the abstraction.

**SPZ3 – Source catchment protection zone**

Defined as the area around a source within which all groundwater recharge is presumed to be discharged at the source. In confined aquifers, the source catchment may be displaced some distance from the source. For heavily exploited aquifers, the final Source Catchment Protection Zone can be defined as the whole aquifer recharge area where the ratio of groundwater abstraction to aquifer recharge (average recharge multiplied by outcrop area) is  $>0.75$ . There is still the need to define individual source protection areas to assist operators in catchment management.

The Environment Agency as provided a consultation response which includes the following:

“In accordance with policy P4-12 any formal planning application will need to be supported by a risk assessment. It is considered likely that the conclusions of any risk assessment for any of the sites outside SPZ 1 will include provision for oil interceptors prior to any discharge to ground.”

“Sustainable Drainage Systems (SuDS)

Surface water run-off should be controlled as near to its source as possible with sustainable drainage systems (SuDS). This reduces flood risk through the use of soakaways, infiltration trenches, permeable pavements, grassed swales, ponds etc. SuDS can also increase groundwater recharge, improve water quality and provide amenity opportunities. A SuDS approach is encouraged by Approved Document Part H of the Building Regulations 2000.”

For all locations therefore, the design of the car park must adopt Sustainable Drainage Systems (SuDS) to mitigate potential consequence on groundwater recharge, flows and levels, and to control surface water runoff. Based on the EA response, the car park structure is expected to be broadly comparable between each location, comprising impermeable surfacing and drains/interceptors for all trafficked areas, with permeable fill and soakaways for infiltration to ground. The use of soakaways will be mandatory, since there should be no reduction in the volume/rate of rainwater percolating into the ground.

Consideration will be given to the introduction of liners, dry and wet swales and other attenuation features, in combination with the landscape and ecology design elements. The detailed arrangement of the car park

formation will also need to consider measures required to prevent contamination including whether all flows have to pass through oil separators, or if permeable fill and permeable surfacing would be deemed to provide sufficient treatment (by the biological breakdown of contaminants on the surface of the media) for some areas. The latter will be much less expensive than collecting flows and directing them through an oil separator and then back to a soakaway, although this has been adopted as the anticipated requirement based on the EA advice.

### 6.3.11 Site Matrix

Based on the initial appraisal, and while awaiting formal responses from both EA and Network Rail, the following weighting has been derived for the 6 sites, in the context of water risk and vulnerability.

Ranking scores are from 1 to 5, least to most suitable. Therefore the highest score represents the most favourable site.

Site	Name	EA Flood Risk	Informal Flood Risk	Groundwater	Neighbour issues	Score
I	Cricket Ground	5	4	4	3	16
J	Weymouth Road East	5	2	4	4	15
K	Weymouth Road West 1	5	5	4	4	18
L	Weymouth Road West 2	5	5	4	4	18
M	Bypass North	5	4	4	3	16
R & S	Monkeys Jump 1 & 2	5	5	4	5	19

**Table 6—7 Short List Selection Matrix**

Adopting the results of the scoring from the above table the ranking of sites is as follows:

- R&S
- K, L
- I, M
- J

All of the sites appear, at this stage, deliverable although receipt of the EA consultation response may change this conclusion. It is assumed that the scores are, effectively, inversely proportional to cost of implementation, with J potentially most costly, R/S least.

## 6.4 Transportation and Highways Appraisal

The following section assesses the impact of the preferred sites on highway network, and looks at opportunities to provide bus priority measures.