

## Sustainability Checklist for West Pond Reserved Matters (Barratt Homes) - condition 10 of outline planning permission

### KEY

Requirement not addressed at all where feasible  
 Requirement insufficiently addressed where feasible  
 Effect unknown/level of detail yet to be determined  
 Achievement of requirement unfeasible  
 Requirements met partially  
 Requirements met in full  
 Requirements exceeded



**Nathaniel Lichfield  
& Partners**  
 Planning. Design. Economics.

No.	In accordance with the locally adjusted requirement, does the masterplan/ scheme...?	Assessment: Final Masterplan (Sustainability Statement, 2009, Appendix D)	Assessment: Reserved Matters - West Pond (on behalf of Barratt Homes)
<b>Management</b>			
1	Include provision for a home user guide?	A Home User Guide will be provided to all units. This will cover local transport links, amenities and features of the house.	A Home User Guide will be provided to all units within West Pond. This will cover local transport links, amenities and features of the house.
2	Seek that the Considerate Constructors Scheme is signed up to?	<p>All phases will be signed up for Considerate Constructors Scheme with construction site impacts reduced, monitoring and reporting water and energy use and adopting best practice for water and dust pollution.</p> <p>In addition to this, best practice recommendations for the prevention of contamination will be outlined in the detailed Construction Environment Management Plan (CEMP) and Site Waste Management Plan (SWMP) both of which will be developed and discussed with the Local Authority and Environment Agency, prior to commencing construction. The ES states that any negative effects from construction on air quality will be temporary. The operational impacts are predicted to be low, and thus no mitigation for operational effects is required. Other elements included within this sustainability appraisal, such as increasing a shift to more sustainable modes of transport, will help to ensure that this is the case.</p>	<p>The residential development of West Pond will be signed up for the Considerate Constructors Scheme with construction site impacts reduced, monitoring and reporting water and energy use and adopting best practice for water and dust pollution.</p> <p>In addition to this, best practice recommendations for the prevention of contamination have been outlined in the submitted Construction Environment Management Plan (CEMP) and Site Waste Management Plan (SWMP). The ES submitted with the original Outline application states that any negative effects from construction on air quality will be temporary. The operational impacts are predicted to be low, and thus no mitigation for operational effects is required. Other elements included within this sustainability appraisal, such as increasing a shift to more sustainable modes of transport, will help to ensure that this is the case.</p>
<b>Low/Zero Carbon Energy Sources and Systems</b>			
3	Integrate all feasible methods of renewable and low emission energy sources?	<p>The following summary gives the present position in respect of the Barry Waterfront development. Over the life of the development the costs of existing technologies will be expected to fall and new technologies come on stream. The effectiveness of these in meeting the carbon targets will be kept under review and appropriate solutions selected as each stage of the development proceeds.</p> <ul style="list-style-type: none"> <li>- Photovoltaics will form an intrinsic part of the future solution for performances of 44% better than 2006 building regulations from properties in the development.</li> <li>- Solar thermal has a useful contribution to make towards achieving the 15% renewable contribution at Barry Waterfront. This is particularly so in the West Pond Area with its essentially south facing roofs, and in Arno Quay with the south facing elevation. In South Quay, the houses lie in an east/west orientation, solar thermal will therefore be less effective in this location. This effect can be compensated for in the size of the collector array in detail design. The escarpment is not expected to significantly impact upon the solar thermal output, as shading occurs at low sun angles which predominate in the winter period when the solar energy is much lower and heat would not normally be recovered.</li> <li>- With the large surface area of the dock nearby, Water Source Heat Pumps are a viable option for a proportion of the development. As this technique can be used to pump heat both ways, it provides a particularly useful opportunity for the commercial quarter at the head of the docks. However there is opportunity for some of the housing to also be served.</li> <li>- The consortium aspires to the development of a community heating system at Barry Waterfront which would be seen as a positive move in terms of sustainability, but acknowledges that substantial hurdles would need to be overcome.</li> <li>- Should a community or district heating network be installed, a centralised CHP component to the Barry Waterfront development is then a viable option with good potential for carbon savings.</li> </ul>	The design principles as outlined within the submitted Code for Sustainable Homes Pre-Assessment will be applied in order to ensure that the use of renewable energy technologies are not required on this development. The design approach is one of improved thermal efficiency rather than a reliance on renewable technologies to meet the required sustainability targets.
<b>Site Layout and Density, Energy Conservation and Efficiency/ Street Lighting to Minimise Pollution</b>			
4	Layout and orientation maximise passive solar gain and natural daylighting and ventilation?	<p>As part of the Energy Strategy, efficiencies gained through layout and orientation were explored. Consequently, the development will follow the best practice of the energy hierarchy to minimise the energy demand through good design. Key features are:</p> <ul style="list-style-type: none"> <li>• Orientation for passive solar gain</li> <li>• Orientation for solar hot water or Photovoltaic collection</li> <li>• Terraced housing with low Surface to volume ratio</li> <li>• High levels of insulation</li> <li>• Low air leakage</li> <li>• Gas appliances to be A rated condensing type</li> <li>• High penetration of low energy lighting</li> <li>• Any built in white goods to be A rated for energy</li> <li>• Gardens available for drying</li> </ul> <p>The high density of housing not only brings a benefit in terms of party walls reducing thermal losses to the environment, but also in providing a compact load for the potential use of community or district heating. The linear streets provide shorter pipe runs and the denser housing gives a compact load with potentially lower mains losses per dwelling. Reduced mains losses will reduce demand on any central plant that may be installed.</p>	<p>As part of the Energy Strategy, efficiencies gained through layout and orientation were explored. Consequently, the development follows the best practice of the energy hierarchy to minimise the energy demand through good design. Key features are:</p> <ul style="list-style-type: none"> <li>• Orientation for passive solar gain</li> <li>• Orientation for solar hot water or Photovoltaic collection</li> <li>• Terraced housing with low Surface to volume ratio</li> <li>• High levels of insulation</li> <li>• Low air leakage</li> <li>• Gas appliances to be A rated condensing type</li> <li>• High penetration of low energy lighting</li> <li>• Any built in white goods to be A rated for energy</li> <li>• Gardens available for drying</li> </ul> <p>The high density of housing brings a benefit in terms of party walls reducing thermal losses to the environment. The linear streets provide shorter pipe runs and the denser housing gives a compact load with potentially lower mains losses per dwelling. Reduced mains losses will reduce demand on any central plant that may be installed.</p>
5	Seek to provide energy efficient boilers and white goods?	Any supplied white goods will be A grade, and boilers will be energy efficient.	All white goods will have EU Energy labelling

## Sustainability Checklist for West Pond Reserved Matters (Barratt Homes) - condition 10 of outline planning permission

6	Require that all lighting is energy efficient and minimises pollution?	A minimum of 75% dedicated low energy light fittings (internal and external) will be included. Energy efficiency of lantern types and appropriate control will keep the carbon footprint of the street lighting to a minimum.	No security lighting is proposed on individual dwellings. Any internal and external lighting will be Code compliant (individual houses, not street lighting).
7	Allow for the provision of internal or external drying space?	All houses are to be provided with rotary dryers and all flats with tidy-drys. This allows clothes to be dried naturally.	All houses are to be provided with rotary dryers in private gardens. This allows clothes to be dried naturally.
<b>Low embodied energy material and resource efficiency</b>			
8	Include the implementation of decisions relating to the use and sourcing of low embodied materials and resources?	The majority of the main building elements are to achieve a grade A from the Green Guide to Housing Specification (uPVC windows achieve this).	The majority of the main building elements are to achieve a grade A from the Green Guide to Housing Specification (uPVC windows achieve this).
9	Include the characteristics likely to achieve a reduced CO2 emissions rating?	To attain the Ecohomes excellent score, the typical dwelling will be targeting a carbon emission of less than 22 kg/m2/yr. This is significantly less than that minimum emission rating for scoring under Ecohomes, of 40kg/m2/year.  In order to achieve this, improved U values over Building regulations levels will be targeted. Doors and windows will achieve 1.5 and roofs 0.14. Air tightness in buildings looks to <5 air changes per hour when tested to a pressure of 50 Pascals, current building regulations suggest a target of 10 air changes per hour.	The dwellings proposed in West Pond will each achieve Code level 3 plus and additional credit under Ene1 - Dwelling Emission Rate for the Code for Sustainable Homes. This equates to an 8% improvement on the DER/TER CO2 emission calculation used to demonstrate compliance with Approved Document Part L1A (2010) of the current Building Regulations.
10	Include characteristics that will result in the HLP being less than or equal to 1/1W/M2K?	The Excellent pre-assessment of the site is based on average HLP of 1.1 W/m2K or less	The submitted Code for Sustainable Homes Pre-Assessment of the site is based on average HLP of 1.11 W/m2K.
11	Include insulation with a GWP of less than 5?	All insulation used will have a Global Warming Potential of less than 5.	All insulation used will have a Global Warming Potential of less than 5.
12	Re-use contaminated land?	No comment provided.	The proposed development will see the redevelopment of a contaminated site. A significant amount of information in relation to the mitigation of this contamination has been provided as part of the outline application and subsequently to discharge pre-commencement planning conditions.
<b>Waste Management</b>			
13	Propose a waste management strategy, to encourage the movement of waste up the hierarchy?	Internal recycling bins will be provided to help maximize the amount of waste recycled; this will help towards the achievement of the council's recycling targets. The local authority will collect materials for recycling.	Internal recycling bins will be provided to help maximize the amount of waste recycled; this will help towards the achievement of the council's recycling targets. The local authority will collect materials for recycling. A Site Waste Management Plan has been submitted to the Council and will be complied with fully.
14	Demonstrate a commitment and a strategy to monitor, sort and recycle construction waste on site including the reuse of building materials?	A Site Waste Management Plan will be provided as part of statutory requirements. The achievement of Ecohomes Excellent will also require the following:  - Commitment to sorting and recycling construction waste on site. - Demonstrate a commitment to monitor, sort and recycle construction waste.	As requested via planning condition, a Site Waste Management Plan has been submitted to the Council and will be complied with fully.
<b>Water conservation and sustainable drainage</b>			
15	Incorporate the use of features which will encourage the conservation of water resources alongside safeguarding water quality?	The pre-assessment for Ecohomes calculates that the development will use less than 37m3 of water per bed-space with 4/2l dual flush, aerating taps and showers reduced to 4.5l/min. A rated white goods will be supplied where appropriate. These measures will reduce internal water use.  Water butts will be provided to houses and apartment blocks.  "A number of mitigation measures are proposed as part of the works to control the risk of pollution during construction and operation of the development. These include remediation of the made ground and source removal of grossly contaminated material and free product, together with the use of driven piles to mitigate the potential for pathways to be developed." (ES)	Dwellings will be designed to ensure internal water use of less than or equal to 105 litres per person per day. Sanitary fittings will be fitted to consume less than 105 litres/person/day. Externally, compliant individual rainwater collection systems will be provided including rain water butt's to be provided in each rear garden.  "A number of mitigation measures are proposed as part of the works to control the risk of pollution during construction and operation of the development. These include remediation of the made ground and source removal of grossly contaminated material and free product, together with the use of driven piles to mitigate the potential for pathways to be developed." (ES). Details of these methods have been provided to the Council in relation to the discharge of pre-commencement conditions.
16	Incorporate the appropriate use of SUDS?	Due to the contaminated land on site, it is not possible for SUDS to be used in this particular location. As an alternative, "the new surface water drainage system will pick-up rain water from roads, roofs and hardstandings and transmit flows through the drainage network and discharge into the dock. Trapped gullies and interceptors will be incorporated into the design which will prevent contamination migration from the new drainage network into the dock." (ES)	Due to the contaminated land on site, it is not possible for SUDS to be used in this particular location.
17	Demonstrate flood risk mitigation techniques?	"The design level of the development to provide protection for a 0.5% tidal (1 in 200 year) event is 8.868mAOD.  To prevent a possible surge being transmitted into the western area of West Pond; it has been agreed that ground levels immediately to the east of the viaduct structure is raised to 9.34mAOD, to be a general ground level raise rather than to a local bund.  To allow movement within the site during a flood event, all new roads will also be raised above the 1 in 200 year extreme flood level of 8.868Maod. To allow access/egress to/from the site, the existing access points will need to be used.  To ensure that the off-site access roads do not flood by more than 0.6 during an extreme event, local lengths of Y Rhodfa and Cory Way roads may need to be raised by up to 0.2m and 0.4m locally to ensure emergency access during an extreme flood event.  To provide such flood protection across East Quay, West Pond and South Quay, ground levels will need to be revised, typically by 0.5 – 1.0m." (ES)	The design level of the development to provide protection for a 0.5% tidal (1 in 200 year) event is 8.868mAOD.  To prevent a possible surge being transmitted into the western area of West Pond; it has been agreed that ground levels immediately to the east of the viaduct structure is raised to 9.34mAOD, to be a general ground level raise rather than to a local bund. Ground levels across East Quay, West Pond and South Quay shall also be raised to between 0.5m to 1.0m. During construction works temporary flood bunds shall be provided to the dock and the western edge.  To allow movement within the site during a flood event, all new roads will also be raised above the 1 in 200 year extreme flood level of 8.868Maod. To allow access/egress to/from the site, the existing access points will need to be used.
<b>Landscape, Trees and Ecology</b>			

## Sustainability Checklist for West Pond Reserved Matters (Barratt Homes) - condition 10 of outline planning permission

18	Seek to protect and enhance ecology wherever possible?	<p>Potential impacts on ecology have been predicted through the EIA process, outlined in the ES. Subsequently, a number of mitigation measures will be included within the development, namely:</p> <ul style="list-style-type: none"> <li>- Retention and protection of 2m wide strip at the cliff base and face along the South Quay;</li> <li>- Retention of 5300m<sup>2</sup> grassland areas for Skylark to the south of East Quay;</li> <li>- Design of Public Open Space in East Quay to provide grassland of potential value to Skylark (2200m<sup>2</sup>);</li> <li>- Possible retention of 7100m<sup>2</sup> of ABP land on East Quay to retain grassland habitat in-situ and provide potential resource to Skylark;</li> <li>- Provision of 1000m<sup>2</sup> wildflower meadow as part of public open space at East Quay;</li> <li>- Creation of linear park swale and meadow strip habitat through West Pond;</li> <li>- Up to 43,100m<sup>2</sup> of public space including grass, bulb, herbaceous, trees and shrub species selected to be beneficial to biodiversity;</li> <li>- Street tree network to contribute to foraging corridors for birds, bats;</li> <li>- Retention and protection of rare plant (Childing Pink) areas off site (East Quay) and translocation of species (Corky Fruited Water Dropwort);</li> <li>- Provision of brown roofs on the District Centre in West Pond (approximately 2600 m<sup>2</sup> of habitat).</li> <li>- Brownfield habitat to be provided – up to 2000m<sup>2</sup> - as part of green corridor around south-eastern periphery of site. This provision would be provided as part of green corridor around southwestern periphery of site.</li> <li>- Translocation of reptiles from within the application boundary to a suitable offsite area (Cosmeston Country Park)</li> <li>- Creation of 'green corridor' link between off-site railway scrub and the cliff corridor.</li> <li>- Retention of the cliff top green space managed as wildlife gardens, allotments and open space.</li> <li>- Up to 1:10 of the approximate 600 houses in South Quay to have bird boxes.</li> <li>- Up to 600 m2 of thicket scrub in East Quay Park.</li> </ul> <p>The mitigation measures proposed would allow for retention and/or provision of habitats, albeit at a smaller scale and this in turn would provide resource for continued use of the site by birds, foraging bats and terrestrial invertebrates. For these groups, the significance of any adverse impacts is likely to reduce over the long term as planting matures etc although an overall loss of biodiversity (largely due to the scale of area lost to development) at the site level is likely to arise as a result of development.</p> <p>As part of the site preparation works in advance of construction, the level of the site would need to be raised to address flood issues and this would effectively remove most of the existing ecological features at the site. Minimisation of the effects of construction will include, however, include the retention and protection of the cliff/cliff base on South Quay, retention of grassland at East Quay, avoidance of key periods (e.g. bird nesting season) during clearance works and retention/protection of peripheral scrub habitats." (ES)</p> <p>To enhance the ecology on site, locally sourced plants are likely to be used.</p>	<p>An Ecological Mitigation Strategy for both Phase 1 and the entire site has been prepared and submitted to the Council. The mitigation strategy developed for the entire site incorporates the following key features:</p> <ul style="list-style-type: none"> <li>- Retention of approximately 2500m<sup>2</sup> grassland areas for Skylark to the south of East Quay;</li> <li>- Design of Public Open Space in East Quay to provide grassland (incorporating Rough and Meadow Grassland) of potential value to Skylark (approximately 9500m<sup>2</sup>);</li> <li>- Retention of approximately 6800m<sup>2</sup> of ABP land on East Quay to retain grassland habitat in-situ and provide potential resource to Skylark;</li> <li>- Provision of approximately 3500m<sup>2</sup> wildflower meadow as part of public open space at East Quay;</li> <li>- Creation of linear park swale and meadow strip habitat through West Pond;</li> <li>- Public space including grass, bulb, herbaceous, trees and shrub species selected to be beneficial to biodiversity;</li> <li>- Street tree network to contribute to foraging corridors for birds and bats;</li> <li>- Retention and protection of a strip at least 2m wide at the cliff base and face along the South Quay;</li> <li>- Retention and protection of rare plant (Childing Pink) areas off site (East Quay) and translocation of species (Corky Fruited Water Dropwort and Corn Parsley if required);</li> <li>- Provision of brown roofs on the District Centre in West Pond (approximately 2500 m<sup>2</sup> of habitat).</li> <li>- Brownfield habitat to be provided (up to 2800m<sup>2</sup>) as part of green corridor around southwestern periphery of site. This provision would be at ground level with a scrub corridor/hedge border adjacent to the development.</li> <li>- Translocation of reptiles from within the application boundary to a suitable offsite area</li> <li>- Creation of 'green corridor' link between off-site railway scrub and the cliff corridor.</li> <li>- Retention of the cliff top green space managed as wildlife gardens, allotments and open space.</li> <li>- Up to 1:58 of the approximate 600 houses in South Quay to have bird boxes.</li> <li>- Up to 300m<sup>2</sup> of thicket scrub in East Quay Park.</li> </ul> <p>The mitigation measures proposed would allow for retention and/or provision of habitats, albeit at a smaller scale and this in turn would provide resource for continued use of the site by birds, foraging bats and terrestrial invertebrates. For these groups, the significance of any adverse impacts is likely to reduce over the long term as planting matures etc although an overall loss of biodiversity (largely due to the scale of area lost to development) at the site level is likely to arise as a result of development.</p> <p>As part of the site preparation works in advance of construction, the level of the site would need to be raised to address flood issues and this would effectively remove most of the existing ecological features at the site. Minimisation of the effects of construction will include, however, include the retention and protection of the cliff/cliff base on South Quay, retention of grassland at East Quay, avoidance of key periods (e.g. bird nesting season) during clearance works and retention/protection of peripheral scrub habitats." (ES)</p> <p>To enhance the ecology on site, locally sourced plants are likely to be used.</p>
19	Achieve an adequate footprint ratio?	The development has sought to achieve the optimum efficiency in terms of the use of the available land on site.	The development has sought to achieve the optimum efficiency in terms of the use of the available land on site.
20	Retain a visual relationship with the waterfront and the town?	<p>The landscape and visual impact assessment in the EIA has assessed the visual effects of the development. The visual effect is considered to be major beneficial for 6 of the viewpoints considered; with one of each of the remaining viewpoints experiencing the following effects: minor beneficial; moderate beneficial; and moderate to major beneficial.</p> <p>The Masterplan indicates the enhancing of several key views in and out of the development area. These include a key view through South Quay to Barry Island and from Barry Island to Arno Quay and a continuous frontage along the waterfront.</p> <p>The Design and Access Statement shows how key views have been created through the masterplan process, enhancing the visual relationship between the waterfront and Barry town. Additionally, provision will be made for public art through the public realm strategy although the precise scale and form will be a matter of negotiation with the Council. (PS)</p>	<p>The landscape and visual impact assessment in the EIA has assessed the visual effects of the development. The visual effect is considered to be major beneficial for 6 of the viewpoints considered; with one of each of the remaining viewpoints experiencing the following effects: minor beneficial; moderate beneficial; and moderate to major beneficial.</p> <p>The Masterplan indicates the enhancing of several key views in and out of the development area. These include a key view through South Quay to Barry Island and from Barry Island to Arno Quay and a continuous frontage along the waterfront.</p> <p>The Design and Access Statement shows how key views have been created through the masterplan process, enhancing the visual relationship between the waterfront and Barry town. Additionally, provision will be made for public art through the public realm strategy although the precise scale and form will be a matter of negotiation with the Council.</p>
21	Propose a sustainable landscaping strategy?	<p>"Trees, shrubs, herbaceous and bulb species are to be chosen to provide good seasonal effect and to collectively contribute to biodiversity... The provision of strategic street planting, within a site wide hierarchy, is a principal landscape design objective." (DAS)</p> <p>"The established masterplan will include trees within the open spaces and along roadways providing a more mature structure to the streetscape that will assist in enhancing the overall character of the area.</p> <p>Extensive street trees that reinforce the street hierarchy and tree planting within open space is proposed and over time they will be visible within the roofscape of the development, providing a green structure. The proposed open spaces that are situated throughout the site will provide areas of visual and recreational amenity for both residents and visitors. Street trees along the district centre public realm will contribute to key gateway views." (ES)</p> <p>"A continued development plan for the young developing woodland and scrub material within the site will add a considerable linear landscape character to the slopes at the south of the site, if encouraged to develop. Such linear landscape features are important for nature conservation corridors as identified with the ecology chapter.</p> <p>With regard to retained trees, the protection of RPAs (as illustrated on figure M3), using suitable protective fencing conforming to BS 5837:2005, will be an essential component for protecting against further damage to trees selected for retention. These measures should be included in a written Tree Protection Plan, developed as part of the reserve matters detailed design.</p> <p>The Development landscape design proposes the planting of advanced and semi-mature tree stock (in excess of 800 number), complemented with areas of green open space (in excess of 4.5 hectares within the application site). This, along with the establishment of the existing landscape as referred to above, should mitigate any short term loss and result in a longer term, beneficial effect for the area in terms of landscape amenity and quality." (ES)</p>	<p>The Reserved Matters submission includes a detailed landscape scheme which should be referred to. The scheme includes a strong network of street trees to re-inforce the street hierarchy and also formal hedgerows (to key frontages) and areas of shrub and herbaceous planting.</p> <p>Strategic public open space will be provided to the south along the Linear Park which is demonstrated on the Strategic Public Realm Plan.</p>

## Sustainability Checklist for West Pond Reserved Matters (Barratt Homes) - condition 10 of outline planning permission

22	Include an attractive open space network including space for children's play?	<p>"Whilst children's formal play facilities would be met in full there will be flexibility in the way in which other forms of public open space are provided, including a quality public realm along the waterfront, dual use of any educational facilities including all weather facilities, and the creation of new public green spaces.</p> <p>"A comprehensive open space network has been established throughout the waterfront development, and is demonstrated on the masterplan.</p> <p>"The Barry Waterfront scheme proposes to provide a minimum of 4.66 ha of public open space and 1.42 ha of public realm of which 0.58 hectares will be children's play area." (PS)</p> <p>This will encourage community mixing and an increase in informal and formal physical activity contributing to human health and wellbeing.</p>	West Pond does not include the provision of public open space or children's play space. However, as per the parameter plans (outline application), the scheme as a whole will provide a sufficient level of both formal and informal open space.
23	Include a network of multipurpose wildlife corridors and pedestrian routes?	<p>The mitigation included within the ecology chapter of the ES includes wildlife corridors, as well as multipurpose routes and spaces for wildlife and pedestrians such as:</p> <ul style="list-style-type: none"> <li>- "Design of Public Open Space in East Quay to provide grassland of potential value to Skylark (2200m2);</li> <li>- Provision of 1000m² wildflower meadow as part of public open space at East Quay;</li> <li>- Creation of linear park swale and meadow strip habitat through West Pond;</li> <li>- Up to 43,100m² of public space including grass, bulb, herbaceous, trees and shrub species selected to be beneficial to biodiversity;</li> <li>- Street tree network to contribute to foraging corridors for birds, bats;</li> <li>- Brownfield habitat to be provided – up to 2000m² - as part of green corridor around south-eastern periphery of site.</li> <li>- Creation of 'green corridor' link between off-site railway scrub and the cliff corridor.</li> <li>- Retention of the cliff top green space managed as wildlife gardens, allotments and open space."</li> </ul>	As discussed under Point 18 above, a number of ecological mitigation measures are proposed which includes a wildlife corridors, as well as multipurpose routes and spaces for wildlife and pedestrians.
<b>Geology</b>			
24	Contribute to the protection of any geological or geomorphological sites of significance?	Appendix A shows the location of the Geological SSSIs, which can be noted as being a considerable distance from the development site. As such, it is considered that they will not be negatively affected by the development, contributing to their continued protection.	As demonstrated by the application, the location of the Geological SSSIs, which can be noted as being a considerable distance from the development site. As such, it is considered that they will not be negatively affected by the development, contributing to their continued protection.
<b>Local Character and Urban Design</b>			
25	Lead to the enhancement of local character and heritage through design?	<p>The DAS explains how the masterplan has been divided into seven character areas. Each of these will contribute to the enhancement of local character, with each having their own identified character through design objectives and principles as follows:</p> <ul style="list-style-type: none"> <li>- District Centre: '... a vibrant new heart for both the new and existing community'</li> <li>- West Pond: '... a new neighbourhood based upon traditional values'</li> <li>- S Q Parkside: '... a distinct residential quarter with a parkside setting'</li> <li>- S Q Waterside: '... a lively new neighbourhood with a waterside setting'</li> <li>- Arno Quay: '...a gateway opportunity'</li> <li>- East Quay: '...a peninsula residential development'</li> <li>- The Mole: '...a distinct and attractive leisure-led, mixed-use area'</li> </ul> <p>The landscape and visual chapter of the ES confirms that the development will lead to the enhancement of local character through design:</p> <p>"The development is considered appropriate in terms of its location, design, scale, materials used and its relationship with the surrounding townscape. The proposed developments will have longer term beneficial effects on the local area, transforming a dockland landscape that has been in decline for many years into a vibrant, urban townscape, while still respecting the traditional local urban structure and form that surrounds the site. Overall it is considered unlikely that any significant adverse effects on the setting or character of the Conservation Areas within the study area will result due to the proposed developments. The two listed buildings that will be most effected by the development will be the Dock Office building and the North Hydraulic Pumping House, both of which have direct views across the proposed development site. Significance of effects on the two listed buildings is likely to be moderate beneficial. There will be no views of the development from the Grade I listed Dovecote; therefore there will be no adverse of beneficial effects from this structure. The I blocks of housing within West Pond, South Quay Parkside, South Quay Waterside and East Quay, which are predominately two-storeys in height, reflect the traditional street patterns that are typically found within the residential streets surrounding the Docks. Houses within West Pond and South Quay Parkside will be finished using materials, which compliment the existing housing styles adjacent to the docks. The residential developments at South Quay Waterside respond to the radial geometry of the adjacent cliff and the terraced housing on the peninsula. Through the use of contemporary design, the housing will connect with its maritime location and integrate the development blocks into their surroundings, whilst still reflecting the traditional urban vernacular of the area." The archaeology chapter of the ES goes further to protect local heritage, providing mitigation including: "Watching briefs and site surveys prior to any excavation or demolition works with relation to potential negative effects on sites of archaeological significance will provide mitigation and ensure that there will be no residual impact on the archaeological resource."</p>	<p>The submitted Design Statement explains how the proposed Phase 1 development will lead to the enhancement of local character and heritage through design. However, to summarise, the West Pond Character Area Aims and Objectives are to:</p> <ul style="list-style-type: none"> <li>– To create a traditional residential neighbourhood that echoes the character of Barry Town.</li> <li>– To provide clearly defined and safe links from the area to the rest of the Waterfront site, Barry Town and Barry Island.</li> <li>– To provide a hierarchy of streets and pedestrian routes through variation in width, visual= character and materials.</li> <li>– To provide a dense urban grain with on-street activity, safe and secure residential environments and adequate private amenity.</li> <li>– To address the intersecting geometries of the new main street, the east-west pedestrian route and the boundaries with the railway line and waste treatment works.</li> <li>– To create open space overlooked by residents, encouraging a sense of ownership and responsible neighbourhood use by all</li> </ul> <p>The design of "West Pond is taking its cue from the adjacent grain of residential development to the north of the site the terraced housing of West Pond will be recognisable as an extension of Barry Town. The railway and causeway to the Island form the boundaries to the north, south and west of the area while the new Main Street defines its eastern extent. The proposed Main Street through the site from Barry Town to Barry Island will divide the West Pond residential neighbourhood from the District Centre and waterfront areas. As such, it is important to create a strong sense of place and community for the new neighbourhood with its own identity. Equally, it is important to facilitate clear connections to other neighbourhood areas both within and outside the site". (DS, June 2012)</p>
<b>Transport &amp; Movement</b>			

## Sustainability Checklist for West Pond Reserved Matters (Barratt Homes) - condition 10 of outline planning permission

26	Seek to reduce the need to travel through the provision of home offices and mixed use development?	<p>All units will have a designated Home Office with additional power and telephone points to allow for home working or studying.</p> <p>The location of the development will intensify development in this urban location, increasing development densities, where there is good access to services and facilities accessible by foot. The location of three rail stations and good bus links means that it is ideally situated to implement that transport hierarchy. The expected number of direct jobs that will be generated by the Proposed Development is approximately 700 net additional direct jobs at the following proposed land uses:</p> <ul style="list-style-type: none"> <li>- Foodstore</li> <li>- Non-food retail</li> <li>- Class A3 units</li> <li>- Offices</li> <li>- Hotel*</li> <li>- Petrol Filling Station</li> </ul> <p>This is likely to include about 102 'spin off' jobs in local services and other firms in the local area, with a further 204 jobs likely to be generated in the South East Wales region.</p>	<p>Unfortunately it has not been possible to provide all units with a home office/study, although a large proportion of the units do have this option. In addition, the layout of the proposed units is flexible so in all but the smallest units, residents will be able to create areas for home working if required. Additional power and telephone points will be provided to allow for home working or study.</p> <p>The location of the development will intensify development in this urban location, increasing development densities, where there is good access to services and facilities accessible by foot. The location of three rail stations and good bus links means that it is ideally situated to implement that transport hierarchy. The expected number of direct jobs that will be generated by the Proposed Development is approximately 900 net additional direct jobs at the following proposed land uses:</p> <ul style="list-style-type: none"> <li>- Foodstore</li> <li>- Non-food retail</li> <li>- Class A3 units</li> <li>- Offices</li> <li>- Hotel</li> <li>- Petrol Filling Station</li> <li>- Community Use</li> </ul>
27	Reflect the manual for streets, and provide safe, convenient, easy and attractive routes for pedestrians?	<p>"The masterplan has been developed with high priority afforded to pedestrian permeability. The newly constructed link road will include wide footways to cater for increased demand and frontage activity. Dedicated at-grade crossings will be provided at the proposed signalised junctions along the main link road. Footways will share space with cyclists and motor vehicles within the housing areas to provide a 'street' feel, as advocated in the Department for Transport's Manual for Streets document. Pedestrian shortcuts will be provided between dead end streets, allowing local trips to be faster for pedestrians.</p> <p>Uncontrolled crossings will be situated in convenient locations around the development sites, and will have dropped kerbs to cater for disabled users. Pedestrian desire lines have also been considered to ensure that safe convenient routes are available to pedestrians wanting to access the retail, school and office facilities.</p> <p>An important aspect of the pedestrian facilities is the linkage to the external pedestrian facilities around the waterfront area. The segregated cycle/footway bordering Ffordd y Mileniwm has been integrated into the masterplan, to ensure seamless connections between existing facilities and the proposed development.</p> <p>Connections will also be made to the existing footways that follow the alignment of Powell Duffryn Way that connects to the roundabout situated at the north eastern corner of West Pond. Direct pedestrian access to Barry Station will be improved by the provision of a footway crossing over the disused railway to the north of West Pond. This connects to the existing underpass that currently provides a link between the waterfront and Broad Street." (ES)</p> <p>"Seating areas and public cycle parking facilities are provided at a number of locations within the development sites to facilitate walking and cycling within the site and create a vibrant development... Construction of the Thompson Street footbridge will create a further route from the Waterfront area to the Town centre. This route will be of particular use to potential residents of the Arno Quay and East Quay sites." (TA)</p>	<p>"The masterplan has been developed with high priority afforded to pedestrian permeability. The newly constructed link road will include wide footways to cater for increased demand and frontage activity. Dedicated at-grade crossings will be provided at the proposed signalised junctions along the main link road. Footways will share space with cyclists and motor vehicles within the housing areas to provide a 'street' feel, as advocated in the Department for Transport's Manual for Streets document. Pedestrian shortcuts will be provided between dead end streets, allowing local trips to be faster for pedestrians.</p> <p>Uncontrolled crossings will be situated in convenient locations around the development sites, and will have dropped kerbs to cater for disabled users. Pedestrian desire lines have also been considered to ensure that safe convenient routes are available to pedestrians wanting to access the retail, school and office facilities.</p> <p>An important aspect of the pedestrian facilities is the linkage to the external pedestrian facilities around the waterfront area. The segregated cycle/footway bordering Ffordd y Mileniwm has been integrated into the masterplan, to ensure seamless connections between existing facilities and the proposed development.</p> <p>Connections will also be made to the existing footways that follow the alignment of Powell Duffryn Way that connects to the roundabout situated at the north eastern corner of West Pond. Direct pedestrian access to Barry Station will be improved by the provision of a footway crossing over the disused railway to the north of West Pond. This connects to the existing underpass that currently provides a link between the waterfront and Broad Street." (ES)</p> <p>"Seating areas and public cycle parking facilities are provided at a number of locations within the development sites to facilitate walking and cycling within the site and create a vibrant development... Construction of the Thompson Street footbridge will create a further route from the Waterfront area to the Town centre. This route will be of particular use to potential residents of the Arno Quay and East Quay sites." (TA)</p> <p>In West Pond, a 'gridded' street layout is proposed which will be accessed from the primary distributor 'Main Street'. The grid will be orientated to reflect sustainability objectives, most notably the opportunity to maximise passive solar gain. In response the primary residential street will run north/ south with east/west routes accommodating local play streets and accessing mews development. Pedestrian access to the school site will be accommodated within the West Pond residential area via a strong, linear route leading from School Square. However, in order to limit traffic movements, there is to be no vehicular access to the school site from within West Pond. Properties addressing the Main Street will need to provide a continuous frontage which provides enclosure to this key thoroughfare. (DS, June 2012)</p>
28	Reflect the manual for streets, and provide safe, direct and attractive routes for cyclists?	<p>"It is envisaged that cycling will be a key mode for trips within the development and to other destinations in Barry. Much of Barry is within an acceptable cycling distance from the development site." (ES)</p> <p>The ES describes the internal and external links within the development for use by cyclists; the provision will ensure continuous routes throughout the development, as well as connecting to areas outside the immediate vicinity.</p> <p><i>"The internal road network is designed in a way that facilitates cycle use and affords cyclists a similar level of accessibility to pedestrians."</i></p> <p>In addition to the internal street design, there is a dedicated cycleway that will run along the western edge of the former No. 1 Dock to provide both commuter and leisure cyclists with an attractive alternative route to busy roads. The waterfront setting of this cycle route will provide a genuinely attractive link for cyclists wishing to access the dedicated cycleway along Ffordd y Mileniwm.</p> <p><b>External Links</b> - The internal cycle infrastructure will be conveniently linked to the dedicated cycleway along Ffordd y Mileniwm allowing cyclists an uninterrupted route through West Pond/South Quay area onto Ffordd y Mileniwm. Cyclists will also benefit from the at-grade crossing of the disused rail line providing a more direct route to Barry Station.</p> <p><b>Cycle Parking Provision</b> - It is proposed that cycle parking provision be included within the site to ensure compliance with the Outline Travel Plan, which supports the ambitions set out within national planning policy to increase the use of the bicycle as an alternative mode of transport to the private car. The proposed level of cycle parking is in excess of the CSS Wales Parking standard, it is proposed that houses will be constructed with dedicated secure cycle parking." (ES) Cycle storage will be provided in all building units.</p>	<p>"It is envisaged that cycling will be a key mode for trips within the development and to other destinations in Barry. Much of Barry is within an acceptable cycling distance from the development site." (ES)</p> <p>The ES describes the internal and external links within the development for use by cyclists; the provision will ensure continuous routes throughout the development, as well as connecting to areas outside the immediate vicinity.</p> <p><i>"The internal road network is designed in a way that facilitates cycle use and affords cyclists a similar level of accessibility to pedestrians."</i></p> <p>In addition to the internal street design, there is a dedicated cycleway that will run along the western edge of the former No. 1 Dock to provide both commuter and leisure cyclists with an attractive alternative route to busy roads. The waterfront setting of this cycle route will provide a genuinely attractive link for cyclists wishing to access the dedicated cycleway along Ffordd y Mileniwm.</p> <p><b>External Links</b> - The internal cycle infrastructure will be conveniently linked to the dedicated cycleway along Ffordd y Mileniwm allowing cyclists an uninterrupted route through West Pond/South Quay area onto Ffordd y Mileniwm. Cyclists will also benefit from the at-grade crossing of the disused rail line providing a more direct route to Barry Station.</p> <p><b>Cycle Parking Provision</b> - It is proposed that cycle parking provision be included within the site to ensure compliance with the Outline Travel Plan, which supports the ambitions set out within national planning policy to increase the use of the bicycle as an alternative mode of transport to the private car. Cycle parking will be provided internally within garages or externally within garden storage sheds.</p>

## Sustainability Checklist for West Pond Reserved Matters (Barratt Homes) - condition 10 of outline planning permission

29	Create good access to public transport?	<p>The ES calculates public transport demand, which will be "split between the rail and bus services, including the diverted service which will operate through the West Pond area. Whilst certain peak hour rail services are busy there is generally adequate capacity, in future years additional rail capacity is likely to be provided as a result of improvement works. In the case of bus based public transport high demand for services would be likely to result in operators considering an increased service frequency.</p> <p>The potential for pedestrian accessibility to rail stations to be improved beyond the masterplan boundary will be investigated with the Vale of Glamorgan Council. There is an aspiration for a footpath across the existing railway sidings situated south of the Powell Duffryn Way/Hood Road junction. This would allow more direct pedestrian access from the development areas to the rail station via the Powell Duffryn Way underpass, and Broad Street. Improved access to the rail station will make rail travel to and from the development a more attractive way of travel, and help to create a modal shift to more sustainable modes of transport overall.</p> <p>The majority of the development site is within 5 minutes walking distance of a bus stop, with the rest being within 10 minutes. The location of the stops has been determined with consideration for the guidance set out in Manual for Streets.</p> <p>The bus stops will be of high quality and provide travel information, lighting, shelter and signing to ensure a positive passenger experience. As the link road is being constructed as a single carriageway with dedicated on street parking, there is sufficient width for the installation of bus lay-bys to at each of the bus stops. This will allow buses to pull off the main link road to pick passengers, reducing the delay to vehicles during the pickup/drop off of passenger." (ES)</p>	<p>The ES calculates public transport demand, which will be "split between the rail and bus services, including the diverted service which will operate through the West Pond area. Whilst certain peak hour rail services are busy there is generally adequate capacity, in future years additional rail capacity is likely to be provided as a result of improvement works. In the case of bus based public transport high demand for services would be likely to result in operators considering an increased service frequency.</p> <p>The potential for pedestrian accessibility to rail stations to be improved beyond the masterplan boundary will be investigated with the Vale of Glamorgan Council. There is an aspiration for a footpath across the existing railway sidings situated south of the Powell Duffryn Way/Hood Road junction. This would allow more direct pedestrian access from the development areas to the rail station via the Powell Duffryn Way underpass, and Broad Street. Improved access to the rail station will make rail travel to and from the development a more attractive way of travel, and help to create a modal shift to more sustainable modes of transport overall.</p> <p>The majority of the development site is within 5 minutes walking distance of a bus stop, with the rest being within 10 minutes. The location of the stops has been determined with consideration for the guidance set out in Manual for Streets.</p> <p>The bus stops will be of high quality and provide travel information, lighting, shelter and signing to ensure a positive passenger experience. As the link road is being constructed as a single carriageway with dedicated on street parking, there is sufficient width for the installation of bus lay-bys to at each of the bus stops. This will allow buses to pull off the main link road to pick passengers, reducing the delay to vehicles during the pickup/drop off of passenger." (ES)</p>
30	Road design reflect the transport user hierarchy?	<p>"The transport vision for Waterfront Barry will be promoted through a Travel Plan, and outline version of which is provided as Section 13 of the TA. It will provide the framework within which a developer commits to providing a development that encourages modal shift towards sustainable transport.</p> <ul style="list-style-type: none"> <li>- Car sharing: relieves congestion at peak hours.</li> <li>- Encouraging walking: encouraging employees to walk to work</li> <li>- Encourage cycling: cycling facilities, information and establishing a Bicycle User Group (BUG) within the proposed offices</li> <li>- Encourage Public Transport</li> <li>- Resident initiatives: Welcome pack, transport information, personalised travel planning Mitigation measures proposed in the ES to enable the alleviation of potential traffic problems through increased users include:</li> <li>- The proposed works to the Merrie Harrier signalised junction are aimed at providing improved facilities for buses, cyclists and pedestrians whilst increasing available capacity through the installation of new signal equipment.</li> <li>- Waycock Cross: The proposed works to the junction involve enlargement and re-siting of the roundabout to the north. The revised junction will have a significantly larger diameter gyratory with improved capacity on all approach arms. The improvement proposals arise from existing traffic conditions and proposals for the Metrix development at RAF St. Athan to the west of Barry.</li> <li>- It is possible to remodel seven of the existing junctions in order to improve junction capacity and traffic control with the new development. The works involve a range of measures targeted increasing traffic capacity within available highway land.</li> <li>- For a further four junctions it is anticipated that improvement works would require major upgrading works in order to alter the form of the junctions within the available highway land.</li> <li>- Severance: The presence of the rail line and No 1 Dock cannot be altered however the developer will minimise severance (whilst improving access to rail facilities) by creating a more direct route from the West Pond area to Broad Street and Barry train station.</li> <li>- Safety has been a key consideration in the design of transport infrastructure. It is anticipated that the design will lead to appropriate vehicular speeds both on the main road and within residential areas.</li> <li>- Efforts have been made to accommodate pedestrian desire lines through routes which link origins and destinations.</li> <li>- Detailed design of road junctions will be completed in line with local and national design guidance and safety audits will be undertaken at appropriate stages to ensure the suitability of designs and identify any unforeseen site specific circumstances." (ES). <p>The Transport Assessment (TA): "New link road will be bordered by wide footways, and dedicated crossings will be provided at strategic locations. Internal roads deviating off the main road will be designed according to Manual for Streets to encourage access by walking or cycling with crossing providing safe permeability."</p> </li></ul>	<p>"The transport vision for Waterfront Barry will be promoted through a Travel Plan, and outline version of which is provided as Section 13 of the TA. It will provide the framework within which a developer commits to providing a development that encourages modal shift towards sustainable transport.</p> <ul style="list-style-type: none"> <li>- Car sharing: relieves congestion at peak hours.</li> <li>- Encouraging walking: encouraging employees to walk to work</li> <li>- Encourage cycling: cycling facilities, information and establishing a Bicycle User Group (BUG) within the proposed offices</li> <li>- Encourage Public Transport</li> <li>- Resident initiatives: Welcome pack, transport information, personalised travel planning Mitigation measures proposed in the ES to enable the alleviation of potential traffic problems through increased users include:</li> <li>- The proposed works to the Merrie Harrier signalised junction are aimed at providing improved facilities for buses, cyclists and pedestrians whilst increasing available capacity through the installation of new signal equipment.</li> <li>- Waycock Cross: The proposed works to the junction involve enlargement and re-siting of the roundabout to the north. The revised junction will have a significantly larger diameter gyratory with improved capacity on all approach arms. The improvement proposals arise from existing traffic conditions and proposals for the Metrix development at RAF St. Athan to the west of Barry.</li> <li>- It is possible to remodel seven of the existing junctions in order to improve junction capacity and traffic control with the new development. The works involve a range of measures targeted increasing traffic capacity within available highway land.</li> <li>- For a further four junctions it is anticipated that improvement works would require major upgrading works in order to alter the form of the junctions within the available highway land.</li> <li>- Severance: The presence of the rail line and No 1 Dock cannot be altered however the developer will minimise severance (whilst improving access to rail facilities) by creating a more direct route from the West Pond area to Broad Street and Barry train station.</li> <li>- Safety has been a key consideration in the design of transport infrastructure. It is anticipated that the design will lead to appropriate vehicular speeds both on the main road and within residential areas.</li> <li>- Efforts have been made to accommodate pedestrian desire lines through routes which link origins and destinations.</li> <li>- Detailed design of road junctions will be completed in line with local and national design guidance and safety audits will be undertaken at appropriate stages to ensure the suitability of designs and identify any unforeseen site specific circumstances." (ES). <p>The Transport Assessment (TA): "New link road will be bordered by wide footways, and dedicated crossings will be provided at strategic locations. Internal roads deviating off the main road will be designed according to Manual for Streets to encourage access by walking or cycling with crossing providing safe permeability."</p> </li></ul>
<b>Housing Needs</b>			
31	Seek to meet the housing needs of the local community?	<p>"The Proposed Development will increase the number of dwellings in the Vale of Glamorgan by approximately 2,000. This will represent a 3.75% increase in the existing number of dwellings in the catchment area and a 300% increase in the number of dwellings presently at Barry Waterfront. Of the proposed dwellings there will be approximately:</p> <ul style="list-style-type: none"> <li>a 450 apartments;</li> <li>b 360 – 630 2 bedroom houses;</li> <li>c 360 – 630 3 bedroom houses; and,</li> <li>d 60 – 180 4 bedroom houses</li> </ul> <p>The current mix will provide between 1,400 and 1,600 private market housing units and potentially 400 to 600 affordable residential units, dependant upon the availability of housing grant and scheme viability. These are to be provided as a mix of social rented and intermediate residential units. This supply of affordable housing is very high in comparison with the level of provision that has been achieved in recent years in the Vale of Glamorgan." (ES)</p> <p>Any affordable housing provided through Social Housing Grant will be subject to the relevant Ecohomes standards.</p>	<p>"The Proposed Development will increase the number of dwellings in the Vale of Glamorgan by approximately 2,000. This will represent a 3.75% increase in the existing number of dwellings in the catchment area and a 300% increase in the number of dwellings presently at Barry Waterfront. Within the West Pond, 375 units are proposed of which 16.5% (62 units) will be affordable.</p>
<b>Design for Change</b>			
32	Layout reflect the potential need for adaptation over time?	The Masterplan demonstrates the use of block layouts.	The Masterplan demonstrated the use of block layouts and the proposed layout design of West Pond follows these principles as set out by the masterplan.
<b>Design Out Crime</b>			



## Sustainability Checklist for West Pond Reserved Matters (Barratt Homes) - condition 10 of outline planning permission

33	<b>Seek to design out crime?</b>	Through designing the development to ensure active frontages along pedestrian routes, natural surveillance should discourage crime.  All units are to achieve Secured By Design compliance, as well as achieving the minimum windows and doors security standards.  Upon completion of the development, activity and natural surveillance in the area will completely alter the Waterfront environment. It is considered that the combination of well designed infrastructure (routes, lighting, building design) and activity will create an urban area that has characteristics far less likely to result incidents which give rise to fear and intimidation.	Through designing the development to ensure active frontages along pedestrian routes, natural surveillance should discourage crime.  All units are to achieve Secured By Design compliance, as well as achieving the minimum windows and doors security standards.  Upon completion of the development, activity and natural surveillance in the area will completely alter the Waterfront environment. It is considered that the combination of well designed infrastructure (routes, lighting, building design) and activity will create an urban area that has characteristics far less likely to result incidents which give rise to fear and intimidation.
<b>Health &amp; Wellbeing</b>			
34	<b>Include the provision of adequate daylighting?</b>	Maximising passive solar gain through the orientation of the buildings will ensure that adequate daylighting is provided.	Maximising passive solar gain through the orientation of the buildings will ensure that adequate daylighting is provided.
35	<b>Incorporate adequate sound insulation?</b>	All Party Walls and Floors are to achieve 5dB improvement over Building Regulations with accredited Robust Details or sound testing.  The ES identifies that "the provision of standard thermal double glazing with an RTRA sound insulation performance of 30 dB, will be capable of providing an adequate level of protection against noise, for all of the façade assessment locations, providing between 'reasonable' and 'good' internal noise levels during the day and 'good' internal noise levels during the night. It is recommended that a more detailed assessment of the sound insulation performance requirements for the proposed residential dwellings most affected by noise is undertaken at the detailed design stage." (ES)  A proactive approach to minimise the effects of noise and vibration has been considered in the ES, to minimise the effect from road traffic. Options for consideration at the detailed design stage include:  • For a limited number of dwellings fronting Ffordd y Mileniwm, on Fford Sealand and Rhodfa Sweldon: "A reduction in the speed limit on this section of road to 20 mph, and ensuring broad compliance with this limit through appropriate traffic management...The practicality of restricting speeds on this route is at this stage unknown, and as such, is presented as an example of how the impact of this predicted increase can be reduced"  • For two properties at the junction of Earl Crescent and Clive Road: "One option may be the construction of localised acoustic barriers, which would be sufficient to reduce the predicted increase in noise at these locations to acceptable levels, providing it is feasible to find a barrier alignment that interrupts the line of sight between the source and receiver. If such an alignment is deemed impractical at the detailed design stage, then another option may be to consider the provision of additional boundary screening and possibly sound insulation for any properties that are predicted to experience increases in noise of more than 5 dB." (ES)	All Party Walls and Floors are to achieve 5dB improvement over Building Regulations with accredited Robust Details or sound testing.  The ES identifies that "the provision of standard thermal double glazing with an RTRA sound insulation performance of 30 dB, will be capable of providing an adequate level of protection against noise, for all of the façade assessment locations, providing between 'reasonable' and 'good' internal noise levels during the day and 'good' internal noise levels during the night. It is recommended that a more detailed assessment of the sound insulation performance requirements for the proposed residential dwellings most affected by noise is undertaken at the detailed design stage." (ES)  A proactive approach to minimise the effects of noise and vibration has been considered in the ES, to minimise the effect from road traffic. Options for consideration at the detailed design stage include:  • For a limited number of dwellings fronting Ffordd y Mileniwm, on Fford Sealand and Rhodfa Sweldon: "A reduction in the speed limit on this section of road to 20 mph, and ensuring broad compliance with this limit through appropriate traffic management...The practicality of restricting speeds on this route is at this stage unknown, and as such, is presented as an example of how the impact of this predicted increase can be reduced"  • For two properties at the junction of Earl Crescent and Clive Road: "One option may be the construction of localised acoustic barriers, which would be sufficient to reduce the predicted increase in noise at these locations to acceptable levels, providing it is feasible to find a barrier alignment that interrupts the line of sight between the source and receiver. If such an alignment is deemed impractical at the detailed design stage, then another option may be to consider the provision of additional boundary screening and possibly sound insulation for any properties that are predicted to experience increases in noise of more than 5 dB." (ES)
36	<b>Provide private or semi private space?</b>	The DAS demonstrates provision of private spaces for a large proportion of the dwellings provided. Further to this, the masterplan includes the provision of a large amount of public amenity space. Many of the apartments will include the provision of private space where feasible, in the form of balconies.	The submitted Design Statement and Layout Plans show that all dwellings are provided with private/semi-private space.
<b>Community Facilities</b>			
37	<b>Include the provision of additional facilities for community use?</b>	"The availability of good quality public transport connections close to the application site means that any additional demand could be spread across the 12 local community centres. This additional level of patronage would be important in sustaining activity within these existing community centres. It would also help to encourage increased integration between the new community at Barry Waterfront and the existing community in the surrounding area." (ES)	"The availability of good quality public transport connections close to the application site means that any additional demand could be spread across the 12 local community centres. This additional level of patronage would be important in sustaining activity within these existing community centres. It would also help to encourage increased integration between the new community at Barry Waterfront and the existing community in the surrounding area." (ES)  Whilst no community uses are proposed within the residential development block of West Pond, they will be provided in subsequent phases to the benefit of the future community.
38	<b>Lead to the establishment of the waterfront as a social and leisure focus for the town?</b>	The Principal Strategic Aims for the Public Open Space and Public Realm Design Principles in the DAS include the need to capitalise on recreational potential and public draw of the site's waterfront location. This will include linking the waterfront with the rest of the development through pedestrian and cycle access primarily.  The Masterplan has considered the future development of the Marina, allowing for flexibility in its strategy.  The Masterplan demonstrates a mixed use area that will provide retail opportunities. The provision of public squares, and a hotel amongst other social and leisure facilities will lead to the provision of a focus for the area from this perspective. The Proposed Development will include provision for a range of cafés and restaurants (1,820sqm).	The Principal Strategic Aims for the Public Open Space and Public Realm Design Principles in the DAS include the need to capitalise on recreational potential and public draw of the site's waterfront location. This will include linking the waterfront with the rest of the development through pedestrian and cycle access primarily.  The Masterplan has considered the future development of the Marina, allowing for flexibility in its strategy.  The Masterplan demonstrates a mixed use area that will provide retail opportunities. The provision of public squares, and a hotel amongst other social and leisure facilities will lead to the provision of a focus for the area from this perspective. The Proposed Development will include provision for a range of cafés and restaurants (up to 1,820sqm).  Whilst no leisure facilities are proposed within Phase 1, as discussed, they will be provided in subsequent phases to the benefit of the future community.
39	<b>Lead to the provision of educational facilities for the town?</b>	"It is evident that the impact of the Proposed Development upon primary education requirements will be adverse but negligible in scale. There will be no adverse impact upon secondary education provision." (ES)  Therefore, the provision of such a facility may not be necessary on site, although this is unclear at present, as forecasts in the Single Education Plan only go to 2011, which will be around the same time as the first communities occupy the site.	During negotiations of the outline consent, it was agreed that a primary school will be provided on site. It is envisaged that the proposed school will be delivered as part of Phase 1, but not within this first residential application relating to West Pond. The S106 prescribes that the outline drawings for the Primary School be submitted to the Council for approval prior to the occupation of 350 dwellings.  The Consortium has a legal obligation and agreed timetable to provide the school, thus in the interim period, it is not considered that this residential application will unacceptably impact on either primary or secondary school provision within the local area.
<b>Retail</b>			

## Sustainability Checklist for West Pond Reserved Matters (Barratt Homes) - condition 10 of outline planning permission

40	Incorporate the appropriate level of retail provision?	<p>"The Retail Assessment proposes to provide "up to 8,800 sq. m of convenience and comparison floorspace. Specifically, this will comprise a 6,500 sq m gross foodstore (approximately 4,600 sq m net) with approximately a 60:40 split. As such, it is anticipated that 2,800 sq m (net) will be devoted to the sale of convenience goods and 1,800 sq m (net) will be devoted to the sale of comparison goods.</p> <p>There will also be a further 2,300 sq m gross non-food floorspace (approx 1,800 sq m net) provided within separate retail units adjacent to the proposed foodstore. The exact number of units is unknown at this stage of the application process although it is envisaged that there will be 2 units of approximately 1,150 sq m gross (900 sq m net) each. There are no proposed operators for any of the retail floorspace to date. It is intended that the proposed retail floorspace will be located within a new District Centre."</p> <p>"This offer will be important in improving local shopping facilities for local residents and will help to claw back expenditure from other centres outside the catchment area and out-of-centre stores." (ES)</p>	<p>"The Retail Assessment proposes to provide "up to 8,800 sq. m of convenience and comparison floorspace. Specifically, this will comprise a 6,500 sq m gross foodstore (approximately 4,600 sq m net) with approximately a 60:40 split. As such, it is anticipated that 2,800 sq m (net) will be devoted to the sale of convenience goods and 1,800 sq m (net) will be devoted to the sale of comparison goods.</p> <p>There will also be a further 2,300 sq m gross non-food floorspace (approx 1,800 sq m net) provided within separate retail units adjacent to the proposed foodstore. The exact number of units is unknown at this stage of the application process although it is envisaged that there will be 2 units of approximately 1,150 sq m gross (900 sq m net) each. There are no proposed operators for any of the retail floorspace to date. It is intended that the proposed retail floorspace will be located within a new District Centre."</p> <p>"This offer will be important in improving local shopping facilities for local residents and will help to claw back expenditure from other centres outside the catchment area and out-of-centre stores." (ES)</p> <p>The proposed district centre will be submitted under a separate planning application.</p>
----	--	--	---