



HEPHER DIXON
PLANNING AND REGENERATION

Crest Nicholson (Bath Western) Ltd
Bath Western Riverside (Western Quarter)
Environmental Statement
Non-Technical Summary

In accordance with:

Town and Country Planning Act 1990 (as amended)
Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations
1999 (as amended)

Version 1

April 2006

Introduction

On behalf of Crest Nicholson (Bath Western) Ltd, Hephher Dixon has been instructed to coordinate an Environmental Impact Assessment (EIA) and produce an Environmental Statement (ES) for the proposed redevelopment of Bath Western Riverside.

It is proposed to redevelop the Bath Riverside site to provide a mixed use development comprising residential, retail, office and community uses, replacement bridges, car parking and considerable open space.

The ES has been prepared in accordance with the requirements of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999. Schedule 4 of those Regulations requires that a summary of the ES be provided in non technical language. This Non-Technical Summary (NTS) accompanies the ES and planning application.

Background

The development of the Bath Western Riverside area has been an important desire for the City for several years and as a result it has become included in a number of Bath and North East Somerset (BANES) planning documents; most recently in the 2003 adopted Supplementary Planning Guidance (SPG) for the area. The current local plan for Bath is the Bath Local Plan, which was adopted in June 1997. Since then the new Bath and Northeast Somerset Local Plan has been the subject of a Public Inquiry between February and May 2005. The Council is currently awaiting the Planning Inspector's report, which is expected in May 2006. Modifications will be then made to this plan before it is officially becomes part of the Development Plan for the site.

Site Context

The proposed development site is located within the City of Bath World Heritage Site. The values for which the World Heritage Site is designated are the hot springs; Roman remains; 18th Century architecture; 18th Century town planning; 18th Century City and landscape; and social setting.

The parts of the proposed development site to the north of the river are also within the Bath Conservation Area. There are also a large number of listed buildings in close proximity to the proposed development site. These include the Victoria Bridge listed structure in the northwest part of the site.

The area around the site is dominated by the river valley and its steep hillsides and the Cotswold Area of Outstanding natural Beauty (AONB) is approximately 1.2km to the north.

The Site

The proposed development site has an area of 17.93ha and includes the Stothert and Pitt site, land west of Victoria Bridge Road, the coach depot and car showroom site, the gas works and industrial park site and the BANES recycling centre site.

The Stothert and Pitt crane factory operated on the site from 1855 to 1989. Since then all buildings have been demolished and the site cleared, although some structures remain. The site is bound to the north by the River Avon, the Victoria Bridge Road to the east, properties fronting the A36 Lower Bristol Road to the south and Midland Road to the west. Midland Road crosses the River Avon on the Destructor Bridge to the northeast of this area.

Much of this part of the site is used for temporary car parking, with vehicle access from Midland Road. The southernmost part of the site comprises the vegetated embankment of a former east-west railway line, which is approximately 30m wide. The site is relatively flat although it does fall steeply to the river bank on its northern edge. There is a thin strip of vegetation along the river bank with scattered scrub and individual trees along both the east and west boundaries.

To the east of Victoria Bridge Road, the site includes currently vacant land along the road and river frontage and the access to Homebase and a petrol station. The majority of this land is mown grass

with paths connecting the car park to Victoria Bridge Road.

The coach depot and car showroom site faces onto the Lower Bristol Road to the west of Midland Road and comprises hard surfacing for parking and garages plus a number of showrooms.

The gas works and industrial park site is located on the western half of the proposed development site. It includes the three substantial gas holders and remaining gas services, a number of employment units towards the river and a pumping station.

To the north of the river is the Council's Recycling Centre. This area is surrounded by Kelso Place and Buildings and Upper Bristol Road to the north, an Argos store to the east, the River Avon to the south and the vacant 'Westmark Site' to the west.

The Proposed Development

The planning application is made in outline, except for access and siting. An application is also made for conservation area consent which is required for the demolition of buildings north of the river within the Bath Conservation Area. This description is based on a series of parameters defining the maximum and minimum extent of the proposed development.

The proposed development (figure 1) will comprise approximately up to 2,281 residential units plus up to 675 student housing units, a GP surgery, local retail, a gallery and potentially a primary school. The proposals will also include flood compensation works, new replacement bridges and highway access to the site. It will be constructed in seven phases by 2016.

The proposed development will include approximately 66,00m² of employment and community floorspace which will be used for a range of purposes including shops, restaurants/cafes and school type uses.

The design of individual facades will be the subject of applications as each phase of the development comes forward. To enable an assessment of significant effects to be undertaken a series of types of appearance have been defined for the buildings which describe the likely use of materials, colours and glazing for each building type. Whilst individual facades will not be exactly the same as those shown, the changes will not be substantial and will not affect the overall conclusions of this EIA. In addition, the maximum building heights, the floor levels, number of building storeys and approximate ground levels are defined.

Phasing

The seven phases are shown on Figure 2. Phase 1 is located at the eastern end of the proposed development site; it will comprise 8 buildings and landscaping of part of the river corridor. The phase would be completed by 2010 and include much of the infrastructure to facilitate future phases.

Phase 2 is expected to commence in 2008 and be completed by 2011. The phase comprises the central part of the Stothert and Pitt site.

Phase 3 is expected to commence in 2009 and also be completed by 2011. In addition to the buildings, this phase will see the construction of a replacement bridge and improvements to Midland Road north of the river and its junction with Upper Bristol Road.

Phase 4 is expected to commence in 2009 and be completed by 2012. This will comprise the demolition of the existing Recycling Centre when the Council has relocated the service to another site. In addition to the buildings, the phase will also include improvements along the adjacent towpath.

Phase 5 is expected to commence in 2008 with demolition, remediation and earthworks expecting to take up to 2011 with completion in 2014. The phase will include improvements to the junction of Midland Road with Lower Bristol Road and would facilitate the proposed Bath Rapid Transit (BRT) route through the site. The BRT is proposed by the Council and does not form part of this planning application.

Phase 6 is expected to commence in 2013 and be completed by 2016. In addition to the buildings, this phase will include works to both the north and south river edges, including the removal of the existing gas pipe bridge. This will be replaced by a foot bridge slightly to the west of the current bridge.

Phase 7 is expected to commence in 2013 and be completed by 2016 and two options proposed; these are all student accommodation or a primary school with some student accommodation.

Access

Access to phases 1 to 3 will be from Pines Way, linking to Victoria Bridge Road. This would be closed to traffic should the area to the east of the site be developed and traffic will be routed through the Victoria Bridge Road junction with Lower Bristol Road. By this time further phases of the proposed

development will be operational and other access points will be available. Residential car parking will be largely located at basement level in the centre of the site. It is estimated that this could provide approximately 580 spaces (including disabled spaces). Managed visitor parking will also be created at surface level.

Approximately 109 car parking spaces would be provided for phase 4. Phases 5 and 6 will accommodate further basement level residential car parking with approximately 548 spaces. Visitor car parking will also be available at surface level.

No additional highway works are proposed as part of phase 7. Approximately 20 car parking spaces will be provided to serve the student accommodation, community hall and GP surgery. Should the primary school be implemented, a further 20 car parking spaces will be created for staff and visitors.

Flood Compensation

To allow the appropriate flood remediation across the site changes to the existing ground levels are required. The first phase will provide all the flood compensation works with the river corridor between Victoria Bridge and the Destructor Bridge. This will involve cutting away much of the existing sheet piling along the river bank, and a reduction in land levels although the shape of the channel itself will not be altered. A considerable part of the landscaping will be implemented as part of the first phase. This will include public areas around Victoria Bridge and along the river frontage.

Utilities

The proposed development will include a Combined Heat and Power (CHP) system to provide renewable energy. The CHP system will be located within the eastern most Wessex Water building. A biomass CHP system will be implemented in the first phase and will supply for heat and power to the proposed development. A gas CHP will be implemented during the phasing of the proposed development when there will be a sufficient number of residential units to make it economically feasible. These systems will require flues to remove exhaust gases which will be located above the Wessex Water compound and are assumed to be less than 10m in height from the roof of these buildings.

Wessex Water has indicated that there is sufficient clean water to supply the proposed development. Consequently, water supply will be taken from the local mains as appropriate. In addition, the proposals include a number of water efficiency measures.

Construction

It is expected that demolition and remediation would be undertaken in a rolling programme across the site. As a result there will be significant quantities of demolition materials, old foundations and other unsuitable materials in addition to any contaminated material. It is proposed that treatment of any contaminated material would be undertaken on the site where possible to retain and incorporate as much material as possible and minimise waste. Suitable material excavated will be retained on the proposed development site for use as bulk fill or use in the landscaping scheme.

All buildings on the proposed development site, with the exception of the Wessex Water compound, will be demolished. Any re-usable materials, such as brickwork and clean concrete, will be retained on-site in stockpiles and will be crushed using an on-site concrete crusher. The gas holders will, if possible, be dismantled rather than demolished. This will not only minimise noise and dust attributed to the operation but allow the scrap metal to be recycled should a buyer be identified.

Details of measures to protect the environment during the construction period will be set out in a Construction Environmental Management Plan (CEMP). The implementation of this will be a condition of the planning permission and will include regular monitoring by the Council.

Alternatives Considered

Over recent years a number of redevelopment strategies, uses and designed have been proposed for the site. This section provides a summary of those options considered in deriving the development now proposed. Of course there is the option to do nothing with the site and leave it in its current condition and use. However there are a number of reasons why this is not an appropriate option for the City.

The site is the only major land resource in Bath. If this previously developed but now largely derelict site is not redeveloped the development needed by Bath would need to be located on previously undeveloped land outside the City within the Green Belt. Development within the Greenbelt is not in accordance with current land use planning objectives to focus development with urban areas and so making best possible use of previously developed land.

In addition if the site remains in its existing state the contamination on the site from previous industrial uses could pose a risk to ground and surface water quality, and may have implications for human and well as plant and animal health. In addition, the site is affected by Japanese Knotweed, an invasive plant species that requires removal and treatment to prevent its spread.

The consideration of alternative locations is usual practice in EIA. However, in this case, the site is an accepted priority of the Council for a number of years and the Council has produced planning guidance for the site. Consequently, the form of development needs to suit the site rather than the site suit the development.

The uses of the proposed development site have been defined through planning policy. This has evolved over the last decade and has been the subject of significant debate and public consultation. Consequently, it is considered that any other alternative uses for the proposed development site have already been exhausted.

The design of the proposed development has been an iterative process including consultation with the public, the Council and statutory consultees, particularly English Heritage and the Environment Agency.

These factors when considered in relation to the constraints posed on and by the site have led to the scheme now proposed.

Scope of the EIA

The process of identifying the issues to consider within an Environmental Statement is known as scoping. In deciding the scope of the assessment detailed discussions were had with the Council and other organisation on the information the EIA should include. Given the considerable history to the site, a formal Scoping Opinion was not requested from the Council.

Information considered in formulating the scope includes the Scoping Reports from previous development proposals on the site, a resulting Environmental Statement, the Bath Western Riverside Supplementary Planning Guidance document and comments made on other applications within the area.

The assessment topics that have been identified are:

- Air Quality
- Archaeology
- Cultural Heritage
- Ecology
- Ground Conditions and Water Conditions
- Hydrology and Flood Risk
- Microclimate
- Noise and Vibration
- Society and Economics
- Townscape and Visual Amenity
- Transportation

Air Quality

The air quality assessment is made against national air quality standards and European limit values and assesses the effect of the development on the levels of nitrogen dioxide and fine particulate matter (known as PM₁₀). It also assesses the effect of the construction of the development primarily on dust levels and the effect of the development on odour levels. The assessment has been carried out using existing monitoring data and traffic flow data derived from the transport assessment to determine the dispersal of emissions at 26 locations on and around the site.

The area to the east of the city centre is currently designated as an Air Quality Management Area (AQMA) which means national air quality objectives are being approached or breached. It is likely that the area covered by the AQMA will be extended in the near future to be closer to the site. The Windsor Bridge Road and London Road monitoring stations show the highest concentrations. The modelled results also show that the nitrogen dioxide objective is currently being exceeded in a number of locations including the vicinity of the development site. The highest modelled concentrations occur at London Road, Upper Bristol Road near the junction with Windsor Bridge Road and Lower Bristol Road close to the junction with Victoria Bridge Road. These are all 'A' roads under consideration as part of a proposed new AQMA.

The statutory annual mean PM₁₀ objective is being achieved at all locations. The provisional objective to be achieved in 2010 is expected to be exceeded at many locations; however, this is the case at many locations across the UK. As much of the development site is currently vacant, emissions of nitrogen oxides and PM₁₀ from it are low.

The initial site preparation works is judged to be major in scale and the subsequent construction activities moderate. With appropriate mitigation measures in place it is estimated that in practice 117 properties will be at risk from noticeable dust-soiling effects. The majority of these are found in Victoria Buildings, St Peters Terrace and Park View, with others located along Upper Bristol Road on the northern side of the River Avon. Most of the major works will occur on the site south of the river however and are unlikely to occur at the boundary edge.

After site preparation, during the construction phase, fewer properties are likely to be affected. Around 87 properties may be subject to significant dust soiling effects when the works are within about 50m of the properties. Most of these houses are south of the development at Victoria Buildings, northeast of the development at Nelson Villas, Albion Terrace, Omega Terrace and Comfortable Terrace and to the northwest at Lark Place.

Significant increases in PM₁₀ concentrations and effects on sensitive vegetation might occur out to around 25m from the edge of the construction works on site. During the enabling works, up to 27 properties, mainly in Victoria Buildings, Cork and Lark Place and the area north of the river near Victoria Bridge may be affected. Vegetation on the railway embankment and riverbank may be exposed to significant dust impacts. The impacts of the construction phase are considered to be moderate and 13 properties in Park View may experience enhanced PM₁₀ concentrations.

For the above dust impacts to arise there is the need for dust generating activities in dry windy weather to be located near to receptors. The likelihood of all these occurring at the same time is low and so the above impacts are unlikely to occur.

The construction phase will generate traffic levels dependant on the phase and the processes being undertaken at that time. The mean number of vehicles per working day is estimated to be 22-23 (i.e. 2-3 per working hour). The distribution of construction traffic onto the network will also vary over time as the phases of the development are built out.

The assessment results indicate that in 2011 the UK objectives and EU limit values for both nitrogen dioxide and PM₁₀ are likely to be achieved at the vast majority of receptors both with and without the development. The only exceedence is of the nitrogen dioxide objective at Cleveland Terrace East on London Road. The 2016 model results indicated that the UK objectives and EU limit values for both nitrogen dioxide and PM₁₀ are likely to be achieved at every receptor; both with or without the development.

In 2011 and 2016 the development is at worst likely to result in a very small (less than 5%) increase in nitrogen dioxide concentrations at some existing receptor locations. All worst-case receptors on the proposed development site, are below the UK objective and EU limit value.

In 2016, the proposed development is at worst likely to result in a very small (less than 5%) increase in PM₁₀ levels at some of the existing receptor locations. The number of 24-hour PM₁₀ exceedences will be well below the level of the statutory objectives on the site.

The impact of the proposed development is deemed, at worst, to have a slightly adverse impact on ambient air quality.

No significant odours are generated by the Wessex Water pumping station. Therefore occupants of the proposed development are unlikely to be affected by odours from this source.

There is a chance that catering premises can lead to food odours that could affect occupants of the site. However any new premises within the site will have to carefully located extraction systems and fit with odour filters where necessary. The biomass CHP will use an inert fuel such wood chips and is therefore unlikely to have any significant odour impact.

While the location of the site in central Bath and close to public transport facilities, it is proposed that a Travel Plan for the development will be prepared. The content of this is discussed in the transportation section of this document.

Measures to reduce energy consumption include building design to maximise energy conservation, building to exceed building regulation requirements, solar hot water systems, monitoring energy performance to inform the design of later phases if appropriate funding can be secured, and smart meters will be considered so that residents are aware of their resource consumption.

Details of measures to minimise dust and plant emissions during the construction period will be set out in a Construction Environmental Management Plan (CEMP). Measures within the CEMP are likely to include water spraying to reduce dust in dry conditions, speed limits, regular cleaning of construction routes, sheeting of lorries wheel washing, regular removal of material tracked out of the site on to the adjacent highway and location stockpiles of material away from residential areas.

Archaeology

Several archaeological sites and findspots are recorded within the proposed development site on the Council's SMR although most of these refer to the 19th and 20th Century industrial development of the site. There is no known prehistoric archaeological resource within the proposed development site. However, the recovery of a Bronze Age sword on the gasworks site north of the river together with further known Bronze Age activity and Iron Age settlement just to the north is evidence for the prehistoric activity in the area.

Roman remains are known to have existed within the proposed development site and its immediate vicinity. The Fosse Way may have crossed partly within the eastern boundary of the site and possibly was a predecessor to the Upper Bristol Road. A Roman cemetery was found close to the Upper Bristol Road along with other structures.

Map evidence indicates that the site was in agricultural use in the Medieval period; covered with mostly narrow linear north-south aligned fields which may be a survival of a former medieval strip field system or perhaps an arrangement of water meadows. It is likely that the site remained largely undeveloped in the 16th and 18th Centuries. Small buildings, probably houses, are recorded within the proposed development site on 19th Century maps; although buried archaeological remains of these are unlikely to have survived the later industrial development of the site. Indeed, the site is best known for its extensive 19th and 20th Century industrial development and buried remains associated with this almost certainly exist.

The installation of services and construction of basement car parking areas has the potential to give rise to medium to highly significant impacts on any archaeology. On the basis of current evidence the potential significant effects on a potential archaeological resource of 19th and 20th Century date are considered to be low adverse. No adverse predicted operational effects are anticipated for any buried archaeological remains.

Archaeological mitigation will ensure that all buried archaeological remains which will be destroyed or damaged by construction are preserved by record. A programme of archaeological investigation will be agreed with the Council and carried out which will test for the survival of archaeological deposits. In the area of the basement car parks a watching brief is proposed during the removal of made ground with trial trenching undertaken on deposits below. The recording and appropriate publication of all deposits of archaeological significance would follow.

Cultural Heritage

This assessment identified several features of cultural heritage importance that may be affected by the proposed development, these are the setting of the Victoria Bridge, features within the site the Bath Conservation Area, other identified Listed Buildings and the World Heritage site designation.

The only recognised feature of importance within the site is the Victoria Bridge, a Grade II* listed structure, which spans the River Avon. Other features of note are a small War Memorial at the entrance of the Gas Works and the gas holders themselves.

North of the River Avon the majority of the City is designated as a Conservation Area, including part of the proposed development site.

The Royal Victoria Park and Botanical Gardens also lie immediately to the north of Upper Bristol Road, within the Conservation Area. Royal Victoria Park is a large public park and listed at Grade II on the Register of Parks and Gardens of special historic interest in England. The Park contains the many listed items including the Victoria Column, a bandstand, two cottages and a gothic building. Also to the north of the proposed development site are a number of other listed buildings including Kelso Place and Villa, 1 to 9 Lark Place, 1 to 6 Albion Terrace, 8 and 9 Albion Buildings, Sterling House and 8A and 10 Upper Bristol Road.

Further to the north is the Royal Crescent, a Grade I listed terrace considered an exemplar of 18th Century architecture. Its setting is limited by a mature mixture of deciduous and coniferous trees at the base of its green. Even further north, higher on the hillside, is Lansdown Crescent, another Grade I listed terrace with views over the Royal Crescent.

To the east of the proposed development site, north of the river, lies the Grade I Listed 1-27 Norfolk Crescent and other listed buildings. Also to the east is the Grade II Listed former Green Park Railway Station. There are also a number of Listed Buildings in Great Stanhope Street to the north of Norfolk Crescent and at Green Park.

Immediately to the south of the proposed development site are Victoria Buildings and 1 to 9 Park View, which are Grade II Listed. South of Lower Bristol Road is St James's Cemetery where the chapel, lodge and gateway are Grade II Listed.

No listed buildings have been identified to the west of the site that maybe affected by the proposed development.

Construction effects will be adverse to the setting of several listed buildings and the World Heritage Site but by their nature will be short term and will end on completion of construction.

The impact of the proposed scheme has been assessed on the Bath Conservation Area and its setting, the setting of Victoria Bridge, the setting of other identified Listed Buildings and structures and on the World Heritage site designation.

The part of the site north of the river is in the Bath Conservation Area. The Recycling Centre currently on the site detracts from the character of the area. The proposed development will affect the Conservation Area but the scale and layout of the proposed buildings is compatible with the historic character of Upper Bristol Road. There will also be general improvements to the towpath north of the river as part of the proposed development. These elements of the proposed development will enhance the character and appearance of the Conservation Area. Indeed, there is little of any great quality in the Conservation Area abutting the river west of Norfolk Crescent and its green. The proposed development will improve the setting of the immediately neighbouring parts of the Conservation Area. The proposed development is considered to have a low to medium beneficial effect on the Conservation Area.

The proposed development would bring the Victoria Bridge back into beneficial use as a key link between the site and the city centre. The new townscape and landscape in the vicinity of the south end of the bridge combines square, parade, mill, park elements found already in Bath. The proposed development will enhance the bridge and its setting. The impact on the bridges is considered to be

highly beneficial.

The proposed development will not be prominent from Royal Crescent and the impact on its setting will be negligible. The view from Lansdown Crescent will not be affected by the proposed development to any perceptible extent because of the distance from the site. The proposed development will not be visible to any extent from Norfolk Crescent and Nelson Place in summer. Views of the proposed development through the trees at Norfolk Crescent and Nelson Place during winter will have a minor beneficial effect on the setting of these buildings, due to the high standard of architecture, detail and materials required by the Council.

Most other Grade II buildings north, east and south of the site do not have any formal or designed setting other than being street frontage buildings set within streetscapes of other such buildings. Those most directly affected by the proposed development are Kelso Place and Villa and Lark Place in Upper Bristol Road, since the new buildings forming part of the proposed development north of the river will be close to them. The setting of these buildings is affected adversely by the presence of the recycling centre and will be improved by the proposed development. The proposed development close to these buildings will be similar in scale and will improve the setting by providing a more appropriate neighbour. This will be a medium beneficial effect.

Victoria Buildings and Park View, south of the site have a poor setting due to the derelict nature of the site and other buildings further west along the north side of Lower Bristol Road. The proposed development will be similar in scale and will improve the setting by providing a more appropriate form of neighbour. This will be a medium beneficial effect.

The effect of the proposed development on the remaining listed buildings will not be significant due to their greater distance from the site.

The direct effect of the proposed development on the setting of Royal Victoria Park will be limited. The proposed development will not generally be visible from the lower, south part of the park because of the extent of tree planting to its south. This park does not have a designed or coherent relationship with buildings in its vicinity. The effect will be of low-medium significance and beneficial.

The proposed development would not affect the role of the World Heritage Site as a setting for social history. As most of the site is outside the Conservation Area it can be considered to not contribute to the value of the World Heritage Site designation. The landscape and visual assessment identifies no adverse impacts, and no impacts of high significance, on the key elements of the World Heritage Site. However, the proposed development is large and will generally affect the life of the city and people's perceptions of it by increasing activity, traffic and economic activity and affect social infrastructure. However the impact on these is not considered to adversely affect the World Heritage Site and is considered to contribute to its long term protection.

The scheme will contribute its own character to the city by integrating the design and planning of buildings and landscape design in a way consistent with important elements of Bath's existing layout. The scheme is considered to achieve a balance between consistency and variety in its building form. The quality of both the architecture and landscape will be ensured through appropriate conditions to the planning permission. As a result the effect of the proposed development varies from low generally to high where it is within the World Heritage Site. Overall the effect would be low to medium beneficial.

Ecology

The ecology assessment considers the potential effects on habitats, birds, bats, badgers, otters, reptiles, invertebrates and other protected species.

No sites with statutory nature conservation designations were identified within 2km of the proposed development site. The Bath and Bradford-on-Avon candidate Special Area of Conservation is located to the west of Bath and is designated on the basis of supporting important populations of several species of bat and comprises a number of separate features, typically mines or underground caves. There are four local nature conservation sites within 1km of the proposed development site; these are the River Avon, St James Cemetery, Locksbrook Cemetery and Linear Park.

Surveys identified the main habitat types as including dense and scattered scrub, tall ruderal vegetation (within and at the edges of scrub vegetation), amenity grassland, semi-improved neutral grassland, amenity/landscape planting and scattered trees. Much of the site area is comprised of bare ground/hard standing and buildings, with the River Avon running it. Most of the habitat of interest is associated with the Stothert and Pitt site and the River Avon. Most of the habitats are of limited ecological value and none are in the UK or local Biodiversity Action Plan. The areas of tarmac or concrete, amenity grassland and landscaping and buildings are all considered of little value. However, taken together the habitats are considered of ecological interest as brownfield habitat.

The former Stothert and Pitt site and railway embankment on the site was found to have no rare or uncommon species. No marginal or aquatic vegetation has been recorded in the river and whilst the river adjacent to the site is designated as a local nature conservation site the surveys indicate it to be of limited ecological interest. River Avon water quality is 'good' although a limited range of aquatic invertebrate species was found in the river at the site. The value of the fish community within the boundary of the site is limited by the uniform nature of the river in this section. As such, species diversity is likely to be limited.

A wide range of terrestrial invertebrate species were recorded on the site. While the site is not considered to be of importance at a county level it is significant as providing brownfield habitat within Bath and the invertebrates on the site are considered to be of value at a district scale.

Slow worms have been recorded on the site, largely confined to the railway embankment and earth bund running along the eastern boundary. None were observed away from these areas.

A large number of bird species have been recorded on or flying over the site. The limited availability of habitats on the eastern side of the site make it unlikely to support nesting birds but areas of amenity grassland and shrub borders may provide a useful feeding areas. The western part of the site supports a greater range of species including Linnet, Bull Finch, Song Thrush, King Fisher and Grey Wagtail.

No evidence of otters or water voles was found during the surveys. The banks of the river near the site are piled and so unsuitable for water vole. There are sightings of otters near the site.

The railway embankment along the southern boundary of the site is used by Badgers. Recent surveys have confirmed that use is continuing. This is considered to be important at a local level.

No evidence of bats has been found in buildings or bridges on the site. All the buildings to be lost within the site were considered of low potential and the bridges have a moderate to high potential to be used by bats. Surveys on the site identified four species of bat in the vicinity of the site. There is no evidence of any use of the site by the bat species at the candidate Special Area of Conservation. Similarly, no bats were detected flying during the dusk emergence period anywhere near the buildings suggesting that large roosts were not present.

It is considered extremely unlikely that any of the candidate Special Area of Conservation species would be present within the immediate vicinity of the site. Consequently, no indirect impacts are predicted as part of the proposed development and a negligible impact is predicted.

No direct impacts on the river channel would result from the proposed development and no significant

ecological impacts are predicted on the River Avon although again there may be a temporary adverse effect at site of the mooring facility. There is the potential for the development to affect the water quality of the river. However the CEMP will include measures to limit discharges to the river. It will also address the removal of Japanese Knotweed from the site. Construction of the proposed development is considered likely to result in an overall neutral impact on the River Avon although there may be a temporary adverse effect at site of the mooring facility.

Phase 1 of the scheme construction will result in the complete and irreversible loss of the remaining brownfield habitat, which is considered a significant negative ecological impact including a significant effect on terrestrial invertebrates. This will be mitigated by retention of railway embankment, phasing of works to maximise retention time of habitat and the early programming of Brown roof construction. With these measures implemented the impact is considered to be locally adverse.

The effect of construction on aquatic invertebrates, fish, reptiles, birds, otters, badgers and bats is not predicted to be significant with adherence to the CEMP and the retention of the railway embankment, it is important that the timing of works allows for the translocation of reptiles, avoids the bird breeding season, provides bird nesting boxes and avoids disturbance to badgers, bats and otters. Night time lighting along the river should be avoided. With these measures implemented the impact would be no greater than an adverse impact on the site only.

The operational effects on the river and habitats should be significantly beneficial as risk to water quality are reduced and an area of wet woodland, grassland and tree planting along top of bank (south side) would provide screening and habitat diversity. Floating reed rafts would be provided along northern bank of River Avon.

The operation of the development would not have a significant effect on brownfield habitat with the provision of brown roofs on seven 4-storey buildings and the retention and appropriate management of railway embankment.

The effect of operation on aquatic invertebrates, fish, reptiles, birds, otters, badgers and bats is not predicted to be significant with appropriate management of the retained and new areas of habitat. The overall impact of these works would be generally neutral to beneficial with adverse effects only occurring in relation to reptiles and badgers as there areas of activity on the site would be potentially reduced.

Ground Conditions and Water Conditions

The industrial uses of the site have resulted in contamination of the site. This contamination poses a potential risk to water resources on and off the site and has resulted in the generation of ground gas and the natural underlying strata have the potential to generate radon gas.

The Environment Agency groundwater vulnerability map indicates that the entire site is underlain by permeable strata and the overlying soils are assumed to have the potential to allow rapid movement of pollutants. While the site is not located within a source protection zone there are five groundwater abstraction boreholes located within a kilometre radius of the centre of the site, all to the east of the site.

Most of the site is located within Bath Hot Springs protection Zone B, with the exception of the eastern part of the site, which falls into protection Zone A. All excavations and drilling operations without consent are restricted to depths indicated by protection zones, i.e. 5m for Zone A and 15m for Zone B. The available information indicates that little is known about the origins and movements of the Spring Water. Correspondence with the Council has indicated that the provision of information which can be used to assess the contamination risks that the site may pose to the Hot Springs is unlikely in the foreseeable future. Groundwater flow is generally in a southerly and/or southeasterly direction although water found at a higher level in the strata under the site does not have a clearly identifiable flow direction.

A wide range of contaminants are present including tars, oils and other hydrocarbons, ammonia, Nitrogen and sulphur compounds, heavy metals, sulphates, cyanides, sulphides, possibly solvents, PCBs and asbestos. A number of potential pollution linkages have been identified by which pollutants could become a risk to the water environment, flora and fauna, including people on and off the site as well as affecting construction materials.

During construction the potential effects of existing land contamination on construction workers is considered to be moderate to substantial. The effects of existing land contamination on residents and users of the local area during construction are assessed to be minor to moderate. The effect of land contamination on groundwater and surface water is assessed to be minor to substantial.

To mitigate these impacts further ground investigations will be undertaken and remediation of the site will be undertaken as part of the enabling works, workers will also be provided with personal protective equipment. The resultant effect is predicted to be minor to moderate for construction personnel and minor to negligible for residents and users of the local area and surface and groundwater.

The presence of below-ground structures including gas holders and foundations from previous buildings and structures on the site will be cleared as part of the enabling works and so will have a minor to negligible impact. The potential for munitions to be present on the site is considered to be minor to moderate. Further investigation into the presence of munitions is proposed and the risk will as a result be minor to negligible.

The effect of existing land contamination on Bath's hot springs is considered to be moderate, again further ground investigation and remediation and targeted removal of contamination hotspots will result in a negligible effect on the hot springs. The effects of the proposed foundation piling on groundwater and Bath's hot springs and the effects of radon gas are predicted to be minor to moderate the above measures and the incorporation of radon gas protection measures in the design of structures will reduce these potential impacts to a negligible level.

Hydrology and Flood Risk

A Flood Risk Assessment (FRA) was undertaken following consultations with the Environment Agency as to the criteria that the assessment should meet. The Environment Agency has recommended that the guidance outlined in the draft of PPS25 should be considered and advised of flood levels that should be taken into account for the site, for both the current conditions, and with an appropriate allowance for climate change.

The existing site is not within the existing floodplain of the River Avon, except for a narrow margin of land immediately adjacent to the river. However, applying the 1 in 100 year flood levels (that is, the flood level with a statistical probability of occurring once in 100 years) with climate change allowance to the site results in a significant area of the site lying below this level. As a result flood compensation measures are required.

The volume of floodplain storage that has been displaced by the proposed development must be compensated for within the overall site covered by the planning application. Also floor levels of all buildings must be set above the flood level produced from 1 in 100 year storm plus a 20% allowance for climate change and an additional 200mm.

The River Avon runs from east to west through the centre of the site and the site levels generally slope downwards towards the river. The ground levels at the river range from approximately 18.0mAOD at Victoria Bridge, to approximately 17.3mAOD at Windsor Bridge. Moving away from the water's edge, the site levels are as high as 21.63mAOD on the gas works site. However, much of the site between Victoria Bridge and Midland Road Bridge lies between 18.3mAOD and 18.0mAOD.

There are currently no existing formal or informal flood defences within the site. Following the flood of 1960, which affected large areas of Bath, a comprehensive flood protection scheme was implemented by the Bristol Avon River Authority and completed in the late 1970s by the Wessex Water Authority. The sheet piled retaining walls which exist through out the site date from this time.

A large part of the proposed development in Phases 1-3 falls within the floodplain. The associated flood volume displaced is 16,744m³. This volume will be compensated for within the boundary of these phases. The proposed development has incorporated landscaping area along the river banks which will be contoured to provide the volume required for flood compensation. The area available for flood compensation will produce a volume of 17,083m³. Therefore the floodplain compensation required for the construction of Phases 1-3 area has been achieved entirely within its boundary.

No part of phases 4 to 7 lie within the 1 in 100 year (plus 20%) floodplain and therefore compensatory works are not required within these phases.

For the purpose of setting the minimum threshold levels for buildings within the proposed development, the 1 in 100-year storm event plus a 20% increase to include climate change up to a design time of 2110 has been considered in accordance with Environment Agency guidance. In addition to this 200mm has been included. Based on this, the minimum threshold set for all building floor levels in the proposed development is to be 19.50mAOD.

Construction impacts on flood levels and flood conveyance are expected to be small to negligible, as compensation for floodplain volume lost will occur at each stage of the development. There are potential effects on the sheet piling which will be removed to create the boat mooring platform at the eastern end of the site. However these works and reinstatement of the piling will be undertaken to the Environment Agency's specifications. Construction of the bridges is expected to have minor to negligible impacts on River Avon flood levels as they are proposed to be clear span bridges and will be constructed in accordance to British Waterways' standard specifications.

The construction phase has the potential for discharges of sediment, materials and debris and spillages of hazardous substances from the site into the watercourse. This would have a minor to moderate effect on water quality. However the implementation of the proposed CEMP would reduce the potential impact to minor.

There is also the potential of hazards or restrictions to navigation in the river during the construction

phase. This would have a moderate to minor effect on users of the river. Consultation with British waterways would reduce this impact to minor.

The effect of the operational of the proposed development on floodplain capacity and flood conveyance is negligible as the scheme incorporates revised land levels to ensure there is no detrimental effect on flood capacity and flow caused by the proposed development. However a procedure to be followed in the case of a flood will be supplied to occupants of the site.

The spillage of hazardous substances during the operation of the scheme would have a moderate to minor effect on water quality. This can be mitigated by the appropriate design of operational areas that would potentially pose this risk. The result would be a minor adverse risk to water quality.

The proposal includes a new boat mooring platform this would be a minor benefit to people using the river. However, discharges from this mooring facility could have a minor adverse effect on water quality. The implementation of standard pollution control measures would reduce this to a negligible impact.

Microclimate

This assessment considers wind effects and microclimate on and around the proposed development site. There is no national legislation or policy guidance for the assessment of the impact that a new development has on the comfort and safety of the local wind microclimate. The widely accepted methodology developed by TV Lawson from Bath University has been used in this assessment. This method is comparable with international guidance. In this methodology comfort relates to the activity undertaken, and safety relates to the level of distress experienced.

The effects on microclimate are influenced by building form, shape, height, location and orientation, the surrounding areas and local landform, the local wind climate (direction, speed and frequency), the landscape (trees, fences, hedges) and the construction stages of the buildings that form the scheme and surrounding developments.

The site is exposed to the prevailing south westerly wind. Current site pedestrian usage is almost exclusively for business purposes and it is expected that conditions across the site are suitable as such. The car park and wasteland are likely to feel very exposed on windy days, while winds from certain directions may be funnelled down the river side, resulting in noticeable breezes to this area.

Progressing the construction works from east to west means the site will be more exposed to the prevailing wind during construction than upon completion. Phasing could be improved through the early construction of lower buildings within each phase.

The site clearance to enable phase 1 of the development will allow increased wind speeds to be generated on the site. Once constructed, Phase 2 buildings will tend to shelter those in phase 1 although the centre of the site will remain open which will enable increased wind speeds to occur around new buildings in phase 2. These effects may be increased by the construction of phase 3, which includes the tallest buildings on the site.

Phases 4 and 7 introduce further lower buildings which will tend to increase sheltering to the central zones. Phases 5 and 6 will add shelter to the exposed west of the site, although each introduces local wind acceleration around the taller buildings.

It is anticipated that stronger wind conditions will be experienced during the first years of occupation as the newly planted shrubs and trees develop. Use of more mature plants and more densely growing species would address this, as would the use of some hard landscaping, semi-open fences and trellis among the developing foliage.

The proposed development when completed will have a positive impact on pedestrian wind speeds in some areas and negative in some others. All effects will be local to the site and its immediate surroundings and it is not expected that any major impacts will be experienced, although some may be considered moderate. Effects on surrounding areas will generally be positive as the site will act to shelter immediately neighbouring areas which were previously exposed to increased wind speeds due to open parts of the site.

For a southerly wind, funnelling between the buildings will cause acceleration resulting in higher wind speeds and breezy conditions. There are at least five areas between the buildings where this can occur. The highest buildings are just south of the river and are subject to wind downwash and wind buffeting due to their greater height. In addition cornering effects of air flow around the edges of buildings are also likely to occur around some buildings caused by turbulent flow eddies which make the wind direction change suddenly and swirl close to the buildings facade. The two buildings at the east of the development may experience eddies. These areas are likely to feel uncomfortable to pedestrians because of downwash and swirling wind.

For a south westerly or southerly wind there may be wind channelling, particularly between the long residential blocks. This will increase the wind speeds in these passages and make it feel very breezy for pedestrians. It is likely that because the taller buildings are staggered to a southwesterly wind, there will be some wind channelling between these taller buildings.

Westerly winds are quite frequent and downwashing on the taller buildings would occur. It is likely that

as the taller buildings are staggered to a westerly wind, there will be some wind channelling between these taller buildings also. However, skimming over the shorter building would lead to the central gardens being sheltered.

Wind funnelling between buildings is significant in the easterly side of the development in an easterly wind. The infrequency of easterly winds should limit the extent of downwash on the taller buildings, even though these buildings are quite exposed from the east. Skimming over the westerly buildings should result in some sheltered areas in the west of the development.

A north easterly wind is almost as frequent as a south westerly wind. Corner effects on the two new buildings to the east of the development are likely for a north easterly wind. The large open areas close to the River Avon will feel exposed to the wind and uncomfortable for pedestrians walking along the banks of the river. This is an important recreational area of the City of Bath. The taller buildings will experience wind buffeting, downwash and some corner effects. Their exposure to the large open area near the river means pedestrians experience discomfort especially for northeast facing facades. Wind funnelling would occur between several buildings resulting in uncomfortable and breezy conditions.

The large open area close to the River may encounter high winds from many wind directions. The gardens between buildings adjacent to this area may feel exposed and uncomfortable for pedestrians.

Skimming of wind over the lower buildings near the centre may create sheltered areas in the garden areas. In the water garden and the reed garden, between the buildings centrally located on the site there will be shelter, particularly towards the southern end where wind speeds are likely to be low and good pedestrian comfort experienced.

As a result of the above hard canopies and wind screens will be located near to the entrances of the taller buildings. Temporary wind mitigation measures would certainly be advised once this area is occupied, including the use of site hoardings.

Based on wind data frequency analysis, wind effects of the proposed development, and evaluation of effects it has become clear that additional wind mitigation features will be required on the north and south side of the development.

The addition of a permanent structure located in the central garden area and also to the north of the tallest buildings would provide year round shelter from southwest and northeasterly winds at pedestrian level. Canopies, moveable screens, and glass panels can be used to form the elements of the design. This would allow for a view to be maintained and permit desirable summer breezes into the garden areas of the development.

With a mature tree canopy, the proposed design does reduce wind velocities at pedestrian levels over a large portion of the site. Corner accelerations at pedestrian level remain a problem as there is little to block the wind below the tree canopy. This is especially true on the north area of the site around the taller buildings. Hard wind screens located at corners could help reduce wind velocities at the building corners. The selection and strategic location of planting material with a dense branch structure and long growing season may provide wind shielding before the upper canopy is fully matured and during the mid seasons.

Noise and Vibration

Construction impacts have been assessed at the following locations Victoria Bridge Court, Omega Terrace, Lark Place, Windsor Castle Flats, Park View, Victoria Buildings. A negative impact is predicted for Omega Terrace and Victoria Bridge Court during sheet piling works. The impact is assessed to be moderate to major depending on the duration of the works.

The predicted vibration impacts for Victoria Bridge Court is a moderate negative impact. The vibration predictions are highly dependent on the ground conditions and in this case there is the river in between the housing and the proposed piling works. There is no risk of building damage from any sheet piling work.

Noise and vibration from other construction and demolition activities are significantly lower than the sheet piling works. Nevertheless mitigation will be considered to reduce noise where practical.

The CEMP will include a requirement to employ best practical means to limit noise from the construction of the development including a restriction on working hours to daytime hours Monday to Saturday 08.00 to 18.00.

Where sheet piles are required it is proposed to be used "silent pile press" techniques are to be used where possible. Where it is not possible to use this technique other methods such as pre-augering or vibro-hammer techniques will be used as these give rise to less noise than conventional driven piling.

The construction site traffic will access the site from Pines Way and use what is already a very busy road network. Therefore any noise effect from construction vehicles will be negligible during normal working hours.

The majority of the site is well away from the busy roads. However there is residential development proposed adjacent to the Upper Bristol Road, and student accommodation on the Lower Bristol Road. In both cases these parts of the development were determined to fall within Noise Exposure Category D although as the monitoring equipment was located closer to the noise source than the proposed development would be this exposure category is considered to be a worst case. The existing noise levels would result in the school option being located in a noisy environment and this will influence the detailed design of the school to seek to meet noise levels controlled through building regulations.

An assessment of the night time noise from the Wessex Water pumping station indicates that mitigation will be required. Mitigation measures are likely to involve standard noise control equipment for mechanical services plant.

The change in traffic noise levels is predicted to be negligible and so no mitigation is required. This is due to the changes in traffic flows being very small and in some cases negative. Where larger increases are predicted, such as Pines Way there are no residential properties. The worst case in terms of residences is the Lower Bristol Road east of Pines Way where an increase in noise of around 2dB is predicted for the terrace of houses on the north side of the road and for flats above shops on the south side.

Noise from the proposed biomass and gas turbine CHP plant in the Wessex Water compound and two larger boiler rooms near the housing will be controlled by design such that there is no significant impact. The school and possibly other commercial buildings will have small items of plant which will also be controlled to the same target by standard pieces of plant equipment to ensure that there is no adverse impact.

Other noise impacts will arise due to the school, for example playground noise, and other incidental activities such as deliveries to the commercial buildings, these impacts will be negligible.

Society and Economy

The 2001 Census indicates that the Bath Study Area has a much higher population density in comparison to the Region and local authority areas although generally the Bath does not suffer from high levels of overcrowding. The area has relatively high levels of private rented accommodation and higher proportions of social rented units in comparison to the local authority area and the Region; this again reflects the urban location.

The School Organisation Plan shows that there are four primary school areas surrounding the proposed development site, which have a surplus of 809 spaces. There are seven secondary schools in the study for which the School Organisation Plan identifies an existing 9% surplus capacity.

The proposed development site lies within the jurisdiction of the Bath and North East Somerset Primary Care Trust, which currently has a two star rating having achieved all key targets. The nearest acute trust is the Royal United Hospital Bath NHS Trust, which currently has a one star rating having under achieved in three of the eight key targets. The Census indicates that the City's population is largely in 'good' or 'fairly good' health. The study area on average is within the 40% least deprived areas in the country.

There are over 60 full time equivalent GPs in Bath. This equates to a ratio of 1,371 patients per GP. Compared with the provision envisaged in the National GP Contract of 1,800 patients per GP it can be seen that there is capacity for additional patients although some of the surplus identified will be taken up by people outside of the city.

The construction of the proposed development will not affect local amenity in terms of access to services, open space, housing or employment. As such no significant adverse construction effects are likely. The construction phase will generate considerable employment up to 2016. The exact level of employment generated cannot be calculated at this stage; however, it is likely to be several hundred per annum. This would result in a moderate and temporary significant effect.

When completed in 2016 the proposed development will support some 4,200 people. Some of them will be existing residents of Bath. The proposed development is unlikely to significantly affect age structure across the study area. The proposed development provides a variety of unit sizes and tenures that largely reflect the age structure already existing in the study area. Consequently, the proposed development is considered to have a significant beneficial effect on meeting local housing needs.

The proposed development is predicted to support 175 primary school and 107 secondary school aged children. There are currently 809 surplus primary school places and 570 surplus secondary school places. Even allowing for a gradual reduction in the surplus spaces it is unlikely that the proposed development would have a significant effect on primary or secondary school provision.

The proposed development includes options to provide either further student housing or a primary school. The option implemented is dependant on the needs of the education authority in reorganising primary education in the City, assisting this is considered a significant beneficial effect of the proposed development. Should the primary school not be needed, the additional student accommodation will also have a beneficial effect on education by supporting the City's university expansion.

The introduction of a population of 4,200 people, plus 345-675 students, will increase demands on the health services. After allowing for some of the identified capacity to be taken up by patients from areas outside the city there is still sufficient capacity for between 4,200 and 9,700 patients. As such the proposed development is likely to take up most of the remaining capacity in the City. However the proposed development includes a GP surgery sufficient for up to 3 GPs. This would provide sufficient capacity for approximately 4,700 patients, so replacing the capacity used up by the proposed development. As a result the effect of the proposed development is not considered to be significant.

Some expenditure by businesses locating on the site will go into the local economy through the purchase of goods and services resulting in a minor positive effect. However new households will provide a much larger amount of expenditure locally. Even after allowing for half of the households

resident in the development already being resident in the city it is calculated that a net additional expenditure of £16.8m in the City will be generated. While some of this expenditure will be taken up by businesses on the site this is still a significant positive effect of the proposed development and will help support businesses and generate further employment opportunities.

The development will also make the riverside area in the city attractive to visitors and can be expected to lead to further revenue for local businesses; this is considered to be a minor to moderate positive effect.

The proposed development's retail floorspace is likely to have a additional local effect of some 230 full time equivalent jobs in the City. In comparison to the considerable employment opportunities already available in the City, this is only considered a minor positive effect.

From the above it can be seen that no significant adverse effects are predicted and therefore no mitigation is considered necessary.

Townscape and Visual Amenity

The recently adopted Bath City-Wide Character Appraisal Supplementary Planning Document defines the wider landscape of the city and its setting, the document highlights a number of key characteristics including:

- Built form and public realm which responds to the enclosed and often steep sided topography of the Avon Valley;
- Wider panoramic views of the townscape revealing the harmonious arrangement and consistency of built form and vegetation and key features such as the crescents, church spires and parkland;
- The limited 'palette' of building materials with a propensity towards honey-coloured ashlar stonework and dark roof tiles; and
- Extensive historical references in literature, poetry, paintings and print.

The Appraisal identifies and describes 22 City Wide Character Areas and four Rural Fringe Areas. The proposed development site lies almost exclusively within, and spans, the linear 'Brassmill Lane, Locksbrook and Western Riverside' Character Area. This Character Area along the river corridor contains many of the core characteristics and key features of the valley floor with strong links to Victorian industry and the arrival of the railway. Five further City-Wide Character Areas lie within 500m of the site and share key views onto or across the application site.

A number of receptors have been identified and assessed. These receptors are the City of Bath World Heritage Site, Cotswold Area of Outstanding Natural Beauty, City of Bath Green Belt and Conservation Area, Royal Victoria Park, Listed Buildings, locally important hillsides, important open spaces, linear routes and the proposed site.

This assessment addresses the potential effects of the proposed development on visual amenity for the area surrounding the proposed development site. To do this the area over which the development would be visible was determined. Forty-three key viewpoints were identified in consultation with the Council and fourteen of these viewpoints were selected to produce photomontages for assessment purposes along with design information from the architects.

Townscape and visual amenity effects resulting from the construction stages is considered to be consistently adverse as there are few, if any, aspects of the construction process which could be considered positive. These effects will be temporary and consistent with the phasing.

The effect of the completed scheme on the Brassmill Lane, Locksbrook and Western Riverside area is assessed to be very positive creating new and distinct areas and removing run down elements. The significance of the effect on this character area is considered to be major and beneficial.

The impact of the completed development on the townscape receptors is negligible in relation to the green belt and the Cotswold Area of Outstanding Natural Beauty and listed buildings that are at distance from the site. The impacts on the World Heritage site, the Conservation Area and Royal Victoria Park, linear routes and the site are considered beneficial.

With the exception of impacts on listed buildings at 20-40 Green Park and at Norfolk Buildings which are identified as being minor adverse all other impacts on sensitive receptors are at worst negligible but mostly beneficial.

The impact on views is overwhelmingly beneficial with the impact on the vast majority of views being moderate to major beneficial. Indeed only one minor adverse impact is identified in relation to the view from River Avon towpath under Sainsbury's road access bridge.

Generally significant improvements to the visual realm in near views will be achieved through the removal of poor quality buildings and the delivery of streetscape improvement on the Upper and Lower Bristol Roads. There would be limited loss of openness resulting from the introduction of built form both outwards and upwards from the site with a subsequent interruption of certain views across

the Avon Valley. Therefore the principal element of the mitigation for townscape and visual effects will be to secure conditions that ensure the delivery and approval of appropriate drawings at the reserved matters stage.

Transportation

The site has access to four roads, Windsor Bridge Road, Midland Road, Victoria Bridge Road, the A4 Upper Bristol Road and the A36 Lower Bristol Road. The highway network in the vicinity of the proposed development forms part of the strategic highway network to the west of Bath with direct routes through to the east of the city. Convenient and direct connections to all other radiating routes can be achieved through the use of either Upper or Lower Bristol Roads.

Bath city centre is the centre of the City's public transport system, incorporating both the Bath Bus Station and Bath Spa Railway Station. There are a total of 14 bus services which access the city centre, split between Upper Bristol Road and Lower Bristol Road.

Bath Spa and Oldfield Park are the two closest railway stations to the development site. Bath is situated on the Great Western Main Line, which benefits direct intercity services to a range of destinations including London, Reading, Swindon, Bristol and Cardiff.

The existing foot and cycle network adjacent to the site is generally of a high quality with a combination of both road and cycle routes. The networks provide routes to possible key destinations such as schools, retail, employment and leisure uses. National Cycle Route No 4 runs along the northern bank of the River Avon.

Bath is served by three Monday to Saturday Park and Ride sites, a fourth site at the University of Bath campus operates on Saturdays only. Planning permission is currently being sought for a further full time site to the east of the City. Within the City centre there are four off-street car parks within one kilometre walking distance of the site boundary. While on large sections of Upper Bristol Road, Lower Bristol Road and Windsor Bridge Road around the site there are parking restrictions.

In general parking in the centre of Bath and the surrounding residential areas is strictly controlled through residents parking zones, pay and display and the general pricing policy. This is to discourage the ownership of cars in the central area, to reduce congestion and pollution caused by drivers seeking City centre parking and to encourage the use of the Park and Ride services, all as part of an integrated transport planning policy.

External construction traffic routing is to be confined to the strategic highway network rather than the local highway network through nearby residential areas and Bath City Centre. It is envisaged that this traffic will be predominantly routed along the A36 from either the east or west of Bath and is assessed to peak at 63 arrivals and 63 departures per day. No road capacity problems are predicted and the impact would be neutral.

Assessments of the traffic generated by the development have been made for 2011 and 2021. While the development would be completed in 2016 the year 2021 has been used to link in with the anticipated completion of the site considered in the Council's Supplementary Planning Guidance document.

Through the development there will be an inevitable increase in the amount traffic using the local highway network. This is considered to be a minor adverse impact.

Assessment of the proposed northern and south western access junctions has shown that they will operate with acceptable capacity with the proposed development in place and when the Council's wider Supplementary Planning Guidance redevelopment has occurred. There will be however an increase in driver delay at these junctions which is considered to be a minor adverse impact.

It is anticipated that there will be in excess of 600 additional public transport trips generated during the peak hours. Given the already substantial public transport provision in the vicinity of the site, this is considered to be a major benefit.

No adverse impacts are predicted in relation to community severance, pedestrian delay, pedestrian amenity and fear and intimidation by traffic.

Three signalised vehicular access points are proposed to serve the development. One is an upgrade

of an existing junction and the other two are proposed new accesses. These are Pines Way which will enable the first phase to be built (then becoming a secondary access); Midland Road/Upper Bristol Road and New Access/Lower Bristol Road.

To accommodate the additional public transport trips generated by the site it is proposed to upgrade existing bus-stops adjacent to the site; and divert several routes from Upper Bristol Road through the development site.

To improve pedestrian and cycle access it is proposed to improve all existing access points, upgrading existing footbridges, improving Riverside Path, upgrading pedestrian route to Oldfield Park Station, improving cycle access to the Riverside Path, including a footway/cycleway as part of the proposed Rapid Transit Route and guiding existing pedestrian and cycle traffic away from busy Upper and Lower Bristol Roads through the development site.

To minimise car borne trip generation from the development, a Travel Plan Framework is proposed to increase the use of public transport and provide a safer environment for pedestrians and cyclists.

Cumulative effects

While the proposed development site forms part of a larger area for redevelopment that has been identified by the Council it is considered that only a small area (known as the Renrod site) to the south west of this area would come forward during the early phases of construction of the proposed development. The Renrod site is at the corner of Lower Bristol Road and Windsor Bridge Road and so will be some distance between the two construction sites.

In later phases when there is greater possibility of other parts of the wider area coming forward for development, construction on the proposed development site will have moved to the Gas Works site at the western end. There would remain a large distance between the areas being developed and so cumulative effects are unlikely.

The measures identified to address the effects of the proposed development indicate that it is unlikely that significant cumulative effects would arise from its operation.

Conclusions

The proposed development would bring back into efficient use a large area of mixed industrial and derelict land located to the west of Bath City Centre. The proposed development would provide over 2000 residential units with commercial uses, a GP's surgery, gallery and either student accommodation or a primary school.

Whilst there are some negative effects associated with construction, these are temporary, and would end on completion of the development.

The key effects of the proposed development relate to its visual and cultural contribution to the City and World Heritage Site designation. The townscape and visual amenity assessment found that the majority of likely significant effects were beneficial although a small number of minor adverse effects were also noted. The cultural assessment has also found that the effect on the World Heritage Site, Conservation Area and List Buildings will be very largely beneficial.

During operation the proposed development was found to have a generally positive effect on ecological features by introducing new riverside habitats and retaining existing brownfield habitat and the former railway embankment.

The proposed development is predicted to have a positive effect in terms of its contribution to the local economy and social infrastructure and is unlikely to have a significant effect on social infrastructure.

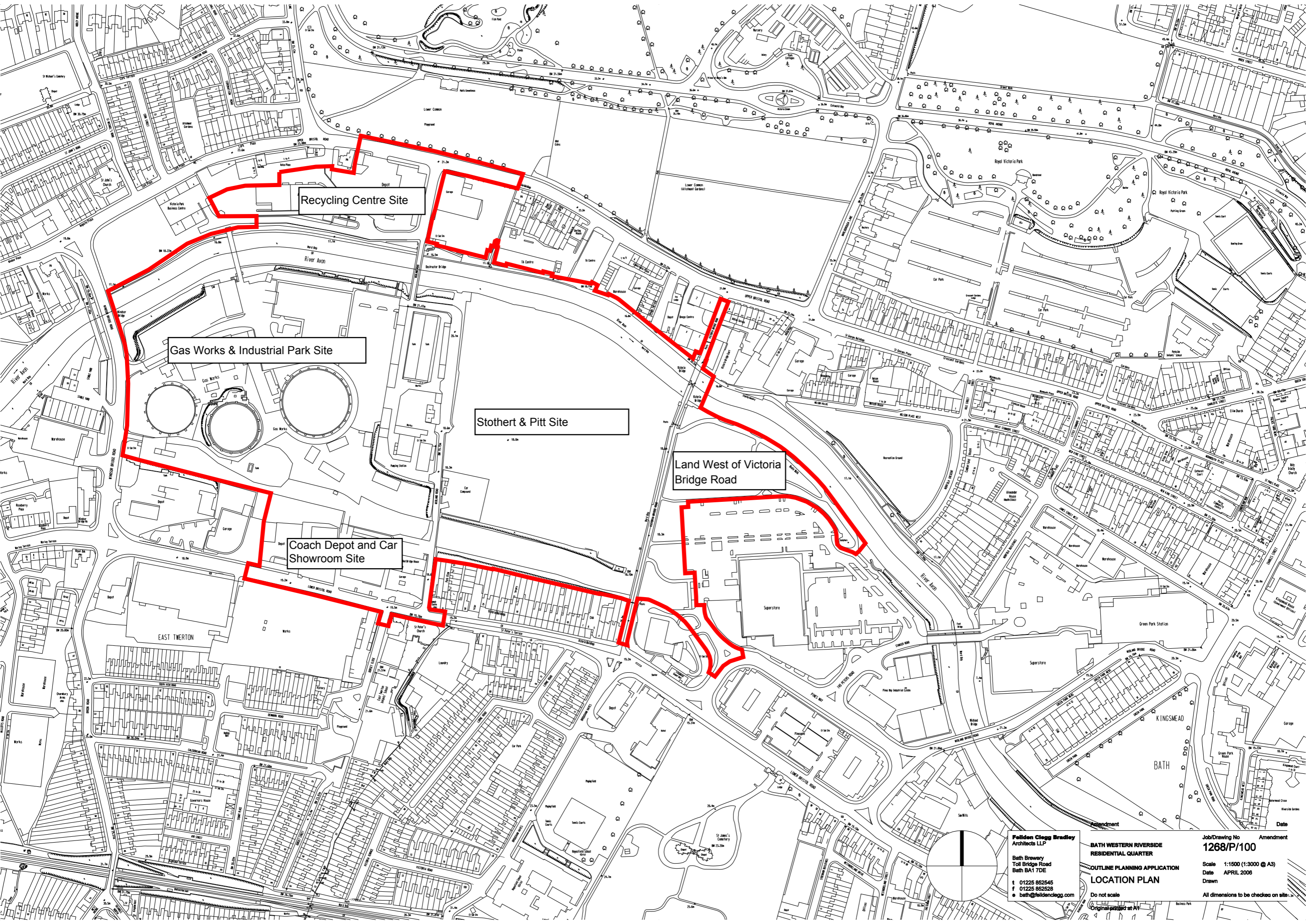
The proposed development fully mitigates its effects on local junctions through improving their design. In addition, the provision of the route for the bus rapid transport proposal through the development site has a positive effect of the proposed development.

The EIA has shown that effects relating to hydrology and flood risk and archaeology are negligible.

Comments, queries or requests for information concerning the Environmental Statement should be addressed to:

Hepher Dixon, 23 Furzton Lake, Shirwell Crescent, Furzton, Milton Keynes MK4 1GA

Copies of the Environmental Statement are available from Hepher Dixon at a cost of £100 per paper copy and £10 per CD copy. Copies of this Non-Technical Summary are available free of charge.



Recycling Centre Site

Gas Works & Industrial Park Site

Stoithert & Pitt Site

Land West of Victoria Bridge Road

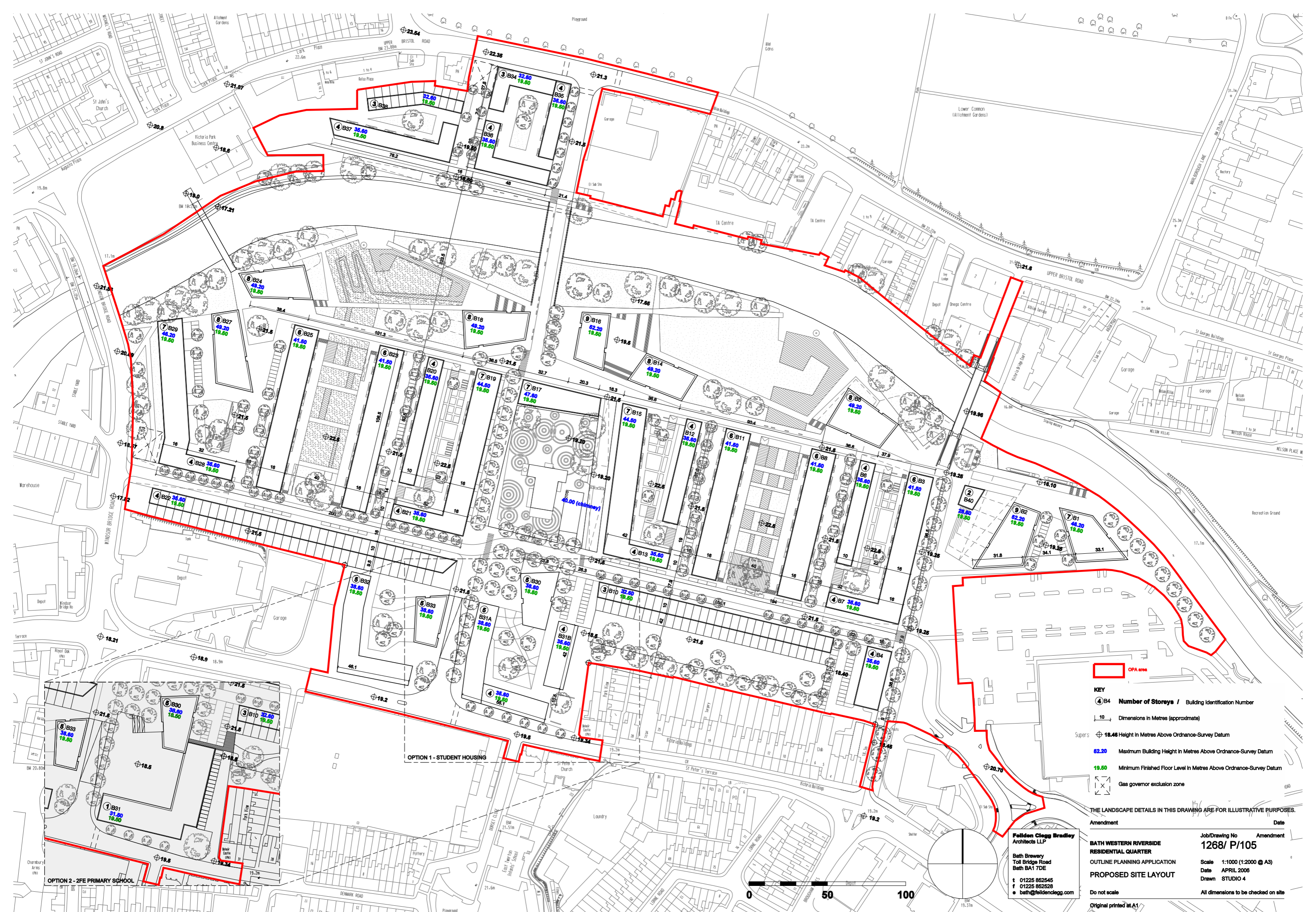
Coach Depot and Car Showroom Site

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**BATH WESTERN RIVERSIDE
 RESIDENTIAL QUARTER**
 OUTLINE PLANNING APPLICATION
LOCATION PLAN

Job/Drawing No **1268/P/100** Amendment
 Scale 1:1500 (1:3000 @ A3)
 Date **APRIL 2006**
 Drawn
 All dimensions to be checked on site

Do not scale
 Original printed at A1



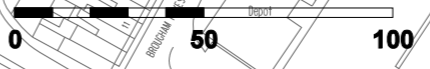
OPA area

- KEY**
- Ⓞ B4 Number of Storeys / Building Identification Number
 - 10 Dimensions in Metres (approximate)
 - Supers Ⓢ 18.46 Height in Metres Above Ordnance-Survey Datum
 - 62.20 Maximum Building Height in Metres Above Ordnance-Survey Datum
 - 19.50 Minimum Finished Floor Level in Metres Above Ordnance-Survey Datum
 - ⊠ Gas governor exclusion zone

THE LANDSCAPE DETAILS IN THIS DRAWING ARE FOR ILLUSTRATIVE PURPOSES.

Amendment	Date
BATH WESTERN RIVERSIDE RESIDENTIAL QUARTER	Job/Drawing No 1268/ P/105
OUTLINE PLANNING APPLICATION	Scale 1:1000 (1:2000 @ A3)
PROPOSED SITE LAYOUT	Date APRIL 2006
Do not scale	Drawn STUDIO 4
Original printed at A1	All dimensions to be checked on site

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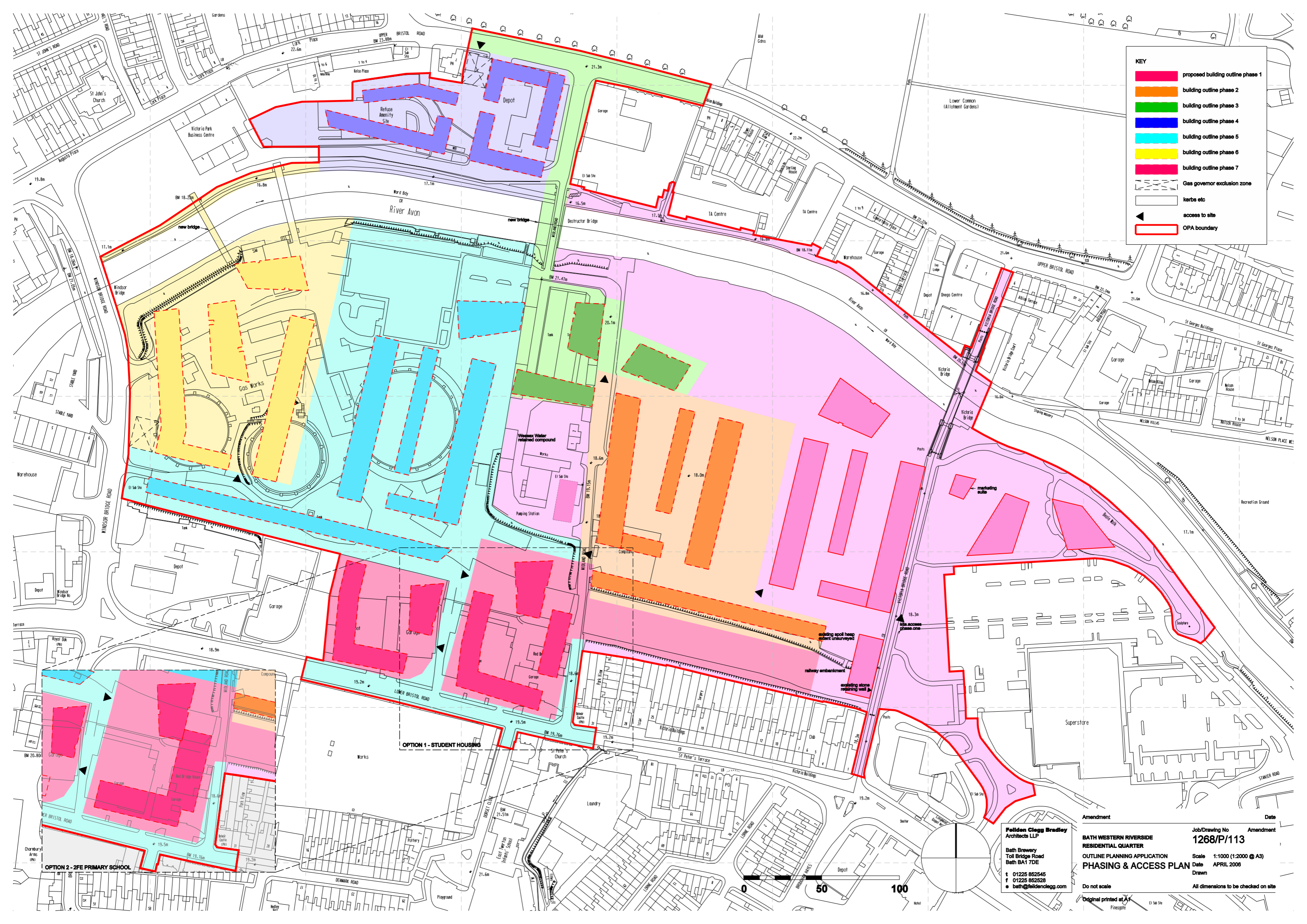


OPTION 2 - 2FE PRIMARY SCHOOL

OPTION 1 - STUDENT HOUSING

KEY

- proposed building outline phase 1
- building outline phase 2
- building outline phase 3
- building outline phase 4
- building outline phase 5
- building outline phase 6
- building outline phase 7
- Gas governor exclusion zone
- kerbs etc
- access to site
- OPA boundary



OPTION 2 - 2FE PRIMARY SCHOOL

OPTION 1 - STUDENT HOUSING

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Amendment	Job/Drawing No	Amendment
	1268/P/113	
BATH WESTERN RIVERSIDE RESIDENTIAL QUARTER	Scale	1:1000 (1:2000 @ A3)
OUTLINE PLANNING APPLICATION	Date	APRIL 2006
PHASING & ACCESS PLAN	Drawn	
Do not scale	All dimensions to be checked on site	

Original printed at A1
 Pinesight E1 Sub Site