DRAFT NET PHASE 2 PROJECT AIMS

NET Phase 2 is a key element of the Greater Nottingham transport strategy and will secure substantial benefits to the wider 'Three Cities' sub-region.

The proposals are fully consistent with strategies for land use, planning and economic development, and with policies at national, regional, sub regional and local level. In particular they are fully consistent with the Greater Nottingham Transport Plan, the Regional Spatial Strategy and City of Nottingham, Broxtowe and Rushcliffe Local Plans.

The key aims of the project are as follows:

1. To provide a sustainable alternative to the car for many journeys to tackle congestion, particularly on the strategic road network, including the A453 and A52.

In common with most other successful Cities, Nottingham suffers from severe traffic congestion, particularly at peak periods on main routes into the city and along the ring road. In light of ever increasing travel demand, tackling congestion and providing alternatives to the car are crucial for the continued economic growth.

As demonstrated through the success of Line One and through further expansion in park and ride provision on routes directly connecting the national motorway network, Phase 2 has the ability to attract substantially more people out of their cars.

The tram vehicles running at high frequency will expand the capacity of the public transport network within the southern and western sectors of the conurbation. Because the system is of modern design, dependable, easy to use, fully accessible, safe and secure, it is attractive for people to use and represents a substantial enhancement in the quality of public transport provision.

As recommended in the Government sponsored multi-modal studies for the M1 (section through the East Midlands) and A453 (M1 to Nottingham), NET Phase 2 supports strategies to reduce congestion on the strategic road network, particularly facilitated by the provision of park and ride sites.

As part of a co-ordinated package of measures to meet future travel demand in the corridor, the tram extension proposals have resulted in a reduction of the scale of the proposed A453 trunk road improvement scheme through the Clifton built up area, being pursued.

NET Phase 2 is complementary to strategies to manage travel demand including any future sub-regional or national road pricing scheme.

2. To increase public transport capacity to accommodate growth in Greater Nottingham.

Over the next ten to fifteen years Greater Nottingham is striving to attract high levels of inward investment and achieve a step change in economic performance. Connectivity is one of the key factors differentiating locations for investment.

A substantial increase in public transport capacity is essential if ambitious plans for employment, commercial and housing growth within the sub-region are to be accommodated in a sustainable manner.

The fixed nature of tram infrastructure helps to boost investor confidence and adds to Nottingham's appeal as a destination for business, employment, house buyers and attracting visitors.

NET Phase 2 is strongly supported by large sections of the local business community because it will allow staff to travel efficiently to employment sites, and it will improve the efficiency of supply chains, improve access to markets and thus support business competitiveness.

Valuable City Centre bus stop capacity will be released that can be reallocated to enhance bus frequencies and reliability in other corridors.

3. To improve accessibility and reduce social exclusion and realise further the investment in NET Line One.

As well as directly serving the City centre and district centres of Beeston and Clifton, NET Phase 2 also connects regionally significant destinations including Nottingham University and Nottingham Trent University campuses, and the Queens Medical Centre hospital site. It also serves numerous local employment, commercial and education sites.

There is a strong link between improving transport provision, accessibility and reducing social exclusion as reflected within local Community Strategies and Accessibility Strategies.

Phase 2 serves a number of deprived areas, including the Meadows area, and parts of the Clifton estate, which have high rates of economic inactivity and low levels of car ownership. Parts of West Chilwell are also relatively isolated. The system will improve opportunities to access work, learning, healthcare, retail, leisure, and essential services.

Expansion of the NET system maximises the benefits in the investment in Line One through economies of scale and network effects.

The introduction of cross-city links for Line One will open up a range of new direct travel opportunities which are not currently available as virtually all existing bus services terminate in the City Centre.

As Line One passes close to some of the country's most deprived wards, extending the network will further increase accessibility benefits to the area.

Level platforms and entirely low floor trams make access easy. Expansion of the system will therefore significantly improve travel opportunities for disabled people and the mobility impaired.

For rural residents, where public transport is generally poor, accessibility to facilities and employment in the conurbation will be improved by the flexibility attained through park and ride, with two new sites at the southern termini of Phase 2.

4. To contribute to the integrated public transport in Greater Nottingham and improved interchange.

NET Phase 2 provides improved linkages to Nottingham Railway Station and thus connectivity to the national rail network. Through the creation of a major transport hub at the station, easy interchange between tram, rail, bus and taxis will be achieved within easy walking distance of the City Centre.

The development of further public transport hubs in the city centre, district centres and in the vicinity of the Queens Medical Centre will allow easy interchange with bus services.

There is also the opportunity to support the development of bus feeder networks to widen the areas served by the tram. The further development of integrated and smart card ticketing systems will facilitate easy transfer between public transport services.

5. To support land use policy, regeneration and neighbourhood transformation strategies in the City Centre, the district centres of Beeston and Clifton and other important employment and residential areas.

The investment in fixed transport links provides a focus for development and the regeneration and renewal of surrounding areas.

The strong link between land use planning and transport in Greater Nottingham means that the identification of employment and housing development sites is being driven by locations well connected to the public transport network, ensuring sustainablity and accessibility.

Phase 2 supports major development in the City Centre Southside area, one of three identified regeneration zones in Nottingham. It also provides impetus to a number of significant developments, including Nottingham Station Masterplan, Broad Marsh Shopping Centre expansion, ng2 (Queens Drive), Highfields Science Park, Beeston Town Centre, and a number of other significant residential developments.

The investment in tram infrastructure also acts as a catalyst for improvements in the public realm and other environmental improvements. There will be opportunities, therefore, to transform a number of neighbourhoods along the route, such as within the Meadows area, Chilwell High Road and Clifton district centre.

6. To extend the use of an environmentally friendly mode of transport.

Through encouraging increased use of public transport and corresponding reduction in private car use, Phase 2 will contribute to the achievement of national Climate Change objectives through the reduction in overall carbon dioxide emissions.

Running on steel rails and carrying large numbers of passengers per vehicle, trams are a particularly energy efficient mode of transport.

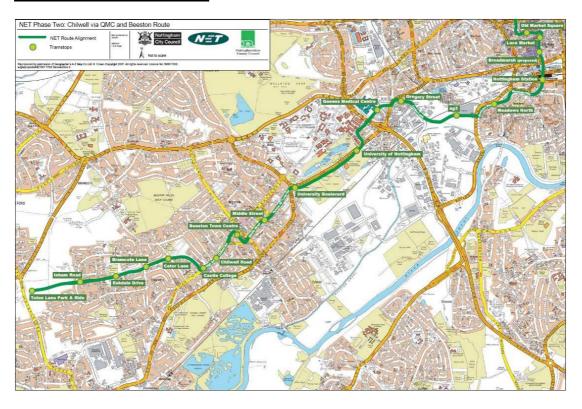
As electrically powered trams are non-polluting at the point of use, they are beneficial in contributing to the achievement of air quality standards. NET Phase 2 will contribute to the air quality standards being met in designated Air Quality Management Areas in the City Centre, along parts of the ring road and at Trent Bridge.

Reduced pollution levels will contribute to improving public health.

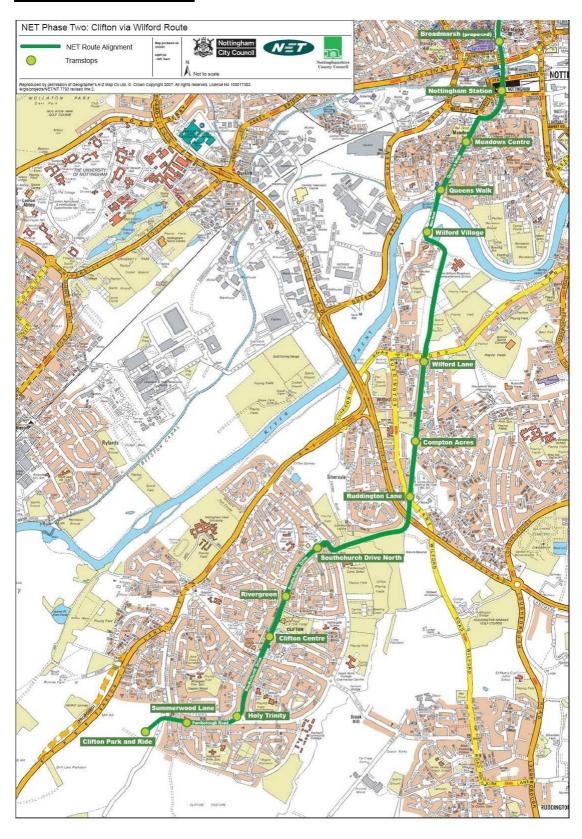
Due to its excellent from car, expansion levels.	safety reco	ord and through	gh encouraging contributes to r	further modal change educing road casualty

APPENDIX 2

CHILWELL BEESTON PLAN



CLIFTON WILFORD PLAN



SUMMARY OF MAJOR CHANGES TO THE ALIGNMENT SINCE 2004 APPROVAL IN PRINCIPLE OF ALIGNMENTS.

City Centre

a new alignment through the Southside area (Appendix 4, paragraphs 2.1 – 2.13).

Chilwell via the QMC and Beeston route

- a new bridge across the Midland Main Line at Lenton, avoiding impacts on the Kings Meadow Nature Reserve (Appendix 5, paragraphs 3.1 3.9).
- The choice of a route alignment to the rear of the Arts Centre through the University of Nottingham campus (Appendix 5, paragraphs 7.1 − 7.8).
- The requirement for relatively wide limits of deviation through Beeston town centre, reflecting uncertainties surrounding the future shape of the town centre, including proposals coming forward through the draft Masterplan (Appendix 5, paragraphs 13.1 13.8).
- The relocation of the alignment approximately 5 metres further south in the open space between Cator Lane and Bramcote Lane to avoid conflict with a high pressure water main. (Appendix 5, paragraphs 18.2 – 18.6)

Clifton via Wilford route

- operating to the east of the former railway embankment between Vernon Avenue and Wilford Lane, thereby removing impacts on a significant section of the former railway line Site of Importance for Nature Conservation (Appendix 6, paragraphs 5.1 – 5.9)
- the requirement for relatively wide limits of deviation between the Clifton park and ride and the A453, to allow for forthcoming Highways Agency A453 widening proposals (Appendix 6, paragraphs 10.3 10.4).

NET PHASE 2 – NOTTINGHAM CITY CENTRE. ALIGNMENT DEVELOPMENT

General Comments

The text below summarises the main environmental impacts for the scheme as identified in the Environmental Statement (ES). In general terms, the ES is required to assess the worst case rather than the most likely scenario.

Environmental Consultants ERM has undertaken the townscape and visual impact assessment following the standard Landscape Institute/ Countryside Agency method. This tends to overstate the townscape impacts because, for example, it has to be assumed that buildings that have to be demolished as part of the scheme will not be replaced, even when there is space to do so, unless the building replacement is part of the scheme. In practice, new development would be expected to take place. In general, sensitive landscaping proposals identified in the Urban Design Guide will be established to ensure a best fit of the tramway into varied local environments along the routes.

The impacts identified in the text for townscape and visual impact below are those 15 years after the commencement of operation and following, for example, the establishment of planting, settlement of earthworks and weathering of structures.

During the construction phase, there will be an impact on the setting, character and appearance of a number of listed buildings and conservation areas. However, a range of mitigation measures has been developed in the draft Code of Construction Practice(CoCP) which will minimise impacts on cultural heritage during the construction phase. There will also be construction noise impacts in a number of locations, in particular during enabling works and where demolitions are required. These will however mostly be of a short duration.

The Route Alignment

- **1. Nottingham Station**. (Bridge ward)
- 1.1 From the Line One terminus the Phase 2 alignment will cross over Station Street, Nottingham Station and Queens Road at an elevated level on bridge structures before descending to street level near Crocus Street. The alignment over the Station follows the line of the former Great Central Railway (GCR) viaduct which was demolished in the 1980's.
- 1.2 Nottingham Station is the subject of a Masterplan which proposes a thorough transformation of the Edwardian station into a key transport interchange in the city involving train, tram, bus, coach, taxi and private car, cyclists and pedestrians.
- 1.3 A planning application and listed building consent application to undertake the Masterplan proposals have been submitted to the City Council by Central Trains Limited. The proposals include extended pedestrian areas, a new southern concourse with retail space, new lifts and upgraded platforms, and a new multi-storey car park adjacent to the proposed tram stop. Mixed use development is proposed on the south side of the station. The design of the NET alignment over the station will continue to be co-ordinated as a part of

the Masterplan proposals, although the alignment has also been designed so that it can proceed without the Masterplan proposals.

- 1.4 It is proposed to locate the tram stop above Nottingham Station with pedestrian links provided to the main station concourse, to street level at the south of the station and north along the new bridge to the site of the current Line One terminus, enabling the lift/stair facility down to Trent Street to be retained. It is anticipated that trams will cease to use the current Line One Station Street stop, with the next stop for northbound trams being a new tramstop introduced as part of the Broadmarsh shopping centre expansion.
- 1.5 Nottingham Station is a grade II* listed structure and a listed building consent will be required for the Phase 2 works. The whole complex sits centrally within the station conservation area and a Conservation Plan has been developed for the Station in conjunction with English Heritage, which identifies the principal architectural features and outlines policies to help ensure that the future development of the station can be undertaken in a sensitive and sympathetic manner that respects the original fabric and architecture of the buildings. Four conservation area consents are required for the Phase 2 works in the station conservation area. These are described later in the appendix.
- 1.6 In considering how the Station might accommodate NET, the design philosophy throughout the scheme development has been to minimise the amount of station fabric to be permanently removed. This is mainly achieved by the reuse of the original GCR bridge foundations at Station Street and beneath platform 4/5. Extensive investigation has confirmed that the original foundations have sufficient capacity for the new bridge. Construction of the NET viaduct will require temporary removal and reinstatement of a section of the platforms 4/5 station buildings.
- 1.7 The design approach has also been to minimise the visual impact and produce a structure that complements the character of the listed station buildings and associated conservation area. Various structural forms have been considered, but after extensive discussions with the Local Planning Authority and Network Rail, a half through truss bridge is proposed. The key considerations in making this selection have been:
 - bridge construction would be least disruptive to the railway and station operations by maximising off-site fabrication;
 - from an aesthetic and heritage perspective the bridge is in keeping with historical railway infrastructure design but with a contemporary feel through the use tubular steel and glazed parapets;
 - the slender bridge form with shallow depth of bridge deck below the NET tracks results in the least direct impact on the station buildings, providing the greatest clearance to the platform canopies; and
 - the capital cost and associated construction costs are the least of the options considered.
- 1.8 The outline proposals for the architectural form of the bridge and the interchange tramstop have been presented to the Urban Design Forum in October 2006. The forum welcomed the scheme and was very pleased with the proposals, including the potential for its relatively lightweight appearance to be enhanced by colour and lighting. The Forum felt that the bridge and

high level tram stop would give a great sense of arrival to the interchange. The environmental consultants, ERM, consider that once established, the proposals will have a positive impact on the townscape and visual amenity in the area.

- 1.9 The design development has progressed in close consultation with the key stakeholders, including Network Rail and the train and freight operating companies. The engineering detail has been taken to Approval in Principle stage, with particular focus on constructability and to the development of an acceptable railway possession strategy, which has included the identification of temporary alternative overnight train stabling facilities at Beeston Sidings. Temporary powers will be sought for these facilities.
- 1.10 Since Beeston Sidings fell out of use, a large and varied ecological resource has developed and the site has become important in biodiversity terms at the local level. In particular, species-rich vegetation and rough grassland will be lost as a result of the proposals. Due to the size of the area of habitat, its maturity and species-richness, the environmental consultants ERM consider its' loss to be a significant impact in ecological terms, although the site has no amenity use in connection with the nature conservation purposes, and that the overall impact of Phase 2 is compatible with the Councils' duties under s40 of the Natural Environment and Rural Communities Act 2006 to have regard to the purposes of conserving biodiversity in accordance with the Rio Convention.
- 1.11 Formal acceptance of the design proposals is being sought from Network Rail and it is the intention that an agreement will be entered into before or during the TWA process, which will address the obligations and liabilities of the parties, recognising the highly developed detail of the proposals.

2. Southside (Bridge ward)

- 2.1 The Southside Regeneration Zone is identified in the Nottingham Local Plan and aims to provide a gateway to the City Centre by maximising the development opportunities around the station and to the south. A draft Meadows and Southside Area Action Plan (AAP) is being developed by the City Council under the Local Development Framework. The AAP is currently at Submission Draft stage (November 2006) and following an examination in Summer 2007 should be adopted in early 2008. The Southside is a transitional area between the city centre and the Meadows community. It is primarily industrial and commercial in nature, with some retail activity. Whilst some of the buildings in the area are of relatively good condition, many require maintenance or renovation and are largely unsuited to modern commercial use. Historically there has been very little residential development within the Southside however the situation is changing with the granting of planning permission for a number of residential led mixed-use schemes in the area. Existing planning guidance proposes further mixed use development for the future to ensure that the area captures the benefits of public/private investment and positively contributes to an expanded city centre. Critical to the development of sites in close proximity to the NET alignment will be the contribution made to improve connectivity into and out of the Meadows and Southside area.
- 2.2 The proposed NET alignment operates through the Southside, with the station bridge structures descending to street level in the vicinity of Crocus

Street. The Crocus Place industrial units, which are owned by the City Council, would need to be demolished to make way for the tramway. Two extensions to the west side of Station House would require removal. ERM consider that the extensions are of limited townscape value and could be removed without adversely affecting the integrity of the main building which does make a positive contribution to the character and appearance of the Station Conservation area. Conservation Area Consents will be required for the demolitions. A Conservation Area Consent is also required for the removal of hoardings on Queens Road.

- 2.3 The construction of the 2 x 55m span main bridge over Nottingham Station, together with the adjacent structures over Station Street and Queens Road, and the approach structure from Crocus Street, will be a considerable undertaking. These works represent a most difficult and programme critical civil engineering challenge for NET Phase 2, with complex construction activities over a live railway and major station, providing a key risk to the success of the project. Network Rail and the Train Operating Companies will require the works to be carried out with minimum disruption to their operations and, to achieve this, erection of the main bridge sections is likely to be carried out using a 1000t crane. Once erected on site such a crane will require substantial space to operate.
- 2.4 Significant areas of land will therefore be required adjacent to, and in close proximity of, the tram alignment to accommodate construction, including preassembly of the main truss units, plant and material storage, site office and messing facilities, parking and general access and circulation. Working areas will be required for the full duration of the construction programme and the availability of the requisite land will heavily influence the construction methodology and the efficiency with which the works may be undertaken. Any limitation on land availability could present a major constraint to the construction of the works with significant timescale and cost implications.
- 2.5 Other than land parcels directly affected by the tram alignment, securing land to facilitate construction will be difficult in what is a highly constrained city centre location. There is no obvious site to the north of the station, where it will be necessary to close Station Street temporarily for crane lifting of the north section of the bridge spanning Nottingham Station. On the south side use of the existing car park is likely to be opposed by Network Rail and/or Central Trains (or their successor), and would cause significant access difficulties, with alternative parking provision required through park and ride and facilities needed close by for train operating staff. There is also the potential for the development of the existing car park as a new multi-storey car park which, although forming part of the Station Masterplan proposal, is expected to come forward as a commercial opportunity in the next two to three years. As noted above, planning applications for the Station Masterplan proposals have been submitted by Central Trains Limited. To the south of the station, the Picture Works site on Queens Road is small and has planning permission for a mixed use site, which is likely to be developed in advance of NET construction commencing in 2010. The Queens Point development to the immediate west of the NET viaduct also has planning permission (for office redevelopment) and is affected by the permanent footprint of the NET viaduct to a greater extent than that allowed for in its original planning consent. This site is included within the Limits for NET, but may also be developed (as a smaller site than that proposed within the original planning permission) prior to NET construction.

- 2.6 Given the lack of available space and the constraints on the sites identified, it is considered necessary to include land currently occupied by 1a 27 (odd) Arkwright Street as a potential construction site. The significant size of this site and its location relative to the tramway would provide considerably increased flexibility during the construction phase, and would guarantee for the contractor a reasonable size work site to plan, prepare and execute these major civil engineering works efficiently. Importantly ERM consider that none of these buildings is of high townscape value and most are in very poor condition. Their removal would be entirely consistent with the AAP and to secure the wider development potential for the area. Although the land would only be required for the construction phase, permanent acquisition powers will be sought as it would be impractical to return the cleared site to existing landowners. Further consideration would need to be given to the use of the site following construction, in the context of the AAP.
- 2.7 Overall, it is considered necessary to maintain wide limits of deviation to the south of the station, including all identified sites, to ensure that sufficient land is available for the construction phase. This will allow full regard to be given to any development proposals which come forward in the period between the TWA application and the start of construction of NET Phase 2.
- 2.8 It is likely that a short period of night time works will be required to install the bridge and this will have a significant noise impact on adjacent properties to the north and south of the station.
- 2.9 1a Arkwright Street is within the Station Conservation Area and so a Conservation Area Consent would be required for the demolition of the property. It is proposed that noise barriers are provided on the NET structure to mitigate potential noise impacts on any retained property on Arkwright Street.
- 2.10 Following a development competition, Lace Market Properties were selected in 2006 by the City Council and Nottingham Regeneration Ltd as the preferred development partner for the Meadows Gateway, an area bounded by Arkwright Street, Sheriffs Way and Meadows Way. Detailed design development for a mixed use, commercially led scheme, is underway and planning application is expected by summer 2007. This site presents an opportunity for an imaginative development scheme which can lead the renaissance of the surrounding area and is a key proposal within the AAP. The site forms one of the true gateways into the city and achieving comprehensive development here will be key to delivering a successful city centre and regeneration in the Meadows and Southside. The key objectives for the site development are to:

Reconnect the Meadows with the city centre;

- Promote the area for inward investment;
- Improve key gateways; and
- Improve the public realm and character of the area.

2.11 From Crocus Street, the alignment has been co-ordinated with the Meadows Gateway development to maximise the overall prospects for the area and has been safeguarded within the draft AAP. Two business premises will need to be acquired. The alignment provides for a simplified highway arrangement.

including straightforward junction arrangements between Arkwright Street and Meadows Way. The layout also fully accommodates a future connection to a possible NET Phase 3 extension towards West Bridgford and Gedling along Arkwright Walk.

- 2.12 To enable the alignment to be built without a retaining wall in front of approximately 10 residential properties on Meadows Way, it is necessary to acquire the vacant warehouse on the north side of the road, Victor House, which is in private ownership. Most of the land occupied by the warehouse is also required for the Meadows Gateway development, and further discussions will be required with Lace Market Properties to ensure coordination between the schemes. This alignment will avoid impacts on local residents and is consistent with the AAP objective to reconnect the Meadows and City Centre.
- 2.13 At the junction between Meadows Way and Sheriffs Way, to enable the tramway to safely pass along Meadows Way and maintain effective overall traffic movement, the existing through route between Sheriffs Way and Queens Road will be closed, adjacent to the Meadows Gateway development. There may be opportunities as part of the Meadows Gateway development (which includes closure of Crocus Street) to maintain access for southbound movements from Sheriffs Way to Meadows Way.

NET PHASE 2 - CHILWELL VIA THE QMC AND BEESTON ALIGNMENT DEVELOPMENT.

General comments

The text below summarises the main environmental impacts for the scheme as identified in the Environmental Statement (ES). In general terms, the ES is required to assess the worst case rather than the most likely scenario.

Environmental Consultants ERM has undertaken the townscape and visual impact assessment following the standard Landscape Institute/ Countryside Agency method. This tends to overstate the townscape impacts because, for example, it has to be assumed that buildings that have to be demolished as part of the scheme will not be replaced, even when there is space to do so, unless the building replacement is part of the scheme. In practice, new development would be expected to take place. In general, sensitive landscaping proposals identified in the Urban Design Guide will be established to ensure a best fit for the tramway into the varied local environments along the routes.

The impacts identified in the text for townscape and visual impact below are those 15 years after the commencement of the operation and following, for example, the establishment of planting, settlement of earthworks and weathering of structures.

During the construction phase, there will be an impact on the setting, character and appearance of a number of listed buildings and conservation areas. However, a range of mitigation measures has been developed in the draft Code of Construction Practice (CoCP) which will minimise impacts on cultural heritage during the construction phase. There will also be construction noise impacts in a number of locations, in particular during enabling works and where demolitions are required. These will however mostly be of a short duration.

It will be important to maintain appropriate electromagnetic capability along the route, and particularly at the QMC and University of Nottingham.

If NET Phase 2 does come into operation, parking will be carefully monitored on residential roads close to tram stops and preventative action, such as residents parking schemes, will be introduced where appropriate and sought by residents.

THE ROUTE ALIGNMENT

- 1. Meadows Way (Bridge Ward).
- 1.1 The alignment diverges from the Clifton route at the Sheriffs Way/ Meadows Way junction and operates along Meadows Way with other vehicles as far as the NG2 site. A series of parking bays will replace on-street parking. Cyclists will remain on-street with other vehicles due to the low volumes of traffic although off-highway provision will be maintained adjacent to Wilford Road and extended in the vicinity of Meadows North tram stop. A number of trees will be lost along Meadows Way resulting in a slight to moderate adverse visual impact for some receptors, but substantial planting of replacement trees is proposed.

- 1.2 The Meadows North tram stop is located adjacent to Beardsley Gardens, ensuring that the tram remains accessible to residents on Meadows Way. It is proposed to mostly retain and extend or replace existing fences which separate Meadows Way from Waterway Street, Wilford Road and Queens Drive. The tramway will run past Meadows Police Station on Meadows Way and some land will be required from the front on the station to alter the footway and provide a police parking bay as a replacement for the existing on-street police parking facilities.
- 1.3 Two metre high garden fencing (subject to local agreement) will minimise noise impacts in the vicinity of Kingslake Place, Gritley Mews and Saffron Gardens. However, moderately significant noise increases would still be expected at first floor level of 20 properties in Gritley Mews and Saffron Gardens, although permanent impacts will be below sleep disturbance level and below statutory levels for insulation in accordance with the Noise Insulation Regulations.
- **2. NG2 site** (Bridge Ward).
- 2.1 The tramway will cross over Queens Drive at the entrance to ng2 and operate through the site. Vegetation will need to be removed at the junction with a moderate adverse impact on townscape although additional planting elsewhere on Meadows Way together with a new fence will be used to reinforce the natural barrier between Queens Road and Meadows Way. Consultants Mott MacDonald advise that the addition of the tram will result in some additional queuing in the morning peak period at the junction. The flow of traffic along Queens Drive will therefore need to be carefully managed by the Highway Authority.
- 2.2 Discussions have been held with the Developer to minimise impacts on adjacent developments within NG2. The tram stop is central to the site allowing it to serve the developing area. A small number of offices within the site are predicted to experience moderately significant noise increases. Permanent noise impacts will however be below statutory levels for insulation in accordance with the Noise Insulation Regulations. The loss of recent planting in the central reserve within NG2 to accommodate the tram will result in a moderate adverse visual impact.
- **3. Kings Meadow Nature Reserve and Lenton Lane Bridge** (Bridge, Dunkirk and Lenton Wards).
- 3.1 Leaving the NG2 site, the alignment will cross an open area and the Midland Main Line before rejoining the highway on Lenton Lane.
- 3.2 The Chilwell via QMC and Beeston report in June 2004 approved a route alignment which impacted on the Kings Meadow Nature Reserve (which is leased by the City Council to Nottinghamshire Wildlife Trust) and crossed the Midland Main Line on the existing Lenton Lane road bridge.
- 3.3. Following further work, a revised alignment is now proposed with a new tram bridge constructed to the east of the existing bridge which links back into Lenton Lane adjacent to Easter Park. This has a number of advantages including: avoiding the Kings Meadow Nature Reserve (although there will be significant impacts on the lower quality Wilford Power Station SINC), a

- segregated alignment, and a reduced cost, principally through avoiding expensive utility diversions.
- 3.4 The NET alignment affects parts of the Wilford Power Station SINC characterised by ubiquitous and species poor vegetation types, which contrast with more species rich vegetation types elsewhere in the SINC. ERM consider that the permanent loss will not be significant in view of the small proportion of the SINC lost (approximately 10%) and the type of habitat to be lost.
- 3.5 Significant, albeit temporary impacts are anticipated during the construction phase on the SINC although a higher quality of habitat and vegetation type will be provided compared to that lost where parts of the SINC are to be reinstated following the construction works. It is also proposed to improve the nature conservation value of an area to the east of the nature reserve. It is considered that, taken as a whole, this complies with the Councils' new duties under s40 of the Natural Environment and Rural Communities Act 2006 to have regards to the purposes of conserving biodiversity in accordance with the Rio Convention. Discussions have been held with Nottinghamshire Wildlife Trust about extending their existing Kings Meadow lease to include the improved area. The Trust have some concerns about the proposal and further discussions will be held.
- 3.6 There will be a loss of public open space in the area, and a small piece of open space land within the SINC will need to be acquired compulsorily as it has not been possible to identify the existing owner. Public open space that is compulsorily acquired should normally be replaced by an area of land of equal size and quality which is in close proximity to the area lost. A replacement area of public open space has been identified within land currently included in the Kings Meadow lease to the Wildlife Trust, and it is proposed to introduce a stile to provide public access into an area currently inaccessible to the public. The proposal has been discussed with the Trust and concurrently with the main application, it will be necessary to apply for an Exchange Land certificate from the Secretary of State for Communities and Local Government that the Exchange Land is appropriate.
- 3.7 ERM have advised that the changes in the Kings Meadow area will result in a moderate adverse impact on the landscape and moderate to significant adverse impacts on visual amenity.
- 3.8 The revised bridge alignment crosses directly above the switch and crossings (S&C) at Lenton south junction where to address Network Rail's concerns, sufficient clearance to all existing tracks is provided to allow future line upgrades and maintenance of the S&C elements. The design detail has been developed to Approval in Principle stage and formal acceptance sought from Network Rail. The tram bridge will be a single span half through structure and construction will involve embankments leading up to the bridge with a retaining wall on the east side.
- 3.9 Some land will be required from the car parking area of Easter Park for the bridge and associated works. To the south, land is required from the parking area of the Games Workshop site for the realignment of Lenton Lane.
- **4. Lenton Lane/Gregory Street** (Dunkirk and Lenton Ward).

- 4.1 The tram would operate on-street along Lenton Lane and Gregory Street with other vehicles. The existing bridge over Beeston Canal is not suitable for tram operation and a replacement of the central section or whole structure would be required. Land opposite Claytons Drive will be required during the construction phase to assist with the bridge works.
- 4.2 The Gregory Street tram stop will be convenient for the surrounding large housing area. An 'island' tramstop is proposed to enable residents to access existing driveways on the north side of the road.
- 4.3 Streetscape improvements will result in a slight to moderate positive impact on townscape and a moderate positive visual impact.
- There will be some small land take from properties and businesses on Lenton Lane and Gregory Street, including the Timber Yard, the Trent Vinyard Church, the Red Cow Public House and the British Red Cross Building, to accommodate the revised highway alignment and tramstop. An electricity substation is proposed adjacent to Lenton Lane adjacent to an existing substation.
- **5. White Hart Junction** (Dunkirk and Lenton Ward).
- 5.1 The tramway will pass through the White Hart junction, and for a short distance along Abbey Street before turning into an existing QMC staff car park to the north.
- 5.2 The junction is very busy during peak times and the land currently available at the junction and its approaches is restricted, particularly by the proximity of Lenton Priory Park. There are currently no pedestrian crossings and it has long been a policy and safety enhancement aim to improve the situation for pedestrians. Having considered a number of design options and reviewed them with Her Majesty's Railway Inspectorate (HMRI) and the Highway Authority, it is concluded that to accommodate the tram, road vehicles, pedestrians and cyclists safely, it would be necessary to widen Abbey Street on the approach to the junction. This can only be achieved by acquiring 8 buildings (commercial and residential properties) along Abbey Street and Gregory Street and acquiring small areas of land from the White Hart public house and adjacent former petrol station. A building from Deborah Services is also required. However, the proposals enable significant improvements to pedestrian crossing facilities at this busy junction.
- 5.3 The proposals do not directly impact on Lenton Priory Park, although a number of the trees adjacent to the highway in front of the Park will be lost.
- 5.4 The alignment passes through the Lenton Lane archaeological constraints area, which includes the remains of Lenton Priory, which is designated as a scheduled ancient monument (SAM). Although the alignment is outside the boundary of the SAM, remains may survive outside the protected area. The potential for finding archaeological remains is therefore assessed as high, and they may be of national significance.
- 5.5 Field investigations will take place at the detailed design stage in off-road areas, with a watching brief during groundworks focusing on areas where preconstruction investigations are impractical. Every effort will be made to find ways to preserve significant remains as structures in situ, and residual

impacts will be significant if important remains have to be removed. However, in such instances the remains will be fully recorded and preserved elsewhere, in accordance with best practice.

- 5.6 There will be a permanent residual adverse impact on the setting of Lenton Priory as a result of the proposals, although mitigation measures, including high quality designs, will seek to minimise impacts. The listed boundary wall at Priory Church will be protected during construction to prevent damage to this important feature.
- 5.7 ERM have advised that the proposals will result in a moderate to substantial adverse impact on the townscape and a substantial adverse visual impact.
- **6. QMC viaduct** (Dunkirk and Lenton, Wollaton East and Lenton Abbey Wards).
- 6.1 A major new viaduct will carry the tram alignment from the QMC car park accessed from Abbey Street, across the River Leen, through the QMC site and across the A52 Clifton Boulevard before descending onto Science Road within the University Grounds.
- The main QMC building will be served by a new tram stop at a high level on the south side, providing a direct and convenient access into the hospital for employees and patients through a new entrance. Direct access is also proposed into the new treatment centre (TC) currently under construction to the south of the tram route which will have a high volume of Out Patient and Day Surgery activity. Discussions have been held with the QMC and the TC developer, Nations Healthcare. Discussions are on-going with the QMC concerning permanent and temporary construction land impacts through their site.
- 6.3 A bowstring bridge is proposed to enable the tramway to pass over Clifton Boulevard and a footway is proposed across Clifton Boulevard between the QMC tram stop and Science Road.
- To the west of Clifton Boulevard, the viaduct will require the acquisition of buildings housing the Merrivale Nursery School and the University of Nottingham Play Centre. Separate to the NET Project, proposals have been developed to relocate the Merrivale School in 2008 along with two other nurseries to a new site in Radford. The vacated area will be used as a temporary construction site and in the longer term will provide replacement car parking to mitigate losses within the University campus as a result of the proposals.
- 6.5 The tramway structure will descend to ground level approximately half way along Science Road. The tramway will be visible from University buildings and residential properties on Highfield Road. However, gardens on Highfield Road have mature trees along their boundaries that will create a filtered screen to the viaduct and tramway. Tree planting at the rear of the new car parking will provide further screening for some properties at the eastern end.
- 6.6 To minimise disruption to traffic on the A52 Clifton Boulevard, it is likely that short periods of night time work will be required to build the bowstring bridge and this will have a short term significant impact on adjacent receptors. A noise barrier will be located along the edge of the structure adjacent to Highfield Road to mitigate potential operational noise impacts.

- 6.7 Overall, the new structure will affect the character of the area and with the exception of positive impact on Clifton Boulevard, is expected to have a moderate adverse impact on the townscape. Visual impacts are anticipated to be moderately adverse through the QMC site, but substantial adverse on Highfield Road and in the vicinity of the University buildings on Science Road.
- **7. University of Nottingham** (Dunkirk and Lenton, Wollaton East and Lenton Abbey Wards)
- 7.1 The City Council Executive Board and County Council approved in principle the tram alignment for the Chilwell route in 2004, but decided to keep open two alternative routes through the University's campus during the TWA process in order to allow a more detailed consideration of the options. However, the delay in receiving Programme Entry Approval has enabled the necessary work to be undertaken to identify the preferred option.
- 7.2 Through the University's campus it is proposed to operate along Science Road and then to the rear of the Arts Centre and Recital Hall before joining University Boulevard at its existing junction with East Drive. This will require the acquisition of land from 22 residential properties primarily situated on Greenfield Street and the loss of approximately 40 car parking spaces to the rear of the Arts Centre and Recital Hall.
- 7.3 The alternative (now recommended to be rejected) route alignment option for this area would have involved running the tramway along East Drive in front of the Arts Centre and Recital Hall. In further considering the two options a number of factors were looked at. These included noise and vibration, operation and maintenance of the tramway, tram geometry, highway and traffic, land uses (including townscape, amenity and open space), costs, car parking, development potential, feedback from public consultation, tram stop location and safety. Key determining factors were as follows:
- 7.4 Noise and vibration. Both route options would pass close to a number of teaching, research and performing venues within the University campus, all of which are very sensitive to noise and vibration. A detailed technical consideration concluded that the potential noise and vibration impacts for both options would be broadly similar and could be successfully mitigated mainly by using a specialist trackform, although a noise barrier would also be provided to the rear of the Arts Centre for the proposed option. However, the proposed route is further away (approximately 20 metres) from the recently constructed Orchestral Rehearsal Space (on the corner of Science Road and East Drive) than the other route option (approximately 5 metres) and is therefore likely to avoid potential impacts on the new building. Noise impacts on Greenfield Street are not anticipated.
- 7.5 Track maintenance and system reliability. The alternative route would have had a complicated track arrangement, incorporating tight track radii at the corner of Science Road and East Drive. Utilising specialist trackform required for noise mitigation in combination with such a complicated track arrangement would have increased the risk of significant long term maintenance issues, resulting in the need for more intensive and frequent track maintenance with increased potential for disruption to tram services and local traffic. This would have included the risk of rail corrugation occurring, which has been a problem on other tram systems including Manchester Metro link and results in

increased noise and vibration and poor ride quality, as rail corrugation produces an uneven rail surface. Furthermore, the possible mitigation measures, including rail grinding, more frequent rail replacement and speed restrictions would have been undesirable and disruptive to tram operations, other road users and frontage occupiers and would have been likely to have significant maintenance and cost implications affecting the long term viability of the system. The proposed route would have a simpler track arrangement and such risks would be significantly reduced as a consequence.

- 7.6 Open Space. The proposed route would avoid impacting on high quality open space within Highfields Park, a Grade II Registered Historic Park, which is extensively used by the general public and has an important amenity value in the local area. Highfields Park has a special and unique setting within the University's grounds and is surrounded by high quality buildings. It is considered important to maintain the completeness and integrity of the Highfields Park in its unique setting for the wider public to enjoy.
- 7.7 Local impacts. Although the proposed route would result in the reduction in size of rear gardens to 21 residential properties, some of which are owned by the University and some by private landlords, the likely impact on those properties has been reduced by moving the route approximately 5 metres closer to the Arts Centre and Recital Hall than the route which formed the basis of public consultation and which gave rise to objections from some residents. Although less than previously expected, there would be some permanent loss of amenity for the affected parties and a moderate adverse visual impact. However, usable gardens would remain and the existing boundary wall along the back of the properties on Greenfield Street would be relocated or replaced by a new boundary wall with adjacent tree planting (in the rear gardens of affected properties (space permitting) by agreement with the property owners(s)) and would provide visual screening. Only the tops of passing trams and associated infrastructure would be seen from some of the ground floor rooms of the affected properties. The proposed route would also result in the loss of part of the ornamental garden and pond next to the Arts Centre, to which the public have very restricted access, and there would be some tree loss at the East Drive/University Boulevard junction which can be mitigated by new planting.
- 7.8 Although the route to the rear of the Arts Centre is marginally more expensive, overall it was considered essential to provide a relatively maintenance free section of tramway which does not undermine the reliability of the route, a fundamental requirement for successful tram operation. Given the open space benefits together with reduced impacts on gardens and the partial mitigation that can be provided, it is strongly recommended that the route to the rear of the Arts Centre should be adopted.
- 8. Highfields Leisure Trust.
- 8.1 The alignment impacts on land which is within the jurisdiction of the Highfields Leisure Trust, and will require release from Trust control. The affected land includes land to the rear of the Arts Centre, an area between University Boulevard and Tottle Brook in front of Highfields Science Park and a small part of the Tennis Centre and Highfields Sports Club.

- 9. **University Boulevard** (Dunkirk and Lenton, Wollaton East and Lenton Abbey Wards)
- 9.1 From the University, the tramway will run alongside University Boulevard to its junction with Queens Road, passing Highfields Science Park, Nottingham Tennis Centre, Highfields Sports Club and University Sports Pitches. For most of this section it will run to the south, of the existing cycleway and footway which will be retained.
- 9.2 Landscape and visual impacts. The Boulevard is an attractive tree lined avenue, consisting of mainly lime and beech trees. It is an important feature in the Nottingham landscape. A detailed survey has been undertaken to assess the quality of all the trees along the Boulevard, which has been used in preparing the tram alignment, which has sought to minimise impacts on tree loss.
- 9.3 At some locations, the loss of mature trees is unavoidable, in particular at the entrance to the Highfields Sports Club, adjacent to the Hockey Pitch and at the western end of the Boulevard. In mitigation, additional trees will be planted elsewhere on the Boulevard and existing gaps will be planted with appropriate species to reinforce the tree lined character of the road.
- 9.4 Overall there will be a substantial or moderate adverse impact on the visual amenity and townscape along University Boulevard, but the relatively small impact on the avenue of trees and the proposed mitigation will ensure that the integrity of the Boulevard is maintained.
- 9.5 A section of the Tottle Brook watercourse will need to be bridged.
- 9.6 **Highfields Science Park and Tennis Centre**. The tram alignment will operate in the centre of the Boulevard for a short distance in front of the Highfields Science Park. A tram stop would be located in this section, providing good access to the University and surrounding facilities. The East Drive junction with University Boulevard will be modified and will include signalised pedestrian facilities (which currently do not exist) to give good passenger accessibility to the stop. The modifications to this junction will require some restriction on vehicle movements, with the right turn into and out of East Drive being diverted. The tram route will then operate along the northern edge of the Tennis Centre and there will be some minor land take from the car park although no car parking capacity will be lost. The proposed access arrangements will create a longer diversion for vehicles exiting the Tennis Centre wishing to travel eastbound to Nottingham, although access for vehicles travelling from the west will be improved.
- 9.7 In mid 2006 outline planning permission was granted for the development of the remainder of Highfields Science Park for office and research and development purposes. The development is considered a positive one for the area and would provide additional patronage for the NET system and discussions have taken place with the developer. Should the development proceed, the tramway and tram stop would be relocated to the north side of University Boulevard for the section in front of Highfields Park.
- 9.8 As part of the development, highway alterations are proposed and a new road would be provided to the south of Tottle Brook between the Science Park and the existing vehicular entrance to the Tennis Centre. All vehicles for

Highfields Science Park and the Tennis Centre would enter at the Science Park and exit at the Tennis Centre, allowing direct exit onto University Boulevard both westbound and eastbound. The NET proposals would be modified to take account of the proposed changes, and the scope of the TWA application would allow for both layouts.

- 9.9 The showpiece courts at the Tennis Centre are used for a major international event and other tournaments throughout the year. Following a meeting with the Tennis Centre and Lawn Tennis Association, ERM advised that appropriate planting and temporary speed restrictions and noise barriers during major tournaments would ensure any impacts are minimised.
- 9.10 In view of the close proximity of adjacent tram stops, it is not proposed to provide a stop to serve the sports clubs. However the potential for a stop will be included in the limits of deviation and the possibility of a tramstop provision would therefore remain available in the future.
- 9.11 Highfields Sports Club. To avoid direct impacts on a high quality pitch, the tram tracks have been moved further north at the Highfields Sports Club and a barrier will provide a screen to the tramway. A second access into the site for special events will be retained. A right turn entry into the Sports Club from the Beeston area is now proposed giving a high level of accessibility to the site.
- 9.12 University Sports Field. The tram alignment will require a strip of land from the University pitches to the south of University Boulevard. Although some relocation of pitches within the site would be required, all existing sports pitches (as understood to be currently laid out) can be retained. An empty residential property within the University playing fields will need to be demolished.
- 9.13 The adjacent tram stop would serve east Beeston and offer the potential for feeder bus services from local businesses, including Boots, and residential areas. An electricity substation will be located to the east of the University Boulevard tram stop, at a location where screening can be provided.
- 10. University Boulevard/Queens Road junction.
- 10.1 The tram alignment will operate through the existing University Boulevard/Queens Road junction and enter Lower Road. The existing roundabout will be replaced by a new signalised junction with improved pedestrian crossing facilities.
- 10.2 Consultants Mott MacDonald advise that the proposals will result in some additional queuing in the morning peak period, and the flow of traffic at the junction will need to be carefully managed by the Highway Authority. Vehicle access onto Lower Road from University Boulevard will be prohibited, with alternate access via Albert Road. Exiting from Lower Road will be restricted to northbound only with u-turns facilitated by the closely located Broadgate/Woodside Road roundabout.
- **11.** Lower Road/ Fletcher Road and Neville Sadler Court (Beeston Central Ward).

- 11.1 The tram alignment will run along Lower Road and Fletcher Road, and requires the demolition and subsequent replacement of 21 (out of 48) retirement flats at Neville Sadler Court, as well as some ancillary facilities.
- 11.2 Lower Road and Fletcher Road are culs-de-sac and it is accepted that there will be a significant impact on these quiet streets and at Neville Sadler Court as a result of the tram. However, alternative routes have been considered and when reported to the Board in April/May 2002, Members approved the proposed route so as to achieve its transport, economic and environmental objectives.
- 11.3 At Neville Sadler Court, considerable discussions have been held since 2002 with the owners of the site, Housing 21, who are naturally concerned about disruption to residents, but recognise the benefits of a possible redevelopment to enhance facilities, and the potential for providing 'extra care' services as part of the redeveloped scheme. Extra care is a high priority for both Adult Social Care and Health and for Broxtowe Housing. The NET Promoters and Housing 21 are keen to re-provide at least the same number of flats as those lost to an enhanced standard, offering modern facilities and easier access to the buildings for people living in them. The proposed flats and car parking will all be located to the north of the tramway, thereby keeping the tram away from the main circulation area of the complex. The redevelopment will require the acquisition of one adjacent residential property. Planning permission for the proposals will be sought through the TWA process. An area of land to the south of the tramway may be available for development.
- 11.4 A working group comprising Nottinghamshire County Council (including Adult Social Care and Health), the NET Project Office, Housing 21, and Broxtowe Borough Council (Housing and Planning), has been refining proposals for the redevelopment since 2002 with an aim to minimise disruption to residents. Two well-attended presentations and 'question and answer' sessions have been held for residents at the Court, to advise on the proposals and listen to their concerns. A further session will be held in late spring 2007 to engage them in the design process, and will be supplemented with a residents' site visit to another of Housing 21's 'extra care' schemes.
- 11.5 Lower Road and Fletcher Road will continue to be closed for through traffic (except cycles). Parking bays will be located along both roads for residents to use, although the exact provision will be determined at the detailed design stage and will seek to meet the needs of existing users. Residents parking schemes can be introduced if appropriate and sought by residents. The TWA Order will include a narrow strip of land from approximately 40 gardens to accommodate the bays but designs at the detailed stage will seek to minimise or remove impacts on such third party land. Cyclists will run on street alongside the tram. The light traffic and removal of on-street parking into parking bays will ensure a safe route is provided. An alternative cycle route via Salisbury Street will be considered by the County Council as Highway Authority.
- 11.6 Some tree planting is proposed between parking bays, but due to the current quiet nature of the area, there will be a moderate to substantial adverse impact on visual amenity and a slight to moderate adverse impact on townscape as a result of the proposals. Over 70 houses and flats on Lower Road / Neville Sadler Court are predicted in the ES to experience substantial

noise impacts (with one property on Fletcher Road experiencing a moderate impact). Permanent noise impacts will however be below sleep disturbance levels and below statutory levels for insulation in accordance with the Noise Insulation Regulations.

12. Middle Street (Beeston Central Ward).

12.1 From Fletcher Road, the tramway will operate along Middle Street. A tramstop is proposed on Middle Street, which will provide good access to the system in east Beeston. There are a number of minor land takes along Middle Street in addition to the need to acquire one business (see paragraph 14.3 below).

13. Beeston town centre (Beeston West Ward).

- 13.1 In 2004, the City Council Executive Board and County Council approved a route alignment through Beeston town centre along Middle Street, Styring Street and Chilwell Road. This alignment enabled the tramway to operate through the heart of the town centre, providing a central tramstop with excellent bus interchange potential. It required the acquisition of 14 retail units in the Square shopping centre.
- 13.2 Discussions with Broxtowe Borough Council have continued since the 2004 Council resolutions. The Borough have recognised that the introduction of the tram into the town centre represents a real opportunity to change the shape of the town centre and, in partnership with the NET Promoters and Nottingham Regeneration Limited/Greater Nottingham Partnership, have commissioned a Masterplan for the town centre which is seeking to establish a strategic framework for its development. The draft Masterplan is approaching completion and will set down the overall approach for bringing forward the developments in the next few years The Borough are proposing to adopt the Masterplan as an Area Action Plan (AAP). The draft will be published for consultation during 2007, and the AAP could be adopted by the end of 2008.
- 13.3 The Square shopping area has been central to the proposals included in the draft Masterplan, which identifies significant potential for the redevelopment of the block between Middle Street and the Square, including the multi-storey car park and bus station. Around the Square itself, there are a number of development options, and one of the major aspirations of the Masterplan is to see a much enhanced public area which is opened out to encompass views of the adjacent Conservation Area, including St John the Baptist Church. To achieve this would in itself require the removal of a number of shopping units, including Argos and Wilkinson.
- 13.4 Within the context of the Masterplan, the tram alignment and bus services would operate through this new open area and to maximise its usefulness as an area of public space, would need to operate close to the boundary of the churchyard on land currently occupied by Wilkinson. When compared to the alignment proposed in 2004, this would move the tramstop further south by approximately 50 metres, although its location would remain highly accessible for the town centre. Bus services would share the tram alignment and a series of bus stops would be provided on Styring Street, replacing the existing bus station and offering excellent interchange with the tram.

- 13.5 The above alignment could also be pursued without the full Masterplan proposals coming forward, subject to further consideration of access arrangements to the multi-storey car park, but would require the closure of the existing bus station (to be replaced by the on-street bus bays) as it conflicts with the tramstop, and the removal of a small part of the car park.
- 13.6 The timing of any development coming forward is however unclear. The proposed Area Action Plan would cover a period of 15 years and could mean that development proposals come forward at a time that is different to the NET Phase 2 timescale.
- 13.7 In view of the considerable uncertainties surrounding the future of the town centre, including confirmation of the Masterplan and the timing of any developments it is proposed to adopt relatively wide limits of deviation through this section, and to hold further discussions with the Borough Council, Henry Boot, who are the current leaseholders of the Square shopping centre, and the potentially affected parties. The NET Promoters recognise the importance of the Masterplan proposals to the future development of the town and wish to establish the tramway to achieve the best overall layout to take Beeston forward as a high quality district centre. ERM have recognised the positive contribution the proposals could make to the local streetscape, with enhanced public realm making the town centre more inviting. Securing wide limits will allow flexibility to respond to the emerging development proposals and to achieve the optimal alignment and tram stop location, good bus accessibility and adequate replacement car parking facilities, and expanded commercial development through the Masterplan.
- 13.8 In ES terms, a substantial noise impact is predicted at the recently developed Manor Centre. Permanent noise impacts will however be below sleep disturbance levels and below levels for insulation in accordance with the Noise Insulation Regulations.

14. Beeston Town Centre Traffic Management.

- 14.1 Very detailed assessments have been undertaken on traffic flows for the main routes in the Beeston area, including the development of a traffic model for the town centre. This work has identified that a significant proportion of traffic is destined for areas beyond Beeston and is currently using the route through Chilwell Road and Beeston as an alternative to the main road route along A6005 Queens Road. It is proposed to introduce a package of traffic management measures, which include alterations on Queens Road at its junctions with Station Road and Meadow Lane to divert an appropriate level of traffic from the tram route especially in the morning and evening peak periods. Including layout improvements on the tram route, the proposal will allow trams to have a reliable journey time, with no significant impact on travel times for remaining traffic along the tram route. The junction alterations at Queen Road/Station Road will require small parcels of land from the adjacent residential and commercial properties.
- 14.2 A new Commercial Avenue link from Wollaton Road will become the main vehicle access to the Foster Avenue car park, Catholic Church, library and Roundhill School with the link from Chilwell Road closed to general traffic. This will require the acquisition of one business premises (currently vacant) and the widening of Commercial Avenue. The new access will alleviate traffic queues on Chilwell Road, particularly vehicles accessing the Foster

Avenue car park which could affect the reliability of trams approaching the town centre, and will enable the pedestrianised centre of Beeston to be extended further west. Vehicle access will be allowed for the tram and bus service vehicles and access only. The Highway Authority do not consider that the provision of the link road, and its close proximity to traffic lights in the town centre, will significantly impact on traffic flow on Wollaton Road.

- 14.3 The Middle Street/Station Road junction is to be widened as part of the adjacent retail development and the assessments have included traffic generated by the proposed retail store. Further improvements to the junction, including localised widening using further land from the retail development (agreed through a section 106 agreement), will be required to enable priority for inbound trams. This would also require the acquisition of an additional business. Further west, and subject to the Beeston town centre Masterplan proposals, a retail unit and land from a second unit, and a parcel of land from the Fire Station which is not used for operational purposes will be acquired to provide sufficient land for the necessary modifications to the existing layout including a new signalised junction at Middle Street/Styring Street. Consultants Mott MacDonald have advised that some parking can be retained for the retail unit that can continue to operate.
- 14.4 Cycling provision has been made where space allows, and at all junctions in order to give cyclists an alternative to staying on the carriageway. The reduction of traffic in the area and the removal of on-street parking along the tram route will assist in minimising any traffic conflict with cyclists.
- **15. Chilwell Road** (Beeston West and Chilwell East Wards).
- 15.1 The route alignment leaves Beeston town centre along Chilwell Road and continues to Castle (formerly Broxtowe) College.
- 15.2 In developing the alignment along Chilwell Road, the proposals seek to achieve a balanced outcome, and have been carefully designed to safely accommodate the tram, but also maintain and strengthen the long term prospects of the retail and commercial area to create an attractive environment which will encourage people to visit. The measures include;
 - Major environmental improvements including high quality paving and tree and shrub planting. A new area of public space would be created, providing a focal point for Chilwell Road and improving the pedestrian environment.
 - Two tram stops serving the area, including a tram stop in the central area to encourage people to visit the retail area and other community facilities.
 - Two new off-street car parks, parking bays on side roads and loading bays for businesses. By relocating parking and loading away from the main carriageway, traffic will be helped to move freely and conflicts reduced between parking/loading and pedestrians and cyclists. The proposals will be a significant improvement on the existing limited onstreet spaces. Beeston town centre Masterplan proposals which rationalise accesses off Chilwell Road and aim to reduce HGV movements will improve the local environment further.

- The potential for a new commercial development area at Ellis Grove.
 The draft Masterplan proposes an extended redevelopment to the south of Chilwell Road.
- 15.3 To achieve the above proposals it is necessary to slew Chilwell Road between Imperial Road and Grove Avenue. As a result, the loss of property is unavoidable, but it is considered that this impact is necessary for NET Phase 2 and the benefits that will accrue from NET Phase 2 make a compelling case for the acquisition of these properties. The aim has been to maximise the retention of shop frontages while accommodating the parking/loading and tramstop. It will be necessary to acquire 15 buildings which currently house residential and business premises although the potential new commercial area could offset some of the loss of business premises. There will be some minor land impacts on other Chilwell Road properties.
- 15.4 One of the proposed new car parks is situated adjacent to the Methodist Church off Chilwell Road. Following discussions with the affected parties, it is proposed to acquire a residential property, to provide a suitable car park for use by shoppers, the Church, and visitors to nearby Doctors and pharmacies. The layout will be open and together with other measures, will ensure a safe and secure car park.
- 15.5 The construction phase will be particularly important for High Road/Chilwell Road, and great care will be taken to minimise disturbance when works are taking place. Access to shops along Chilwell Road will be maintained and careful management of the works, together with good communications with local residents and businesses is proposed. Nonetheless, conditions may be difficult for traders for a significant period and the County Council are therefore proposing a financial assistance package based on that used for Hyson Green on NET Line One. It is proposed to use acquired land along High Road/Chilwell Road as temporary construction sites during the works.
- 15.6 A number of trees will be lost at the Middle Street/Chilwell Road junction, although these losses will be offset with planting elsewhere. In relation to the ES, the changes proposed on Chilwell Road will result in a moderate adverse impact on the townscape and visual amenity, although streetscape improvements will be positive.
- 15.7 The Police Station on Chilwell Road is a listed building and demolition of its curtilage wall will require a listed building consent. No long term impacts are anticipated following reinstatement of the wall. The route operates through the West End and St Johns Grove conservation areas and the loss of perimeter walls for the locally listed Chilwell Road Methodist Church and 2 Devonshire Avenue will require conservation area consents. The appearance of the conservation areas will be altered but the adoption of mitigation measures will ensure there are no long term impacts.
- 15.8 Overall it is considered that the proposals would maintain and enhance the viability of Chilwell Road as a retail centre, creating a safer and more pedestrian friendly environment, increasing accessibility and bringing long term benefits to the area.

- **16.** Castle (formerly Broxtowe) College (Beeston West, Chilwell East Wards).
- 16.1 The tramway leaves Chilwell Road at Castle College and turns north, operating on College land. The junction design in front of Castle College has been difficult, in view of the space constraints and the number of turning movements to be provided for. Although some restrictions are required on movements to and from the Bartons site to the south, the layout has been determined to slow down traffic entering the Chilwell Road environment, and to rationalise two potential junctions into one, and is considered the most achievable layout. The restrictions on the Bartons access are necessary for safety reasons to prevent right turn manoeuvres in the vicinity of the junction, and there are alternative local routes. One business on the north side of High Road needs to be acquired at the junction.
- 16.2 The provision of a tram stop in front of the college results in some land take from Lime Grove Avenue gardens. However, it is considered important to have two stops along Chilwell Road/High Road area in order to serve the shopping area and cater for residents and people working and studying in the area. The proposed tram stop in front of the college will provide high levels of accessibility for people to the west and south of the tram route.
- 16.3 The alignment and tram stop location in the Castle College grounds have been discussed in detail with the College, who have protected the tram alignment in their development proposals for the Beeston campus site.
- 17. Castle College to Cator Lane (Chilwell East, Beeston West Wards).
- 17.1 The route section from Chilwell Road/ High Road to the park and ride site uses an alignment originally left free of development to accommodate a road but was subsequently partly developed or used for leisure purposes. The section to Cator Lane requires the acquisition of third party land and has been carefully developed to minimise impact on people and property, and in particular to ensure that Richmond Court can be retained as a habitable elderly residents home.
- 17.2 However, the alignment requires the acquisition of two properties on Gwenbrook Avenue and the partial demolition of properties on Gwenbrook Avenue and Cator Lane, and impact on the gardens of approximately 27 properties on adjacent residential streets. Existing vegetation and trees will be lost, including within gardens. The alignment passes alongside Greenwood Court and requires a small amount of land take.
- 17.3 In developing the alignment and during public consultation, representatives of the NET Project Office met individually with some of the residents affected who are clearly concerned about the proposals. Open meetings were also held with residents in Richmond and Greenwood Courts. In view of the comments received, more detailed surveys of the area have taken place and more detailed plans have been drawn up to give the residents a better understanding of the likely final scheme.
- 17.4 There will be moderate to substantial adverse visual and townscape intrusion into the residential area as a result of the proposals. Woodland planting or 2 metre high fencing will be provided alongside properties and replacement tree planting could also be carried out within the garden areas of adjacent properties to help shield them from the tramway. These measures will also

- ensure a secure boundary, and assist in making the alignment inaccessible to the public.
- 17.5 Noise increases are predicted alongside Gwenbrook Avenue, Brookland Drive and Cator Lane and 2m fencing will mitigate much of the noise impacts at these locations. Moderate/substantial noise impacts at first floor level on two properties on Gwenbrook Avenue could be removed with higher fencing, and this would be subject to local agreement. A moderate noise impact is predicted at Greenwood Court, but a barrier is not proposed as it would affect natural light. Permanent noise impacts at Greenwood Court will however be below sleep disturbance levels and below statutory levels for insulation in accordance with Noise Insulation Regulations.
- 17.6 There will be a loss of approximately six allotments at the Grove Avenue site, managed by Broxtowe Borough Council, three of which are currently vacant. A mitigation proposal has been proposed involving improved access, car parking and security fencing. An electricity sub-station is proposed adjacent to the allotments, and there is scope for screening planting. There will be a need to acquire land from Broxtowe Borough Council in this area, with additional land needed temporarily.
- 18. The route through Chilwell between Cator Lane and Inham Nook (Chilwell East, Chilwell West Wards).
- 18.1 From Cator Lane, the tramway runs within the open space through the Chilwell residential area crossing Bramcote Lane (adjacent to Sandby Court) and Inham Road.
- 18.2 Cator Lane to Bramcote Lane. The Chilwell via QMC and Beeston report in June 2004 approved a route alignment along the north side of the open space between Cator Lane and Bramcote Lane primarily to retain a continuous area of public park to the south of the alignment.
- 18.3 More detailed information is now available following discussions with Severn Trent concerning a high pressure water main which provides water for up to 80,000 people and conflicts with the northern alignment. The water main has no back up facility, and building the tramway over it could prove problematic during construction, and particularly during operations when works to the main could cause major disruption to services. Consultants Mott MacDonald consider that such risks should be avoided if possible.
- 18.4 Having considered alternative options, it is now proposed to locate the tramway approximately 5 metres further south than proposed previously, which will leave an area of approximately 10 metres in width to the north and 20 metres to the south for public use. The majority of trees would be retained with this option and the space would continue to function as an attractive recreational walking route. An option to run along the south of the open space was considered but this would run close to existing bungalows with short back gardens, making the installation of effective noise and visual barriers difficult. Significant tree loss would also result.
- 18.5 It is proposed to include the full width of the open space within the limits of deviation to allow the alignment to be reviewed through the detailed design stage, with additional risk analysis and further discussions with Severn Trent at that time.

18.6 Public consultation on the revised proposals identified concerns in particular about the loss of playing areas and public safety issues. The use of the open space as an area to play games would be restricted; however, there are alternative public fields in the locality for playing games, and the alignment would be kept as far to the north as possible to maximise the largest part of the green space. Safety issues with regard to the Open Space are considered in section paragraphs 18.14 and 18.15 below.

Open space between Cator Lane and Inham Road.

- 18.7 There will be land take from the open space along the whole corridor, and although it is accepted that the amenity value of the area will be reduced, detailed design would preserve and enhance many of the existing features. The existing level of provision of footpaths and cycle tracks along the corridor will be maintained and enhanced. Additional lighting will be provided on approaches to tram stops. The creation of a new footpath and cycleway north of the tracks between Cator Lane and Bramcote Lane will provide a suitable link to the tram stops and would enable people to cycle the full length of the open space without having to cross the tracks. The children's play area at Eskdale Drive will be relocated to the south of the tennis courts, which will not be affected by the proposals.
- 18.8 An area of new open space is proposed west of Eskdale Drive to replace the space lost. The land is currently agricultural and the replacement area will be similar in make up to the existing open space, being designed as an attractive open environment with paths and low level planting. ERM view this as a positive development on townscape and visual amenity. The land is privately owned and will need to be acquired.
- 18.9 An electricity substation is proposed adjacent to Inham Road and some screening can be provided.
- 18.10 Sandby Court. The tramway will operate to the south of Sandby Court, taking the tram away from the main circulation area of the complex and the entrance to the adjacent Doctors Surgery. Fencing and screen planting would be provided to minimise the visual impact on Sandby Court and to maintain privacy at the surgery. An open meeting has been held with residents. There will be a small land impact on the adjacent residential development site which is under construction (although the developer has taken account of this impact), the Doctors Surgery Car Park, and on two gardens on Holkham Avenue, and from a small number of garden extensions beyond the original property boundary on Holkham Avenue. Part of the rear garden from Sandby Court will be lost. Some existing vegetation will be lost, although new scrub planting is proposed alongside Holkham Avenue. Overall ERM advise there will be a substantial adverse impact on visual amenity in this area.
- 18.11 Significant noise impacts are anticipated at Sandby Court and the adjacent development site. Noise barriers will minimise the impact at ground floor level but moderate (Sandby Court) and substantial (development site) residual impacts are still anticipated. Permanent noise levels will however be below sleep disturbance level and below statutory levels for noise insulation in accordance with the Noise Insulation Regulations.

- 18.12 Impact on trees and ecology. A significant number of trees are lost along this section, including some of the mature trees in a copse opposite Eskdale Junior School at the Bramcote Lane and Cator Lane tram stops and in front of Garton Close and Lark Close. Replacement trees will be provided for all those lost and these will be situated either along the open space section, or in the proposed new area to the west of Inham Road. It is accepted that it will take a number of years for replacement trees and copses to reach the stature of existing trees. Shrub planting is also proposed along the corridor and within the new open space. Overall, ERM consider there to be a moderate adverse townscape impact along the open space.
- 18.13 **Visual intrusion.** A number of properties backing onto the open space, the schools and users of the recreation ground will have views of the tramway infrastructure. ERM consider that the impacts on visual amenity will be moderate or substantial adverse with views along the green corridor considerably altered by the tramway although proposals for tree replacement and shrub planting will offset the visual impact of the tramway in some locations.
- 18.14 Speed and safety. The safety of people, and particularly children, along the Chilwell open space is a very important issue and at this stage a number of safety features have been included. Crossing points have been provided opposite Eskdale Junior School and Alderman Pounder School (the latter is immediately next to the proposed tram stop). The proposed knee high post and rail fencing acts as a barrier between the tramway and the adjacent open land to make sure that it is not possible to accidentally stray onto the tramlines. This open fencing allows clear visibility between the trams and pedestrians. All public access and crossing points will be carefully located at the detailed design stage and ensuring the safety of children will involve giving them a good understanding of the tram with information incorporated into safety education programmes. Tram speeds along the open space would be low, allowing the driver to react to any encroachment on the tramway. This will be strictly enforced through automatic recording of the tram movements.
- 18.15 Overall, the safety record of tram systems is very good and the system will not be allowed to operate until Her Majesty's Railway Inspectorate are satisfied that it is safely designed and implemented taking account of its local environment.
- 18.16 Tram stops and impact on traffic. Four tram stops are proposed along this section at Cator Lane, Bramcote Lane, Eskdale Drive and Inham Nook. The tram stop at Cator Lane was included following public feedback to consultation. Four tram stops represents a high level of provision for the local area, making the tramway accessible to a large proportion of the local population. Feeder bus services are also likely to make the tramway accessible to those who live further away.
- 18.17 It is not anticipated that crossing points on Cator Lane and Bramcote Lane will cause any significant disruption to traffic. A tram is likely to cross once every seven to eight minutes in each direction (i.e. approximately every four minutes in total) and traffic levels on these roads are not high enough for this to create any significant tailbacks. New pedestrian crossings will be provided as part of the works.

- 18.18 The water culvert and drainage tanks. The route of the tramway between Castle College and Eskdale Drive runs parallel to a watercouse which will require modification or diversion at some locations where it runs underneath or adjacent to the proposed tram alignment. Small sections of the open channel may need to be culverted and existing vegetation and trees lost at these locations would be replaced within the same area. An underground sewer also exists along part of this section which has a large tank just west of Cator Lane to hold large flows during times of heavy rainfall. From discussions with Severn Trent Water, it is considered that where the tram route crosses them, strengthening or replacement of existing structures might be required.
- **19. Toton Lane park and ride site** (Chilwell West, Toton and Chilwell Meadows Wards).
- 19.1 Leaving the Chilwell built up area, the tramway crosses agricultural land and terminates at a park and ride site adjacent to Toton Lane.
- 19.2 Based on the economic assessments, 1,400 spaces are proposed at the park and ride site. Since the 2004 report, the boundaries of the site have been altered to include land currently used for parking for adjacent businesses to reduce the impact on Green Belt land. An area of parking will be reserved for the retail area. The land for the park and ride site and alignment from Chilwell is privately owned and will need to be acquired.
- 19.3 The layout of the site will be fully considered at the detailed design stage, concentrating in particular on creating a secure environment, and providing substantial landscaping and planting to mitigate any impact on the openness of the Green Belt. There will be provision for bus interchange. Prior to its development, the park and ride site will be used as a temporary construction site.
- 19.4 The tram alignment and park and ride site are located on Green Belt land, and planning policy guidance advises that park and ride is not necessarily inappropriate provided that non-Green Belt alternatives are considered first and a number of criteria are satisfied. There are no suitable locations outside the Green Belt and an assessment of seven alternative sites for the park and ride within the Green Belt was therefore undertaken by an Officer group including Nottinghamshire County Council, Broxtowe Borough Council and the NET Project team. The initial seven sites were sifted to three for a more detailed assessment and Toton Lane was identified as the most suitable site as it had lower landscape, visual intrusion and biodiversity impacts, and was the most accessible and attractive site for park and ride users and bus interchange, with a high profile location adjacent to the A52. It is not considered an inappropriate development in Green Belt.
- 19.5 The park and ride site and some track will be located on Grade 2 agricultural land. However, ERM consider the important contribution of NET to the development of a sustainable transport system outweighs the loss of this high quality agricultural land. The park and ride site and associated track will have a slight to moderate adverse impact on townscape and a moderate impact on visual amenity.
- 19.6 Toton Lane will be accessed by a new signalised junction and assessments of traffic levels now and in the future on Toton Lane have indicated that the new access can be accommodated without significantly worsening traffic

conditions on this busy road. The new park and ride site is not expected to significantly impact on the A52 'Bardills' roundabout, as most users of the park and ride will be existing travellers who divert to the tram rather than continuing their journey into the City by car. It is understood that the Highways Agency are proposing to implement an interim scheme to improve safety and capacity at the roundabout; including provision of pedestrian and cycle crossings over the A52.

NET PHASE 2 - CLIFTON VIA WILFORD. ALIGNMENT DEVELOPMENT

General comments

The text below summarises the main environmental impacts for the scheme as identified in the Environmental Statement. In general terms, the ES is required to assess the worst case rather than the most likely scenario.

Environmental Consultants ERM has undertaken the townscape and visual impact assessment following the standard Landscape Institute/ Countryside Agency method. This tends to overstate the townscape impacts because, for example, it has to be assumed that buildings that have to be demolished as part of the scheme will not be replaced, even when there is space to do so, unless the building replacement is part of the scheme. In practice, new development would be expected to take place. In general, sensitive landscaping proposals identified in the Urban Design Guide will be established to ensure a best fit of the tramway into the varied local environments along the routes.

The impacts identified in the text for townscape and visual impact below are those 15 years after the commencement of the operation and following, for example, the establishment of planting, settlement of earthworks and weathering of structures.

During the construction phase, there will be an impact on the setting, character and appearance of a number of listed buildings and conservation areas. However, a range of mitigation measures have been developed in the draft Code of Construction Practice (CoCP) which will minimise impacts on cultural heritage during the construction phase. There will also be construction noise impacts in a number of locations, in particular during enabling works and where demolitions are required. These will however mostly be of a short duration.

If NET Phase 2 does come into operation, parking will be carefully monitored on residential roads close to tram stops and preventative action, such as residents parking schemes will be introduced where appropriate and sought by residents.

THE ROUTE ALIGNMENT

- Queen's Walk (Bridge Ward).
- 1.1 The alignment diverges from the Chilwell route at the Sheriffs Way/Meadows Way junction and operates along Queen's Walk to Wilford Toll Bridge.
- 1.2 Two tram stops are proposed on Queen's Walk. The Meadows Centre tram stop is located adjacent to Kirkewhite Walk providing direct access to the Bridgeway centre and much of the north Meadows area. The Queen's Walk tram stop near to Victoria Embankment will serve the substantial residential population in the south of the area. Both tram stops will be developed with high quality urban designs to reflect the Queen's Walk environment.
- 1.3 Queen's Walk is an important feature in Nottingham. It is currently a pedestrian and cycle link running from Wilford into the City Centre, framed by an attractive avenue of mainly lime trees. Currently there is a single avenue of trees along the northern section of Queen's Walk, with a double avenue to the

south. The aim of the design is to retain as many of the existing trees as possible using careful construction methods, and replace any trees that would be lost. Locating the tramway down the centre of Queen's Walk would enable the retention of the maximum number of trees as possible.

- 1.4 ERM have advised that the inner rows of trees to the south are likely to have to be removed, as the roots may be significantly damaged by the construction works for NET Phase 2.
- 1.5 Obtaining accurate information on the root spread of individual trees is extremely difficult and ERM's advice is based on a visual assessment of the type, size and condition of the trees. It will however be a requirement of a future contractor to reassess the impact on the trees by obtaining arboricultural advice when the roots are exposed at the construction stage with the aim of minimising the number of trees to be removed.
- 1.6 Where tree loss cannot be avoided, a replacement row of trees on each side of the tramway is proposed to retain the double avenue along the southern section. Replacement trees would be located away from the tramway in order to avoid any conflict. As part of the mitigation, ERM advise that an additional row of trees could also be planted on the northern section. Replacement trees are likely to be lime trees and substantially more trees will be planted compared to those lost.
- 1.7 A footpath and separate cycleway will be provided along the centre of Queen's Walk alongside the tramway to maximise security and it is not considered that this will cause additional impacts on retained and proposed trees. There will be some disruption to Queens Walk during the construction period, although temporary footpath and cycle routes will be provided.
- 1.8 The surfacing used along Queens Walk will create an attractive pedestrianised environment and reduce the visual impact of the tram tracks.
- 1.9 Where Queen's Walk meets Robin Hood Way, the tramway will be raised above the level of the existing pedestrian underpass to cross the road at a new junction. As part of the policy to remove undesirable underpasses, the existing pedestrian facility beneath the road will be removed and replaced with on-street signalised crossings. Two metre high garden fencing (subject to local agreement) will minimise noise impacts in the vicinity of Ferngill Close. Substantial (1 property) and moderate (70 properties) noise impacts elsewhere on Queens Walk, although permanent noise levels will be below sleep disturbance levels and below statutory levels for noise insulation in accordance with the Noise Insulation Regulations.
- 1.10 ERM have advised that the introduction of the tram along Queen's Walk will result in a moderate impact on landscape and visual amenity until replacement trees mature and there will be a loss of open space. However, with significant tree planting and high quality urban designs, the above proposals will ensure that Queen's Walk remains an attractive boulevard.

2. Riverside Walk (Bridge Ward)

2.1 The alignment operates through the existing roundabout at Riverside Walk/Victoria Embankment, which is replaced by a signalised junction, removing the direct link to Robin Hood Way. This link will however be recreated further west between Riverside Way and Robin Hood Way.

- **3. Wilford Toll Bridge** (Bridge, Clifton North Wards)
- 3.1 The tramway crosses Wilford Toll Bridge. The existing bridge, toll house, gateways, screens and kiosk are Grade II listed. Structural alterations to the bridge will make permanent changes to the listed structure with a replacement deck and two centre piers, strengthening of the foundations to the existing central piers, strengthening of the original approach arches, and the widening of the bridge width to accommodate the tram, pedestrians and cyclists. Up to 0.5m width will be removed from four brick pilasters on the inside of the bridge parapets. A listed building consent (LBC) will be required alongside the TWA.
- The historic features will however be largely retained with the detailed design reflecting their listed status, with mitigation measures included to recognise and preserve the character and important views of the bridge. These measures and the detailed design will be developed in consultation with English Heritage and subject to approval by the City Council as local planning authority pursuant to conditions to the LBC and will ensure there is no significant residual impact on the listed building.
- 3.3 Further consultation with British Waterways will take place in relation to any impacts on the navigation on the river and with the Environmental Agency regarding the interface with the river. Measures will be included at the detailed design stage to deter other vehicles from using the widened bridge.
- 4. Wilford Village (Clifton North Ward).
- 4.1 From the Toll Bridge the tramway will operate along Main Road before turning east and operating to the north of Coronation Avenue. This section of Main Road will be closed to traffic, although access will be provided to the Moderns Rugby Club for maintenance, special events and emergency vehicles. This area is currently used for recreational and school parking and a small replacement car park (approximately 25 spaces) is proposed adjacent to the Ferry Inn. Measures will be taken if necessary at the operational stage to deter park and ride usage of the proposed car park and adjacent streets. The alignment will be within the Wilford Conservation area for a short distance. The closed area of Main Road is likely to be used as a temporary construction site, particularly for reconstruction of the Toll Bridge.
- 4.2 The tram stop on Main Road close to the Ferry Inn is located to serve passengers from the village, the adjacent schools and visitors to the riverside and other recreational activities.
- 4.3 The issue of flood protection in the Wilford area is extremely important. The existing flood bank to the north of Coronation Avenue will be replaced by a floodwall of the same height as the existing bank and which will provide at least the same amount of protection compared to what is there now. Small excavations from the old railway embankment north of Coronation Avenue will replace any loss of flood storage area. There will be a loss of some (relatively inaccessible) open space as a result of these proposals although substantial usable open space will remain in the area. The new flood protection will have a significant adverse impact on the Iremonger Pond Site of Importance for Nature Conservation (SINC), although it will not affect the Pond itself and the creation of new water margin habitats will reduce the impacts in the medium to long term. The excavation will have a small impact on the Trentside:West

Bridgford and the Wilford Disused Railway SINC's but the excavations will allow additional flood plain wetland habitat interest to be created to help to offset the impacts. Consultation with the Environment Agency (EA) has been very helpful in informing the design. The EA will have to approve the final designs and they have made it clear that approval will likely be forthcoming providing there is no reduction in the existing flood defence arrangements. The floodwall would have an attractive design reflecting the rural setting of the area.

- 4.4 A new hedgerow and new tree planting in addition to the retention of the line of existing trees to the immediate north of Coronation Avenue are proposed to create a natural barrier between Coronation Avenue and the tramway and there will be a moderate adverse impact on townscape and visual amenity.
- 4.5 A number of alignment options for running the tramway further away from Coronation Avenue have been investigated but are not considered viable. These would involve considerable and expensive new structures across the river and floodplain, and would have significant nature conservation impacts.
- **5. Coronation Avenue to Wilford Lane** (Clifton North, Compton Acres Wards).
- 5.1 From Coronation Avenue, the route alignment will run south alongside the former railway embankment alignment to allow the embankment to form a barrier between the tramway and residential properties on Vernon Avenue. The alignment passes close to the entry to the Emmanuel School and tram speeds will be consistent with the available forward visibility and the needs of safety. As at all locations where children are likely to be about, the advice of the Councils' road safety officers has been sought, and tram information will be incorporated into future information and education programmes.
- 5.2 The Clifton via Wilford alignment report to the Executive Board in April 2004 approved a route alignment between Vernon Avenue and Wilford Lane actually on the former railway embankment, but at a reduced height. An alternative option, to run to the east of the embankment along most of this section, was also considered and it was proposed to extend the limits of deviation for the project to allow for both options.
- 5.3 Since 2004, proposals to redevelop the adjacent land at Gresham Park have moved forward and are under construction. The proposals involve the rebuilding of the Emmanuel School, the relocation of the Becket School and a new pavilion and car park to serve existing and new playing fields. The access road to the Emmanuel School and pavilion has been completed and work is underway on the School building and the new synthetic and natural playing fields. The Becket School access is also underway with work on the school expected to start in September 2007. Outline planning permission for the school has been received, with a detailed permission currently under consideration. The developments have fully taken into account the tram alignment option to the east of the embankment, with a 15 metre corridor safeguarded for the provision of the track and a footpath. development on the former Chateau site to the south of Gresham Park has also received planning permission. These developments will fundamentally change the 'greenfield' nature of the land adjacent to the embankment.
- 5.4 Further discussions have also been held with local residents and the Wilford Community Group, and these have indicated local dissatisfaction with the

2004 decision to utilise the embankment, particularly with regard to visual impacts. A preference has been expressed locally for the route to the east of the embankment.

- In view of the development proposals and the public concerns, a review of the alignment options between Vernon Avenue and Wilford Lane has taken place and this concluded that the alignment to the east of the embankment should be adopted for the following reasons:
 - The majority of the northern section of the Wilford Disused Railway SINC will be left intact. The impact on this SINC is the principal significant adverse impact on ecological resources of NET Phase Two and this will be much reduced, with only approximately 15% of the northern section affected. This occurs where the route turns the corner at Coronation Avenue and also in its approach to Wilford Lane and is still regarded as significant in ES terms. However, consultants ERM have advised that the section to the north of Wilford Lane is the most valuable from an ecology point of view, having value for breeding birds and invertebrates, and the greatest botanical interest. English Nature (now Natural England) and Nottinghamshire Wildlife Trust have expressed support on ecology grounds for the option running to the east of the embankment.
 - Visual intrusion to Wilford Village and a major change in local landscape will be avoided, as the embankment will form a natural barrier between the Wilford residential area and the tram.
 - Excavation and disposal of material from the embankment, with associated construction transport and environmental impacts, will be much reduced.
 - There will be a reduced cost of over £1million mainly due to avoiding significant excavation works, reconstructing an under bridge and providing ramps.
- 5.6 The revised option will have a slight to moderate adverse impact on townscape. A footpath would be provided alongside the tramway on this section.
- 5.7 The impacts on third party land are limited. There is a small impact on the residential development site, and one junior football pitch lost and a cricket field reduced in size should the Becket School development not proceed.
- 5.8 Local residents had also requested the inclusion of a tram stop at Bader Road, possibly as an alternative to the Wilford Village Stop. However, the provision of a stop would require significant further excavation works on the embankment to provide an open environment and security concerns on the footpath and at the stop would remain due to its remoteness.
- 5.9 Although it had been proposed to retain wide limits of deviation within the TWA application to allow for both options, Parliamentary Agents Bircham Dyson Bell have advised that it is best practice to include a single alignment option within TWA applications and that alternative options should only be retained under exceptional circumstances. In view of the clear technical,

environmental and public acceptability advantages of the route alignment to the east of the embankment, this alignment is proposed and no safeguarding should be made for any other route through the TWA process.

- **6. Wilford Lane to Fairham Brook** (Compton Acres, Clifton North Wards)
- 6.1 From Wilford Lane, the alignment follows the line of the former railway line for approximately 1.4 kilometres from Wilford Lane, crossing Ruddington Lane and passing below the A52 Clifton Boulevard at an existing underpass before turning west (away from the Wilwell Cutting SSSI) and operating in existing fields to the south of Silverdale
- 6.2 For the majority of this section, the embankment would be removed completely and the tram would operate at the same level as land adjacent to the Compton Acres and Ruddington Lane residential areas. While this will be more expensive due to the required earthworks and cause disturbance to neighbouring properties during construction, it will be less intrusive to residents when the tram is operating and provide more width for a replacement footpath and comprehensive landscaping scheme within the corridor boundary. A number of garden and industrial unit extensions along this section will need to be set back to the original property boundary and land will need to be acquired from Rushcliffe Borough Council with further land needed temporarily. There are a number of issues to consider along this section and these are summarised in the following paragraphs.
- 6.3 Biodiversity. Although the former railway has no statutory designation, it is recognised that there will be a major significant adverse environmental impact through the loss of all the existing vegetation and habitat on the southern section and part of the northern section of the former railway embankment, which is designated locally as a SINC. There will also be a small but significant impact (is ES terms) on the northern arm of the Wilwell Cutting Nottinghamshire Wildlife Trust (NWT) Reserve to the south.
- The aim has been not to diminish the value of the loss, but to determine what mitigation is feasible and appropriate and seek where possible to minimise impacts. Environmental Consultants ERM have undertaken a wide range of surveys in the area, including field surveys for bats, badgers, invertebrates and breeding birds and detailed flora surveys. Using this information much work has been done to determine how best to deal with the changed environment. Although there will be some permanent habitat loss relating to the footprint of the tram, it is intended that replacement planting, using native species, will help to restore vegetation coverage, much as happened when the railway was closed. The planting will to some extent render habitat loss as temporary and will recreate in part the linear landscape habitat value of the route. Replacement tree and shrub planting will re-establish the corridors for bat foraging and invertebrates in time and will be of benefit to breeding birds.
- In addition, further compensation is proposed through the creation of an area of approximately 3.5 hectares of wildlife habitat on land currently in arable use between the embankment and Fairham Brook just south of Silverdale. This will have the added benefit of linking the SSSI, railway corridor and Fairham Brook nature conservation resources and by removal of topsoil in key areas, the fertility of the ground would be lowered to encourage natural species and habitat diversity. Overall it is considered to be a significant positive

development in ecology and landscape terms, and to comply with the Councils' new duties under s40 of the Natural Environment and Rural Communities Act 2006 to have regard to the purposes of conserving biodiversity in accordance with the Rio Convention. The new area will be provided on high quality agricultural land. However ERM consider the benefits of enhanced open space and nature conservation habitat and the important contribution of NET to sustainable transport objectives outweigh the loss of the agricultural land.

- Access to the newly created habitat will be from Clifton, Ruddington Lane, The Downs, Silverdale and Wilford Road, thereby making the new area available to much of the local population. Small parcels of land are required from a residential property and a utility company on the Downs to create the access to the Downs, and the access from Wilford Road would run adjacent to Wilwell Cutting SSSI and consideration will be given in consultation with Natural England and Nottinghamshire Wildlife Trust to any management issues arising from this.
- 6.7 Prior to its development, the area for habitat replacement is likely to be used to facilitate NET construction.
- 6.8 It is accepted that along the former railway embankment and in the area of habitat replacement the proposed planting will take time to become established and mature to the equivalent state of existing vegetation and the range of habitat will be reduced. The proposals will ensure the continued provision of habitat within the urban area and the detail of the planting will be determined with Natural England, Nottinghamshire Wildlife Trust and the Local Authorities.
- 6.9 Wilwell Cutting SSSI. At the southern end of the old railway the alignment turns west at the earliest opportunity. It will not therefore directly impact on the Wilwell Cutting Site of Special Scientific Interest (SSSI) and only just cut a small slice from the extended arm (outside the boundary of the SSSI) of the Nature Reserve (now Natural England) and SINC. ERM, in discussion with English Nature, have carefully investigated the local hydrology, which is so important to the flora of the reserve, and have concluded that there should be no adverse impacts as the general pattern of hydrological flows is away from the SSSI in this area and the fact that there are no significant flows along the cutting in either direction in the area. The detailed engineering design will allow for the disposal of water that currently flows out of the SSSI through a suitable drainage system. The SSSI will be well protected and disturbance from the construction and operation of NET is likely to be minimal. Natural England will be consulted on the detail of the proposed NET drainage in the vicinity of the SSSI.
- 6.10 Amenity, visual intrusion and noise. The existing corridor has in recent years been upgraded to provide a walkway and has a quiet and secluded character which will change if the tram is introduced. There is however sufficient space to build the tram alignment and to retain a footpath along the whole section and provide landscaping to minimise the impacts. As the landscaping matures the corridor will regain much of its green character, with the new area south of Silverdale compensating the loss of open space caused by the tramway itself.
- 6.11 It is acknowledged that there will be views from adjacent properties of tram infrastructure introduced along the former rail line, particularly as a result of

the loss of mature vegetation on the embankment. ERM have advised that the introduction of the tram will result in a moderate impact on landscape as replacement trees mature. The proposal to remove the embankment, despite the high cost of excavations, will have a significant effect on reducing the prominence of the tramway, along with the proposed adjacent planting, which will provide a visual screen as it matures. Details will be agreed with the appropriate Council's planning and arboricultural officers in conjunction with Natural England and Nottinghamshire Wildlife Trust. In a small number of locations the available width may be too little for substantial screen planting and residents may wish to see additional planting at the end of their gardens. Such arrangements can be agreed on an individual basis at a later stage. In addition to the planting it is proposed to enhance garden boundary fencing, where necessary, to ensure a minimum two metre high screen.

- 6.12 South of Ruddington Lane, the tramway would ramp down alongside Barnfield to pass under the existing Clifton Boulevard bridge. ERM have advised that there will be a moderate negative visual impact on properties on Barnfield although a screen (noise) fence, trees and shrub planting would help to minimise views to most Barnfield properties.
- 6.13 The proposed trackform along the former railway alignment will be ballast, which is good at absorbing any vibration and noise and is most suitable for off-street running. Initial noise predictions undertaken by ERM, however, indicate that construction and operational noise impacts are likely to be significant at some locations and that barriers would be of benefit along the embankment section between Wilford Lane and Clifton Boulevard. These initial predictions indicate that approximately 100 properties may be affected and approximately 1500m of barriers recommended. The exact locations and final provision will be determined following the detailed design and in accordance with the noise threshold levels identified in the NET Phase Two noise and vibration policy and no residual impacts are anticipated along this section.
- 6.14 Speed and safety. The tram would operate in a primarily segregated corridor on this section of route. Parallel pedestrian routes will be carefully designed to ensure segregation and pedestrian crossing points will be clearly identified. Speed limits will be determined for each different stretch of track dependant on local conditions, including the level of segregation from other traffic and pedestrians, the track alignment and the location of stops and junctions. In addition, trams are driven by sight, like a road vehicle, and the driver would travel at speeds that allow for the speed limit and all operating characteristics and adjust tram speeds accordingly to suit actual traffic and pedestrian activity and weather conditions.
- 6.15 *Tram stops.* Tram stops are proposed at Wilford Lane, Compton Acres adjacent to Ascott Gardens, and at Ruddington Lane.
- 6.16 The Wilford Lane tram stop is positioned to the south of the road adjacent to Heathervale, however the residential and school development proposals at Gresham Park could change the demand profile for the stop and the limits of deviation for the project will allow for the tram stop to be moved to the north side. The final location will be kept under review in the light of emerging development proposals.

- 6.17 The Compton Acres tram stop will require the removal of some planting to retain an open and safe environment around the tram stop. A footpath access to the stop from Kynance Gardens is proposed, improving access for local residents around St Austell Drive.
- 6.18 At the Ruddington Lane stop some land take will be required to improve access and create an open environment around the stop.
- 6.19 An investigation of a possible tram stop to serve Silverdale has been undertaken. It is considered that a stop to the south of the Downs is feasible but would be isolated and difficult to access. As a result of introducing the stop the overall economic performance of the system would be reduced and less overall benefits achieved. However, the tram stop could be developed at a later stage and TWA powers will be sought to enable a future provision and to allow access from the Downs as part of the walking route into the proposed new open space to the south of Silverdale.
- 6.20 Highway interface. It is intended to cross Wilford Lane by a level, traffic signal controlled crossing rather than a bridge. To meet current standards, a bridge would necessitate constructing a higher embankment than is there now which would not be practicable in the width available and would have significant environmental impacts. Lowering the embankment will reduce the prominence of the tramway, maximise the area available for planting trees and shrubs, allow the existing footpath to be replaced and facilitate easy and convenient access to the adjacent stop. The Highway Authority (Nottinghamshire County Council) does not believe the Wilford Lane crossing will have any significant impact on traffic flows, and it will be linked with the nearby Compton Acres traffic lights. Works are currently underway at this Compton Acres junction to provide a new access to the Becket School to the north. This junction has been designed to ensure that queues would not encroach on the NET crossing of Wilford Lane.
- 6.21 A short private access road is proposed at Wilford Lane to provide very occasional access to the tracks for maintenance purposes. The points for this access will be to the north of Wilford Lane, away from residential properties. The area will be gated, fenced and surfaced and will also include an electricity substation. Some land will be required from the adjacent development site.
- 6.22 It is proposed that the Ruddington Lane crossing would also be at road level, with traffic signal control, and again any delay to cars is expected to be slight. It is proposed to lower Ruddington Lane by about 2 2½ metres and raise the tram track to the same level. This should improve the alignment of the road around this difficult bend, create an open environment for the tram stop and provide a better facility for pedestrians to cross. With the lowering of the road, a screen bund would continue to minimise views for the majority of the adjacent Barnfield properties.

7. Fairham Brook.

7.1 South of Silverdale, the tramway will cross Fairham Brook on a new bridge into Silverdale Walk. The surrounding area is floodplain and the structure will be approximately 60 metres long to comply with Environment Agency requirements. The structure will have a low key design to fit with the surrounding environment. ERM advise there are slight to moderate adverse

visual impacts in the area as a result of the proposals, although the new open space will positively contribute to the local area.

- 8. Farnborough Road entry into Clifton.
- 8.1 The corridor in which the tram alignment can enter Farnborough Road from Silverdale Walk is restricted due to the presence of East Midlands Electricity (EME) power lines immediately to the east of Clifton. Moving the power lines would be unacceptably expensive and tram alignment options have had to take into account the need to provide adequate vertical clearance from the tram overhead line to the EME power lines. Detailed developmental work and discussions with EME has identified that the optimum alignment requires the acquisition of 173 and 175 Farnborough Road and some land take (including two outbuildings) from adjacent properties. Other options entering Clifton estate further to the east would require significant tram speed restrictions due to the difficult tram alignment, and significant works to lower Farnborough Road to match the achievable tramway level.
- 8.2 ERM have advised that the impact of the tram entering Clifton will result in a moderate negative impact on townscape and visual amenity, although some screening will be provided to adjacent properties. Lost open space in Silverdale Walk will be replaced in the new recreational area proposed south of Silverdale.
- 9. **Clifton (**Clifton North, Clifton South Wards)
- 9.1 The tram alignment through Clifton will run on street along Farnborough Road north, Southchurch Drive and then Farnborough Road south before terminating at the proposed park and ride site adjacent to Nottingham Road. The tramway will require the removal of on-street parking along these sections of road and this will be replaced by a series of parking bays. Minor land take will be required in some locations. There will be an on-going process to assess the parking bay provision with the exact location determined at a later design stage.
- 9.2 Substantial tree planting is proposed, partly to replace trees lost within Clifton to accommodate the alignment, but also to enhance the local streetscape. Opportunities for tree planting have been taken at a number of locations. ERM advise that streetscape improvements proposed for Clifton will result in a moderate positive impact on townscape and a moderate to significant positive impact on visual amenity.
- 9.3 The existing traffic calming measures (road humps) will need to be removed along the sections of Southchurch Drive and Farnborough Road where the tram will operate and alternative arrangements to curb traffic speeds will be considered. Existing roundabouts where Southchurch Drive meets Farnborough Road (north and south) and Green Lane will be replaced by signal controlled junctions. Trees will be lost at these locations but new landscaping and replacement trees will be introduced.
- 9.4 Cycle lanes are proposed along sections of road where the tram will operate through Clifton.
- 9.5 High quality surface improvements and additional tree planting is proposed in Clifton centre to raise the standard of the environment. The majority of the

pedestrian area and trees in front of the shops will be retained and loading bays will be provided. The Clifton centre tram stop will provide excellent bus interchange and accessibility to a wide range of retail and leisure facilities, in addition to the Clifton Cornerstone which opened in May 2006. The tram stop is immediately in front of the new development.

- 9.6 An electricity sub-station is proposed adjacent to the Clifton leisure centre and screening planting can be provided.
- 9.7 In addition to Clifton Centre, four tram stops are proposed in Clifton, all with wide catchment accessibility and good bus interchange opportunities as follows;
 - Southchurch Drive/Farnborough Road north junction.
 - Southchurch Drive at junction with Rivergreen.
 - Southchurch Drive/Farnborough Road south junction.
 - Farnborough Road south at junction with Summerwood Lane.
- 9.8 The location of the Southchurch Drive north tram stop will remove the current access to the Clifton community centre and Youth Club. An alternative access off Farnborough Road is proposed which will require some small land acquisition from the undeveloped land separating the Community Centre and Youth Club. It is considered that the accessibility benefits of the tramstop, particularly for access to local facilities will be considerable, and with appropriate signing and lighting, the alternative access would be secure.
- 9.9 The Southchurch Drive/Farnborough Road south tram stops will provide good bus interchange potential and will improve accessibility from south east Clifton. The layout at this location will involve reorganisation of the car park to the adjacent parade of shops.
- 9.10 The Farnborough Road tram stop is to be located close to Summerwood Lane. The majority of properties along this section have driveways and an island platform has been proposed to maintain access on both sides of the road. As on-street parking will not be possible adjacent to the tramstop, the seven affected properties without driveways have been offered a drive as they have no alternative parking provision.
- 9.11 Moderate noise impacts are predicted at over 150 properties on Southchurch Drive. Permanent noise levels will however be below sleep disturbance level and below statutory levels for noise insulation in accordance with the Noise Insulation Regulations.
- **10.** Clifton Park and Ride (Gotham Ward).
- 10.1 Following a thorough appraisal of possible options, the proposed location for the park and ride site is on Green Belt land adjacent to Nottingham Road within the boundary of Rushcliffe Borough. The land is privately owned and will need to be acquired. Based on the economic assessments, 1,000 spaces are proposed and at the detailed design stage considerable attention will be given to creating a secure environment, including liaison with the Police. There will be provision for bus interchange which may be attractive for operators running services from outlying rural areas.

- 10.2 The site is immediately adjacent to the proposed Extra care elderly care village, which received planning permission in November 2006, and work is expected to commence on site in April 2007. A new recreational area to the north of the development also received planning permission in October 2006.
- 10.3 Direct road access is considered essential to maximise the attractiveness of the park and ride site and this will be provided from Nottingham Road, and from the A453 via a new link road. The proposed widening scheme for the A453 has been included within the Highways Agency (HA) Targeted Programme of Improvements. The HA are currently developing the designs and are proposing to apply for powers for the scheme in July 2007. Subject to securing the necessary approvals, construction is expected to start in 2009, with the new road operational in 2011.
- 10.4 Because the HA's design work is ongoing, the exact location for the new junction with the A453 has yet to be determined and at this stage it is proposed to include wide limits of deviation in the TWA Order. Discussions will continue with the HA and it is anticipated that a preferred location will be identified through the A453 design work in the early summer. It is likely that the limits can be reduced at that stage and a supplementary environmental statement for the TWA Order may be required. The wide limits include some land from the proposed new recreational area for the elderly care village. The site was formerly owned by the City Council, and its disposal to Extra Care has included a provision for the Council to recover some of the land should it be required for NET Phase 2.
- 10.5 Should NET Phase 2 be developed in advance of the widening, an interim signalised junction would be installed on the A453 on the brow of the hill.
- 10.6 To avoid significantly increasing traffic on Nottingham Road and within the Clifton Estate, the park and ride site will be designed to prevent the creation of a new through route from the A453.
- 10.7 Consultants Mott MacDonald have undertaken considerable work to minimise the visual impacts of the park and ride site and the A453 'interim' access road, particularly in view of the possible impact on the Gotham Hill ridgeline which has been designated a mature landscape area by the County Council. The park and ride site will be developed in a way to reduce its prominence, being cut into the hillside with a substantial strip of native planting around the site. The Mill Hill access road option will mostly be in cutting and only on a small raised embankment when approaching the A453.
- 10.8 ERM has advised that the park and ride site and interim link road will result in a moderate adverse impact on townscape. Some moderate to substantial adverse visual impacts are likely for adjacent areas, although these impacts will reduce as the newly planted vegetation matures. It will be important that the detailed design seeks to minimise visual impacts and this will be developed in consultation with Rushcliffe Borough Council.
- 10.9 Prior to its development, the park and ride will be used as a temporary construction site. An electricity sub-station is proposed on the north-east corner of the park and ride site, and screening planting can be provided.
- 10.10 The park and ride and access road will be located on grade 2 agricultural land. However, ERM consider the important contribution of NET to the

development of a sustainable transport system in Nottingham outweighs the loss of this high quality agricultural land.

Appropriateness of Park and Ride in Green Belt.

- 10.11. The tram alignment and park and ride site are located on Green Belt land, and planning policy guidance advises that park and ride is not necessarily inappropriate provided that non-Green Belt alternatives are considered first and a number of criteria are satisfied.
- 10.12 An Officer group, including Nottinghamshire County Council, the NET Project team and Rushcliffe Borough Council undertook a study of alternative locations for the park and ride sites. One non-Green Belt site and four Green Belt sites were identified.
- 10.13 The non-Green Belt site is immediately adjacent to the Nobel Road Estate off Nottingham Road and a full assessment of its suitability concluded that it was not appropriate due to its status as a housing development site. This site has now received planning permission for the elderly person's village.
- 10.14 The remaining sites were sifted to two for a more detailed assessment and the Nottingham Road site was identified as the most suitable site as it had a lower capital cost; improved visibility of the site from the A453 providing a higher degree of attractiveness to tram travel by car users; and a better journey time. The park and ride is not considered inappropriate development in Green Belt and does not seriously compromise the openness or the purpose of the Green Belt. The layout, design and landscaping of the park and ride site and link road will be designed sympathetically, preserving the aesthetic qualities of the Green Belt land.

Rushcliffe Replacement Local Plan

- 10.15 In 2003, the NET Promoters objected to the non-safeguarding of the park and ride site south of Clifton in the Rushcliffe Borough Council Replacement Local Plan (2004). The objection was primarily on the grounds that the NET and park and ride proposals were consistent with national, regional and local transport and planning policy, and that they have been subject to an appropriate approval and assessment process.
- 10.16 In his non-binding report, the inspector did not support the safeguarding of the park and ride site, stating that there was uncertainty as to when the adjacent development site would come forward, leading to concern that the park and ride site could be detached from the urban area; and that other than cost, there was little to choose between the preferred site and an alternative adjacent to the A453. The Inspector did however note that the proposed site (and the alternative) were protected from development as a result of their Green Belt status.
- 10.17 Since the inspectors report, the adjacent development site has received planning permission for the elderly person's village, and as stated, work is expected to commence on site in April 2007. Planning permission has also been secured to develop the alternative site as a recreational area as part of the elderly care village development. The Promoters are satisfied that a robust selection process has been undertaken and the most appropriate site has been identified.

10.18	The Replacement Local Plan was not adopted by the Borough Council. A non binding Plan was approved in December 2006, which did not safeguard the tram park and ride.

NOTTINGHAM EXPRESS TRANSIT - PHASE TWO

DRAFT STATEMENT ON CONSULTATION

Statement on consultation

Summary

This statement provides an overview of public consultation and communications relating to NET Phase Two. The first part (sections 1-8) provides a history of the consultation process so far and the second part (sections 9&10) outlines plans for future communications strategies.

All consultation and communication is underpinned with the following values:

Openness: to make as much information available as possible, consistent with the

constraints of long-term accuracy, time, budgets and commercial

sensitivity

Honesty: to be as balanced as possible when presenting information

Fairness: to ensure all areas and groups are consistently treated on an equal

basis

Every effort has been made to provide residents, businesses and other stakeholders with sufficient information to make an informed and reasoned judgement, to provide the opportunity to comment at each stage of development and to respond to queries raised throughout the consultation process.

1. Consultation history

1.1 The first part of this statement, sections 1-8 below, summarises the history of the consultation process which has sought to undertake comprehensive consultation at key stages in the development of the project both in volume and in detail.

2. 'A Tram Network For Nottingham' (Summer 2001)

2.1 The consultation process began in early 2001 with an initial leaflet 'A Tram Network for Nottingham' explaining that the City and County Councils, 'Promoters' of NET, were developing potential route options to extend NET Line One which was under construction - 17,000 were distributed. This 'high level' leaflet named various places that the routes could go to and feedback was sought on the options.

Following feedback from 'A Tram Network For Nottingham' consultation, another leaflet was distributed in early summer 2001 outlining seven possible route options including two each for Beeston, Clifton, and West Bridgford with an extension of the Beeston route to Chilwell. This was distributed to residents and businesses along each of the seven route corridors. An illustration of the

routes was shown. The feedback form was post-paid and included a series of tick boxes, which were used to indicate preferences for routes. This generated around 2,000 replies which were, for the most part, positive and encouraging. Feedback on the issues raised during consultation was given in the form of 'Consultation News' leaflets issued during August and September 2001.

- 2.2 Results from this consultation were analysed and reported to the Promoting Councils who subsequently approved further consultation and development work on three route directions; West Bridgford, Clifton and Beeston / Chilwell.
- 2.3 A number of pressure groups were set up at this stage:

In favour of the proposals:

BACIT (Beeston and Chillwell Integrated Transport;

CWYes (Say Yes to the Clifton and Wilford tram)

Against the proposals:

ENT (Environment Not Trams) for the Compton Acres/Wilford area:

BCT (Better Community Transport) for the Lower Road/Fletcher Road and Beeston area:

BCBRA (Beeston and Chilwell Business and Residents Association) for the Beeston and Chilwell area.

3. 'Have Your Say' (Winter 2001 - Spring 2002)

3.1 The purpose of the consultation was to seek views at a more detailed level, for example, such as alternative route options to Beeston (via QMC or Boots) and sub options through Beeston, plus whether and how the Beeston route should continue into Chilwell. The Clifton route options were via Wilford or Queen's Drive and included sub-options through Wilford and Clifton. The West Bridgford route options were via Gamston or Sharphill.

This second stage of consultation took place between November 2001 and February 2002. Over 70,000 brochures were delivered to households in the southern part of Greater Nottingham; West Bridgford, Beeston and Chilwell, Clifton and the Meadows. Some sections of the Meadows area received more than one brochure as they fell into the distribution area of more than one route corridor; this was in addition to a Meadows specific leaflet which was also distributed.

- The brochures included maps and aerial photographs and cross sections of the 3.2 routes and all the different options were colour coded and the key issues such as journey times, predicted passenger numbers, environmental impact and land required were explained in order for recipients to make an informed decision before commenting. Pre-paid feedback cards were included seeking comments. Exhibitions were held along the proposed routes, where the public could ask questions and view more details about the routes. Information was also posted on newly developed part of the NET www.nottinghamexpresstransit.com/network. Where necessary, translators were provided for a number of minority languages and large print versions were made available.
- 3.3 Positive responses to this consultation consisted mainly of the respondents' route choices and negative responses consisted of reasons why the project or certain routes should not go ahead. The responses were independently analysed and the analysis appended to reports to both Councils in April and

May 2002. As a result of the consultation and other technical work, the Councils determined to pursue routes to Chilwell via Beeston and QMC and Clifton via Wilford.

- 3.4 Two 'your questions answered' booklets were produced and circulated in the Beeston/Chilwell and Clifton/Wilford areas, which answered the most frequently asked questions raised during consultation, and gave responses from the NET Development Team; these were also posted on the website. Various communication methods were also used to inform people that a route to West Bridgford was not to be pursued at this stage.
- 3.5 The alignment of the Chilwell route passes in close proximity to three elderly people's homes (Richmond, Greenwood and Sandby Courts), and requires demolition at a fourth (Neville Sadler Court). The Project has kept residents and wardens at all four complexes in touch with significant scheme developments. An open meeting for residents was held in Autumn 2003 at Richmond, Greenwood and Sandby Courts, and a further session has been offered to follow the submission of the TWAO application.

At Neville Sadler Court, considerable discussions have been held since 2002 with the owners of the site, Housing 21, who are naturally concerned about disruption to residents, but recognise the benefits of a possible redevelopment to enhancing facilities, and the potential for providing 'extra care' services as part of the redeveloped scheme. Extra care is a high priority for both Adult Social Care and Health and for Broxtowe Housing.

A multi-partner working group involving Nottinghamshire County Council (Communities, and Adult Social Care and Health), the Project, Housing 21, Broxtowe Borough Council (Housing, and Planning), and (on an ad-hoc basis) the Housing Corporation was formed in early 2003, with the aim of minimising disruption to the residents, forming a redevelopment proposal, and maintaining communication with residents.

Two presentations and 'question and answer' sessions, in 2003 and 2006, were held at Neville Sadler Court to answer their queries about the project and listen to their concerns. To engage the residents in shaping the proposals for redevelopment, a further session will take place with them in Spring 2007, preceded by a site visit for representatives to an existing Housing 21 extra care scheme.

All four complexes were provided with a large print reference copy of the detailed section consultation booklet in 2004 to supplement the standard versions which were issued to all residents.

4. NOP opinion poll (Summer 2002)

4.1 In the late summer of 2002, an independent market research report (NOP) was commissioned of a demographically balanced sample of 1,000 people along the route of each line. The headline results were as follows:

Clifton via Wilford

- Three quarters of people asked felt that public transport needs to be improved.
- 3 people to every 1 approved of the route.

• 4 people to every 1 approved of the re-opening of old railway routes for public transport.

Chilwell via Beeston and QMC

- Three quarters of people asked believed that public transport needs to be improved.
- Nearly 2 people to every 1 approved of the route.
- Three quarters of people asked supported the idea of a locally funded financial assistance package for Chilwell Road/High Road traders.

5. Two routes for further development and tram stop name consultation (Autumn 2002)

- 5.1 Leaflets introducing Lines 2 and 3 (as they were known at the time) were produced and distributed in September 2002. The leaflets highlighted the chosen route options for further development work and showed the routes over OS mapping, along with the proposed tram stop names and invited comments from members of the public regarding the tram stop names. All residents and businesses along the two chosen route options were consulted.
- 5.2 Results from this consultation were fed into development work and all queries raised were answered by the NET Development Team.

6. Network updates (January and February 2003)

6.1 Additional network update documents were distributed in January and February 2003 along both proposed route corridors giving residents an update of the work ongoing over the previous 6-8 months, what would happen next with the two routes being developed, and answering some of the more frequently asked questions. These documents also gave a short introduction into what the public could expect in terms of consultation in the months ahead and the overall process going forward from that stage. The updates were also used as a way to tackle some of the public misconceptions that were revealed in the NOP opinion poll undertaken in summer 2002.

7. Design consultation (Autumn 2003 – Spring 2004)

7.1 By this stage, a number of consultations had been carried out and route options developed further. As such, this consultation was primarily concerned with issues of outline design and mitigation rather than a general debate on the appropriateness or otherwise of trams, or the routes chosen. The vast majority of people who live or work near the proposed routes had already had the chance to put their views forward regarding the routes and trams generally via the previous consultations (see 2.1, 3.1, 4.1 & 5.1).

With this in mind, a series of very detailed local consultations took place between August 2003 and May 2004 with those people closest to (living or working alongside) both proposed routes (within 100/200 metres). These were carried out by the circulation of seven booklets covering various sections of the route. Information was also posted onto our website and plans made available for public inspection at appropriate local venues – this was to allow others with an interest in the project, but who may not live next to the alignments, to inspect the plans. The plans were also included on the website. In the region of 15,000 booklets were distributed to residents, businesses and stakeholders.

7.2 The seven booklets were distributed over the two routes, directly through people's doors, and to public areas such as libraries and covered the following route sections:

Clifton via Wilford:

- Nottingham Station to Wilford Toll Bridge
- Wilford Toll Bridge to Farnborough Road, Clifton
- Clifton Centre to Clifton Park and Ride site

Chilwell via Beeston and QMC:

- Nottingham Station to Abbey Street
- Abbey Street to Lower Road Beeston
- Lower Road to Chilwell High Road, Beeston
- Chilwell Road/High Road to Chilwell to Park and Ride site
- 7.3 Base plans showing the position of the tram tracks and proposed adjacent highway and property layouts were overlaid with urban design proposals. The booklets included explanatory notes to help with understanding.

In some specific locations, artist impressions were provided to help the public to better visualise the changed environment. Also cross sections of a 'typical' environment showing the tramway were used to help the reader make an informed judgement.

Comments were sought, in particular with respect to the following -

- tram alignment
- tram stop location
- revised road layout
- proposed landscape

Meetings with community groups and materially affected parties were held.

- 7.4 Overall, the response rate was variable low in some areas but high in 'hot spots'. A number of useful points were made and incorporated into further design development
- 7.5 Responses were logged internally (names and addresses for future correspondence) and forwarded to an independent consultant (Key Data) who analysed the responses, producing reports for each area/section covered in a particular booklet and a summary report for each route.

Themes for each area/section were hence recognised and helped formulate consultation responses for each area/section based on the main issues raised, plus individual letters were sent to those who raised more location specific of individual issues, offering meetings and further information where possible. The feedback responses relating to the main issues raised were posted on the NET website.

7.6 As the Design Consultation was asking for feedback on the specifics of 'how the route looks in my area', some key changes were proposed following this feedback:

Clifton route:

- Reintroduction of a footpath along the centre of Queens Walk following concerns about security of a side paths
- Revised access arrangements for Moderns Rugby Club in Wilford
- Relocation of Compton Acres tram stop to minimise impact on an adjacent property
- Changes to the Ruddington Lane crossing to minimise visual impact on adjacent properties
- Changes to the detailed layout of parking bays and tree provision in Clifton following comments from residents

Chilwell route:

- Provision of cycle facilities behind the Meadows Way tram stop
- A revised location for the ng2 stop which better serves the new development and minimises land impacts
- A right turn entry into the Highfields Sports Club, giving a high level of accessibility
- A revised alignment along University Boulevard moving the tracks further from the hockey pitches within Highfields Sports Club
- A rationalisation of the off-street car parking on Chilwell Road
- New proposed tram stop at Cator Lane

8. Stakeholders

- 8.1 In addition to the 'general' public (in this instance residents and businesses along the route) an extensive list of third party stakeholders were consulted; a copy of the relevant brochure was mailed to each of the stakeholders and the relevant section consultation brochures were also mailed to the major national third party and statutory consultees e.g. English Nature.
- 8.2 Materially affected parties (e.g. land owners) were identified early on and contacted prior to the consultation booklets being distributed. As a result a continued dialogue is in place answering the issues raised by those concerned. Some land owners were subsequently offered more information and advice where it was possible and were offered visits by an Officer who would explain face-to-face the impact on their land/property and the mitigation measures proposed. In particular this dialogue has taken place with residents and businesses of Chilwell Road/High Road Chilwell, Gwenbrook Avenue and Lime Grove Avenue, Chilwell where land is proposed to be taken and a Financial Assistance Package is proposed to aid businesses through the construction period.
- 8.3 During August December 2004, businesses along Chilwell High Road/Chilwell Road and Beeston were contacted as part of a consultation to obtain feedback regarding a Financial Assistance Package (FAP) for businesses. The purpose being to obtain views on what form a potential FAP might take. Following this, responses were answered and meetings proposed to enable face-to-face discussions to take place regarding FAP. The consultation letter included some open ended questions and a sample of the FAP used for Hyson Green traders along Line One of NET. (The deadline date for responses was extended from the end of October 2004 to the middle of December 2004.)

9. Continued communications (Summer 2004 – onwards)

9.1 A newsletter entitled 'Express Magazine' has been created to continue to inform the general public about developments surrounding NET Phase Two. The newsletter contains updates on the progress of NET Line One, the development of NET Phase Two as well as news and views from various stakeholders on tram related issues. There have been three editions of Express, the first in 2004, the second in 2005 and the third in 2006, with over 250,000 copies being circulated across the conurbation through distribution with the local newspaper, mail outs to registered stakeholders, and also copies being hand delivered to businesses and residents along the routes. The next edition of Express will be timed to co-incide with the Transport Works Act Order application.

10. Future communications strategies

- 10.1 The second part of this statement outlines plans for future communications strategies. Our aim is to deliver a consistently high quality of communication to; ensure that the implementation of NET Phase Two is welcomed by residents and visitors and, the disruption of its construction is tolerated for the benefits that its operation will bring.
- 10.2 Throughout the period of the Transport Act Works Order (TWAO) application, extensive communication will be undertaken to keep all stakeholders, businesses and residents aware of developments. The objective of this communications activity will be to provide an update concerning the TWAO process, explain what the public can expect in the months ahead and how they can participate in the overall process going forward from this stage.

As part of the formal TWAO notification procedures, stakeholders, businesses and residents along the route will be written to in order to ensure they are personally notified of developments. Work will be undertaken to keep the media up to date with progress and promotional literature, such as the Express newsletter, will be distributed to inform the wider conurbation.

Great emphasis will be given to explaining how stakeholders can participate in the Public Inquiry process. The TWAO application documents, including the Non-Technical Summary, Environmental Statement and Statement of Consultation, will be accessible to the public through printed versions being made available for inspection at libraries and public offices along the routes. Electronic versions will also be produced and distributed to stakeholders as well as being available for download from the NET Phase Two website.

Brochures including maps, aerial photographs and cross sections of the routes will be distributed to stakeholders to answer some of the more frequently asked questions. The same literature will discuss issues surrounding the development including the environmental impact and land required. Where necessary, translations will be provided for a number of minority languages and large print versions made available on request.

10.3 Construction work can commence post receipt of TWAO approval from the Secretary of State for Transport and following the scheme procurement.

Communications work will aim to ensure that the disruption caused by NET Phase Two construction is tolerated for the future benefits that its operation will bring. The objective of this communications activity will be to create an understanding of the construction process, to give fair notice of the disruption

and to provide a clear channel of communication with those causing the disruption.

Great care will be taken to minimise disturbance when works are taking place. Every effort will be made to ensure that the impact on people living/working in the area will be mitigated by sensitive working methods, close public liaison, and intensive communication of information. These guiding principles will be respected in the Code of Construction Practice.

- Meetings with community groups and materially affected parties will be proactively arranged and also conducted on request.
- There will be a dedicated point of contact responsible for liaising with local businesses and residents on a day to day basis.
- Local Liaison Groups will be set up where appropriate to provide a regular liaison forum with both the contractors and City/County Council Officers to discuss and review how work is going.
- There will also be a hotline number, which will enable immediate contact with the Project Team.
- Leaflets and flyers containing construction news updates will be tailored for and distributed to all individuals affected by the works.

The wider Nottingham conurbation will be kept up to date with development progress through further editions of Express Magazine, website updates and ongoing media relations across both local and trade publications.

10.4 The team of communications professionals responsible for activity undertaken on NET Line One have been retained to work on NET Phase Two. The scheme will therefore benefit from the considerable experience and understanding which will be brought to the strategy by these accomplished communications experts.

Nottingham has a further advantage because residents and businesses are already familiar with NET Line One. While remembering the construction process residents and businesses have understood and felt the benefits which the system's operation has brought.

In a recent poll 80% of tram users said they want to see NET Phase Two happen and support for the scheme is also strong because of the popular health, education and community services which will benefit from the network extensions. Further to this, Nottingham's business community is robustly backing NET Phase Two because it is seen as a catalyst to which will enable the city to continue to grow successfully and support their business needs.

All of these elements combine to create an environment within which a compelling communications strategy can ensure that the implementation of NET Phase Two is not only tolerated but welcomed.

TRANSPORT AND WORKS ACT ORDER APPLICATION AND RELATED APPLICATIONS.

1. Transport and Works Act Order

Draft Order – this (together with its related schedules) details the legal powers that are being applied for.

The provisions within the draft Order will include powers for the Councils to:

- carry out the works both specific works that are listed in the Schedules, as well as a general power to carry out ancillary works within limits that are defined on the accompanying plans.
- stop up public highways, both temporarily and permanently.
- acquire compulsorily the land that is needed for the Phase 2, and related provisions for compensation.
- use temporarily the land that is needed for the Phase 2 and related provisions for compensation.
- operate Phase 2.

The draft Order will include protective provisions for

- utility companies and other statutory undertakers; and
- the two District Councils.

The Order does not have the effect of granting planning permission, which is applied for separately (see below).

In general, the form of the Order is based on Model Clauses promulgated by the Department for Transport and adjusted to take account of the latest precedents and thinking. However, there are a few variations, including:

- compulsory powers to fix overhead line equipment to buildings on particular land, (with the aspiration where possible to minimise street clutter that would be caused by the use of poles).
- wide ranging deemed traffic regulation orders; and
- the replacement of the operating and related powers under the Greater Nottingham Light Rapid Transit Act 1994, which authorised NET Line One, with the operating powers contained in the Order. This will mean that the whole network will be operated under the same powers once Phase 2 has been opened for use.

Explanatory Memorandum – a memorandum explaining the effect of each provision in non-legal language.

Scheme plans and sections – the TWA application is accompanied by a large number of engineering drawings showing the scheme proposals, including works & land, planning, Traffic Regulation Order and Rights of Way plans. These plans will show the Limits of Deviation (LoDs) for the scheme and the extent of any land that will need to be acquired to deliver it. The LoD will also cover land required for construction purposes and accommodation works.

List of items for Development - detailing the main works included in the Order.

Book of reference – a document detailing interests in land affected by the Scheme or fronting onto it, including land to be acquired and where building fixings may be applied.

Statement as to Aims of the Project – a full statement setting down the principal aims of the project. The draft version is attached at Appendix 1.

Cost and Funding statements – setting out the cost of the scheme and the proposed sources of funding.

Request for planning direction – A request for a direction from the Secretary of State for Transport deeming full planning permission to have been granted for the works and other development authorised by the Order, subject to a set of draft planning conditions for the scheme, which have been discussed with the District Councils. The Borough Councils' role will subsequently be to decide applications for the discharge of these conditions. Full planning permission will also be sought through this mechanism for the redevelopment of Neville Sadler Court.

An environmental statement – this will present the findings of the environmental impact assessment process (see section 6 of the main report) and outline the mitigation proposals and residual impacts.

Statement of consultation undertaken – detailing the history of consultation and changes to the scheme which have resulted. The draft version is attached at Appendix 7.

2. Listed Building and Conservation Area Consents

In addition to the above, it will be necessary to submit three listed building (LBC) and six conservation area consent (CAC) applications. The LBC applications relate to Nottingham Station, Wilford Toll Bridge and Beeston Police Station, and the CAC applications relate to the following proposed demolitions in conservation areas:

Nottingham Station Conservation Area

Demolition of boundary treatments, south of Queens Road.

Demolition of warehouse, Station House, Crocus Street

Demolition of part of Station House frontage, Crocus Street.

Demolition of 1a Arkwright Street.

Beeston West End Conservation Area

Demolition of part of front wall, Chilwell Methodist Church, Chilwell Road.

St John's Grove, Beeston Conservation Area Demolition of perimeter wall to 2 Devonshire Avenue.

The route alignment also passes through the Wilford Village Conservation area, but no structure is affected.

Although there will be some adverse impacts during construction and the setting of a number of buildings and conservation areas will be permanently altered, the Councils' consultants ERM anticipate that mitigation measures will ensure that there are no significant long term impacts.

These LBC and CAC applications are technically separate to the TWA application and the application for the planning direction. The procedure requires the LBC/CAC applications to be submitted to the local planning authority but these are then automatically called in by the Government Office for the East Midlands on behalf of the Secretary of State for Communities and Local Government, and are considered concurrently with the TWA application, and the application for the planning direction including at the public inquiry.

3. Exchange Land certificate

The TWA Order will seek compulsory acquisition powers over a small piece of open space land used for public recreation adjacent to the Kings Meadow Nature Reserve where it has not been possible to identify the existing owner. Open space that is compulsorily acquired should normally be replaced by an area of land of equal size and quality which is in close proximity to the area lost. A replacement area of open space has been identified within land currently leased to Nottinghamshire Wildlife Trust, where it is proposed to introduce a stile into an area currently inaccessible to the public. The proposal has been discussed with the Trust and separate to the main application, it will be necessary to apply for a certificate from the Secretary of State stating that she is satisfied that the Exchange Land is an appropriate replacement for the current open space proposed to be acquired compulsorily.

4. Allotment land

There will be a loss of approximately six allotments at Grove Avenue, Chilwell, managed by Broxtowe Borough Council. It is understood that the allotments are statutory allotments and can be sold to the NET Promoters by Broxtowe subject to the consent of the Secretary of State for Environment, Food and Rural Affairs. Three of the affected allotments are vacant and mitigation has been agreed with Broxtowe Borough Council. This involves improved access, car parking and security fencing.

APPENDIX 9

APPROPRIATION OF CITY AND COUNTY COUNCIL OWNED LAND

1. Nottingham City Council

1. Nottingnam City Council				
Clifton via Wilford route				
Location	Description			
Crocus Place,	S Land and units within Crocus Place			
Crocus Street and	S Land and properties within the block comprising numbers 1a to 27			
Arkwright Street	Arkwright Street			
area	S Warehouse and land on the corner of Crocus Street and			
	Arkwright Street			
	S Warehouse and land at number 43 Arkwright Street			
Wilford	S Land adjacent to the former rail embankment and part of the			
	former railway embankment			
Silverdale	S Farmland to the south of The Downs			
	S Land forming part of Silverdale Walk			
Chilwell via QMC and Beeston route				
Location	Description			
Kings Meadow	S Land forming part of Wilford Power Station SINC			
Lenton	S Land forming part of the British Red Cross site			
Lane/Gregory Street				
University of	S Land and building forming Merrivale Nursery School			
Nottingham campus	S Land to the rear of the Arts Centre and Recital Hall			
University Boulevard	S Land between University Boulevard and Tottle Brook			

2. Nottinghamshire County Council

2. Nottinghamshire county council				
Clifton via Wilford route				
Location	Description			
None				
Chilwell via QMC and Beeston route				
Location	S Description			
Lower Road/Fletcher	Land adjacent to Neville Sadler Court			
Road				
Cator	S Land forming part of open space			
Lane/Bramcote Lane				