

**Picketts Lock Outline
Masterplan:**
Scenarios Report

December 2011

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Introduction to the scenarios

Introduction

The Topic Paper established the broad range of options for provision of leisure uses on the Picketts Lock site. This Scenarios Report identifies the specific options and tests each against a range of criteria. It then considers what the Preferred Scenario is. In order to inform this, additional technical feasibility work was undertaken in respect of parking and off-site transport requirements of each scenario, and also a technical feasibility study of the costs and issues associated with the provision of a pedestrian footbridge.

The Topic Paper identified two broad scenario variants:

Scenario Variant A

- A range of local leisure uses, e.g. artificial grass pitches, etc.
- Cinema – either retaining existing or re-providing on another part of the site.
- Hotel, probably attached to a new clubhouse for an improved golf course (9- or 18-hole).
- The bowls club.

Scenario Variant B

- A big leisure 'draw', e.g. snowdome, wavepark
- Ancillary development to the big offer, e.g. retail
- Hotel, probably attached to a new clubhouse for an improved golf course (9- or 18-hole)
- Cinema – either retaining existing or re-providing on another part of the site
- New public open space, most likely on the southern half of the golf course
- The bowls club

From these variants, 4 detailed scenarios were tested which cover both variants:

- Scenario 1: Baseline.
- Scenario 2: Medium Level of Investment.
- Scenario 3: Wave Park.
- Scenario 4: Snow Dome.

These are explored in detail below.

Assumptions

In order to develop these scenarios a number of key assumptions have been made about the availability and deliverability of different uses on different parts of the site. Whilst we understand that some existing uses are subject to existing leases we have assumed that these would be 'bought out' by a new leisure operator/LVRPA in order to deliver a comprehensive scheme.

Assumptions have been made about ground conditions that assume that all areas of the site are equally developable. Abnormal costs relating to foundations may be required for parts of the site that include former landfill uses and to accommodate gas venting measures.

Assumptions have been made about the extent of existing gross floor area (GFA) for the existing uses on the site as not all of them have been inspected internally as part of this process (e.g. the bowls club and cinema). The extent of existing uses and building footprints has been measured from digital OS Survey Data.

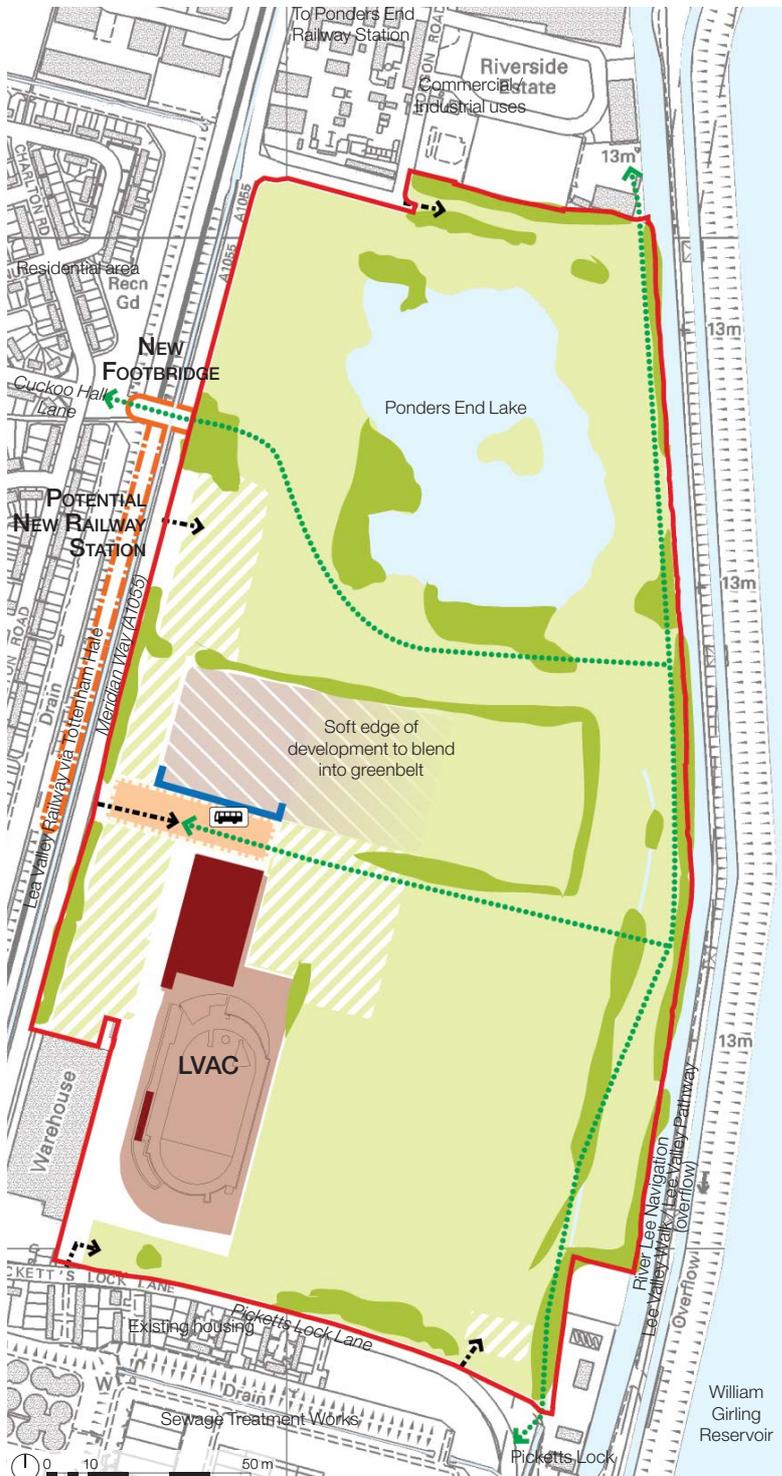
Urban Design Concept

The Urban Design Concept for all scenarios (excluding the 'Baseline' scenario) remains largely the same. Key urban design objectives for the site will include:

- Focussing new development within the areas of previously developed land, while allowing existing green areas to continue as predominantly open space and green uses;
- Allowing new development to utilise the frontage of the site onto Meridian Way;
- Retaining the Lee Valley Athletics Centre and building it into a holistic scheme;
- Improving access to the site, including potential pedestrian access across the site; and
- Creating a new pedestrianised focal space at the heart of the site, for new uses to face onto and relate to.

A diagram of the urban design concept is shown opposite.

Urban Design Concept Diagram



Key

Site boundary

Location of uses (approximate)

Existing LVAC

Area appropriate for new large-scale uses (snow dome, wave park, hotel, other indoor leisure, associated restaurant and retail).

Areas which may be used for parking and some smaller facilities, however should remain predominantly green open space where possible

Areas to remain predominantly green open space uses (eg. golf course, public open space, sports pitches, camp site).

High quality pedestrianised open-space setting at centre of site

Transport and access

Potential pedestrian links to be provided through the site

Key potential offsite access improvements

Likely primary site access points

Bus stop within site

Other

Key existing treebelts to be retained where possible (subject to detailed tree survey)

Primary building frontage

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Scenario 1 - Baseline

Plan



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Key

Site boundary

Uses (colour as per key in schedule opposite)

Site area / Built footprint

note: new buildings shown with black outline

Transport and access

Primary vehicular site circulation

Car parking areas

Bus stop

Scenario 1 (cont'd)

Purpose

- Existing situation / control option with all existing uses retained in present location.

Key Issues

- Site remains underutilised by the public and undervalued for its owners.
- Likely to be difficult to deliver LBE aspiration for increased accessibility of the site and greenbelt (including new footpath to west of River Lee Navigation).

Overview of Changes

- No major changes to site occupation.

Transport Implications

No additional trip generation and no transport improvements.

Infrastructure cost: nil

Urban Design Rationale

- Site retained as existing.

Jobs Created

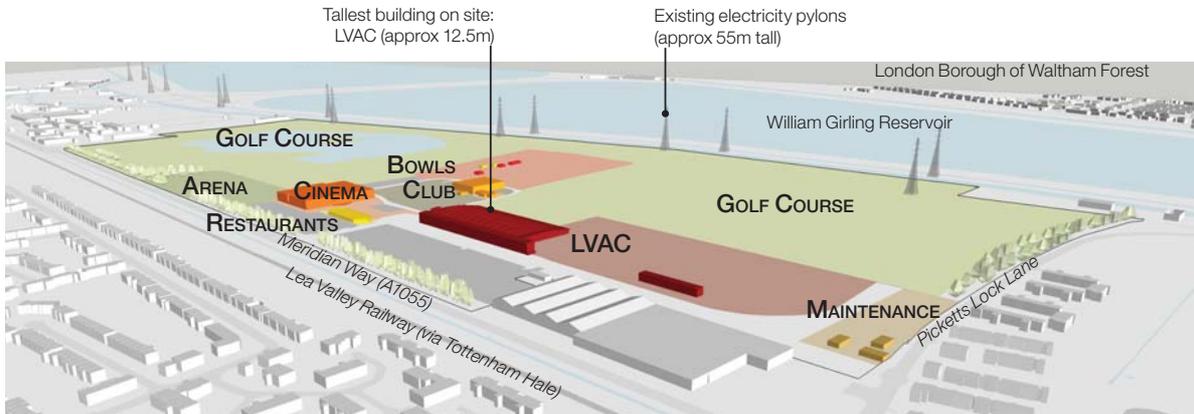
Total net additional jobs: none

(Existing employment on site includes approx. 20 full time and 30 casual jobs) = 30 FTEs

Scenario 1 (cont'd)

3d views

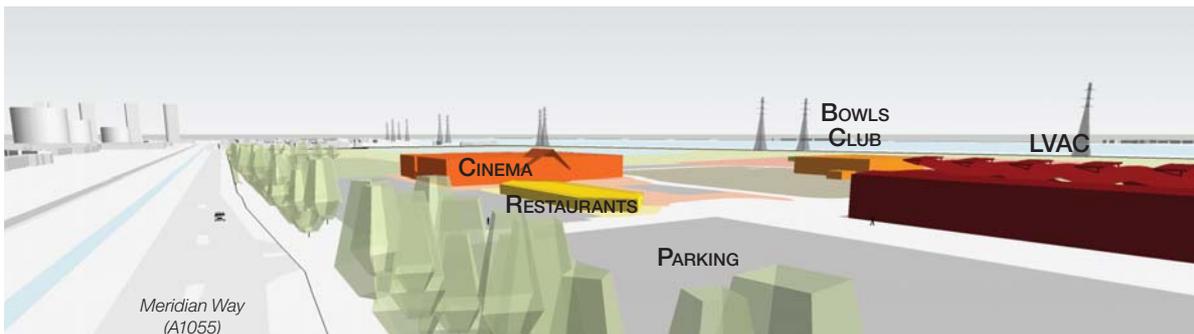
View from South West



View from East



View of Main Site Entry



Note: All heights are approximate. Trees are shown along Meridian Way and Picketts Lock Lane - these are indicative only.

Scenario 1 (cont'd)

Schedule of Uses

Use Type	Description	Site area		Building footprint	Other key sizes
		sqm	%	sqm	
Existing uses					
Lee Valley Athletics Centre	 existing LVAC facility	40,750	7.0	8,683	
Golf Course	 existing 18-hole Lee Valley Golf Course (note: site area includes Ponders End Lake)	403,720	69.4	313	18-hole course
Camp Site	 existing Lee Valley Camp Site	34,410	5.9		
Cinema	 existing 12-screen Odeon Cinema	9,140	1.6	4,702	
Restaurants	 existing restaurants (note: currently vacant)	1,370	0.2	1,042	
Bowls Club	 existing Bowls Club (and adjacent substation)	2,310	0.4	1,824	
Maintenance	 existing prefab buildings on Picketts Lock Lane and yard	5,800	1.0	297	
Arena	 existing North West Arena	17,370	3.0	-	
Biodiversity site	 existing site	11,310	1.9	-	
Parking and Other					
Parking	 Total parking across site	23,730	4.1		approx 1100 spaces
Other	 including circulation and buffer spaces	31,810	5.5	-	
Totals		581,720	100%	16,861	

Note: All areas are approximate and are measured from the digital OS base based on our understanding of the extent of areas available to each occupier. All areas are gross floorspace unless otherwise specified.

Scenario 2 - Medium level of investment

Plan



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Key

Site boundary

Transport and access

- Primary vehicular site circulation
- Car parking areas
- Bus stop

note: new buildings shown with black outline

Scenario 2 (cont'd)

Purpose

- Increase value for the site by bringing in new uses.
- To protect the greenbelt, do not increase the 'built footprint' of the site significantly above the existing.
- Provide additional accessibility where possible, including pedestrian access between Meridian Way and the River Lee Navigation through the centre of the site.

Overview of Changes

- New hotel, including golf club house, restaurant(s), gym, spa, health centre and conference facilities. The hotel is likely to be 3/4 star and could range from 50-200 beds depending on demand (120 beds shown). This replaces the existing biodiversity site, which is moved to the south-east of the golf course.
- New sports pitches replacing the arena site.
- New footpath to east of site.
- Camp site potentially removed to become driving range.

Urban Design Rationale

- Site retained as largely as existing, with only minor changes where possible.
- Space adjoining cinema, hotel, restaurants and LVAC forms the 'focus' of use and should be redesigned
- No publicly accessible routes through the site (east-west).
- Views of the greenbelt from Meridian Way are retained where possible.
- Built form comprises a number of dispersed small building elements which when interspersed with landscape planting, could minimise visual impact.

Jobs Created

Golf course or public open space	10
Cinema	no change
Restaurants	53
Hotel	60
Fitness Centre	28
Conference Facilities	10
Sports Pitches	10
Campsite	no change
Total net additional jobs	171

Key Issues

- The built footprint of development is increased above the existing scenario, due to the hotel.
- Need to incorporate solutions for improving the public realm/ quality of the pedestrian environment/ route from the Station along Meridian Way towards Picketts Lock. This is specifically to address amenity and perceived security issues.

Transport Implications

Low levels of additional trip generation will require minimal transport improvements, including; improved pedestrian and cycle paths.

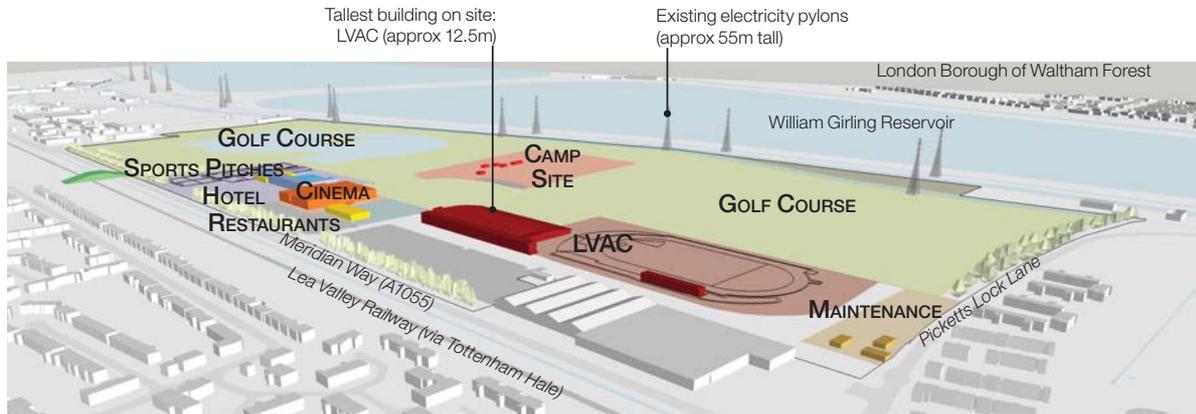
Indicative infrastructure costs			
Item	Details	Indicative Cost	Notes
Improved off site pedestrian and cycle facilities.	Improvements to existing key routes e.g. to Ponders End Station.	£480,000.	Approx length: 1.2km to Ponders End. Includes signage, lighting, colouring etc.
Car Parking *	Moving car parking within the site.	£550,000.	Cost to move car parking within site in line with scenario.
TOTAL		£1M	

* Cost could be included in development cost rather than an additional cost. Ensure this is not double counted.

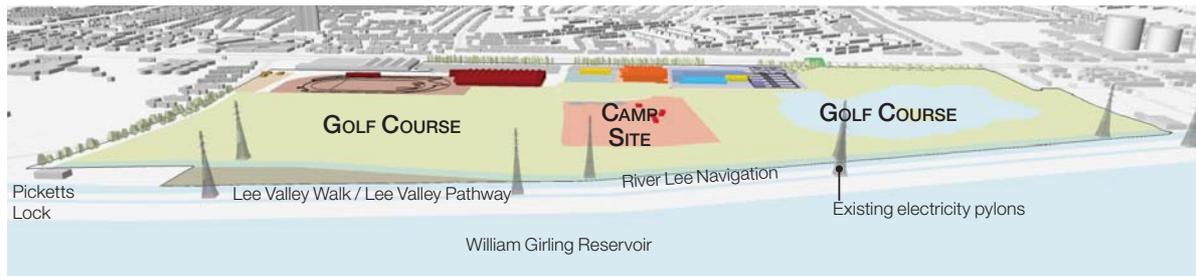
Scenario 2 (cont'd)

3d views

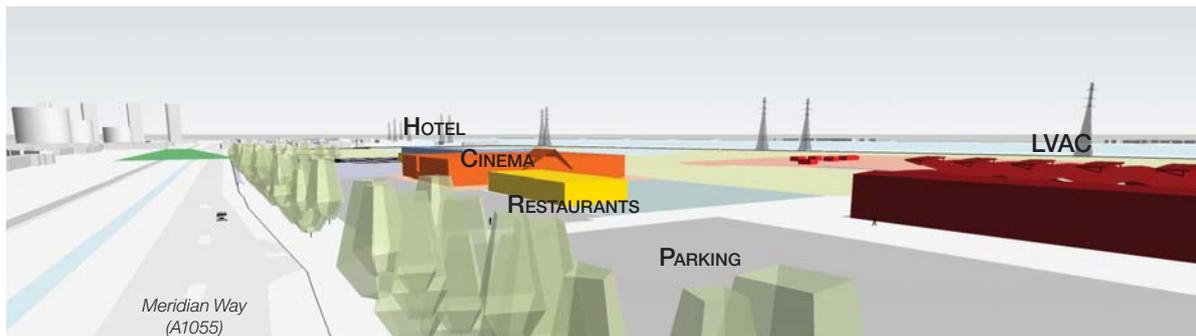
View from South West



View from East



View of Main Site Entry



Note: All heights are approximate. Trees are shown along Meridian Way and Picketts Lock Lane - these are indicative only.

Scenario 2 (cont'd)

Schedule of Uses

Use Type	Description	Site area		Building footprint sqm	Other key sizes (approx.)
		sqm	%		
Existing uses retained					
Lee Valley Athletics Centre	 existing LVAC facility retained	40,750	7.0	8,683	
Camp Site	 existing campsite retained (unless used as driving range)	34,410	5.9	215	
Cinema	 existing 12-screen Odeon Cinema retained within upgraded setting (pedestrianised focal space)	6,680	1.1	4,702	
Maintenance	 existing prefab buildings and yard on Picketts Lock Lane, or similar	5,800	1.0	297	
Existing uses moved or altered					
Golf Course	 18-hole Golf Course - boundaries amended (note: site area includes Ponders End lake). Site area is approx. 8% smaller than existing course, however most of this loss is buffer space (now within the 'new footpath' area).	372,030	63.9	(included in hotel)	18-hole course (club house within hotel)
Restaurants	 Existing restaurant provision replaced New restaurant provision in hotel complex (above golf club house and fitness centre) with views over Ponders End Lake and William Girling Reservoir	-	-	888	(footprint shown is for replacement of existing only. For new provision see hotel)
Biodiversity site	 Biodiversity site moved adjacent to River Lee (size as existing)	11,390	2.0	-	
New uses					
Hotel	 New hotel complex created, including golf club house, restaurant, gym, spa, health centre and conference facilities (note: site area and building footprint includes all uses shown)	13,900	2.4	4,770	120 room hotel 730sqm golf club house 1050sqm restaurants 1800 sqm gym, spa, health centre 1000 sqm conference facilities (c. 10m 3 storey building)
Other Facilities	 New gym, spa, health centre (all with potential for local provision) and conference facilities constructed as part of hotel complex.	(included within hotel calculation)			(see hotel)
Sports Pitches	 New sports pitches with small administration building.	11,390	2.0	400	
New Footpath	 New footpath adjacent to River Lea Navigation. 20m width assumed for 'site area' (including planting, buffers, access to existing electricity pylons, etc.)	23,960	4.1	-	
Parking and Other					
Parking	 Total parking across site	26,120	4.5		approx 1100 spaces (as existing)
Pedestrianised focal space	 Between LVAC, Cinema and Bowls Club.	4,690	0.8		
Other	 including circulation and buffer spaces	30,820	5.3	-	
Totals		581,940	100%	19,955	

New provision offsite	
New provision offsite	 New pedestrian / cycle bridge across railway (access to site via Meridian Way)
Existing uses removed	
Bowls Club	
Arena	

Scenario 3 - Wave Park

Plan



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Key

Site boundary

Uses (colour as per key in schedule opposite)

Site area / Built footprint

note: new buildings shown with black outline

Transport and access

Primary vehicular site circulation

Car parking areas

Bus stop

Scenario 3 (cont'd)

Purpose

- Provide a new large leisure use (wave park shown).
- Keep the predominant part of the site as green open space, minimising impacts upon the greenbelt.
- Golf course remains main greenbelt feature of the site, and is enhanced where possible (simplified layout, new clubhouse, restaurant and hotel)
- A new footbridge link to local residences.
- New train station may be provided if viable, but is not a fundamental requirement to deliver the scenario.

Overview of Changes

- New wave park, approximately replacing existing cinema, bowls club and camp site areas, with an eventual slight enlargement of the golf course.
- New 120-bed hotel, including golf club house, restaurant(s), and a small fitness centre. This replaces the existing arena site.
- New footpath to east of site, and footbridge across railway to west of site. Improved bus provision.

Urban Design Rationale

- All new built form is concentrated in the existing 'developed' part of the site. These forms are likely to be connected, although a sense of different 'volumes' may be retained through the massing of forms.
- The majority of the site retains its present greenbelt-accepted use (golf course). Views of the greenbelt from Meridian Way are retained.
- The large building volume could be arranged around a covered arcade link connecting all of the uses together with retail, restaurants and fitness located to the west and wave park / swimming uses to the west. This route would allow connections through to the hotel.
- There may be potential for elements of green roof at the eastern end of the large volume to mitigate its visual impact from the east.

Jobs Created

Golf course or public open space	10
Cinema	loss of 8 jobs
Restaurants	76
Retail	53
Other leisure (ten pin bowling, other gyms)	71
Wavepark	88
Swimming Pool	28
Hotel	60
Fitness Centre	16
Campsite	loss of 3 jobs
Total net additional jobs	391

Key Issues

- Planning risks associated with large leisure use.
- What kind of facility is the Wave Park? Would public swimming provision take away from its commercial value and aspirations for regional importance? Is it too dependent on finding the right kind of operator?
- Need to incorporate solutions for improving the public realm/ quality of the pedestrian environment/ route from the Station along Meridian Way towards Picketts Lock. This is specifically to address amenity and perceived security issues.

Transport Implications

Medium to high trip generating land use will require some transport improvements to reduce vehicular impact. Including; new / extended bus routes, new footbridge, improved pedestrian and cycle paths and local highway upgrades including new junction for hotel access.

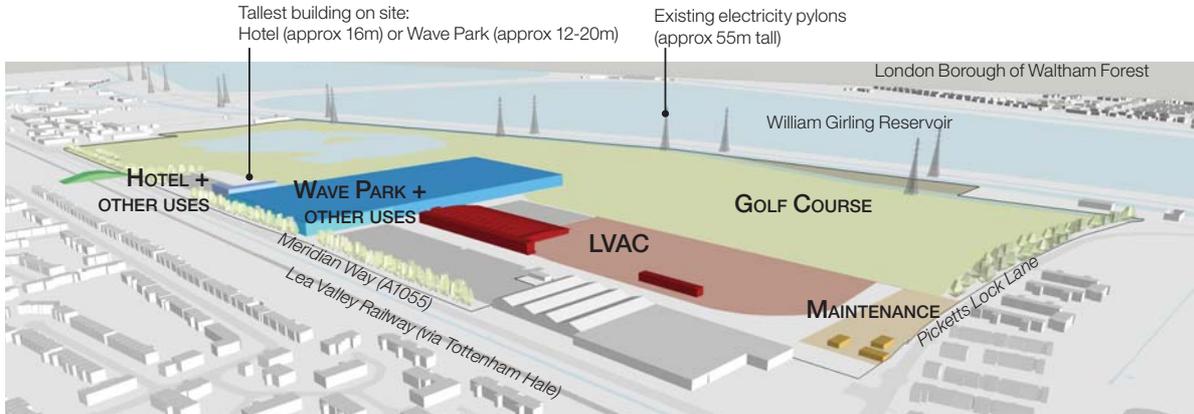
Indicative Infrastructure costs			
Item	Details	Indicative Cost	Notes
Improved off site pedestrian and cycle facilities.	Improvements to existing key routes e.g. to Ponders End Station.	£480,000.	Approx length: 1.2km to Ponders End. Includes signage, lighting, colouring etc.
New footpaths within site.	Footpath to and along River Lee Navigation.	£1,025,000.	Approx length: 600m (east west) + 1,200m (north-south) Width: 5m. Material: Coloured asphalt.
Footbridge.	New Footbridge over Meridian Way & Railway Line.	£2,400,000.	Approx length: 65m + ramps DDA Compliant
New bus routes / services.	New or extended bus route into site connecting with Tottenham Hale station.	90,000 p/a to £450,000.	TfL typically require 5 year funding as a contribution so total cost is £450,000. Cost of a shuttle instead of TfL bus could be £200,000 per annum.
New junction for Hotel access.	New signalised junction on Meridian Way.	£150,000.	Basic signalised junction for Hotel use only. Note feasibility of current proposed location may not be possible.
Local highway improvements.	Site entrance junction and possible contribution to Meridian Way / Lee Valley Road roundabout improvements.	£250,000 to £500,000.	Very unclear if off site improvements will be necessary and what the costs might be. This will need to be subject to a full Transport Assessment.
Car Parking *	Moving car parking within the site.	£550,000.	Cost to move car parking within site in line with scenario.
TOTAL		£5.3M to £5.6M	

* Cost could be included in development cost rather than an additional cost. Ensure this is not double counted.

Scenario 3 (cont'd)

3d views

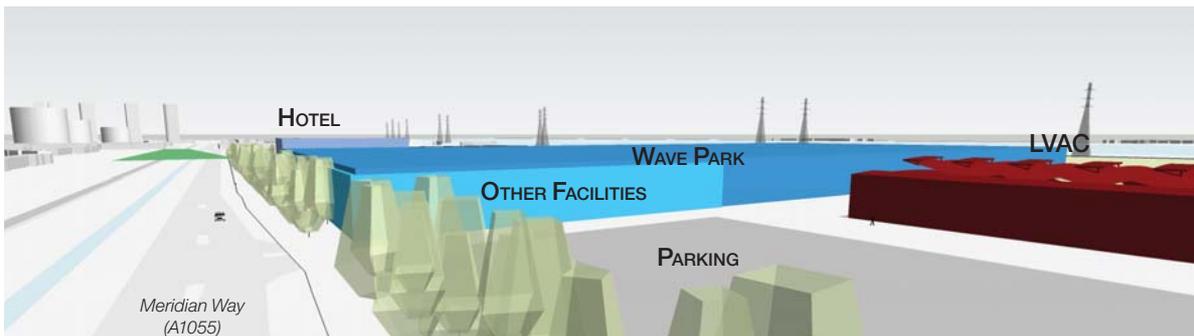
View from South West



View from East



View of Main Site Entry



Note: All heights are approximate. Trees are shown along Meridian Way and Picketts Lock Lane - these are indicative only.

Scenario 3 (cont'd)

Schedule of Uses

Use Type	Description	Site area		Building footprint	Other key sizes (approx.)
		sqm	%	sqm	
Existing uses retained					
Lee Valley Athletics Centre 	existing LVAC facility retained	40,750	7.0	8,683	
Maintenance 	existing prefab buildings and yard on Picketts Lock Lane, or similar	5,800	1.0	297	
Existing uses moved or altered					
Golf Course 	18-hole Golf Course - boundaries amended (note: site area includes Ponders End lake). Site area is approx. 9% smaller than existing course, however most of this loss is buffer space (now within the 'new footpath' area).	387,420	66.6	(included in hotel)	18-hole course (club house within hotel)
Restaurants 	Existing restaurant provision retained through construction of new restaurant(s) within hotel complex and large leisure use.	(included within hotel and large leisure use calculations)			(see hotel and large leisure use)
Biodiversity site 	Biodiversity site moved adjacent to River Lee (size as existing)	11,390	2.0	-	
New uses					
Large Leisure Use 	A 300x150m building is assumed, which includes a wave park and public swimming provision as the 'large leisure use', as well as a range of other facilities (note: retail / restaurant spaces are ancillary only and shown as a maximum of between 10% and 20% of the size of leisure uses). We have assumed that the building will be an approx 12-20m tall volume with a single storey for the main leisure use, and a mix of one and two storeys for other facilities.	45,000	7.7	45,000	35,000 sqm wave park 2,500 sqm public swimming pool 3,000 sqm gym 2,000 sqm tenpin bowling 7,000 sqm restaurants and retail total: 49,500 sqm (c. 12-20m tall building) note: all sizes approximate
Hotel 	New hotel complex created, including golf club house, new fitness centre and restaurant. (note: site area and building footprint includes restaurant, fitness, golf club house)	5,450	0.9	2450	120 room hotel 730sqm golf club house 800sqm restaurants (c. 16m 5 storey building)
Other facilities 	A range of other uses within the large leisure use area, including gym, and retail (other potential uses include fitness centre, reprovided bowls club and regional gymnastics facility)	(included within large leisure use)			(see large leisure use)
New Footpath 	New footpath adjacent to River Lea Navigation. 20m width assumed for 'site area' (including planting, buffers, access to existing electricity pylons, etc.)	23,960	4.1	-	
Parking and Other					
Parking 	Total parking across site	24,790	4.3		approx 1100 spaces (as existing)
Other 	including circulation and buffer spaces	37,160	6.4	-	
Totals		581,720	100%	56,430	

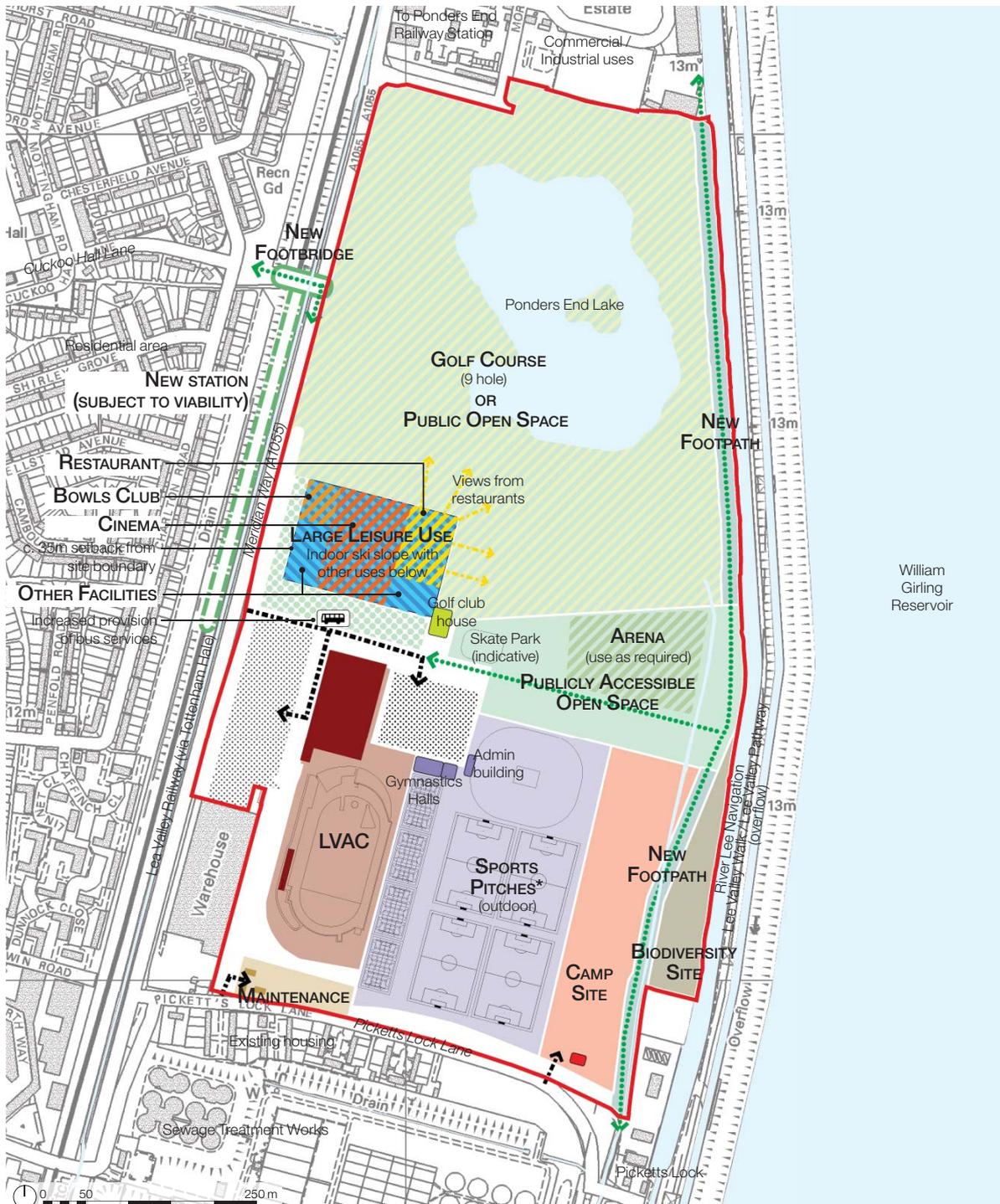
New provision offsite	
New provision offsite 	New pedestrian / cycle bridge across railway (access to site via Meridian Way) Increased provision of bus services

Existing uses removed
Camp Site
Cinema
Bowls Club
Arena

Note: All areas are gross floorspace unless otherwise specified.

Scenario 4 - Snow Dome

Plan



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Key

Site boundary

Uses (colour as per key in schedule opposite)

Transport and access

Site area / Built footprint

Primary vehicular site circulation

note: new buildings shown with black outline

Car parking areas

Bus stop

* note: Sports pitches shown on drawing are indicative only. Areas shown are for senior competitions.

Scenario 4 (cont'd)

Purpose

- Provide a new large leisure use (indoor ski slope shown).
- Focus on providing as broad a mix of leisure uses across the site as possible (ski, golf, gymnastics, sports pitches, open space, bowls, etc.).
- A new footbridge link to local residences.
- New train station may be provided if viable, but is not a fundamental requirement to deliver the scenario.

Overview of Changes

- New indoor ski slope, approximately replacing existing cinema and bowls club sites. The existing facilities could not remain open in their existing locations whilst a new facility (within the large leisure use) is constructed.
- New sports pitches and public open space, approximately replacing the southern half of the existing golf course, with the camp site moved.
- New footpath to east of site, and footbridge across railway to west of site. Improved bus provision.

Urban Design Rationale

- Publicly accessible 'spine' created through the centre of the site between Meridian Way and the new footpath along the western edge of the River Lee Navigation.
- The large leisure use (indoor ski slope), as the largest built form and focus of activity, is located in the existing 'developed' part of the site, close to the street.
- Views of the greenbelt from Meridian Way are retained. Uses such as sports pitches, which may require artificial grass surfaces, are located away from key views.
- Northern half of site around Ponders End Lake could be golf course or publicly accessible open space.
- Volume of the indoor ski slope arranged with high point to west, to maximise visibility on Meridian way and minimise impact on greenbelt.
- Large areas of other leisure and ancillary uses can be accommodated within the indoor ski slope volume.

Jobs Created

Golf course or public open space	8
Cinema	no change
Restaurants	44
Retail	48
Other leisure (ten pin bowling, other gyms)	71
Snowdome	73
Hotel	60
Sports pitches	10
Gymnastics	5
Campsite	loss of 3 jobs
Total net additional jobs	316

Key Issues

- Planning risks associated with the large leisure use. The height of an indoor ski slope is likely to be sensitive.
- Who will be responsible for management and maintenance of the publicly accessible open space and sports pitches?
- Need to incorporate solutions for improving the public realm/ quality of the pedestrian environment/route from the Station along Meridian Way towards Picketts Lock. This is specifically to address amenity and perceived security issues.

Transport Implications

Large trip generating land uses will require significant transport improvements to reduce vehicular impact. Including; new railway station (if feasible), new / extended bus route(s), new footbridge, improved pedestrian and cycle paths, local highway upgrades and potentially strategic highway upgrades.

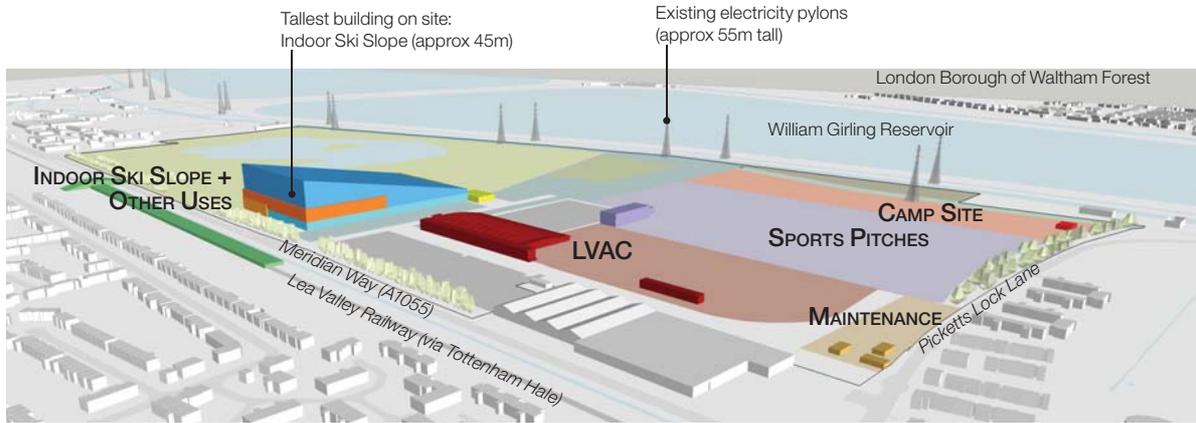
Indicative Infrastructure costs			
Item	Details	Indicative Cost	Notes
Improved off site pedestrian and cycle facilities.	Improvements to existing key routes e.g. to Ponders End Station.	£480,000.	Approx length: 1.2km to Ponders End. Includes signage, lighting, colouring etc.
New footpaths within site.	Footpath to and along River Lee Navigation.	£1,025,000.	Approx length: 600m (east west) + 1,200m (north-south) Width: 5m. Material: Coloured asphalt.
Footbridge.	New Footbridge over Meridian Way & Railway Line.	£2,400,000.	Approx length: 65m + ramps DDA Compliant
New bus routes / services.	New or extended bus route into site connecting with Tottenham Hale station.	90,000 p/a, £450,000.	TfL typically require 5 year funding as a contribution so total cost is £450,000. Cost of a shuttle instead of TfL bus could be £200,000 per annum.
New railway station.	Provision of new station opposite the site.	£3.5M - £5M	Estimated cost based on DJD estimate and cost of other stations built in London region recently.
Local highway improvements.	Site entrance junction and possible contribution to Meridian Way / Lee Valley Road roundabout improvements.	£250,000 to £500,000.	Very unclear if off site improvements will be necessary and what the costs might be. This will need to be subject to a full Transport Assessment.
Strategic highway improvements.	Potential North Circular and M25 improvements. Unknown without detailed analysis of trip generation and distribution.	£0 to £1M	Unknown if there will be any need for strategic improvements or what the cost might be at this stage. This will need to be subject to a full Transport Assessment.
Car Parking *	Moving car parking within the site and providing additional parking.	£1,550,000. to £6,550,000.	Cost to move car parking within site and provide 500 extra parking spaces (either surface or decked).
TOTAL		£10M to £17.5M	

* Cost could be included in development cost rather than an additional cost. Ensure this is not double counted.

Scenario 4 (cont'd)

3d views

View from South West



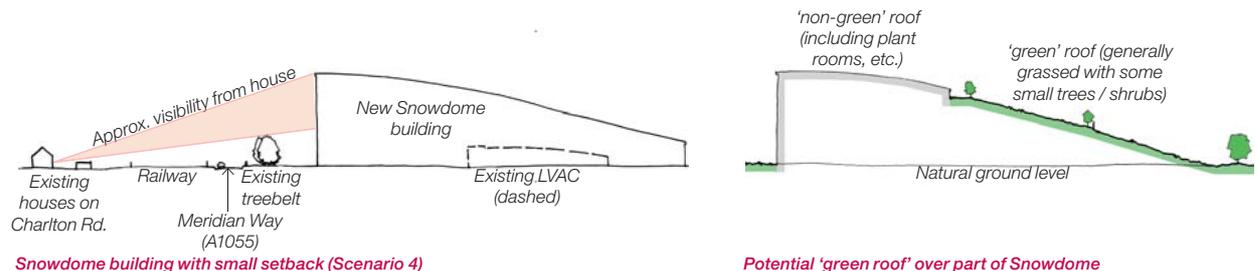
View from East



View of Main Site Entry



Note: All heights are approximate. Trees are shown along Meridian Way and Picketts Lock Lane - these are indicative only.



Snowdome building with small setback (Scenario 4)

Potential 'green roof' over part of Snowdome



Scenario 4 (cont'd)

Schedule of Uses

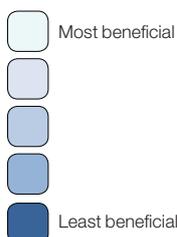
Use Type	Description	Site area		Building footprint sqm	Other key sizes (approx.)
		sqm	%		
Existing uses retained					
Lee Valley Athletics Centre 	existing LVAC facility retained	40,750	7.0	8,683	
Maintenance 	existing prefab buildings and yard on Picketts Lock Lane, or similar	5,800	1.0	297	
Existing uses moved or altered					
Golf Course or Public Open Space 	Reduced 9-hole Golf Course (note: site area includes Ponders End lake). Site area is approx. 17% larger than holes 1-9 of existing course. Area could also become public open space (club house would not be required).	251,990	43.3	735	9 hole course
Camp Site 	Moved to south of site to free up central area for complementary uses. Accommodation may include log cabins, etc. subject to greenbelt planning issues.	34,490	5.9	213	
Cinema 	New cinema provided within large leisure complex. Note that the existing cinema would close before construction of the new cinema (and large leisure use) begins.	(included within large leisure use)			(see large leisure use)
Restaurants 	New restaurant(s) constructed within large leisure complex. First floor with views over Ponders End Lake and William Girling Reservoir	(included within large leisure use)			(see large leisure use)
Bowls Club 	Bowls club (or other indoor sports/leisure use) reprovided within large leisure complex.	(included within large leisure use)			(see large leisure use)
Arena 	Provision retained within publicly accessible open space	(included within Public Open Space)			
Biodiversity site 	Biodiversity site moved adjacent to River Lee (size as existing)	11,390	2.0	-	
New uses					
Large Leisure Use 	Indoor ski-slope with other uses on ground and part of first floor below. (note: retail / restaurant spaces are ancillary only and shown as a maximum of between 10% and 20% of the size of leisure uses) The large leisure use is set back approx. 35m from the site boundary and should not cause rights of light issues for nearby residences at 45m high (being below the 25 degree 'rule of thumb')	21,960	3.8	21,960	22,000 sqm ski slope 5,000sqm 12-screen cinema 4,000sqm 120-bed hotel 3,000 sqm gym 2,000 sqm bowls club (or other leisure use) 6,400 sqm restaurants and retail total: 42,400 sqm (c. 45m tall building) note: all sizes approximate
Other facilities 	A range of other uses within lower-storeys of the large leisure use, including gym, hotel, and retail (other potential uses include fitness centre and tenpin bowling)	(included within large leisure use)			(see large leisure use)
Sports Pitches and gymnastics halls 	New sports pitches with small administration building.	77,900	13.4	1140	920sqm gymnastics hall (6 court) 950sqm admin. building (across 2 storeys)
New Footpath 	New footpath adjacent to River Lea Navigation. 20m width assumed for 'site area' (including planting, buffers, access to existing electricity pylons, etc.)	19,950	3.4	-	
Public Open Space 	May include picnic areas, children's play, multi-use trails, skate park, mountain bike skills area, retained provision for arena use. Likely to provide benefit for users of the sports pitches.	48,880	8.4	-	
Parking and Other					
Parking 	Total parking across site	23,720	4.1		approx 1600 spaces
Pedestrianised focal space 	Between LVAC, Indoor ski slope, golf club and publicly accessible open space.	11,770	2.0		
Other 	including circulation and buffer spaces	33,120	5.7	-	
Totals		581,720	100%	33,028	

New provision offsite	
New provision offsite 	New pedestrian / cycle bridge across railway (access to site via Meridian Way) New railway station (subject to viability) Increased provision of bus services

Note: All areas are gross floorspace unless otherwise specified.

Overview comparison of scenarios

Scenario	Benefits for the local area	Increased value	Partner aspirations	Technical feasibility	Green belt impact	Ongoing management of public facilities	Phasing
Scenario 1	Potential disbenefits due to lack of provision of new footpath along canal or other access improvements. But no loss of existing uses.	None	Does not fulfil LVRPA aspiration for regional leisure use at PL.	None	None	None	None
Scenario 2	Foot/cycle access for local residents. Wider benefits from increased bus services. New sports pitches. Loss of part of golf course. Low levels of employment.	Very limited potential for new revenues (hotel only). Revenues from new sports pitches would offset loss of revenues from smaller golf course. Unlikely to be sufficient to pay for transport improvements and provision of POS/sports pitches.	Does not fulfil LVRPA aspiration for regional leisure use at PL. Enables an increased income stream without prejudicing longterm development options.	Low trip generation. Low-medium transport/ infrastructure costs	Potential issue if pitches are artificial grass.	Some increase in cost of management with sports pitches.	Could easily be delivered in phases with existing bowls club and cinema continuing existing use.
Scenario 3	Foot/cycle access for local residents. Wider benefits from increased bus services. Retains and enhances golf course. High levels of employment. But no new POS provision. Loss of Arena site, bowls club and campsite.	Potential for good revenues, depending on the type of wave park, plus ancillary retail and hotel uses. Provision of public swimming facility would reduce likely revenues.	Fulfils LVRPA aspiration for regional leisure use at PL.	Medium to high trip generation. Medium infrastructure/ bus costs, principally through new junction for hotel access.	Potentially medium/high – some possible height issues and large footprint.	Operator would have to manage public swimming if provided in wave park facility.	Little potential for phasing, so new facilities provided sooner but little continuation of use of existing facilities in current form, apart from golf course.
Scenario 4	Foot/cycle access for local residents. Wider benefits from increased PT services. New POS and sports pitches. High levels of employment. Loss of part of golf course.	Maximum potential for revenue from large leisure facility and ancillary retail, along with hotel and cinema. Located on road frontage.	Fulfils LVRPA aspiration for regional leisure use at PL.	Low feasibility/high cost of new station. High trip generation Likely to lead to high off-site highway improvements (with high costs)	Potentially high because of height of building, possibly partially offset by efficient built coverage. Partial loss of golf course means loss of screen coverage. Potential issue if pitches are artificial grass.	Medium-high cost of management with POS and sports pitches.	Little potential for phasing, so new facilities provided sooner but no continuation of use of existing facilities in current form. Up front requirement for transport improvements.



Recommended Scenario

In assessing what the recommended scenario is, it has been necessary to bring together the analysis in the full suite of documents:

- Topic Paper
- Viability Assessments
- Additional Transport Research - Technical Note
- Pedestrian Bridge Initial Feasibility Study - Technical Note

Based on the analysis, it is clear that Scenarios 3 and 4, in broad terms, are very similar and so the assessment must focus on which provides the greater benefits, Scenario 2 or Scenarios 3 and 4.

For the Lee Valley Regional Park Authority, the primary aim is to create the regional park as a world-class visitor destination. In addition, three objectives guide the future development of this site:

- Secure commercial leisure investment in the site
- Enhance the overall leisure offer
- Deliver a significant revenue return.

Whatever is proposed must therefore provide the best possible prospects of this being delivered, even if only over the long term.

Key considerations and preferred scenario

Based on a combination of the viability analysis and the additional technical research on transport and the pedestrian bridge, it is considered that Scenarios 3 and 4 would represent a significantly greater financial commitment and risk on the part of the LVRPA than Scenario 2. These two scenarios have by far the highest costs and the cost estimates could prove conservative because of the following:

- Network Rail may use the pedestrian bridge as a 'ransom' item, with the final cost and length of time to negotiate highly uncertain.
- The additional levels of parking needed would likely require major investment to provide appropriate solutions
- To minimise the impacts on the green belt to acceptable levels would likely require a substantial landscaping strategy to be delivered, along with the associated maintenance costs.

These risks must be weighed up against the need for the LVRPA to achieve an income stream from the Picketts Lock site which all three Scenarios (2, 3 and 4) would achieve..

For these reasons, it is considered that Scenario 2 represents what is the preferred scenario. Whilst it does not deliver on the objective of securing major commercial leisure investment on the site in the short term, it provides an increased income stream for the LVRPA whilst not precluding such investment in the future. Its layout creates the potential for future design platforms on the sites of the cinema and bowls club. This is shown in the indicative plan overleaf.

The preferred scenario does not have the pedestrian footbridge as part of the development, principally for the reasons of cost uncertainty discussed above. However, one of the principal benefits of the footbridge is to improve access for the existing residents in the adjacent neighbourhoods to the site. As shown in the Pedestrian Bridge Initial Feasibility Study, the ramp on the east side would be aligned against the public highway rather than into the site. This is principally because landing adjacent to the highway provides an opportunity for the bridge to be adopted by LB Enfield. It also reduces the risks that the bridge will be perceived as a part of the development and therefore subject to ransom. Under such circumstances, it would be possible to bring the bridge into the development scenario, either as part of its development or as part of any subsequent development of a strategic leisure use.

There could be alternatives for funding a bridge on this alignment, i.e. not directly into the site, because it would be providing wider benefits to existing residents, for example in accessing Ponders End rail station. On that basis, it would be possible for it to be funded through the Community Infrastructure Levy (CIL) which LB Enfield is looking to put in place in 2012. It would be important for the LVRPA to liaise with LB Enfield at an early stage to ensure that such an item of infrastructure is part of their overall infrastructure planning and that it is considered acceptable to at least part-fund it with CIL monies.

Future Investment Scenarios

The diagrams on the following pages indicate possible future development opportunities for larger scale leisure uses on the Picketts Lock site in the longer term. These show the potential to accommodate the snow dome from scenario 4 to the east of the existing leisure focus, and then the potential for the wave park from scenario 3 on top of the current leisure site, due to its significant scale.

Under any future investment scenario the issues around protection of the green belt, scale of development, traffic impact and the extent of new floorspace will all have to be given careful consideration and progressed in tandem with the London Borough of Enfield.

Future Investment Scenario A - Snow Dome

Plan



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Key

Site boundary

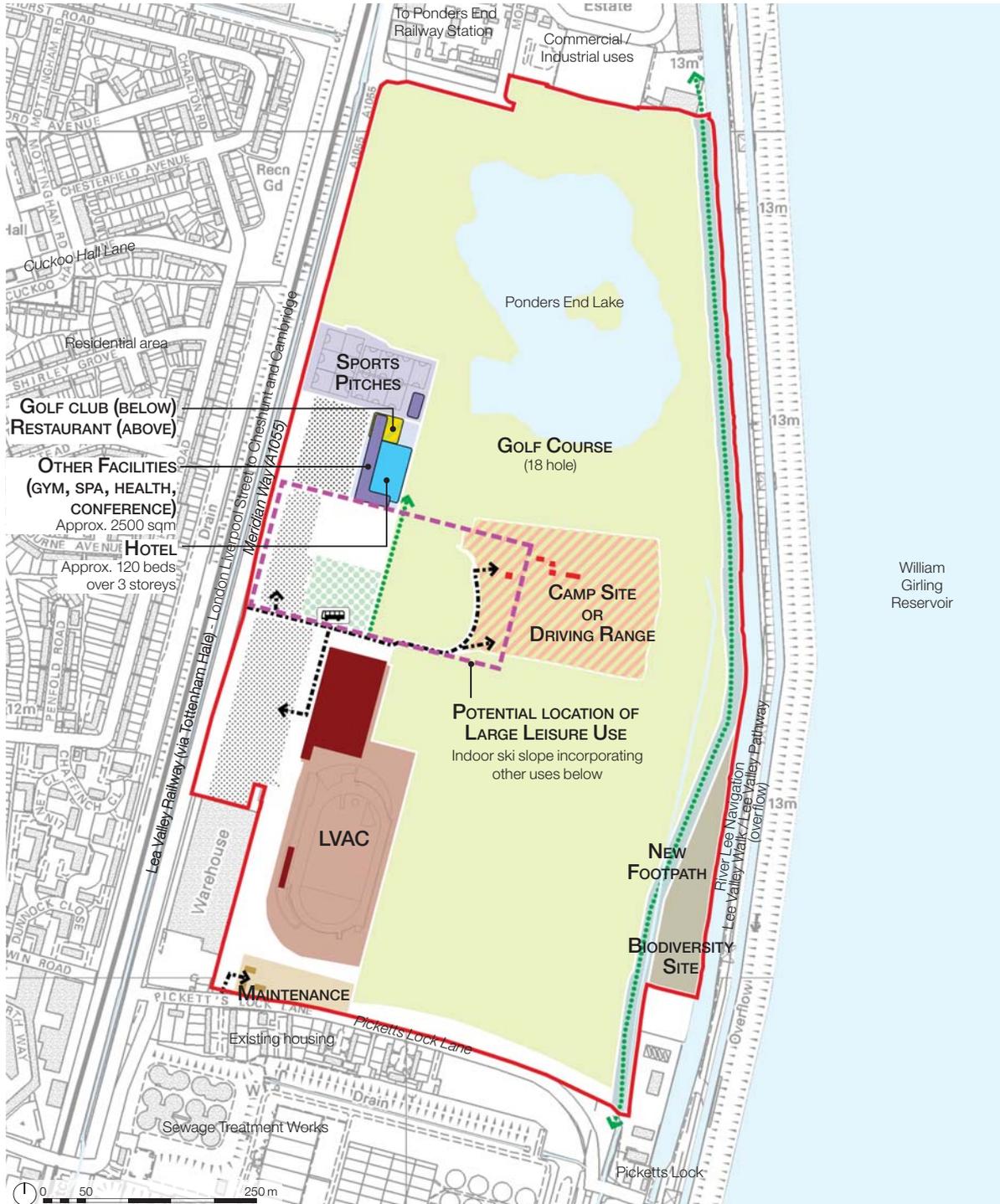
Transport and access

- Primary vehicular site circulation
- Car parking areas
- Bus stop

note: new buildings shown with black outline

Future Investment Scenario B - Wave Park

Plan



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Key

Site boundary

Transport and access

- Primary vehicular site circulation
- Car parking areas
- Bus stop

note: new buildings shown with black outline

Introduction

This section provides an overview of greenbelt issues that arise from scenarios 3 and 4 and how they could be mitigated through detailed design and other factors.

This is based on the content of Planning Policy Guidance 2: Green Belts (PPG2).

Accessibility and use

The more significant development of the site as set out in scenarios 3 and 4 has the potential to increase accessibility of the green belt considerably. This could include:

- bringing more users to the site, through providing a broader range of active uses within the site;
- providing more publicly accessible uses on site (such as publicly accessible open space); and
- providing improved connections to the site from both the local and wider context. These improved connections could include:
 - a pedestrian/cycle 'bridge' over the railway (in scenarios 3 and 4);
- a new public footpath along the western side of the Lee Navigation (only scenarios 3 and 4);
 - publicly accessible pedestrian/cycle connections through the site to the Lee Navigation (only in scenario 4, but with potential to be incorporated into the other scenarios);
 - improved provision of local buses;
 - upgrades to the local vehicular network; and
 - a potential new railway station (subject to viability).

Attractive landscapes

At present, the site appears unattractive from many key views including the main site entrance due to its low intensity of uses and some derelict areas (eg. the existing restaurants). It is likely that all of the scenarios, (except scenario 1, baseline) will be able to increase the attractiveness of the site significantly through the improvement of these views, whilst retaining and enhancing existing attractive areas (such as Ponders End Lake). It will be important to put public realm and landscape management strategies in place to support these enhancements.

Open space uses

At present, the majority of the green, open-space areas of the site comprise of the golf course and camp site.

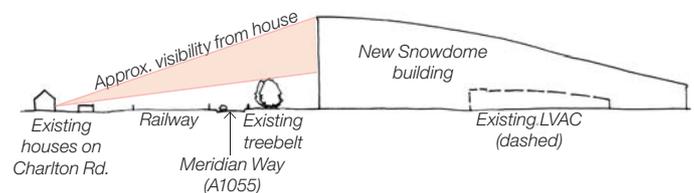
The different scenarios explore a range of 'open' uses for the site, including public open space, golf course, sports pitches and camp sites. Some of these may be more green and landscaped than others, whilst some may also result in the loss of existing tree cover.

Height

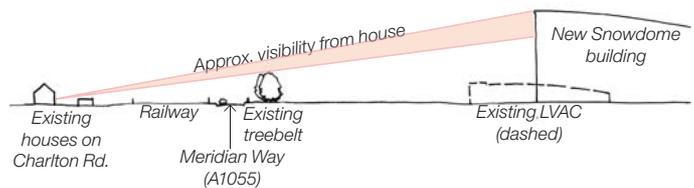
The tallest existing structures within the site are the approximately 55m tall electricity pylons to the east of the site, which strongly mark east-west views within the wider area.

The tallest existing building on the site is the LVAC, which is approximately 12.5m high. Most new uses within the site are likely to be similar height to this, or slightly taller (up to approx. 20m high for a wave park or hotel).

A snow dome (scenario 4) would be significantly taller than the existing buildings (excluding the pylons) at c. 45m high. The visual impact of this building from nearby could be mitigated by setbacks of the built form (see diagrams below). A building of this scale will be visible in long-distance views of the wider area.



Snowdome building with small setback - Scenario 4, snow park



Snowdome building with large setback



Building footprint and 'openness' of the greenbelt

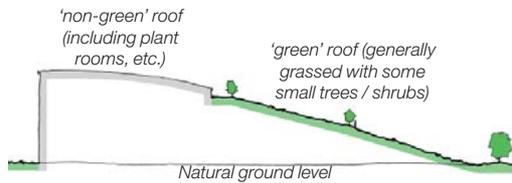
The existing built footprint of the site is c. 16,850 sqm, including 8,170 sqm associated with the LVAC which is to be retained.

All scenarios (except scenario 1, baseline) exceed the existing built footprint of the site, as it is unlikely that new development will be able to contribute significantly to LVRPA's goals without doing so. The footprints of each scenario are as follows:

- Scenario 2 has a footprint of approximately 20,000 sqm. The 4,000 sqm increase over the existing is largely due to the addition of a hotel on site.
- Scenario 3 has a footprint of approximately 56,000 sqm, largely due to the wave park building (45,000 sqm).
- Scenario 4 has a footprint of approximately 31-33,000 sqm, largely due to the snow dome building (22,000 sqm).

'Green roofs' could be used to mitigate some of the negative effects of increased built form. A potential 'green roof' over a snow dome is illustrated below.

Whilst the developed proportion of the site is likely to increase in all scenarios, this should be seen in the light of an increase in quality and accessibility of the remaining greenbelt areas.



Potential 'green roof' over part of Snowdome

