Royal Arsenal, Buildings 10 and 11 and Royal Carriage Square, Woolwich in the London Borough of Greenwich

planning application no.16/2807/F & Associated Ref 16/2808/L

Strategic planning application stage 1 referral

The proposal
Full Planning Permission and Listed Building Consent for the change of use and redevelopment of two Grade II Listed Buildings to provide a residential led mixed-use development comprising 146 residential units with 2,150 sq.m. commercial uses.

The applicant
The applicant and agent is Berkeley and the architect is Allford Hall Monaghan and Morris and the agent is Barton Wilmore.

Strategic issues summary
Affordable housing: There is concern that that scheme will not deliver any affordable housing. The applicant has submitted a viability assessment which concludes that the development will deliver no affordable housing due to costs associated with the retention and restoration of the historic buildings and in particular the costs associated with building 11. Greenwich Council’s independent review preliminary findings shared with GLA officers indicate the delivery of affordable housing would be very difficult due to exceptional costs and this is still being investigated. (Paragraphs 38-44).

Heritage assets and urban design: The listed buildings of the application are in a very poor state of repair and restoring them will be very costly. The heritage led approach to the application layout and built form is supported as it will make a significant contribution to the quality of the public realm and one of the masterplans public spaces. Notwithstanding this the dormer design of building 11 should be reconsidered and the northern ground floor elevation of building 10 would benefit from some of the commercial units having dual frontages (or glazing) to improve street activation/animation (Paragraphs 46-58).

Recommendation
That Greenwich Council be advised that while the application is generally acceptable in strategic planning terms the application does not comply with the London Plan, for the reasons set out in paragraph 90 of this report; but that the possible remedies set out in that paragraph could address these deficiencies.
Context

1 On 15 September 2016 the Mayor of London received documents from Greenwich Council notifying him of a planning application of potential strategic importance to develop the above site for the above uses. Under the provisions of The Town & Country Planning (Mayor of London) Order 2008 the Mayor has until 24 October 2016 to provide the Council with a statement setting out whether he considers that the application complies with the London Plan, and his reasons for taking that view. The Mayor may also provide other comments. This report sets out information for the Mayor’s use in deciding what decision to make.

2 The application is referable under Category 1B and 1C of the Schedule to the Order 2008:
   - 1B(c) outside Central London and with a total floorspace of more than 15,000 square metres.
   - 1C(a). the building is more than 25 metres high and is adjacent to the River Thames;

3 Once Greenwich Council has resolved to determine the application, it is required to refer it back to the Mayor for his decision as to whether to direct refusal; take it over for his own determination; or allow the Council to determine it itself.

4 The Mayor of London’s statement on this case will be made available on the GLA website www.london.gov.uk.

Site description

5 The proposed development site relates to the area of land that lies directly to the north of the forthcoming Woolwich Crossrail Station and to the south of the Grade II Listed buildings known the Southern Range. The application site is located within the defined area of the Woolwich Opportunity area and within the defined boundary of Woolwich Town Centre about which Greenwich’s Core Strategy sets out an objective to develop it into a Metropolitan Town Centre.

6 The application site has an area of approximately 1.23 hectares and falls within the centre of the Royal Arsenal Masterplan planning permission (see below) and the Royal Arsenal Conservation Area. It comprises two Grade II Listed buildings, known as Building 10 and Building 11 and a hard landscape public space which sits in between the two buildings.

7 Building 10 (The Royal Carriage Factory) is part of a vast complex comprising a number of distinct ranges built at varying periods and the application site relates specifically to Block 2 and 5 of the larger building complex. Adjacent buildings Blocks 6, 7 and 11 have been demolished, whilst the remaining parts of the complex Blocks 1, 3, 4, 8 and 9 to the north of the application site form part of the 2007-15 redevelopment by the applicant consisting of a residential led mixed use development. The building complex is of historic value and the entire complex was Grade II listed building in 1973.

8 Building 11 (Officers House) was constructed in 1739-40 as an artillery barracks for the Royal Arsenal, built at a right angle formally attached to and mirroring the adjacent 1719 artillery barracks (now demolished). The existing building has undergone a series of significant changes, comprising subdivision of the original barracks into four field officers’ quarters (1787), several extensions to the original fabric during the nineteenth century and complete recladding of the exterior (1855-6). It is currently on Historic England’s at Risk Register and requires structural support to remain safe. The building does benefit from Outline Planning Permission for refurbishment and conversion to retail use (A1/A3/A4).
Building 11 is located in very close proximity of the forthcoming Crossrail station, which poses a serious constraint on the building and any proposals coming forward. The hard landscaped space to the east of Building 11 currently comprises the construction compound for the Crossrail station. It currently does benefit from Outline Planning Permission for refurbishment and conversion to retail use (A1/A3/A4).

To the south of the application site is the forthcoming Woolwich Crossrail Station due to open at the end 2018. The northern wall of the Station runs along the southern application boundary. Above the Crossrail tunnel is the Over Site Development (OSD) phase of the Royal Arsenal regeneration project (Phase 4), known as Cannon Square. Currently under construction it will comprise 631 residential units and 45,000 sqft ground floor commercial floorspace spread over 6 blocks. To the east of the application site, is the Crossrail ventilation shaft, above which planning permission exists for a scheme known as OSD East (proposed by Transport for London) comprising 394 residential units up to 25 storeys in height.

The site is a 400 metres walk from Woolwich Arsenal station, which is served by National Rail and Docklands Light Railway (DLR) services and Elizabeth Line services will also operate from the new Woolwich station December 2018. There are several bus stops within walking distance and which are served by 10 bus routes. Therefore, the site records a public transport accessibility level (PTAL) of 6a on a scale of 1a-6b, where 6b is the highest. The nearest section of the Transport for London Road Network (TLRN) is the A205 accessed at the Woolwich Ferry roundabout, which is approximately 1km from the site, and the nearest section of the Strategic Road Network (SRN) is the A206, Plumstead Road 140 metres from the site. The proposed Quietway phase 2 route from Deptford to Erith is also 350 metres away from the site.

Site/Case history

The current application proposals have been subject to a pre-application meeting which was held on 19 July 2016 although no advice report was issued, guidance was provided on the heritage aspects of the scheme.

The application site has a complex history linked to a wider area masterplan which has been subject to several revisions relating to the initial consent. It has also been impacted upon by the delivery of Crossrail. To date 868 affordable homes have been delivered on-site, equating to 33% of the overall delivery. In addition, the applicant are set to deliver a further 388 affordable units over the course of the wider development. Overall, across the entire Royal Arsenal Riverside Development, this will deliver 1,256 affordable units; equating to a 25% provision.

Planning permission was granted on 31st August 2000 for 711 residential dwellings (Ref: 00/1352/F) within new build units, refurbished and converted buildings (Numbers 20, 21, 23, 36, 37, 45, 46, 47, 48 and 49). Four separate full planning applications were later submitted and approved, increasing the number of residential units permitted under application (Ref 00/1352/F), to 1,249 units, of which 328 were affordable homes.
Outline Planning Permission was granted on the 29th August 2006 that provided a strategy to integrate 2,517 residential units, mixed uses and 2.68 ha of public open space, all to form a new residential quarter at the western end of the Royal Arsenal site (Ref: 05/2363/O). This permission established the principle of redeveloping the wider site as a residential-led mixed use development and also granted full permission for 423 residential units in Phase 1, now known as The Armories. Since August 2006, Phase 1 has been revised to include 453 residential units (including 300 affordable dwellings) and the buildings are now complete and fully occupied. The permission also included the principle of extending Building 11 on the ground floor for the use as a Public House (Use Class A4) and saw Leisure (Use Class D2), Business (B1) and Café/Restaurant (A3) approved in Building 10.

In 2007 the Government gave their commitment to build the Crossrail project, this impacted on the area masterplan proposals in terms of a new Crossrail tunnel and station at Woolwich due to the need for boring of a tunnel and location of a new station.

In March 2008, a revised comprehensive Masterplan and Outline Planning Application was submitted for The Warren / Royal Arsenal site to take account of the Crossrail tunnels and, at that point, the indicative station box was proposed under Block J. Outline Planning Permission was granted in February 2011 for 3,711 residential units, mixed uses and more than 4.2 hectares of public open space (Ref. 08/1121/O). The permission retained the proposed ground floor extension (with a slightly varied layout) to Building 11 for use as A1/A3/A4 and Building 10 was re-designated for office (B1) and restaurant / bar (A3/A4).

In 2011 Crossrail Ltd undertook a value engineering exercise in respect of the Crossrail box proposals under Block J of the masterplan, the an indicative location Crossrail Station at Woolwich, which impacted on the February 2011 outline masterplan consent.

As a result, the 2012 Phase 4 OSD permission formed a separate permission to the main Masterplans. This ‘Hybrid’ Planning Application was submitted in September 2011 for 592 residential units and 4,688 sq.m. of non-residential floorspace above and adjacent to the revised station box layout. It was approved on 9th March 2012 (Ref. 11/2382/O). Whilst neither Building 11 nor Building 10 were included in the scheme, the space between them was identified as a new public open space.

To facilitate the construction of the Crossrail Station Box and Phase 4 (OSD), in November 2012 Listed Building Consent was granted for the demolition of rear extension to Building 11 and removal of trees.

In June 2013 Outline Planning Permission was granted for the redesign of 2,032 residential units and non-residential floorspace, still maintaining the approved 3,711 units (25 affordable) across the Royal Arsenal (Ref: 13/0117/O). Following reassessment of western part of the Royal Arsenal Masterplan to ensure compliance with London Plan space standards.

Finally, in September 2014 Crossrail gained approval for an application under Schedule 7 of the Crossrail Act 2008 for the provision of the station building and a ventilation shaft; which finalised its appearance, location, orientation and the station entrance fronting on to Dial Arch Square (Ref: 14/1687/G).
The applicant considered that the only effective way in which the new Woolwich Crossrail Station can be properly integrated into the Royal Arsenal area and support the function of the station, was through the demolition of the adjacent Building 11, to provide the necessary space for circulation and transport interchange facilities. Consequently an application was submitted on 30th October 2014 (Ref: 14/3242/F and 14/3243/L). However, Berkeley withdrew the Application on the 3rd February 2015 and sought to find another solution (the current submitted application). As a result of objections received from historic England, Greenwich Council and the GLA to the objections.

Details of the proposal

The proposals are for Planning Permission and Listed Building Consent for the change of use and redevelopment of two Grade II Listed Buildings 10 and 11 to provide a residential led mixed-use development comprising 146 residential units with 2,150 sq.m. commercial uses, refuse/ recycling and cycle parking, and a public square.

Listed Building 10 will be subject to extensive repair with a new 11 storey building proposed to be inserted within the footprint of part of the north range, with the provision of commercial accommodation at ground floor within the existing and restored building envelope and 112 residential apartments above. Within the south range of the restored building, some of the roof covering would be partially removed (leaving the steel support structure in situ) to create an 1,114 sq.m. open air courtyard (Royal Carriage Courtyard) which will be enclosed on three sides at ground level by commercial units (Class Uses A1/A2/A3/A4/B1/D1/D2), giving scope for the provision of cafés, restaurants, offices and studios.

The applicant is proposing to restore the Grade II Listed Building 11 to a residential-led mixed use. The existing building will be refurbished and changed in use, with a new extension
constructed to the rear. The new building will be separated from the existing by an atrium. Active frontages to the proposed Royal Arsenal Square and existing Dial Arch Square will be created at ground and lower ground floor levels in the form of commercial units (A1/A3), with 34 residential units above. The applicant has highlighted that there is a limited timeframe to carry out the building repairs and development; because once the Woolwich Crossrail station is open any works would block the station’s emergency exits.

27 Royal Carriage Square is a new public space created between the two buildings and will provide a new gateway arrival point into Woolwich and provide transport interchange facilities.

**Strategic planning issues and relevant policies and guidance**

28 The relevant strategic issues and corresponding policies are as follows:

- **Mix of uses**
  - London Plan
- **Housing**
  - London Plan; Housing SPG; Housing Strategy; Shaping Neighbourhoods: Play and Informal Recreation SPG; Shaping Neighbourhoods: Character and Context SPG
- **Affordable housing**
  - London Plan; Housing SPG; Housing Strategy; draft Interim Housing SPG.
- **Density**
  - London Plan; Housing SPG
- **Heritage**
  - London Plan
- **Urban design**
  - London Plan; Shaping Neighbourhoods: Character and Context SPG; Housing SPG; Shaping Neighbourhoods: Play and Informal Recreation SPG
- **Tall buildings/views**
  - London Plan
- **Access**
  - London Plan; Accessible London: achieving an inclusive environment SPG;
- **Sustainable development**
  - London Plan; Sustainable Design and Construction SPG; Mayor’s Climate Change Adaptation Strategy; Mayor’s Climate Change Mitigation and Energy Strategy; Mayor’s Water Strategy
- **Transport**
  - London Plan; the Mayor’s Transport Strategy; Land for Industry and Transport SPG
- **Parking**
  - London Plan; the Mayor’s Transport Strategy
- **Crossrail**
  - London Plan; Mayoral Community Infrastructure Levy; Crossrail SPG


30 The following are also relevant material considerations:

- City in the East (2015)
- Woolwich Town Centre Masterplan SPD (2012).
Principle of development

31 The principle of redeveloping the Royal Arsenal site for residential, commercial and community uses was originally established by the granting of outline permission for a comprehensive masterplan in August 2006 and its subsequent revisions approved by Greenwich Council in February 2011 and June 2013.

32 The 2016 London Plan reaffirms the status of Woolwich as an ‘Opportunity Area’ as suitable for large scale development, with a mixed and intensive use of land assisted by the good existing and proposed transport infrastructure, including Crossrail, and a realisation of its substantial residential capacity. Annex 1 of the plan identifies an indicative capacity for 5,000 new homes and 5,000 new jobs in the area, noting that the implementation of proposals for the Royal Arsenal was raising the profile of Woolwich and encouraging the wider regeneration of the town centre; therefore enhancing its potential to perform a higher role in the town centre hierarchy and its aspiration to attain Metropolitan status.

33 The principle of a residential-led mixed-use development providing 146 units, and 2,15 sq.m. of commercial floorspace is therefore supported.

Housing

34 London Plan Policy 3.3 confirms the pressing need for more homes in order to promote opportunity and provide a real choice for all Londoners in ways that meet their needs at a price they can afford. Part B of this policy states that the Mayor will seek to ensure that the housing need identified in paragraphs 3.17 and 3.18 of the London Plan is met, particularly through provision consistent with at least an annual average of 42,000 net additional homes across London.

35 Furthermore, London Plan policy 3.8 encourages a full range of housing choice. This is supported by the Housing SPG, which seeks to secure family accommodation within residential schemes, particularly within the social and affordable rented sector, and sets strategic guidance for councils in assessing their local needs. Policy 3.11 of the London Plan states that within affordable housing provision, priority should be accorded to family housing.

36 Greenwich Council’s affordable housing requirement set by its Core Strategy is for 35% as a starting point for negotiations in all developments. A similar priority is in place in Greenwich as highlighted in RGLP Policy H2 ‘Housing mix’, which shows that 51% of the borough’s housing needs fall into the category of family housing with the demand for intermediate and social rent units together accounting for 71% of this total. The policy further indicates, however, that location and the character of the surrounding area will determine the mix of units expected on each site.

Housing mix

37 The proposal includes the provision of 146 residential units with the following indicative unit schedule:
Table 1: Housing mix (units)

<table>
<thead>
<tr>
<th></th>
<th>Building 10</th>
<th>Building 11</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>1 Bed</td>
<td>58</td>
<td>14</td>
<td>72</td>
<td>49.3</td>
</tr>
<tr>
<td>2 Bed</td>
<td>42</td>
<td>13</td>
<td>55</td>
<td>37.7</td>
</tr>
<tr>
<td>3 Bed</td>
<td>12</td>
<td>6</td>
<td>18</td>
<td>12.3</td>
</tr>
<tr>
<td>Total</td>
<td>112</td>
<td>34</td>
<td>146</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 2: Housing mix (habitable rooms)

<table>
<thead>
<tr>
<th></th>
<th>Building 10</th>
<th>Building 11</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1 Bed</td>
<td>116</td>
<td>28</td>
<td>144</td>
</tr>
<tr>
<td>2 Bed</td>
<td>126</td>
<td>39</td>
<td>165</td>
</tr>
<tr>
<td>3 Bed</td>
<td>60</td>
<td>30</td>
<td>90</td>
</tr>
<tr>
<td>Total</td>
<td>302</td>
<td>98</td>
<td>400</td>
</tr>
</tbody>
</table>

Only 12.3% of the proposed units are family sized and the applicant attributes the predominance of one and two bedroom units to the heritage led development proposals to retain buildings 10 and 11 and the location of the site adjacent to the Crossrail station and public square. This explanation is reasonable and sufficient housing choice has been achieved for this aspect of the application to be compliant with the London Plan.

Affordable housing

The applicant has submitted a viability assessment which concludes that the development will deliver no affordable housing due to costs associated with the retention and restoration of the historic building in blocks 10 and 11 due to their advanced state of disrepair. Building 11 in particular, due to its state of disrepair, has specific structural works costs that make its delivery result in a negative return (table 3). This means that although building 10 is a dense residential development it will only subsidise the loss made in delivering a scheme that retains the Building 11 Grade II listed building and enable a relatively low return across the entire development.

Table 3: Appraisal summary

<table>
<thead>
<tr>
<th></th>
<th>Building 10</th>
<th>Building 11</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Revenue</td>
<td>£50,673,839</td>
<td>£15,638,162</td>
<td>£66,312,001</td>
</tr>
<tr>
<td>Total Cost</td>
<td>£42,035,145</td>
<td>£17,489,325</td>
<td>£59,524,470</td>
</tr>
<tr>
<td>Developer Return</td>
<td>£8,638,694</td>
<td>-£1,851,163</td>
<td>£6,787,531</td>
</tr>
<tr>
<td>Return GDV (%)</td>
<td>17.05%</td>
<td>-11.80%</td>
<td>10.20%</td>
</tr>
</tbody>
</table>

The applicant has, as requested by GLA officers, set out the case for their being no affordable housing in this scheme. It has placed emphasis on the scheme having the following benefits:
• Enable the retention and restoration of two Grade II Listed Buildings;
• Enhance the Conservation Area setting;
• Create a high quality local centre and public square that has a positive sense of place;
• Deliver new homes;
• Create flexible commercial floorspace to support the vitality of the new neighbourhood;
• Deliver a new gateway alongside the future Woolwich Crossrail Station;
• Create a high quality pedestrian friendly environment;
• Provide CIL, New Homes Bonus and Council Tax for the local authority;
• Bring forward a pedestrianised square that provides easy access between train, bus, cycling and pedestrian route networks;
• Create a high quality public courtyard within Building 10;
• Make an environment that is permeable and connected to wider parts of the Royal Arsenal development; and
• Deliver a high quality and aesthetically pleasing environment, where residents have access to substantial areas of public and private amenity space.

Viability review

41 Greenwich Council’s review of the applicant’s viability assessment is nearing conclusion and GLA officer have discussed the preliminary findings with its viability consultant, the key issues arising from this discussion are summarised as follows:

• Building 10 makes a reasonable return but building 11 makes a substantial loss.

• There is a concern that this is a complicated application with building 10 requiring substantial specialist input due to need for complex structural works. For this reason the viability review is being extended to include analysis of structural engineers and cost consultants.

• External structural engineers/consultant has completed the work and looked at excesses costs with the viability consultant and negotiated with the applicant. This has reduced excess costs of structural works but Greenwich Council’s viability consultant is sure insufficient savings can be made to allow for affordable housing to come forward within the development as currently proposed.

• Building 10 profit in affect subsidises building 11 and retention of the building assets.

• The issue of timing is significant, the building works need to be completed before Crossrail station opening otherwise the station cannot open due to the stations emergency exits facing onto the site. This is an additional constraint with alternative development options.

• An alternative option of allowing the demolition of the grade II listed Building 11 would deliver affordable housing as this will substantially reduce construction costs, but the percentage is unknown as the option has not been explored. As Historic England, Greenwich and the GLA objected to demolition.

Royal Arsenal masterplan affordable housing delivery

42 The application is not legally part of the wider Royal Arsenal Riverside Development, but officers are aware that the wider Royal Arsenal scheme is a very complex brownfield site, which has a track record of delivering affordable housing within well-designed developments which have a
mix of residential unit types as well delivering new public open spaces and the Woolwich Crossrail Station.

43 To date 868 affordable homes have been delivered on-site, equating to 33% of the overall delivery. In addition, the applicant are set to deliver a further 388 affordable units over the course of the wider development. Overall, across the entire Royal Arsenal Riverside Development, this will deliver 1,256 affordable units out of a total of 3,711 residential units; equating to a 25% provision.

44 The review of applicant’s viability assessment is still to conclude but indicates the scheme is unlikely to deliver affordable units due to construction costs associated with the repair the repair and refurbishment of listed buildings. London Plan policy promotes the delivery of affordable housing, but it also promotes the protection and enhancement of London’s heritage assets. In this instance officers support the heritage benefits of the retention of the listed buildings and the enhanced public square. However officers will be awaiting the final outcome of the viability assessment review to see if affordable housing can be delivered through cost savings and increased values.

45 There is concern that that scheme will not deliver any affordable housing. The finalised independent review of the applicant’s viability assessment to ascertain the validity of its cost and revenue assumptions will be shared with the GLA officers, who will continue to work with Greenwich Council and the applicant to ensure that all options are explored to ensure the maximum affordable housing contribution is achieved.

Density

46 London Plan policy 3.4 requires development to optimise housing output for different locations taking into account local context and character, the design principles in Chapter 7 and public transport capacity. Table 3.2 provides density guidelines in support of this and should be read alongside the opportunity area policies, which expect high density development in such locations.

The site is in an urban setting with a PTAL 6A. London Plan Table 3 suggests densities is 215 –405 units/hectare or 650–1100 habitable rooms/hectare. The proposed development density across the development is 139 units/hectare or 400 habitable rooms/hectare. The proposed density is appropriate to the location.

Heritage assets and urban design

Heritage assets

47 London Plan Policy 7.8 ‘Heritage Assets and Archaeology’ states that development should identify, value, conserve, restore, re-use and incorporate heritage assets where appropriate.

48 The Planning (Listed Buildings and Conservation Areas) Act 1990 sets out the tests for dealing with heritage assets in planning decisions. In relation to listed buildings, all planning decisions should “have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses” and in relation to conservation areas, special attention must be paid to “the desirability of preserving or enhancing the character or appearance of that area”.

49 The NPPF states that when considering the impact of a proposal on the significance of a designated heritage asset, great weight should be given to the asset’s conservation, and the more important the asset, the greater the weight should be. Significance is the value of the heritage
asset because of its heritage interest, which may be archaeological, architectural, artistic or historic, and may derive from a heritage asset’s physical presence or its setting. Where a proposed development will lead to ‘substantial harm’ to or total loss of the significance of a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss. Where a development will lead to ‘less than substantial harm’, the harm should be weighed against the public benefits of the proposal, including securing its optimum viable use.

50 The refurbishment of the long vacant Grade II listed Building 11 ‘The Officers Block’ (built in 1720 by architect Henry Lidgebird) is welcomed after such a long period of uncertainty, deterioration and possible demolition. It has been on English Heritage/Historic England’s Buildings at Risk Register for many years and the resolution of its future is long overdue. The proposed reuse of the building would involve radical extensions to this listed building including a side extension to the northern end to create a staircase and lift serving the whole building (of a contextual design echoing that of the host building) and a ground floor full-width single-storey extension (for commercial use) above which will rise a glazed atrium with access bridges linking the listed building with a new-build development of a similar scale and massing which will front the newly laid out Royal Carriage Square to the east.

51 The side extension is appropriately deferential to the original building, set back slightly from the historic building line and the benefit it brings aiding circulation within the listed building is acknowledged.

52 The rear extension will have a significant impact on the listed building when viewed from the sides however it will not be visible above the roofline of the listed building when viewed from the front and given the development of the square to the east, this approach is considered to be justified since it will create a new frontage building facing and directly addressing the new public square.

53 An additional floor of accommodation will be provided within the roof of Building 11 lit by a new row of dormers. This aspect of the scheme is considered acceptable in principle but the modern design of the dormers shown on the plans and perspectives do not sit comfortably within the roof and are considered to detract from the character and integrity of the listed building – a more traditional dormer design should therefore be substituted.

54 The proposed redevelopment of Building 10 ‘The Royal Carriage Factory’ is even more radical since it involves its partial disembowelling – the removal of a section of the building in the middle part of the northern range and its replacement by a medium rise apartment block. Over 50% of the roof of the southern range would also be removed, retaining the outer walls to create an open-air landscaped courtyard. Again this design approach involves a far greater change and loss of historic fabric to a Grade II listed heritage asset than is normally expected. However it is a highly imaginative proposal which will create a most attractive open space and retains the majority of the outer walls, restoring the end bays of both ranges and breathing new life into a long underutilised heritage asset. Given its location on the edge of this historic site immediately adjacent to the new-build high rise development to its south, it is considered that these interventions can be justified in this case.

55 In summary, it is considered that these proposals will accord with London Plan policies 7.8 (Heritage Assets) and 7.9 (Heritage-led Regeneration) by bringing back into use long-neglected heritage assets which will form a crucial transition between the Royal Arsenal and the new high rise development in the vicinity of the new Elizabeth Line station.
Urban design

Chapter 7 of the London Plan sets out a series of policies about the places and spaces in which Londoners live, work and visit. Policy 7.1 sets some overarching design principles for development in London. Other relevant design polices in this chapter include specific design requirements relating to: inclusive design (Policy 7.2); designing out crime (Policy 7.3); local character (Policy 7.4); public realm (Policy 7.5); architecture (Policy 7.6); tall and large scale buildings (Policy 7.7); heritage assets (Policy 7.8); heritage-led regeneration (Policy 7.9); and strategic views (policies 7.11 and 7.12).

Layout and public realm interface

The development proposals complete the final part of the Royal Arsenal masterplan and the layout provides an important contribution to place making by creating a sequence of public spaces in the form of Royal Carriage Square, Royal Carriage Court and linked streets and pedestrian routes. The renovated building, extensions and new buildings do in most cases provide a high degree activation at ground floor to the spaces. The exception to this is the northern ground floor elevation of building 10, which would benefit from some of the commercial units having dual frontages (or glazing) with the storage space reconfigured to remove areas of inactive ground floor facade between the two residential entrance cores.

Residential quality

The residential design is innovative and is of a high quality given the challenges of incorporating historic building structures within the built form. All units are London Plan design space standards compliant and a schedule has been provided. Building 10 is designed with high floor to ceiling levels and narrow floor plates which allow for the majority of units to dual aspect and the design has accounted for daylight and sunlight is suitable at first and second floor levels through the adoption of duplex units. Private amenity space has also been provided by policy compliant size balconies.

Building 11 the building proposals are based on the insertion of an atrium between the historic building and the new build elements, this has been adopted in other developments across London and is supported in this instance. The residential units in the listed Officer House are of a good quality given the challenges of the internal spaces and secondary aspect is created with window openings facing into the atrium. The new build element replicates this layout and although bedrooms do face into the atrium, privacy is maintained through a separation zone between windows and walkways.

Access

Inclusive design principles if embedded into the development and design process from the outset help to ensure that all of us, including older people, Deaf, disabled people, children and young people, can use the places and spaces proposed comfortably, safely and with dignity. The aim of London Plan Policy 7.2 is to ensure that proposals achieve the highest standards of accessibility and inclusion (not just the minimum).

Residential units

Since October 2015 transitional arrangements are in place in the London Plan due to the phasing out of Lifetime Homes standard.
The design & access statement does demonstrate that 90% of residential units meet Building Regulation requirement M4 (2) ‘accessible and adaptable dwellings’ and 10% meets Building Regulation requirement M4 (3) designed to be wheelchair accessible, or easily adaptable for residents who are wheelchair users. The exception is the listed Grade II Officer’s Block A (Building 11) which is accepted in the instance due to the buildings layout constraints.

Typical flat layouts and plans of the wheelchair accessible homes have been included to illustrate the relevant features and it is clear on the plans where the wheelchair accessible homes are located and how many there are. The plans demonstrate that an attempt has been made to distribute across unit types and sizes (with the exception of duplex units) to give disabled and older people a similar choice to non-disabled people.

The design and access statement does show how disabled people access each of the entrances safely and does include details of levels, widths and surface materials of the paths and seating arrangements and explains how the public spaces are inclusively designed.

**Children & young person’s play**

Children and young people need free, inclusive and accessible spaces offering high-quality play and informal recreation opportunities in child-friendly neighbourhood environments. Policy 3.6 of the London Plan seeks to ensure that all children and young people have access to such provision. The challenge facing boroughs and their partners in play provision will be to find opportunities to retain and increase the provision of play and informal recreation, particularly in housing developments.

The applicant has not set out the expected child yields, resultant play space requirements based on the Shaping Neighbourhoods: Play and Informal Recreation SPG 2012. The applicant should complete the SPG playspace yield calculation and set out in more detail how the needs of different age groups will be met. It is however welcome that play provision will be integrated in the furniture and planters located in the Royal Carriage Courtyard, where a series of semi-enclosed planters within the courtyard define amenity space available to the residents and the public during the day. It is important however to understand how this is managed given the potential demands of the public space and whether a rooftop facility on top of building 10 would not be more appropriate in relation to secure managed playspace.

**Energy**

The applicant has broadly followed the energy hierarchy and sufficient information has been provided to understand the proposals as a whole. Further revisions and information are required before the proposals can be considered acceptable and the carbon dioxide savings verified.

The development comprises the refurbishment of Buildings 10 and 11, newly introduced aspects in the same buildings and an additional storey to the existing part of Building 11. The new build elements have been assessed against the Part LA 2013 whereas the refurbished and the extension element have been modelled using Part LB 2013 standards. The applicant has stated that, as a portion of the additional storey is comprised of the existing building below, it is expected that these homes will be assessed under Part L1B of the Building Regulations; this is considered acceptable in this instance.

A range of passive design features and demand reduction measures are proposed to reduce the carbon emissions of the new build elements of the proposed development. Endeavours have also been made to insulate core elements such as walls, roofs and floors in the refurbished parts of
the site. It is also expected that double-glazed sash windows will be fitted to each of the refurbished dwellings and this is welcomed.

70 The demand for cooling will be minimised through solar control glazing, highly reflective internal blinds, dual aspect units and mechanical ventilation heat recovery (MVHR) in all new dwellings. Provision for natural ventilation with individual extract fans will be made in the refurbished units.

71 An Overheating Analysis using thermal dynamic modelling has been undertaken to assess the overheating risk within the conditioned areas of the building; its results demonstrate that all assessed homes are expected to comply with the requirements. However, as some of the units do not meet the criteria under future weather scenarios, the applicant has stated that further mitigation measures could be incorporated at a future date. The applicant should ensure that further passive measures are introduced at this stage as they could impact on the visual appearance and layout of the building.

72 The development is estimated to achieve a reduction of 3 tonnes per annum (2%) in regulated carbon dioxide emissions compared to a 2013 Building Regulations compliant development. The expected improvement for the refurbished elements is circa 165 tonnes equating to 40% reduction from the existing buildings.

73 A communal heat distribution network is already installed and is in operation on the Royal Arsenal Riverside site. The Energy Centre is located on the East side of the current Building 10. All dwellings in Buildings 10 and 11 will connect to this Energy Centre for requirements of space heating and hot water. It is also expected that the refurbished non-residential spaces will be connected for the provision of space heating and hot water and this strategy is strongly supported. A drawing indicating that all buildings on site will be connected to the Royal Arsenal Riverside Energy Centre should be provided.

74 Gas CHP engines within the energy centre are designed to provide 70% of the heat required on an annual basis. The first of the CHP engines has been installed with the second engine to be installed as the connected heat load increases during the build-out of the masterplan.

75 A reduction in regulated carbon dioxide emissions of 58 tonnes per annum (38%) will be achieved through this second part of the energy hierarchy for the new build elements. The expected improvement for the refurbished elements is circa 129 tonnes equating to 31% reduction from the existing buildings. Information on the carbon factor of the network and the calculation methodology for the carbon savings has been provided.

76 The applicant has investigated the feasibility of a range of renewable energy technologies but is not proposing to install any renewable energy technology for the development. The applicant should aim to maximise the on-site savings by considering the installation of photovoltaic technology. A roof layout should be provided clearly indicating any constraints associated with a likely PV installation.

77 According to the applicant, all non-residential spaces are currently expected to be constructed to shell & core stage and as such, the final uses and fit-out specification requirements are not known. As a worst case, it has therefore been assumed that space heating and cooling may be provided via a highly energy efficient heat pump with a CoP of 4. This strategy constitutes renewable energy generation, as, based on published documentation, any ASHP with a CoP higher than 2.5 constitutes renewable heat generation. The applicant should therefore update the ‘be lean’ BRUKL sheet with a non-renewable heating technology, in line with the GLA guidance on
preparing energy assessments. The revised ‘be lean’ BRUKL should be provided. It is understood that the attached BRUKL is associated with the ‘be green’ scenario.

78 Based on the assessment submitted at stage I, the energy strategy will result in a reduction of 61 tonnes of carbon dioxide per year in regulated emissions compared to a 2013 Building Regulations compliant development is expected for the new-build elements of the site; this is equivalent to an overall saving of 41%. The carbon dioxide savings exceed the target set within Policy 5.2 of the London Plan and moreover, a 72% reduction in carbon dioxide emissions annually is expected for the refurbished elements; this equates to circa 293 tonnes. However, the comments above should be addressed before compliance with London Plan energy policy can be verified.

Flood risk & drainage

79 The applicant’s flood risk assessment confirms that the vast majority of the site is within Flood zone 1, but that part of the site has a medium risk of surface water flooding. There will be no residential accommodation at ground floor level and that finished floor levels in parts of the buildings will be raised to reduce the risk of surface water flooding. Therefore the proposals are considered to be acceptable in terms of London Plan Policy 5:12 (Flood Risk).

80 The FRA recognises the importance of reducing surface water discharge and that this can play a part in reducing the risk to the building. Therefore the FRA proposes to reduce surface water discharge to 3 x greenfield runoff rate. This will be achieved by installing sub surface attenuation tanks. Given the nature and location of the proposed development this approach is considered to be an acceptable implementation of London Plan Policy 5:13 (Sustainable Drainage). The storage tanks should be designed to the principles of the Method 2 tank design taken from the Ciria Susdrain website:

Transport

81 It is accepted that the impact on local highways and public transport will be minimal and can be accommodated within existing networks.

Car and cycle parking

82 Clarification is required on the number of car parking spaces proposed. The application form states there will be a provision of 10 additional car parking spaces, however only seven are specified as being blue badge, it is not clear what the other three spaces are for given the extremely good PTAL for the site. Given this, a car-free development (excluding blue badge) would be the most appropriate solution for the site.

83 Blue badge parking provision should be increased to 14, to meet minimum standards (one parking space for each accessible adaptable unit) in line with London Plan policy 6.13. These 14 blue badge spaces should be secured by condition.

84 The proposed cycle parking facilities providing 232 long stay and 60 short stay spaces for the development are welcomed. This number of spaces meets London Plan Policy 6.9 and the minimum cycle parking standards and should be secured by condition.

Travel Planning, Delivery and Servicing Plan and Construction Logistics Plan

85 A residential framework plan has been submitted, however a full travel plan should be submitted on completion and secured, monitored and enforced through a S106 obligation.
full Construction Logistics Plan (CLP) will need to be submitted prior to the start of construction; this should be secured by condition and a full Delivery and Servicing Plan should be secured by condition.

The Mayor’s CIL

86 The Mayor has introduced a London-wide Community Infrastructure Levy (CIL) to help implement the London Plan, particularly policies 6.5 and 8.3 toward the funding of Crossrail. The rate for Greenwich is £35 per square metre. The required CIL should be confirmed by the applicant and council once the components of the development or phase have been finalised.

Legal considerations

87 Under the arrangements set out in Article 4 of the Town and Country Planning (Mayor of London) Order 2008 the Mayor is required to provide the local planning authority with a statement setting out whether he considers that the application complies with the London Plan, and his reasons for taking that view. Unless notified otherwise by the Mayor, the Council must consult the Mayor again under Article 5 of the Order if it subsequently resolves to make a draft decision on the application, in order that the Mayor may decide whether to allow the draft decision to proceed unchanged, or direct the Council under Article 6 of the Order to refuse the application, or issue a direction under Article 7 of the Order that he is to act as the local planning authority for the purpose of determining the application and any connected application. There is no obligation at this present stage for the Mayor to indicate his intentions regarding a possible direction, and no such decision should be inferred from the Mayor’s statement and comments.

Local planning authority’s position

88 Not known at time of report drafting, although Greenwich Council previously supported the retention of the listed buildings.

Financial considerations

89 There are no financial considerations at this stage.

Conclusion

90 London Plan policies on housing mix, affordable housing, density, children & young person’s play, urban design, access, sustainable energy and transport. Whilst the principle of development is supported, a number of issues are raised, and consequently the application does not accord with London Plan Policy. The following could address these deficiencies:

- **Principle of development:** The principle of a residential-led mixed-use development of the site is supported by the outline consent for Royal Arsenal Masterplan and London Plan policy for Woolwich Opportunity Area.

- **Heritage and urban design:** The heritage led approach to the application layout and built form is supported. Notwithstanding this the dormer design of building 11 should be reconsidered and the northern ground floor elevation of building 10 would benefit from some of the commercial units having dual frontages (or glazing) to improve street activation/animation.
• **Affordable housing:** There is concern that that scheme will not deliver any affordable housing. The applicant has submitted a viability assessment which concludes that the development will deliver no affordable housing due to costs associated with the retention and restoration of the historic buildings and in particular building 11. Greenwich Council’s independent review preliminary findings should be shared with GLA officers to interrogate exceptional costs and explore the potential to provide some affordable housing.

• **Access:** Sufficient information has been provided demonstrate compliance with the London Plan.

• **Energy:** The energy strategy overall saving of 41% exceeds London Plan requirements but verification information in relation to overheating, PV installation and BRUKL sheets is required.

• **Flood risk:** The surface attenuation tanks should be designed to the principles of the Method 2 tank design taken from the Ciria Susdrain website.

• **Transport:** Clarification is required on the number of car parking spaces proposed.

---

for further information, contact GLA Planning (Development & Projects):

**Stewart Murray, Assistant Director - Planning**
020 7983 4271  email stewart.murray@london.gov.uk

**Colin Wilson, Senior Manager – Development & Projects**
020 7983 4783  email colin.wilson@london.gov.uk

**Sarah Considine, Strategic Planning Manager (Development Decisions)**
020 7983 5751  email sarah.considine@london.gov.uk

**Jonathan Aubrey, Case Officer**
020 7983 5823  email jonathan.aubrey@london.gov.uk