Commonwealth Institute & Hollandgreen Residential Development, London, UK

Architecte | Architect: OMA, John Pawson, West 8, ARUP
Maître d’ouvrage | Client: Chelsfield, Ilchester Estate, & The Commonwealth Institute
Année de construction | Year of construction: under construction

Texte de description | Description text:
Chelsfield and Ilchester Estate have commissioned a renovation and adaptive reuse of the 1960’s Commonwealth Institute and surrounding grounds to accommodate a new Design Museum (relocated from the old boiler house of the V & A Museum) and residential development. The existing building, originally completed in 1962 (designed by RMJM), has been closed to the public since 2006. The design team of OMA, John Pawson, West 8, and Arup have proposed a major renovation of the existing Commonwealth Institute building with the addition of three residential towers (62 units in total) on the Southwest portion of the site.
Le nord et une échelle graphique seront indiqués sur les plans | The north and a bar scale will be shown on the plans

Design museum _existing space & new renderings_  |  Hollandgreen residential development

existing public promenade  |  proposed recreational space

proposed public promenade  |  proposed residential block

existing interior  |  underground parking

proposed interior  |  residential unit
Plans, coupes, élévations, schémas | Plans, sections, elevations, diagrams

Le nord et une échelle graphique seront indiqués sur les plans | The north and a bar scale will be shown on the plans

Design Museum _existing space & new renderings_  Hollandgreen _residential development_
Design museum_typical section

Design museum_second floor plan

Hollandgreen_typical section

Hollandgreen_typical floor plan

Design museum_construction image
1 LUMIERE (CONFORT) | LIGHTING (COMFORT)  
SIA 112/1 - Vie en Commun - Thème 1.4, Critère 1.4.2

The SIA standards recommend the use of natural light to provide adequate lighting for interior spaces. Criteria 1.4.2 specifies that natural light is important for the well-being of individuals - thus stimulating the circadian system and promoting hormonal balance (SIA, 2004).

To achieve better access to natural light within the design museum, existing walls on the North and East facades were removed and replaced to allow for glazed entrances and greater transparency (Etherington, 2012). While the original structure had very limited access to natural light through a series of openings beneath the parabolic roof, the proposed renovations will allow for more daylight on the vertical facades. In addition to the increased glazing, the slab opening on the top floor has also been enlarged to provide more visual transparency from the ground level up to the roof. Furthermore, the existing building has been reprogrammed, with the ground floor accommodating the main exhibition space, cafe, bookstore, and design store. This organization allows those programs that need the greatest access to light to be located adjacent to the transparent facades (Etherington, 2012). Interior surfaces will consist of reflective white paint and light wood to help bounce light deeper into the atrium and adjacent programmed spaces (OMA, 2011).

2 SITE DEVELOPMENT - PROTECT OR RESTORE HABITAT  
LEED for New Construction & Major Renovations 2009 - Sustainable Sites - Credit 5.1

According to LEED New Construction & Major Renovations, the site strategy should conserve existing natural areas and promote bio-diversity through restoring damaged areas. The landscape strategy should conserve natural areas and incorporate native vegetation across at least 25% of the site area (U.S. Green Building Council, 2009).

According to documents from the project consultants, there was an effort to incorporate plants and features to provide healthy food sources for the existing invertebrate population (West 8, 2011). These food sources are provided for by the planting strategy. One fundamental aspect of this is to provide a 3-4 layered planting palate, ensuring the vitality of understorey species and diverse groundcover. Proposals were also made to relocate key existing mature trees, which certainly would have contributed to the ecological vitality of the site, but ultimately this was not done. Further guidelines have been established to promote the site's bat population - including minimizing light pollution and incorporating protected bat breeding facilities (West 8, 2012).
3 INTEGRATION MIXITE | INTEGRATED MIX
SIA 112/1 - Vie en Commun - Thème 1.1, Critère1.1.1

SIA recommends that the building/neighborhood create opportunities for social, cultural, and intergenerational mixing. This includes potential flexibilities in program use to accommodate various exchanges between groups as well as the infrastructure to support it (SIA, 2004).

The conversion of this historic building into a design museum creates many opportunities for cultural and social exchange within the community. The integration of a cafe, exhibition space, bookstore, research library and structured public outdoor space will promote the social, cultural, and intergenerational mixing proposed by this criteria. The grounds will be open to the public during the day to encourage a diverse range of community uses (Etherington, 2012). While early versions of the residential towers were designed so as to tuck the building entries out of sight, later revisions improved visibility of these entries from public space - facilitating the sense of communication between public and private, and providing real opportunity for incidental interactions (West 8, 2012; OMA, 2012). This also enabled design for microclimate at the entries, creating passive thermal buffer zones with plant material and the topography itself (West 8, 2012).

4 FINANCEMENT | FUNDING
SIA 112/1 - Substance du batiment - Thème 2.2, Critère2.2.2

This SIA criteria suggests that the long-term success and survival of the project depends on factors that render it economically viable. This includes factors such as accessibility to public transport, high-quality landscape, and density that helps to reduce maintenance costs over time (SIA, 2004).

The site is highly accessible by public transport (four metro lines surround the site) and Kensington High Street, which is an important transportation artery for London. The museum hopes to attract 500,000 visitors per year, which will bring economic growth to the neighborhood (Glancey, 2012; Bayley, 2008). While the majority of financing for this renovation has come from a mix of trusts and foundations (Etherington, 2012), the inclusion of luxury housing will provide additional short-term funding (Bayley, 2008) and a long-term partner in the maintenance of the surrounding grounds as well as an added level of security at night. Furthermore, the building that previously housed the design museum at Butler’s Wharf was purchased and re-appropriated for a new cultural program (Zaha Hadid Museum). The funds of this sale went toward the renovation of the Commonwealth Institute.
Aspects en contradiction avec les principes du développement durable | Aspects in contradiction with sustainable development principles

1 PROXIMITÉ D’APPROVISIONNEMENT, AFFECTATION MIXTE | DENSITY TO PROMOTE MIXED-USE
SIA 112/1 - Exploitation, viabilisation - Thème 1.3, Critère 1.3.1

The SIA standards specify that urban density, through a flexible planning process, can promote mixed-use development which contributes to the promotion of a local-supply chain and neighborhood self-sufficiency (SIA, 2004).

While the integration of public programs in the design museum (library, bookstore, and exhibition spaces) will promote a more diverse social mix on the existing site, the residential development will contain 63 luxury units over 2.5 acres (Heathcote, 2008). The residential buildings are concentrated on the Southwest corner of the site and create a privatized perimeter to the park (West 8, 2011). While there are a host of amenities for the future residents, there is no space for commercial mixed-use, ensuring that this portion of the site will cater exclusively to the high-income residents. This does not promote a healthy mix of community-focused programs on grade, nor does it provide opportunities for social or economic mixity.

2 BUILDING REUSE: MAINTAINING EXISTING WALLS, FLOOR, & ROOF; MAINTAIN EXISTING INTERIOR NONSTRUCTURAL ELEMENTS
LEED for New Construction & Major Renovations 2009 - Materials & Resources - Credits 1.1 & 1.2

LEED for New Construction & Major Renovations 2009 offers two credits in building reuse; one for maintaining existing building structure (walls, floor, and roof) and another for maintaining interior nonstructural elements (U.S. Green Building Council, 2009).

While the existing building poses many challenges for renovation and reuse (inflexible interior spaces and limited access to natural light), Reinier de Graaf, an OMA director described the current design proposal as «... trying to save the building by redesigning it for a new use, this is preservation through innovation» (Heathcote, 2008). To achieve this preservation through innovation, OMA’s design will demolish all internal floors in the existing building. During construction, a network of temporary piles, beams, and trusses will be built in and around the existing roof structure to stabilize it. New service cores and exterior walls that will stabilize the new structural grid will be constructed to support the historic roof (Etherington, 2012). Although it appears that the existing building will be preserved, much of the existing structure and most interior elements will be demolished to accommodate the new program and its servicing needs. In addition to this extensive demolition and reconstruction (which increases the projects embodied energy and carbon impact), the architects have chosen to demolish the existing administration block (located behind the main commonwealth institute building), which poses serious concerns for conservationists (Heathcote, 2008).
### 3 ALTERNATIVE TRANSPORTATION: PARKING CAPACITY

**LEED for New Construction & Major Renovations 2009 - Sustainable Sites - Credit 4.4**

This credit offers two options for compliance; one in which the residential development offers no new parking spaces and the other where the parking does not exceed minimum requirements as stipulated by local zoning regulations (U.S. Green Building Council, 2009).

The UK PPS & PPG (Public Policy Statement & Public Policy Guidelines) require no minimum number of parking spaces for residential projects, but have introduced a maximum of one space per unit (amended in 2004) in zones with good public transportation connectivity (Greater London Authority, 2000).

The Holland Green residential development project provides a minimum of one parking space per residential unit, which does not promote the use of alternative transportation options (OMA, 2011; West 8, 2011). This underground parking would not meet the LEED requirements. Furthermore, this volume of parking will encourage automotive use as an accessible form of daily transport, and lower the reliance on public transport which is easily accessible from the site.

### 4 INTEGRATION MIXITE | INTEGRATED MIX

**SIA 112/1 - Vie en Commun - Thème 1.1, Critère1.1.1**

SIA recommends that the building/neighborhood create opportunities for social, cultural, and intergenerational mixing. This includes potential flexibilities in program use to accommodate various exchanges between groups as well as the infrastructure to support it (SIA, 2004).

While we also positioned this criteria as a positive credit on the previous page, there is a disconnect between the design museum and the residential development project. The residential development project offers a mix of one, two, three, and four bedroom apartments (OMA, 2011) but only for high-income families. This will limit the social and intergenerational mixing that is possible on site. To promote a more diverse exchange between social and intergenerational groups, a mix of high and middle-income housing could have been incorporated with flexible spaces for commercial space to accommodate evolving programmatic needs over time – i.e. daycare facilities, markets, community meeting spaces.
An analysis of this project reveals several interesting factors for discussion. While the existing site of the Commonwealth Institute was derelict prior to the re-appropriation and renovation by the Design Museum, there is some contention over the proposed renovation and conservation of the historic structure. There has been a clear effort to improve natural lighting conditions within the historic Commonwealth building, but the invasive maneuvers (slab cuts and added glazing) require a full demolition of interior floors and many of the exterior walls (Etherington, 2012). As a result, a temporary system of piles, beams, and supports must be constructed to support the roof during construction, while the new structural elements, floors, and cores are completed (Etherington, 2012). This is a clear conflict between the positive impacts of introducing more natural light and flexible interior spaces, and the negative impacts to embodied energy and carbon associated with demolishing existing building elements and reconstructing large sections of the building.

Another conflict emerges with regards to social, cultural, and intergenerational mixing as well as the flexibility for mixed-use programs to accommodate a self-sufficient and adaptive neighborhood over time. While the new Design Museum will introduce structured outdoor space for public use and an array of cultural programs (exhibition space, bookstore, cafe, research library), the proposed housing project is composed of three towers on the Southwest corner of the site (OMA, 2011). These towers are composed of luxury units which contain private amenities for the residents, but do not provide commercial mixed-use space or broader community access. There is no opportunity for middle or low-income housing in this neighborhood, nor is there flexibility for the expansion of community programs outside of the museum.

While the underground parking has a positive impact on the site development in terms of habitat (allowing for the protection of invertebrate breeding grounds and bat nesting), it accommodates a parking space for each residential unit (West 8, 2011). This is in conflict with a broader strategy for alternative transportation. The site is well accessed in terms of public transportation, but does not encourage it due to the scale of on-site parking reserved for the residential towers. The intention, with this much parking, is that residents will make daily use of their vehicles.

Current point-based rating systems, such as LEED (U.S. Green Building Council, 2009; SIA, 2004), will for instance give designers a point if they specify a carpet with recycled content, but no points if the design is such that a carpet is not used. Clearly this neglects the first ‘R’ of the enduring three, ‘Reduce, Reuse, Recycle’, and illustrates the very real disadvantages of standardizing industry-driven metrics of assessment. Overall, we can say there is a lack of synthesis between sustainability objectives and rating metrics, which certainly ought to become more holistic and based explicitly on resource use, and material and use life-cycles.

In conclusion, we find both positive and negative arguments to support the building’s claim to sustainability. Any re-appropriation of the derelict site is a positive improvement to the social and economic mix of the neighborhood, but the invasive renovation to this historic building poses many negative impacts in terms of embodied energy and material waste, not to mention the philosophical questions regarding conservation. Finally, we feel that a more transparent planning process may have encouraged more diversity in the economic mix and diversity of programs associated with the residential development.
Références | References

ARTICLES & BOOKS


REFERENCE MATERIALS