

PROJECT: Flat A, 30 Shepherds Hill, Hornsey, London, N6 5AH

Planning Application for “The proposal is to include the demolition of the existing garage, with a new proposed self-contained 4 bed house located in that area. Full disability access on ground and basement levels, including terrace / courtyard areas.”

Architect:

AURA Architecture Ltd.

Site Location:

Located at 30a Shepherds Hill, London N6 5AH the site accommodates a large detached 4 storey red brick house. The surrounding area is predominantly residential in character. The property is divided into three units 30a, 30b, 30c. This development will be under the ownership of No. 30a.

Energy & Sustainability Statement

Consideration has been taken in the proposed design to reduce carbon emissions and energy usage in its construction. Submerging the lowest level so it is partly below ground will reduce the need for artificial heating in winter and provide natural cooling in summer.

We are also proposing several sustainable aspects and will carry out the following at a minimum:

- **Enhanced U-values** - Where possible exceed current standards set by Building control when ensuring the thermal efficiency of the walls, windows, and roof. The proposed development will incorporate high levels of insulation and high-performance glazing beyond Part L 2021 where possible. Careful consideration has been made in insulating to the best possible standard.
- **Air Tightness Improvement** - Reducing air permeability by improving the passage of fresh and stale air in and out of the building.
- **High Efficacy Lighting** - Providing energy efficient lighting, the development intends to incorporate low energy lighting fittings throughout the development. All light fittings will be specified as low energy lighting, and will accommodate LED, compact fluorescent (CFLs) or fluorescent luminaires only.
- **Heating** - Installing high efficiency boilers to the dwelling. Ground Source Heat Pump has been considered for this project and has not been deemed viable due to the available external space. The use of CHP is not viable on a scheme of this size. Instead, the target reduction is achieved using the energy efficiency measures and the provision of on-site renewable energy technology
- **Thermal Bridging Details** - Designing the building to ensure a reduction in thermal bridging to prevent heat loss from the outer walls, where new additions are proposed. A thermal bridging scheme will be implemented throughout the new build elements to further reduce heat loss/cold bridging at junctions.
- **Water Usage** - Providing adequate waste management allowing sufficient storage for waste materials. The applicant will reduce the consumption of potable water within the proposed dwelling from all sources to be in use, this will be achieved by design and selection of sanitaryware and flow restrictors where required.

Water efficiency calculations are to be completed in accordance to Building Regulations Part G and are set to achieve requirements set by the Local Authority and further improve on these figures to achieve 105L/pp/pd

- Materials** - Use environmentally friendly materials where possible. The use of traditional masonry construction to provide sufficient thermal mass to reduce overheating in the summer and avoid reliance on mechanical cooling in the summer. The use of local and sustainably sourced materials by local suppliers and reuse of materials and recycling of any unusable materials. The design team will seek out construction techniques with a lower embodied carbon content; lightweight concrete blockwork, timber floors and plasterboard with a significant recycled content – subject to market availability In addition to this low carbon strategy, the development will source all materials from supplier that can demonstrate that materials are sourced responsibly in line with recognised Environmental Management Systems (FCS, BES6001 etc.) The principal contractor will be required to produce a site waste management plan and sustainable procure plan, in line with BREEAM standards – this will include a pre-demolition audit to identify demolition/strip-out materials to reuse on-site or salvage appropriate materials to enable their reuse or recycling off-site in order to align with the principles of the circular economy. The procurement plan will follow the waste hierarchy Reduce; Reuse & Recycle. The SWMP will inform the adoption of good practice waste minimisation in design. This will set targets to minimise the generation of non-hazardous construction waste using the sustainable procurement plan to avoid over-ordering and to use just-in-time delivery policies. Operational waste and recycling – appropriate internal and external storage space will be provided to ensure that residents can sort, store, and dispose of waste and recyclable materials in line with Haringey's collection policies.
- Solar PV** - Proposing PV panels to the proposed flat roof area. A photovoltaic (PV) cell, called a solar cell, is a nonmechanical device that converts sunlight directly into electricity. Some PV cells can convert artificial light into electricity. A PV cell is made of semi-conductor material. When photons strike a PV cell, they may reflect off the cell, pass through the cell, or be absorbed by the semiconductor material. Only the absorbed photons provide energy to generate electricity. When the semiconductor material absorbs enough sunlight (solar energy), electrons are dislodged from the material's atoms. The efficiency at which PV cells convert sunlight to electricity varies by the type of semiconductor material and PV cell technology. The efficiency of commercially available PV modules averaged less than 10% in the mid-1980s, increased to around 15% by 2015, and is now approaching 20% for state-of-the art modules.
- Ventilation** – The new dwelling is to naturally ventilate with background/trickle ventilation and opening windows.
- Sustainable Urban Drainage** - Permeable block paving to the new created external courtyard to reduce the discharge into the main sewer. Water butt to collect rainwater for re-use.

Notes

- Please treat this preliminary following planning permission.*
- This document is submitted at the request of and for the purposes of Planning only.*
- The final strategy will be developed further with the detailed post planning stage design.*
- AURA are only appointed for this project (as submitted to Planning) and by our Clients noted above.*
- Subsequent applications or future proposed property alterations (by future owners or architects) will require a revised / updated strategy.*