



01. The new mews house occupies the garden of a protected structure.

Cove Mews.

This contemporary family home is the first in Ireland to produce more energy than it consumes.

Architects
MRD
Architecture
Location
Sandycove,
Dublin
Interview
with Mel
Reynolds
Photography
Paul Tierney



02. The smooth wide render contrasts beautifully with the stone walls.

Client Must-Haves

- + A compact and energy efficient home.
- + Connection with the garden.
- + A modern interior with space for a family of six.

h+d: How did the opportunity to design your own home come about?

Our original house, purchased in 2003, had an established mews lane to the rear. In the intervening period we examined a number of prototypical designs for the site, finally starting to build in 2019.

h+d: How did you approach the design? What was the starting point?

The original house is a protected structure in an architectural conservation area. My aim was to design a compact home which retained as much of the garden and privacy as possible for the original house. Therefore the mews aspect is to internal gardens. The resulting compact design has no external overlooking windows, is very private and requires 30% less land area than similar conventional house.

h+d: What were the most important considerations in the design of your home?

We all need to 'get more from less', build homes that are compact, carbon neutral and that address transport sustainability.

Conservation of the historic setting along with water and energy conservation are intrinsic to this design. The inverted organisation, open plan living areas above and bedrooms downstairs, gives less corridors and more usable space. Cove Mews has 10% more internal usable space than a similar 4 bed semi-d, the equivalent of an extra bedroom.

A simple arrangement of folding internal partitions can accommodate layouts suitable for a downsizing couple up to a family of six, a future-proof design for varying occupancy types. A soft spot in one of the bedroom ceilings facilitates the installation of a wheelchair lift with minimum fuss.














Another aim was to see just how energy efficient a standard budget could stretch to. The result was the first home in Ireland built to the 'Passive Plus' standard, 40% better than BER A1 that produces as much energy as it consumes. We installed rainwater harvesting for WC's and irrigation, something that I feel should be a mandatory requirement for all housing.



Our favourite space is the south facing upper terrace - the upper level living spaces revolve around it and it is effectively an outdoor living room.”



- 02.** The elevation from the lane creates privacy and security.
- 04 -05.** The first floor kitchen and dining room connect seamlessly with the terrace.
- 06.** Elegant furniture in the living room echoes the contemporary design of the mews house.

-  Sanitary ware
Bathhouse
-  Kitchens
Nobilis Kitchen by Timbercraft
-  Rooflights
Fakro Rooflights, Tradecraft
-  Appliances
Miele Ireland
-  Built-in Storage
Goodwood Designs Ltd.
-  Demand/Control Modelling
Tim Cooper
-  Thermal Bridging analysis
EarthCycle Technologies
-  PV supplier
Solartricity
-  Insulation
Kingspan
-  Windows
Internorm
-  Mechanical Ventilation with Heat Recovery (MVHR)
Pichler
-  Airtightness
Blowerproof
-  Landscaping and Living Wall
SAP Landscapes

h+d: What is your favourite space in your home?

Our favourite space is the south facing upper terrace- the upper level living spaces revolve around it and it is effectively an outdoor living room. The 'living wall' is a feature and also provides valuable bio-diversity to the scheme. If you don't have the land for a normal garden, plant vertically.

h+d: Having taken on the dual roles of Architect and Client - what advice would you pass on to anyone embarking on a home renovation / extension project?

It can be difficult to make objective decisions and initially I imagined a couple downsizing as client. During the course of the design we started to consider this as a home for ourselves, so my wife Louise and 4 children then stepped into the role. As Client and Architect one gets an insight into how exciting the process

is for clients (and their families) to see buildings taking shape, particularly when it is at the end of your garden and you can check progress every day after school.

h+d: Your top 3 tips for the readers / lessons learned?

A carbon zero home, can be achieved in three steps (see right panel).

These three steps will give you a home that has always-on heating and hot water, superb indoor air quality, run all the appliances and also power your car all for less than €500 per year. Most important is that your household will generate 80% less CO2 than a typical A2 home and diesel car (-3 tonnes per year). You will save thousands per year while saving the planet. Cove Mews is an 'eco minimalist' home, one that wears its environmental credentials lightly that's just a pleasant place to live.

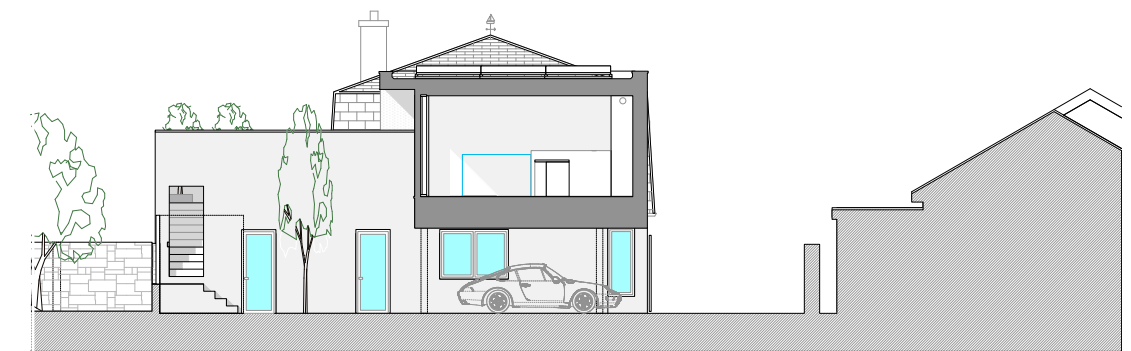


+Architect's Top Tip

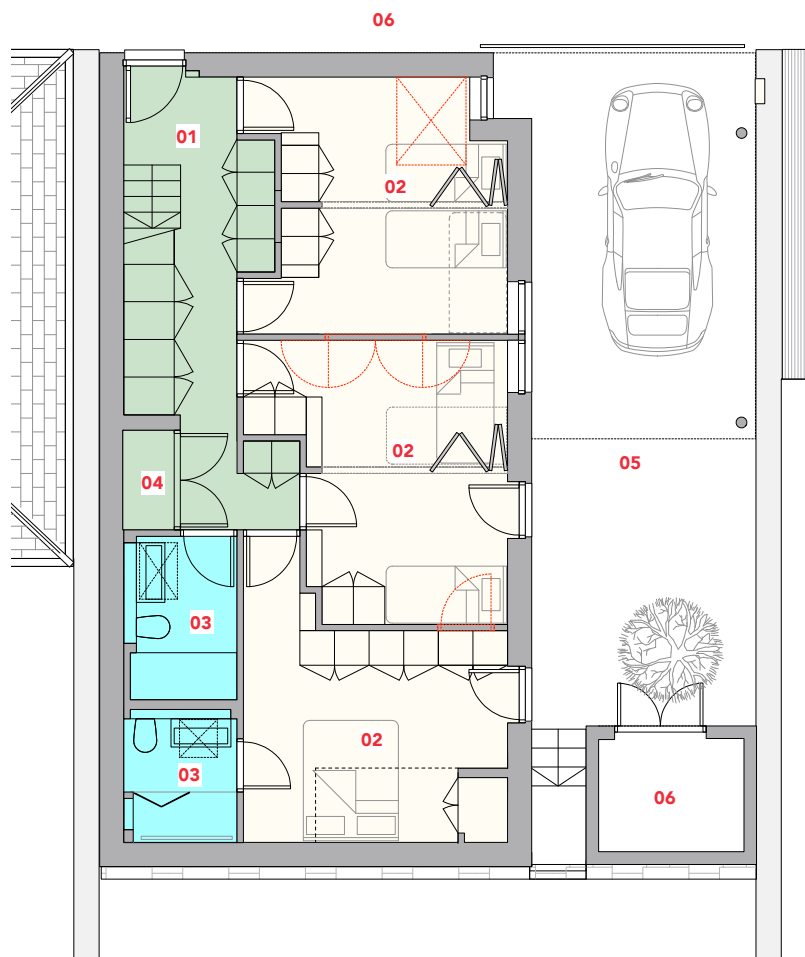
- 1.** Design to the Passive standard, no primary heating system will be needed and it's cheaper than minimum standard A2 home. It's important to incorporate passive design principles early on.
- 2.** Try for the Passive + standard. Take your passive design and put as many photovoltaic panels on your roof as it can comfortably take. Get a demand-control model done to ensure as much of this energy on-site as possible - the ESB don't pay for surplus energy.
- 3.** Trade in your petrol car for an electric one.



- 07.** The simple palette of materials and cool colours is carried throughout the house.
- 08.** Bedrooms can be connected via folding screens.

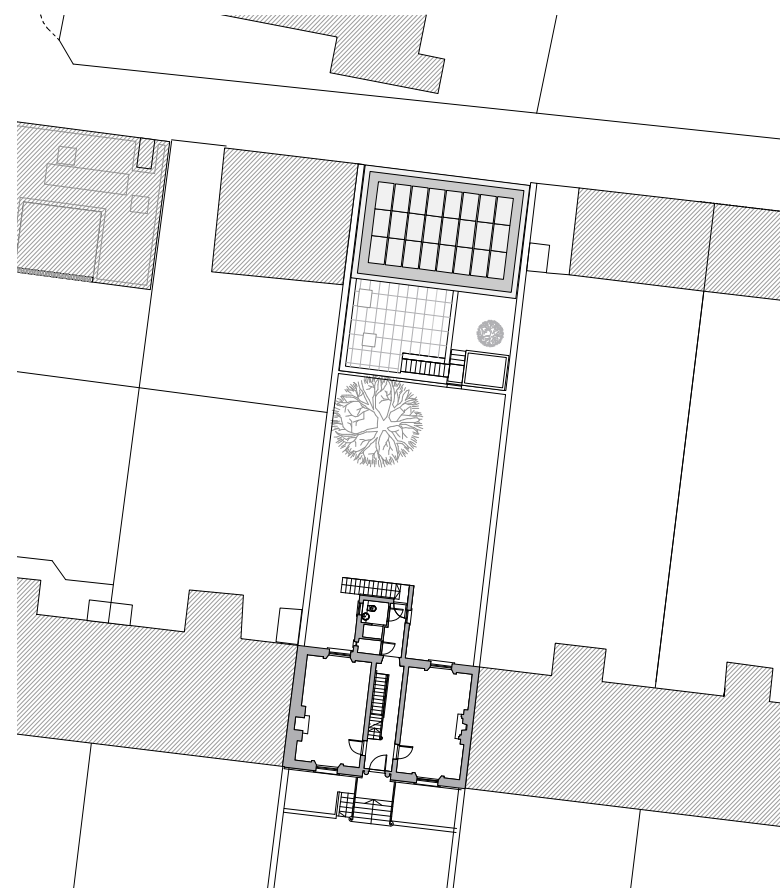


Long Section



Ground Floor Plan

- 01. Hall
- 02. Bedroom
- 03. Bathroom
- 04. Utility
- 05. Courtyard
- 06. Store
- 07. Lane



Site Plan

About this Project

MRD Architecture
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Maoiliosa Reynolds is a Registered Architect with 30 years experience in Ireland, UK and USA in project management, conservation, urban design and developer-led housing. He established his own practice in 2008 and holds a degree in architecture, a masters in urban and building conservation, a diploma in project management and is a Certified Passive House Designer.

Architects, Project Manager + Passive House Designer - MRD Architecture

Quantity Surveyors - Damian Bowers & Associates

Services Engineers - Conlon Engineering

Structural Engineers - Carraig Consultants

Health & Safety - Safety Solutions

PHPP & Thermal Bridging Consultant - Earth Cycle Technologies

Main Contractor - Sean Regan Ltd.

Energy Conservation Consultant - Tim Cooper Conservation Engineering Consultant Ltd.

Passive House Certification - Mead Ltd.

