

LOG CABIN ECO CLASSROOM



Installed by

the **PA** Landscaping &
Group of Companies **Timber Buildings**

A member of
**BUSINESS
IN THE
COMMUNITY**


constructionline


partner
LABC

WELCOME

Some background ABOUT P&A

Award-Winning Welsh Company

The **P&A Landscaping & Timber Buildings Division** are part of the P&A Group of Companies, an award-winning, family-run Welsh business with a longstanding timber heritage.

P&A are proud to have worked with schools and local authorities over a number of years, providing a range of timber buildings, log cabins and gazebos — plus our very popular Octagon Outdoor Classroom, designed and built by our in-house team.

In addition, P&A specialise in providing hard-landscaping services, including school railings and security fencing.

As members of Constructionline P&A are authorised suppliers to North Wales local authorities.

Using all our years of experience in timber manufacture and construction, we have now designed a full range of **Log Cabin Eco Classrooms**, providing a natural learning environment for 21st century schools.



Our Managing Director Steve Morgan was presented with the Enhancing Leadership & Management Skills Award (ELMS) in 2011.



We have completed many successful landscaping and construction projects for local schools, such as this Octagon Outdoor Classroom (above) and safety fencing (below).





Photography courtesy of Flickr user twistyfoldy.net

Making the most of **WHAT NATURE HAS PROVIDED**

Imagine your dream classroom....

Is it a natural environment, light and spacious, easy to adapt for different elements of the school day? From Maths and English lessons to an inspirational space for creative art, a room that creates great acoustics for music lessons, or an environment to inspire drama and dance.

Research from our recent school survey highlighted that the education market is in need of an alternative to the current options of modular buildings. Therefore at P&A we have designed our own range of Log Cabin Eco Classrooms in response to the growing demand for environmentally responsible alternatives to mainstream construction.

Natural products enhance the way we live.

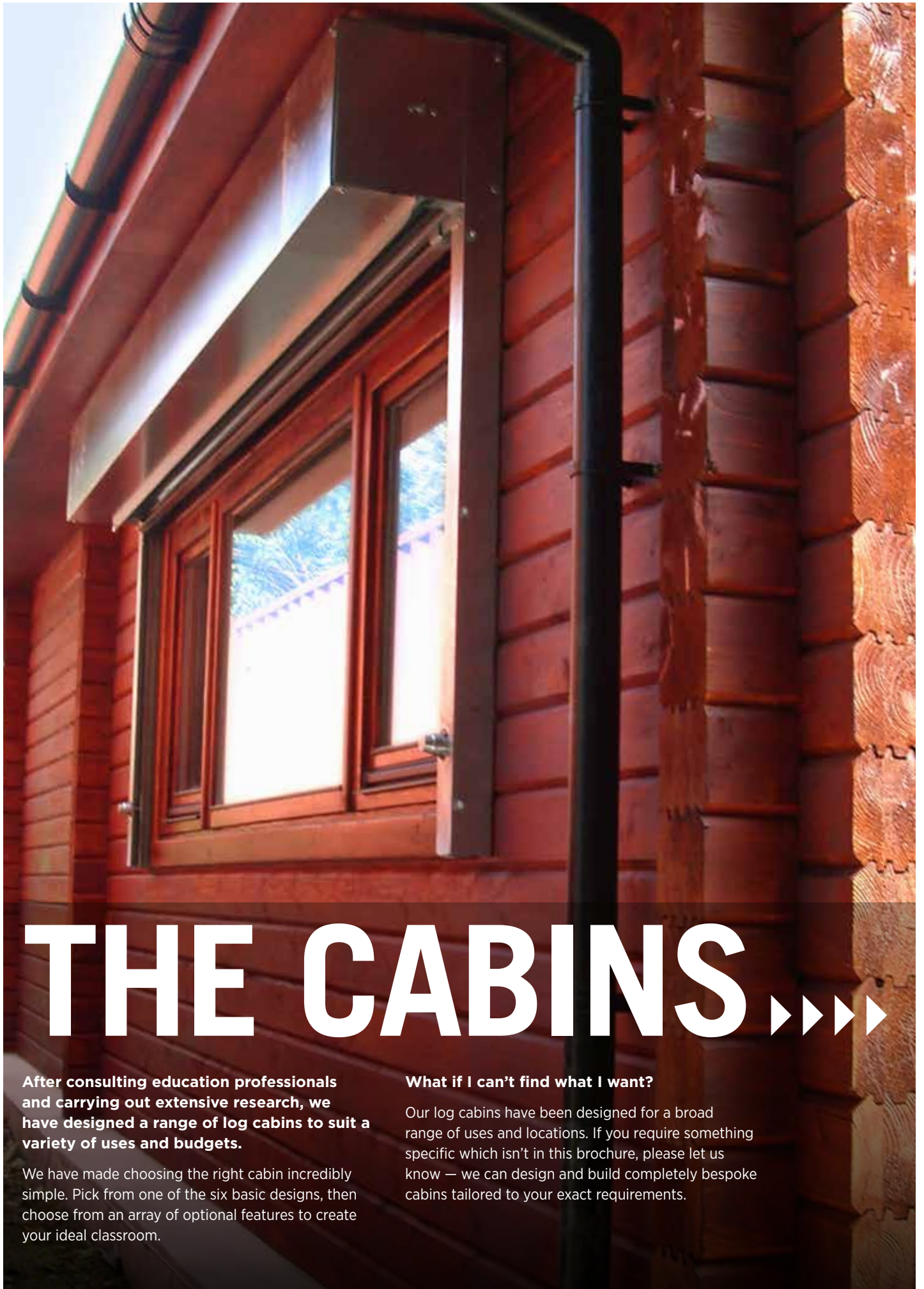
Nature has always provided us with the natural materials for building. Now we have the technology to make the most of these natural resources, which enables us to build a classroom that provides an energy saving building and an environment that enhances the way we teach and learn.

Our Eco Cabin Classrooms are more than just four walls.

So if you want to provide classrooms, which are built to a high specification, offering a practical yet natural environment for teaching, learning and playing, then this new range is ideal.

Time to play, time to learn, time to grow.





THE CABINS ▶▶▶▶

After consulting education professionals and carrying out extensive research, we have designed a range of log cabins to suit a variety of uses and budgets.

We have made choosing the right cabin incredibly simple. Pick from one of the six basic designs, then choose from an array of optional features to create your ideal classroom.

What if I can't find what I want?

Our log cabins have been designed for a broad range of uses and locations. If you require something specific which isn't in this brochure, please let us know — we can design and build completely bespoke cabins tailored to your exact requirements.

Benefits of an ECO-CABIN

Extremely versatile — can be built in virtually any shape or size, and suitable for all manner of uses.

Cost effective — compared to traditional brick buildings, log cabins are affordable to build and cost-effective to keep warm.

Eco friendly — logs use a lot less energy to produce than other building materials, such as bricks, concrete or steel, and therefore log cabins have a lower carbon footprint than other types of buildings.

Easy to construct — a log cabin can be built in days or weeks rather than months. The logs arrive pre-cut and simply require slotting together. This makes them ideal for sites with restricted access.

Planning permission — detached single-storey buildings of no more than 30m² of internal floor area are generally exempt from the building regulations. Our cabins are designed to comply with British building standards. Contact your local planning office for up-to-date information.

We offer applications for planning permission regulations as part of our package. As part of the LABC partnership authority scheme we can work closely with Local Authority Representatives in your area, making this stage of the project as easy as possible for you.

Glulam — we use glue-laminated (or glulam) logs in our log cabins. Glulam provides greater stability to log sections and is more resistant to warping, shrinking and twisting.



Our Log Cabin Eco Classrooms are built from high grade timber imported from FSC certified sources. They also feature the latest environmentally responsible options, including sheep's wool energy saving insulation, sedum roofing and a choice of sub structures.

Our exclusive range has been designed to minimise environmental impact, ensuring maximum efficiencies in terms of heating, lighting and air conditioning.

We are able to customise the features and options of the Log Cabin Eco Classroom to meet individual requirements.



More than just a classroom

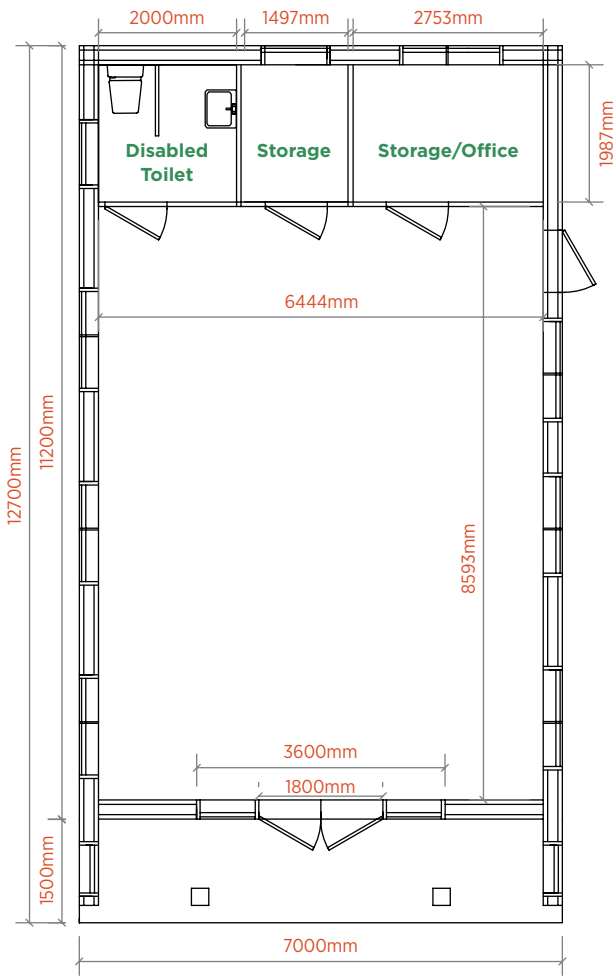
Other possible uses for your Eco Classroom:

- Arts & crafts room
- Music room
- Dance or drama studio
- School canteen
- Computer room
- Assembly hall
- Workshop
- Youth club
- Office
- Nursery building
- Farm shop
- Sports pavilion

SATURN

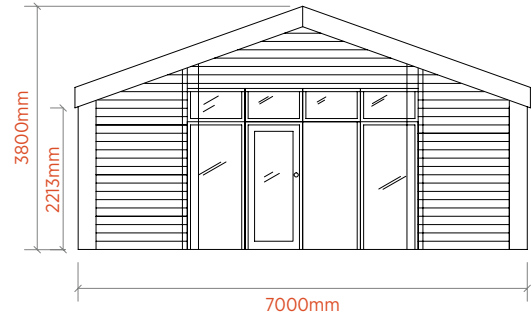
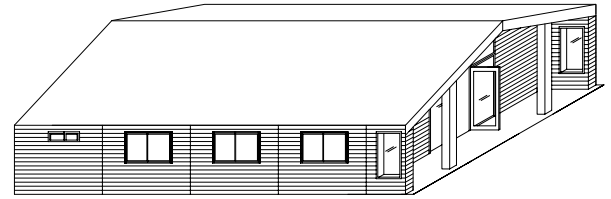
LARGE CLASSROOM

A spacious multi-purpose room with a large, covered entrance. Also features two additional rooms and toilet facilities.

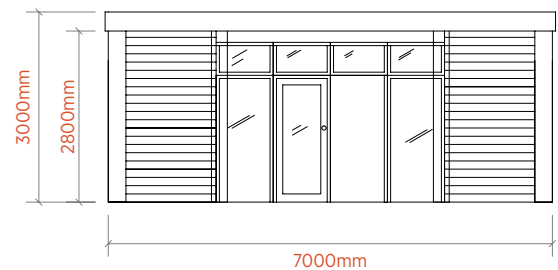
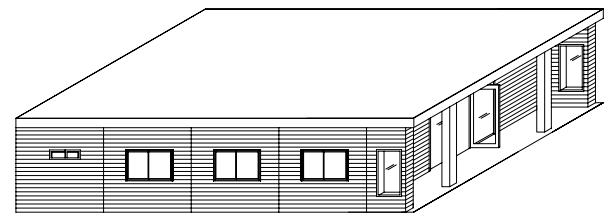


Plan View

Option A Pitched Roof



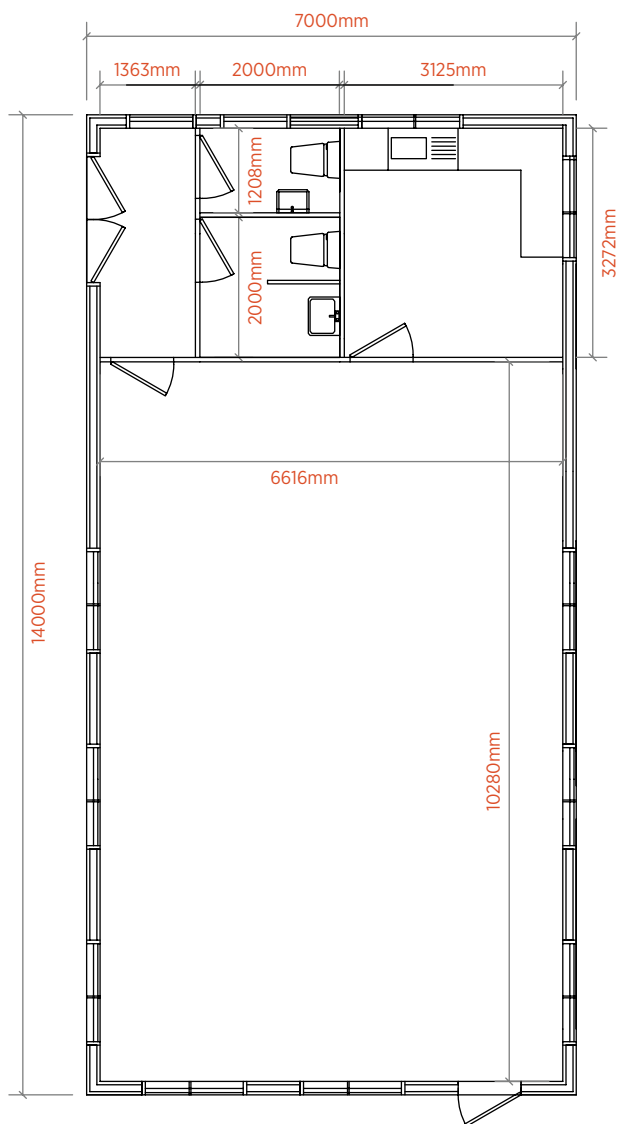
Option B Flat Sedum Roof



SATURN

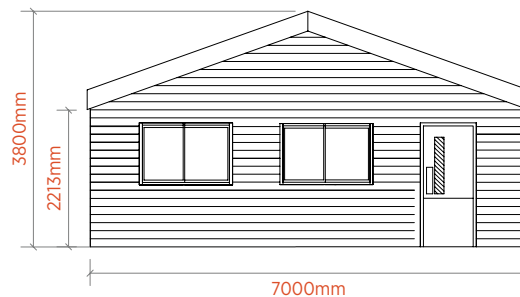
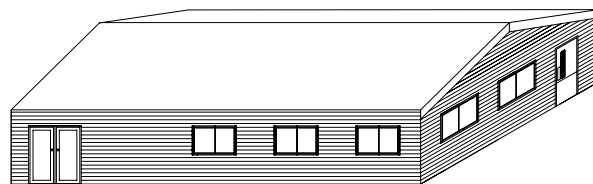
DELUXE LARGE CLASSROOM

An extra-large room with entrance lobby, two toilets, and an extra room suitable for a kitchen.

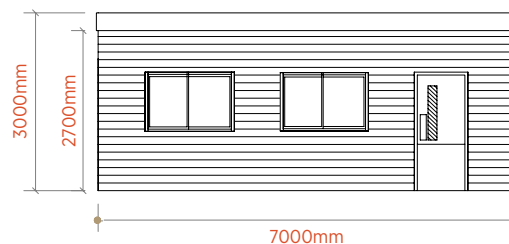
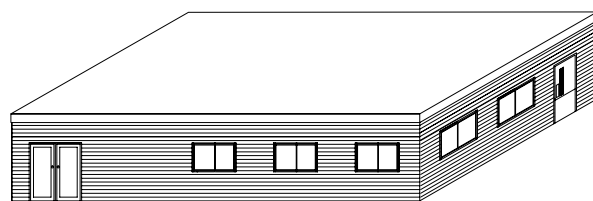


Plan View

Option A Pitched Roof



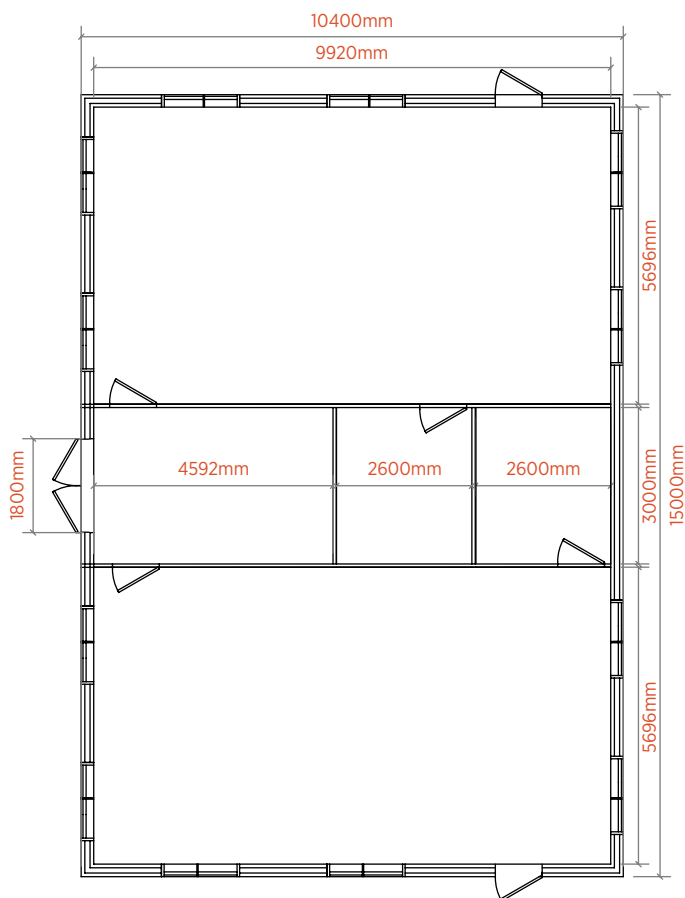
Option B Flat Sedum Roof



JUPITER

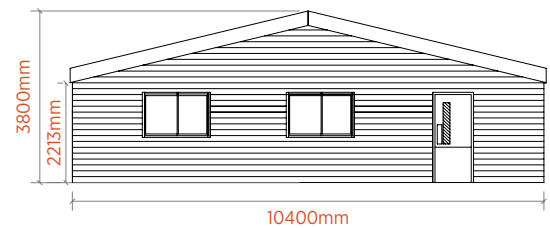
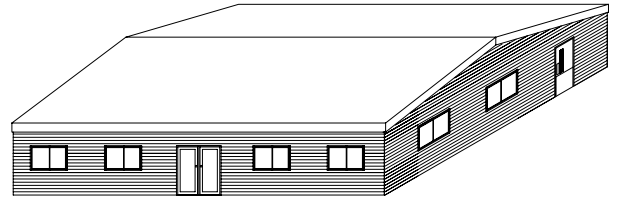
DOUBLE CLASSROOM

Two classrooms, spacious entrance lobby with double doors, and two storage rooms.

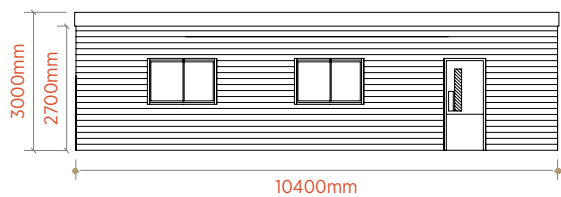


Plan View

Option A Pitched Roof



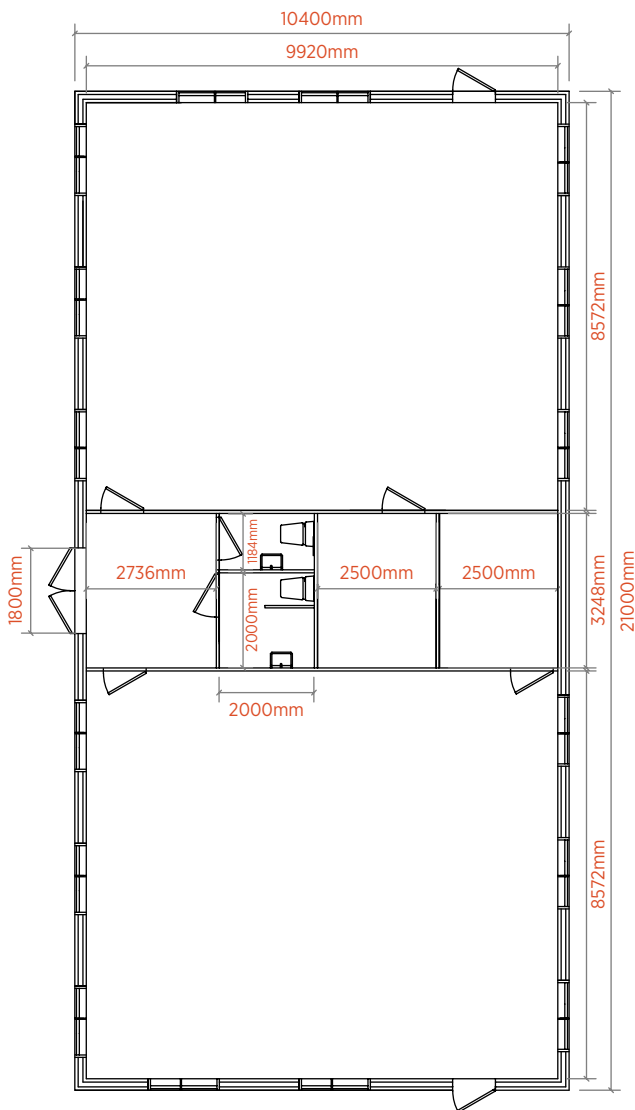
Option B Flat Sedum Roof



JUPITER

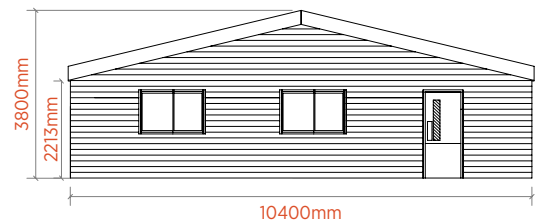
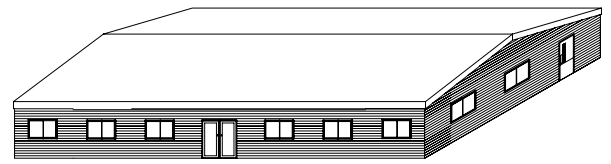
DELUXE DOUBLE CLASSROOM

Two larger classrooms, two store rooms, entrance lobby with double doors, and toilet facilities.

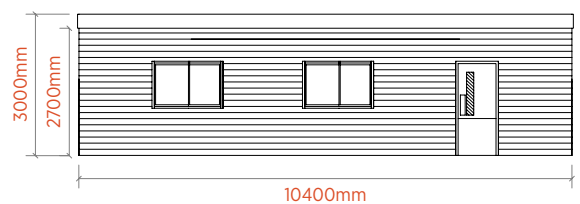
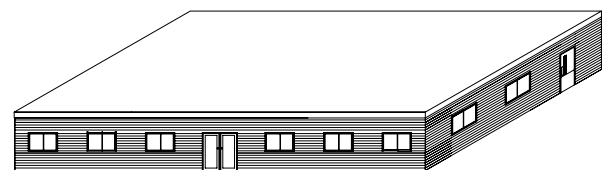


Plan View

Option A Pitched Roof

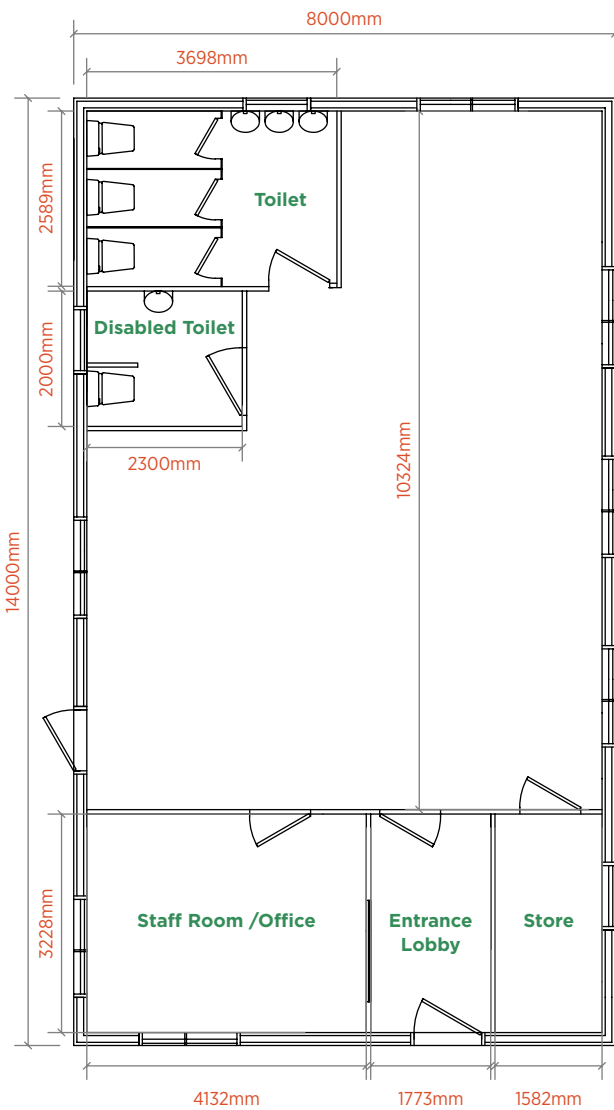


Option B Flat Sedum Roof



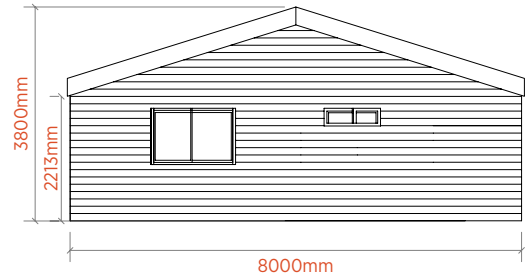
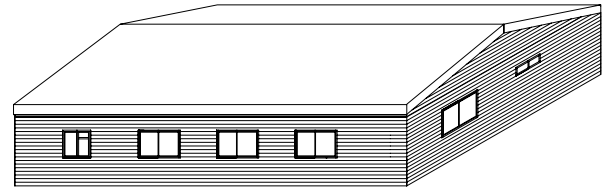
NEPTUNE NURSERY BUILDING

This cabin features a large classroom/
playroom along with toilets, kitchen, office,
store room and entrance lobby.

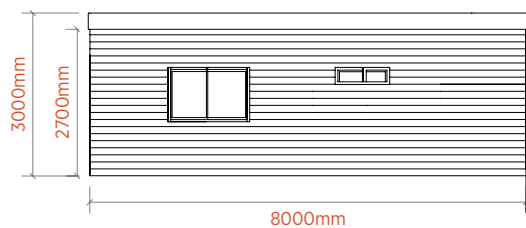
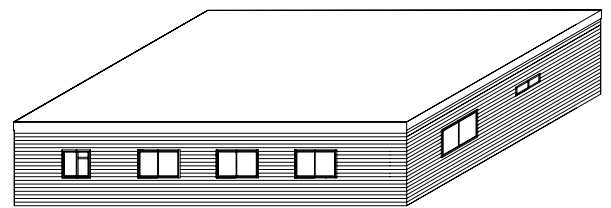


Plan View

Option A Pitched Roof

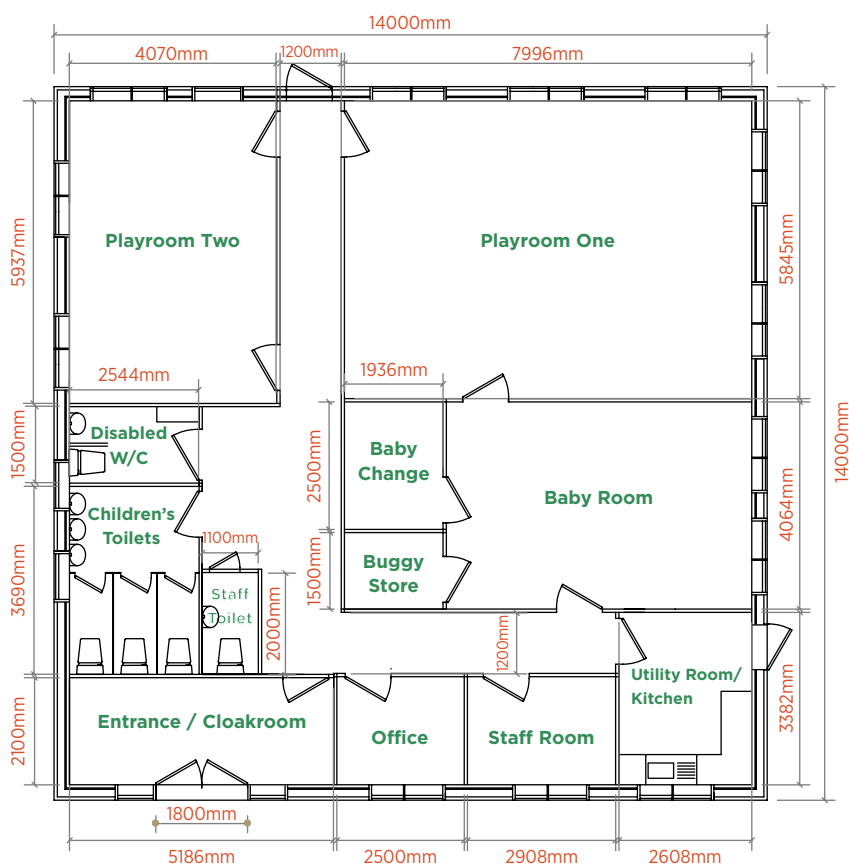


Option B Flat Sedum Roof



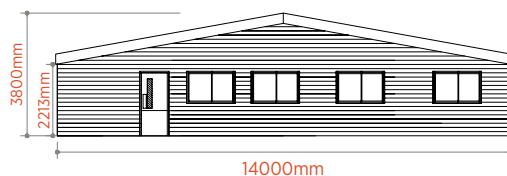
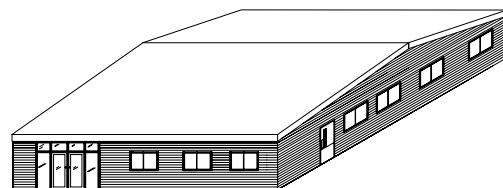
NEPTUNE COMPLETE NURSERY

A complete, self-contained nursery. Three classroom/ playrooms, plus entrance lobby, kitchen & toilet facilities, office, staff room, baby change room and storage areas.

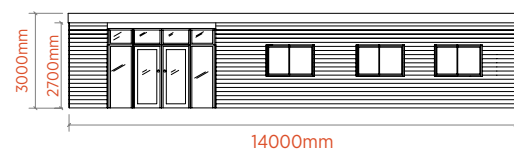
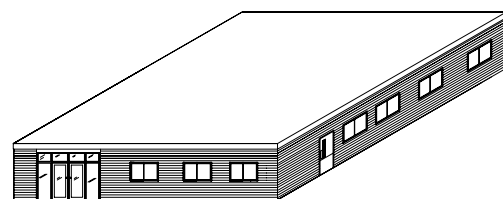


Plan View

Option A Pitched Roof



Option B Flat Roof



OPTIONAL EXTRAS

Green Roofing

We can provide several different types of natural, green roofing:

Extensive Roofing is a green roof which holds layers of perennial herbs, mosses and sedum blankets.

Intensive Roofing is a deeper substrate generally used on larger buildings and public areas.

Bio-diverse Roofing (Brown Roof) is a selection of plants and self seeding natural growth.

Benefits of Green Roof Systems

Heating and cooling — Green roofs can absorb heat in the winter, and have an evaporative cooling effect in the summer, reducing heating & air conditioning costs.

Acoustics — The additional mass of a green roof can improve the acoustic properties of a building—perfect for school facilities.

Biodiversity — Natural roofs provide a habitat for birds, insects and other wildlife.

Recycled Plastic Roofing

Recycled rubber roofing is an economic, environmentally responsible building material. It is extremely durable and will not need replacing for the lifetime of your log cabin. Made from 75% recycled material, it is designed to replicate classic shingles. The rubber shingles are ultra-lightweight, fully weather resistant, non corrosive and extremely durable.



Windows & Doors

Windows and doors are all factory pre-finished to a very high standard to reduce maintenance costs. They are double glazed as standard with toughened or laminated glass, and are argon filled to ensure excellent U-value ratings.

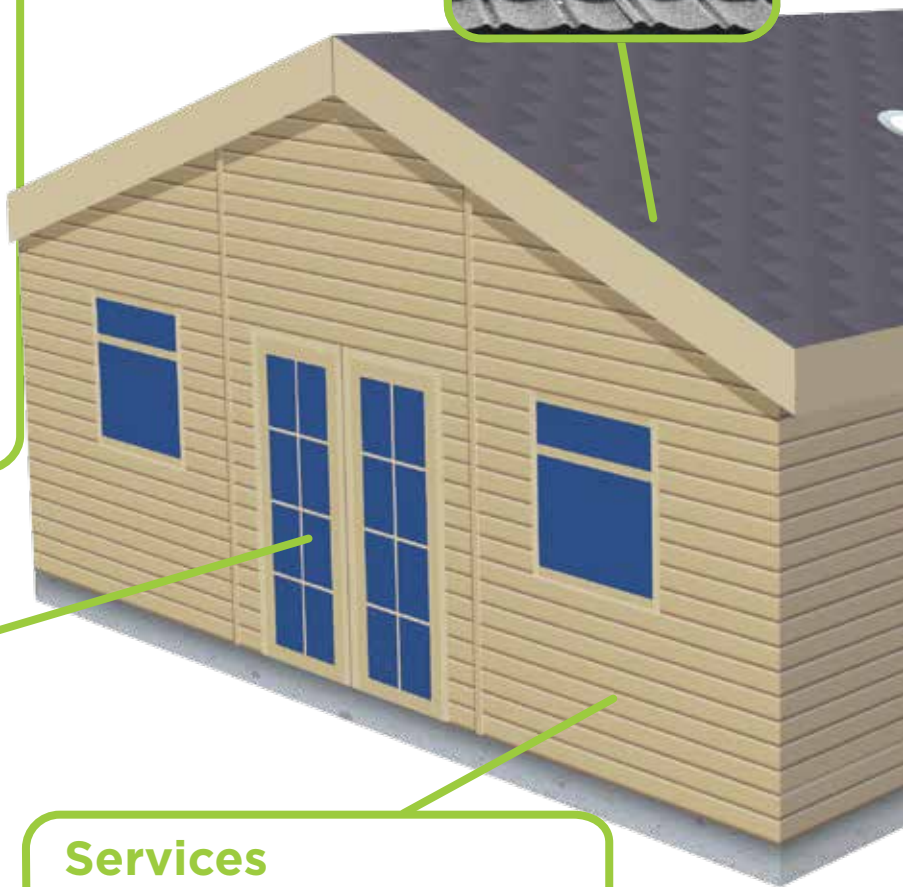
What Are U-values?

U-values describe the thermal performance of a material and measures how well the building component (a wall, roof, window etc) keeps heat inside a building. The lower the U-value, the better the material performs.

Our insulation has excellent U-values which meets or exceeds government requirements.

Services

We can arrange the electrical supply to your cabin as part of our turnkey service. Our cabins have been designed to provide natural ventilation, reducing the need for mechanical cooling. Our natural ventilation strategy includes child-proof opening mechanisms on all windows.



Other Options:



Wind & Solar Power

Wind and solar power can be used as a clean, renewable source of energy, which produces zero carbon dioxide emissions or waste products.



Under-floor Heating

Under floor heating may be installed and powered by solar panels, and supplemented by ground source heating.

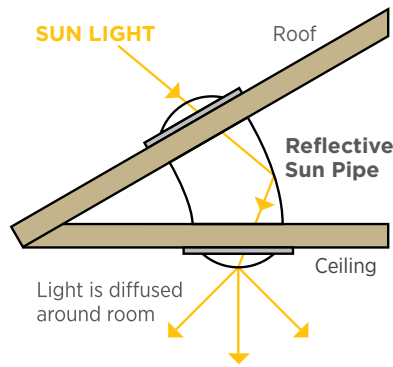


Sub Meters

Sub meters can be provided for space heating, hot water, low power and lighting. The meters will allow any significant energy using systems to be identified.

Sun Pipes

Sun pipes capture natural daylight — an innovative roof to ceiling tubular skylight to brighten up your room and save on lighting costs.



Natural Insulation

Sheep's wool insulation is natural, eco-friendly and safe. By its very nature it doesn't harbour any dangerous chemicals, dust or mould that can lead to allergic or other reactions.

Each year over 50 million kilograms of wool are sheared in the UK alone. Sheep's wool insulation uses the waste dark coloured wool that is not required by other industries. It's easy to install, has natural condensation control and is unique in its ability to absorb and lock up toxic gases. It is also naturally fire retardant. Sheep's wool insulation is made from only virgin UK and Irish wool.

Recycled glass insulation is a revolutionary technology, a new kind of mineral wool insulation that's naturally brown. It offers significant improvements in terms of feel, handling and environmental performance whilst delivering all the benefits you are used to from traditional mineral wool. We can supply a range of specialist products for timber frame construction that have a high density — providing high levels of thermal resistance, with a thermal conductivity of just 0.032w/mk — well above the energy standards.

Walls

The main component of the Eco Classroom is its timber walls. Timber provides a permanent carbon lock, making it much more environmentally friendly than masonry construction and traditional construction methods.

The walls of your cabin will be constructed using solid, 64mm thick, twin-skin glulam pine logs.

Paint & Fire Retardants

All timber can have a fire protection coat. This is a revolutionary fire proofing product with anti fungal properties. Colourless & non-toxic, it is suitable for internal and external use.

Our wood stain is a unique water soluble, oil and acrylic free finish for interior and exterior wood surfaces. The eco-friendly formula means no unpleasant smells or emissions, whilst the UV resistant pigments help to protect the wood from discoloration and ageing.

Sub-Structure

Pier System. Piers are perfect for timber buildings. They save time & money, and will use a minimal amount of concrete, which is pre-fabricated off-site.

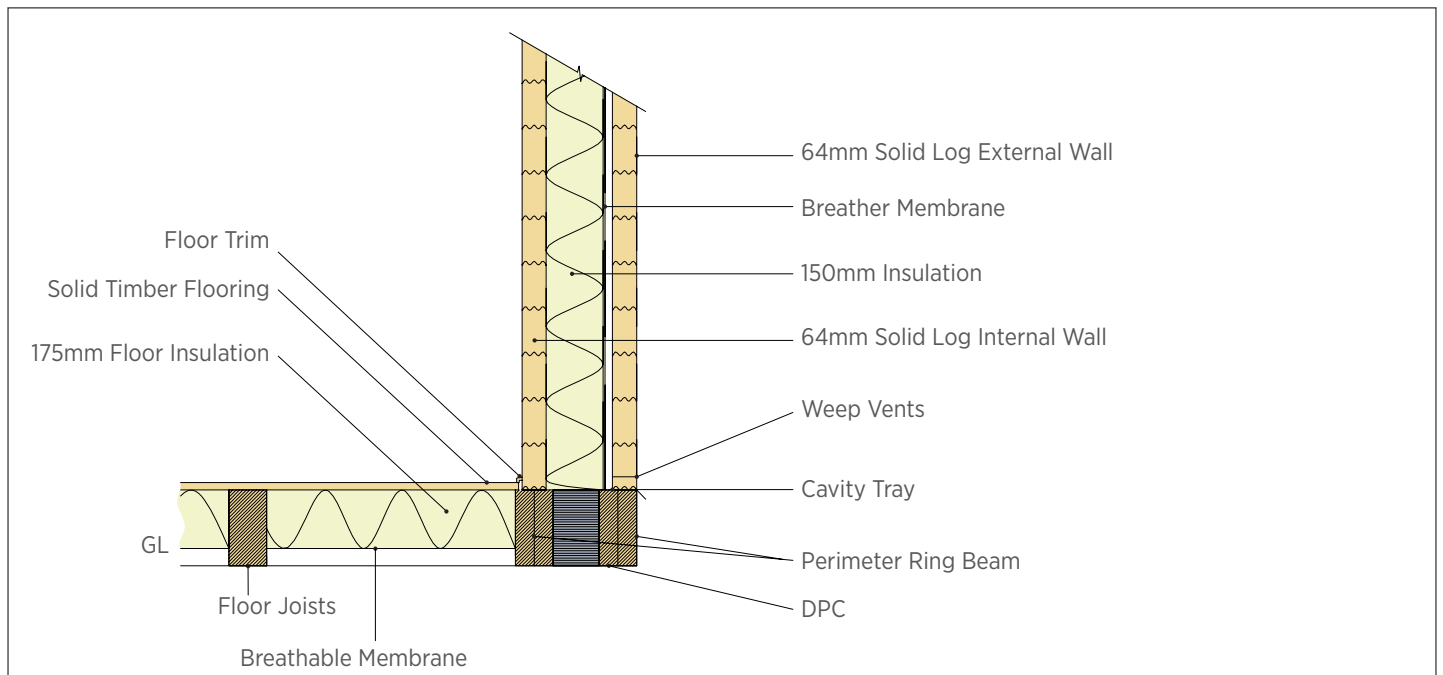
Screw-pile foundations, which are a cost-effective and environmentally sound alternative to traditional concrete foundations. Large screws are driven into the ground which support the weight of the building. They are adjustable, re-usable and recyclable.

CABIN CONSTRUCTION



Technical details for our cabins. If you require any further information, please contact us on 01352 752555 or john@p-a-group.com

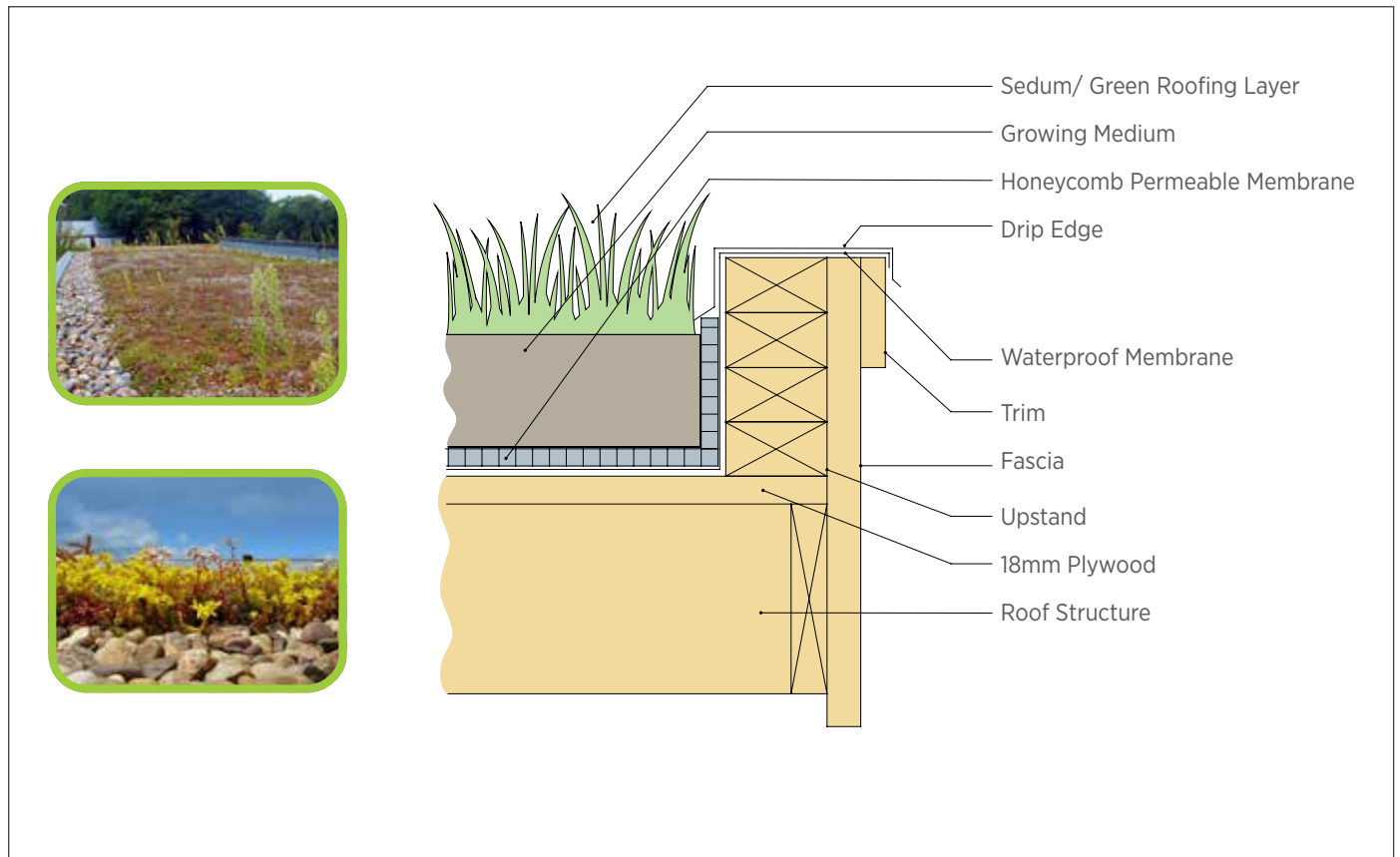
Typical Wall To Floor Detail



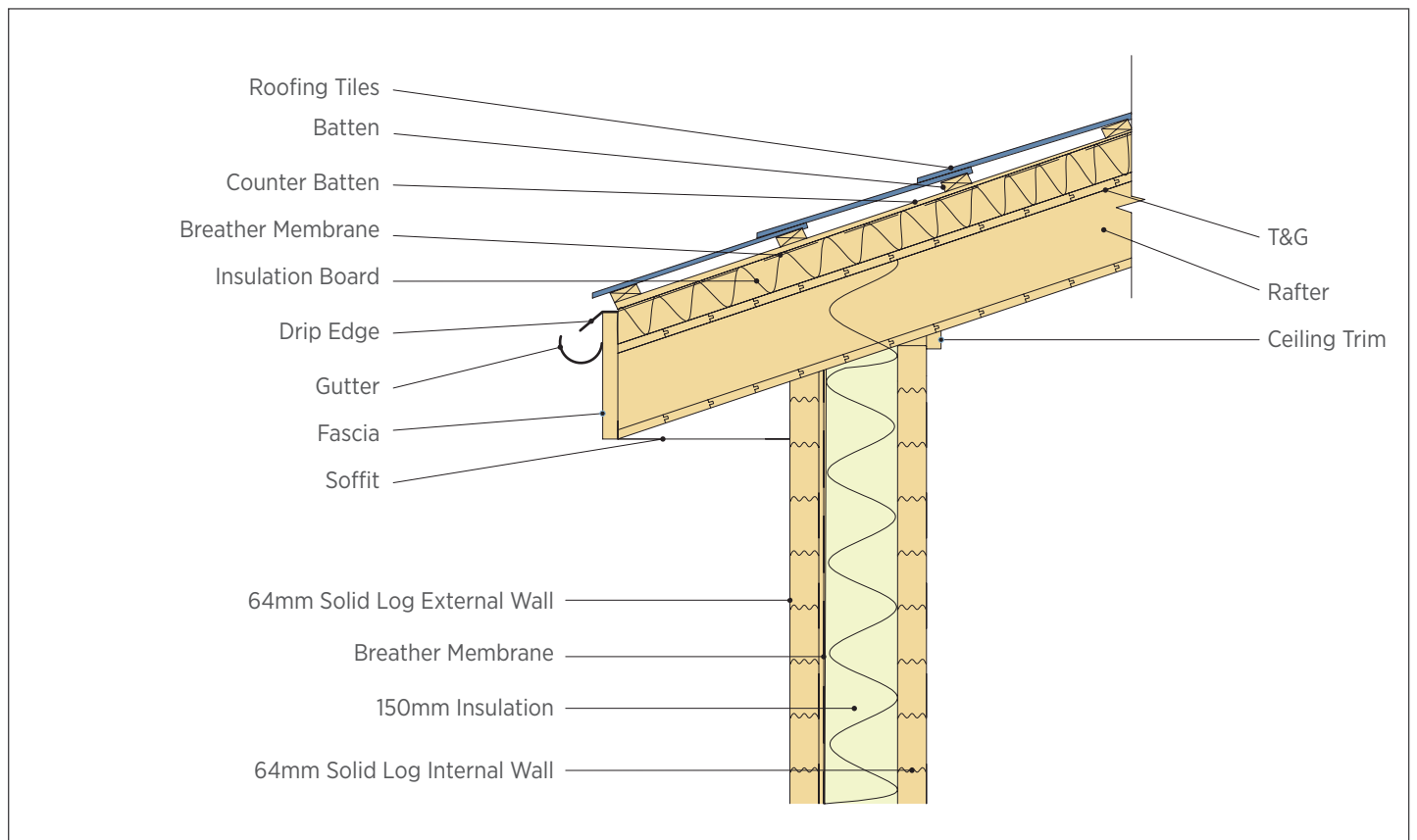
Foundation Construction



Typical Detail — Flat Sedum Roof



Typical Detail — Pitched Roof



FREQUENTLY ASKED QUESTIONS

How many people can a Log Cabin Eco Classroom accommodate?

A standard classroom holds around 33 pupils, however our buildings can range from one classroom to as many as you require. Eco Classrooms can be designed to suit your exact requirements. We are always open to new ideas and designs and are happy to advise you on the best interior layout, suitable windows and doors and different options we offer.

Do Timber Cabin buildings comply with Building Regulations?

Yes, our buildings offer ready to use working environments that meet the requirements of the Building Regulations and other permanent building regulations.

Will I need planning permission and Building Control?

Yes, planning permission is required for every Eco Classroom in our range and before we start any work we will need to submit a Building Regulation Application as well as a Building Control form. Planning applications take 6–8 weeks. Planning applications for plans of over 75m² and no more than 3750m² are £330 in Wales, and to apply for building control will cost £305.

Enquiry to quote = 1–2 weeks (based on standard cabin designs).

*note if cabin is to become a garden office 'inclusive design' less than 30m² then it doesn't require planning consent.

Look at 'Accredited Detail' planning portal for Detailed Technical Designs

What type of foundations will my Eco Classroom require?

Re-locatable buildings that will be on hard standing will only require shims. For other surfaces or for modular buildings, only pad foundations are necessary. For a more eco friendly option we recommend screw pile foundations to minimise the amount of concrete used and to minimise waste on site.

How are the Eco Classrooms delivered?

By wagon. A benefit of the Eco Classroom is that if the cabin site is in an inaccessible area we can deliver the cabin in sections. Ideal for sites with limited access.

How do I connect the building?

All general electrical, water and drainage services are provided in our 'Eco Classroom' package, tailored to the specific requirements of the customer. A request for service providers to install services can take between 8 and 16 weeks.

Some of your timber manufacturers are FSC certified. How does this make a difference in the world's forests?

We carefully choose our suppliers to make sure that the timber we use in our cabins has been sourced responsibly. Some of our suppliers are FSC certified, which means they must meet strict social and environmental criteria. This in turn has a positive impact on the world's forests and benefits those who live from, in and around them.

What paints and varnishes will be used? Do they comply with building regulations and are they in accordance with fire proofing regulations?

All timber will be coated with timber preservative on site, and there are various options available for fire retardants — revolutionary fire proofing products with anti fungal properties. It is colourless, non toxic and suitable for internal and external use.

Wood stain is also available — a unique, water-soluble, oil and acrylic free finish for interior and exterior wood surfaces. The eco-friendly oils have no unpleasant smells or emissions, whilst the UV resistant pigments help to protect the wood from discoloration and ageing. All paints and varnishes used are child friendly.

How long will the cabin last?

This will depend on whether you follow the care plan we give you when you purchase your timber building. If you treat the building every 2-3 years, then it should last a lifetime.

Is my Eco Classroom guaranteed?

All our buildings are covered by a full 5 year warranty, provided they are maintained to our recommendations.

What are the benefits of an Eco Classroom?

- 1 Free quotation.
- 2 Bespoke designs — virtually any size and configuration.
- 3 Advice on planning and fully detailed application drawings.
- 4 Cabin systems already designed to meet Building Regulations.
- 5 Certified timber suppliers.
- 6 We use local materials as far as possible and promote Eco Friendly options.
- 7 We use appropriate insulation types which are above the minimum standard U-value requirements.
- 8 64mm thick solid wall logs used for internal and external walls, with cavity insulation.
- 9 Our fire protection coatings and wood stains are child friendly. Wood stains are breathable & weather resistant, with UV resistant pigments to help protect wood against ageing.
- 10 Qualified technicians with many years of experience in the timber industry.

What are the standard U-values required?

Walls — 0.3w/m²

Pitched roof insulation at rafter level — 0.2w/m²

Floors — 0.22w/m²

U Values achieved by sheep's wool

Walls — 0.25w/m²

Roof — 0.28w/m²

Floors — 0.18w/m²



ENVIRONMENTAL POLICY

Here at P&A, we are dedicated to promoting responsible, sustainable management of the world's forests.

The majority of the timber used in our cabins — a minimum of 70% — is sourced from managed forests. We have carefully designed our cabins to be eco-friendly throughout their entire lifetime, not just the construction phase. This means that they can be run on a day-to-day basis with a low carbon footprint, and they will be largely recyclable when the time comes.



Minimum of **70%** timber from managed forests

BUILDING STANDARDS

Our buildings offer ready to use working environments that meet the requirements of the Building Regulations and British Standards, making the planning application process as easy as possible.

Our buildings have been designed to the highest of standards that meet Ofsted and Building Control requirements. Our cabins are extremely energy efficient, with a particular focus on operational energy performance — in accordance with Approved Document Part L of Building Control.

Under the Disability Discrimination Act 1995 (DDA) we have designed our cabins to allow for wheel chair access, with features such as disabled toilets, vision panels and access ramps.

P&A Landscaping & Timber Buildings are currently on the "Approved Contractors" list for all councils throughout North Wales and are members of Constructionline and LABC. This saves time and effort, and guarantees you will receive quality workmanship and peace of mind.

All our cabins are covered by a full 5 Year Warranty.

We also provide aftercare advice and service.



Other services provided by



Landscaping & Timber Buildings

P&A Landscaping is an established division of the P&A Group specialising in hard landscaping. Working both in the public and private sector, P&A have successfully completed a large number of landscaping projects for schools and local authorities.

From planning and design guidance through construction to completion, working closely with clients, P&A provide total project management.

As members of Constructionline P&A are quality approved, ensuring a high standard of workmanship. The Landscaping team are experienced and approachable, sharing their knowledge and ensuring best possible end result.

This all adds up to a comprehensive, professional and efficient service.



THE OCTAGON OUTDOOR CLASSROOM

Designed specifically for Foundation Phase learning

Our Outdoor Classrooms are built to a high specification, offering a practical environment for teaching and playing. Our 5m and 4m Octagons are one of our most popular products, with seating capacity for up to 35 junior school children. We are able to customise the Octagon to meet your individual requirements, plus all our timber is pressure treated and comes with a 10 Year Guarantee Against Rot.

The Octagon is ideal for:

- Music lessons
- Drama
- Story time
- Art lessons
- Packed lunches and break time
- A base for P.E. or science lessons

Please contact us for additional literature and more ideas.



FENCING & RAILINGS

We can supply and install a wide range of steel and timber fencing suitable for schools or commercial premises, from timber post & rail closed-board fencing to decorative bowtop panels. We can also supply railings, chainlink fencing and commercial security fencing.

Our fencing customers include Flintshire County Council, Wrexham County Borough Council and Smurfit Kappa.



BESPOKE TIMBER CONSTRUCTION

We have the expertise and resources to design & build bespoke timber structures, from seating and storage sheds to small planters and large buildings.

We built this bespoke shelter and observation area (right) for the Erlas Centre in Wrexham, complete with benches, notice boards and storage room. We also built a 'woodland walkway' (far right) — a large decked pathway with two viewing areas, designed to blend into its surroundings.



AND MORE...



Paving & Patios



Landscaping for Schools



Building Renovation

For more information, please visit www.pandalandscaping.co.uk

How to CONTACT US

We can plan and project-manage your new Eco Classroom from start to finish.

Our Construction & Landscaping Manager **John Vaughan** will happily answer your questions and talk you through the process.

Call John on **01352 752555**

or e-mail **john@p-a-group.com**

 **Landscaping &
Timber Buildings**



Winners of **Best in Show**
and the **Gold Award** at the
Llangollen Gardening Show

Please Note

Information and prices in this brochure are correct at time of printing. Product specifications may vary from those stated. We reserve the right to modify designs, specifications and/or prices without prior notice. Errors and omissions exempt.

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