

ESSEX FARM BUILDINGS

SUPPLEMENTARY PLANNING GUIDANCE

ESSEX PLANNING OFFICERS ASSOCIATION 1994



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Composition of Working Party

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TERMS OF REFERENCE

To produce guidance for planners, farmers and all involved in the design of agricultural buildings in Essex, whether or not planning permission is required.

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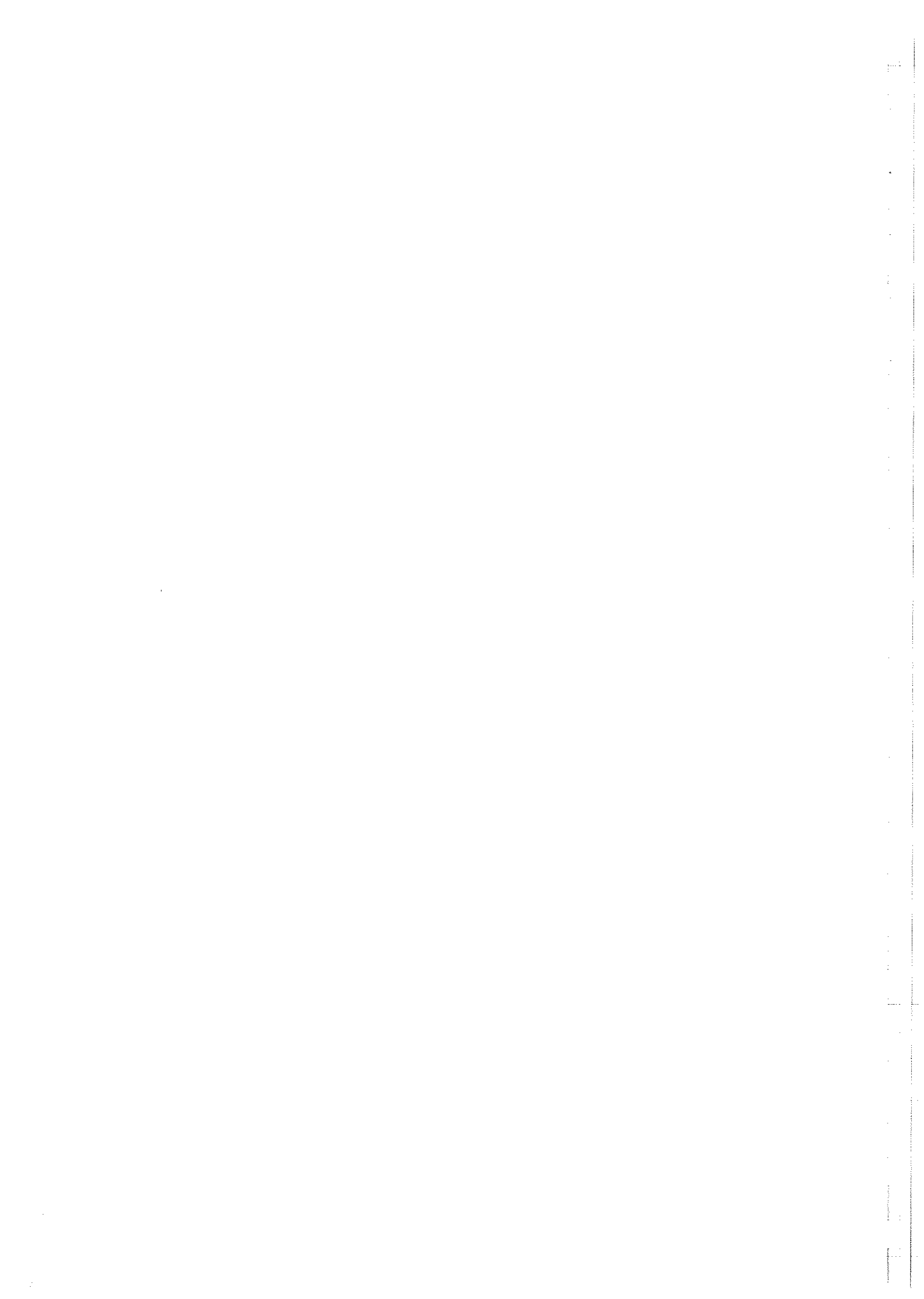
Section 5.03. The publications, "Colour Co-ordination of Factory made Products" and "Colour Finishes for Factory made Cladding used in Farm Buildings", are no longer available from the Design Council.



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1.00 INTRODUCTION

Changing farming practice and increased mechanisation have resulted in a demand by farmers for larger open-plan buildings generally with wide span, low pitched roofs. When these buildings are built in modern materials, such as natural fibre cement or asbestos, the impact is often disturbing to the eye and incongruous in the rural scene. Instead of blending with their surroundings, modern farm buildings too often dominate the rural scene and detract from the appearance and character of the countryside.

Everyone - farmers, manufacturers, designers, planners - has a responsibility to ensure that new farm buildings not only meet modern farming requirements but are attractive and appropriate to their setting and the general character of the area.

The aim of this document is to draw attention to the need for careful consideration to be given to the design, location and landscaping of new farm buildings. It is hoped that the guidance contained in the following pages will encourage the use of building forms, materials, colours, textures and detailing which, with careful siting and appropriate landscaping, will blend with their surroundings and present an agreeable appearance in the landscape.

This advice applies to all buildings regardless of whether or not they require planning permission.

2.00 THE LANDSCAPE

2.01 Introduction.

Old farmsteads nestling in folds in the countryside, protected by trees, close to water sources, and built of natural materials form pictorial compositions painted by generations of artists - a tacit acknowledgement of their value in visual terms.

2.02 Site Planning

New farm buildings because of their scale and colour do not fit easily into the farmstead or the landscape. If they are to be satisfactorily incorporated into the landscape it is important that consideration is given at an early stage to appropriate site planning and planting. It is preferable to ask first where a building might be best located so that it fits the landscape rather than, as an afterthought, considering what might be done to hide the building? Matters of site organization, access and relationship with other site functions will usually have priority but where it is possible large buildings should be sited where their impact can be minimized. (Fig. 1)

Often sites or positions can be chosen where advantage can be taken of existing features such as vegetation or landform to reduce the impact of large buildings. On sloping sites buildings should be set into the slope. (Fig 2).

Prominent locations, and those on skylines should be avoided as should the loss of any significant vegetation. It is important to consider the new building not in isolation but as part of a whole which includes yard space, fencing, earthmounding, ancillary development, planting and all the other additional elements necessary to its proper function and appearance. From the outset

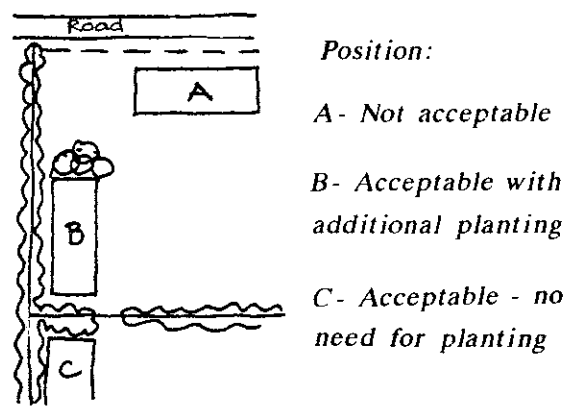
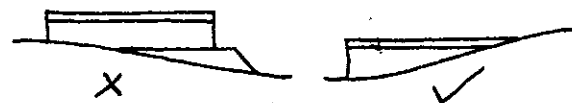


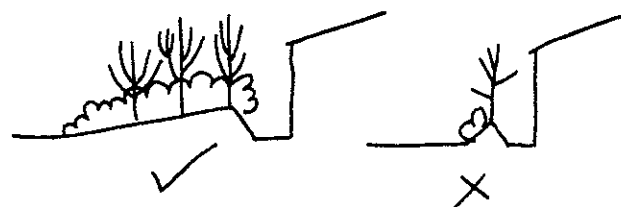
Figure 1



Placement in the landscape and earthworks are important

Figure 2

sufficient space should be allowed for any ground shaping or planting that may be necessary. Soils from foundations can be used to aid screening but should be used with care. A sharply profiled bund around the building is not likely to be acceptable and soils would be better used to form a more natural, wider mound where it will be much easier to establish planting. (Fig. 3)



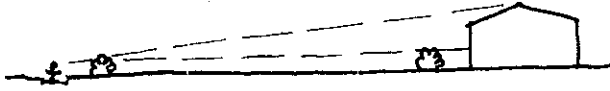
A wider more natural mound is more acceptable

Figure 3

2.03 Planting

Trees for shelter, for production and for delight are a traditional element of the farmstead. Planting should be of species, mixtures and forms indigenous to the locality. A single line of conifers is likely to be as intrusive in the landscape as the building itself and is not acceptable. A well sited building may benefit from some additional screening but the visual impact of a poorly situated one cannot be easily reduced. The aim should not necessarily be to hide a building from sight, but rather to soften a hard outline, break up a prominent silhouette, and help 'anchor' a new building to the surrounding landscape. Planting should be considered not only in proximity to the building but also in the

wider landscape. Often it is more effective to increase the density, widen or change the management of an existing hedge close to a public viewpoint than to plant extensively close to a new building. (Fig. 4) A good hedge can screen the inevitable clutter around the base of a new building but trees or tree groups will also be necessary to help absorb the scale of a large building by breaking up long lines or by unifying gaps in a building cluster.



Planting close to a viewpoint can be more effective than next to the building

Figure 4

Where new planting is essential a two stage scheme is recommended with fast growing species such as willows for initial effect and slower growing species for a longer term effect. The faster growing species should be kept separate from the longer term species to avoid competition and to enable them to be thinned without damage to their successors. The longer term trees should be planted with shrubs to aid establishment and to create a more natural effect. Trees should generally be planted at between 1.5 and 3 metre centres and shrubs at between 1 and 1.5 metre centres. Hedges and shrubs at the edges of an area of woodland should be planted at closer centres. After planting, trees and shrubs often suffer from competition for nutrients and water. Weed growth should be controlled by the use of an appropriate weed-killer or by the use of plastic or organic mulch materials. Planting may also need to be protected from rabbit damage. Any plants which die in the first five years after planting should be replaced. As the planting becomes established some thinning, formative pruning or coppicing may be necessary to achieve a satisfactory screen. As a means of ensuring that vegetation around the new building is managed in an appropriate manner the planning authority can enter into a management agreement with the applicant.

Detailed requirements covering matters to be included as part of planning applications are covered in Chapter 7.00.

3.00 BUILDING DESIGN PRINCIPLES

3.01 Traditional Buildings

Farm buildings constructed before the industrial revolution were almost always visually attractive. Whilst wholly functional they complemented and added to the appearance of the landscape. They were simple in form, well proportioned and used natural materials for cladding. These materials were usually found or made locally - such as brick, clay tiles, boarding and thatch and had colours and textures that harmonised with the local landscape.

These buildings were roofed individually and the eye could clearly see how the group was formed from an hierarchical addition of various parts.

Although of simple construction there was nevertheless considerable refinement of proportions and details. Structural limitations kept spans narrow and therefore buildings were linear, producing attractive forms. Square plan buildings were rare - and where they occurred they had pyramidal or hipped roofs complementing the group of linear buildings.

Buildings were arranged in farmstead groups often dominated by the great medieval barn and sometimes included the farmhouse to enclose a main yard - the buildings were capable of extensions as well as re-use - and further yards were created over time. (Fig. 5)

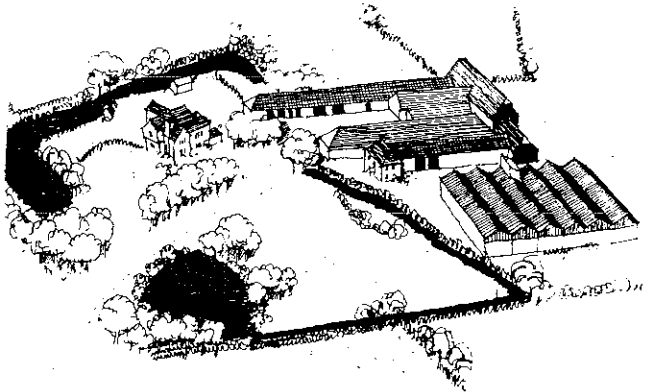


Figure 5

The industrial revolution finally altered the method of building. Changing methods of farming and cheaper and easier transport allowed new building materials to appear. The Welsh slate roof at lower pitch and wider span supported on trusses made of imported softwood - combined with iron and later steel supports - made a big change in the appearance of the farm. Cheaper bricks became available manufactured far from the local scene. However, the resultant 19th century group does have some lessons for today's wide span metal buildings, as the designers often used 'classical' proportions (and even some details) which can again be interpreted in the framed metal buildings of today.

3.02 Modern Farm Buildings

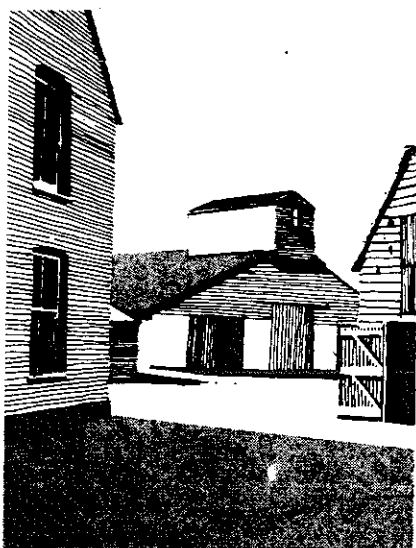
Modern farm buildings are generally seen as the cheapest solution to meet the particular functional need of the farmer. Regardless of the type of building the forms are rectangular with large span low pitched roofs. In the recent past, uncoloured asbestos cement sheeting provided the most usual roofing and upper walling material with concrete blockwork and metal retaining walls at lower level. As a result, with a few well known exceptions where extra care has been taken, the majority of farm buildings of the last 30/40 years are ill-proportioned, formless and clad in materials that are not in harmony with the landscape. The problems can be at least partly overcome by various means without compromising the use of the buildings, but first it is necessary to consider briefly the various current building types.

4.00 CURRENT BUILDING TYPES

4.01 Grain Drying and Storage

Buildings of this category were popular during the late 1970s and early 1980s and some reached considerable size. The most common type with a dryer inside the store were wide span buildings with a dryer near the front doors and overhead conveyor below the ridge discharging the grain into bins that have a perforated floor. At the head of the elevator occurs the "penthouse" which has a certain family resemblance to the hoist housing on earlier generations of mill buildings.

When care was taken in the visual handling of the various components (usually a planning requirement where the buildings reached the size to trigger the need for an application), these building types were by far the most visually successful of all recent farm buildings in Essex.



Grain store in farm buildings complex

The walling of grain storage buildings is normally designed to withstand the side loading of the grain and is usually constructed with large scale corrugations, their visual scale looks right on buildings of this size. The alternative of reinforced blockwork - rendered and painted - maybe more appropriate when the building can be viewed at close quarters, however this option usually results in a physically larger building (reinforced blockwork walling generally cannot be surcharged).

Storage may be entirely by outside bins and additional bins may be added adjacent to the grain store. These are usually circular or corrugated galvanised metal and fed from the grain dryer by overhead auger. This creates a gleaming complex of shapes emphasising the industrial nature of grain production with little hope of visual incorporation into the countryside. The case for complete peripheral planting around new farm complex groups is strong: see Landscape Section 2.00.

The spate of new grain stores of the familiar type may have slowed in recent times, however when new building is again considered it may be on an even larger scale than before following C.A.P. reform.

The costs of implementing the new Health and Safety regulations can be partially offset by economies of scale and this will encourage the trend towards grain cooperatives requiring new sites for storage on the European scale where tall multiple silo installations are normal. Whilst this process may mean difficult decisions will need to be made on some new "landmark" groups, there should be less pressure for developments on individual farms.

4.02 Implement Stores

Each generation of new machinery tends to be larger than the last. The equipment is expensive and needs to be housed. Old barns may have coped in the past but are now inappropriate as are implement sheds built only a decade or so ago. Large combines now may exceed 9m in length, 5m in width and nearly 4m in height whilst even tractors require 2.75m headroom. Thus buildings are required with good headroom and sufficient yard and road access not only for farm machinery but also visiting vehicles to the farm. Vehicles up to 15.3m x 2.5m x 4.6m high need to be considered with turning circles up to 21.00m.

The new equipment store is likely to be either a portal frame building or a 'pole' barn. It may well be a dual purpose building and has the advantage that it can be a simple shape not cluttered by tanks, motor housings etc.

4.03 Other Crop Storage

Storage for crops has become necessary when in earlier times no buildings were required at all. For example, potatoes once stored in clamps now require better protection and need buildings. Firstly built in blockwork and insulated with straw, they are now framed buildings and can incorporate sophisticated control systems to maintain an optimum environment for the crop.



Storage building, using modern cladding materials

4.04 Tower Silos

Once the most dramatic of all new farm buildings, they have largely outlived their functional and structural life and are now seen as an outdated form of farm equipment for silage.

4.05 Horticulture

Crops grown under glass have reduced in number and have been replaced by areas of plastic sheeting, often a visually depressing sight. Newer glasshouses where required can however be much better conceived than the ranges of greenhouses attached to redundant War Department buildings complete with common brick chimneys, water tanks and bungalows that were scattered throughout large areas of the Metropolitan fringe of Essex.

4.06 Animal Farming

Recent and continuing changes to the structure of farming make it difficult to predict the future requirements for buildings associated with animal production. However, dairy farming will inevitably continue, some beef will be produced, sheep have increased in numbers and pig and poultry farming remain active. Guidance on stocking rates of animals in buildings and other livestock welfare matters may be found in the MAFF publications "Codes of Recommendations for the Welfare of Livestock."

Where large intensive animal husbandry units are proposed these will need an "architectural" design concept to incorporate them within the landscape in addition to solving the technical problems of pollution and access.

4.07 Pollution

Common to all type of animal farming is the risk of pollution, whether from silage effluent, FYM, slurry or poultry litter. In nearly all cases the pollutant material will need to be collected and treated prior to disposal. Pollution will result where rainwater is allowed to carry the material directly into farm ditches or watercourses. Where there is no separation of pollutant material and rain water appreciably larger storage facilities will be necessary. Attention to the detail of guttering, downpipes, ground slope and drainage to prevent this mixing is therefore very important. Regulations dealing with the control of effluent and the design of facilities can be found in the "Code of Good Agricultural Practice for the Protection of Water" and is available free from the MAFF Regional Centre in Cambridge.

4.08 Dairy Farms

There has been little recent building activity since the trend in the last decade towards housing for larger herds. A self supporting unit, say for 250 cows, would require

1. A cow housing unit - a wide span building either with a covered straw yard or internal cubicles. Alternatively it may be a long low building divided into a series of kennels.
2. A milking parlour - either of herringbone or rotary type.
3. Storage building - for hay, straw or silage.
4. Specialized feed stores - with hoppers and conveyors
5. Feed system.
6. Effluent system

The typical 'composition' may well be an assembly of various manufacturers standard sheds - each not necessarily unsightly but grouped together they illustrate the weakness of this type of planning. In traditional building the design of the roofs would have been the unifying feature.

4.09 Beef

No large-scale beef production is likely in Essex and normally relatively small units have been developed by using existing buildings. Calves are bought in on contract housed initially in low-insulated buildings, then transferred to larger open sided buildings and finally fattened in covered yards. The buildings are not unlike dairy housing units without the milking parlour.

4.10 Sheep

It has become increasingly the practice to house the flock during part of the winter months - normally re-using existing building. Specialist housing is rare.

4.11 Pigs

Whilst there is a trend towards 'free range' pig production there continues also to be interest in intensive rearing in specialist buildings. Because of disease problems the larger units are separated into the various stages of production. There are some large scale units with a throughput of 3,000 pigs per year in Essex.

Pig breeding may often be developed on small farms to enlarge the size of the business.

Building requirements include the sow building, mill buildings for processing crops into feed, weaner pens, and yard areas. Earlier generations of piggeries were usually converted existing outbuildings with new prefabricated units added regardless of appearance. The detailed design of the most visible parts e.g. the ventilators was crude and unrelated to the building form. New buildings are more sophisticated but may be excessively long - up to 100m and on one continuous level.

The problem of effluent from pig units is particularly difficult especially on small acreage farms but the return of straw based slurry systems which produce semi-solid waste does produce less risk of 'run off' into water courses.

4.12 Poultry

Intensive production of poultry continues despite the increase in demand for 'Free Range' eggs.

The various functions are: Hatcheries for day old chicks; Commercial egg producers; Broiler producers and Breeders for the hatcheries.

The housing units are familiar: low, long with large roof vents and walls with hooded ventilators with feeding generally from high storage bins at the gable ends of the building.

The effluent is again a major problem on units with small acreages, but hen manure is in demand due to its high agricultural value.

5.00 DESIGN AND DETAIL

For the creation of an attractive building or group of buildings the following elements must be well designed: the form, composition, colour and materials, door and window openings and finally the other details. The question of siting in the landscape has been considered in Section 2.00.

5.01 Form

Traditionally, buildings with good overall shape were created almost sub-consciously. Each of the linear buildings was roofed individually and the eye could clearly add the parts together to make a satisfactory whole. This method of design has been termed 'additive' form. The clarity of form can easily become confused when the alternative approach is used whereby a single roof covers an irregular series of plan shapes. This will create the impression that the building is incomplete - i.e. parts of the building have been subtracted. This method of design has been termed 'subtractive' form.

5.02 Composition

Traditional farm buildings were grouped in courtyards around or adjacent to a major structure - the barn - often a splendid medieval building. Today these buildings are often inappropriate to modern farming and large scale expansion of the courtyard form with factory made buildings is impossible without spoiling the visual composition of the farmstead. Nevertheless these buildings, which may no longer have an economic agricultural use, can continue to contribute to the rural economy if incorporated into farm diversification programmes. The smaller buildings are best left to small scale activities and possibly non-agricultural uses whilst the major new buildings with their necessary new discipline become part of a new farming composition. Emphasis on accessibility and movement rather than upon shelter will dictate large road and yard areas. Plant, e.g. silos, bins, elevators, tanks etc., will often provide the key ingredient to a successful building composition. Carefully located, these vertical elements can provide a welcome contrast to the usual low pitched horizontally proportioned buildings. All too often the plant is located in a haphazard manner. Every effort should be made to locate the plant to visually enhance the composition notwithstanding the need to satisfy the functional requirements.

To summarise - It is necessary to design each building to form a distinct part of a coherent composition of buildings on the farm.

5.03 Colour and materials.

Colour is perhaps the most vital consideration in farm building design, for by the correct use of colour contrasts, the form of the building is made clear to the eye - especially important in the distant view.

In Essex the colour of farm buildings originally was based on natural materials: walls were in red bricks or stocks, plastered, or most commonly boarded; roofs were thatched, clay tiled or (in the 19th century) slated. The colours of these materials have a natural affinity with the landscape whereas the majority of present equivalents do not; natural grey fibre cement or

asbestos is too light in colour for the Essex landscape, and, with the increasing number and bulk of the new buildings and loss of tree cover, unwelcome attention is drawn to the new structures. Much of the Essex countryside is already cluttered with indifferent buildings, and recessive colours are needed now to reduce the intrusion of farm buildings which are of necessity unglamorous.

Many years ago the Design Council published details of a method of selecting coloured finishes in relation to the basic colours of the landscape and details are explained in the pamphlets "Colour Co-ordination of Factory made Products" and "Colour Finishes for Factory made Cladding used in Farm Buildings". This information will not be repeated here but it is recommended that colours should be chosen by the method outlined in these publications*.

*Obtainable from The Design Council, 28, Haymarket, London SW1Y 4SP. Wherever possible traditional materials should be used, for example when old walls are removed to make way for new development the old bricks can be re-used as infilling between new structural frames, rather than laid down as hardcore. In cases where old buildings are to be re-used their visual value is often completely lost in the concrete blocks. Where it is necessary to re-roof existing structures the retention of the black boarded cladding (or its renewal) can help considerably in off-setting the effect of the new asbestos roof; the use of bitumen impregnated corrugated sheeting is another economic material for re-roofing and is available in suitable colours. It has the advantage that it is flexible, and not liable to shatter when fixed to the warped planes of old roof timbers. Because of its combustible nature it may not be suitable in all situations and should only be applied by specialists.

Asbestos cannot bend to adjust to building movement, it soon cracks, and new sheets inserted amongst old aggravate the visual problem, (Fig. 6).

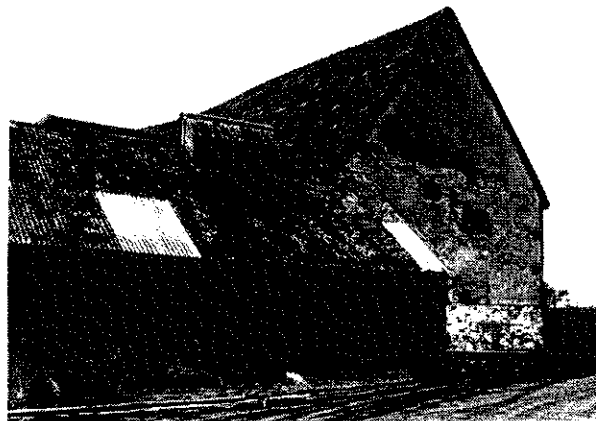


Figure 6

Many old barns are on the statutory list of buildings of Architectural or Historical interest and as such are protected by law. Various bodies including the County Council may assist with advice on the repair and conversion of these buildings in traditional materials; the Design Guide No. 4 "Historic Buildings"* gives advice on this problem.

* E.C.C. publication obtainable on request from County Hall, Chelmsford.

The vast majority of new buildings will, however, be of a prefabricated industrial type, designed usually for adaptability and clad in the cheapest materials. Manufactured claddings suffer from one common defect, they do not age in an attractive way. Initially natural asbestos and fibre cement clad buildings appear almost white and *can* have an attractive crispness. This effect does not last long, as the asbestos ages it becomes less conspicuous but instead of becoming intrinsically more attractive as a clay tile roof does as it matures, the asbestos tends merely to become drab and tawdry. (Fig. 7).



Figure 7

In certain areas lichens begin to grow on asbestos and fibre cement and this certainly improves the appearance of the material. However the establishment of lichen is far from guaranteed and natural growth may take a very long time before it is effective. Techniques such as "painting" the surface with a weak manure solution to encourage the establishment of lichen and promote the rate of its growth have had some success.

The basic materials used for claddings are listed below; (for full details of manufacturers see "Colour Finishes For Factory Made Cladding Used In Farm Buildings" published by the Design Council.)

1. Fibre cement sheetings:

Various profiles are available and combinations of flat sheet and corrugated can be incorporated in order to adjust the cladding to the scale of the buildings.

High hopes were held out for the integrally coloured dark blue-grey asbestos, but the colour leached out or faded, often at different rates on adjoining sheets and fittings. Factory applied surface colours seem to have proved more durable and are available in the recommended colours. These include sheeting designed for roofing which has some of the characteristics of slate, i.e. it appears grey in bright weather and black in the wet.

2. Fibre sheeting:

Corrugated bitumen impregnated coloured sheets are limited to 3" corrugations and therefore are most suitable for small scale buildings. There is a limited range of accessories. The sheets are flexible and lightweight.

3. Metal sheeting:

A variety of shapes are available with more rectangular profiles which are easily achieved in metal. Protection is by galvanizing or plastic coating to steel, or by various surface treatments to aluminium. Lighter weight roof structures are possible with aluminium but light reflection from the external surface can be a greater problem than plain asbestos. With this material it is even more important that dark coloured finishes should be used for roofs.

4. Brickwork:

It is unlikely that brickwork other than in commons will find a use in new farm building because of the cost. Certain potato stores were constructed in fletton brickwork until recently in order to provide the necessary retaining wall strength. The use of "grain walling" for potatoes as well as grain has effectively put an end to the use of brickwork on any large scale buildings.

5. Blockwork:

In Essex concrete blockwork which is akin to masonry is an alien material especially in conjunction with old brick, plaster and boarded buildings. As with masonry, blockwork requires special closures, quoin blocks, cills etc. to be successful. Farm buildings do not normally attract this sort of attention to detailing. A considerable visual improvement can be made to plain blockwork by painting it (probably white or buff - but dependent on the remainder of the cladding). The incorporation of a black tarred plinth is also a practical and visual improvement.

6. Timber boarding:

This material has survived the economic trends to manufactured materials. It is easy to handle, strong, easily fixed and has a good texture. Fixed on walls as 'spaced' boarding for ventilation it can look very attractive. Traditionally boarded cladding has been black. It tends now to be the pale colour of pressure cured preservatives - either green or brown. Black, however, is still probably the best colour for boarding. Within this wide range of materials there is the possibility of producing successful buildings, especially now that a range of colours are available in manufactured claddings. However, unless the creation of the building is in the hands of a good designer the very variety offered may lead to disaster. Before 1900, the very limited range of natural materials meant there was an excellent chance that buildings would be successful; also the rate of change in design was slow and traditional systems of solving both visual and structural problems were developed and handed down from generation to generation.

Now this system no longer exists, farm buildings are designed in a factory drawing office initially to comply with BS5502 in theory to a particular site and to take into account the necessary technical requirements of such as wind and snow loading and location of structural members, but often they will share components that may be used for many equivalent industrial buildings and the skills learnt by generations of craftsmen are cast aside. Yet many visual and technical lessons can be learnt from these skills.

The simplest example is probably the black boarded barn with terracotta tile roof (Fig. 8).

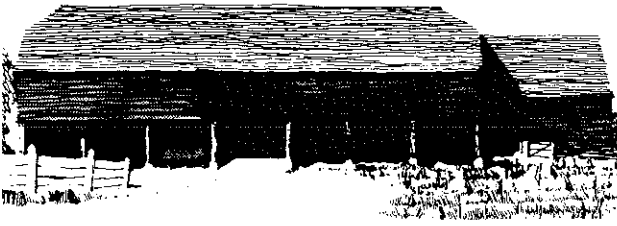


Figure 8

This attractive colour contrast also emphasises the form of the building; the comparable structure of today would be a fibre cement clad, probably steel framed building with roof and walls of equal reflective value - initially too bright and soon just drab (Fig. 9).

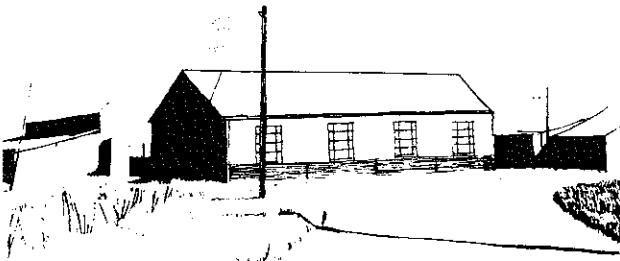


Figure 9

With blue/grey or red/brown profiled sheeting on the roof and natural asbestos or fibre cement to walls, the shape of the building (especially important at long distance) is emphasised whilst the reflective value of the roof is reduced - even this simple step has helped to reduce the intrusion of new buildings.

As a general rule in Britain, roofs of traditional buildings are darker than the walls (and weathering increases the darkening of the roofs). This rule can be applied with equal success in Essex although in the past it has not always been universal on farm buildings. Some of our most notable barns are clad in black boarding with terracotta plain or pan tiles on the roofs. Thus it should still be possible to break the "roof darker than wall" rule but to do so will require expert professional knowledge of each site. This site knowledge will not be available to standard building manufacturers at the design stage of a package building to be produced for a national market. Manufacturers now offer a range of claddings that are compatible with the Essex landscape, and that can be chosen by the architect, surveyor, or farmer with assistance from the Planning Department.

Summary:

The principle should be to construct the building in suitable materials and colours for the location in which it is to be sited, and the materials should be used in a logical and visually satisfactory manner.

5.04 Doors and Window Openings

However carefully the form, composition and colour have been considered in the creation of a building design, the effect of the building can easily be destroyed or enhanced by the design of the door openings, windows (if required) and the detailing.

Shed type buildings frequently suffer from visual problems associated with large openings especially at gable ends. In Fig. 10 the rectangular openings are too large and the corners too near the verge; this creates a disturbing relationship of solid to void, and a visually weak elevation as the eye "reads" the wall plane as the structure. (The columns being concealed).

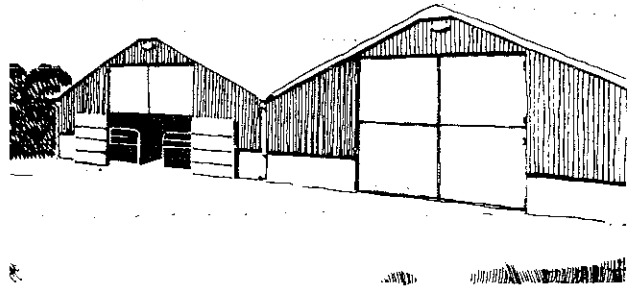


Figure 10

The sliding doors fitted to many buildings have the track fixed externally in order to conserve the maximum floor space. However, external door track frequently destroys a simple elevation by having no apparent relationship with the cladding; or by "colliding" with the verge. The worst case occurs when the track not only collides with the verge but extends beyond the eaves (Fig. 11).

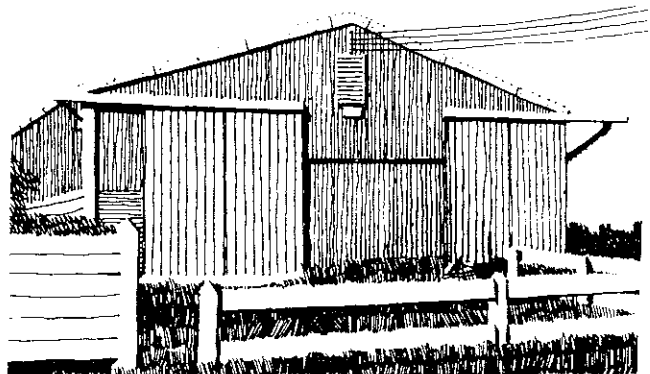


Figure 11

It is not impossible to integrate large openings and sliding door gear into buildings - but visual design ability is needed. Fig. 12 shows an open-ended barn with void/wall ratio carefully related and Fig. 13 indicates clearly how sliding door gear can be incorporated to improve the appearance of the overall design.

Fenestration is not normally a major consideration in the majority of farm buildings, but in the ancillary structures, for example the milking parlour extension at the end of a cattle building, the problem of window

5.05 Other Details

No design is complete without the details; the eaves, verge, gutters, ventilators, hoppers, etc. can either enhance the theme of the design - or destroy it. The most important point is scale: the scale of the detailing should be appropriate to the scale of the building.

Traditional brick buildings show clearly an appreciation of this point, thus for example in small buildings at external corners, no buttresses would be required, or would be very simple; when a similar corner was constructed in a larger building, large buttresses would be required increasing the visual impact of the structure. (Fig. 16).

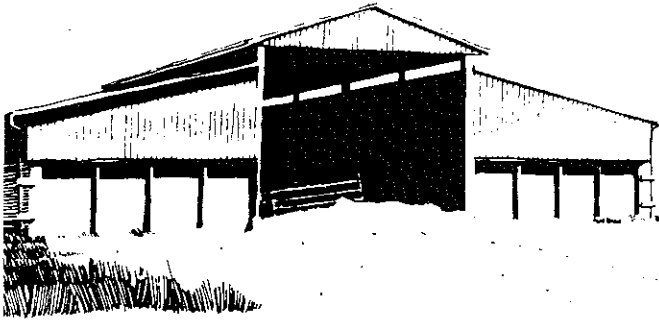


Figure 12

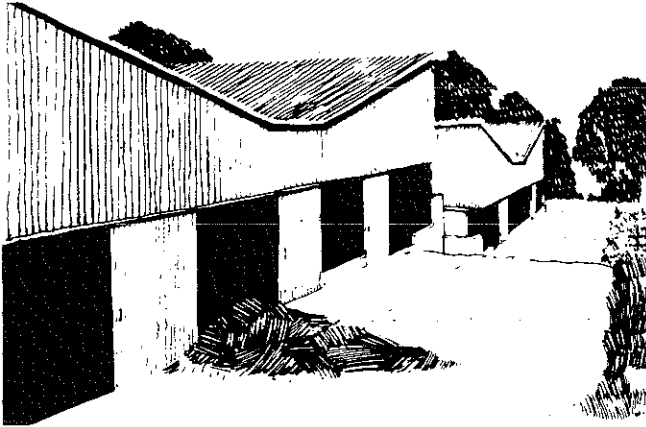


Figure 13

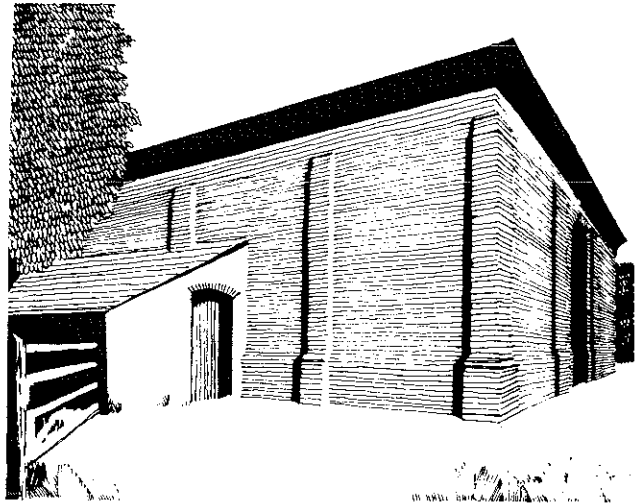


Figure 16

design is encountered. Whilst it is hardly necessary to mention that the windows should be positioned to provide the lighting and ventilation required, equally important they should also relate to the overall elevations of the building. (Figs. 14 and 15).

It is common practice for building manufacturers to design a portal frame structure which can be supplied to a variety of spans, but incorporates a standard size "knee" detail. This detail is only visually and structurally appropriate at one particular span and will look clumsy and out of scale when used for smaller span buildings. (Figs. 17 and 18). This was a common problem with precast concrete framed buildings, now rarely encountered.

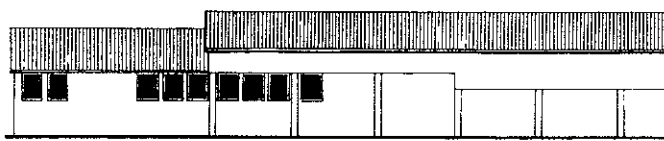


Figure 14



Figure 15

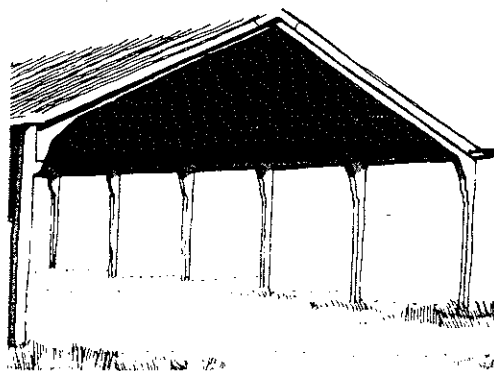


Figure 17

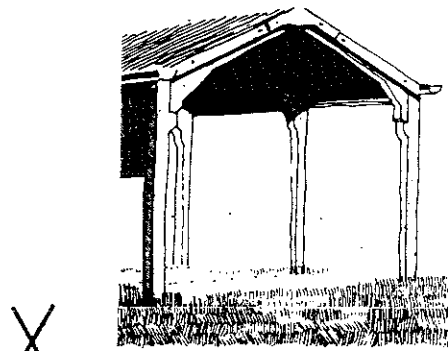


Figure 18

Corrugated sheeting for roofing is available in a variety of profiles but is often used without thought for scale; 75mm or 150mm corrugations are used regardless of whether the building is small or large.

It is also important to realize the limitations of sheet materials. The roofs of traditional buildings could incorporate the valley detail (Fig. 19) without difficulty, with large sheet materials it becomes awkward, and if large scale corrugations are used on small buildings the detail becomes grotesque.

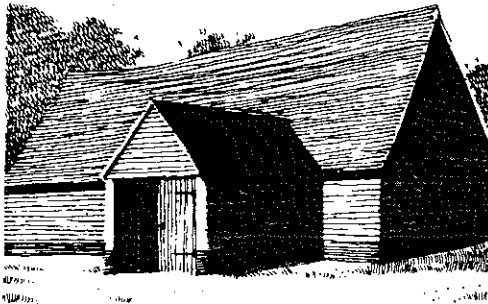


Figure 19

Sheeting manufacturers' details for verges, eaves and valleys offer "solutions" which may be watertight but are of crude appearance. On large buildings the basic form may overcome the details, but on smaller buildings the clumsy details overwhelm the building and attract the eye. (Fig. 20).

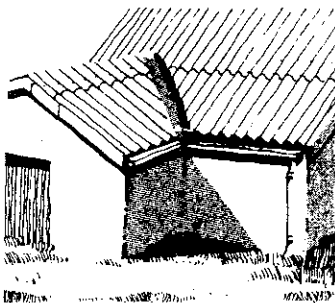


Figure 20

The employment of current building methods and materials without the use of skilled designers, has encouraged this casual attitude to the details. Some of the problems are analysed below.

The standard fibre cement verge produces a "wrapover" effect; neither the vertical wall nor the roof plane dominate. (Fig. 21). It is a very unsatisfactory visual detail and is aggravated by the asbestos being in

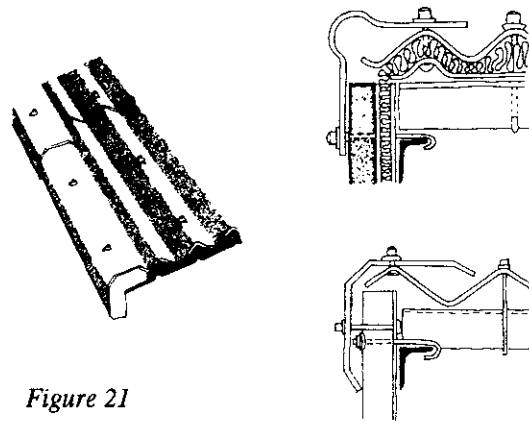


Figure 21

short lengths which weather unevenly and weaken the effect of the gable end.

There are various ways in which a better appearance can be achieved.

(a) By the use of alternative "standard" fibre cement verge components which are better designed in themselves. (Fig. 22). These lengths of bargeboard have a much improved profile, and are provided with socketed ends enabling the external face of the verge to be flush; whereas the normal fittings are lapped at the junction of each length, thus unfortunately emphasizing the joint.

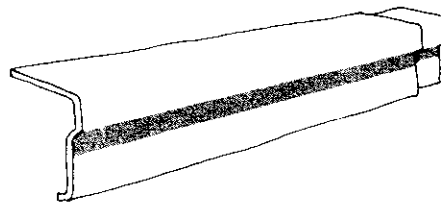


Figure 22

The verge should be projected clear of the vertical cladding to provide a strong 'shadow' line (Fig. 23).

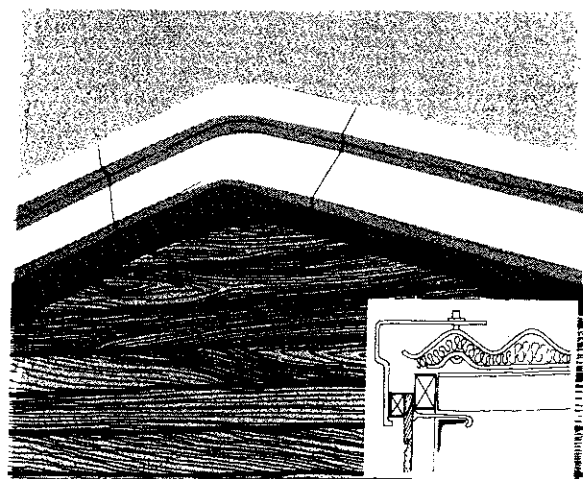


Figure 23

Where the gable cladding is also in asbestos this projection is even more important and should be increased (Fig. 24). The opportunity should be taken to use a different profiled sheeting for the vertical cladding in order to emphasise the different planes of

the building - especially important when viewed from a distance.

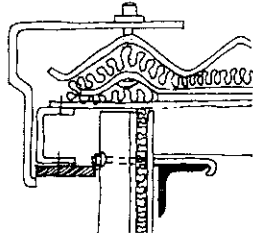


Figure 24

(b) By the use of timber fascias (Fig. 25).

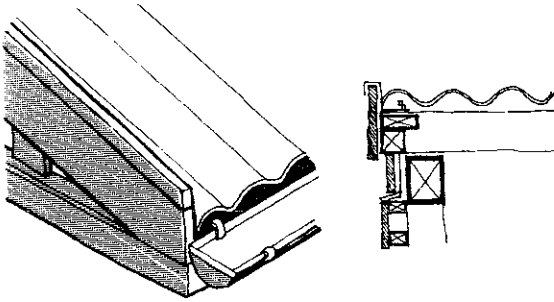


Figure 25

(c) By omitting the barge board detail and bedding the sheeting direct to the gable walling. This can produce a very crisp detail but is difficult to achieve unless the gable wall is in solid construction. (Fig. 26)

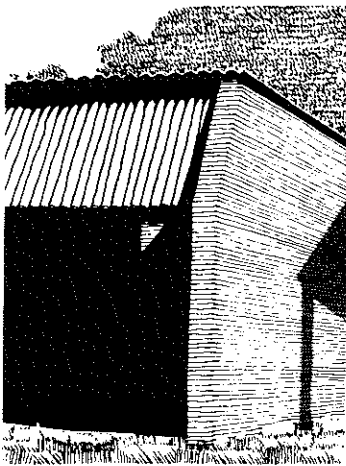


Figure 26

(d) By emphasising the vertical wall - i.e. the 'parapet wall' detail, this normally requires solid wall construction and inevitably is an expensive alternative due to the cost of copings and flashings. It can however prove a very useful detail when site conditions dictate that the gable wall cannot be at right angles to the ridge (Fig. 27).

Using alternative metal roofings much neater details are possible and it is quite possible to form a continuous verge and eaves detail incorporating the gutter. (Figs 28 & 29) The clarity of this solution to the difficult

problem of the verge/eaves/corner is immediately apparent.

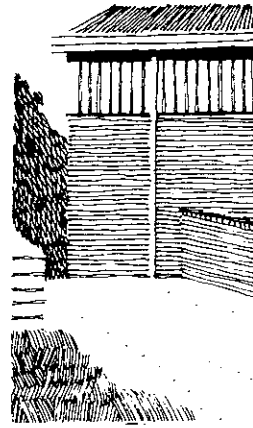


Figure 28

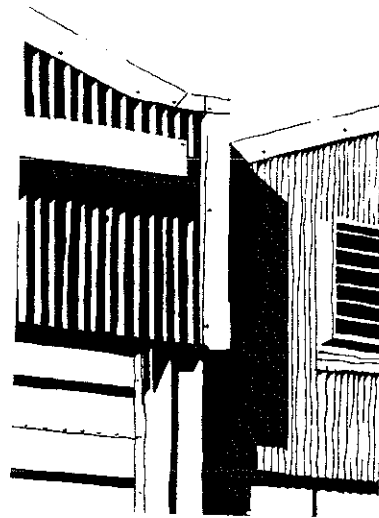


Figure 29

The standard ridge details at the gable peak are also unsatisfactory (Fig. 30). Fortunately in farm buildings the need to provide ventilating ridges on a majority of buildings creates the possibility of overcoming the shortcomings of "standard" ridges. (See 'Ventilation').

5.06 Ventilation

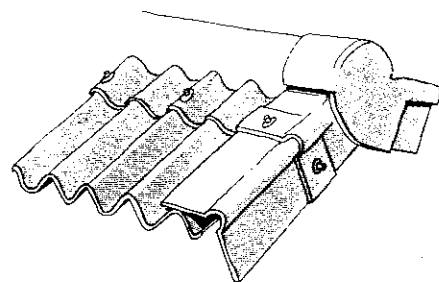


Figure 30

Air intakes and extracts are required to grain drying installations, potato stores, cattle houses, piggeries and poultry houses. To grain drying plants the large circular "hose" projecting from the gable end is depressingly familiar (Fig. 31) and completely unrelated to the form of the building. Properly integrated louvred panels designed as part of the structure can however provide a welcome feature of interest in otherwise uniform elevations. (Fig. 32).

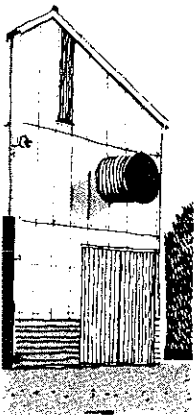


Figure 31

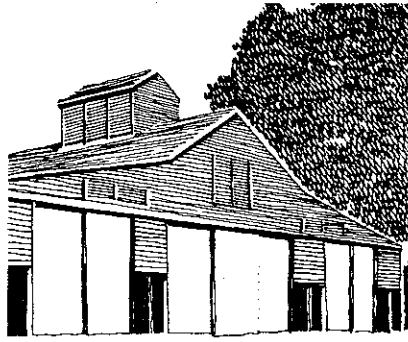


Figure 32

Roof extracts to low profile piggeries and poultry houses are equally poorly related to the building form; they are usually square in shape, flat topped, and crudely made. Traditional builders solved the problem of ridge ventilation by incorporating a louvred penthouse (Figs. 33 & 34). Wherever possible in new buildings the opportunity should be taken to incorporate complementary shaped ventilation details



Figure 33

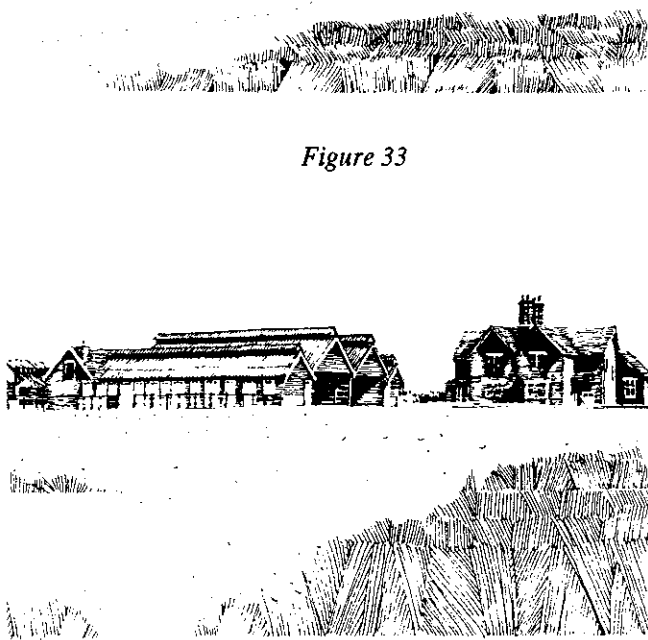


Figure 34

Cattle houses can become transformed when incorporating "raised ridge" detailing. The shadows shown by the ridge counter the effect of the ubiquitous asbestos and an interesting silhouette is produced;

internally the effect can be dramatic (Figs. 35, 36 and 37).

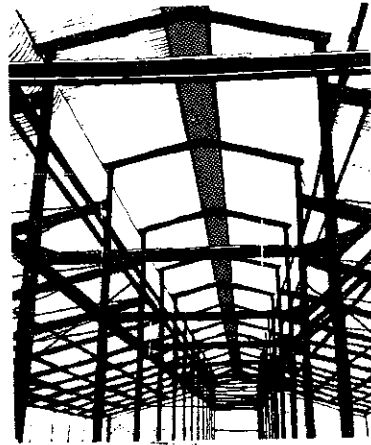


Figure 35

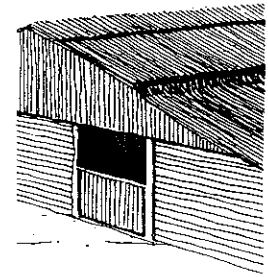


Figure 36



Figure 37

Another method of providing ridge ventilation in cattle houses and piggeries is to leave the ridge open with the roof sheeting turned up on each side to create a continuous venturi effect.

5.08 Eaves

The design of the eaves and the associated gutters and rainwater pipes has caused problems through many ages. The basic systems are frequently badly designed (Fig. 38) and they suffer from lack of maintenance which is accentuated by the loss of labour from the farm. The material now commonly used, asbestos, is brittle and rainwater pipes located on corners of buildings are easily damaged by farm machinery and livestock. Potential damage can often be avoided by locating down pipes away from busy corners.

Where newer materials such as p.v.c. are used even more tortuous systems are possible (Fig. 39) which by virtue of their extraordinary shapes distract the eye from considering the overall design of the building. Figs 28 & 29 show the clarity that can be achieved at the eaves.

Once a rainwater pipe is broken it is frequently not repaired, and the concentration of water at one point on the wall causes more damage to the building than would be caused by water running straight off the roof without

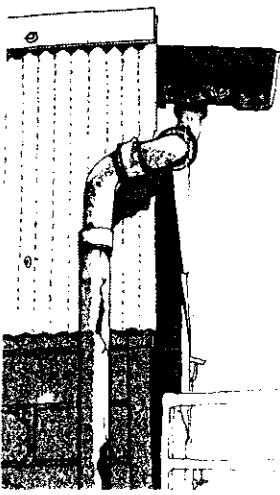


Figure 38



Figure 39

a gutter. There seems at first glance a strong technical and visual case for omitting guttering altogether on certain building types, and allowing sufficient eaves to overhang to throw water clear of the building. However this solution is clearly impractical where the roof drainage would add to the volume of dirty water in for example a cattle yard and thus increase the amount of treatment required and might also add to increased frost risk in winter.

New shapes will constantly occur with new cladding materials and these may or may not be successful according to the designer's ability. With curved corrugated sheeting for example, it is possible to create elegant new solutions to the eaves problem by carrying the sheeting clear of the walls. (Fig. 40).



Figure 40

Unfortunately all too often the similar curved sheets are used in the depressingly familiar manner shown in Fig. 41 where the lower edge of the curved sheeting is flush with the walls.

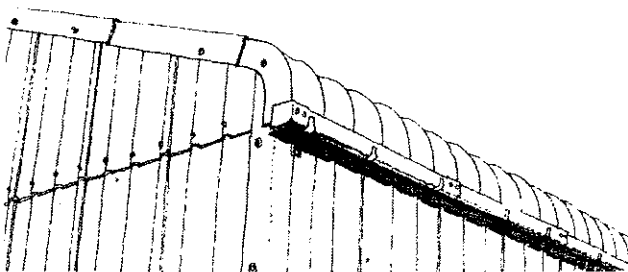


Figure 41

Summary:

The principle should be to design the details of the building and its ancillaries to reinforce the character of the building design and its location.

6.00 CASE STUDIES

This section covers some local examples of recent farm buildings as built or as submitted for approval with comments and suggestions as to how they might be improved by applying the principles set down in Chapters 2-5. Design must be led by function and not the reverse. The experience of those designing farm buildings is that, by understanding function and working with farmers, acceptable designs can usually be agreed.

Larger grain stores with wide span low pitched roofs were a common problem in the 1970s/1980s - and remain so today. The first example (Fig. 42) exhibits

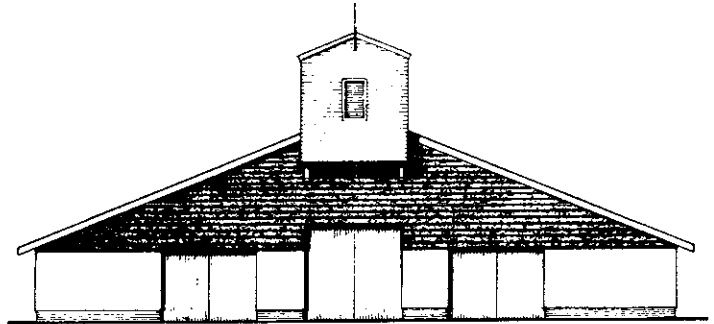


Figure 42

efforts by the designer and the Planning Authority to try to achieve better shapes and colours, but these remain large unrelieved structures almost rivalling abandoned aircraft hangars in their impact on a countryside still recovering from the effects of the loss of tree cover from elm disease and hedgerows from field amalgamation. Because the structure originally exceeded its approved size, the design was altered and added 20% to the total cost.

6.01 First Case Study

Fig 43 shows a typical small grain store and drying installation sited close to the road. With little planting the building suffers from the following visual problems.

1. Subtractive form (see para 5.01).
2. Unrelated details and plant - e.g. circular "hose" projecting through front elevation tanks etc.
3. Clumsy standard - eaves, verges, gutters, rain water pipes, cladding details
4. Poor colour and mixture of materials - plysheeting, asbestos, concrete blocks, timber doors, galvanised grainwalling.
5. Little or no landscaping - light overall colour emphasises poor shapes. Many years of weathering needed and regeneration of "natural" landscape to help incorporate the building into the countryside.

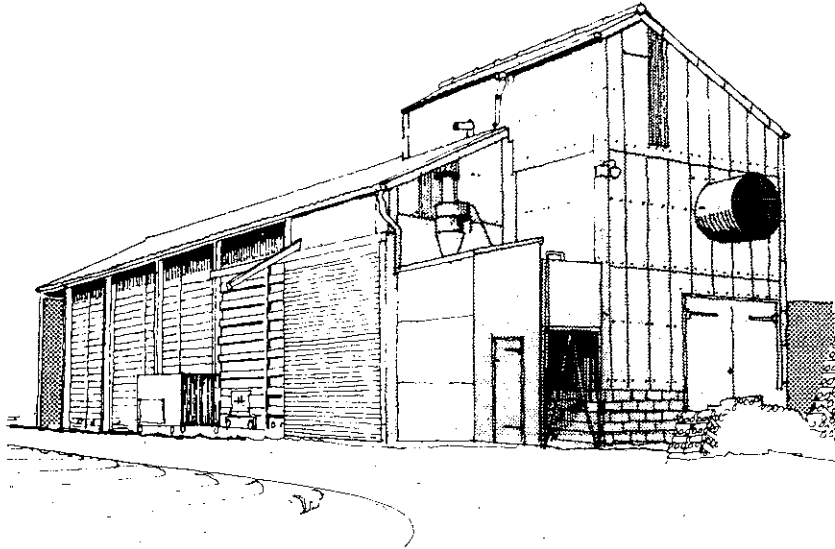


Figure 43

Fig 44 illustrates some alterations that would overcome the faults listed.

1. Form resolved by clearly defusing the shapes of parts of the building.
2. Unrelated details removed - vents become part of the design and plant is incorporated in the structure.
3. "Standard" retailing altered - eaves and verge projected to emphasise roof.
4. Better colour and mix of materials.
5. Proper landscaping to integrate building into countryside.

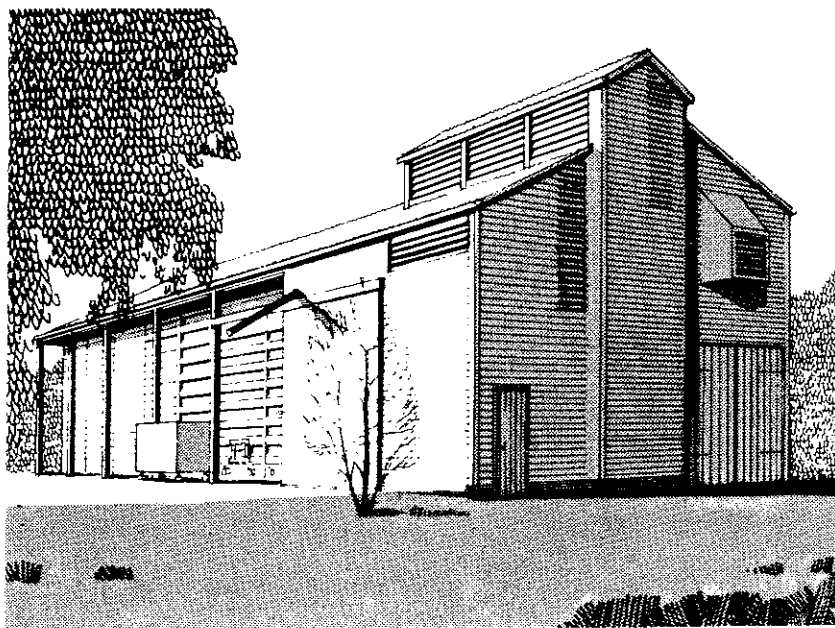


Figure 44

6.02 Second Case Study

Fig 45 shows the floor plan of a second grain store, to illustrate its function.

Figs 46 and 47 show a recent scheme with the following visual design faults.

1. Large single span volume with roof apparently spanning the "wrong" way.
2. Elevational design lacks any concept of visual coherence.
3. Openings create visual forces pulling away from centre.
4. Cladding with horizontal emphasis further exacerbates problem.
5. Details of doors, verges, eaves etc. not considered worthy of emphasis to help give some visual cohesion of the elevations.

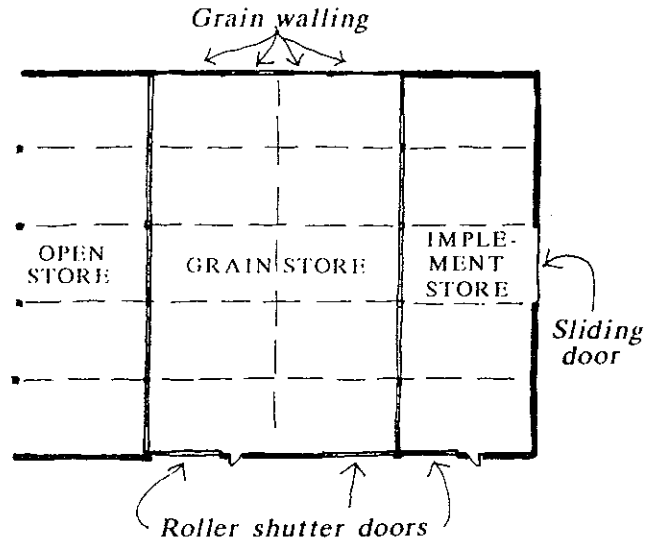
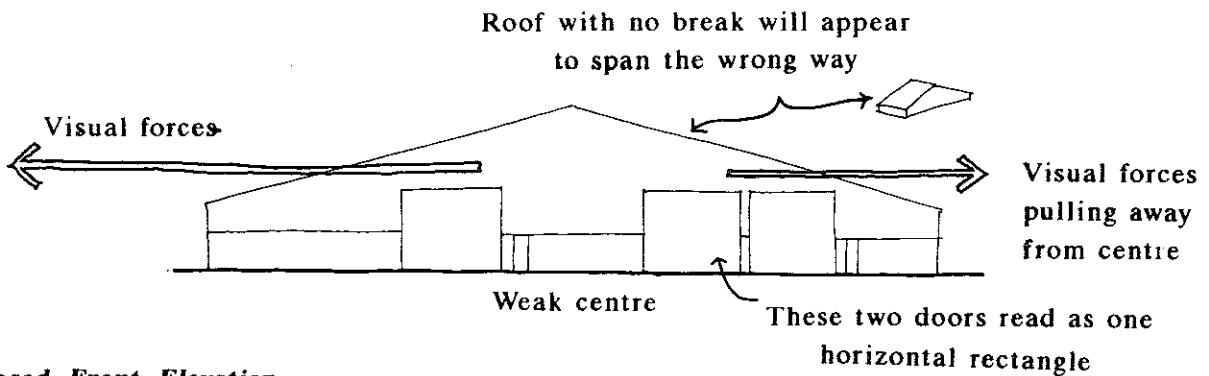
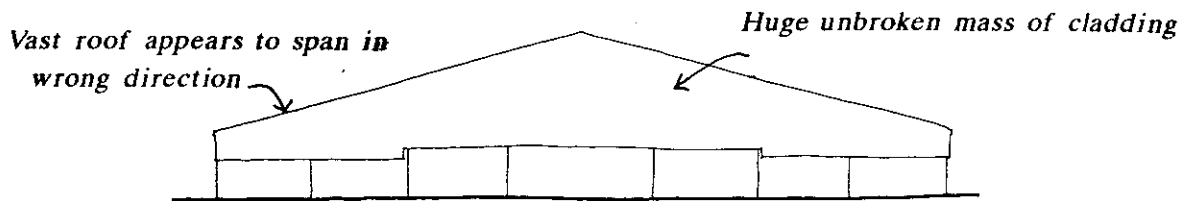


Figure 45



Proposed Front Elevation

Figure 46



Proposed Rear Elevation

Figure 47

Fig 48 and 49 illustrate an alternative approach to overcome the faults listed below.

1. Building broken into three units to emphasise the differing parts of the building.
2. Raising central unit will immediately make roofs appear visually logical and spanning in the right direction.
3. Openings remain in original position but structure emphasised to restrict visual effect of horizontal faces.
4. Cladding changed to vertically ribbed profile to central unit above doors to emphasise vertical element.
5. Details used to accentuate shape of building and especially by projecting eaves and verges. Central circular vent will help also to emphasise the centre of the composition.

Fig 50 illustrates variations on the principle of providing an entrance front.

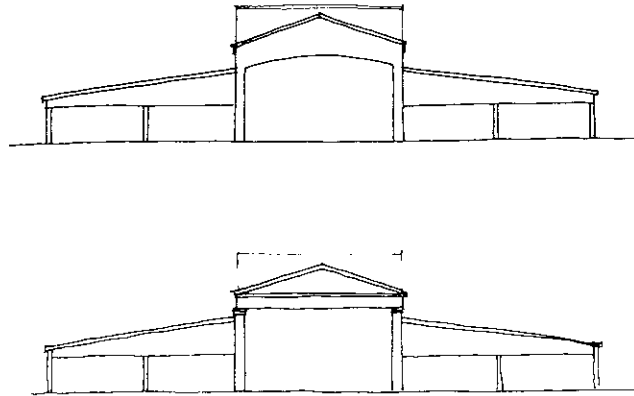
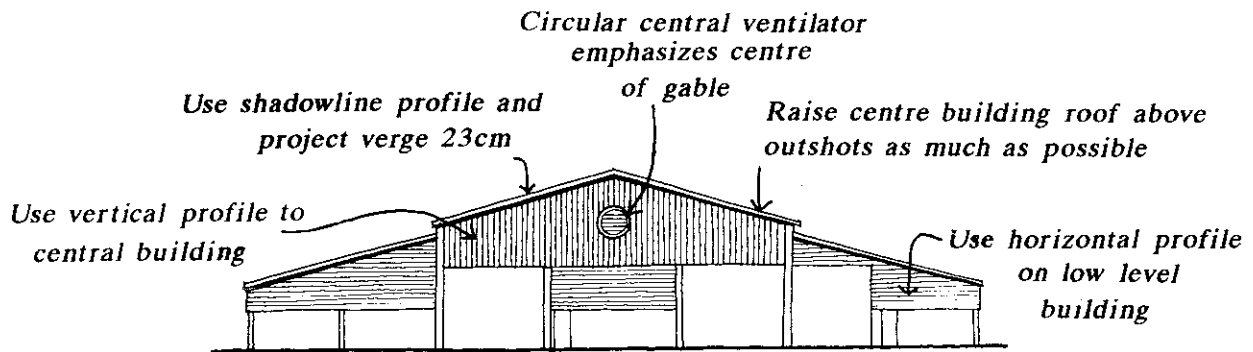
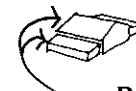


Figure 50

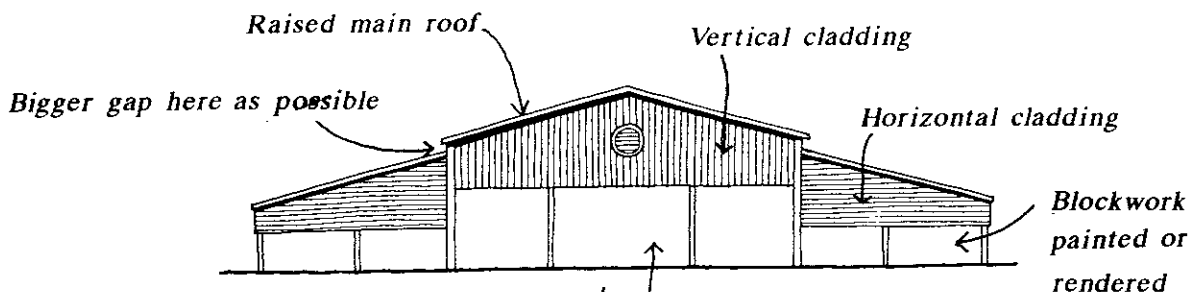


Revised Front Elevation breaking building into three elements and enhancing role of the 'central' building

Figure 48



Roof will now span correct way



Revised Rear Elevation breaking building into three elements and emphasizing central building

Figure 49

Grain walling raised in height
Pull main building forward as much as possible, but at least 15cm

6.03: Third Case Study: Landscape Concept

Fig. 51 shows the plan of a large farm complex. Fig. 52 illustrates the problems with buildings sited in a valley or on a ridge without planting.

- 1 Light coloured materials on roofs and walls are intrusive
- 2 Clutter around the base of buildings open to view and adds to intrusive effect
- 3 Storage silos taller than other buildings and often painted an intrusive colour.
- 4 Narrow screen of poplars ineffective and out of place in the Essex landscape.

Fig. 53 illustrates some solutions to the above problems reducing its intrusion in the landscape.

- 1 Darker materials on roofs.
- 2 Base clutter hidden by planting.
- 3 Silos painted a dark colour fit in better.
- 4 Planting close to the buildings and in the landscape reduces the impact of the buildings.

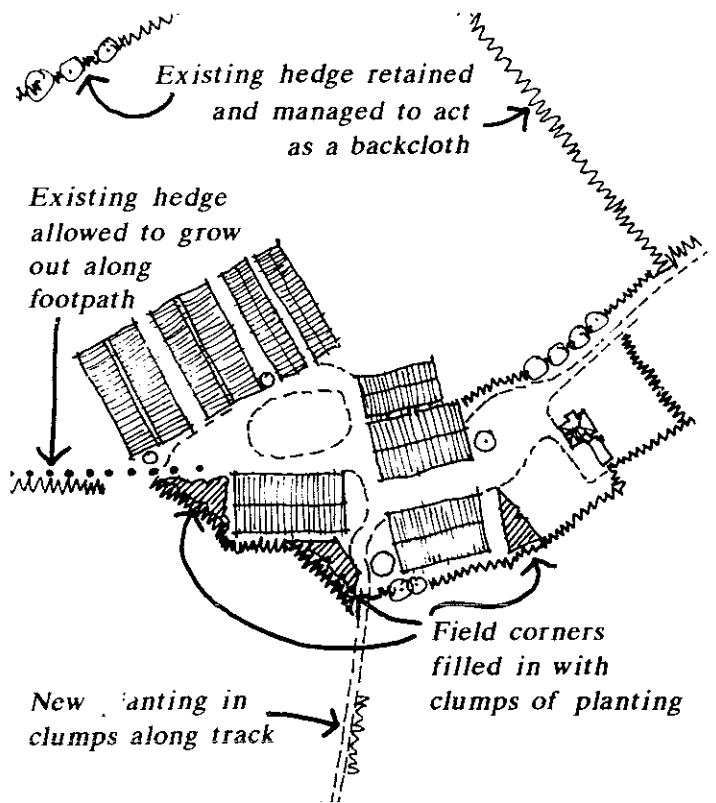
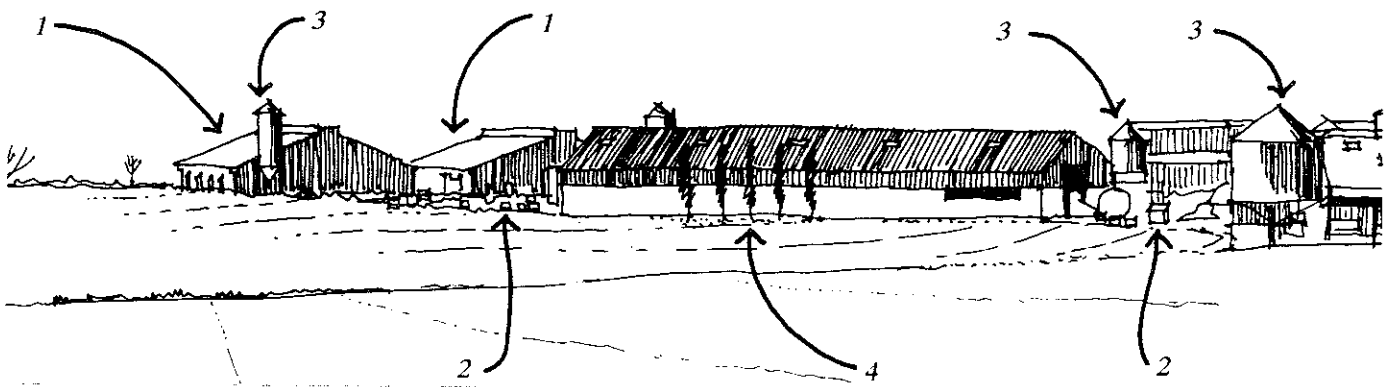
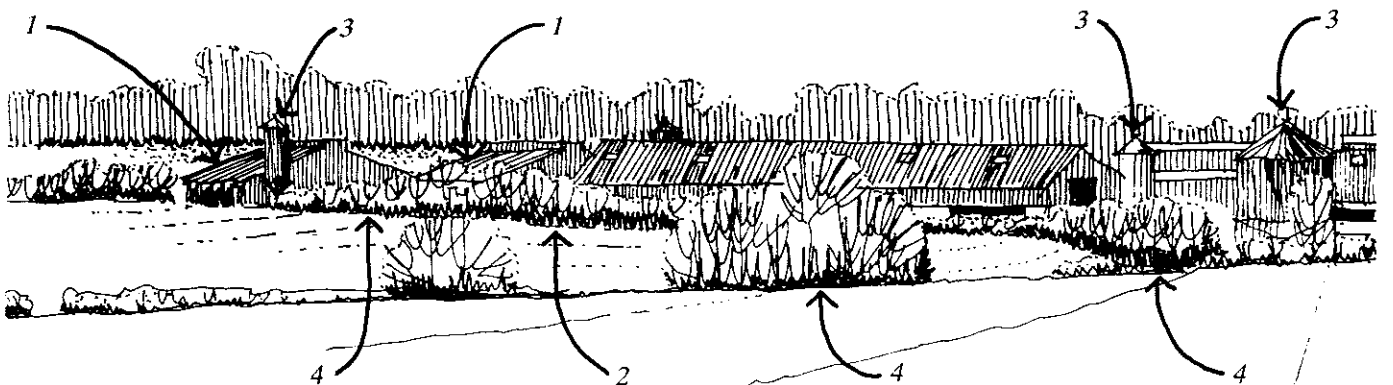


Figure 51



Buildings sited in a prominent location, with roofline breaking through the horizon and little existing or new vegetation cover. Impact high.

Figure 52



Buildings sited in a hollow with a backcloth of existing vegetation. Impact low.

Figure 53

7.00 AGRICULTURAL DEVELOPMENT LEGISLATION AND ADVICE

7.01 Summary

Part 6 of Schedule 2 of the General Development Order grants a general planning permission (known as permitted development rights) for certain types of development which are designed for the purposes of agriculture on the particular holding.

Agricultural permitted development rights exist in 2 separate classes. Under both classes, development:-
must be on agricultural land,
must not involve extending a dwelling and
must not be within 25 metres of a trunk or classified road.

CLASS A: CRITERIA

The agricultural unit must be at least 5 hectares in area.

The building must be designed for agriculture.

It must not exceed 12 metres in height (or 3 metres if within 3 km of an aerodrome).

The ground area of the building must not exceed 465 sq metres, including any building within 90 metres and less than 2 years old.

Only 1 extension exceeding 10% of an existing building will be allowed as permitted development.

Buildings to house livestock or slurry will not be permitted development if they would be within 400 metres of a "protected building" - i.e. a school, house, office, hospital etc.

CLASS B: CRITERIA

The agricultural unit must be of at least 0.4 hectares in area.

Applies to extensions and alterations to existing buildings.

Must not increase the cubic content of the original building by more than 10%.

Must not bring the ground area of the building to more than 465 square metres.

Must not increase the height of the building.

Similar restrictions apply to livestock buildings as Class A.

The external appearance of the building should not be materially affected.

7.02 General

Permitted development rights cannot be exercised on agricultural units over 5 hectares in size until the Local Authority has been formally notified under the Prior Notification procedures. The Local Authorities have 28 days to consider the proposed development during which they have to decide whether to require details of siting, design etc. However they cannot question the need on agricultural grounds for the development.

7.03 Fish Farming

Under Class A the placing or assembly of a fish tank is permitted development subject to the prior notification procedures.

Under Class B certain rights specific to fish farming are available in connection with repair and maintenance of equipment. Planning permission will be required under Class B for the placing or assembly of a fish tank on land or, in any water, the construction of a pond and increasing the size of a fish tank or pond.

7.04 Planning Applications.

To cover landscape concerns the following areas should be covered within any application documents for major schemes requiring planning consent.

- 1 A site survey of the wider area establishing all existing features such as vegetation, footpaths, topography and views into the site at a scale of 1:2500 or 1:1250.
- 2 An analysis should be made of the anticipated visual effect of the proposed building and the measures that have been taken to reduce its impact at a scale of 1:2500 or 1:1250.
- 3 Detailed proposals for site layout including ground modeling and planting at a scale of 1:200.
- 4 Details of aftercare and long term management. Ideally these details are needed for smaller developments needing only Prior Notification but may not be required unless especially requested by the Local Planning Authority.

7.05 Farm Plan

It is advisable to tell the Planning Authority what longer term plans are contemplated, so that they can be taken into account when considering any applications, especially regarding new buildings.

7.06 Grant Aid

Grant aid for larger areas of planting may be available from the Forestry Commission. The County Council also gives grants towards planting but this is not available if planting is a condition of planning permission. Individual District Councils may also assist in this respect.

7.07 Security

Rural crime has increasingly become a major problem in many of our farming communities. The theft of livestock, plant and machinery is causing financial distress to many farmers and disruption to their planned programme of work. Essex Police provide an architectural liaison service which supplies expert advice on physical and electronic security systems, lighting and planting and the security of farm vehicles and equipment. This service is available by contacting the architectural liaison officers at Essex Police Headquarters on 0245 491491 Ext. 2735 and 2739.

7.08 Further Information

The information in this booklet is not a definitive guide to the legislation. If in doubt, Local Planning Authorities will always provide advice on matters

relating to planning applications. Early consultation is recommended. Advice can also be obtained from ADAS, MAFF, specialist planning consultancy services and the NFU.

The following publications will also be of interest.

Planning Policy Guidance 7 "The Countryside and the Rural Economy" DOE/Welsh Office. Annexes B and C (particularly paragraphs C14 - 22: see p. 21 -26).

"A Farmer's Guide to the Planning System" by MAFF/DOE.

8.00 APPENDIX

PPG7 THE COUNTRYSIDE AND THE RURAL ECONOMY

ANNEX B: PLANNING CONTROLS OVER AGRICULTURAL DEVELOPMENT

Permitted development rights for agricultural holdings

B1.1 Part 6 of Schedule 2 to the Town and Country Planning General Development Order grants permitted development rights for a range of agricultural buildings and operations. Rights for erecting, extending or altering a building, and for excavations and engineering operations, are available to agricultural units of at least 5 hectares under *Class A*. More limited rights, including extensions and alterations adding not more than 10% to the content of the original building, are available to smaller units of at least 0.4 hectare under *Class B*.

B1.2 Class A rights are not available on separate parcels of land of less than 1 hectare, while Class B rights are not available on separate parcels of less than 0.4 hectare. Parcels may be separated from the rest of the unit by, for example, land in different ownership or a public road. The rights are subject to various other limitations and conditions, the most important of which are mentioned below.

B1.3 Under both Classes, development:

- must be on agricultural land, which means land in use for agriculture for the purposes of a trade or business, and excludes any dwellinghouse or garden;
- must be reasonably necessary for the purposes of agriculture within the unit. This condition does not require that a new building should necessarily accommodate an agricultural use already existing in the unit. Agricultural developments which are entirely self-contained and have no direct relationship with the rest of the unit may thus benefit from permitted development rights;
- must not give rise to, or alter or extend, a dwelling;
- must not be within 25 metres of the metalled part of a trunk or classified road.

B1.4 Under *Class A*:

- development giving rise to buildings, structures or works not designed for agricultural purposes is not permitted. The courts have held that this condition relates to the physical appearance and layout of a building, not its function;
- buildings, structures or works must not exceed 12 metres in height, or 3 metres within 3 kilometres of the perimeter of an aerodrome;
- the ground area of any works or structure (other than a fence) for accommodating livestock or any plant and machinery arising from engineering operations, or of any building erected or extended under this Class, must not exceed 465 square metres. The

relevant calculation is: (i) the ground area of the proposed development; *plus* (ii) the ground area of any building (other than a dwelling), structure, works, plant, machinery, ponds or tanks which is (a) within the same agricultural unit, (b) less than 2 years old, and (c) within 90 metres of the proposed development. Hardstandings should be included in (i) only if they are for accommodating livestock; but in (ii) whether or not they are so used;

- there are restrictions on livestock units and stores for slurry and sewage sludge located near 'protected buildings' (see paragraphs B3.1 and B3.2 below);
- development consisting of the significant extension or significant alteration of a building may be carried out only once. Any extension or alteration where the cubic content of the original building would be exceeded by more than 10%, or the height of the original building would be exceeded, is defined as "significant";
- local planning authorities may require their prior approval to be obtained for details of new buildings, significant extensions and alterations (or in National Parks and some adjoining areas - which are known in the GDO as Article 1(6) land - all extensions and alterations), farm roads, and certain excavations and waste deposits (see Annex C).

B1.5 *Class B* rights are subject to the limitation that the external appearance of the premises must not be materially affected. There are similar limitations on developments for livestock and slurry/sewage sludge to those under *Class A*. Extensions and alterations to agricultural buildings:

- must not increase the height of the building;
- must not increase the cubic content of the original building by more than 10%;
- must not bring the ground area of the building to more than 465 square metres;
- on Article 1(6) land are subject to the same conditions concerning prior approval of details as extensions and alterations under *Class A*.

B1.6 Rights are also available under *Class B* for certain development in connection with private ways, for apparatus such as sewers and cables, for certain waste deposits, and - subject to limitations on area - for additional or replacement plant or machinery and for hard surfaces. The details of private ways are subject to the prior approval conditions on Article 1(6) land. Any plant or machinery must not exceed 12 metres in height (or 3 metres within 3 kilometres of the perimeter of an aerodrome) and in any case replacement plant and machinery must not exceed the height of what it replaces. Waste deposits must not materially increase the height of the land.

B1.7 *Fish farming* for food can benefit from the permitted development rights available under Classes A and B. However under *Class A*:

- on Article 1(6) land no rights are available for excavations or engineering operations connected with fish farming;

- elsewhere the placing or assembly of a fish tank (defined to include a cage or other structure for use in fish farming) in any waters is permitted subject to the prior approval conditions;

and under Class B:

- certain rights specific to fish farming are available in connection with repair and maintenance and installing equipment;
- development is not permitted if it involves the placing or assembly of a fish tank on land or in any waters, the construction of a fish pond, or an increase in the size of a fish tank or pond (except by removing silt).

B1.8 The definition of livestock in Classes A and B includes fish. Fish farm excavations which exceed 0.5 hectare, when added to other excavations and waste deposits on the unit, are subject to the prior approval conditions under Class A.

B1.9 The GDO requires local planning authorities to consult the National Rivers Authority before granting permission for development for the purposes of fish farming (whether for food or for any other purpose).

Farm shops and workshops

B2 It is normally assumed that use of a farm shop only for the sale of goods produced on that farm is a use which is ancillary to the use as a farm and therefore does not require specific planning permission, whereas use as a farm shop selling a significant amount of "imported" produce is a separate use and therefore subject to full planning control. Similar considerations apply to workshops for the central maintenance of agricultural equipment.

Livestock units and slurry

B3.1 Permitted development rights under Part 6 of the GDO do not extend to buildings to be used for the accommodation of livestock, or to associated structures such as slurry tanks and lagoons, when these are to be built within 400 metres of the curtilage of a "protected building". This applies to new buildings and structures, to ones created by the conversion of other farm buildings and structures erected under Part 6 since 2 January 1992, and to ones extended or altered under Class B. These may however be used for livestock in special circumstances (as defined in paragraph D.3 of Part 6 of the GDO). A full planning application is required for the livestock use of buildings and structures erected within the 400 metre cordon under Part 6 between 1988 and 1 January 1992, unless they were completed more than five years ago.

B3.2 The term 'protected building' includes most residential and other permanent buildings such as schools, hospitals and offices that are normally occupied by people. It excludes any building on the same agricultural unit, any farm dwelling or other farm building on another agricultural unit, and any building used for the special industrial uses covered by Classes B3-B7 of the Use Classes Order 1987. The 400 metres will usually be measured from the boundary of the land on which the 'protected building' stands - for example, from the end of the garden of a house.

B3.3 To minimise the potential for future conflict between neighbouring land uses, local planning authorities should exercise particular care when considering planning applications for houses or other new 'protected' buildings within 400 metres of established livestock units. By requiring planning permission for livestock units within the 400 metre cordon, the Government has recognised the potential risk of nuisance. This recognition should similarly apply to applications for new protected buildings. It is important also to have regard to the advice on not siting incompatible development close to animal waste processing factories in DOE Circular 43/76 (Welsh Office 17/76, MAFF 76/CSAWP/1), Control of smells from the animal waste processing industry.

B3.4 The spreading of slurry from livestock units for the purposes of agriculture is not subject to planning control. It remains important, however, to minimise the risk that such activities may cause nuisance from noise or smell. Accordingly, those responsible for the operation of livestock units should follow the advice given in the new code of good agricultural practice for the protection of water published by the Ministry of Agriculture, Fisheries and Food and the Welsh Office Agriculture Department, and further codes relating to the protection of air and soil which should be published in 1992.

B3.5 The Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) Regulations 1991 set minimum standards for new, substantially reconstructed or enlarged silage, slurry or fuel oil facilities. The Regulations also empower the National Rivers Authority to serve notice requiring action to improve existing installations when they consider that there is a significant risk of pollution. Further guidance on these regulations is contained in "The Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) Regulations 1991; Guidance Notes for Farmers" prepared by the Department of the Environment and the Welsh Office. These Regulations form an important part of the Government's commitment to reduce agricultural pollution of rivers. Local planning authorities are therefore encouraged to consider sympathetically development proposals aimed at meeting the requirements of these Regulations.

B3.6 Local planning authorities should in general adopt a positive approach towards development proposals which are designed, or are necessary, to achieve compliance with new environmental, hygiene and welfare legislation. For example, the Welfare of Pigs Regulations 1991 prohibit the installation of stall and tether systems from 1 October 1991 and ban the use of these systems altogether from 1 January 1999. Currently, up to 70% of sows in the UK are housed in stall and tether systems. Farmers using these close confinement systems are likely to need to double the space allocation for sows and provide extra storage space for bedding straw and solid manure. Planning applications for associated building development may therefore be necessary.

Temporary structures

B4 The Courts have held that some temporary structures used for agriculture are not "buildings" in planning terms but are a use of land and so outside the general scope of planning control. Thus, temporary accommodation for livestock, such as 'pig arks' and

moveable poultry shelters, may not be 'buildings' for planning purposes. The status of particular structures is ultimately a matter for the Courts to decide, on the facts of each case. A structure placed on foundations, secured to the ground and with, for example, facilities such as an integral water supply may constitute a building, while a structure without such features may constitute a use of land. In case of doubt an application may be made to the local planning authority for a determination under section 64 of the Town and Country Planning Act 1990 as to whether planning permission is required. (The Planning and Compensation Act 1991 provides for section 64 to be repealed and section 192 to be amended; when these provisions are brought into effect later in 1992, application may be made under section 192 for a certificate of lawfulness of proposed use or development).

Central grain stores

B5.1 Central grain stores are large agricultural buildings used as collection and distribution points for the produce of several farms. The UK is a net exporter of grain and it is important that the harvest is handled and marketed to the best advantage nationally. The advantages of central grain stores for the farmers concerned are that equipment for drying, cleaning, and preparing grain may be operated at lower cost than on individual farms, that different types or qualities of grain can be assembled separately, and that they are suitably located relative to the main grain growing areas and/or docks. Such buildings also enable grain to be stored near where it is to be processed. As older on-farm stores are due for replacement, more growers wish to use centralised storage that meets modern marketing requirements.

B5.2 In view of their potentially obtrusive appearance, central grain stores should be designed and located with particular care to minimise their effect on the landscape. In considering applications for central grain stores local planning authorities should have regard to the advantages of such stores, as indicated above, as well as the extent to which they blend with their surroundings and traffic and other relevant planning considerations. In some instances it may be possible to locate new central grain stores in industrial areas on the edge of settlements rather than in open countryside.

ANNEX C: GUIDANCE FOR LOCAL PLANNING AUTHORITIES ON AGRICULTURAL AND FORESTRY BUILDINGS AND ROADS CONSTRUCTED UNDER PERMITTED DEVELOPMENT RIGHTS

Introduction

C1 The Town and Country Planning General Development Order 1988, as amended, grants planning permission for a wide range of development associated with agricultural uses of land, on units of 5 hectares or more, and forestry uses of land. However, in certain cases this planning permission cannot be exercised unless the farmer or other developer has applied to the local planning authority for a determination as to whether their prior approval will be required for certain details. The local planning authority have 28 days for initial consideration of the proposed development. Within this period they may decide whether or not it is necessary for them to give their prior approval to these details of development involving new agricultural and forestry buildings, significant extensions and alterations, agricultural and forestry roads, certain excavations or waste deposits, and the placing or assembly of fish tanks in any waters. In National Parks and certain adjoining areas ('Article 1(6) land'), all extensions and alterations to buildings are subject to this procedure and the placing or assembly of fish tanks in any waters requires a specific planning application to be made to the local planning authority.

C2 The amended Order also grants planning permission for strictly limited types of development on smaller agricultural units of less than 5 hectares (but no smaller than 0.4 hectares). These types of development are not subject to the determination procedure, except on Article 1(6) land, where the procedure applies to extensions and alterations of buildings and the provision, re-arrangement or replacement of roads.

C3 These provisions are in Parts 6 and 7 of Schedule 2 to the General Development Order. The determination procedure provides planning authorities with a means of regulating, where necessary, important aspects of agricultural and forestry development for which full planning permission is not required by virtue of the GDO. Provided all the GDO requirements are met, the principle of whether the development should be permitted is not for consideration. Only in cases where the authority considers that a specific proposal is likely to have a significant impact on its surroundings would the Secretaries of State consider it necessary for the authority to require the formal submission of details for approval. By no means all the development proposals notified to authorities under the GDO will have such an impact. Indeed there is no statutory requirement for the authority to take any action when they receive the developer's written description unless they consider it appropriate.

C4 In operating these controls, local authorities should always have full regard to the operational needs of the agricultural and forestry industries; to the need to avoid imposing any unnecessary or excessively costly requirements; and to the normal considerations of reasonableness. However, they will also need to consider the effect of the development on the landscape in terms of visual amenity and the desirability of preserving ancient monuments and their settings, known archaeological sites, listed buildings and their

settings, and sites of recognised nature conservation value. They should weigh these two sets of considerations. Long term conservation objectives will often be served best by ensuring that the rural economy, including farming and forestry which are prominent in the rural landscape, is able to function successfully.

Handling

C5 The 28 day determination period runs from the date of receipt of the written description of the proposed development by the local planning authority. If the local planning authority give notice that prior approval is required they will then have the normal 8 week period from the receipt of the submitted details to issue their decision, or such longer period as may be agreed in writing (see Article 24 of the GDO). Development undertaken in breach of the conditions imposed by the Order or by the local planning authority may be the subject of enforcement action.

C6 The Secretaries of State attach great importance to the prompt and efficient handling of applications for determination and of any subsequent submissions of details for approval under the provision of the GDO. Undue delays can have serious consequences for agricultural and forestry businesses, which are more dependent than most on seasonal and market considerations. The procedures adopted by authorities should be straightforward, simple, and easily understood. Delegation of decisions to officers will help to achieve prompt and efficient handling, and should be extended as far as possible. Authorities should use their discretion over consulting parish/community councils and other groups about particular proposals, having regard to the need to reach decisions within the required timescales. Requests for more time from consultees should not be used as a reason for requiring the submission of details.

C7 Authorities should prepare forms which developers can use to apply for determination, along the lines of the example in the Appendix. This will help to minimise the number of cases in which submission of details may be necessary. Authorities should acknowledge the receipt of the written description, giving the date of receipt. Where the authority do not propose to require the submission of details, it would be helpful and courteous to inform the developer as soon as possible to avoid any unnecessary delay or uncertainty.

C8 There will often be scope for informal negotiations with the developer, as an alternative or preliminary to requiring a formal submission of details. Developers for their part may find it useful to provide more than the minimum information required by the Order when informing authorities of their proposals, if this is readily available. For example, a sketch showing the proposed elevation of a building may clarify the effect of the proposal. If, as a result of discussions, the developer's original proposal is modified by agreement, he or she is not required to re-submit it formally to the authority in order to comply with the terms of the GDO condition, but the authority should give their written approval to the modification to make it clear that the developer has authority to proceed with the modified proposals.

C9 Planning authorities should generally be able to deal with applications on the basis of their experience and the information provided. Where authorities do not have the necessary expertise to consider the operational requirements of the agricultural or forestry enterprise, they may need to seek a technical appraisal. Where this is necessary they should aim to do this within the 28 day period, and not simply call for details on a precautionary basis. Extending the decision period may hamper business operations unreasonably.

Scope of controls

C10 The new arrangements do not impose full planning controls over the developments to which they apply - those developments remain "permitted development" under the GDO. The principle of development, and other planning issues, will not be relevant. When details are submitted for approval under the terms of the GDO, the objective should be to consider the effect of the development upon the landscape in terms of visual amenity, as well as the desirability of preserving ancient monuments and their settings, known archaeological sites, listed buildings and their settings, and sites of recognised nature conservation value (i.e. SSSIs and Local Nature Reserves). Details should be regarded in much the same light as applications for approval of reserved matters following the grant of outline planning permission. Subject to the normal criteria governing the use of conditions in planning permission, conditions may be imposed when approval is given. (DOE Circular 1/85 (Welsh Office 1/85) gives further advice in this respect.) Developers required to submit details for approval will have the right of appeal to the Secretary of State if approval is refused or is granted subject to conditions with which they disagree, or if notice of a decision on the details submitted is not given within the normal 8 week period. There is no right of appeal against the decision of a local planning authority to require approval of details. No compensation is payable under Section 108 of the Town and Country Planning Act 1990 if approval of submitted details is withheld by the planning authority.

C11 Special considerations apply to forestry roads. The intention to construct a new forest road is already often specified in Plans of Operations which come to the Forestry Commission as part of applications for approval for grant aid. Such applications are subject to the consultation procedures operated by the Commission with local authorities and other bodies. The procedures provide that if there is an objection from a local authority which cannot be resolved the Commission cannot approve such plans without reference to Ministers. The Commission intends to amend its rules so that in future Plans of Operations will include details of any new roads to be constructed. This will ensure that the environmental acceptability of new roads and the siting and landscaping of the woodland are considered together. The Secretaries of State would not expect local planning authorities to exercise their right to call for full details of roads which had been included in a Plan of Operations approved by the Forestry Commission after consultation with the authority. They would expect normally to allow appeals against refusal of permission for details in such circumstances.

Siting, design and appearance

C12 Local planning authorities may concern themselves with:

- the siting, design and external appearance of a proposed new agricultural or forestry building and its relationship to its surroundings;
- the siting and means of construction of roads;
- the siting of those excavations or waste deposits which individually or collectively exceed 0.5 hectare within the unit; and
- the siting and appearance of fish tanks (cages).

To ensure consistency of decision taking, and to help applicants, local planning authorities should consider preparing guidelines on the principles which they would wish to be taken into account when details of such buildings' design, materials and siting are being prepared. Such guidelines are an aid to communication, both with developers and with the agricultural buildings industry. The guidelines should identify where possible the situations or circumstances in which authorities would normally require the submission of details. They should preserve the scope for flexibility of approach; and note that the combination of siting, design and colour can particularly influence the degree of intrusion. Guidelines should not need to cover forest road construction, on which the Forestry Commission will be making its own guidance available.

C13 In preparing guidelines, authorities should consult those with an interest, for example local farming and conservation interests and the appropriate local office of MAFF or the Welsh Office. Continuing liaison with building designers and contractors will be important. Many farmers seek planning and design advice from building contractors and such advice ought to reflect the policies and practices of the local planning authority. Planning authorities' attention is drawn to British Standard BS5502 "Buildings and Structures for Agriculture", Part 20 "Code of Practice for general design considerations", which gives information on matters referred to in this guidance, together with reference to choice of colours and their use. Local planning authorities may find the following advice helpful in preparing guidelines.

Siting

C14 The siting of a new agricultural or forestry building, road, excavation or waste deposit, or fish tank can have a considerable impact on the site and the surrounding landscape. Developments should be assimilated into the landscape without compromising the functions they are intended to serve. New buildings should normally form part of a group rather than stand in isolation, and relate to existing buildings in size and colour. (New buildings of modern design may sometimes best be separated from a group of traditional buildings to avoid visual conflict.) Sites on skylines should be avoided if possible. To reduce their visual impact, buildings should be blended into the landscape or, on sloping sites, set into the slope if that can be achieved without disproportionate cost.

C15 While a well sited building or road may benefit from some additional screening, the visual impact of a poorly situated one cannot easily be reduced. In some cases a minor repositioning or realignment can considerably improve the proposals. In others, a site elsewhere on the agricultural land would be preferable if this can be achieved without imposing undue operational or constructional difficulties. The options for siting of agricultural buildings and private ways will be influenced by their functional relationship to other buildings and services, so that alternatives may be limited. Where constructional problems emerge after proposals have been notified or approved, authorities will need to take a flexible approach to requests for approval of departures from the original proposals.

C16 The siting of new agricultural or forestry buildings adjacent (but not too close) to existing woods may help to assimilate them into the landscape. Suitable woodland management is required to maintain this effect. Elsewhere judicious tree planting and external works may enhance new buildings. The aim should not be to hide a building from sight, but rather to soften a hard outline, break up a prominent silhouette, and help 'anchor' a new building to the surrounding landscape. Any new planting should reflect the vegetation type already existing in the locality.

Design and appearance

C17 In exercising control over the design and external appearance of proposed developments, local planning authorities should have regard to the guidance contained in the Department of the Environment/Welsh Office Planning Policy Guidance Note 1. In general, while authorities should reject obviously poor designs, they should not interfere with the detailed design of buildings unless the sensitive character of the setting for the development justifies it.

C18 The choice of design and materials, and the relationship of texture and colour to existing development, local traditions, and the landscape, can be important considerations for both agricultural/forestry buildings and roads. For example, a single large building may have a greater impact on the countryside than one or more smaller buildings, which can be more easily incorporated into an existing group and provide greater flexibility. Roof overhang reduces apparent scale, as does the use of different materials for roof and walls. Well designed features such as rainwater downpipes and gutters, ventilators, eaves and gable overhang emphasise the shape of a building.

C19 The colours chosen should be compatible with the rural setting, not to camouflage the building, but to allow it to relate to existing buildings. Careful choice of colour reduces the apparent scale of a large agricultural building (e.g. if the roof of a building is coloured darker than the walls, its visual impact on its surroundings is reduced). The use of reflective materials should be avoided.

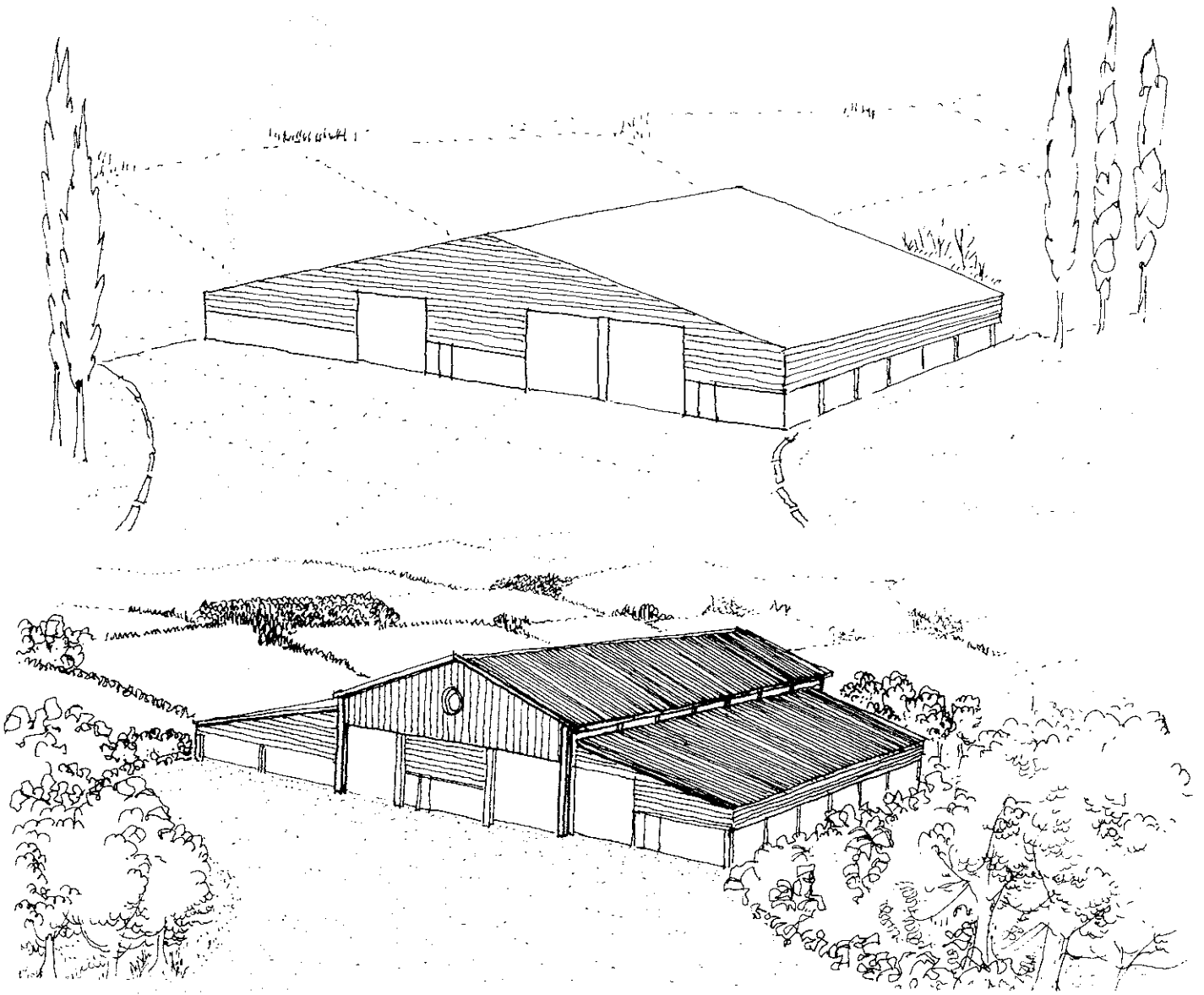
C20 Guidelines may include information on local building design. Traditional building styles may be important in devising local design criteria for modern buildings. It will normally be appropriate to use traditional or sympathetic materials for developments taking place in the setting of a listed building or in a conservation area.

C21 Alterations and extensions should not pose the same difficulty as new buildings, but similar considerations concerning design and appearance should be taken into account. Materials similar to the original should normally be used.

C22 Although choices of design and materials may be constrained by operational needs, the standardisation of modern agricultural buildings and economic considerations, it should be possible to reconcile proposals for development with the need to conserve and wherever possible enhance the landscape.

Crown development

C23 Development by the Forestry Commission is Crown development. In carrying out developments of the types described in this guidance, the Commission and other Crown developers will follow the procedure for notifying local planning authorities described in DOE Circular 18/84 (Welsh Office 37/84).



View of Second Case Study (p.16-17) as proposed and revised