



Arboricultural Implication Assessment & Landscape Planting Scheme

Reference:

WRYM/03/11/AIA.

Rev:

9th March 2011

At the Site of:

Wynnstay Hall Estate
Ruabon
Wrexham

Commissioned by:

Mr M. Davies

Inspection commenced:
March 2011

-
- | | |
|-------------------------------|---|
| ▪ Trees, Litigation & the Law | ▪ Tree-related Environmental Impact Assessments |
| ▪ Planning & Appeals | ▪ Subsidence Risk Assessment |
| ▪ Mortgage Surveys | ▪ Trees & Development Sites (BS 5837) |
| ▪ Tree Preservation Orders | ▪ Tree Hazard & Risk Assessment |



Shields
Arboricultural Consultancy

Arboricultural Implication Assessment & Landscape Planting Scheme

Wynnstay Hall Estate
Ruabon
Wrexham

Introduction

- 1.1 Shields Arboricultural Consultancy received instructions from Mr M. Davies of T.E Davies & Son, to prepare an arboricultural implication assessment and tree planting scheme for land at Wynnstay Estate, Ruabon.
- 1.2 Planning permission is being sought to erect an agricultural building for use in connection with the Mr Davies business.

Scope & Limitations

- 2.1 The purpose of the report is to assess the environmental and amenity values of all trees on or adjacent to the area affected by the proposed development. The report will assess the long-term contribution that the trees can make to the area and the arboricultural implications of retaining them and seek to find a satisfactory juxtaposition between the trees and the new development. The report will assess the potential impact that may arise as a result of the proposed construction works and make recommendations for protecting trees, hedges and shrubs where appropriate
- 2.2 The report is prepared in accordance with the recommendations of the British Standard Document BS 5837: 2005 'Trees in Relation to Construction'.
- 2.3 This report is not an ecological assessment and does not identify habitats or constitute a protected species survey.

Statutory Controls & Obligations

- 3.1 Forestry Act; The felling of trees is controlled under Forestry Act, which requires that a felling licence is obtained prior to cutting down any trees. The Forestry Act does not apply to the felling of trees growing within an orchard, private garden, churchyard or public open space. The Forestry Commission has the responsibility for enforcing the Forestry Act.
- 3.2 Tree Preservation Orders & Conservation Areas; Local Authorities have specific powers under the Town & Country Planning Act 1990 as amended, to

Stephen Shields *Dip.Arb. (RFS), MJCFor, M.Arbor.A*

'Derwen Deg', 59 Oakhurst Road, Oswestry, Shropshire, SY11 1BL

Tel: 07989 626923 | 01691 657189

Email: steve@shieldsac.co.uk



Shields
Arboricultural Consultancy

protect trees through the use of Tree Preservation Orders. Where trees are protected under such orders it is a criminal offence (subject to any exemptions for which provision may be made by the act or order) to undertake, cause or permit the cutting down, topping, lopping, uprooting, wilful damage or wilful destruction of trees except with the consent of the local planning authority. Similar controls apply to all trees growing within a designated Conservation Area.

- 3.3 Bats, wild birds and other protected species; The Wildlife & Countryside Act & the Conservation (Natural Habitats & C.) Regulations make it an offence to disturb or destroy bats and bat roosts and wild birds and their nests. Other species of plant and animal are also protected. These creatures often inhabit trees and sufficient care must be taken to ensure they are not affected during forestry and arboricultural works.

Site Description

- 4.1 The site of the proposed building is located within an agricultural stock yard situated at the edge of small woodland within the grounds of the Wynnstay Hall Estate to the south east of the Hall, adjacent to the Rhos Y Madoc road. The site, which extends to approximately 0.5 hectare currently supports two agricultural buildings, set within the operational yard.
- 4.2 The site is bounded by an area of established secondary woodland, comprising oak, ash sycamore and other mixed broad leaf species, to the north and west. A 2.5m high stone wall running along side the public highway forms the east boundary of the site and there is a small shelter belt of trees between the wall and the stock yard. The south boundary is open to the park land beyond.
- 4.3 Wynnstay Hall is a listed building and the surrounding park land is listed in the Cadw/ICOMOS Register of Parks and Gardens of Special Historic Interest in Wales. As such the protection of the visual character of the park land is of primary importance.

Development Proposals and Arboricultural Implications

- 5.1 The development proposal seeks to construct a third agricultural building adjacent to the existing buildings within the yard area (see location plan). The construction site and surrounding areas are covered in a depth of compacted hardcore and the site is in continuous use by large agricultural vehicles and machinery. The inhospitality of this compacted hardcore to root development and the physical distance between the construction zone and the adjacent

Stephen Shields Dip.Arb. (RFS), MJCFor, M.Arbor.A

'Derwen Deg', 59 Oakhurst Road, Oswestry, Shropshire, SY11 1BL

Tel: 07989 626923 | 01691 657189

Email: steve@shieldsac.co.uk



Shields
Arboricultural Consultancy

trees almost certainly precludes any significant root development within the construction zone or surrounding working area. Neither do the crowns of the trees extend into the site and it is therefore recommended that adequate tree protection can be gained simply by erecting a temporary fence at the edge of the extent of hard standing. The purpose of the fencing is to mark out the edge of the work area, and a simple post and wire fence will suffice.

- 5.2 More of a concern is the visual impact of the buildings on the visual character of the surrounding park land. There are clear views into the site from the park land to the south and glimpses can be had from the adjacent public highway, particularly at a point where the wall has collapsed. To ameliorate this it is proposed that a planting scheme is undertaken for the purpose of screening the building from these view lines.
- 5.3 In principal the scheme will seek to link the area of woodland on the west boundary with the shelter belt to the east of the site through the planting of a linking belt of trees across the south boundary of the site. The scheme will also include enrichment planting for the shelter belt, to create an understorey and improve the structural diversity of the woodland. This will effectively increase its screening value.
- 5.4 The scheme will utilise native tree and shrub species to form a planting matrix with larger maturing specimens with spreading crowns at the rear of the belt, providing a natural framework of branches that help to break up the lines of the building with smaller trees and shrubs to the front, creating a natural tiered woodland edge to give maximum screening density in a limited space.
- 5.5 It is proposed that the size of the planting stock is limited to 60cm – 90 cm high whips or similar. This size of stock is able to establish quickly and soon out performs larger trees in terms of height growth. Within 5 years any size advantage is lost and within 10 the smaller stock has often obtained more growth. The scale of both the proposed and existing buildings is such that optimum growth to maturity is favoured over the instant visual impact associated with larger planting stock.
- 5.6 Through this approach it should be possible, as the planting scheme matures for the proposed building to become integrated into the environment with the minimum visual impact on the registered park land and the setting of the listed building. The proposed planting will also provide conservation benefits by increasing habitat diversity within the shelter belt and by linking areas of woodland through appropriate corridors.

Stephen Shields Dip.Arb. (RFS), MJCFor, M.Arbor.A

'Derwen Deg', 59 Oakhurst Road, Oswestry, Shropshire, SY11 1BL

Tel: 07989 626923 | 01691 657189

Email: steve@shieldsac.co.uk



Shields
Arboricultural Consultancy

Tree Planting and Maintenance Specifications

Linking Woodland Belt on South Boundary

- 6.1 It is proposed to plant 62 trees of quantity and species 20 *Quercus robur* (Common Oak), 3 *Tilia cordata* (Small Leaved Lime) 11 *Acer campestre* (Field Maple) 9 *Crataegus monogyna* (Hawthorn), 8 *Corylus avellana* (Hazel) and 11 *Ilex aquifolium* (Holly). The trees are to be planted on a 2.5m x 2.5m matrix, clustered in small groups (see planting plan for approximate positions).

Enrichment Planting

- 6.2 The objective of this planting is to create an understorey within the existing woodland. It is proposed that some minor thinning work is carried out to remove 3 – 4 trees from the woodland to allow some light to penetrate the canopy. The extent of the thinning would be minor and would be beneficial to the remaining trees. Trees to be removed would be marked on site. The planting would comprise 14 *Crataegus monogyna* (Hawthorn), 7 *Corylus avellana* (Hazel) and 19 *Ilex aquifolium* (Holly). Trees are to be planted in small clusters randomly spaced through the planting area to take advantage of available light (see planting plan for approximate positions). All planting stock is to be selected and planted in accordance with the following specifications.

Planting Stock

- 6.3 Planting stock should be bare root 60cm-90cm whips, with the exception of the *Ilex aquifolium* (Holly) which should be container grown in 2l pots and must conform to relevant British Standard Specifications for standard planting stock, including BS 3936 Part 1, BS 3936 Part 4, BS 4043 BS 5236. All planting stock should be of local native origin / provenance.
- 6.4 The tree should be supplied packed in accordance with the recommendations of the relevant British Standard. The trees must be delivered in good condition and be free from damage. Root systems must be moist and protected during transport. Trees should be inspected and approved prior to accepting delivery. If planting is not undertaken immediately after delivery, the tree should be “healed in”, a technique where by a small trench is excavated to a depth sufficient to cover the trees root system. The trees are then placed in the trench and the roots covered with soil to prevent them from drying out. Pot grown trees are to be placed in a sheltered location and soil kept moist.

Stephen Shields *Dip.Arb. (RFS), MJCFor, M.Arbor.A*

‘Derwen Deg’, 59 Oakhurst Road, Oswestry, Shropshire, SY11 1BL

Tel: 07989 626923 | 01691 657189

Email: steve@shieldsac.co.uk



Shields
Arboricultural Consultancy

Site Preparation

- 6.5 During the construction phase of the development it is important to protect the soils in the areas surrounding the tree planting positions to prevent its physical properties and nutrient status being degraded or contaminated by development activities. No materials that are likely to have an adverse effect on soil condition such as oil, bitumen or cement will be stored or discharged within 10m of the tree planting location.
- 6.6 Planting sites are to be lightly cultivated to break up soil and provide a weed free area around the planting position. This can be done by 'screefing', using a spade to scrape off surface vegetation.

Planting

- 6.7 Trees should not be planted when the ground is frozen or water logged. It is recommended that trees are planted during the winter period. Prior to planting, remove any damaged or rubbing branches in accordance with BS 3998 practice guidelines. Remove and tags or labels and any stem wrapping. The tree must be planted at its original root collar soil depth. The soil mark on the stem is an indication of this and it should be maintained on the finished level, allowing for settling of the soil after planting. Trees should be planted directly in to the soil excavating a small pit to fully accommodate the entire root system. Care should be taken to spread the roots out and ensure they do not spiral around the tree. Once planted the trees are to be secured and protected using proprietary spiral guards and canes or in the case of the *Quercus robur* (Common Oak) protected with 2m tree shelters and appropriate stakes. Stakes should be free from bark, snags, pests & diseases and should be of sufficient size to support the weight and loading of the tree and shelter when subjected to normal prevailing winds on the planting site, 25mm x 25mm recommended. Stakes should be pressure treated with preservative.
- 6.8 Place woven, water permeable polypropylene mulch mat (600mm x 600mm) around base of each tree and secure using pegs or pins.
- 6.9 Remove all debris leaving site clean and tidy

On going maintenance

- 6.10 All newly planted trees should be inspected in the first few weeks after planting and after periods of frost or strong winds. The trees should be re-

Stephen Shields *Dip.Arb. (RFS), MJCFor, M.Arbor.A*

'Derwen Deg', 59 Oakhurst Road, Oswestry, Shropshire, SY11 1BL

Tel: 07989 626923 | 01691 657189

Email: steve@shieldsac.co.uk

9th March 2011

WRYM/AIA/03/11



Shields
Arboricultural Consultancy

firmed where heave or movement has occurred and ties adjusted as necessary.

- 6.11 The mulch mats around each tree are to be inspected twice yearly in spring and late summer and maintained in good condition and the area they cover maintained free from weeds, grasses or other vegetation for a period of 5 years after planting. Tree stakes, ties shelters, spirals guards and canes require regular inspection and adjustment to ensure that they are not causing abrasion or constricting the stem. Any remaining stakes shelters or guards should be removed once the trees have become established and showing indications of good growth.
- 6.12 The trees are to be watered during dry spells, periods of more than 15 days without significant rain fall. This should be achieved by applying 5l of water around the base of tree every second day until the dry spell ends.
- 6.13 Once established and showing indication of good shoot extension, approximately at year 3 or 4 the trees are to be formatively pruned to remove crossing, dead and rubbing branches and to single any multiple leaders. This is a one off operation and should be performed in the third year after planting.
- 6.14 Trees should be inspected annually and any which fail to establish or become weakened, damaged or die must be replaced in the following planting season.
- NB** *All livestock must be excluded from the planting area until the trees are fully established at year 5. It is preferable to exclude livestock indefinitely to allow for natural regeneration and development of understorey and ground flora.*

Conclusion

- 7.1 Providing the recommendations of the report are followed the proposed development will not impact negatively on the registered park land and the proposed development will be satisfactorily integrated into its environment.

S J A Shields
Dip.Arb. (RFS), MICFor, M.Arbor.A
Chartered Forester

9th March 2011

Stephen Shields *Dip.Arb. (RFS), MICFor, M.Arbor.A*

'Derwen Deg', 59 Oakhurst Road, Oswestry, Shropshire, SY11 1BL
Tel: 07989 626923 | 01691 657189
Email: steve@shieldsac.co.uk

Existing Structures

Proposed Construction Area

Hard Standing

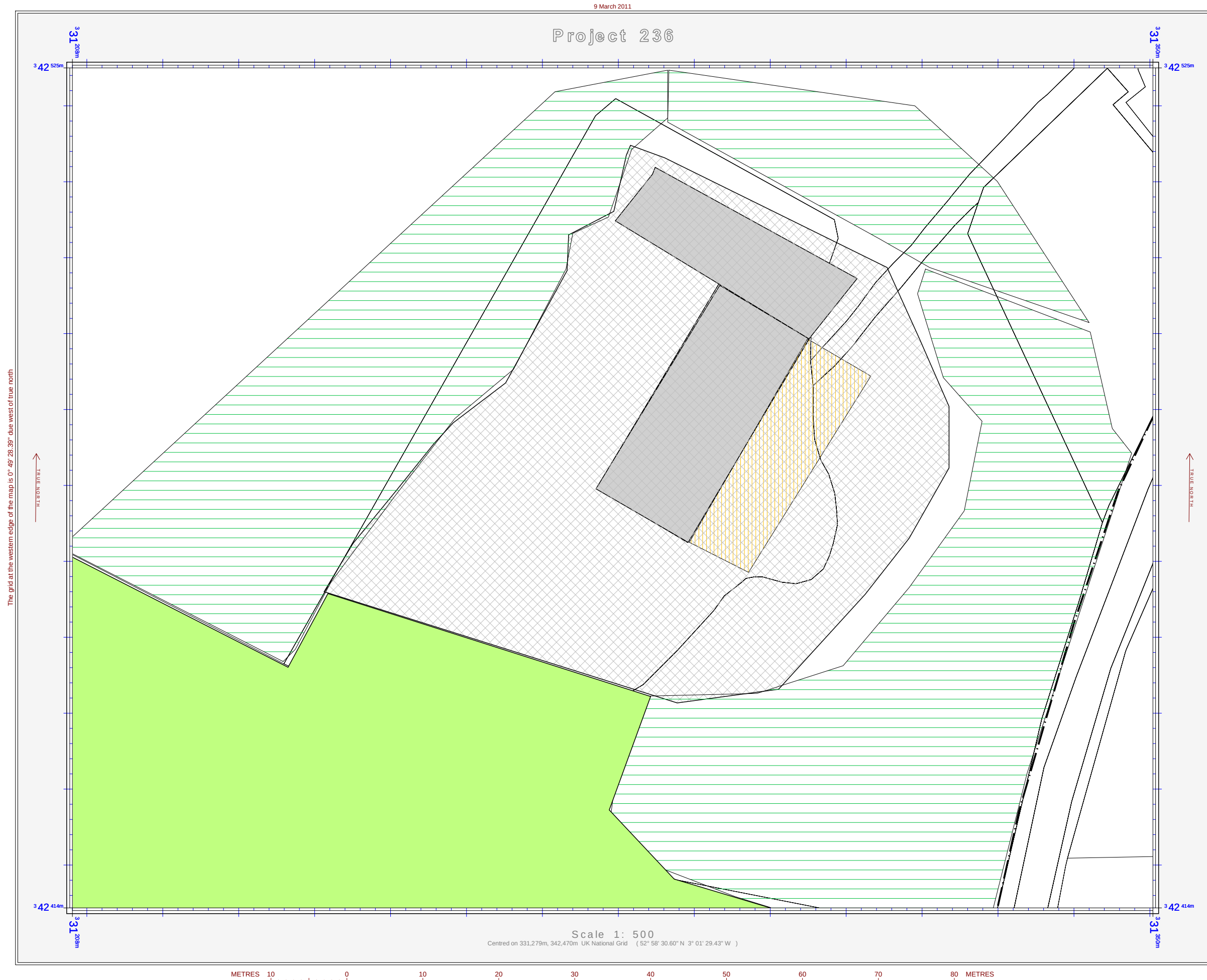
Woodland

Agricultural Land

Boundary Wall

Revision:

Shields Arboricultural Consultancy
'Derwyn Deg' 59 Oakhurst Road, Oswestry,
Shropshire, SY11 1BL
Tel: 01691 657189 / 07989 626923



9 March 2011

Project 236

The grid at the western edge of the map is 0° 49' 29.47" due west of true north



The grid at the eastern edge of the map is 0° 49' 20.25" due west of true north



Scale 1: 750
Centred on 331,290m, 342,447m UK National Grid (52° 58' 29.87" N 3° 01' 28.85" W)

METRES 10 0 10 20 30 40 50 60 70 80 90 100 110 120 METRES

Shields

Arboricultural Consultancy

Proposed Planting Areas

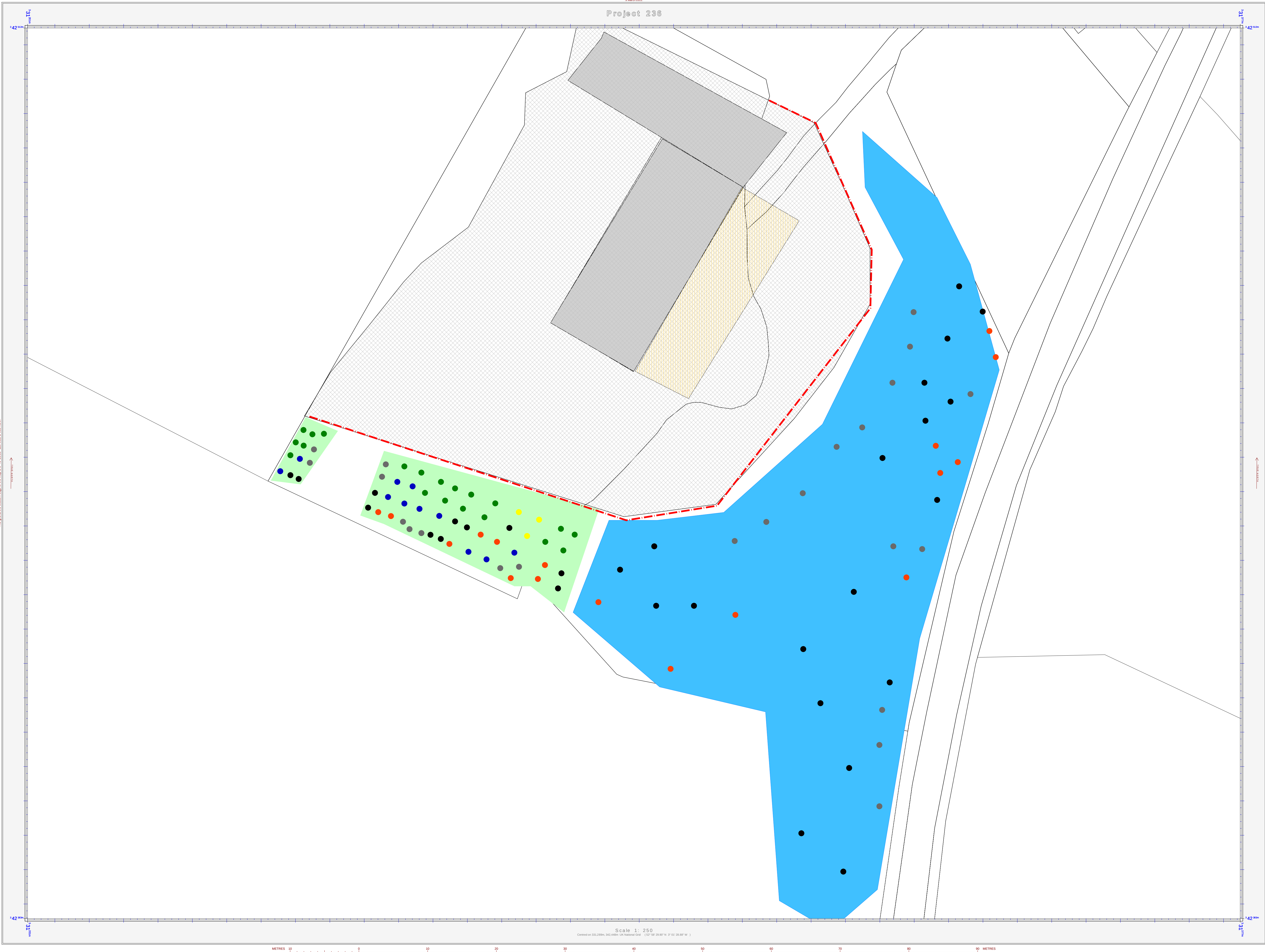
Land at Wynnstay Estate
Ruabon
Wrexham

- Existing Structures
- Proposed Construction Area
- Hard Standing
- Enrichment Planting
- Woodland Belt
- Tree Protection Fencing

Drawing No: WRYM/PP/03/11/01
Drawn By: S. Shields
Scale: 1:750 @ A3
Date: 9th March 2011
Revision:

Do not scale from this drawing

Shields Arboricultural Consultancy
'Derun Deg' 59 Oakhurst Road, Oswestry,
Shropshire, SY11 1BL
Tel: 01691 657189 / 07989 626923



Shields

Agricultural Consultancy

Proposed Planting Detail

Land at Wynnstay Estate

Ruabon

Wrexham

Existing Structures

Proposed Construction Area

Hard Standing

Enrichment Planting

Woodland Belt

Tree Protection Fencing

Proposed Tree (lime)

Proposed Tree (oak)

Proposed Tree (field maple)

Proposed Tree (hawthorn)

Proposed Tree (hazel)

Proposed Tree (holly)

Drawing #:

WRYM/PD/03/11/01

Drawn By:

S. Shields

Scale:

1:250 @ A1

Date:

9th March 2011

Revision:

Do not scale from this drawing

Shields Agricultural Consultancy

Deun Dwy 59 Cathurst Road, Cwastwy, Shropshire, SY11 1BE

Tel: 01691 657189 | 07989 626923