



Landscape Specification

Symmetry Park Merseyside, Former Cronton Colliery

Tritax Symmetry

MAN.1453.008.ENZ.RP.L.45.001



Contact Details:

Enzygo Ltd.
Ducie House
Ducie Street
Manchester
M1 2JW

tel: 0161 413 6444
web: www.enzygo.com

Landscape Specification

Project:	Symmetry Park Merseyside, Former Cronton Colliery
For:	Tritax Symmetry
Status:	DRAFT
Date:	December 2023
Author(s):	Carolyn Gratty Associate Director
Reviewer:	Paul Beswick Director

Disclaimer:

This report has been produced by Enzygo Limited within the terms of the contract with the client and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

Enzygo Limited Registered in England No. 6525159

Registered Office: Gresham House, 5-7 St. Pauls Street, Leeds, England, LS1 2JG

Contents

1.0 Introduction	3
1.1 General Overview	3
1.2 Design Concept	4
1.3 Description	4
1.4 Long-term Management Objectives	6
1.5 Management Implementation	7
1.6 Management Responsibilities	9
1.7 Monitoring and Review	9
2.0 General Specification Information	10
Appendix A - Soft Landscape Plans and Plant Schedules	25

1.0 Introduction

1.1 General Overview

- 1.1.1 Enzygo Limited has been commissioned by Tritax Symmetry Limited (the client) to prepare additional information about the proposed specification for soft landscape works at Symmetry Park Merseyside. The land comprises part of the at the former Cronton Colliery, Cronton Road, Knowsley which is to be developed for industrial/warehouse use for which planning permission has been granted by Knowsley Council, Planning application ref 20/00494/HYB.
- 1.1.2 This plan accompanies the landscape design proposals for 3No proposed warehouse units to the west side of the main access road to the site off Cronton Road, [see UMC Architect's Site Masterplan](#) at Appendix A. The development comprises 4No units in total, a separate management plan has been produced for Unit 1 in the northeast corner of the development site (Woodland Plan - Enzygo document Ref MAN.1453.006.ENZ.00.00.RP.L.45.001).
- 1.1.3 The detailed landscape proposals for Unit 1 to have been agreed with the Local Planning Authority (LPA) Knowsley Council to discharge condition 16 of the above permission (Full permission). This information has been used as the basis for this specification for the future phases including Units 2, 3 and 4 as shown on the architect's masterplan.
- 1.1.4 The LPA has previously given feedback regarding the landscape proposals for the development and raised items which broadly include:
- Compliance with the Halsnead Design Guide 2020;
 - Screening between the development and adjacent properties to the north including a listed building Old Halsnead;
 - Ground/soil conditions and stability; and
 - Plant establishment and ground preparation.
- 1.1.5 This document together with the supporting plans and schedules provide information to ensure appropriate preparation and management works to ensure good plant establishment and to address the comments raised in consultation with the council. The information together provides a framework for future management of the entire development in conjunction with other approved documentation including the Habitat and Landscape Management Plan by TEP dated November 2022.

1.2 Design Concept

- 1.2.1 The proposed landscape design focuses on providing naturalistic structure planting around the perimeter of the new industrial units to create an almost contiguous woodland around the development which connects to existing ancient woodland to the west and proposed country park (The Land Trust).
- 1.2.2 The proposed development requires some clearance of existing trees from the site, see Arboricultural Survey and Arboricultural Impact Assessment produced by Tyler Grange accompanying the planning application. Any tree loss will be compensated for and significantly enhanced by planting of new woodland blocks and tree groups throughout the development.
- 1.2.3 Enhancing the woodland structure on the site and its longevity together with providing screening to the development are essential aspects of the landscape design. The woodland mixes comprise mixed native trees and understorey shrubs to provide diversity throughout the woodland areas and will ultimately give rise to woodland including oak, lime and hornbeam as climax species.
- 1.2.4 Species rich grassland and wild flora will be established for the majority of external soft landscaped spaces that are not planted in order to maximise opportunities to enhance biodiversity across the site these include beneath tree groups, throughout the woodland planting and on the slopes of surface water attenuation features.
- 1.2.5 An overarching principle throughout though, has been to select species which reflect the local flora and to deliver multiple benefits. This ranges from designing for year-round interest - through changes in foliage colours, flowers and fruits, as well as for durability, hardiness and ease of maintenance.
- 1.2.6 Appendix B includes plans at A3 for reference with this plan.

1.3 Description

Soil Conditions

- 1.3.1 According to the Soilscape map provided by Cranfield University¹ the underlying soil on site is '*slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils*'. However due to the site being a former colliery, the ground is heavily disturbed and modified and found

¹ <http://www.landis.org.uk/soilscales/>

to contain mixed materials including colliery spoil and rubble which are very freely draining and prevailing conditions likely to be nutrient poor and acidic. To provide a suitable growing medium to allow long term plant establishment and woodland on the site a programme of soil amelioration measures will be necessary across all soft landscaped areas.

Species Rich Grassland

- 1.3.2 Grassland areas throughout the site will comprise a mix of native grasses and wild flora species. Flora species will include those already present on the site and typical of the local area as defined in consultation by the project ecologists and a range of other native species to promote species diversity.
- 1.3.3 The method for establishing these areas will be mainly seeding in some areas and supplementary plug plants will provide variety and increase diversity. A high proportion of clover will be included in the seed mix to act as a nitrogen fixer in the nutrient poor soil and is a good nectar source for insects. Native species ground flora (plug plants) are to be planted randomly in groups throughout the soft landscaped and woodland areas to quickly establish pockets of ground flora which it is anticipated will self-seed in time and spread to wider areas across the development site.

Woodland, Trees and Hedges

- 1.3.4 A tree survey and Arboricultural Method Statement were undertaken by Tyler Grange in 2020, updated in 2023. As stated previously there are trees that must be removed to facilitate development, these are generally naturally regenerated, self-sown early mature trees of limited arboriculture value.
- 1.3.5 There are tree preservation orders (TPO) on the development site these include Knowsley Council Tree Preservation Order ref. 86/00002/TPO woodland to the east and north of Unit 1 and 64/00001/TPO northeast of Unit4 and west of Old Halsnead (adjacent property). Trees that are retained are set out in approved details of the hybrid planning application.
- 1.3.6 Retained areas of trees such as the woodland group west of Unit 2 which is relatively small will be enhanced by providing new planting adjacent to extend this habitat. While the new and existing woodlands will not be accessible, except potentially by workers and visitors to each warehouse units, they will collectively provide screening and green infrastructure on the development site connecting to other habitats in the surrounding landscape and country park to the southeast.

- 1.3.7 A mix of evergreen and deciduous native shrubs and trees will form the majority of planting mixes which are chosen based on a combination of reasons including aesthetics, biodiversity enhancement, ultimate size/form and the suitability to the location. Where practical native hedgerows will be established to define external spaces with some evergreens such as holly included where screening is required.

1.4 Long-term Management Objectives

- 1.4.1 The soft landscaping throughout the development will be managed to provide a variety of habitats and foraging opportunities to a range of wildlife. Trees will be managed to form a well-structured, healthy and safe green visual buffer between the new development and the houses and gardens to the north. There are opportunities to enhance screening benefit through the planting of evergreens such as holly, yew and Scots pine.
- 1.4.2 **Objective 1: To maintain and enhance the species diversity longevity and ecological value.**
The existing trees identified for retention will be protected during construction works to provide shelter and foraging habitat for established birds, bats and invertebrate species. Where necessary in future years management will be undertaken to remove poorer quality or weaker trees to enable climax species such as oak and hornbeam to mature and form the upper canopy layer of the woodland.
- 1.4.3 New native shrubs and hedges will be planted in various locations to form e.g. shrubby canopy layer to woodlands and woodland edges, enhance screening to the development, provide food, shelter and foraging habitat for wildlife.
- 1.4.4 Species rich grassland and ground flora will be established through planting of native plug plants and seeding of with a clover rich diverse native species mix. Plug planting will be undertaken in suitable locations in retained woodland which will be allowed to naturally spread and establish through the woodland managed on the principle of 'low intervention', leaving the vegetation largely undisturbed in future years.
- 1.4.5 Deadwood as well as arisings from pruning/felling operations within the development site will be retained on site and used to create woodpile habitats within the woodland.
- 1.4.6 **Objective 2: To provide mitigation of landscape and visual impact of the development.** A well-structured canopy layer with a variety of native, broad-leaved species will provide an attractive 'green screen' between Old Halsnead and the new development. This includes

planting of new trees and a native hedge for lower-level screening and inclusion of evergreen species to provide year-round cover.

1.4.7 Significant new tree/woodland and shrub planting will increase the plant diversity and screening on the site and create the overall appearance of a wooded setting around the buildings in the long term.

1.4.8 **Objective 3: To establish attractive, healthy and safe green infrastructure.** The regular inspection, maintenance and replacement of any failed plants during the defects liability/establishment period will ensure that the newly planted areas are successful. Regular maintenance is to continue in future years as set out in the schedules in the approved management plan referred to at paragraph 1.1.5.

1.4.9 Light pruning of any overhanging branches to access roads and paths around units and car parks will ensure safe access for users and management operatives to maintain planting/soft landscaped areas.

1.4.10 All planting will be checked regularly for any symptoms or signs of pests and diseases which may have an adverse effect on the health and overall appearance of the planted areas.

1.5 Management Implementation

1.5.1 The management plan is largely based on the principle of 'low intervention', a number of operations will still need to take place during the construction/implementation phase of the development and regularly in the proposed 5-year establishment period. Works will be undertaken following the general principles of the approved Habitat and Landscape Management Plan, any recommendations in the approved Arboricultural Method Statement and the planting plans included at Appendix B.

Objective 1: To maintain and enhance the species diversity longevity and ecological value.

Operation	Timing	Frequency
1.1 To retain and protect existing vegetation		
To erect protective fencing as per Tree Protection Plan and Arboricultural Method Statement	Throughout construction phase.	N/A
1.2 To increase biodiversity and range of habitats		
To introduce new planting in accordance with Soft Landscape Details.	Next available planting season during construction phase.	N/A

Operation	Timing	Frequency
To install bird and bat boxes as per any recommendations set out in the Habitat and Landscape Management Plan.	In winter	N/A
To inspect, repair and clean out bird boxes	October- January	Annually
Cutting of new grassland to allow the natural colonisation and establishment of species ground flora and grasses. Allow natural expansion of ancient woodland edge to the land west of Unit 4.	May- September	Monthly during year 1 establishment, twice yearly or less in future years.
Replace failed planting/grassland areas in accordance with Soft Landscape Details if required during establishment period.	March/April or September	Establishment period
Review species diversity in grassland areas and boost via plug planting if required in future years	Growing/flowering season spring and summer	Post establishment
To collect deadwood and introduce wood pile habitats throughout the retained woodland and suitable locations in new woodland areas.	In winter	Year 1 and as required in future years

Objective 2: To provide mitigation of landscape and visual impact of the development.

Operation	Timing	Frequency
2.1 To retain and protect existing vegetation		
To erect protective fencing as per Tree Protection Plan and Arboricultural Method Statement	Throughout construction phase.	N/A
2.2 To provide woodland structure and screening of the development		
Introduce new native tree and species, in accordance with Soft Landscape Details.	Next available planting season during construction phase	N/A
To introduce native shrubs trees and hedge planting including evergreens on land between Unit 4 and Old Halsnead in accordance with Soft Landscape Details.	Next available planting season during construction phase	N/A

Objective 3: To establish attractive, healthy and safe green infrastructure.

Operation	Timing	Frequency
3.1 To reinforce existing woodland structure and provide enhanced visual amenity		
To plant and maintain new trees and shrubs in accordance with Soft Landscape Details.	Next available planting season during construction phase.	Annual inspection and replacement of any failed plants within the first 5 years.
3.2 To keep the woodlands and planted areas in attractive, healthy and safe condition		

Operation	Timing	Frequency
To erect protective fencing as per Tree Protection Plan and Arboricultural Method Statement	During Construction Phase	N/A
To inspect any retained trees for deadwood >25mm diameter and any other signs of structural and physiological weaknesses, including pests and diseases	June and October and following any severe weather events such as heavy snow and strong wind	Twice annually and as necessary
To carry out any necessary works to keep trees and planted areas in an attractive, healthy and safe condition.	As necessary and as soon as possible after inspection	As necessary and as soon as possible after inspection
To cut back encroaching vegetation, prune hedges adjacent to footway and car parks regularly to maintain shape and prevent overhanging and obstruction	As necessary outside bird nesting season for hedges	As necessary
To cut wildflower/grassland at appropriate times to encourage species diversity	April and September	Twice annually

1.6 Management Responsibilities

- 1.6.1 The client/contractor will be responsible for the appointment of suitably qualified persons to undertake any arboricultural management operations and to implement the landscape works. Thereafter the management of the woodland and landscaped areas will be transferred to a Management Company following the completion of the Construction Phase. The appointed management company will be responsible for carrying out any works due during the lifetime of the development, which may include the appointment of specialist consultants and contractors.

1.7 Monitoring and Review

- 1.7.1 As above and as recommended in the approved management plan all soft landscaped areas and existing trees on the site will be inspected regularly to ensure the long-term health, safety and biodiverse habitats. The ongoing management for the landscaped areas on the site should be reviewed regularly e.g. every five years to include and address any observations made during the monitoring visits and to incorporate any changes to achieve the long term vision for the site.

2.0 General Specification Information

CA = Contract Administrator.

2.1 Soil Conditions

Soil amelioration will be undertaken prior to commencement of planting works and sufficient time to allow measures to take effect. The proposed method and details are to be confirmed but will include:

- Stage 1: Site visit, method design review and soil testing.
- Stage 2: Using the information from stage 1 formulate scope for the amelioration. To include the following elements:
 - Recommendations for a soil specification for the substrates proposed for each vegetation type.
 - Design an appropriate and site-specific soil handling and amelioration strategy in line with scheme requirements.
 - Risk assessment and mass balance calculations for nutrient and potentially toxic elements inputs if waste materials/ameliorants are proposed for use.
 - Recommendations for soil preparation and creation for in situ and ex situ treatments.
 - Soil Handling Strategy.
 - Recommendations for compliance with Environmental Permitting if required.

On completion of the above - Cultivate and plant into moist friable soil that is not waterlogged.

Do not plant into frozen or snow-covered soil without prior approval of the CA (Contract Administrator). The contractor shall provide adequate additional root protection and prevent planting pit sides and bases and backfill materials from freezing.

Topsoil to be imported for tree pits and planting of standard/select standard and heavy standard trees as shown on the planting plans.

2.2 Preparation of Planting Areas/Planting Materials

Soil amelioration will be applied to all bare areas to be planted (not woodland area) subject to soil tests and the above scope.

Tree pits – Incorporate peat free compost at 7 Litres per pit and Rootgrow Professional. UK

origin mycorrhizal fungi including bio-additives. Mycorrhizal fungi component to contain spores, mycelium, dried plant root containing mycelium and attapulgitic clay, colonised by mycelium. Product should not contain fertilisers. Additives should be proven to enhance mycorrhizal colonisation.

Shrubs in island beds in car park – Concrete at base of planting area to be broken up to allow a minimum of 450mm depth topsoil to be added at the centre deepest part and for drainage between concrete haunching to kerb edges. Plants to be planted in the centre of the island bed and away from kerb edges. Bark mulch to be applied to entire area to a depth of 75mm after planting and watering in.

Do not use peat or products containing peat.

2.3 Cultivation

Any compacted areas of ground shall be broken up as part of soil amelioration works.

A few days before planting, but in suitably dry weather and ground conditions, cultivate top 300mm of all planting beds, using suitable plant to loosen, aerate and break up the soil into particles of 2-8mm.

Leave surface regular and even, with levels as required. Remove weeds, perennial weed roots and undesirable material brought to the surface including stones and clods larger than 50mm in any dimension, roots, tufts of grass and foreign matter.

Do not dig or cultivate within root spread of trees and shrubs to be retained.

2.4 Ground Preparation for Wildflower/Species Rich Grassland

If necessary, remove perennial weeds within Root Protection Area of trees by hand.

Soil should be tilled to produce a firm surface.

All biomass should be removed after cutting and disposed of at an appropriate recycling/composting facility.

For soils that are known to be of heavy clay, spring sowing is advisable and more invasive methods of ground preparation may be used to create a finer tilth.

The contractor shall prevent weeds from seeding and perennial weeds from becoming established, by hand weeding at appropriate times of year.

2.5 Climatic Conditions

Carry out the work while soil and weather conditions are suitable for the relevant planting

operations. Do not plant during periods of frost or strong winds.

2.6 Times of Year for Planting

- Deciduous trees and shrubs: Late October to late March.
- Herbaceous perennials and grasses: Late October to late March.
- Deciduous trees and shrubs: Late October to late March.
- Conifers and evergreens: September/ October or April/ May.
- Container grown plants: At any time if ground and weather conditions are favourable.
- Meadows and wildflower seed mixes: best sown in either Autumn before first frosts [September to October], or Spring after last frost [March to April].

2.7 Machines and Tools

Use only machinery and tools suitable for the site conditions and the work to be carried out. Use hand tools around trees, plants and in confined spaces where it is impractical to use machinery.

2.8 General Watering

Ensure the full depth of the topsoil is evenly and thoroughly wetted after planting.

Use a fine rose where appropriate to avoid damage or displacing plants or soil.

Water as necessary to ensure establishment and continued thriving of planting. If planting takes place during prolonged hot and dry conditions, the contractor is to ensure the plants are well watered.

2.9 Water Restrictions

If water supply is or is likely to be restricted by emergency legislation, do not carry out planting until instructed. If planting has been carried out, obtain instructions on watering.

2.10 Tree Removal

Tree removal should be undertaken outside of bird nesting season, which is March to August inclusive, unless supervised by a suitably experienced ecologist.

2.11 Preparation, planting and mulching materials

Preparation, planting and mulching materials must be free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life.

2.12 Specification of Plant Material/Trees – General

All species shall be true to name and character and shall be supplied as specified with all the trees origin and provenance meanings given in the National Plant Specification. They shall have been grown and handled according to good horticultural practice and according to all current UK Government and EC regulations. The supplying nursery shall be expected to carry out thorough and rigorous production methods to ensure that the stock is of highest standards.

The conditions of all plants shall be materially undamaged, sturdy, healthy and vigorous and be of good shape, without elongated shoots. They shall be grown in a suitable environment and sufficiently hardened off prior to delivery to site. They shall be free from pests, diseases, discolouration, weeds and physiological disorders. Budded or grafted plants must be bottom worked.

The root system and condition must be uniform and well developed with fibrous root hairs typical of a healthy tree of the species, age and number of transplantations.

2.13 Trees and Plant Sourcing

Obtain from approved sources with soil and climatic conditions similar to those prevailing on site. Adequately and carefully pack and protect against mechanical damage, extremes of temperature and drying out. The code for Plant Handling published by C.P.S.E. shall be strictly adhered to.

2.14 Tree Specification Definitions

Notes to planting schedules and Specification clauses.

a) Code (European)

Twice Transplanted Tree = 2x

Three Times Transplanted Tree = 3x

Four Times Transplanted Tree = 4x

Rootballed in Hessian and encased in wire mesh = RB

Bare-root = B

b) English Descriptions:

Half Standard 4-6cm, 1.75-2.50m height

Clear stem to 1.25 -1.50m = Half S

Extra Light Standard 5-6cm, 2.0-2.50 m height

Clear stem to 1.5-1.75 m = ELS

Light Standard 6-8cm, 2.5-3.00 m height

Clear stem 1.5-1.75 m = LS

Standard 8-10cm, 2.5-3.00 m height

Clear stem to 1.75-2.00m = STD

Selected Standard 10-12cm, 3.00-3.50m height

Clear stem to 2.00 m = SS

Heavy Standard 12-14cm, 3.50-4.25 m height = HS

Clear stem to 2.00m

2.15 Nursery and Advanced Nursery Stock

All trees shall conform generally to BS 3936 Part 1 (Nursery Stock Trees) and BS 4043 (Advanced Nursery Stock Trees) and as further described in the plant schedules. All trees shall be strong growing, shall have reasonably straight, upright stem and accord with the dimensions given in the schedule with evenly balanced and well-developed crowns, with no main branch crossing the crown, and well-developed fibrous root structure. All batches of single species shall be uniform in character.

All stems shall be free from abrasions and stem girdling. Stems shall be straight and uniform.

2.16 Clear Stemmed Trees

All clear stem trees shall have a full and well-developed crown with a uniform leaf coverage appropriate to their age and species. All shall bear a single upright straight central leader. Unless otherwise stated, they shall have a 1.8m clear stem height.

2.17 Feathered Trees

Feathered trees shall be furnished with a single leader and well-developed laterals (except for ashes) to ground level with uniform and full leaf coverage appropriate to their age and species/type. Stems shall be straight and uniform and free from abrasions and stem girdling. All plants shall have a strong fibrous well developed but compact root system with root spread proportional to the size of the tree with a reasonable proportion of fine fibrous rootlets. The roots shall not be torn or lacerated.

2.18 Bare Root Trees

All bare rooted subjects shall have a strong fibrous root structure. The root systems shall be well developed but compact with root spread proportional to the size of the tree with a reasonable proportion of fine fibrous rootlets. The roots shall not be torn or lacerated.

2.19 Rootballed Trees

The trees shall have a good well-formed root ball with dimensions according to the species and size of the tree. The diameter of the root ball is usually at least three times the size of the girth, measured at 1 metre above ground level. Rootballed trees shall be adequately supported by wire mesh and hessian, or other suitable material to prevent collapse of the rootball. The rootball shall be of sufficient size to contain the fibrous roots. Trees, which have a collapsed rootball or expose major parts of the root system will be rejected.

2.20 Container Grown Shrubs

All plants will be true to name and character and shall be supplied container grown. They shall have been grown and handled according to good horticultural practice and to all current UK government and EC regulations.

All plants shall be well developed and bushy and shall have been grown in the same container for at least one full growing season prior to delivery.

All specimen shrubs shall have a balanced, well developed crown with a strong main stem and lateral branches or a minimum of 4 stems arising from the ground level, dependent on species. All specimen shrubs shall be well furnished to ground level, unless otherwise shown.

The root systems will adequately fill the capacity of the container to show clear evidence of the proper establishment of a healthy fibrous root system. Plants showing signs of being pot-bound or waterlogged will not be accepted.

All plants shall show a high degree of extension growth typical of the species or type and appropriate to the specified container size. The requirements given in the plant schedules constitute a guide to the required heights and number of breaks (in the lowest third of the plants). The plants shall be appropriately spaced to allow a full and uniform branch and leaf coverage to develop, evenly radiating around the pot.

The compost will hold sufficient reserves of nutrients to maintain the plant in a satisfactory condition for a reasonable period of time after leaving the grower's nursery. The compost shall be free from any perennial weeds and have a reasonable moisture content. The compost shall not contain peat from UK sites of Special Interest or the equivalent from other countries. The compost shall contain the additive SusCon Green, or similar and approved, mixed in accordance with the manufacturers' recommendations.

All plants shall be properly hardened off before delivery.

All plants shall on delivery be free from diseases and pests and undamaged.

2.21 Wildflower and Grass Seed Mixes

All seed mixes shall be true to name and/or supplier. Substitute mixes will need to be approved with landscape architect or contract administrator prior to planting, as particular seed mixes may contain different species or ratios of grass to wildflower seed, and may be unsuitable for the soil conditions.

Unless otherwise stated within the landscape proposals, all wildflower seed mixes shall be sown to the specified sowing rate per unit, or to supplier's recommendations.

Amounts of seed mixes should be determined by sowing rate shown and area or planting required.

2.22 Plants/Trees – Sourcing

Tree planting should be carried out in accordance with *BS 8545:2014 Trees: from nursery to independence in the landscape – Recommendations*.

Plants are to be obtained from an approved source confirmed in writing at the time of tender. The plant source/s are to have soil and climatic conditions similar to those prevailing at the site.

Plants are to be obtained from an approved UK source to be confirmed in writing at the time of tender. Seedstock to be sourced from UK region of provenance 30, seed zone 302. The plant source/s are to have soil and climatic conditions similar to those prevailing at the site.

If for any reason plant material cannot be obtained as required above, the contractor shall furnish the CA with details of an alternative source of supply. The CA may request additional information as necessary.

Where plant material is unobtainable or known to be likely to be unobtainable at the time of ordering, alternatives may be submitted with the tender, stating the price and how they differ from the specifications. Such substitutions may not be acceptable and submission of further alternatives may be required. Obtain approval before making any substitution.

Where alternative species and/or sizes are offered, the contractor must clearly state in their tender, which specified plants/sizes they propose to change.

Single species from more than one source must be of the same clonal type and cultivator, and be similar in form, root structure and size.

2.23 Delivery of Plants

Labelling and Information

Plants shall be identified until planting with a label to each plant or group of the same species.

Provide each plant/tree or group of plants/trees of a single species or cultivar with supplier's labelling for delivery to site, showing:

- Full botanical name;
- Total number;
- Number of bundles;
- Part bundles;
- Supplier's name and address;
- Employer's name and project reference or order number; and
- Plant specification in accordance with scheduled National Plant Specification categories.

Redelivery Inspection

All plant stock is to be inspected at the nursery before supplying samples to site for approval. The contractor shall make full allowances for inspecting the stock with the CA, plus representative at the stated nursery locations and include for full travel costs. Failure to inspect the nursery stock will not relieve the contractor of his obligations under the specification.

The contractor shall satisfy himself on the quality, health, vigour and numbers of all the stock and its ability to meet the specification and the requirements of the Assignment Agreement (where appropriate).

At the time of the plant inspection visit, at the nursery of origin, the contractor shall make allowances for providing numbered security tags, for use of identifying the stock for the project and individual specimens. Following approval, plants are to be clearly identified with non-perishable labels as being reserved for use on this project.

Unloading on Delivery

The contractor shall supervise the unloading of the plants and shall inspect the plants at delivery.

2.24 Unsuitable or Defective Plants/Trees

Any materials, which in the opinion of the CA do not meet the requirements of the

Specification, or are unsuitable or defective in any other way, will be rejected. The minimum sizes in the plant schedules will be strictly enforced.

2.25 Substitute Plants

The tender must be based on plants which are available. Plants, which are unobtainable are to be clearly identified in the tender and alternatives are to be submitted for approval by the CA, stating species, size, form and price. These substitutes must be the equivalent or better quality than the species specified. Such substitutes may not be acceptable and submission of further alternatives may be required. Obtain approval before making any substitution.

2.26 Plant/Tree Handling, Storage and Transport

The contractor shall comply with CPSE 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part I, Part II and Part III, paragraphs 1.3.3 to 1.3.6, 3.0, and 4.0.

Plants/trees shall be handled with care and protected from frost. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.

Plants, which are not to be planted on the day of delivery to the site, are to be stored as follows or by other approved methods:

Bare root trees that are to be stored for subsequent planting shall be stored on site by laying them horizontally, resting the branches on straw bales and covering the root balls with soil and firming well in to prevent air pockets.

Container grown plant material shall be stored upright in a location on site agreed with the CA. Any plant material stored shall be protected from drying winds and watered regularly.

Rootballed plants that are not to be planted within 24 hours of delivery are to be grouped together and their rootballs covered with moist non-peat organic matter suitable for protecting from frost and from drying out.

Watering should continue to keep all plant roots moist until planting can commence.

The contractor shall allow for all costs associated with undertaking correct storage of plant material. The contractor shall operate a method of "just in time" plant deliveries to minimise plant storage on site.

2.27 Treatment of Tree Wounds

The contractor shall ensure to keep all tree wounds as small as possible by cutting cleanly back to sound wood using sharp, clean tools and leaving branch collars. Do not cut flush with stem

or trunk. Set cuts so that water will not collect on cut area. Do not apply fungicide/sealant unless instructed.

2.28 Planting Shrubs and Trees

Shrub pits shall be of a sufficient size to take rootballs, without breaking them, or roots without bending or cramping. Roots shall not penetrate into subsoil when planted.

Plants are to be positioned in the locations and numbers shown on the drawings and placed to achieve even spacing and proper matching of shapes, particularly related to the original growing positions in the nursery. Plants shall be placed in positions showing their best side to the front. Where two or more plant species are shown in one space, they should be evenly mixed together to achieve the required effect unless otherwise noted on the drawings. Do not plant in straight lines unless indicated on the respective scheme drawings.

Plants shall be planted at the same depth as their nursery mark allowing for settling of soil after planting. They shall be completely vertical and well firmed in after planting. All plants shall be planted so as to adopt a truly vertical position.

Care shall be taken to avoid breaking up the rootball of pot grown shrubs. Plants that have full fibrous rootballs shall have their roots gently eased out.

The topsoil shall be lightly consolidated and firmed around the root collar to eliminate all air pockets.

Water plants thoroughly immediately after planting, using a fine rose or sprinkler where necessary to avoid damaging plants. Lightly firm soil around plants and fork and/or rake soil, without damaging roots, to a fine tilth with approved gentle cambers and no hollows.

Bark mulch shall be applied around the base of individual plants supplied from an approved source and to a finished depth of 75mm (1m³ of material per 13.3 m²). Allow for at least 5% settlement after 30 days.

The contractor shall provide a representative sample of mulch for approval prior to delivery and ensure that all planting areas are weed free and have received residual herbicide, if instructed, before commencing mulching.

If a 'similar approved' product is proposed, mulch shall consist of predominantly matured British pine bark with an even particle size distribution between 5-35mm, containing no dust or fine material. The mulch shall contain less than 5% wood. The mulch shall be pest, disease and weed free and be free of Methyl Bromide contamination or other additives with available Manganese not exceeding 35ppm. The product shall have been tested in accordance with the

requirements of BS4790:1987 for fire resistance.

2.29 Planting Trees

The contractor shall make full allowance for provision of all cranes, lifting tackle, tree collars etc. required for lifting trees into position having confirmed the weight and dimensions of all the trees reserved with the nursery supplier(s). Any use of cranes shall be coordinated with the CA, agree haul routes, types of tracks on vehicles etc. prior to commencing tree deliveries. Make good, at no extra cost to the contract, any damage incurred to finished kerbs, hard standing etc. during planting.

Trees shall be planted at the same depth at which they were previously growing. Great care shall be taken to avoid damage to the root systems, stems and crowns when planting and when removing crates and containers.

Any damaged trees shall be taken off site and replaced at no additional cost. Planting is to be carried out in suitable weather. Stock shall not be planted in conditions of frost, frozen ground, strong wind or heavy rainfall that renders the soil waterlogged or in sticky condition. Wherever possible, planting should take place when the weather is dull and the ground is moist and workable.

Tree Pits - Mark the centre of each pit with a suitable peg, e.g. cane or stake, indicating the species and size on the peg. No tree pits shall be dug until final tree positions have been pegged out and approved by the CA.

Excavate the base of the pit with a slightly raised centre. In sloping ground, maintain horizontal base and vertical sides with no less than minimum specified depth throughout.

Pits shall be prepared just before the trees are planted. On no account shall tree pits be left unfilled. Pits once excavated shall be backfilled with imported topsoil and soil improver as specified and sufficient to accommodate the rootball spread of the tree.

For rootballed, bare rooted, containerised and container grown, unless otherwise instructed:

14-16cm and 12-14cm	900mm square x 600mm deep
Standard (include multi stemmed)	900mm square x 600mm deep
Feathered, light, half standards	600mm square x 450mm deep

Where necessary increase the above dimensions to ensure that pits are wide enough to accommodate roots when fully spread and an additional 200mm deep to accommodate a 200mm layer of drainage substrate. Break up bottoms of pits to a depth of 150mm and scarify sides. On no account must tree roots be trimmed or altered in order to be accommodated in

any excavation. Any excavated material, which is not topsoil shall be removed from site or deposited in a suitable location as agreed with the principal contractor/CA and regraded to merge smoothly with adjacent ground levels.

Tree Pit Accessories

Edges of tree pits, where aligned to paving, to be installed with linear root deflecting barrier (minimum depth 400mm) with ribs facing tree, to deflect roots away from paving.

Trees adjacent to hard surfacing and/or services to have growing area defined by Greenleaf Reroot 600 high density root barrier, in accordance with manufacturer's and Engineer's guidance.

Form watering hollow around tree bases of a sufficient diameter and height to act as a water 'reservoir' for the tree rootball.

All trees within grassed areas to have a strimmer guard e.g. Tubex 'Grass Trimmer Tree Guard' Material with the following specification or similar approved: LDPE, colour: Black, Height: 200mm, Diameter: 95mm, Flange Base: 58mm.

Tree Pit Drainage (if Required).

Increase depth of excavation from specified size to allow for aggregate layer, sloping base of pit towards trench. Width of trench 300mm, depth 200mm min.

Backfill trench with min. 200mm deep clean gravel or broken stone, with no fines, graded 8-10mm blinded with coarse sand or grit to prevent ingress of fines.

Lay perforated pipes, 80mm diameter within drainage trench and connect to surface water drainage connection pipe laid by others.

Test for free draining of completed pits before planting.

Staking Generally

Stakes: Softwood milled round, straight and free from projections and large or edge knots with pointed lower end.

Nails: To BS 1202: part 1, galvanised, minimum 25mm long and with 10mm diameter heads.

Minimum stake sizes:

Tree size	Length of stake	Diameter of stake
Feathered Stock (up to 2m tall)	1200mm	75mm
Nursery Stock	500mm	75mm
Advanced Nursery Stock	1500mm	100mm

Where feathered stock is planted in extremely windy and exposed sites, the length of the stake

should be increased to 1500mm.

Short Single Staking

For all Feathered and Nursery Stock (up to 12-14cm girth bareroot stock). Position stake close to tree on windward side and drive vertically at least 300mm into bottom of pit before planting. Consolidate material around stake during backfilling. Cut stake to approximately 600mm above ground level. Secure tree firmly but not rigidly to the stake with belts, pads and spacers

Feathered and Standard Nursery Stock and Heavy Standards: Chunky Pad and Special Nylon Reinforced 25mm Rubber belt. Use one nail for fixing and within 25mm of top of stake.

Short Double Staking

For all Advanced Nursery stock (14-16 and 16-18 cm girth). Drive stakes vertically at least 300mm into the bottom of the pit on either side of the tree position before planting. Consolidate material round stakes during backfilling. Cut stakes to approximately 600mm above ground level.

Secure tree firmly but not rigidly with, Belts and spacers from

Special Nylon Reinforced 37.5mm Rubber belt and Rubber Sleeves cut to length, rubber belt looped around tree stem, through 2 no. rubber spacer sleeves cut to correct length to each stake use one nail fixing per stake.

Backfilling Material

The CA reserves the right to inspect all tree pits prior to the contractor backfilling with the specified material/ameliorants.

Tree and Shrub planting compost: Peat free

Backfill pits with approved subsoil up to 400mm from surface and backfill remaining depth with above topsoil backfill mix. The pits shall be filled in 150mm layers of subsoil finishing with topsoil and ameliorants. Each layer shall be consolidated in the gap between the rootball and the pit. Any subsequent settlement in tree pits shall be allowed for or made good by the contractor at his own expense as a defect during the Maintenance and Defects Liability Period.

Any excavated material, which does not form part of the backfill shall be removed from site.

Mulching Trees

Bark mulch shall be from an approved source and a representative sample shall be supplied

for approval prior to delivery.

The contractor shall obtain approval from the CA and ensure that all planting areas are weed free and have received residual herbicide, if instructed, before commencing mulching.

Clear all weeds, water soil thoroughly and mulch the whole surface of planting beds with mulch material at a finished depth of 50mm (1cu m of material per 20 m²)/75mm (1m³ of material per 13.3 m²). Allow for at least 5% settlement after 30 days.

2.30 Planting Wildflower Seed Mixes

Seed mixes should conform to be to the stated mix or product as per the landscape proposals.

Unless otherwise stated sowing should follow the rates specified by the manufacturer of product. Sowing rates excessive of the specified amount is not advisable as this may lead to overcrowding or imbalances in establishing a wildflower sward.

Sowings may be slow to establish in the first year after sowing for perennial seed mixes. Additional sowings may be required to produce desirable effect. Further sowings may be required in subsequent years, if sward has become depauperate or dominated by noxious weed species.

All seed is to be surface sown and to be broadcast by hand or appropriate machinery for larger areas.

Do not incorporate or cover seed with soil, instead 'firm-in' to surface by treading or hand rolling.

2.31 Approvals, Inspections

Notwithstanding the conditions of this section the contractor must give 48-hours' notice to the CA of his intention to begin the following operations:

- Setting out;
- Application of herbicide;
- Application of fertiliser;
- Delivery of plants;
- Planting shrubs;
- Planting of trees; and
- Watering.

2.32 Pre-Practical Completion Maintenance

The Contractor shall make allowances for maintaining the works installed for the period prior to Practical Completion.

Contractor is responsible for protecting seeded and planted areas. If fencing is the chosen form of protection use chestnut pale fencing. Maintain fencing until grass/planting is well established then remove and reinstate ground. Make good any damage to grass until area is accepted. The fencing will remain the property of the contractor.

The works shall include, but not be limited to, the following operations.

Watering

During establishment ensure that sufficient water is applied to all planted and grass areas to maintain healthy growth. Carry out watering of planted areas using a fine rose or sprinkler until full depth of topsoil is saturated to field capacity.

Pests and Diseases

The contractor shall maintain the works free from any pests and diseases and apply approved chemicals in accordance with manufacturer's recommendations.

Cleanliness

The contractor shall remove soil from all hard surfaces and leave the works in a clean, tidy condition at Practical Completion. All hard surfaces are to remain free from any litter and grass clippings, mulch, etc.

Vandalism and Theft

Prior to the issue of the Certificate of Practical Completion the contractor shall be responsible for all losses to the works resulting from vandalism and theft or a lack of protection.

Replacements

Reinstate to original condition and within a reasonable period of time (according to season), any damage or disturbance occurring during the period up to practical completion, to soil structure, planting, grass, fencing, hard landscaping, structures or buildings. This includes replacing topsoil to the correct levels if subsidence or settlement occurs.

If a particular species continues to fail, this will be reviewed and an alternative appropriate species will be planted instead.

Appendix A – Site Masterplan

DRAFT



• Dimensions are in millimetres, unless stated otherwise.
• Drawing of this masterplan is not to be used for construction.
• All dimensions are approximate and should be used as a guide only.
• All relevant drawings and specifications should be read in conjunction with this drawing.



SCHEDULE OF ACCOMMODATION
(Gross Internal Area unless otherwise stated)

Unit 3	-
Warehouse	- 295,970 sq ft (24,902m ²)
GP Office Core	- 1,425 sq ft (133m ²)
Office FP & SF	- 12,577 sq ft (1,158m ²)
Transport Office (2 St)	- 3,400 sq ft (316m ²)
Garagehouse	- 300 sq ft (28m ²)
Total	- 313,672 sq ft (29,114m ²)
Car Parking	- 204 (EV Parking No.52)
HGV Parking	- 44
Loading Docks	- 20 (Inc. No. 04 EuroDocks)
Level Access	- 54 (Inc. No. 01 Jumbo Door)
Cycle Parking	- 100 spaces (10 Shelters)
Motorcycle Parking	- 13
Net Plot Area	- 12.82 Acres (5.23 Hectares)

Unit 4	-
Warehouse	- 193,195 sq ft (17,848m ²)
GP Office Core	- 1,410 sq ft (131m ²)
Office FP & SF	- 12,815 sq ft (1,191m ²)
Transport Office (2 St)	- 3,300 sq ft (308m ²)
Garagehouse	- 300 sq ft (28m ²)
Total	- 211,090 sq ft (19,687m ²)
Car Parking	- 194 (EV Parking No.38)
HGV Parking	- 38
Loading Docks	- 20 (Inc. No. 04 EuroDocks)
Level Access	- 54 (Inc. No. 01 Jumbo Door)
Cycle Parking	- 80 spaces (8 Shelters)
Motorcycle Parking	- 10
Net Plot Area	- 10.76 Acres (4.38 Hectares)

- Masterplan Boundary
- Application Boundary
- Existing Overhead Power Lines
- 15m Wood Offset Zone
- TPO Woodland
- Woodland Retention

Unit 03, Symmetry Park, Merseyside

LOD 2	LOI 2
-------	-------

TRITAX SYMMETRY
A TRITAX BIG BOX COMPANY

umc architects

GBA Plot Stage	2 - Concept Design
Document Suitability	SI / EXB
Document Checked	30/03/2023
Date	30/03/2023
Drawn	As Matted @ A1
UMC Project Number	23045
Document Reference	Drawing No: P01
23003 - LMC - XXXX - SI - DR - A	9571

Illustrative Masterplan

PLANNING

Appendix A - Soft Landscape Plans and Plant Schedules

DRAFT



Enzygo specialise in a wide range of technical services:

Property and Sites

Waste and Mineral Planning

Flooding, Drainage and Hydrology

Landscape Architecture

Arboriculture

Permitting and Regulation

Waste Technologies and Renewables

Waste Contract Procurement

Noise and Vibration

Ecology Services

Contaminated Land and Geotechnical

Traffic and Transportation

Planning Services

BRISTOL

The Byre
Woodend Lane
Cromhall
Gloucestershire
GL12 8AA
Tel: 01454 269 237

SHEFFIELD

Samuel House
5 Fox Valley Way
Stocksbridge
Sheffield S36 2AA
Tel: 0114 321 5151

MANCHESTER

Ducie House
Ducie Street
Manchester
M1 2JW
Tel: 0161 413 6444

CARDIFF

Regus House
Malthouse Avenue
Cardiff Gate Buisness Park
CF23 8RU
Tel: 02920 023 700

Please visit our website for more information.

enzygo.com