INDICATIVE SOFT LANDSCAPE SPECIFICATION

Generally

Prior to planting, all earth works associated with landscape operations are to be made good, top soil levels are to be graded to 50mm above back of kerb after settlement and mounded as appropriate in accordance with landscape design. All existing good quality top soil is to be incorporated into the landscape proposals where practicable.

All plant material, setting out and finished grading is to be checked and approved by the Employers Agent prior to commencement of planting.

All planting is to be carried out during the first appropriate planting season following completion of all hard landscape works.

All areas are to be thoroughly stone picked by hand before and after cultivations, with all stones >20mm removed along with all deleterious arisings.

All landscape areas should remain free from waste material and rubblish at all times.

No planting should take place whilst ground is frozen or water logged.

All planting should arrive to site free of any pernicious weeds/moss/lichen.

All plant material is to be thoroughly watered before packaging for delivery, on the day of planting (before planting) and again immediately following planting using a fine rose sprinkler to the full depth of the roots.

All areas shall remain weed free both during construction and during the defects/maintenance period.

For more detailed information all landscape works should comply fully with the following British Standards:
BS 3882:2007 - Specifications for top soil
BS 3936,part 1:1992 - Nursery stock
BS 4043:1989 - Recommendations for transplanting root balled trees
BS 4428:1989 - Code of practice for general landscape operations
BS 5837:2005 - Trees in Relation to Construction

Sub Soil Preparation

Loosen light, non-cohesive soils with a fine 3 tine ripper, 300mm deep at 600mm centres in two oblique directions; loosen stiff clays and other cohesive sub-soils with a single tine ripper, 450mm deep at 100mm centres in two oblique directions.

Top Soil Preparation

Spread topsoil over prepared sub-soil in layers not exceeding 150mm depth and firm each layer before spreading the next. Overall minimum depths after firming and settlement shall be:

Amenity Grass Areas 150mm
Shrub Areas 450mm
Tree Areas 800mm (minimum)

Imported top soil shall be to BS 3882 premium grade from a source approved by the Employer's Agent. A declaration of analysis including relevant parameters given in BS 3882 shall be submitted to the Employer's Agent prior to delivery to site.

Root Barrier Installation

Main contractor is to install root barriers as required during construction and installation of all new services. Root barriers are to be installed as close as possible to all service runs.

All root barriers are to be installed in accordance with the following guidance from Greenleaf Urban Tree and Landscape Products:

'Root barrier installations are designed to protect the tree (preventing delicate root systems from being massacred by excavation machinery) as well as the utility infrastructure. We specify the use of a proven high strength (minimum thickness 1.0mm - RerR210) Greenleaf HDPE root barrier in all locations. The barrier should be installed as close to the utility as possible (maximizing rooting area for the tree) and if possible, in new service infrastructure projects, be installed in the same trench (against the side of the trench nearest the tree) at the same time as the utility is being laid.

All utilities should be protected (in accordance with the following depth guidance) with the exception of electrical cabling concealed within solid plastic conduit which does not usually require protection. Generally the majority of root growth is found within the top 600mm of the soil surface, therefore all utilities up to a maximum depth of 600mm should have a root barrier installed to 300mm below invert level as protection for both the services and the trees themselves. For services at a depth of between 600-900mm a root barrier should be installed at the same depth as the invert level.

Tree roots are not commonly found deeper than 900mm below the surface however, in some circumstances this can occur. Therefore services at a depth of 900-2000mm should be protected only when specifically requested by the individual service provider, and using a root barrier installed at a depth equal to the invert level. Lastly, utilities deeper than 2000mm only require protection in extreme circumstances and where specifically requested'.

Tree Planting

All tree pits within soft landscape areas should be excavated to the sizes below:

30-35cm and Multistem RB 1500mm dia. x 750mm deep
20-25cm RB 1250mm dia. x 750mm deep
14-16cm RB 1000mm dia. x 750mm deep

All tree pits should be prepared and soil cells/topsoil installed at the appropriate time during construction to avoid abortive works. Once tree pits have been constructed they are to be capped using temporary semi permeable membrane on tree pit surface to allow soil to breathe, water to permeate tree pit and prevent contamination during further construction works.

No tree planting is to take place until all hard works are complete.

Where practicable trees pits should be excavated to provide continuous length of improved quality tree backfilling material as detailed below.

Trees should be staked in full accordance with details and specification provided. Abrasion shall be avoided by using a buffer of rubber or plastic between the tree and stake. Ties shall be checked during the defects period and adjusted/replaced as necessary to allow for growth.

All tree pits are to be backfilled with approved quality top soil, mixed with tree planting/mulching compost, fertiliser/ameliorant and moisture retentive granules to the following quantities per each tree pit:

250L Tree Planting Compost
150gms SAI Enmag
800gms Broadleaf P4

The above backfill mixture shall be prepared away from the planting area and in sufficient quantity for efficient handling and use. All compost shall be moistened to between 30-40% water content.

Structure Planting

Feathered Trees:

- individual tree pits to be dug to an appropriate width to accommodate complete root system, to a depth ensuring tree is planted no deeper than root collar and same depth as grown in nursery
- existing turf is to be broken up and placed in bottom of individual pit, with pit then backfilled using excavated top soil, tree then firmed gently using heel of boot

Staking:

- single staked and secured to stake using a Greenleaf Arbortie (www.greenleaf.co.uk) or similar approved
- pressure treated soft wood timber stakes minimum dia 50mm
- nails - to BS 1202-1, galvanized, minimum 25mm long with 10mm dia heads

Transplants:

- to be notch planted, opening to accommodate all roots, with individual trees planted no deeper than root collar and same depth as grown in nursery

Tree Shelters (for structure/edge mix, specimen trees and single species hedgerow planting only)

All tree shelters are to be installed ensuring they are in contact with soil surface to ensure no access to wildlife at the base.

All plants are to include individual tree shelters to the following specification:

- Climatic Plus 0.6 x 0.2m - For all transplants
- Climatic Plus 1.2 x 0.3m - For all woody shrubs, feathered trees and heavy standard trees

All shelters are to be staked on the inside and stapled to the stake from the outside using a staple gun (cable ties not permitted). All staples are to straddle the thick gauge mesh of the shelter. All 0.75m shelters should be installed using 0.9m timber stakes and 3 staples per shelter, all 1.2m shelters are to installed using 1.5m stakes and 5 staples per shelter.

(All supplied by Trees Please Nursery, Dilston Haugh Farm, Corbridge, Northumberland NE45 5QY - or similar and approved)

Shrub/Herbaceous Planting

As scheduled, all ornamental planting is to be planted evenly to the densities indicated.

Rotovate and/or double dig 400mm deep (shrub areas), 800mm deep (tree areas) remove stones, clay balls exceeding 50mm width, roots, grass, tufts, and foreign matter.

Each pit shall be backfilled with approved quality top soil, mixed with tree planting/mulching compost, fertiliser/ameliorant and moisture retentive granules to the following quantities per each plant:

Ornamental Shrubs/Herbaceous:
10L Tree Planting Compost
30gms SAI Enmag
30gms Broadleaf P4

Specimen shrubs:
40LTree Planting Compost
70gms SAI Enmag
100gms Broadleaf P4

The above backfill mixture shall be prepared away from the planting area and in sufficient quantity for efficient handling and use. All compost shall be molstened to between 30-40% water content.

Amenity Grass Areas

Break up compacted top soils to full depth; reduce top 100mm to tilth (10mm down to particles); remove surface stones, clay balls exceeding 50mm width, roots, grass tufts and foreign matter; further reduce top 25mm to a fine tilth; rake to true, even, lightly firmed surface; remove surface stones and clay balls exceeding 25mm width.

Grass seed for all topsoil seeded areas - Rigby Taylor R12 General Playing Fields Grass Seed (or similar approved). Sown at a density of 35g/m2. Pre-seeding fertiliser to topsoil seeded areas:6:0:6 NPK at 40gms/m2, spread two to three days before seeding, not on day of seeding.

An initial cut, which shall be the responsibility of the Contractor, shall be carried out when the grass has reached a height of approximately 100mm. Selective weed killer. ICI 'Weedkiller for New Grass' / ' Fisons 'Mecodex' shall also be applied.

Immediately before cutting all stones >20mm in any dimension shall be removed by hand. All arisings shall be removed from site. Prior to the initial cut, a meeting is to be held between the Contractor and the Employer's Agent to agree the extent of re-sowing and weeding necessary.Following this, grassed areas shall not exceed a height of 50mm.

Defects Liability

Bare areas and areas of dead grass will be regarded as defects due to materials and workmanship; they must be made good by re-cultivation and re-seeding/re-turfing. Dead/failing shrubs and trees shall also be regarded as defects due to materials and workmanship and shall be replaced. When planting is carried out by the Contractor post Practical Completion, subject to the approval of the Employer, the landscaping defects liability period will commence from the date of completion of the additional works.

Maintenance

The landscape contractor will have five years maintenance responsibility to coincide with 1 years initial defects rectification period. Maintenance is to be undertaken in accordance with standard maintenance schedule as provided by the employer.

EXTERNAL AREAS - SPECIMEN TREE PLANTING SCHEDULE

Trees

Number	Species	Girth	Height	Specification
5 No.	Betula albosinensis 'Fascination' (SM)	25-30cm	550-600cm	Semi-Mature :7/9brks ;Single Leader :Uniform Shape/Canopy :Clear Stem 2m :Rootballed :High Quality Specimen
6 No.	Betula albosinensis 'Fascination' (SS)	14-16cm	350-425cm	Select Standard :Uniform Shape/Canopy :Clear Stem 1.5m :Rootballed :High Quality Specimen :5/7 brks
6 No.	Betula albosinensis 'Fascination'(MS)		450-500cm	Multi Stemmed :Uniform Shape/Canopy :Clear Stem 1.2m :Root Balled :High Quality Specimen :no crossing/rubbing branches/sterns or weak unions :minimum 3 sterns
9 No.	Carpinus betulus 'Fastigiata'	25-30cm	500-550cm	Semi-Mature Feathered Tree :Single Leader :Uniform Shape/Canopy :Highest Quality Specimen :Clear Stem 0.9m :Rootballed
9 No.	Prunus avium 'Plena'	25-30cm	500-550cm	Semi-Mature :Single Leader :Uniform Shape/Canopy :Highest Quality Specimen :Clear Stem 1.8m :Rootballed
10 No.	Quercus palustris 'Green Pillar'	40-45cm	6m+	Semi-Mature :Single Leader :Uniform Shape/Canopy :Highest Quality Specimen :Clear Stem 2m :Rootballed

EXTERNAL AREAS - BULB PLANTING AROUND BASE OF TREES IN GRASS AREAS

Bulbs

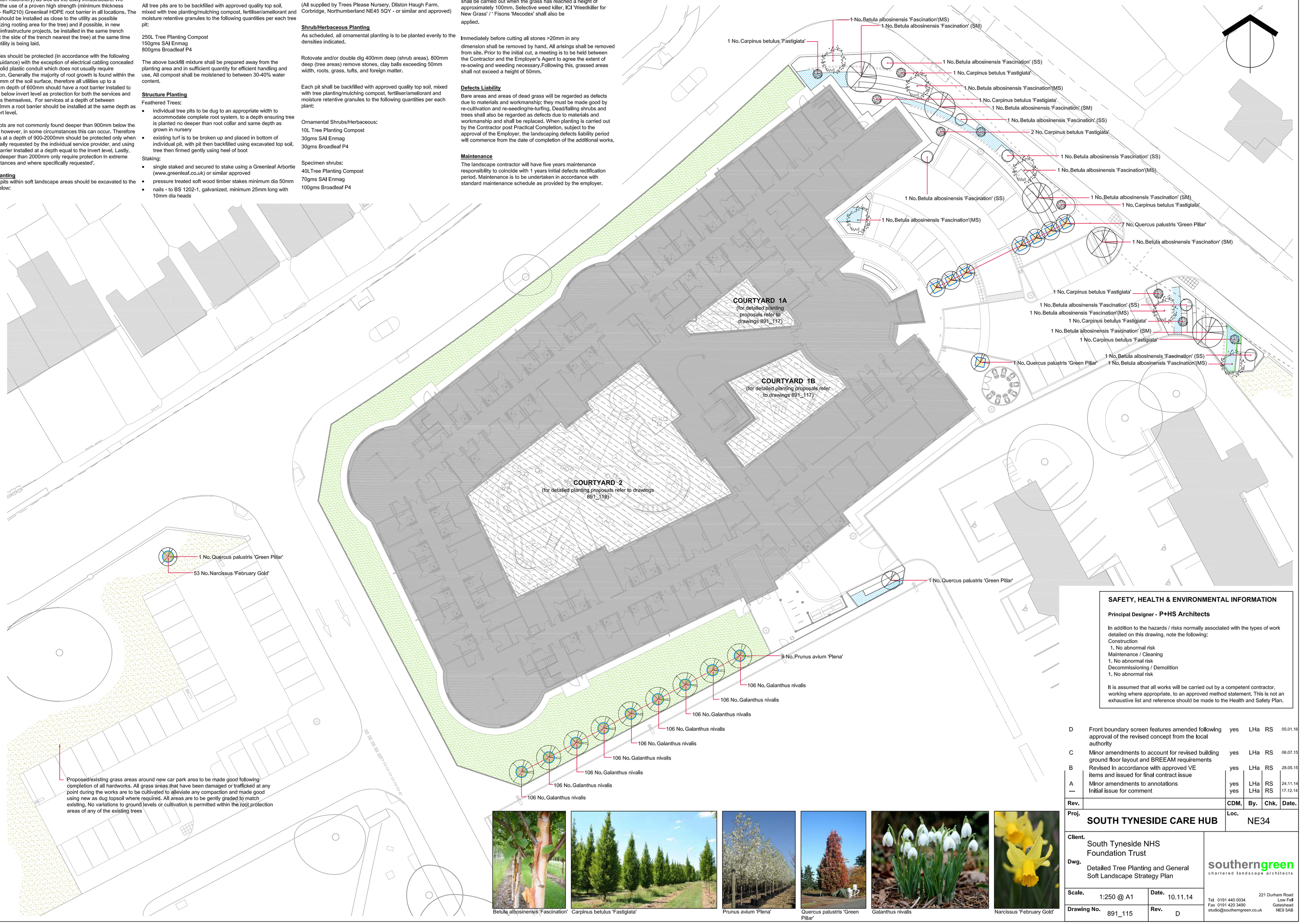
Number	Species	Bulb Size	Specification	Density
954 No.	Galanthus nivalis	4	Grade 4/6 ;Provided in 1L Pots with 12 bulbs per pot ;No mildew ;planted in 5 pots per sq.m ;Pit depth - same as pot height	60/m²
53 No.	Narcissus 'February Gold'	6	Grade 10/12 ;5no. Groups of 6 Bulbs Each	30/m²

LEGEND

- Specimen Tree - Semi Mature
- Specimen Tree - Multi Stemmed
- Specimen Tree - Select Standard
- Specimen Tree - Feathered Fastigiate Tree
- Mixed Ornamental Planting Areas (refer to schedule on drawing 798_013)
- Existing Trees to be retained in accordance with BS5837:2005 - Trees in Relation to Construction, for further details refer to drawing 891_123 and the Arboricultural Report/Method Statement
- 750mm Radius (1500mm dia.) clear area around the base of each tree planted in grass areas, surface of tree pit to be covered with minimum 50mm depth recycled green waste compost mulch, ring to be defined using Evenedge Garden Rings AG5 5 Piece Ring, colour - Slate, size - 75mm high, product ref. (AG 57), rings to be installed 25mm above finished mulch surface and flush with top of turf. areas to include ornamental bulb planting as specified, Narcissus - 6no. pits with 5no. bulbs in each pit per m², Galanthus - 6 pits with 10no. bulbs in each pit per m²)
- Trees planted in hard landscape areas to include recessed tree grille to receive paving surface to match surrounding areas. Centre of tree grille around collar of tree to include Greenleaf Arboresin surface, aggregate to be agreed, for further details refer to drawing 891_114
- Amenity Grass Areas - Turf, Rowlawn Medallion Multi Purpose or equal and approved
- Grass seed in areas to be made good around the new car park - WFG20 Species Rich Lawn Seed Mix, 35no. species within mix, for detailed breakdown refer to suppliers standard specification sheet (www.germinalamenity.com), sowing rate - 10gms per m²
- Ornamental Bulb Planting (in between deciduous shrub planting, Narcissus - 6no. pits with 5no. bulbs in each pit per m²)
- Instant Hedge Planting - refer to drawing 891_116 for details

NOTES

1. All planting beds and tree pits in grass areas to be mulched with recycled green waste compost mulch (possible supplier - Newcastle City Council, Walbottle Road Depot)
2. All planting is to be selected by the Landscape Architect via a single nursery visit, or various nursery visits if required, the contractor is to ensure that the costs associated with any nursery visits are included



Betula albosinensis 'Fascination'

Carpinus betulus 'Fastigiata'

Prunus avium 'Plena'

Quercus palustris 'Green Pillar'

Galanthus nivalis

Narcissus 'February Gold'

SAFETY, HEALTH & ENVIRONMENTAL INFORMATION

Principal Designer - P+HS Architects

In addition to the hazards / risks normally associated with the types of work detailed on this drawing, note the following:
Construction
1. No abnormal risk
Maintenance / Cleaning
1. No abnormal risk
Decommissioning / Demolition
1. No abnormal risk

It is assumed that all works will be carried out by a competent contractor, working where appropriate, to an approved method statement. This is not an exhaustive list and reference should be made to the Health and Safety Plan.

Rev.		CDM.	By.	Chk.	Date.
D	Front boundary screen features amended following approval of the revised concept from the local authority	yes	LHa	RS	05.01.16
C	Minor amendments to account for revised building ground floor layout and BREEAM requirements	yes	LHa	RS	06.07.15
B	Revised In accordance with approved VE items and issued for final contract issue	yes	LHa	RS	28.05.15
A	Minor amendments to annotations	yes	LHa	RS	24.11.14
---	Initial issue for comment	yes	LHa	RS	17.12.14

Proj. SOUTH TYNESIDE CARE HUB

Loc. NE34

Client. South Tyneside NHS Foundation Trust

Dwg. Detailed Tree Planting and General Soft Landscape Strategy Plan

Scale. 1:250 @ A1

Date. 10.11.14

Drawing No. 891_115

Rev. D

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