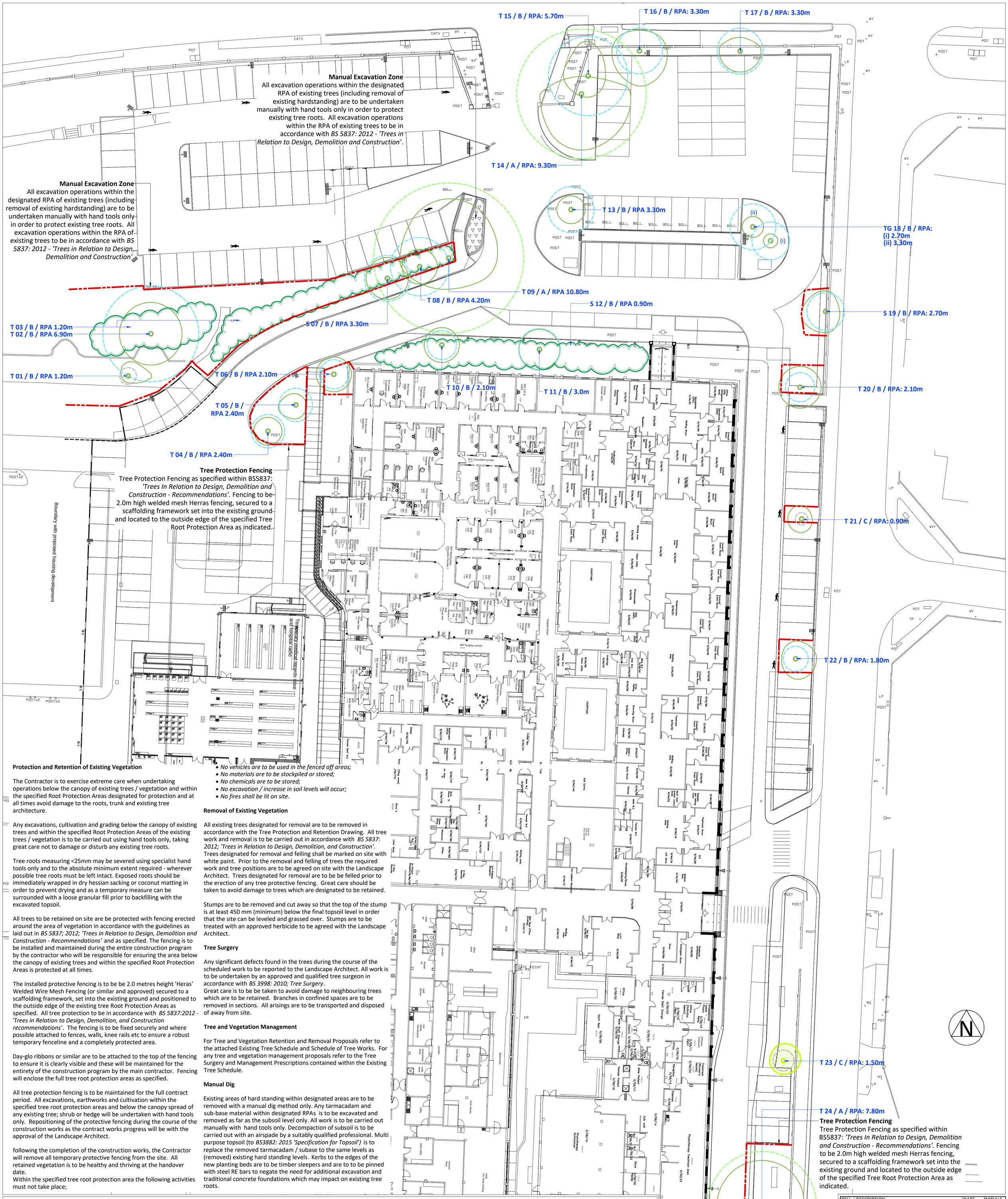


Protection and Retention of Existing Vegetation

The Contractor is to exercise extreme care when undertaking operations below the canopy of existing trees / vegetation and within the specified Root Protection Areas designated for protection and at all times avoid damage to the roots, trunk and existing tree architecture.

Any excavations, cultivation and grading below the canopy of existing trees and within the specified Root Protection Areas of the existing trees / vegetation is to be carried out using hand tools only, taking great care not to damage or disturb any existing tree roots.

Tree roots measuring <25mm may be severed using specialist hand tools only and to the absolute minimum extent required - wherever possible tree roots must be left intact. Exposed roots should be immediately wrapped in dry hessian sacking or coconut matting in order to prevent drying and as a temporary measure can be surrounded with a loose granular fill prior to backfilling with the excavated topsoil.

All trees to be retained on site are be protected with fencing erected around the area of vegetation in accordance with the guidelines as laid out in *BS 5837; 2012; 'Trees in Relation to Design, Demolition and Construction - Recommendations'* and as specified. The fencing is to be installed and maintained during the entire construction program by the contractor who will be responsible for ensuring the area below the canopy of existing trees and within the specified Root Protection Areas is protected at all times.

The installed protective fencing is to be be 2.0 metres height 'Heras' Welded Wire Mesh Fencing (or similar and approved) secured to a scaffolding framework, set into the existing ground and positioned to the outside edge of the existing tree Root Protection Areas as specified. All tree protection to be in accordance with *BS 5837:2012 - 'Trees in Relation to Design, Demolition, and Construction recommendations'*. The fencing is to be fixed securely and where possible attached to fences, walls, knee rails etc to ensure a robust temporary fenceline and a completely protected area.

Day-glo ribbons or similar are to be attached to the top of the fencing to ensure it is clearly visible and these will be maintained for the entirety of the construction program by the main contractor. Fencing will enclose the full tree root protection areas as specified.

All tree protection fencing is to be maintained for the full contract period. All excavations, earthworks and cultivation within the specified tree root protection areas and below the canopy spread of any existing tree; shrub or hedge will be undertaken with hand tools only. Repositioning of the protective fencing during the course of the construction works as the contract works progress will be with the approval of the Landscape Architect.

following the completion of the construction works, the Contractor will remove all temporary protective fencing from the site. All retained vegetation is to be healthy and thriving at the handover date.
Within the specified tree root protection area the following activities must not take place;

- *No vehicles are to be used in the fenced off areas;*
- *No materials are to be stockpiled or stored;*
- *No chemicals are to be stored;*
- *No excavation / increase in soil levels will occur;*
- *No fires shall be lit on site.*

Removal of Existing Vegetation

All existing trees designated for removal are to be removed in accordance with the Tree Protection and Retention Drawing. All tree work and removal is to be carried out in accordance with *BS 5837: 2012; 'Trees in Relation to Design, Demolition, and Construction'*. Trees designated for removal and felling shall be marked on site with white paint. Prior to the removal and felling of trees the required work and tree positions are to be agreed on site with the Landscape Architect. Trees designated for removal are to be be felled prior to the erection of any tree protective fencing. Great care should be taken to avoid damage to trees which are designated to be retained.

Stumps are to be removed and cut away so that the top of the stump is at least 450 mm (minimum) below the final topsoil level in order that the site can be leveled and grassed over. Stumps are to be treated with an approved herbicide to be agreed with the Landscape Architect.

Tree Surgery

Any significant defects found in the trees during the course of the scheduled work to be reported to the Landscape Architect. All work is to be undertaken by an approved and qualified tree surgeon in accordance with *BS 3998: 2010; Tree Surgery*.
Great care is to be be taken to avoid damage to neighbouring trees which are to be retained. Branches in confined spaces are to be removed in sections. All arisings are to be transported and disposed of away from site.

Tree and Vegetation Management

For Tree and Vegetation Retention and Removal Proposals refer to the attached Existing Tree Schedule and Schedule of Tree Works. For any tree and vegetation management proposals refer to the Tree Surgery and Management Prescriptions contained within the Existing Tree Schedule.

Manual Dig

Existing areas of hard standing within designated areas are to be removed with a manual dig method only. Any tarmacadam and sub-base material within designated RPAs is to be excavated and removed as far as the subsoil level only. All work is to be carried out manually with hand tools only. Decompaction of subsoil is to be carried out with an airspade by a suitably qualified professional. Multi purpose topsoil (to *BS3882: 2015 'Specification for Topsoil'*) is to replace the removed tarmacadam / subase to the same levels as (removed) existing hard standing levels. Kerbs to the edges of the new planting beds are to be timber sleepers and are to to be pinned with steel RE bars to negate the need for additional excavation and traditional concrete foundations which may impact on existing tree roots.

KEY

T 19 / A / RPA 5.70m
Tree and Shrub Numbers
Tree No. / Category / Tree Root Protection Area

Existing Tree specimens

Existing Tree Specimen to be Removed
Existing 'C' grade tree to be removed prior to tree protection measures being implemented. A replacement tree is proposed - refer to soft landscape package for further details.

Category A Trees
Existing trees (root protection areas) assessed to be 'Category A': high quality and value

Category B Trees
Existing trees (root protection areas) assessed to be 'Category B': moderate quality and value

Category C Trees
Existing trees (root protection areas) assessed to be 'Category C': low quality and value

Existing Shrub Groups
Existing shrub / tree groups assessed to be 'Category B' moderate quality and value.

Tree Protection Fencing
Tree Protection Fencing as specified within BS5837: *'Trees In Relation to Design, Demolition and Construction - Recommendations'*. Fencing to be 2.0m high welded mesh Herras fencing, secured to a scaffolding framework set into the existing ground and located to the outside edge of the specified Tree Root Protection Area as indicated.

Manual Excavation Zone
Manual Excavation Zone
All excavation operations within the designated RPA of existing trees (including removal of existing hardstanding) are to be undertaken manually with hand tools only in order to protect existing tree roots. All excavation operations within the RPA of existing trees to be in accordance with *BS 5837: 2012 - 'Trees in Relation to Design, Demolition and Construction'*.

NOTES
All tree surgery works are to be carried out by an appropriately qualified tree surgeon to *BS 3998: 2010; Tree Surgery*.

Refer to accompanying *Existing Tree Schedule* for further details.

The information contained within this drawing and accompanying *Existing Tree Schedule* is not intended as a safety audit and should not be interpreted as such.

The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

10m 25m

Tree Protection Fencing
Tree Protection Fencing as specified within BS5837: *'Trees In Relation to Design, Demolition and Construction - Recommendations'*. Fencing to be 2.0m high welded mesh Herras fencing, secured to a scaffolding framework set into the existing ground and located to the outside edge of the specified Tree Root Protection Area as indicated.

REV	DESCRIPTION	DATE	INITIALS

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Project Title:
Southlands Hospital, Shoreham-by-Sea
Crowther Architects Associates

Drawing Title:
Tree Protection Drawing

Scale:	Drawn:	Date:
1:250@A1	AR	16-06-17

Drawing Number: RCo 203 / 06
Revision: 00