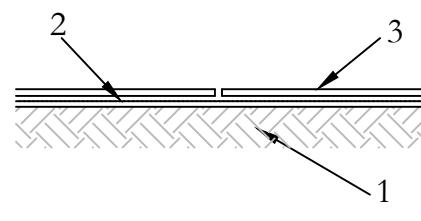
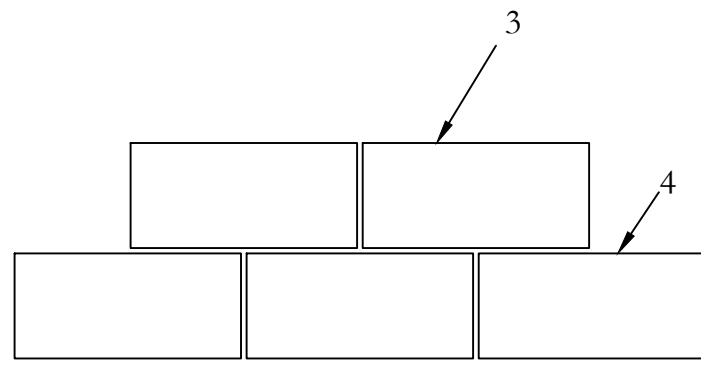




Typical ground protection detail

Plan of ground protection detail

Section of ground protection detail



- Existing ground
- Geotextile membrane eg. Terram 1000 or similar
- Robust sheets (timber, steel, recycled plastic) overlying Terram 1000 or similar
- Where wider than one sheet stagger joints

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Existing fence to act as protection for off-site tree

Cordylone

30

Ground protection laid during demolition

Barrier extended after demolition

Cherry laurel shrub

Mixed shrubs

Pittosporum hedge 1.8m height

Privet & Ionicera hedge 2m height

Pittosporum hedge 3m height

Cherry laurel hedge 4m height

Privet & Ionicera hedge 2m height

Pittosporum hedge 3m height

Pittosporum hedge 2m height

Dead conifer

Pittosporum hedge 2m height

Leyland cypress hedge 4m height

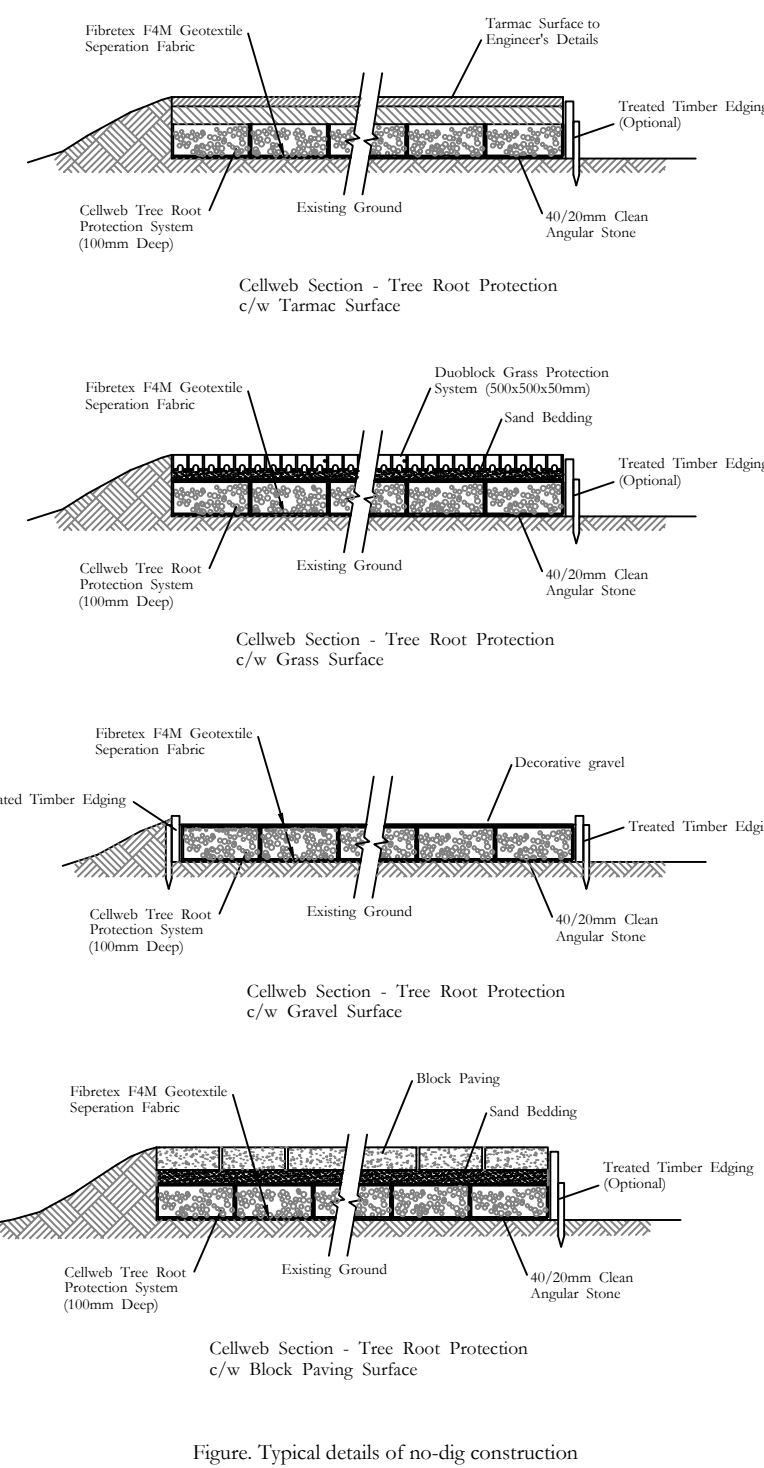
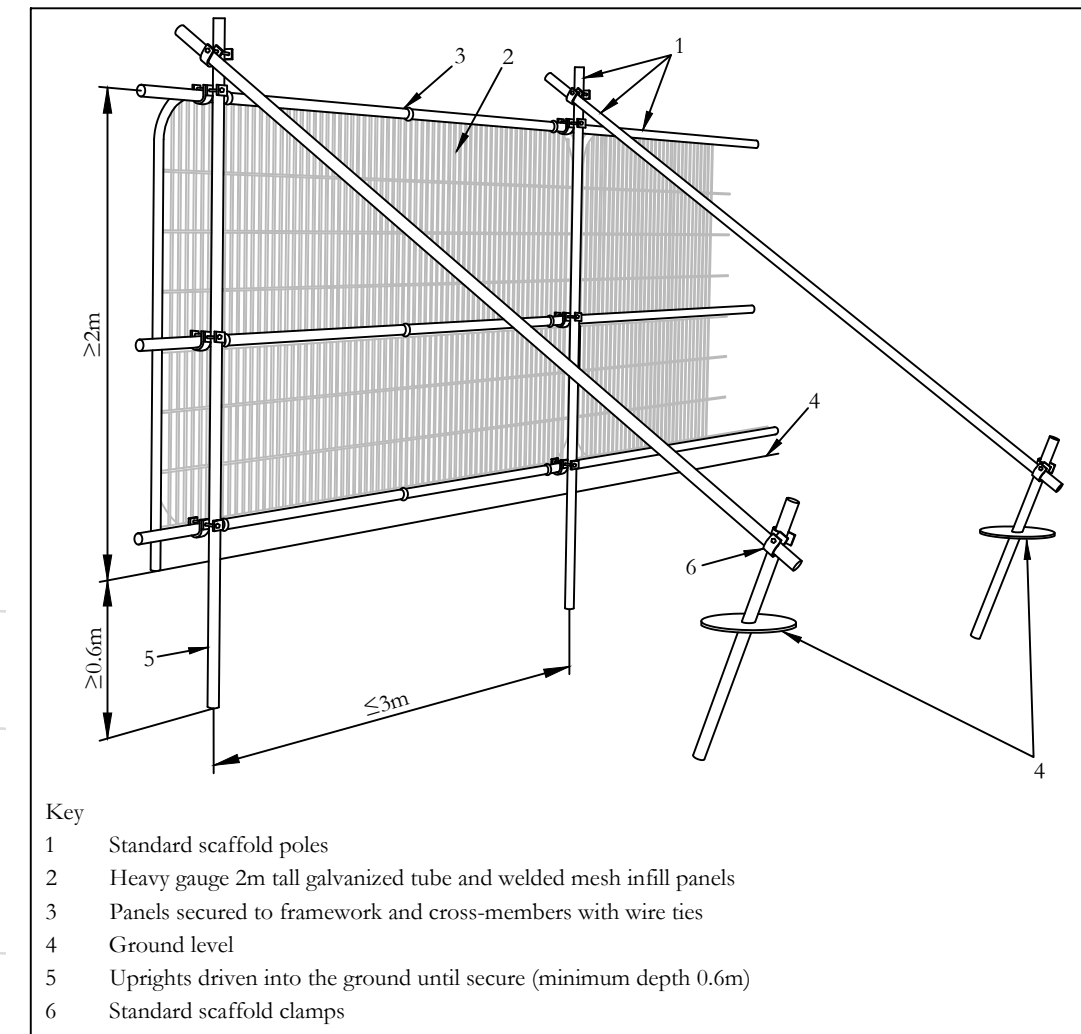


Figure. Typical details of no-dig construction

SURVEY OF TREES AT THE ORCHARD HOUSE, WESTERN AVENUE, EMSWORTH

Tree No.	Species	Ht (m)	Branch Spread (m)				Stem diameters (cm)										Category grading	Estimated remaining contribution (yrs)	Condition Physiological / Structural	Tree Works to BS 3998	Root protection radius (m)	Root protection area	
			N	E	S	W	Single Stem	2-5 stems				More than 5 stems		Height of crown clearance (m)	Height of first branch (m) and direction (compass point)	Age class							
								Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Mean dia No stems										
5	English Oak	17	7	8	9	9	126								2	2E	M	A2	>40	Visually significant and aged tree growing close to boundary. Some sections of deadwood within crown.	Remove deadwood in excess of 25mm diameter.	15.00	707
6	Row of Western Red Cedar	6av	2av				15av							0	-	E	C2	>10	Row of conifers including some lawson cypress set at edge of driveway. Offers some low level screening.	Remove	1.80	10	
7	English Oak	16	6	8	8	6	81							3	3SE	M	C1	>10	Showing signs of crown retraction. Unusual swelling and depressions on lower stem and associated dead bark and juvenile fruit bodies of Ganoderma species suggest significant internal decay. Would be wise to undertake further detailed inspections to ascertain if it can be retained.	Remove	9.72	297	
11	English Oak	17	7	9	8	7		66	38	48				3	3S	M	B1	>20	Visually significant broad spreading triple stemmed tree however, sparsely foliated. Some large sections of deadwood within crown.	Remove deadwood in excess of 25mm diameter.	10.80	367	
12	Horse Chestnut	16	7	7	7	7		67	71					2	2W	M	C1	>10	Visually significant tree however, stems heavily infected with bacterial canker. Tight union between the two stems is highly susceptible to failure in future years. Appears to have been pollarded at circa 3m above ground level in the distant past and allowed to re-grow.	Remove	11.71	431	
13	Walnut	10	5	7	6	4	44							2	2S	E	C1	>10	Sparsely foliated and appears to be in decline.	Remove	5.28	88	
14	Bay	11	6	7	6	6							20	11	2	2E	E	C1	>10	Established multi stemmed tree growing at edge of lawn.	Remove	7.96	199
15	Judas	5	5	4	1	1		14	12					2	2N	E	C1	>10	Growing amidst dense hydrangea. Of low vitality and biased towards the north.	Remove	2.21	15	
16	Cherry	6	3	5	4	4	37							1.5	1.5S	E	U	<10	Lower stem infected with Ganoderma species of decay fungus. Of low vitality.	Remove	4.44	62	
17	Holm Oak	10	5	5	6	5	39							1.5	1.5S	S	C1	>10	Well formed small ornamental tree growing amidst lawn.	Remove	4.68	69	
19	Monterey Cypress	9	3	4	4	4	31							1.8	1.8E	S	C1	>10	Of low vitality.	Remove	3.72	43	
20	Group of Mixed Fruit	7av	3av				20av							2	2S	E	C2	>10	Established group of trees growing amidst lawn. Species include apple, pear and cherry.	Remove trees where indicated.	2.40	18	
25	Weeping Willow	11	4	7	9	8	61							2	2SW	E	C1	>10	Established broad spreading tree growing in lawn. Has been crown reduced in the past to control its dimensions.	Remove	7.32	168	
26	Pear	7	2	3	3	3	23							2	2S	E	C1	>10	Established fruit tree but of low vitality.	Remove	2.76	24	
27	Apple	3	1	1	2	1	41							1.5	1.5S	M	U	<10	Older apple tree that has extensive decay in the main stem.	Remove	4.92	76	

Figure 2 Default specification for protective barrier

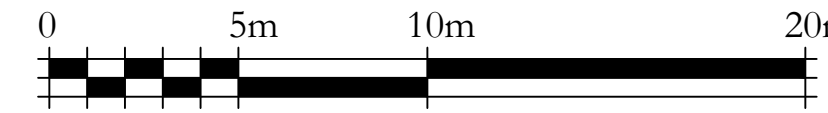


Key

- Standard scaffold poles
- Heavy gauge 2m tall galvanized tube and welded mesh infill panels
- Panels secured to framework and cross-members with wire ties
- Ground level
- Uprights driven into the ground until secure (minimum depth 0.6m)
- Standard scaffold clamps

Column Heading	Explanation
Tree No.	Unique number corresponding with number on plan
Species	English names
Ht (m)	Height in metres
Branch Spread	Crown radius in metres to cardinal points of the compass
Stem Dia	All measurements conform to Annex C of BS 5837:2012
	Single stem - Stem diameter in centimetres measured at 1.5m above ground level.
	Multi-stemmed tree with 2 to 5 stems - Diameter of each stem
	Multi-stemmed tree with more than 5 stems - Average stem diameter and number of stems
Height of crown clearance	Height in metres between the ground and underside of canopy
Height of first major branch and direction of growth	Height from ground level to base of first major branch and the approximate direction of growth
Abbreviations as suffix to a dimension	Suffix 'v' denotes an estimated dimension
Age Class	Suffix 'av' denotes an average dimension
	Age Class definitions:
	Y = Young
	S = Semi-mature
	E = Early mature
	M = Mature
	O = Over mature
Category grading and Estimated remaining Contribution (yrs)	Summary of BS 5837:2012 categorisation:
	1. Trees unsuitable for retention:
	U = Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years
	2. Trees to be considered for retention:
	A1, 2 or 3 = trees of high quality (substantial contribution >40 yrs)
	B1, 2 or 3 = trees of moderate quality (significant contribution >20 yrs)
	C1, 2 or 3 = trees of low quality (but adequate, >10 yrs or young trees - until new planting can be established)
	Useful estimated remaining contribution of the tree or tree group
Estimated remaining contribution	Brief description including physiological and structural defects
Condition	Works required to be undertaken to the trees to facilitate the construction of remediate a defect encountered during the survey
Tree Works	Radius of minimum root protection area in metres calculated from section 4.6 and Annex D
Root Protection Radius	Total area of minimum root protection area extrapolated from root protection radius
Root Protection Area	

Rev C 16.11.17 jtk
Revised layout imported.
Rev B 25.10.17 jtk
New layout imported.
Rev A 06.06.17 jtk
Latest layout imported.



Key:

- Existing site features
- Proposed structures
- Trees retained
- Trees for removal
- 2.0m high barrier as detail in Fig 2
- Minimum extent of no-dig construction. Actual deployment may be greater.
- Area of ground protection

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

Topographical Survey based on Technics Group drawing number SD16467-01.

Tree numbers 3, 22, 23, 24 & 31 plotted by eye.

Proposed layout based on New Leaf Studio drawing number SO-2379-03-LA-MCS587/Drq02 Rev K.

CLIENT: McCarthy & Stone

PROJECT: The Orchard House, Western Avenue, Emsworth

TITLE: Tree Protection Plan

DRAWING NUMBER: 9243/02 Rev C

STATUS: For Information

DATE: July 2016 SCALE: 1:200 @ A1

DRAWN BY: ML CHECKED BY: JTK

Do not scale from this drawing. All dimensions to be checked on site.

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