

Arboricultural Appraisal Report

Subsidence Damage Investigation at:

Nirvana
Woodgaston Lane
Hayling Island
PO11 0RL



CLIENT:	B Maule & Co. Ltd
CLIENT REF:	20131151
MWA REF:	PO311213.01JB
MWA CONSULTANT:	Joseph Blackwell
REPORT DATE:	08 January 2014

SUMMARY

Statutory Controls		Mitigation (current claim)	
TPO	Yes (T2)	Insured	Yes
Cons. Area	No	3 rd Party	No
Trusts schemes	No	Local Authority	No
Planning	No	Other	No
Local Authority: -	Havant Borough Council		

Introduction

Acting on instructions received from B Maule & Co. Ltd, the insured property was visited on 06 January 2014 for the purpose of assessing the potential role of vegetation in respect of subsidence damage.

We are instructed to provide opinion on whether moisture abstraction by vegetation is a causal factor in the damage to the property and give recommendations on what vegetation management, if any, may be carried out with a view to restoring stability to the property. The scope of our assessment includes opinion relating to mitigation of future risk. Vegetation not recorded is considered not to be significant to the current damage or pose a significant risk in the foreseeable future.

Recommendations are given with reference to the technical reports and information currently available and may be subject to review upon receipt of additional site investigation data, monitoring, engineering opinion or other information.

This report does not include a detailed assessment of tree condition or safety. Where indications of poor condition or health in accessible trees are observed, this will be indicated within the report. Assessment of the condition and safety of third party trees is excluded and third party owners are advised to seek their own advice on tree health and stability of trees under their control.

Property Description

The property comprises a detached bungalow of typical brick and tile construction built in 1954. The property benefits from an extension to the left which was built circa 1968. There are gardens surrounding the property and beyond is farmland. The site is generally level with no adverse topographical features.

Damage Description & History

The current damage primarily affects the side extension but also the left flank wall, lounge, and there is also more recent cracking in the right hand front bedroom. Crack dimensions were between 1-5mm in width. The damage was first noticed by the insured in August 2013.

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Site investigations

Site investigations in the form of a drainage survey were carried out on 25th April 2013.

Drains: The drainage has been fully surveyed and some defects identified. Further to the survey being carried out the insured has undertaken all recommended drainage repairs.

Monitoring: Crack monitoring has identified seasonal movement which confirms the role of vegetation.

Discussion

Opinion and recommendations are made on the understanding that B Maule & Co. Ltd are satisfied that the current building movement and the associated damage is the result of clay shrinkage subsidence and that other possible causal factors have been discounted.

Based on the technical reports currently available, engineering opinion and our own site assessment we conclude the damage is consistent with shrinkage of the clay subsoil related to moisture abstraction by vegetation.

Having considered the available information, it is our opinion that T1 Oak and S1 Pyracantha are the material cause of the current subsidence damage. T1 Oak is considered to be the principal cause of damage with S1 Pyracantha considered a contributory factor and to be causing only localised damage around the front right hand bedroom.

If an arboricultural solution is to be implemented to mitigate the current damage and allow the soils beneath the property to recover to a position such that an effective engineering repair solution can be implemented we recommend that T1 and S1 are removed.

In respect of T1 we have given consideration to pruning as a means of mitigating the vegetative influence. The tree has been reduced significantly over the years and well maintained on a 2-3 year frequency however these works appear to have had no sustained impact on the trees water uptake.

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We are therefore of the opinion that complete removal is the only viable long-term option in mitigating the damage in this instance.

T1 significantly predates the more recent extension to the property therefore we would advise that a heave assessment is made prior to tree works commencing.

Other vegetation has been identified which may present a risk of future damage and accordingly we have made recommendations to abate this risk.

Crack monitoring has identified seasonal movement which confirms a vegetative influence.

Replanting could be undertaken as long as species selection, location and future pruning regimes can be agreed prior to these works being carried out.

Conclusions

- There is significant high water demand vegetation present with the potential to influence soil moisture and volumes below foundation level.
- Removal of T1 and S1 is recommended to mitigate the current damage.
- Monitoring has identified seasonal movement which confirms a vegetative influence.
- There is no statutory protection pertaining to the causal vegetation therefore its removal can proceed at the earliest opportunity.
- Monitoring should confirm the efficiency of the prescribed works however should movement persist further advice should be sought from ourselves.

Table 1 **Current Claim - Tree Details & Recommendations**

Tree No.	Species	Ht (m)	Dia (cm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
T1	Oak	9	74	9	12.7	Significantly older than extension	Policy Holder
Management history		Reduced in past on 2-3 yearly cycle					
Recommendation		Remove subject to heave assessment					
S1	Pyracantha	2.4	6	3.5	0.1	Similar age to property	Policy Holder
Management history		No works					
Recommendation		Remove and treat stump to inhibit regrowth					

Ms: multi-stemmed * Estimated value

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Table 2 **Future Risk - Tree Details & Recommendations**

Tree No.	Species	Ht (m)	Dia (cm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
T2	Oak	11.5	100	11	16	Significantly older than extension	Policy Holder
Management history		No significant recent management					
Recommendation		No works					
T3	Oak	9.5	61	8.5	17	Significantly older than extension	Policy Holder
Management history		No significant recent management,					
Recommendation		No works					
T4	Oak	9.5*	55*	12*	15*	Significantly older than extension	Unknown
Management history		No significant recent management					
Recommendation		No works					

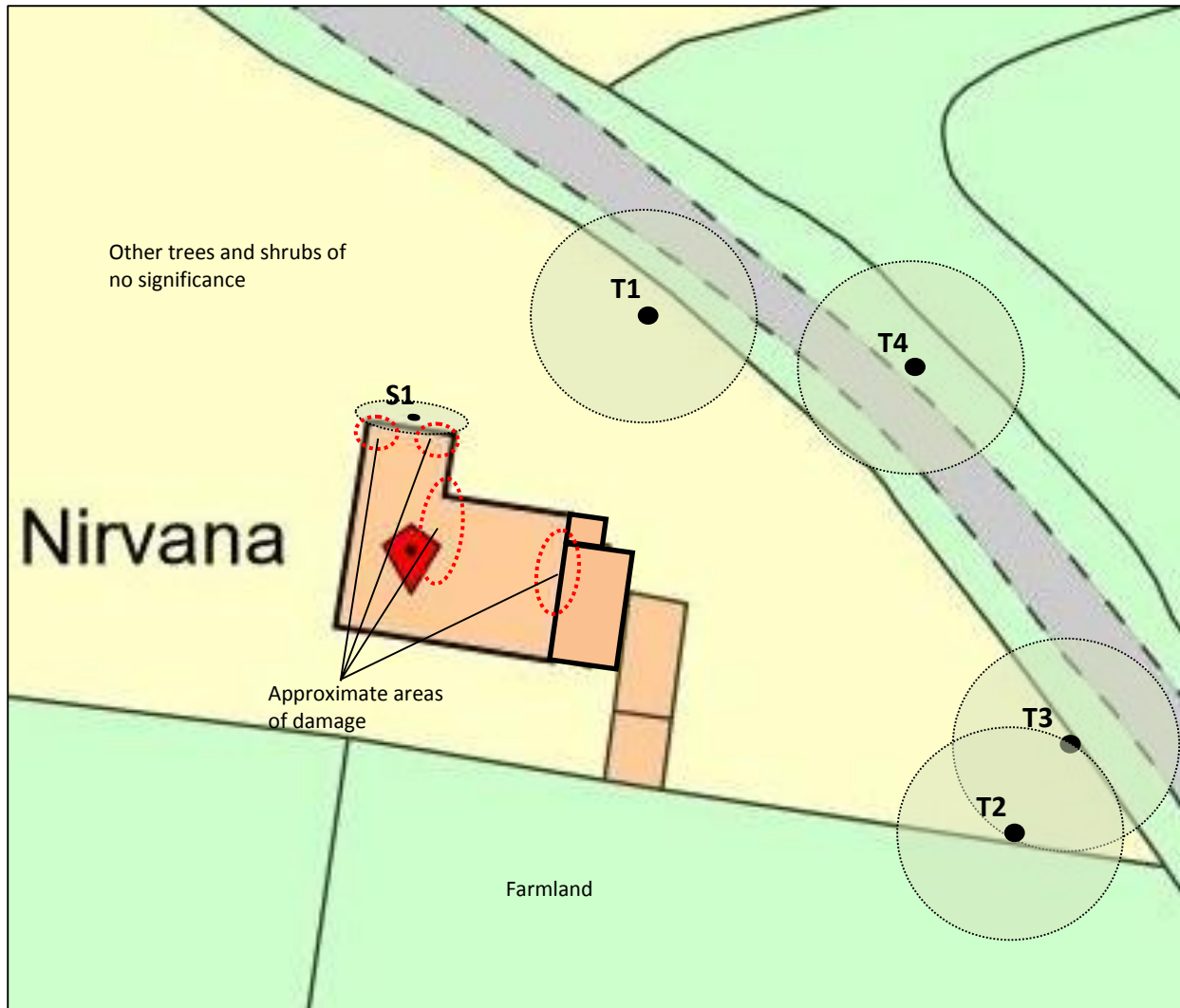
Ms: multi-stemmed

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SITE PLAN



Plan not to scale – indicative only

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Images



View of T1 - Oak



View of T4 - Oak



View of S1 – Pyracantha

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