

Cathays Library Refurbishment

Pre- Development Tree Inspection and Report



Aerial View Northward

REGULATORY SERVICES
- 2 JAN 2008
Action By.....

08 / - 2786 C

1.0 Introduction

- 1.1 The Arborculturalist Officer for Parks Services, Cardiff City Council has compiled a Tree Inspection Report Form as enclosed and dated 9th July 2008. The Report form provides detail information on the condition and position of the trees within the project site and also on the lands directly to the rear of the library building within the adjacent Cemetery. A Tree Tag Reference Plan is enclosed at the end of this document.
- 1.2 Key issues pertaining to the trees in close proximity of the building are summarised in the report by the Project Architect for Projects Design and Development, Cardiff City Council together with how these issues are to be addressed.
- 1.3 The Pre-development Tree Inspection Report has been supplemented by the photographs of the trees in the vicinity of the site.
- 1.4 This information is to be read in conjunction with; (i) the enclosed Tree Tag reference plan and (ii) drawing Ref (Site Survey & Location Plan & Site Photos – SCHD(A) 01 Rev B and (iii) drawing Ref (Site Ownership Boundaries Plan – SCHD(A)02) and (iv) drawing Ref (Proposed landscape design CAT.08.01.01 & 02).

2.0 Key Issues Pertaining To the Trees in Close Proximity To The Building

- 2.1 It has been established that the presence of mature trees in close proximity to the front and rear of the library building is a key issue for consideration in the proposed refurbishment and future maintenance of the building.
- 2.2 A property condition report has been commissioned by Projects Design and Development, Cardiff City Council as undertaken by EC Harris Surveyors as dated 19th October 2008 including photographic records.
- 2.3 The above condition report concluded in part “the library appears to have suffered from a lack of adequate maintenance over a prolonged period of time as evident by the extent of damp staining internally” and “that large trees on the site of the adjacent cemetery grounds are located within close proximity of the library, some of which overhang the roofs creating a significant maintenance issue for the property”. The report recommended seeking advice from an arborculturalist on the extent of pruning that can be undertaken.
- 2.4 It is evident from the condition report that the close proximity and overhanging trees have resulted in fallen foliage and leaves at roof level and thus exacerbated the blockages and failure to the drainage systems at roof level; parapet gutters, rainwater hoppers, outlets and the rain water down pipes. The access to parapets gutters is severely restricted in particular on Whitchurch and Fair oak main road elevations with steep pitched roofs to each wing and are subject to parapet gutter blockages from the fallen foliage.
- 2.5 The close proximity and overhanging branches are in contact with the fabric of the building including coping stones and window glazing and in places they overhang the public highways. This is a potential safety issue and is of detrimental effect to the building fabric.

- 2.6 The Community Design Safety Officer has noted at the meeting on 30th October 2008 with the Project Architect (Projects Design & Development) that the close proximity and overhanging branches present a potential security issue affording unwanted access to upper windows and onto the rear roof areas. This has been substantiated by the library manager.
- 2.7 At ground level it is evident from the condition report that there is a deep build up of fallen foliage from the adjacent trees along the rear perimeter track by the library. This has led to retention of damp at adjacent ground levels and basement ceiling levels to the rear of the building which is further exacerbated by the failure of the rear rainwater down pipes and gulleys. These rear gulleys are blocked by foliage and their soakaways have become exhausted. Tree root penetration is evident in CCTV drainage surveys. The latter points have been established by Dyno-Rod Drain Services in their site drainage inspections on 19th December 2008 for Projects Design and Development, Cardiff City Council.
- 2.8 The trees in close proximity to the rear of the building and the 2 No Conifers at the front are reducing the natural light into the large and highly glazed windows of the building and are reducing the free flow of air and sunlight around the fabric of the building. This in turn reduces the natural drying out of the solid stone through the lime mortar joints and promotes biological growths and staining as noted at the site meeting with independent Stonemasons on 17th December. Roof glazing in particular and north side walls in part are currently stained.
- 2.9 Site visits were made on 2nd and 9th December 2008 by the Project Architect (Projects Design & Development) and Structural Engineers (Watermans Group). The Structural Engineer by way of non invasive survey found no visible signs of detrimental effects from the trees when inspected from within the basement level and external ground levels on the perimeter of the library building. Future inspections within the basement level for root penetration or signs of movement are recommended as part of on going routine maintenance.
- 2.10 The Project Architect met with the Arboriculturalist Officer for Parks Services on site on 20th November 2008 to discuss the key issues and proposed strategy for mitigating the maintenance issues pertaining to the trees and their effect on the fabric of the building.

3.0 Proposed Works To The Trees On The Site and Adjacent Cemetery Land

- 3.1 The rear boundaries to the project site are coincident with the rear walls to the library building. Ref drawing (Site Survey & Location Plan & Site Photos – SCHD(A) 01 Rev B. Therefore all the trees to the rear of the building are on cemetery lands as maintained by Bereavement Services, Cardiff City Council, Ref drawing (Site Ownership Boundaries Plan – SCHD(A)02). These trees to the rear therefore lie outside the scope of works for the project site (works to be undertaken by others).
- 3.2 As advised by the Arborculturalist Officer and recommended in the property condition report, the adjacent trees are to be pruned back away from the building lines, climbing ivy is to be removed and fallen foliage and leaves adjacent to the building are to be taken up.
- 3.3 2 No trees of limited value to the front amenity area and in close proximity to front walls and windows Ref tree tag reference plan(T8 & T9) are to be removed to accommodate new ramps and ground levels and enhance the symmetrical layout of this area.
- 3.4 1 No tree of moderate to limited life value to the rear and on cemetery land adjacent to the large lime tree Ref tree tag reference plan (T6) is to be removed to promote free air flow, light and health to adjacent trees and library building.
- 3.5 1 No Conifer tree within 0.5 metres of the rear corner of the building and on cemetery land Ref tree tag reference plan (T1)is to be removed. This tree is overhanging the public highway and parapet gutter which is not easily accessible from the Fair oak Road side. This tree is in close contact with the fabric of the building and in the vicinity of the existing foul drainage system and basement outer walls.
- 3.6 2 No new trees and low level planting is to be provided within the new layout to enhance and maintain the symmetrical character of the building at the front amenity area as highlighted by the Cadw Officer as a key requirement, Ref (site meeting on 31st October). Ref drawings (Proposed landscape design CAT.08.01.01 & 02).
- 3.7 The removal, pruning and reduction in tree canopies will mitigate; potential security and health & safety issues, future damp ingress and failure of rainwater systems at roof and ground levels and aid safer access for routine building and cleaning maintenance and provide safer access for builders and scaffolding during the refurbishments of the building.
- 3.8 Outside the scope of works for the project, a separate agreed strategy between Culture Leisure and Parks (for the library building) and Bereavement Services (for the cemetery lands) is to be employed to formalise and execute the removal of trees to the rear and agree a routine maintenance regime to maintain the health of the trees and the fabric of the building and safety of the occupants of the building so as to mitigate future issues as highlighted in this report.

4.0 Supplementary Photographs to Tree Inspection and Report Form – Read in Conjunction With Tree Tag Reference Plan



Tree T9 (front West wing)



Tree T8 (front East wing)



Tree T1



Tree T1 (proximity to building & foul drainage)



Tree T3



RWDP's & Ground Foliage



Trees T3 to T7



Tree T7

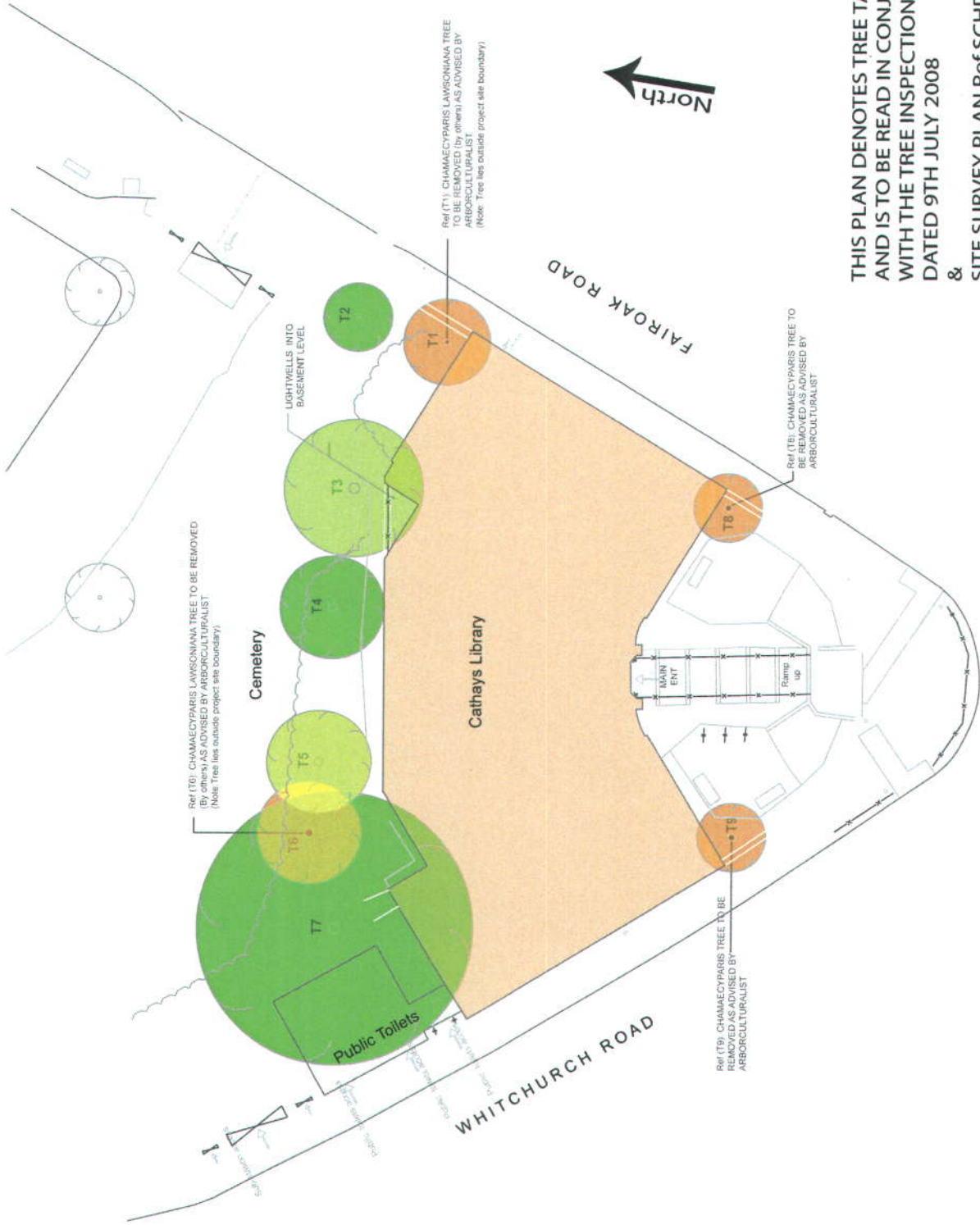
CARDIFF COUNTY COUNCIL TREE INSPECTION AND REPORT FORM

LOCATION : CATHAYS LIBRARY

DATE: 9/07/08

Tree No.	Species	Age	Hgt mtr	Ca t	DB H cms	Crow n Spread (M)	Life exp t	Condition	RPA (m2)	Protection Radius (m)
T1	Chamaecyparis lawsoniana (Lawsons Cypress)	M	12	B	31	Avg 2m	M	Single stemmed conifer, healthy condition, situated within the cemetery approx. 5 m from the corner of the building and adjacent to the road. Compact crown with moderate growth. Very stable tree with a moderate life span, unlikely to develop much bigger. Holds one main side limb which has slight impact on building.		
T2	Pyrus chanticleer (Ornamental pear)	s/m	10	B	19	2 N 2.5 S 1.5 W 3 E	L	Healthy young tree, full well developed crown, long life expectancy, growing in cemetery		
T3	Pinus nigra (Black Pine)	M	25	A	68	4 N 5 S 4 E 4 W	M	Very fine dominate tree, full healthy well balanced crown formed on single main stem. Reasonable life expectancy. Minor deadwood evident in upper crown. Crown overhangs building which will require pruning back. Growing in cemetery, 1.6m from rear of building. Important to retain		
T4	Chamaecyparis lawsoniana	M	16	B	53	3 N 3 S 3 W 3 E	M	Fine healthy tree, single stem holding well balanced crown of good density, extensive ivy growth developing along main stem. Growing in cemetery, approx 3m from rear of building		
T5	Chamaecyparis lawsoniana	M	15	B	51	Avg 2m	M	Reasonable condition, dense crown of moderate growth, ivy developing in crown. Growing in cemetery, approx 4m from rear of building, lower branches overhang building		

T6	Chamaecyparis lawsoniana	M	14	C	47	2 N 3 S 1 W 2E	S	Moderate to poor condition, extensive ivy growth as subdued crown with only lower live growth remaining, very limited life. Situated in cemetery
T7	Tilia platyphyllos (Lime)	s/m	12	B	58	6 N 6 S 5 W 5 E	L	Very fine multistemmed tree with full dense crown arising from three main limbs from base. Very healthy young tree with long useful life expectancy. Situated within cemetery to rear of toilets, upper branches impacting on building. Some crown lifting, pruning back required. A tree of good quality and high amenity value.
T8	Chamaecyparis species	M	10	BB	19	1- 1.5m	S	Small compact crown arising from 3 main stems at ground level, situated in corner of building to front of library. Slow healthy growth. Other limbs have previously been removed from base. A tree of limited life with some aesthetic value. Could be removed and replaced if required
T9	Chamaecyparis species	M	10	BB	22	Avg 2m	S	Similar tree to the above, situated to corner of building to front of library. Again could be removed if required and replaced. Both of these trees have limited value providing some landscape impact with the area. The trees within the cemetery, apart from T6, form a very important row of trees, visually providing a backdrop to the building from the cemetery. They have a medium to long life expectancy and all should be retained with minimal pruning required to prune back from the building. All require adequate protection during period of renovations.



THIS PLAN DENOTES TREE TAG REFERENCES AND IS TO BE READ IN CONJUNCTION WITH THE TREE INSPECTION & REPORT FORM DATED 9TH JULY 2008 & SITE SURVEY PLAN Ref SCHD(A)01 Rev B