



**CONDITION ASSESSMENT OF
MELROSE PRIMARY SCHOOL**

FOR

**THE DEPARTMENT OF EDUCATION
AND TRAINING
FACILITIES MANAGEMENT**

PERFORMED JUNE 2004

And APRIL to JULY 2005

**BY DEPARTMENT OF URBAN SERVICES,
CITY OPERATIONS,
FACILITIES MANAGEMENT**

Contents

Limitations of assessment	1 Page
Summary Sheet	1 Page
Condition Assessment	9 Pages
Fire Protection Report	7 Pages
Arborist's Report	5 Pages
Asbestos Report - Presented separately	23 Pages

07 February 2006

Department of Urban Services, City Services, Facilities Management Condition Assessments

Limitations of Use

It is important to note that the terms of reference for this asset condition assessment limit the scope of the assessment to assessing the current condition of the assets relative to the Building Code of Australia (BCA) which applied at the time of construction of the asset.

This assessment does not attempt to outline the scope, and in turn the costs, associated with upgrading the assets to reflect legislative changes to the BCA which have been introduced during the life of the assets. This includes but is not limited to:-

- Disabled access and amenities;
- EEO issues resulting from a change in the user's staffing policies and EEO legislation;
- Trade waste issues including the washing of vehicles;
- Redundant Fuel tank issues;
- Hazardous goods storage issues; and
- Locations of and the need for Fire Hose Reels.

A full BCA compliance audit would need to be conducted to assess these issues.

It is also important to note that if these issues were to be taken into consideration the resulting costs would in many cases far out weigh anything which this assessment has identified, particularly for the older assets.

This assessment outlines a program of rectification works over a five year period with most works being programmed during the initial two years to address the major problems on a prioritised basis. Again the assessment does not try to determine a scope of work for the building asset elements in order to give the asset a new lease of life for another 25/30 years. Such an approach would dictate major structural and services upgrades again on a cost scale far in excess of anything outlined in this assessment.

In short, this assessment should not be considered the basis for a Capital Works Project Budget estimate, rather, it is an assessment which would:-

- On a case by case basis form the scope for a Minor New Works project to address existing condition deficiencies to the building and the level of amenity it provides;
- act as a tool to assist the Department with it's strategic short to medium range MNW program planning; and
- form a picture of the general condition of the Departmental Building Assets which it's Facilities Maintenance Service Provider can use to report against on a year by year basis in terms of the ongoing building condition index.

As such, it should not be considered on a standalone basis, by the Department or it's Agencies, to form the basis for a strategic approach to its Capital Works needs.

DEPARTMENT OF URBAN SERVICES FACILITIES MANAGEMENT CONDITION ASSESSMENT					
FACILITY NAME:		MELROSE PRIMARY SCHOOL			
LOCATION :		Block 10, Section 7, Chifley			
ADDRESS:		Eggleston Crescent, Chifley			
DATE OF INSPECTION:		Various			
CONSTRUCTION DATE:		1967			
GROSS FLOOR AREA :		3,866 SQ M			
THE "CONDITION ASSESSMENT" OF THE FACILITY COMPRISES OF 5 STAGES					
STAGE 1		DEFINE THE STANDARD REQUIRED TO SUPPORT THE OPERATION OF THE FACILITY. NOTE: REQUIRED BUILDING STANDARD IS CATEGORY 3 (NORMAL).			
STANDARD RATING DEFINITIONS FOR THE ACTUAL FACILITY CONDITIONS					
CONDITION RATING	PHYSICAL CONDITION	FUNCTIONALITY	COMPLIANCE		
5	EXCELLENT	As new or highest quality achievable.	All elements must function correctly at all intended times of use. Fully meets designed function.	Complies with current Australian Standards for the age of the building. All legal responsibilities must be met.	
4	GOOD	Minor signs of deterioration when viewed closely may be acceptable. No deterioration when viewed from normal distance. Some deterioration may be acceptable.	Generally the building meets the existing function and all elements function as intended with low probability of failure.	Complies with current Australian Standards for the age of the building. All legal responsibilities should be met.	
3	NORMAL	In this category physical appearance is not the major consideration and some minor signs of deterioration when viewed from normal distances are acceptable.	All required elements should function as intended and the building adequately meet the purpose for which it was built. Minor failures, excluding those which bring a threat to safety or security, may be acceptable.	All requirements with respect to Health, Safety and Standards for the age of the building must be met.	
2	POOR	Significant material damage. Significant mechanical deterioration.	Barely meets current function.	Does not comply with Australian Standards.	
1	RUN DOWN	Extreme material damage or decay. Extreme mechanical deterioration or decay.	No longer meets designed function.	Does not comply with Australian Standards	
STAGE 2		ON-SITE CONDITION ASSESSMENT TO DETERMINE THE ACTUAL FACILITY CONDITION			
ACTUAL AVERAGE FACILITY CONDITION RATING - REFER ABOVE					
Building No.	3.2	Grounds No.	3.1	Hydraulics No.	2.0
Fire Protection No.	3.0	Electrical No.	2.0	Mechanical No.	2.3
STAGE 3		ON-SITE CONDITION ASSESSMENT TO DETERMINE THE ACTUAL MAINTENANCE RATING ON WORK ITEMS			
MAINTENANCE RATINGS					
A. CRITICAL	Critical repair or replacement work necessary to remedy or avoid breakdown. This includes OH&S issues. The "Year 1" Column should identify the required funding to remedy during the first year of the programme.				Year 1
B. ESSENTIAL	Essential work to ensure that the condition complies with the minimum service requirements. This may include Preventative Maintenance.				Year 1-2
C. IMPORTANT	Important work to prevent a potential risk or deteriorating situation. This may include work that is cyclical in nature.				Year 3-4
D. DISCRETIONARY	Desirable work to preserve the long term performance and / or appearance.				Year 4-5
STAGE 4		DEVELOP A COMPREHENSIVE 5 YEAR MAINTENANCE PLAN FOR THE FACILITY INCLUDING REPAIRS AND MAINTENANCE INCLUDING COST STRUCTURE. TOTAL ESTIMATED COST FOR 5 YEAR PLAN \$369,160			
5 YEAR MAINTENANCE PLAN					
YEAR	1	2	3	4	5
COST	16,500	263,910	42,850	21,450	24,450
STAGE 5		ANALYSIS OF BUILDING PERFORMANCE COMPARED TO SIMILAR FACILITIES: (A) COST PER SQ M FOR THIS FACILITY, (B) AVERAGE COST PER SQ M ACROSS ALL SIMILAR FACILITIES, (C) DIFFERENCE BETWEEN AVERAGE AND THIS FACILITY.			
ANALYSIS OF BUILDING PERFORMANCE					
COST	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
(A)	4.27	68.26	11.08	5.55	6.32
(B)	20.30	21.50	9.00	4.88	6.62
(C)	-16.03	46.76	2.09	0.67	-0.29
All given figures are at the date of the preparation of this condition assessment and exclude GST					

SCHEDULE OF MAINTENANCE PROPOSALS - MELROSE PRIMARY SCHOOL

Item No.	WORK TYPE	ELEMENT	Location	Description	AUS. STD. REQ'D.	Actual Condition	Maintenance Rating A to D	School Rating	Year 1	Year 2	Year 3	Year 4	Year 5	Total Est. 5 Yr Cost
1	BUILDINGS	EARTHWORKS		Not Applicable										0
2	BUILDINGS	FOUNDATION		Not Applicable										0
3	BUILDINGS	STUMPS AND COLUMNS		Not Applicable										0
4.1	BUILDINGS	CEILINGS	Generally	Gyprock in an acceptable condition		3	N/A							0
4.2	BUILDINGS	CEILINGS	Courtyard Corridors	Vermiculite in a good condition		3	N/A							0
4.3	BUILDINGS	CEILINGS	Primary GP Room	Cathedral Timber Ceiling, stained + polished		4	N/A							0
5.1	BUILDINGS	WINDOWS	All Buildings	Timber Frames with Aluminium inserts		3	N/A							0
5.2	BUILDINGS	WINDOWS	Courtyard Corridors	New Aluminium Frames and Doors		4	D							0
6	BUILDINGS	INTERNAL SHADING DEVICES	Most areas	Vertical Blinds in an acceptable condition		3	N/A							0
7	BUILDINGS	EXTERNAL SHADING DEVICES	Inner Courtyard	Steel framing with fabric covers in an acceptable condition		3	N/A							0
8	BUILDINGS	NATURAL ROOF VENTS		Not Applicable										0
9.1	BUILDINGS	FLOORS	GP Hall	Parquetry in good condition		3	N/A							0
9.2	BUILDINGS	FLOORS	All other areas	Concrete slabs in an acceptable condition		3	N/A							0
10.1	BUILDINGS	FLOOR COVERINGS	Wet areas	Tiles in toilets in an acceptable condition		3	N/A							0
10.2	BUILDINGS	FLOOR COVERINGS	Wet areas + Kitchen	Vinyl in kitchen in an acceptable condition		3	N/A							0
10.3	BUILDINGS	FLOOR COVERINGS	Corridors	Carpeting in a poor condition		3	B			4,000				4,000
10.4	BUILDINGS	FLOOR COVERINGS	Corridors	Vinyl tiles in an acceptable condition		3	N/A							0
10.5	BUILDINGS	FLOOR COVERINGS	Offices, classrooms and library	Carpet generally in good condition		4	N/A							0
10.6	BUILDINGS	FLOOR COVERINGS	Offices, classrooms and library	Carpet in two classrooms and staff room in a deteriorating condition		3	D					10,000		10,000
11.1	BUILDINGS	EXTERNAL WALLS	All Buildings	Face brickwork in good condition		4	N/A							0
11.2	BUILDINGS	INTERNAL WALLS	All wet areas	Some face brick and some rendered and painted brick		3	N/A							0
11.3	BUILDINGS	INTERNAL WALLS	Corridors	Face brickwork in good condition		4	D							0
12	BUILDINGS	WALL COVERINGS		Not Applicable										0
13.1	BUILDINGS	ROOFS AND ROOFING	All Buildings	Concrete Tiles in an acceptable condition		3	N/A							0
13.2	BUILDINGS	ROOFS AND ROOFING	All Corridors	Metal deck in an acceptable condition		3	N/A							0
14	BUILDINGS	STAIRCASES		Not Applicable										0
15	BUILDINGS	INTERNAL DOORS	All Buildings	Frames + Doors are stained and polished		3	D							0
16	BUILDINGS	EXTERNAL DOORS	All Buildings	Timber frames, Doors are currently painted		4	D							0
17	BUILDINGS	FIXED SEATING IN THEATRES, HALLS		Not Applicable										0

SCHEDULE OF MAINTENANCE PROPOSALS - MELROSE PRIMARY SCHOOL

Item No.	WORK TYPE	ELEMENT	Location	Description	AUS. STD. REQ'D.	Actual Condition	Maintenance Rating A to D	School Rating	Year 1	Year 2	Year 3	Year 4	Year 5	Total Est. 5 Yr Cost
18	BUILDINGS	EXTERIOR PAINTWORK	All Buildings	Repaint window frames and downpipes		3	B			5,000	5,000	5,000		15,000
19.1	BUILDINGS	INTERIOR PAINTWORK	Infants Section	Repaint kitchen walls and doors		3	B			15,000				15,000
19.2	BUILDINGS	INTERIOR PAINTWORK	All wet areas	Repaint rendered brickwork walls		3	B			4,000				4,000
19.3	BUILDINGS	INTERIOR PAINTWORK	Class rooms + Offices	Repaint some rendered brickwork walls		3	B			5,000	5,000	5,000		15,000
19.4	BUILDINGS	CEILINGS	Generally	Repaint Gyprock ceilings		2	C				6,000			6,000
20	BUILDINGS	LEAD BASE PAINT IDENTIFICATION		No lead based paint detected										0
21.1	BUILDINGS	IDENTIFIED ASBESTOS	External toilet adjacent Library	The damaged manhole cover contains Asbestos - Replace		2	B		300					300
21.1	BUILDINGS	IDENTIFIED ASBESTOS	All perimeter eaves	Eave sheeting contains Chrysotile Asbestos. It is not envisaged that removal will be required during the currency of this condition assessment		4	D							0
21.1	BUILDINGS	IDENTIFIED ASBESTOS	Substage area	Substage packing pieces to floor beams contain asbestos		4	D							0
AVERAGE CONDITION OF BUILDINGS					3.2		TOTAL COST BUILDINGS	300	33,000	16,000	10,000	10,000	0	69,300

22	GROUNDS	OUTBUILDINGS	Horticultural Section	Metal storage structure		4	D							0
23	GROUNDS	COVERED WAYS		Not Applicable										
24	GROUNDS	FOOTPATHS		Of an acceptable Standard		3	N/A							0
25	GROUNDS	ROADS	Front car park+ Entrance	Of an acceptable Standard		3	N/A							0
26	GROUNDS	PAVED AREAS	Inner courtyard	Generally of an acceptable standard but benches require re-painting		3	B			2,000				
27	GROUNDS	PLAY AREAS		Of an acceptable Standard but note that there are instances of CCA treated Timber		3	N/A							0
28	GROUNDS	GARDENS		Of an acceptable Standard		3	N/A							0
29	GROUNDS	LANDSCAPING		Of an acceptable Standard		3	N/A							0
30	GROUNDS	FENCES / GATES	Around Playground	Constructed from weldmesh and in an acceptable condition		3	N/A							0
AVERAGE CONDITION OF GROUNDS					3.1		TOTAL COST GROUNDS	0	2,000	0	0	0	0	2,000

31	IRRIGATION SYSTEMS	NOT INCLUDED IN ASSESSMENT												
TOTAL COST IRRIGATION SYSTEMS					0	0	0	0	0	0	0	0	0	0

32.1	TREES	DEAD TREES		Remove 3 trees and grind stumps.		2	B		0	410				410
32.2	TREES	DEAD BRANCHES, TRIMMING & CANOPY		Remove dead and other branches and prune limbs causing hazards and lift canopies to 68 trees		2	B		0	4,000				4,000
AVERAGE CONDITION OF TREES					2.0		TOTAL COST TREES	0	4,410	0	0	0	0	4,410

SCHEDULE OF MAINTENANCE PROPOSALS - MELROSE PRIMARY SCHOOL

Item No.	WORK TYPE	ELEMENT	Location	Description	AUS. STD. REQ'D.	Actual Condition	Maintenance Rating A to D	School Rating	Year 1	Year 2	Year 3	Year 4	Year 5	Total Est. 5 Yr Cost
33	HYDRAULICS, PLUMBING & DRAINAGE	UNDERGROUND WATER SUPPLY	Generally	In an acceptable condition		3	N/A							0
34	HYDRAULICS, PLUMBING & DRAINAGE	INTERNAL WATER SUPPLY	Generally	In an acceptable condition		3	N/A							0
35.1	HYDRAULICS, PLUMBING & DRAINAGE	DOMESTIC HOT WATER UNITS	Generally	There are Thermostatic Mixing Valve in this school. These TMVs should be tested and serviced regularly in accordance with the standard or with the manufacturer's recommendations. The tests and services shall be registered in a log book kept on site	AS 4033-3-2004	2	B							0
35.2	HYDRAULICS, PLUMBING & DRAINAGE	DOMESTIC HOT WATER UNITS	YMCA area adjacent former children's toilets	There is an old 180 litre DHW unit in a deteriorating condition and recommended for replacement		2	B		1,500					1,500
35.3	HYDRAULICS, PLUMBING & DRAINAGE	DOMESTIC HOT WATER UNITS	New kitchennette in YMCA area	There is a 25 litre DHW which requires the installation of a heat trap on the outlet		1	A	100						100
35.4	HYDRAULICS, PLUMBING & DRAINAGE	DOMESTIC HOT WATER UNITS	Generally	There are five DHW units dated 10/88 or later and of various sizes from 25 to 280 litres. They are all in a reasonable condition but see also item 35.3		3	N/A							0
35.5	HYDRAULICS, PLUMBING & DRAINAGE	DOMESTIC HOT WATER UNITS	Next to Boys Toilet	There is a 260 litre unit dated 9/96 which has no "Duc" valve and which does not seem to operate. Repair / replace as required		2	B		750					750
35.6	HYDRAULICS, PLUMBING & DRAINAGE	DOMESTIC HOT WATER UNITS	School Staff Room	There is a "Mini-boil" boiling water Unit in an acceptable condition		3	N/A							0
36.1	HYDRAULICS, PLUMBING & DRAINAGE	FIXTURES AND FITTINGS	Tapware	There are three sets of hot/cold taps, one cold tap, four flick mixer taps, two pairs of hot / cold washing machine taps, two non-vandal and three vandal proof hose taps all in a reasonable condition		3	N/A							0
36.2	HYDRAULICS, PLUMBING & DRAINAGE	FIXTURES AND FITTINGS	Tapware	The school has requested that the two non-vandal proof hose taps, in the School Courtyard, be replaced with vandal proof hose taps		3	D		500					500
36.3	HYDRAULICS, PLUMBING & DRAINAGE	FIXTURES AND FITTINGS	Tapware	There are 45 sets of hot/cold taps in a poor condition and recommended for replacement		2	B		11,000					11,000
36.4	HYDRAULICS, PLUMBING & DRAINAGE	FIXTURES AND FITTINGS	Toilet Pans and Cisterns inclusive of Urinal Cisterns.	There are 33 toilet pans and two stainless steel urinals with a total of ten dual flush and 27 single flush cisterns and all generally in an acceptable condition - but refer items 36.6 to 36.10		3	N/A							0
36.5	HYDRAULICS, PLUMBING & DRAINAGE	FIXTURES AND FITTINGS	Toilet Pans and Cisterns inclusive of Urinal Cisterns.	The replacement of the 23 toilet single flush cisterns with dual flush is recommended		3	D		11,500					11,500
36.6	HYDRAULICS, PLUMBING & DRAINAGE	FIXTURES AND FITTINGS	Toilet Pans and Cisterns inclusive of Urinal Cisterns.	In the Storage Room the single flush cistern is running and requires the attendance of a plumber		1	A	150						150
36.7	HYDRAULICS, PLUMBING & DRAINAGE	FIXTURES AND FITTINGS	Toilet Pans and Cisterns inclusive of Urinal Cisterns.	In the Boy's toilet one single flush cistern is running and one flush cone requires replacement both requiring the attendance of a plumber		1	A	250						250
36.8	HYDRAULICS, PLUMBING & DRAINAGE	FIXTURES AND FITTINGS	Toilet Pans and Cisterns inclusive of Urinal Cisterns.	In the Girl's toilet there is a leak on the inlet to one cistern, there is one missing seat, one cistern is not flushing and two vents are crushed, all requiring the attendance of a plumber		1	A	500						500
36.9	HYDRAULICS, PLUMBING & DRAINAGE	FIXTURES AND FITTINGS	Toilet Pans and Cisterns inclusive of Urinal Cisterns.	In the toilets near the Staff Room the end pan on the right is leaking from the pan collar requiring the attendance of a plumber		1	A	150						150
36.10	HYDRAULICS, PLUMBING & DRAINAGE	FIXTURES AND FITTINGS	Toilet Pans and Cisterns inclusive of Urinal Cisterns.	In the YMCA Area two cistern vents are crushed requiring the attendance of a plumber		1	A	200						200
36.11	HYDRAULICS, PLUMBING & DRAINAGE	FIXTURES AND FITTINGS	Stainless steel sinks and Cleaners sinks	The sink in the Cleaner's room near the Canteen is cracked and requires replacement		2	B	500						500
36.12	HYDRAULICS, PLUMBING & DRAINAGE	FIXTURES AND FITTINGS	Stainless steel sinks and Cleaners sinks	The Kitchen sink in the Staff Room is leaking from the trap requiring the attendance of a plumber		1	A	100						100

SCHEDULE OF MAINTENANCE PROPOSALS - MELROSE PRIMARY SCHOOL

Item No.	WORK TYPE	ELEMENT	Location	Description	AUS. STD. REQ'D.	Actual Condition	Maintenance Rating A to D	School Rating	Year 1	Year 2	Year 3	Year 4	Year 5	Total Est. 5 Yr Cost
36.12	HYDRAULICS, PLUMBING & DRAINAGE	FIXTURES AND FITTINGS	Stainless steel sinks and Cleaners sinks	The Kitchen sink in the YMCA Area is leaking from the waste requiring the attendance of a plumber		1	A		100					100
36.13	HYDRAULICS, PLUMBING & DRAINAGE	FIXTURES AND FITTINGS	Stainless steel sinks and Cleaners sinks	One hand basin in the Boy's toilet is loose at the wall and requires refixing		1	A		100					100
36.14	HYDRAULICS, PLUMBING & DRAINAGE	FIXTURES AND FITTINGS	Stainless steel sinks and Cleaners sinks	There are 11 kitchen sinks, one cleaner's sink and two stainless steel laundry tubs in an acceptable condition		3	N/A							0
36.13	HYDRAULICS, PLUMBING & DRAINAGE	FIXTURES AND FITTINGS	Drinking Fountains	One drinking fountain has been removed but the drain requires blocking with concrete		1	A		200					200
36.14	HYDRAULICS, PLUMBING & DRAINAGE	FIXTURES AND FITTINGS	Drinking Fountains	There are eight drinking fountains located adjacent the Boy's (1) and Girls (2) toilets, the Autism Unit (1) and outside (4) which are in a poor condition and recommended for replacement		2	B			4,000				4,000
36.15	HYDRAULICS, PLUMBING & DRAINAGE	FIXTURES AND FITTINGS	Drinking Fountains	There are four drinking fountains located adjacent the Boy's (1) and Girls (1) toilets and the Storage Room (2) which are in a run down condition and recommended for early replacement. The fountain near the Boy's toilet has been disconnected		1	B		2,000					2,000
37	HYDRAULICS, PLUMBING & DRAINAGE	GUTTER CLEANING	Generally	The gutters are not visible but there are no signs or reports of leakage or overflowing. Recommend cleaning twice annually		3	B		1,600	1,600	1,600	1,600	1,600	8,000
38.1	HYDRAULICS, PLUMBING & DRAINAGE	DOWNPIPES	In Courtyards	The downpipes in the Courtyards discharge directly onto the bitumen paving. Some of the bitumen has eroded exposing the soil and creating potholes. Recommend resealing of the bitumen or the placing of concrete slabs to prevent further erosion		1	A		1,000					1,000
38.2	HYDRAULICS, PLUMBING & DRAINAGE	DOWNPIPES	Generally	The downpipes are recommended for cleaning twice annually		3	B		1,600	1,600	1,600	1,600	1,600	8,000
39.1	HYDRAULICS, PLUMBING & DRAINAGE	ABOVE GROUND STORMWATER DRAINS	Generally	There are spoon drains around the School which are in a reasonable condition and recommended for cleaning twice yearly		3	B		800	800	800	800	800	4,000
40.1	HYDRAULICS, PLUMBING & DRAINAGE	UNDERGROUND STORMWATER DRAINS	Oval side of School	There is a missing 200mm square sump lid which requires immediate replacement		1	A		200					200
40.2	HYDRAULICS, PLUMBING & DRAINAGE	UNDERGROUND STORMWATER DRAINS	Generally	There are eight stormwater sumps located around the school and these are in a generally reasonable condition and recommended for cleaning twice yearly		3	B		1,600	1,600	1,600	1,600	1,600	8,000
41	HYDRAULICS, PLUMBING & DRAINAGE	UNDERGROUND SEWERS	Generally	In a reasonable condition and recommend for an annual Jetrodding		3	B		750	750	750	750	750	3,750
AVERAGE CONDITION OF HYDRAULICS, PLUMBING & DRAINAGE									11,900	31,600	10,350	6,350	6,350	66,550
TOTAL COST HYDRAULICS, PLUMBING & DRAINAGE									11,900	31,600	10,350	6,350	6,350	66,550

SCHEDULE OF MAINTENANCE PROPOSALS - MELROSE PRIMARY SCHOOL

Item No.	WORK TYPE	ELEMENT	Location	Description	AUS. STD. REQ'D.	Actual Condition	Maintenance Rating A to D	School Rating	Year 1	Year 2	Year 3	Year 4	Year 5	Total Est. 5 Yr Cost	
42	FIRE PROTECTION	FIRE ALARM SYSTEMS	Generally	A fire indicator panel is located in the main foyer. The panel is maintained regularly and routine maintenance only is required.	AS 1851	3	N/A							0	
43	FIRE PROTECTION	FIRE AND SMOKE DETECTORS	Generally	Thermal detectors are installed throughout the building with smoke detectors installed where required. Routine maintenance only is required.	AS 1670	3	N/A							0	
44	FIRE PROTECTION	FIRE SPRINKLER SYSTEMS		Not installed, required or recommended		N/A	N/A							0	
45	FIRE PROTECTION	FIRE HOSE REELS	Generally	There are no fire hose reels on site as they were not required at the time of construction. However the installation of fire hose reels should be considered during the next major refurbishment		N/A	N/A							0	
46	FIRE PROTECTION	FIRE HYDRANTS		Internal fire hydrants are not installed in this building although required by the BCA. This situation is acceptable to the ACT Fire Brigade. Refer also item 52		3	N/A							0	
47	FIRE PROTECTION	FIRE DOORS	Generally	Not installed, required or recommended		N/A	N/A							0	
48	FIRE PROTECTION	FIRE EXTINGUISHERS	Generally	There are 12 water, 11 CO ₂ and 4 dry chemical type fire extinguishers installed throughout the school. Routine maintenance only is required		3	N/A							0	
49	FIRE PROTECTION	FIRE BLANKETS	Generally	Three fire blankets are located throughout the building. Routine maintenance only is required		3	N/A							0	
50.1	FIRE PROTECTION	EVACUATION SYSTEM	Generally	There is an evacuation system located in the foyer of the school and is maintained and tested regularly. Routine maintenance only is required		3	N/A							0	
50.2	FIRE PROTECTION	EVACUATION SYSTEM	Generally	Instruct all responsible occupants in the correct use of the evacuation system		3	A		250					250	
51	FIRE PROTECTION	EMERGENCY LIGHTS	Generally	It was not possible to test this system as part of this assessment and testing was up to date. No maintenance records were provided on site. Maintenance contractor to provide logbook		3	Maintenance Contractor							0	
52	FIRE PROTECTION	SITE FIRE PROTECTION		Fire hydrants are located in Eggleston and MacLaurin Crescents and are maintained by ActewAGL. This situation is acceptable to the ACT Fire Brigade. Refer also item 46		3	N/A							0	
AVERAGE CONDITION OF FIRE PROTECTION									3.0						
TOTAL COST FIRE PROTECTION									250	0	0	0	0	0	250

Item No.	WORK TYPE	ELEMENT	Location	Description	AUS. STD. REQ'D.	Actual Condition	Maintenance Rating A to D	School Rating	Year 1	Year 2	Year 3	Year 4	Year 5	Total Est. 5 Yr Cost
53	SECURITY SYSTEMS	NOT INCLUDED IN ASSESSMENT												0
TOTAL COST SECURITY SYSTEMS									0	0	0	0	0	0

Item No.	WORK TYPE	ELEMENT	Location	Description	AUS. STD. REQ'D.	Actual Condition	Maintenance Rating A to D	School Rating	Year 1	Year 2	Year 3	Year 4	Year 5	Total Est. 5 Yr Cost
54	LOCKING SYSTEMS	NOT INCLUDED IN ASSESSMENT												0
TOTAL COST LOCKING SYSTEMS									0	0	0	0	0	0

SCHEDULE OF MAINTENANCE PROPOSALS - MELROSE PRIMARY SCHOOL

Item No.	WORK TYPE	ELEMENT	Location	Description	AUS. STD. REQ'D.	Actual Condition	Maintenance Rating A to D	School Rating	Year 1	Year 2	Year 3	Year 4	Year 5	Total Est. 5 Yr Cost
55.1	ELECTRICAL SERVICES	INTERNAL LIGHTING	Lights	Annual allowance for replacement of light tubes and repairs to light fittings		3	B		600	600	600	600	600	3,000
55.2	ELECTRICAL SERVICES	INTERNAL LIGHTING	Library	Replace 25 light fittings.		3	C					3,000		3,000
55.3	ELECTRICAL SERVICES	INTERNAL LIGHTING	Gym	Relamp all high lights.		3	C				1,400			1,400
56.1	ELECTRICAL SERVICES	EXTERNAL LIGHTING	External lights	Annual allowance for replacement of light tubes and repairs to light fittings					600	600	600	600	600	3,000
56.2	ELECTRICAL SERVICES	EXTERNAL LIGHTING	External light	Replace sensor light outside Y.M.C.A.		1	A		200					200
57	ELECTRICAL SERVICES	STAGE LIGHTING, ETC	Stage	Install diffused and wire guards to side lights.		1	A		350					350
57	ELECTRICAL SERVICES	STAGE LIGHTING, ETC	Stage	Install stage lighting		1	D						6,000	6,000
58	ELECTRICAL SERVICES	COMPUTER CABLING SYSTEMS		Not Applicable										0
59	ELECTRICAL SERVICES	TELEPHONES		No work Required		3	N/A							0
60.1	ELECTRICAL SERVICES	ELECTRICAL SWITCHBOARDS	D.B.1	Update schedule and label powerpoints.		2	B		400					400
60.2	ELECTRICAL SERVICES	ELECTRICAL SWITCHBOARDS	D.B.2	Provide legend and label powerpoints.		1	B		500					500
60.3	ELECTRICAL SERVICES	ELECTRICAL SWITCHBOARDS	D.B.3	Provide legend and label powerpoints.		1	B		500					500
61	ELECTRICAL SERVICES	CABLING SYSTEMS		Not Applicable										0
62.1	ELECTRICAL SERVICES	POWER POINTS AND SWITCH PANELS	Powerpoints and light switches	Annual allowance for replacement and repairs to powerpoints and light switches					600	600	600	600	600	3,000
62.2	ELECTRICAL SERVICES	POWER POINTS AND SWITCH PANELS	Room 6	Install 3 double powerpoints to avoid use of power boards.		2	B			300				300
62.3	ELECTRICAL SERVICES	POWER POINTS AND SWITCH PANELS	Canteen	Install suspended power point for fridge.		2	B			280				280
62.4	ELECTRICAL SERVICES	POWER POINTS AND SWITCH PANELS	Y.M.C.A. Reception counter	Install 3 double powerpoints to avoid use of power boards.		2	B			240				240
62.5	ELECTRICAL SERVICES	POWER POINTS AND SWITCH PANELS	Y.M.C.A. computer room	Install 2 double powerpoints to avoid use of power boards.		2	B			200				200
62.6	ELECTRICAL SERVICES	POWER POINTS AND SWITCH PANELS	Room 30	Install 2 powerpoints for computer.		2	B			200				200
62.7	ELECTRICAL SERVICES	POWER POINTS AND SWITCH PANELS	Library office	Install 4 way powerpoint for computer		2	B			180				180

SCHEDULE OF MAINTENANCE PROPOSALS - MELROSE PRIMARY SCHOOL

Item No.	WORK TYPE	ELEMENT	Location	Description	AUS. STD. REQ'D.	Actual Condition	Maintenance Rating A to D	School Rating	Year 1	Year 2	Year 3	Year 4	Year 5	Total Est. 5 Yr Cost
62.8	ELECTRICAL SERVICES	POWER POINTS AND SWITCH PANELS	Library	Install 2 powerpoints for computers.		2	B			180				180
62.9	ELECTRICAL SERVICES	POWER POINTS AND SWITCH PANELS	Janitors room	Install 2 double powerpoints.		2	B			400				400
62.10	ELECTRICAL SERVICES	POWER POINTS AND SWITCH PANELS	Main staff lounge.	Install powerpoint for water cooler.		2	B			180				180
62.11	ELECTRICAL SERVICES	POWER POINTS AND SWITCH PANELS	Room 20	Install 2 double powerpoints for computers to avoid use of power boards.		2	B			180				180
62.12	ELECTRICAL SERVICES	POWER POINTS AND SWITCH PANELS	Room 19	Install 2 double powerpoints for computers to avoid use of power boards.		2	B			180				180
62.13	ELECTRICAL SERVICES	POWER POINTS AND SWITCH PANELS	Room 17	Install 2 double powerpoints for computers to avoid use of power boards.		2	B			180				180
62.14	ELECTRICAL SERVICES	POWER POINTS AND SWITCH PANELS	Room 14	Install 2 double powerpoints for computers to avoid use of power boards and double powerpoint for stapler, etc.		2	B			250				250
62.15	ELECTRICAL SERVICES	POWER POINTS AND SWITCH PANELS	Front Office	Install double powerpoint for photocopier.		2	B			150				150
63	ELECTRICAL SERVICES	CONTROL SYSTEMS		Not Applicable										0
64	ELECTRICAL SERVICES	ANNOUNCEMENT SYSTEMS		Not Applicable										0
65	ELECTRICAL SERVICES	AUTOMATIC DOORS		Not Applicable										0
66	ELECTRICAL SERVICES	SPECIFIC ELECTRICAL EQUIPMENT	Master clock	Annual allowance for replacement and repairs to master clock system					200	200	200	200	200	1,000
67	ELECTRICAL SERVICES	SITE ELECTRICAL EQUIPMENT & LIGHTING		Not Applicable										0
68	ELECTRICAL SERVICES	SITE COMMUNICATIONS	Bells and hooters.	Annual allowance for replacement and repairs to bells and hooters					100	100	100	100	100	500
AVERAGE CONDITION OF ELECTRICAL SERVICES									4,050	5,200	3,500	5,100	8,100	25,950
TOTAL COST ELECTRICAL SERVICES														

69	LIFTS AND HOISTS	LIFTS & WHEELCHAIR LIFTS		Not Applicable										0
70	LIFTS AND HOISTS	HOISTS, ETC		Not Applicable										0
AVERAGE CONDITION OF LIFTS AND HOISTS									0	0	0	0	0	0
TOTAL COST LIFTS AND HOISTS														

SCHEDULE OF MAINTENANCE PROPOSALS - MELROSE PRIMARY SCHOOL

Item No.	WORK TYPE	ELEMENT	Location	Description	AUS. STD. REQ'D.	Actual Condition	Maintenance Rating A to D	School Rating	Year 1	Year 2	Year 3	Year 4	Year 5	Total Est. 5 Yr Cost
71	MECHANICAL SERVICES	CENTRAL AIR CONDITIONING SYSTEMS		Not Applicable										0
72	MECHANICAL SERVICES	CHILLERS		Not Applicable										0
73	MECHANICAL SERVICES	COOLING TOWERS		Not Applicable										0
74	MECHANICAL SERVICES	SPLIT SYSTEM AIR CONDITIONERS		Two new ducted split system, reverse cycle units have been recently installed in this area. They are in a good condition but were not operating on the day of assessment. Contractor to attend	3		Installation Contractor							0
75	MECHANICAL SERVICES	PACKAGE AIR CONDITIONERS		Not Applicable										0
76	MECHANICAL SERVICES	COMPUTER AC		Not Applicable										0
77	MECHANICAL SERVICES	EVAPORATIVE COOLERS		Not Applicable										0
78	MECHANICAL SERVICES	BOILERS	Boiler Room	The boiler is some 39 years old and at least 4 years beyond its maximum life. Replace as soon as practicable	2	2	B		60,000					60,000
79	MECHANICAL SERVICES	GAS	Boiler Room	Gas piping in the boiler room is in a reasonable condition but the gas train will require replacing when the boiler is replaced. Included above	2	2	B		2,500					2,500
80.1	MECHANICAL SERVICES	CENTRAL HEATING SYSTEMS	Boiler Room Circulating Pumps	There are two circulating pumps which are in a reasonable condition. However these should be considered for replacement at the same time as the boiler	3	3	B		5,000					5,000
80.2	MECHANICAL SERVICES	HEATING SYSTEMS	Sick room	This area has been subjected to partitioning and there is no heating provided. Extend existing ducting system from fan coil unit No. 5		N / A	B		1,000					1,000
80.3	MECHANICAL SERVICES	HEATING SYSTEMS	Two rooms converted from South corridor in South Block	These areas can be catered for by an increase in duty of fan coil unit No. 21 when it is replaced. Extend / resize existing ducting system to suit		N / A	B		2,000					2,000
81	MECHANICAL SERVICES	RADIATORS	Small room adjacent boiler room	There is one radiator in this room. The radiator is unserviceable and, since the room has warm air heating, should be removed when practicable		1	B		200					200
82.1	MECHANICAL SERVICES	FAN COIL UNITS	Generally	There are 9 concealed fan coil units which are now disused and should be removed when funds become available		1	C		5,000					5,000
82.2	MECHANICAL SERVICES	FAN COIL UNITS	Generally	There are 16 concealed fan coil units which are still operating. These units are life expired and should be replaced by new ceiling mounted units		2	B		40,000					40,000
82.3	MECHANICAL SERVICES	FAN COIL UNITS	Generally	Following the installation of 16 new fan coil units (item 82.2) there will be 16 concealed fan coil units which should be removed when funds become available		1	C		8,000					8,000
83.1	MECHANICAL SERVICES	WARM AIR HEATING SYSTEM	GP Hall	There are two small warm air heating units located above the stage. These units are some 39 years old and are at the end of their expected life. Replace units		2	B		40,000					40,000
83.2	MECHANICAL SERVICES	ELECTRIC HEATING	Library	There are 4 electric wall heaters in the newer part of the library. These seem to be relatively ineffective and replacement with a warm air heating system is recommended		2	B		10,000					10,000
84.1	MECHANICAL SERVICES	CEILING FANS	Generally	There are 35 ceiling fans scattered throughout the complex and all were operating on the day of assessment		3	N / A							0
84.2	MECHANICAL SERVICES	WALL MOUNTED FANS	GP Hall	There are 5 wall mounted fans in this area and all were operating on the day of assessment		3	N / A							0
85.1	MECHANICAL SERVICES	EXHAUST VENTILATION	5 internal toilets and 1 shower	These areas are not equipped with natural or exhaust ventilation. Provide window or roof mounted exhaust fans as appropriate		N / A	1							0

SCHEDULE OF MAINTENANCE PROPOSALS - MELROSE PRIMARY SCHOOL

Item No.	WORK TYPE	ELEMENT	Location	Description	AUS. STD. REQ'D.	Actual Condition	Maintenance Rating A to D	School Rating	Year 1	Year 2	Year 3	Year 4	Year 5	Total Est. 5 Yr Cost	
85.2	MECHANICAL SERVICES	EXHAUST VENTILATION	Toilets	All other toilets that require exhaust ventilation are fitted with fans and these are operating correctly		3	N/A							0	
85.3	MECHANICAL SERVICES	EXHAUST VENTILATION	General exhaust systems	There are 4 of these in various areas of the school and all are operating correctly		3	N/A							0	
85.3	MECHANICAL SERVICES	SUPPLY VENTILATION	Boiler Room	The boiler room supply fan has been disconnected. This is an old fan and does not need replacement as there seems to be an adequate supply of fresh air through the door grilles.		1	N/A							0	
86	MECHANICAL SERVICES	SMOKE EXHAUST SYSTEMS		Not Applicable										0	
87	MECHANICAL SERVICES	KILN EXHAUST SYSTEM		This system is operating correctly		3	N/A							0	
88	MECHANICAL SERVICES	ROOF VENTILATORS		Not Applicable										0	
89	MECHANICAL SERVICES	FUME CUPBOARDS		Not Applicable										0	
90	MECHANICAL SERVICES	DUST COLLECTION		Not Applicable										0	
91	MECHANICAL SERVICES	SMOG HOGS		Not Applicable										0	
92	MECHANICAL SERVICES	ELECTRIC HEATING	Two rooms converted from West corridor in South Block	These areas can be catered for by the installation of a wall mounted electric fan heater		N/A	B		2,000					2,000	
93	MECHANICAL SERVICES	CONTROLS SYSTEM	Generally	The controls system is rudimentary and a new system, including switchboards, should be installed when the boiler is replaced. This should include connection to all remote heating plant and local controls		2	B		25,000					25,000	
94	MECHANICAL SERVICES	UNDERGROUND FUEL TANKS	Outside boiler room	This tank appears to have been properly sealed in accordance with the regulations that applied at the time of the conversion of the boiler to gas firing. This may not be in accordance with the regulations, as applied by Environment ACT, at the time of this report.		N/A	N/A							0	
95	BUILDINGS	IDENTIFIED ASBESTOS	Boiler Room	Boiler relief sheet rope seal contains Chrysotile Asbestos. It is not envisaged that removal will be required during the currency of this condition assessment		4	D							0	
AVERAGE CONDITION OF MECHANICAL SERVICES										2.3					200,700
TOTAL COST ALL MAINTENANCE WORKS										16,500	263,910	42,850	21,450	24,450	369,160

96	MAJOR & OTHER WORKS	MECHANICAL SERVICES	Heating System	General upgrading of heating system. See items 78, 79, 80.1, 80.2, 80.3, 81, 82.2, 83.1, 83.2, 92, 82.2 and 93		2	N/A		0	187,700	0	0	0	187,700
97	BUILDINGS	BUILDINGS	Infants Section	Upgrade Kitchen		3	B			15,000				15,000
98	MAJOR & OTHER WORKS								0	202,700	0	0	0	202,700
TOTAL COST MAJOR WORKS														

Fire Safety Report



MELROSE PRIMARY SCHOOL CHIFLEY

Steve Coombe

Fire Safety Consultant

ABN 94 544 013 306

24 Laycock Pl Holt ACT 2615.

Tel: (02) 6254 5785 Fax: (02) 6254 0155

Mobile: 0418 499 395

E-Mail: steve.coombe@bigpond.com

2 June 2004

1 INTRODUCTION and PURPOSE

The report has been commissioned by the Department of Urban Services, Facilities Management to identify existing and required fire safety systems at the Melrose Primary School, Chifley.

2 EXECUTIVE SUMMARY

The Melrose Primary School is maintained to a very high standard. The building was constructed well before the introduction of the Building Code of Australia however all fire safety required at the time have been installed and well maintained.

Changes to the Code requirements would necessitate the installation of Fire Hose Reels, Hydrants and smoke detectors in lieu of the installed thermal detectors.

However, the systems must continue to be maintained in accordance with AS 1851 to ensure correct operation in the event of a fire or other emergency.

3 LIMITATIONS

This report has been prepared in good faith and due care. It has been based on walk through inspection and review of the available documentation referred to.

Verification of design, disassembly of equipment, or inspection of services in concealed spaces has not been included.

The standards used and referred to in this report are those that were in operation at the time of installation of the equipment. Where the equipment does not meet current standards, this is noted in the report. We note that any new and some replacement works required are to be in accordance with all current standards and the Building Code of Australia.

4 The Building

The building has the following constructional characteristics as classified by the Building Code of Australia:

Summary of Construction Determination	Results
Classification	Class 9b
Number of storeys contained	1
Type of construction required	Type C

5 FIRE ALARM SYSTEMS (42)

An Inertia (AGFIP) Fire indicator Panel is installed in the foyer of the building which provides 9 circuits to allow prompt location of a fire alarm. A block plan is provided adjacent to the panel which clearly indicates the circuits and/or areas covered by the system.

The log book in the panel suggests that it is being maintained by Tyco in accordance with the requirements of AS 1851, it was last tested on 21 May 04. It is connected to Wormalds monitoring service who in turn advise the ACT Fire Brigade in the event of a fire alarm.

Continued maintenance required.

No additional works required.

6 FIRE AND SMOKE DETECTORS (43)

Thermal detectors have been installed throughout the building. These detectors are supplemented with smoke detectors where necessary within corridors adjacent to smoke doors to provide early warning to occupants and the Fire Brigade and close the smoke doors. The walk through inspection would suggest that the system was installed to the requirements of AS 1670.

While smoke detectors would be preferred in this situation they are not recommended at this stage however, should be considered during any future major refurbishment.

The last recorded test of the detectors was conducted in December 2003.

Continued maintenance required

No additional works required.

7 FIRE SPRINKLER SYSTEMS (44)

A Sprinkler system is not installed, required or recommended.

Not applicable.

8 FIRE HOSE REELS (45)

Fire Hose Reels have not been installed as they were not required at the time of construction. Portable water type fire extinguishers provide the medium for fire suppression in lieu of the reels.

The installation of fire hose reels should be considered during the next major refurbishment.

No works required at this stage.

9 FIRE HYDRANTS (46)

While required in accordance with the BCA Fire Hydrants were not required at the time of construction and have not been provided.

Details provided by ActewAGL indicate hydrants are located Eggleston Crescent and Maclaurin Crescent which should provide adequate water for the Fire Brigade. These hydrants were noted on site during the inspection.

Australian Standards 2419 would require an external hydrant to be located so that no part of the floor area is more than 70 m from a hydrant.

Prior to any proposed upgrading of this service or major refurbishment it is recommended that the Fire Safety Section of the ACT Fire Brigade be requested for their endorsement to accept the current situation or advise of additional requirements.

The existing hydrants are maintained by ActewAGL.

No works required at this stage.

10 FIRE DOORS (47)

No fire doors are required, provided or recommended in this complex.

Not applicable.

11 FIRE EXTINGUISHERS (48)

The following fire extinguishers are installed throughout the building;

Number	Type	Last Tested
12	Water	April 04
11	CO ₂	April 04
4	Dry Chemical Powder	April 04

The type and location of extinguishers is considered satisfactory for the risk.

No works required.

12 FIRE BLANKETS (49)

Three fire blankets were strategically located throughout the school areas.

The blankets were being maintained as a part of the extinguisher maintenance contract.

No additional works required.

13 EVACUATION SYSTEMS (50)

A Ampac Emergency Warning and intercommunications System is installed within the foyer of the school. This system is connected to speakers and twelve Warden Intercom Phones (WIP) throughout the school. It is operated automatically on activation of any fire alarm in the school. It was not tested as a part of this inspection.

The log book in the panel suggest that it is being maintained by Tyco in accordance with the requirements of AS 1851, it was last tested on 21 May 04. It is connected to Fire Indicator Panel and operates automatically on fire alarm.

It was not determined if staff were aware of the full capacity of the system and the functions available to more effectively manage an emergency situation or in the event of a fire within the school.

Ensure relevant staff are familiar with the system operation.

14 EMERGENCY LIGHTS (51)

Emergency lighting has been provided throughout the school. While it was not possible to test this facility as a part of this exercise it is understood that the system is being maintained by Tyco

No on site log books were available and it is understood that the results of the last test is held electronically by Tyco. Note on the log book box advises of an attendance to test the fittings which advised that they were last inspected on 10 May 2004.

Review code requirements for emergency lighting and ensure required fittings are maintained in accordance with the Code.

15 SITE FIRE PROTECTION (52)

The issue regarding external hydrants has been covered previously and there are no additional comments in this regard.

No work required

16 GENERAL

Housekeeping

The standard of general housekeeping throughout the school is of a very high standard and there are no recommendations in this regard.

DISCOUNT TREE SERVICES ACT Pty Ltd

18 McLaren Crescent Pearce ACT 2607

ABN: 82 099 702 299

Telephone: 6286 1441
Mobile: 0414 461 659
Fax: 6286 8095

4 December 2004

Melrose Primary School

URGENT	Nil
Remove	10, 90, 91
Environment ACT	Nil

There is no urgent work within the school grounds.

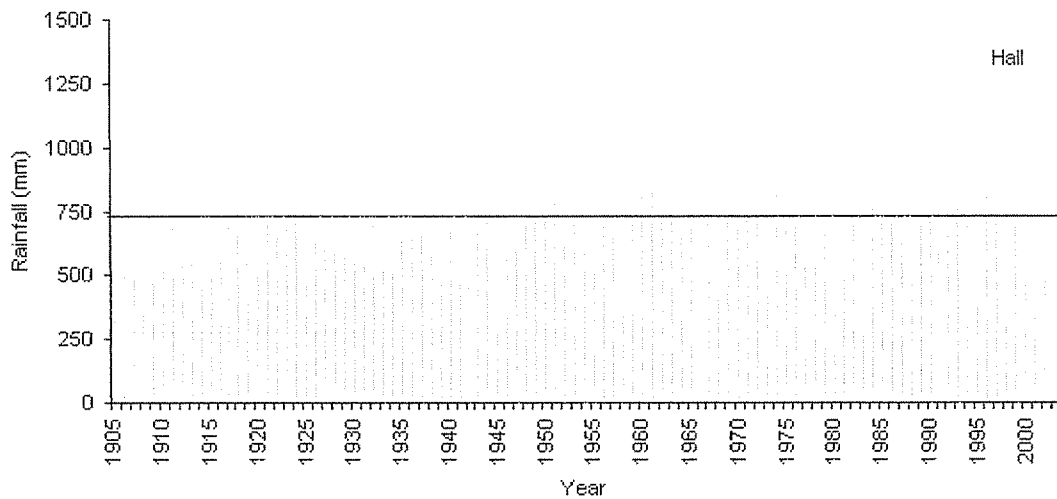
There are several trees identified that require prompt attention. These are within the boundary planting of Poplars (*Populus deltoides*) along the north-western boundary. Several are dead and some are not structurally viable. Many others in this row (#86-#104) are beyond retention for the long term but can be lopped to maintain a sturdy windbreak for several years until new plantings can replace their role.

Generally trees are experiencing a reduction in rainfall, irrigation or a lower water table and are producing deadwood which should be removed, particularly in areas of priority – playgrounds, recreation/play areas and pathways.

The majority of work involves the removal of deadwood resulting from drier climatic conditions and the reduction in watering schedules for lawn areas.

Recommended Procedure for Tree Work

- Due to extreme variation in climatic conditions some trees are exhibiting signs of drought stress. Annual inspections are recommended until yearly annual rainfall increases above 750mm. (99year average).



- Source: http://www.environmentcommissioner.act.gov.au/rainfall03.html#rainfall_statistics
- * Urgent trees to be removed immediately.
- * Trees needing ACT Environment approval for trees.
This procedure takes about 6 – 8 weeks from time of Tree Audit with this; work will need to be done within a month after notice.
- * All other work to be carried out within 12 months unless indicated by audit.
- * This report was conducted through a visual assessment from the ground only. Where further inspection and testing of a tree is required the assessment report will indicate this.

Robert De Jong
Manager
Discount Tree Services

Block , Section , Tree Assessment Report of all Trees at : Melrose Primary

Date 26 November 2004

Loc'n	Qty	Botanic Name	Recommendations	Code	Cost \$
1	1	Gleditzia triacanthos inermis		nwr	
2	1	Koeleruteria panniculata	Remove minor deadwood		60
3-5	3	Robinia sp		nwr	
6	1	Koeleruteria panniculata	Raise to 1.5 m		40
7-8	2	Fraxinus oxycarpa		nwr	
9	1	Fraxinus oxycarpa		nwr	
10	1	Callistemon shrubs	Remove dead	R(1)	30
11-13	2	Fraxinus oxycarpa	Deadwood #12		70
14	1	Fraxinus oxycarpa	Poor condition	nwr	
15-20	7	Fraxinus oxycarpa	Poor condition	nwr	
21-26	6	Fraxinus oxycarpa	Deadwood all	cl	300
27-29	3	Miscellaneous Eucs		nwr	
30-32	3	E. pulverulenta		nwr	
33-34	2	Fraxinus oxycarpa	Raise over footpath		50
35-40	6	E. melliodora		nwr	
41-45	5	Prunus cerasifera	Deadwood all	cl	150
46-47	2	Fraxinus spp.	Deadwood #47		70
48-55	8	Prunus cerasifera	Deadwood all	cl	160
56-76	21	Euc. Spp.	Minor deadwood on #59,61,72	cl	300
77-85	9	Euc. Spp.	Minor deadwood on #79-81	nwr	
86	1	Populus deltoides	Remove cockatoo damaged leaders and deadwood	cl	140
87	1	Populus deltoides	Remove deadwood	cl	120
88	1	Populus deltoides	Remove deadwood and shorten previously lopped leaders aesthetically		140
89	1	Populus deltoides	Remove remaining leader 3.0m below union	cl	140
90-91	2	Populus deltoides	Remove dead trees and grind stumps	R(2)	380
92-104	13	Populus deltoides	Remove deadwood and shorten leaders to just above live wood	cl	1240
105-110	6	Prunus cerasifera	Minor deadwood		90

3 51

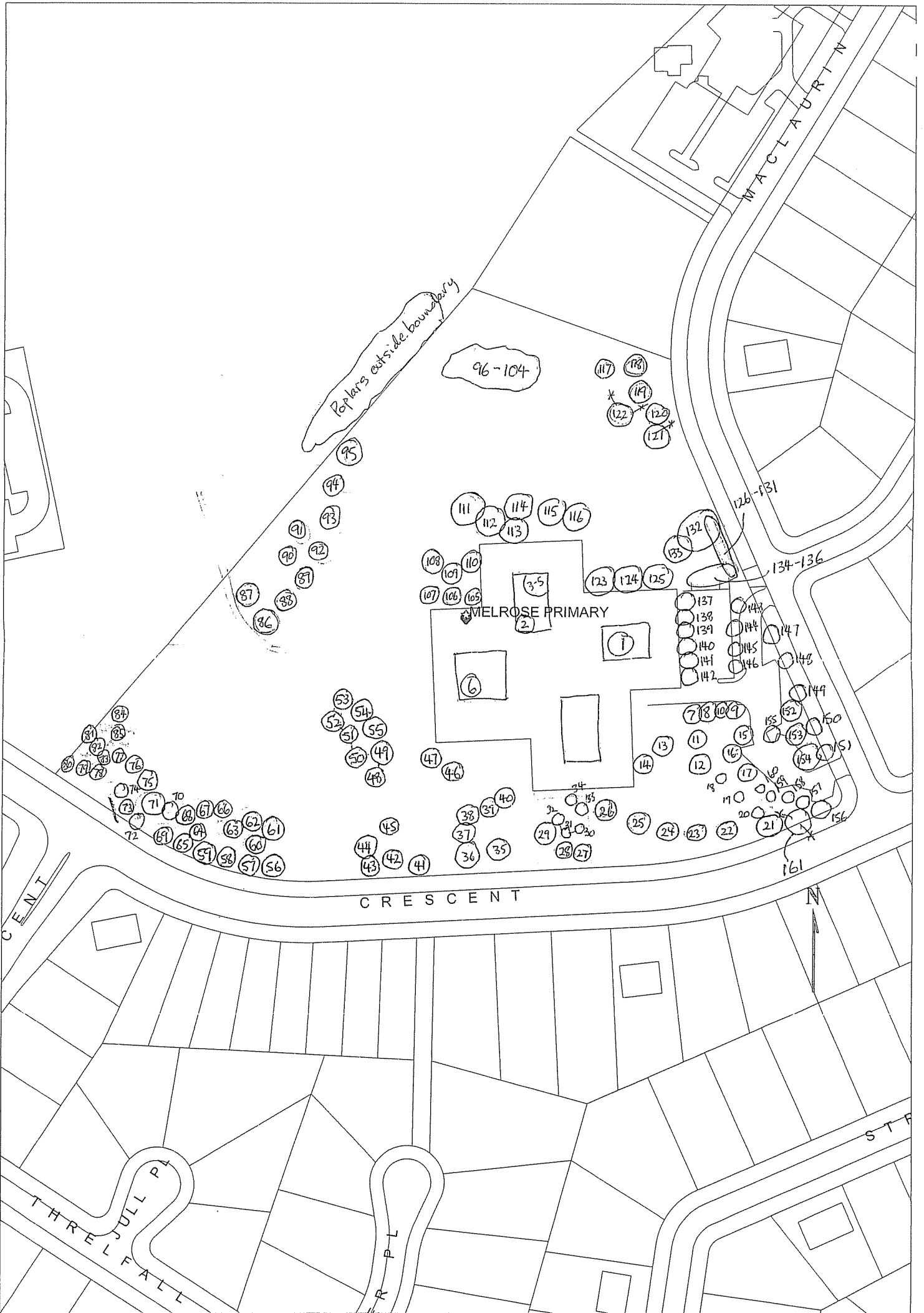


Block , Section , Tree Assessment Report of all Trees at : Melrose Primary 2 of 2

Loc'n	Qty	Botanic Name	Recommendations	Code	Cost \$
111-116	6	Fraxinus oxycarpa	Lift canopy and deadwood @115,116; Reduce weight and balance #111	cl	420
117-122	6	Fraxinus oxycarpa	Deadwood #121,122	cl	90
123-125	3	Prunus cerasifera	Remove dead limb #125		30
126-131	6	Acacia cultriformis	Straggly shrub line	nwr	
132-133	1	E. melliodora		nwr	
134-136	3	Fraxinus pennsylvanica		nwr	
137-146	10	Fraxinus spp.	Deadwood #138	cl	70
147-151	5	Fraxinus oxycarpa	Form prune		50
152-155	4	Fraxinus oxycarpa	Deadwood #153,154	cl	140
156-160	5	Fraxinus oxycarpa	Remove dead leaders #156,157		70
161	1	Fraxinus oxycarpa	Raise canopy to 2.0m		60
TOTAL					4410

3 3 2 1 1 5 2 2 1 3 68

URG - Requires prompt attention
 LV/HV - on or adjacent to power lines
 RACT - ACT Environment Permission required for Removal
 R (-) - Removal (number of trees)
 C - crane required
 cl - climbing required and/or ropework
 nwr - No Work Required



Ref: 2123-36AsbSur

**Survey to Determine the
Extent and Condition of
Asbestos Materials at**

**Melrose Primary School
Eggleston Crescent
Chifley ACT**

March 2005



Client: Department of Urban Services Facilities Management
255 Canberra Avenue
Fyshwick
ACT 2609



TABLE OF CONTENTS

1 EXECUTIVE SUMMARY2

2 METHOD4

 2.1 Code Compliance Determination.....4

 2.2 Inclusions5

 2.3 Exclusions5

3 ANALYTICAL RESULTS6

4 DISCUSSION7

APPENDICES

Appendix 1: Asbestos Material Location Summary Table and Plan

Appendix 2: Inclusions – Asbestos Code of Practice 1988

Appendix 3: Laboratory Results & DUS FM Condition Assessment Form



1 EXECUTIVE SUMMARY

At the request of Tony Hardy of the Department of Urban Services Facilities Management, Robson Laboratories visually inspected Melrose Primary School, Chifley ACT to determine the extent and condition of asbestos materials.

Although this survey made every attempt to assess accessible areas for asbestos, this was not a destructive survey and exclusions are made for inaccessible areas. The likelihood of hazardous materials in inaccessible areas, such as asbestos lagging to hot water pipes set into masonry walls, is documented in broad terms.

The results of the survey should be used as a basis for development of an Asbestos Management Plan for Melrose Primary School. In the case of future building works the plan would enable the appropriate management of Asbestos Materials in accordance with the Worksafe Australia Asbestos Code of Practice 1988.

This survey, although extensive, must not be used as a Specification or Method Statement for any future asbestos removal project. In this instance detailed plans, quantities etc. would be required.

Implications and recommendations relating to the appropriate removal or control methods are made in accordance with the requirements of Worksafe Australia, ACT BEPCON & ACT WorkCover.

The extent of asbestos materials located within the Melrose Primary School is generally located to the perimeter eave soffits and firmly bound into a stable matrix. The materials may remain in situ and providing they do not deteriorate would not be anticipated to release significant fibre under normal building usage.

Hot water pipes were checked in all plantrooms and found not to be lagged with asbestos. All fire door cores and vinyl floor tiles and floor covering were respectively assessed and analysed as asbestos free.

Ceiling spaces inspected were insulated with fibreglass. All classroom and corridor ceilings inspected consisted of cellulose (plant material) ceiling tiles and gyprock or fibrous plaster. No asbestos was detected in these areas.

It is important that any work within ceiling spaces is done out of school hours as the fibreglass insulation batts are resting on the ceiling tiles. Work personnel should wear appropriate protective clothing and masks to minimise skin irritation and inhalation of airborne glass fibres.



Asbestos materials Melrose Primary School:

Table 1. Condition Assessment – Asbestos Materials

Asbestos Material	Material Location (refer plan)	Description	Condition	Maintenance	Removal – est. costs
Rope Seal	Boiler Relief Plate	Jointing material to boiler	4	D	Not assessed
Cement sheeting	Perimeter Eaves + substage pieces wc area manhole cover	Exterior perimeter asbestos cement eave sheet	4 3	D C	not assessed \$150

Department of Urban Services Condition Rating and Maintenance Rating – Refer to Appendix 3 for the complete explanatory sheet.

Note: Estimated Asbestos Removal costs are only supplied where Condition Ratings are 1 or 2, or Maintenance Ratings are A or B.

Condition Ratings

- 5 – Excellent
- 4 – Good
- 3 – Normal
- 2 – Poor
- 1 – Run Down

Maintenance Ratings

- A – Critical
- B – Essential
- C – Important
- D – Discretionary



Above left and above: perimeter asbestos cement eave soffit sheet



Left: manhole cover – damaged asbestos sheeting



INTRODUCTION & SCOPE

At the request of Tony Hardy of the Department of Urban Services Facilities Management, Robson Laboratories visually inspected Melrose Primary School Chifley ACT to determine the extent and condition of asbestos materials.

The results of the survey should be used as a basis for development of an Asbestos Management Plan for Melrose Primary School. In the case of future building works the plan would enable the appropriate management of asbestos materials in accordance with the Worksafe Australia Asbestos Code of Practice 1988.

This survey, although extensive, must not be used as a Specification or Method Statement for any future asbestos removal project. In this instance detailed plans, quantities etc. would be required.

Implications and recommendations relating to the appropriate removal or control methods are made in accordance with the requirements of Worksafe Australia, ACT BEPCON & ACT WorkCover.

2 METHOD

The Melrose Primary School was inspected on 14 & 16 March 2005. A visual assessment was made of the building and samples suspected of being asbestos positive were sent for NATA accredited laboratory analysis.

Although all reasonable care and attention was taken in compiling this report no guarantee as to its accuracy or completeness can be given. This can be a result of the normal construction practice of 'building in' some of the works, from the random application of asbestos materials or due to other physical or applied constraints on our investigation. Our report is limited by the physical constraints of the structure under investigation. Prior to any refurbishment or hazardous materials removal projects the contractor(s) carrying out the work must fully acquaint themselves with the extent of the hazardous material, particularly in those areas which may require full or partial demolition in order to determine the exact extent and location of such material.

2.1 Code Compliance Determination

All recommendations and Code Compliance are determined with reference to: -

- Worksafe Australia, Sydney 1988, *Asbestos: Code of Practice and Guidance Notes*;
- *ACT WorkCover*; and
- *ACT BEPCON Requirements & Regulations*.

and are referred to in this report as The Code



2.2 Inclusions

Worksafe Australia, Sydney 1988, *"Asbestos: Code of Practice & Guidance Notes"* Sections 3.1, 3.5, 3.6, 4.3, 8. Table 1, & 12 (Refer Appendix 2).

2.3 Exclusions

No determination can be made regarding the possibility of concealed asbestos to the following areas without allowing access for inspection:

1. Wet Areas - hot water pipes

It is possible that asbestos lagged hot water pipes may be concealed within mortar/wall cavities in wet areas. Care should be taken when demolishing in these areas to determine the existence or otherwise of asbestos. If asbestos is located all demolition work must cease and a licensed asbestos removalist contacted immediately to remove this material prior to completion of the demolition.

2. Subterranean areas & asbestos sheet fragment packers

It should be noted that due to the age of the buildings it is extremely likely that asbestos materials have been used below ground level as formwork, expansion joints or as pipe ducting for storm water and electrical cables or as packers to timber framework. Any excavation work especially in areas where ducting indicates electrical cables underground should be undertaken with caution.



3 ANALYTICAL RESULTS

The materials sampled for asbestos analysis are presented below in Table 2.

Table 2: Mineralogical Analysis – Asbestos

Sample No.	Location	Composition
2123 – 36 – 1	Decorative spray classroom ceiling	no asbestos detected
2123 – 36 – 2	Hallway vinyl floor tiles	no asbestos detected
2123 – 36 – 3	Rope seal boiler relief plate	Chrysotile Asbestos
2123 – 36 – 4	Perimeter eaves	Chrysotile Asbestos

- It should be noted that the above samples were a representative selection of materials suspected of containing asbestos.
- Materials were not sampled from all areas due to the consistency of the materials used throughout the buildings.
- On-site inspections and an examination of the accompanying plan within this report should be undertaken prior to the commencement of any asbestos removal programme.

Chrysotile	=	white asbestos
Amosite	=	grey or brown asbestos
Crocidolite	=	blue asbestos



4 DISCUSSION

The asbestos materials identified on site have been categorised based on their type and their management is discussed in accordance with Worksafe Australia *Asbestos: Code of Practice and Guidance Notes* 1988.

ELEMENT:

- **Asbestos cement sheeting – perimeter eaves soffit**
 - **Asbestos cement sheet – damaged manhole cover**
 - **Asbestos cement pieces – sub-stage area to floor beams**
 - **Asbestos rope seal – Boiler relief valve plate**
-

Asbestos Positive Findings:

Refer to Table 1 & Appendix 1 for specific locations.

Implications:

The damaged manhole cover in the workroom adjacent the Library should be removed. The remaining asbestos containing materials are generally in very good condition.

The materials may remain in-situ provided they are maintained in good condition until removed during refurbishment by a licensed asbestos removalist.

Recommendations:

Maintenance and other personnel should be instructed not to remove or damage identified asbestos materials. Replacement or removal must only be undertaken by a licensed asbestos removalist.

All asbestos material remaining in situ must be clearly labelled and regularly inspected for deterioration (Refer *Asbestos Code of Practice - Section 3.1 & 3.6 - Appendix 2*).

Prior to any planned demolition, refurbishment or maintenance, its effect upon any in situ asbestos must be established by reference to this document, including amendments.

If immediate removal of all asbestos is not planned an Asbestos Management Plan is required (Refer *Asbestos Code of Practice - Section 8 Table 1 - Appendix 2*).



APPENDICES



APPENDIX 1

Asbestos Material Location Summary Table & Plan



Melrose Primary School – Asbestos Locations			
Asbestos Material	Location/details	Asbestos type(s) & Sample No.	Comments
Cement sheeting	Perimeter Eaves & manhole cover (damaged) + Asbestos cement pieces – sub-stage area to floor beams	Chrysotile asbestos sample 2123 – 36 - 4	Manhole cover should be replaced The remaining leave, label and maintain Remove by an ACT licensed asbestos removalist if proposed building works are likely to disturb asbestos containing materials
Rope Seal	Boiler Relief Plate	Chrysotile asbestos sample 2123 - 36 - 3	



APPENDIX 2

Inclusions

Worksafe Australia, Sydney 1988, "*Asbestos: Code of Practice & Guidance Notes*"
Sections 3.1, 3.5, 3.6, 4.3, 8. Table 1, & 12.



INCLUSIONS

Worksafe Australia, Sydney 1988, "Asbestos: Code of Practice and Guidance Notes" Section 3.1 summarizes the current requirements which have been adopted;

"3.1 GENERAL PRINCIPLES

- . The ultimate goal is for Australian workplaces to be free of asbestos.
- . Asbestos removal may not be immediately necessary, but must be completed before a structure or part of a structure is demolished.
- . Removal of such asbestos should be subject to priority setting, determined by the condition and location of asbestos.
- . Asbestos presents a risk only when it is airborne. The risk to health increases as the number of fibres inhaled increases.
- . Wherever practicable, substitutes shall be found for asbestos products. Such substitutes for asbestos products should be thoroughly evaluated before use, to ensure that they do not constitute a health hazard. Ultimately, all asbestos products should be eliminated.
- . Asbestos which has been incorporated into a stable matrix can be found in many working environments. Provided the matrix remains stable and no airborne dust is produced, it presents no health risk.
- . The presence of asbestos should be identified.
- . No person shall be exposed to risk of inhalation of asbestos in the course of employment without being provided with full information of the occupational health and safety consequences of exposure and appropriate control strategies.
- . At present it is not possible to assess whether there is a level of exposure in humans below which an increased risk of cancer would not occur. Accordingly, exposure should always be limited to the minimum level feasible.
- . Asbestos removalists and maintenance workers in an asbestos environment must be suitable protected.
- . The recognised occupational exposure standard is that adopted by the National Occupational Health and Safety Commission. The method used to measure exposure is the Membrane Filter Method as endorsed by the National Commission.



- . Products containing asbestos shall be labelled accordingly.
- . The spraying of asbestos shall be prohibited. All future use of asbestos for insulation shall be prohibited."

It is recommended that where the presence of asbestos building products have been identified property owners, managers, occupiers and the relevant employer and employee organisations become fully aware of their obligations described in the Worksafe Code. Sections which are referred to in this Survey are reproduced below.

Worksafe Australia, August 1988 "Asbestos: Code of Practice and Guidance Notes"

"3.5 REGISTER

- . Owners, or their agents, shall institute an inspection of each structure owned. A register shall be maintained, with regular updating of the results of these inspections. The register will contain details of the site, type and condition of any asbestos products found, and shall be made available for inspection by tenants (employers), employees, union representatives, government representatives, contractors and maintenance personnel. Where no asbestos is found, a record of such a finding shall be kept."

"3.6 CONTROL

- . Notwithstanding the ultimate goal of an asbestos free workplace, priorities should be set for control in the short term.
- . Asbestos products, if stable and inaccessible, should be left *in situ* until demolition, partial demolition or renovation.
- . Where *in situ* asbestos is in a stable condition, but accessible, it should be appropriately controlled by a range of options canvassed later in this document.
- . Asbestos which is not in a stable condition, or is determined to constitute an unacceptable health risk, shall be removed by a registered removalist.
- . Any asbestos left *in situ* shall be clearly labelled and regularly inspected to ensure that it is not deteriorating or contributing to an elevated health risk.
- . Property owners in conjunction with agents or employers shall establish procedures to ensure that persons entering the area where asbestos is present shall, unless assessment of the risk indicates that it is unnecessary, wear appropriate protective equipment and, in all cases, minimise the disturbance of the asbestos product. "



" **4.3 PROPERTY OWNERS**

Property owners or lessees, or managers or their agents have a responsibility in relation to asbestos, to:

- . identify all asbestos products within their properties and to record the location and condition of such asbestos in a register in accordance with Section 3.5
- . inform tenants of any asbestos treatment which may become necessary
- . ensure that all contractors required to do work are informed of the presence of asbestos
- . arrange for regular periodic inspections of properties by a competent person whose advice shall be taken on any treatment indicated. "



8. Worksafe Australia, August 1988 "Asbestos: Code of Practice and Guidance Notes" Table 1: Determination of Appropriate Control Method for Asbestos."

"DEFER

Appropriate when:

Negligible risk of exposure

and

Asbestos inaccessible and fully contained

or

Asbestos stable and not liable to damage

Not appropriate when

Possibility of deterioration or damage

Airborne asbestos dust exceeds recommended exposure standard

Advantages

No initial cost

Cost of removal deferred

Disadvantages

Hazard remains

Need for continuing assessment

Asbestos management programme required

ENCAPSULATE OR SEAL

Appropriate when:

Removal difficult or not feasible

Firm bond to substrate

Damage unlikely

Short life of structure

Readily visible for regular assessment

Not appropriate when:

Asbestos deteriorating

Application of sealant may cause damage to material

Water damage likely

Large areas of damaged asbestos



Advantages

Disadvantages

Quick and economical for repairs to damaged areas

Hazard remains

May be an adequate technique to control release of asbestos dust

Cost for large areas may be near removal cost

Asbestos management system required

Eventual removal may be more difficult and costly

ENCLOSURE

Appropriate when:

Not appropriate when:

Removal extremely difficult

Enclosure itself liable to damage

Fibres can be completely contained within enclosure

Water damage likely

Most of surface already inaccessible

Asbestos material cannot be fully enclosed

Disturbance to, or entry into enclosure area not likely

Advantages

Disadvantages

May minimise disturbance to occupants

Hazard remains

Provides an adequate method of control for some situations

Continuing maintenance of enclosure

Asbestos management program required

Need to remove enclosure before eventual removal of asbestos

Precautions necessary for entry into enclosure



REMOVAL

Appropriate when:

Surface friable or asbestos poorly bonded to substrate

Asbestos is severely water damaged or liable to further damage or deterioration

Located in A/C duct

Airborne asbestos exceeds recommended exposure standard

Other control techniques inappropriate

Not appropriate when:

Located on complex and inaccessible surfaces

Removal extremely difficult and other techniques offer satisfactory alternative

Advantages

Hazard removed

No further action required

Disadvantages

Increases immediate risk of exposure especially to removal workers

Creates major disturbance in building

Often highest cost, most complex and time consuming method

Removal may increase fire risk in building; substitute required
Possible contamination of whole building if removal done poorly"



"12. LABELLING AND WARNING SIGNS

Material containing asbestos should be labelled as follows:

CAUTION

CONTAINS ASBESTOS FIBRE

AVOID CREATING DUST

SERIOUS INHALATION HEALTH HAZARD

All identified asbestos in a building or other structure should be labelled so that it is clearly visible to a person using the area, until it is finally removed. This requirement applies equally to asbestos in good condition and to treated asbestos. Labels used for this purpose must identify the material as containing asbestos and should comply with Australian Standard 1216.(7) All warning signs should comply with Australian Standard 1319.(8)

Enclosed areas, and areas which contain encapsulated or sealed asbestos, should be labelled or otherwise signposted with cautionary warning signs in accordance with Australian Standard 1319.(8) The purpose of these cautionary warning signs is to ensure that the asbestos is not worked upon without correct precautions being taken and to ensure that, in the event of damage, the occurrence is reported immediately so that corrective action can be taken.

An example of these signs is shown below.

CAUTION ASBESTOS

RESPIRATORY PROTECTION MUST BE WORN

NO ADMITTANCE - ASBESTOS

REPORT TO PROPERTY MANAGER

An alternative international (9) symbol may also be used for labelling of asbestos-containing products."



APPENDIX 3

Laboratory Results
&
DUS FM Condition Assessment Form