

MAINTENANCE PLANS

REQUIREMENTS FOR CAPITAL GRANTS

The regular maintenance of school facilities is an economic means of maximizing the useful life of capital assets. Further, relief from the consequences of any neglect of maintenance will allow the capital funding available to be utilised in the most effective way for upgrades of existing schools to meet current curriculum and teaching requirements.

From 2003 the Commonwealth requires that all schools have an appropriate **maintenance plan** in place when submitting an application for consideration of capital funding. Given this requirement and with due regard to best practice in the care of school facilities the CSO will now expect that all schools from 2004 will have a document maintenance plan. This will be a requirement for any capital support application.

A maintenance plan is a document outlining the school's proposed actions to repair and maintain its physical infrastructure (buildings, grounds, fixed assets) over a period of time. Many schools already have such plans as a matter of course.

What is an acceptable maintenance plan?

It is expected that a written maintenance plan will include reference to or evidence of:

- A brief statement of the school's maintenance policy and objectives from which a maintenance plan emanates
- Evidence of a condition of assessment process or proforma for such
- An expression of the annual financial allocation to the implementation of a maintenance program (authoritative sources suggest that for adequate maintenance of buildings an ongoing minimum outlay of 1% of the insured value of the buildings is necessary on an annual basis)
- A statement on the routine for or regularity of maintenance assessments or audits (eg. Annual, bi-yearly, five yearly)
- A listing of statutory audits that are regularly conducted in the school (eg. Fire services, electrical appliances)
- A process for identifying maintenance concerns and reporting on maintenance work completed
- Regular updating of the maintenance plan to give a forward picture of maintenance needs and to allow the planning of the necessary work accordingly.

In an effort to help those schools that do not have a document maintenance plan I have attached a sample maintenance plan that can be adapted a sample maintenance plan that can be adapted for individual school use and a copy of St Philomena's School plan that was submitted for this year's CBGA application. Also attached for your reference is a suggested list and process for facilities management and maintenance of school buildings.

MODEL MAINTENANCE POLICY

Rationale

The regular maintenance of school facilities is an economic means of maximizing relief from the consequences of any neglect of maintenance. Planned maintenance will allow the limited capital funding available to be utilised for major upgrades of existing schools to meet current curriculum and teaching requirements, as well as for the provision of new schools.

Policy

The St Philomena's School Maintenance Policy and Plan will outline the school's proposed actions to repair and maintain its physical infrastructure (buildings, grounds, fixed assets). The cost of repairs and maintenance is to be included in the school's budget from year to year. The Maintenance Plan is to cover a five year period and is to be updated annually. Regular updating is to be carried out to show a forward picture of the maintenance needs of the school and to allow the planning of the necessary work to be carried out. The Maintenance Plan is to cover both internal and external areas of the school.

Consequences

The effective implementation of this policy and its associated guidelines will ensure that:

- Annual update is completed by the Principal or his/her representative.
- An annual audit of the school facility will be undertaken, repairs and maintenance needs identified, costed and submitted as part of the annual budget for approval.
- All individual spaces must be checked including non teaching spaces, travel, storage, stairs, verandahs, toilets, administration, library and teaching areas.
- A register on statutory compliance audits eg tagging of all electrical appliances, fire services, is maintained.
- Buildings currently under construction or refurbishment at the time of each annual report will not be included until completion and at such time will be included in the report.

Conditions Codes

3	Good
2	Satisfactory
1	Poor

INTERNAL CONDITION REPORT

BLOCK

DATE

SPACE NO	DESCRIPTION	CONDITION CODE	COMMENT (if required)
	Painting		
	Floor coverings		
	Electrical		
	Security		
	Furnishings		
	Painting		
	Floor coverings		
	Electrical		
	Security		
	Furnishings		
	Painting		
	Floor coverings		
	Electrical		
	Security		
	Furnishings		
	Painting		
	Floor coverings		
	Electrical		
	Security		
	Furnishings		
	Painting		
	Floor coverings		
	Electrical		
	Security		
	Furnishings		
	Painting		
	Floor coverings		
	Electrical		
	Security		
	Furnishings		

Conditions Code

3	Good
2	Satisfactory
1	Poor

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Principal / Representative

EXTERNAL CONDITION REPORT

BLOCK

DATE

ITEM	CONDITION CODE	COMMENT (if required)
Painted areas		
Roof, gutters, downpipes etc		
Verandahs, walkways etc		
Electrical		
Security		
Fixed accessories (seating, racks, equipment)		
Concrete and paving		
Grounds and other		
Services (water, gas, fire, etc)		

Condition Code

3	Good
2	Satisfactory
1	Poor

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Principal / Representative

Three (3) Year Maintenance Plan

ITEM	2003	2004	2005
<u>BLOCK A – ADMINISTRATION</u>			
<u>BLOCK B</u>			
<u>BLOCK C</u>			

FACILITIES MANAGEMENT

MAINTENANCE OF SCHOOL BUILDINGS

A SUGGESTED LIST AND PROCESS

The following pages provide:

GENERAL (PREVENTATIVE MAINTENANCE) PROGRAM

A list of areas which could be the subject of a systematic approach to developing a maintenance plan.

This is one in two forms:

- a) a list of major headings with the areas that should be inspected regularly; and
- b) a more detailed statement about what should be looked for or attended to in these areas.

SAFETY ISSUES INSPECTION (ESSENTIAL SERVICES MAINTENANCE)

A list of the major safety issues which need to be monitored.

GENERAL MAINTENANCE ISSUES

A. PROGRAM – List of areas to be Inspected Regularly

A program of inspection is to be established so that, on a regular basis, the complete fabric of the building is monitored, recorded and the appropriate action taken. This list needs to be made school and building specific.

1. Plumbing	Location of Inspection	Comments or Problems	Action Taken or Referred to	Date of Inspection
<ul style="list-style-type: none"> a) hot water units b) roofing and accessories <ul style="list-style-type: none"> i) gutters ii) down pipes iii) accessories c) storm water sumps d) toilets and cisterns e) fire service f) plumbing and fittings <ul style="list-style-type: none"> i) troughs ii) toilets iii) urinals iv) basins v) taps vi) fume cupboards vii) acid bays viii) eye washers g) gas heaters h) other items, eg Air conditioners 				
<p>2. Electrical</p> <ul style="list-style-type: none"> a) heaters b) cooling systems c) lighting d) power e) computer outlets and systems f) other items 				
<p>3. Carpenter</p> <ul style="list-style-type: none"> a) locks and hinges b) doors c) timber windows d) cupboards e) chalkboards 				

<ul style="list-style-type: none"> f) pinboards g) termites h) fascias i) wall sheeting j) eaves linings k) other items 				
<p>4. Flooring and Paving</p> <ul style="list-style-type: none"> a) ceramic tiles b) brick paving c) carpet d) vinyl e) other f) asphalt paving 				
<p>5. External Building Materials</p> <ul style="list-style-type: none"> 1. brick work 2. concrete 3. wall sheeting 4. other 				
<p>6. Paint work</p> <ul style="list-style-type: none"> a) per room b) walls c) ceilings d) doors e) architraves, skirting, etc f) cupboards 				
<p>7. Windows</p> <p>Glazing Locks/locking mechanisms</p>				
<p>8. Internal Wall and Ceiling Materials</p> <p>plaster brick work other</p>				

B. Maintenance Issues – Some specific issues

1. Plumbing

1.1 Hot water services (applicable most mains pressure models)

1.1.1 relief valves in hot water units should be released on a six monthly basis so as to clear the overflow pipe of collection of grit, dirt and even spiders. This will overcome the possibility of a build up in pressure and a possible bursting of the “break” valve.

1.1.2 hot water units, where possible, should be drained annually to clear the bottom of the tank of sediment build up. The cold water supply connection should be removed and a hose inserted in the inlet hole. When the overflow becomes clear, it could be assumed that most sediment has been removed.

I. Roofing, Guttering, Box Gutters, Downpipes and Flashing

- II. roofing should be checked, cleared out or repaired on a regular basis to prevent blockages and overflows. Regularity will depend on:
- III. adjacent trees, due to build up of leaves:
- IV. lodgement of tennis balls, plastic bags, etc;
- V. abuse from children climbing on roof;
- VI. excessive dust on new building sites.

1.2.2 at the same time, check that wire guards have been positioned accurately to prevent entry of unwanted objects into the drainage system.

1.2.3 Box gutters can be swept clear with a broom.

1.2.4 Roofs of all types should be visually checked to determine if any sections have lifted or moved. Refer in particular to cappings and flashings. Also check that no sections of the roof are holding water. Areas of roofing which are rusting will often indicate that the roof is holding water.

1.3 Stormwater Lines and Pits

1.3.1 Stormwater lines should be cleaned out regularly to minimize blockages. This should be done by inserting a hose with good water pressure.

1.3.2 Stormwater pits should be lifted and pits cleaned out monthly, particularly in the autumn to keep access to storm water lines open and remove build up of leaves, debris and silt. A drop-in cage maybe considered to catch the run off of materials prior to entering the system.

1.3.3 The overall stormwater system should be cleaned out by a commercial operator using a back pressure hose (perhaps every five years) to remove build up, according to local conditions.

1.4 Tap Washers

- 1.4.1 periodic replacement of all tap washers
- 1.4.2 tap outlets with ceramic washers require little or any maintenance, unless they become dislodged or break.

1.5 Toilets

- 1.5.1 pipe seals – seals should be checked and replaced to retain the seal where necessary, on an annual basis. Flooding may result if the seal deteriorates.
- 1.5.2 Cisterns, again, should be checked on an annual basis. Washers should be replaced and wearing parts oiled.
- 1.5.3 Push buttons and surrounds to concealed cisterns should be checked for movement and the surrounds re-cemented or tightened as necessary.
- 1.5.4 Replacement of toilet paper holders with those which restrict toilet paper being removed in bulk.

1.6 Fire Service

- 1.6.1 Ensure all hoses are turned off.
- 1.6.2 All hydrants, hose reels and extinguishers are to be maintained and tested in accordance with the Australian Standards.

AS 1851.4-1988	Hydrants
AS 1851.2-1988	Hose Reels
AS 1851.1-1989	Extinguishers

By a registered testing plumber on an annual or six monthly basis are required. (See next section: Safety Issues Inspection).

1.7 Special Plumbing Devices

1.7.1 Science

Check for the safe operation of gas and water cut-off devices.
Check for the adequacy of any special chemical waster trap devices.
Fume cupboard, acid bays and eye washers operation should be checked.

1.7.2 Art

Check for the adequacy of any clay-arrestor plumbing device.

2. ELECTRICAL

Disconnect electrical supply prior to maintenance of items.

Electrical and Gas Heaters

Fan maintenance – fans should be cleaned annually to avoid a build up of dust or fluff, which may cause the fan to short out or burn to. Possibly use a vacuum cleaner.

Remove and wash filters where removable. A number of new heaters allow for easier removal which will assist maintenance.

Electrical Fittings – General

All electrical fittings, particularly power points and switches, are to be checked annually to ensure that they are not loose, or have come adrift from the wall or ceiling surfaces.

PCBs

location of PCB capacitors in fluorescent lights (manufactured pre 1980) needs to be documented and monitored.

3. MECHANICAL SYSTEMS

3.1 Evaporative Cooling System

The evaporative cooling systems should be cleaned by a mechanical contractor twice a year.

The filters are to be washed and cleaned.

Suggested times: 1st week of November
 1st week of April

Air Conditioning System

it is suggested that during the warmer months the filters be removed and washed.

Suggested times: 1st week of November
 1st week of December
 1st week of January
 1st week of February
 1st week of March

4. CARPENTER

4.1 Locks and Padlocks

- 4.1.1 Graphite powder should be applied in the hole and locking parts on an annual basis. Generally oils and lubricants should not be used as they tend to attract dust and grit.
- 4.1.2 Surrounds to locks, where fixed by screws, should be checked on a half-yearly basis and tightened if necessary.

4.2 Door Hinges

- 4.2.1 Hinges should be oiled on an annual basis. Any door that tends to creak may result from the rusting hinge, which should be removed and cleaned.
- 4.2.2 Where doors have become adrift from the hinges, make good to timbers, replace screws with full thread along length to obtain greater adhesion.

4.3 Doors and Timber Frames

- 4.3.1 doors, particularly where exposed or not adequately protected from weather, tend to move according to weather changes. Doors should be checked annually for deterioration, particularly end grain timbers and the opening up on joints in the timbers. Dark coloured doors facing the sun can warp as the outside expands.
- 4.3.2 Doors exposed excessively to the sun, may require more regular painting than other doors.
- 4.3.3 Toilet partitions and doors should not be hosed down. Partitions, if wet, should be wiped down immediately.
- 4.3.4 Begin replacement program for all external doors which are not solid core or are showing significant deterioration.
- 4.3.5 Check all door closers and door hold-open devices.
- 4.3.6 Check all fire-control doors.

4.4 Chalkboards

- 4.4.1 excess cleaning and washing of the face of chalkboards, particularly with detergent, will cause an early breakdown of the surface. Generally refer to the manufacturer's instructions to limit the clearing process.

4.5 Whiteboards

- 4.5.1 ensure that water based pens and not spirit based pens are used on whiteboards. Spirit based pens may permanently mark or stain the surface.

4.6 Dry Rot and Termites

- 4.6.1 in buildings with timber sub-floor structures, ensure that adequate ventilation is maintained below floor level. Look for tell-tale signs of termite trails and seek advice, if such trails are visible. Timber linings, eg, skirting and architraves, should periodically be prodded, throughout the building, to ensure that the base timbers have not been attacked by termites.

- 4.6.2 Seek advice if tell-tale timber dust droppings and small holes of woodworm or any fungal growth occurs in the building. Fungus can live in the brickwork without flowering for long periods and then attack timber at a later time.
- 4.6.3 Sudden changes in material colours often indicate moisture penetration. Do not cover up damp patches, but report them immediately.
- 4.6.4 Ensure that earth levels, external to building, are kept well below floor level. Termites may enter a building within ground cover, through a vent or opening.

5. FLOORING, WALL SURFACES AND PAVING

All floor surfaces are to be slip resistant and should be maintained in a clean and slip resistant conditions. All floors should be maintained free of trip hazards.

5.1 Ceramic Tiles – Wall and Floor

- 5.1.1 retain spare tiles for maintenance purposes.
- 5.1.2 Ceramic tiles should be checked on an annual basis to determine if ‘drummy’. Where necessary, defective areas and cracked cement should be made good.

5.2 Carpet Flooring

- 5.2.1 check for general spillages and damage – refer Manufacturer’s List for Maintenance.
- 5.2.2 Frayed edges should be repaired to minimize deterioration and even tripping to children.
- 5.2.3 Loose threads should be removed with a knife or scissors, and not allowed to unravel further.
- 5.2.4 Carpet floors, particularly broadloom, require stretching when they have been laid for a period of time. Arrange for this work to be undertaken through the carpet layer or the architect for the project.

5.3 Vinyl

- 5.3.1 Most vinyl floors do not require to be polished, but mopped and buffed only. Polish build up, where applied, will result in the need for excessive maintenance, and removal of build up.

5.4 Clearing Brick Paving etc

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|-------|--------------------------|---|
| 5.4.1 | Brick Paving | Sweep with soft broom to remove surface dust. Wash with warm water and weak detergent and rinse with clean water. |
| 5.4.2 | Quarry and Ceramic Tiles | Wash with warm water and detergent and rinse with clean water. Squeegee to remove surplus water. |
| 5.4.3 | Granolithic or Concrete | Scrub with warm water and detergent. Rinse with clean water. Squeegee to remove surplus waste. |

5.5 Asphalt Paving Works

5.5.1 Generally, it could be stated that the more use the surface receives from general domestic traffic, the better the wearing surface.

5.5.2 Considerable care should be taken to prevent the following:

- a) access of heavy commercial vehicles to the paved area.
- b) Droppings from diesel engines onto the asphalt should be removed as diesel will destroy the surface

5.6 Other Surfaces

5.6.1 Glazed wall tiles wash down with warm water and weak detergent. Rinse with clean water and polish with soft cloth.

5.6.2 plastics and Laminates remove dirty marks with cellulose polish. Wipe over with damp cloth and dry with a soft cloth.

5.6.3 PVC coated fabric wash down with warm water and weak detergent. Remove dirty marks by brushing with a soft brush and rinse with clean water.

5.7 Specific Areas

5.7.1 Workshop floors (eg Science, TAS, Art)

Check that the floor surfaces are not being affected by the action of chemicals.

5.7.2 Canteen

Check that the floor covering is not cracking, especially around the turned-up sections at the edges.

6. PAINTWORK MAINTENANCE

(Existence and whereabouts of lead-based paint needs to be documented)

6.1 Gloss paint, semi-gloss paint, clean water and wipe down paint, flat oil paint. Wash down with warm water and weak detergent. Rinse with chamois leather or soft cloth.

6.2 Painting Generally Paintwork generally deteriorates with time, due to:

1. exposure, use and damage
2. material base application
3. quality of paint preparation
4. paint quality

Building surfaces are, of course, subject to repainting, according to deterioration. Some surfaces eg timbers, may fail if not protected by an adequate coat of paint.

7. METAL WINDOW CLEANING

- 7.1 Glass Wash down with clean water, and leather with damp chamois cloth.
- 7.2 Powdercoated Clean with warm soapy water applied with a close or leather. Dry and polish with a soft dry cloth.
- 7.3 Windows Windows should be washed on an annual basis to avoid pitting and discolouration. Hinges and catches should be checked and oiled. Modern powdercoat windows require little maintenance unless badly scratched. Touch up paint may be required.
- 7.4 Stainless Steel Clean with warm soapy water, fry off with a leather and polish with a soft cloth.

8.0 IRONMONGERY CLEANING

- 8.1 Powdercoat Clean with warm soapy water applied with a cloth or leather. Dry and polish with a soft dry cloth. Note powdercoat may be damaged when used on taps in areas such as Art & Craft areas, where the abrasive nature of the materials may affect the surface.
- 8.2 Chromium Plate Clean with warm soapy water applied with a cloth or leather. Dry and polish with a soft, dry cloth.
- 8.3 Stainless Steel Clean with warm soapy water, dry off with a leather and polish with a soft cloth.

9. CURTAIN TRACKS

- 9.1 Tracks should be inspected on an annual basis, cleaned and oiled. A liberal application of “dry lube” should be used as this attracts little dust.

10. FABRIC MAINTENANCE

(Eg, Carpet, Pinboards and upholstery materials)

Where possible, refer Manufacturer’s List of Maintenance.

Permanent marking can generally be avoided if the material is cleaned immediately after an accident has occurred.

A general list of stain removal agents is listed below, although each material should be checked prior to the actual method being applied.

Mop up excess as soon as possible with a sponge or cloth.

Scrape off surplus with a knife edge.

Sponge with a solution of carpet shampoo or liquid detergent, working from well outside the stain in a circular motion towards the centre (this avoids spreading the stain).

Sponge with a household dry cleaning fluid and blot

Sponge with mentholated spirits and blot.

Lubricate the stain with petroleum jelly or glycerin.

Apply nail polish remover.

Sponge with turpentine (or substitute).

Cover with blotting paper and press with cool iron. This melts the wax, which is soaked up by the blotting paper.

Freeze with an ice cube.

SAFETY ISSUES INSPECITON

A. MAINTENANCE OF ESSENTIAL PROTECTION SERVICES

Environmental Planning & Assessment Act and Part 2 Local Government (orders) Regulation, 1993, has clearly established that all Essential Services for the Safety of a Building be maintained. The owner of a building is now responsible to maintain the Essential Services listed below.

A log book is to be established as a general rule by the School to record the maintenance requirements.

Some councils formally notify the school of such requirements and request a formal response.

Essential Service to be Inspected or Tested	Nature of Inspector or Test Frequency	Suggested Testing Authority
Emergency Lighting	6 monthly	Local Electrician
Exit doors	3 monthly inspection to confirm exit doors are intact, operational and fitted with conforming hardware	Local Carpenter
Exit lighting	6 monthly	Local Electrician
Fire Hose Reels	6 monthly	Fire Authority or registered testing contractor
Fire Extinguishers	6 monthly	Fire Authority or registered testing contractor

(There may be other specific equipment, such as external wall drenching sprinklers, which may have been part of the condition of Council consent and which will need to be checked on a regular basis.)

Some of the areas above may be inspected at slightly longer intervals, depending on the requirements of Council and the Building Code of Australia.)

B. MEANS OF ESCAPE – EMERGENCY EGRESS

It is important that the following be monitored regularly.

- Foyers, passages and stair landings must be kept clear of obstructions at all times.
- Escape passage should not have chemicals or inflammable materials stored on their route.
- All doors designated fire escape doors should have locks that do not require keys to open in the direction of escape and which can be operated by one hand in one action.
- All decorative finishes or display pictures in fire corridors should be of non-combustible materials.
- Keep access to all fire service hoses clear of obstruction. All fire extinguishing equipment is to be checked as required regularly and made good.
- First Aid equipment should be placed for easy access to all, and clearly labeled as such.

C. OTHER GENERAL SAFETY ISSUES WHICH MAY REQUIRE INSPECTION AND AN APPROPRIATE PLAN OF ACTION DEVISED.

(This list is not meant to be definitive or exhaustive but rather indicative of major areas of concern. There may be site specific situations which modify the advised outcomes.)

- **Railings (height and construction) and balustrades (width and construction) on verandahs, stairs and retaining walls.**

Railings which are poorly designed and do not act as adequate deterrent to children climbing on or squeezing through need to be modified.

- **Door Locks**

There should be only one locking device on a door. This lock must be operated from the inside without a key and with one hand.

- **Storage**

There should be no storage of flammable materials under stairs.

- **Padlocked Grilles on Stairwells**

If there are grilles on stairwells (and the like) which are padlocked after school closes, the locking mechanisms on these grilles need to be modified to allow egress from inside without a key. A management plan should be put into place in the interim.

- **Egress from Second Storey**

Two storey buildings should provide a second means of egress from the second floor of a building.

- **Mezzanines**

If a school has a mezzanine level in any building and the mezz

- **Electrical extension cords and power boards**

The extensive use of electrical extension cords and power boards needs to be discouraged. Their use indicate that the level of power supply the room/s is likely to be inadequate, leading to the risk of frequent power overload. Their use also increases the possibility of tripping.

Last Review November 07. Next Review November 08