

# How to use the Cyclical Maintenance Provision Calculator

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## Purpose

The purpose of this guidance is to:

- › provide detailed guidance on the calculation of your cyclical maintenance provision using the provided calculator

The use of this calculator does not replace the requirement to engage with professionals, review the condition of your school, and to provide this information to your school auditor as means of evidence for the calculation of the provision.

For further information about cyclical maintenance please see [section 4.20 of the Financial Information School Handbook](#).

## Glossary

Term	Definition
Year of calculation	End of school financial year (31 December).
Inflation Rate	General increase in prices and fall in the purchasing value of money (\$1 today is worth less than \$1 in 10 years). Average inflation can be calculated by visiting the Reserve Bank of NZ website and using their <a href="#">inflation calculator</a> .
Cyclical maintenance project (CM project)	Work to be undertaken such as a repaint or resurface as part of the wider cyclical maintenance programme.
10-Year Property Plan (10YPP)	You are required to develop your 10YPP in conjunction with a Ministry-appointed external consultant to ensure that your school or kura is well maintained, and the physical environment supports teaching and learning, within the budgets provided by the Ministry. The 10YPP sets out the capital property work to be completed over a 10-year timeframe. The 10YPP <i>should</i> also include a cyclical maintenance plan.
5 Year Agreement (5YA)	A capital funding budget to use over a 5-year period, helping schools and kura plan for capital upgrades as part of the 10YPP process. This funding is to upgrade, modernise or replace existing Ministry-funded buildings and facilities.
Integrated schools	<p>Integrated schools have the same responsibilities for cyclical maintenance as state schools do. The property maintenance plans (10YPP and 5YA equivalents) are prepared by the Proprietor rather than a Ministry Property advisor or consultant.</p> <p>It is important that a state integrated schools work closely with their proprietor to obtain sufficient information to prepare the cyclical maintenance provision calculations.</p>

## Key

	Manual input cells
	Calculations cells [no need to adjust]
	Linked to other cells [no need to adjust]
	Box to enter comments providing backup, reference to documentation

## Gathering documentation which will assist in the preparation of your plan

- › **Cyclical maintenance plan (CM plan):** Latest CM plan included with your schools or kura 10YPP
- › **Painting contract:** Current painting maintenance contract (if you have one). If you have a painting contract you will need to record a liability in your financial statements for painting carried out but not yet paid for, and a painting contract can be used as the basis of your CM provision because it provides an estimate of the cost of painting and when the next paint will be required.
- › **Other documentation:**
  - › Prior year cyclical maintenance plan and provision
  - › Recent pieces of painting work completed (invoices)
  - › Quotes received
  - › Details of Ministry-owned school buildings as available on the [Ministry Property Portal](#)
  - › For integrated schools, details of Proprietor owned buildings

Further information about supporting documentation can be found in [section 4.20 of the Financial Information School Handbook](#).

If you have major capital works or redevelopment works occurring at your school or kura and need assistance in your cyclical maintenance calculation, please contact your Ministry School Finance Adviser or Property Adviser.

## Preparing the calculation of cyclical maintenance

A CM plan can be prepared and managed a number of ways. Schools and kura will either:

- a) manage their own CM plan determining when painting will be completed and engaging contractors for maintenance (wash-downs etc) or,
- b) contract this out to an external provider who will manage painting and a painting maintenance plan on the schools or kura behalf.

Two methods for how you could calculate your cyclical maintenance provision are outlined below:

1. [Calculation of the cyclical maintenance provision where no painting contract exists or is not used as the basis of the calculation](#); or
2. [Calculation of the cyclical maintenance provision where a painting contract with maintenance exists](#). (This guidance also includes the calculation of your painting contract liability.)

## Method 1: Calculation of cyclical maintenance provision where no painting contract exists.

1. Where a CM plan was prepared at the same time as your 10YPP, all individual CM projects should be entered from the CM plan on the **'Calculation'** tab. The information which should be extracted is:
  - › Name of the CM project (make sure this is unique and identifiable e.g., S Block, C Block road front, Gym, etc)
  - › Year next expected (this is the year you expect the work to be undertaken)
  - › Cost (this is the cost estimated at the time the 10YPP was prepared, note: this may not reflect the current rate but is a starting point).

**SPREADSHEET TIP:** If there are not enough rows in the **'Calculation'** tab for all your CM projects, select **row 25 to 101** and unhide by right clicking and clicking unhide. You also will need to unhide **rows 123 to 199**. This allows for more projects to be recorded for those larger schools and kura.

2. Update the last year completed column in the **'Calculation'** tab. This represents when this CM project was last completed. If this was a painting job it is likely to have been completed every 7-10 years.

### **TIP: If you don't have a current CM plan or want to check the size of your painting job**


The [Ministry Property Portal](#) includes the Property Maintenance Grant (PMG) inputs and calculation. This grant is broken down by Ministry-owned building and includes the estimated paint size in m<sup>2</sup>.

Go to the [Ministry Property Portal](#) and select your school or kura by typing in either the name or number of the school or kura in the search box and clicking submit.


Select a school:

  
#338 - Hornby High School  
#3380 - Hornby Primary School  
#3507 - South Hornby School  
#3521 - St Bernadette's School (Hornby)  
#70002 - South Hornby Kindergarten

SUBMIT

Once the information is shown for your school or kura, go to the latest confirmed allocation and click on the little eye symbol. 

Grant Calculations Back Payments

STATUS	PERFORMED	SCHOOL YEAR	SCHOOL ALLOCATION	CORROSION ALLOCATION	ISOLATION ALLOCATION	TOTAL ALLOCATION	
Confirmed	31-May-2021	2021	\$113,391.69	\$0.00	\$0.00	\$113,391.69	

Scroll down until you see the table below under "blocks". Make sure 'show excluded blocks' is not ticked otherwise previously disposed of school buildings and school board owned buildings will be included.

## Blocks

☐ Show Excluded Blocks

This list provides you with a summary of your Property Maintenance Grant (PMG) broken down by school buildings and includes the painting surface in m<sup>2</sup>.

			ELIGIBLE	RESIDENTIAL	FLOORS	GENERAL	PAINTED	PAINT	MCW	RESIDENTIAL	GROSS AREA	MOE AREA
⚙ #C1 - Block C1 - AUDITORIUM	School Building	In Use	✓	✗	2	642m <sup>2</sup>	Both	963m <sup>2</sup>	642m <sup>2</sup>	0m <sup>2</sup>	642m <sup>2</sup>	642
⚙ #C2 - Block C2 - MUSIC SUITE	School Building	In Use	✓	✗	1	231m <sup>2</sup>	Roof	231m <sup>2</sup>	231m <sup>2</sup>	0m <sup>2</sup>	231m <sup>2</sup>	231
⚙ #I - Block I - GYMNASIUM CHANGE	School Building	In Use	✓	✗	1	609m <sup>2</sup>	Both	1,218m <sup>2</sup>	609m <sup>2</sup>	0m <sup>2</sup>	607m <sup>2</sup>	609
⚙ #P - Block P - AOS	School Building	In Use	✓	✗	1	3,345.62m <sup>2</sup>	Roof	3,345.62m <sup>2</sup>	3,345.62m <sup>2</sup>	0m <sup>2</sup>	3,345.62m <sup>2</sup>	3,345.62
⚙ #Q - Block Q - CIM	School Building	In Use	✓	✗	1	1,119.21m <sup>2</sup>	Roof	1,119.21m <sup>2</sup>	1,119.21m <sup>2</sup>	0m <sup>2</sup>	1,119.21m <sup>2</sup>	1,119.21
⚙ #T - Block T - Plant Enclosure	School Building	In Use	✓	✗	1	98.37m <sup>2</sup>	Roof	98.37m <sup>2</sup>	98.37m <sup>2</sup>	0m <sup>2</sup>	98.37m <sup>2</sup>	98.37
⚙ #Q - Block Q - Homebase 3	School Building	In Use	✓	✗	2	821.6m <sup>2</sup>	Both	1,232.4m <sup>2</sup>	821.6m <sup>2</sup>	0m <sup>2</sup>	0m <sup>2</sup>	821.6
⚙ #R - Block R - Homebase 2	School Building	In Use	✓	✗	2	1,017.94m <sup>2</sup>	Roof	508.97m <sup>2</sup>	1,017.94m <sup>2</sup>	0m <sup>2</sup>	0m <sup>2</sup>	1,017.94
⚙ #S - Block S - Homebase 1	School Building	In Use	✓	✗	2	1,017.94m <sup>2</sup>	Both	1,526.91m <sup>2</sup>	1,017.94m <sup>2</sup>	0m <sup>2</sup>	0m <sup>2</sup>	1,017.94
⚙ #2 - Covered Way	Covered Way	In Use	✓	✗	1	64.75m <sup>2</sup>	Structure	64.75m <sup>2</sup>	64.75m <sup>2</sup>	0m <sup>2</sup>	0m <sup>2</sup>	185
⚙ #3 - Covered Way	Covered Way	In Use	✓	✗	1	64.75m <sup>2</sup>	Structure	64.75m <sup>2</sup>	64.75m <sup>2</sup>	0m <sup>2</sup>	0m <sup>2</sup>	185
Eligible Totals						9,032.18m <sup>2</sup>		10,372.98m <sup>2</sup>	9,032.18m <sup>2</sup>	0m <sup>2</sup>	6,043.2m <sup>2</sup>	9,272.68

**Note:** At the top of the PMG calculation this shows how much of your PMG grant is a **contribution** towards your cyclical maintenance. This is not a proxy for the actual cyclical maintenance cost you will incur. You still need to complete the calculation to determine the total CM provision (and annual charges) required to be recognised each year.

Use the list of the school buildings to create a list of CM projects. Projects to consider are internal/external painting, roof repaints, carpark resurfacing and sports field resurfacing. Compare this list to your understanding and knowledge of the school or kura and determine whether any school buildings or other areas are missing from this list. Use this list to compile the **'Calculation'** tab with the names of the CM projects to be completed.

### 3. Review the list you have compiled in the **'Calculation'** tab including:

- › Cyclical maintenance project (CM project)
- › Year last completed
- › Year next expected

Consider:

- › Is the breakdown of CM projects at the appropriate level? Could they be combined into a larger project to be more cost effective?
  - › Are there any projects which have occurred or are planned to occur which would change the grouping/phasing of when the work is required? Does a project need to be separated into multiple smaller projects?
  - › Are all Ministry-owned school buildings included in this spreadsheet? Is there any missing? If so, add them and update the required inputs.
  - › Have you included any board-owned school buildings? These should not be included for the purpose of the CM provision calculation.
4. A key input into the provision calculation is the estimated cost of each CM project. There are three options on how this could be calculated:

### Option 1: Recently completed cyclical maintenance plan

If you have recently completed your 10YPP, you may be able to place reliance on the work completed by the property consultant. It is important for the board to assure itself that the estimated cost included in this plan reflect the latest cost to paint the school or kura and reflects the latest condition assessment. While your schools 10YPP is required to contain a CM plan, Te Tāhuhu | The Ministry does not review and provide assurance to the

accurateness of the associated liability for the board. It remains the boards responsibility to ensure its accuracy.

The board should request their third-party property consultant to review their CM plan and associated costs for accuracy while completing the 10YPP and 5YA process.

If you are using a plan developed by a property specialist as an input into your provision calculation you need to be able to show your auditor how you have assessed that the estimates are reasonable. This includes gaining an understanding of the estimation methods used and the data on which the estimate is based. You will need to show this understanding for all the key assumptions used, which we consider to be:

- › condition of school property;
- › estimated maintenance costs; and
- › dates the maintenance will be carried out in the future.

#### **Option 2:** Calculation by $m^2 \times \text{cost to paint (per } m^2)$

This is an estimation of the cost and can be useful when estimating based on quotes or projects recently completed.

For each CM project listed you will need to obtain the metres which are required to be painted, this goes in the 'Paint ( $m^2$ )' column (see step 2). The cost per  $m^2$  is entered in the 'Paint ( $m^2$ ) Cost (\$)' column.

The cost of painting per metre ( $m^2$ ) can be estimated from recent painting work completed. To do this, you need:

- › A recent painting invoice or quote detailing the cost per CM project;
- › Any cost relating to additional costs (e.g., working at height costs) and
- ›  $m^2$  for each CM project

Once you have gathered this information divide the cost of the paint by the number of  $m^2$ .

**Note:** The cost of paint can change significantly dependent on the structure being painted and the design of the building.

Current market estimates for painting per  $m^2$  can vary between \$35 to \$85 per  $m^2$ . The variation in cost can be due to factors, such as the type or construction of building (single v multi stories), location (urban v rural, proximity to the sea), materials (acrylic vs oil-based paint) and other health and safety requirements (scaffolding).

#### **Option 3:** Total cost for CM project

This is the total cost for that project and should be obtained from a quote or project recently completed.

If you are using prior projects completed, it is recommended that where possible this is used as a base to calculate the estimate based on option 2 above. To do this, take the total cost of the project and divide by the total  $m^2$  of that painting job.

If a cost is entered in both the 'Paint ( $m^2$ ) Cost (\$)' and the 'Estimated Cost (\$)' column, the higher of the two will be used to determine the estimated cost per painting cycle.

**REMINDER:** All of the above methods for estimating the cost should be verified by a suitably skilled professional i.e. a professional painter through either obtaining a quote, or through validation against prior quote or piece of recent work completed.

If the Board obtains information that alters the key assumptions of the CM provision, through a conversation with a suitable skilled professional, the board should also confirm this in writing (e.g. a written quote or email confirmation).

If a conversation with a suitable skilled professional confirms that the key assumptions of the CM provision remain reasonable, the board should minute this, including who the suitably skilled professional was and when this conversation occurred.

In either event it is important that the board minutes include confirmation of the key assumptions used in determining that the CM provision

5. Review and update the CM plan annually by assessing the current condition of the school or kura and reviewing the phasing of planned maintenance work taking into consideration work recently completed. Where possible, engage with professionals (i.e., painters) to get an informed opinion and gain confidence in the condition of the buildings.

As part of the 10YPP and 5YA process your property consultant may review your CM plan at the year 3 and year 5 interval, however this review is not regular enough to place sufficient reliance for the calculation of the CM provision. This may provide additional confidence to the Board that your cyclical maintenance plan remains a reasonable for timing of maintenance, but it can be inaccurate as an estimate of the expected costs.

**Note:** Once you have updated the spreadsheet to include the project in addition to the years, check **column F** which will have calculated "years since last completed". This will show an error "check dates" if the current year is greater than or equal to the year next expected. You will need to update to reflect the updated year it is expected to be completed.

6. Once these calculations are completed, cells **H4** and **H5** provide you with the totals that need to be recorded in your accounts for the year as current and non-current liabilities. You should compare this to the balance of the provision for the prior year and create a journal for the difference.

The required journal to post is:

Debit	Cyclical Maintenance Expense	\$xx	
Credit	Cyclical Maintenance Provision – Current		\$xx
Credit	Cyclical Maintenance Provision – Non-current		\$xx
Narrative: Journal to record annual cyclical maintenance provision.			

For further guidance:

- › see the worked [example – cyclical maintenance provision calculator](#).
- › review guidance provided in the [Financial Information Schools Handbook Section 4.20](#).
- › contact your Ministry School Finance Adviser, Property Adviser, or your service provider.

**Your CM plan and CM provision should be reviewed and approved by your school board annually. This approval should be recorded in the board meeting minutes.**

## Method 2: Calculation of cyclical maintenance provision where a painting contract with maintenance exists. This guidance includes the calculation of your painting contract liability.

Where a painting maintenance contract exists, it is important to know that this creates both a contract liability AND a basis for the cyclical maintenance provision. Having a painting contract does not however remove the obligation to establish and account for a cyclical maintenance provision.

- › **Painting maintenance contract liability** is a liability for work already completed. The liability represents a payable for services already provided.
- › **Cyclical maintenance provision** is a liability for work to be completed in years to come. The liability represents funds that you should be setting aside to pay for maintenance work in the future.

In the situation of a painting contract, each year, you will pay a set fee to the external contractor/provider. This could be paid monthly, quarterly, six-monthly, or annually. This will cover a portion of the work that has already been completed and the remainder will be the maintenance work such as washdowns and touch-ups which have been completed during the year to prolong the life of the paint job.

### Example:

You have a painting maintenance contract for seven years and the annual payments are \$50,000 with the total contract value being \$350,000. Reviewing the contract, you can see that the CM paint job portion is 70% of the contract value. This represents \$245,000 of the \$350,000 contract.

Please note that the Balancing \$105,000 is expensed annually as the work is completed. This amount is considered to be regular upkeep work to protect the paint and ensure its longevity.

### When service is performed, and work is completed:

Debit	Cyclical maintenance provision	\$245,000	
Credit	Painting contract liability		\$245,000
Narrative: Journal to reflect painting contract liability for work completed (This journal assumes you have a cyclical maintenance provision already in place, if not then it would need to be expensed in the current year)			

### First year:

- › full \$50,000 payment is allocated against the painting contract liability and reduces the balance to \$195,000.

Debit	Painting contract liability	\$50,000	
Credit	Bank		\$50,000
Narrative: Journal to reflect payment to painting contractor.			



Second year:

- › annual percentage of work completed is 5% of the entire contract so the full \$50,000 cannot be offset against the painting contract liability.
- › \$17,500 (\$50,000x5%) of this relates to routine repairs and maintenance work completed on the buildings and should be recorded as an expense.
- › remaining \$32,500 is allocated against the painting contract liability, therefore reducing the balance owed to \$162,500.

Debit	Painting contract liability	\$32,500	
Debit	R&M expenses	\$17,500	
Credit	Bank		\$50,000
Narrative: Journal to reflect payment to painting contractor, and to reflect amount of R&M work completed during year 2			

Each year the same calculation will need to be completed to determine the portion of repairs and maintenance work and the portion of original paint work repayment. This will continue to reduce until the contract ends and the total owed for the original work is \$nil.

Year	Painting Contract Expense (%)	Painting Contract Expense (\$)	Payment to Contractor (\$)	Reducing Value of Painting Contract Liability (\$)
1	70%	\$245,000	\$50,000	\$195,000
2	5%	\$17,500	\$50,000	\$162,500
3	5%	\$17,500	\$50,000	\$130,000
4	5%	\$17,500	\$50,000	\$97,500
5	5%	\$17,500	\$50,000	\$65,000
6	5%	\$17,500	\$50,000	\$32,500
7	5%	\$17,500	\$50,000	\$0

- The following information needs to be extracted from the painting contract and input into the **'Painting Contract Liability'** tab.

- › Term of the contract cell [C5]
- › Commencement date cell [C6]
- › Amount per year cell [C7]
- › Annual percentage of work completed cells [C12 to C26]

**TIP:** If the annual billing percentage is not split evenly across the term of the contract then you will need to manually overwrite the annual payments % in cells [D12 to D26.] If you do overwrite a cell that is a calculation or linked cell it is recommended you highlight these in yellow, so you know these are hardcoded for future updating of this spreadsheet.

Cells [D12-D26] represent the annual billing %, this is automatically calculated as even instalments over the period of the contract. This is linked to cells [C32-C46] which is the total annual payments.

- Once you have updated all the required input cells this will calculate the current and non-current liability for each year. Update cell [F4] to reflect the current year. Cells [F6 and F7] represent the total current and non-current liabilities that should be recorded for work completed but not yet paid for the year selected.

3. In addition to the calculation of the painting contract liability, the painting CM provision tab also needs to be completed. This is for painting work to be completed next. This can be based off your last painting contract and adjusted to account for an inflationary increase.
4. Update the '**Painting CM Provision**' tab to reflect the information from the painting contract liability including:
  - › Cell [L8] should reflect the main repaint of the school
  - › Cell [L9] should reflect the years until the next repaint from the date of the last repaint (i.e., the full cycle)
  - › Cell [N10] reflects the [inflation adjustment](#) for each year and represents that a \$1 today does not reflect \$1 in a year, or even seven years.

Update the CM project name and the year last completed, and year next expected to be completed.

**IMPORTANT:** Make sure you review the cyclical maintenance list to ensure that all relevant CM projects have been included. In the instance that the painting maintenance contract does not cover all painting required due to changes in the structure of the school you can add manually additional projects in the spreadsheet and overwrite the 'estimated cost (\$)' column (G) to update provision.

5. Once these calculations are completed, cells C48 and E48 provide you with the totals that need to be recorded in your accounts for the year as current and non-current liabilities. You should compare this to the balance of the provision for the prior year and create a journal for the difference.

The required journal to post is:

Debit	Cyclical Maintenance Expense	\$xx	
Credit	Cyclical Maintenance Provision – Current		\$xx
Credit	Cyclical Maintenance Provision – Non-current		\$xx
Narrative: Journal to record annual cyclical maintenance provision.			

For further guidance:

- › see the worked [example – painting contract liability and cyclical maintenance provision calculator](#).
- › review guidance provided in the [Financial Information Schools Handbook Section 4.20](#).
- › contact your Ministry School Finance Adviser, Property Adviser, or your service provider.

Your CM plan and CM provision should be reviewed and approved by your school board annually. This approval should be recorded in the board meeting minutes.