catholic diocese of christchurch
to sanctify - to teach - to care for

**Catholic Education Office**
122 Barbadoes Street
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New Zealand

**Date:** **18 October 2013**

**To:** **Diocesan School Boards of Trustees**

**From:** **Mike Nolan**

**Re:** **The Diocesan School Property Strengthening Programme**

Further to my previous (22/03/13) correspondence (*http://www.chchceo.org.nz/?sid=98*) regarding the 5YPP moratorium, I write to provide an update on:

- the current "state of play" regarding earthquake strengthening and the detailed engineering evaluation (DEE) process; and
- nine draft principles that might underpin and set the priority listing for the Bishop's 5-Year Property Programme (5YPP) … *I seek your board's feedback on these draft principles*.

## Current Situation

We have now completed the detailed evaluation phase to determine the seismic capacity of all diocesan school buildings throughout the Diocese. Each school board has received their DEE report. The summary % of the standard required for an equivalent new building at the time of assessment (%NBS) for all school buildings in each diocesan school is enclosed.

## Draft Principles & Priorities

Bishop Barry Jones will meet his health & safety obligations to the students and staff of diocesan schools. To this end the Bishop has resolved to ensure the seismic capacity of each diocesan school building/block is as near as practicable to at least 67% NBS (assessed at IL3).

This health & safety work forms the basis of the Bishop's current 5YPP – a programme of health & safety works that will be finalised at the completion of this consultation process.

The likelihood is that this work will be completed within the 5 years timeframe of this current 5YPP.

When all this required health & safety strengthening work is within 12 months of completion, planning for the Bishop's next 5YPP will commence. I will provide boards with an annual update on progress towards completion of the Bishop's required seismic strengthening work projects at his diocesan schools.

**In order to establish an order for the Bishop's 5 year programme of health & safety work the following nine draft principles are provided for your board's comment …**

**Principle 1**
Firstly, permanently strengthen the earthquake prone (<34%NBS) classroom blocks at the 5 Christchurch schools (*Burnside, Hoon Hay, Hornby, Beckenham & St Mary's*) where students were required to be taught in tents in order to undertake urgent rudimentary strengthening works to ensure the classroom blocks were no longer earthquake prone *&* provide replacement classrooms for the recently determined (07/10/13) earthquake prone and unviable to strengthen two-storey concrete frame section of Block A at John Paul II High School (Greymouth).

**Principle 2**
Secondly, permanently strengthen the earthquake prone classroom blocks where rudimentary strengthening works were undertaken (*but students were not required to be moved into tents*) to ensure the classroom blocks were no longer earthquake prone.

**Principle 3**
Thirdly, strengthen those classroom blocks at schools where the classroom blocks are not earthquake prone but are less than 67%NBS, i.e. classroom blocks that are 34% ≤ NBS ≤ 67%.

**Principle 4**
Within each of the categories that result from the implementation of principles 1, 2 and 3 the priority order is firstly determined by the technical category of the land - with TC3 land coming before TC2 land; and TC2 land coming before TC1 land; and TC1 land coming before land with no technical category (e.g. Rangiora).

**Principle 5**
Within each of the categories that result from the implementation of principles 1, 2 and 3 the priority order is secondly determined by the %NBS of the classroom block with the lowest seismic capacity.

**Principle 6**
If the implementation of principles 5 and/or 6 result in a tie, the schools will be separated by ballot.

**Principle 7**
The seventh principle being that once we commence the seismic strengthening work for one classroom block at a school (*as determined by principles 1 to 6 above*) all strengthening work at that school will be undertaken and completed.

The reason for this is that in many instances we have to bring relocatable classrooms on site in order to move students out of a classroom block to carry out the required strengthening work and we want to bring these relocatable classrooms on site once, and once only.

**Principle 8**
With the exception of the 6 schools identified in Principle 1 (*where 4 of the 6* (with1 in the planning stage) *seismic strengthening projects commenced prior to this list of nine proposed principles*), the order in which regions will undergo strengthening work will be according to the degree of the seismic hazard factor for that region (*from greatest to least hazard*). The degree of seismic hazard factor being as follows:

| Seismic Hazard Factor | Region |
|---|---|
| 0.37 | Hokitika & Greymouth |
| 0.3 | Christchurch (including Rangiora & Kaiapoi) |
| 0.25 | Methven |
| 0.24 | Fairlie |
| 0.2 | Ashburton |
| 0.17 | Pleasant Point & Temuka & Timaru |
| 0.14 | Waimate |

**Principle 9**
Whilst a large project is being undertaken, e.g. a project that involves bringing relocatable classrooms on site in order to move students out of a classroom block to carry out the required strengthening work (as per Principle 7), we will take the opportunity to complete:

- smaller seismic strengthening projects at schools further down the priority list order - e.g. the planned strengthening of Classroom 5 in Block 2 at St Joseph's School, Rangiora;

- the removal of any brick cladding (*and its replacement with light weight cladding*) that the structural engineers have identified as being a potential hazard in the event of an earthquake (*even though the building may be above 67%NBS*) and ought be removed - e.g. the already completed recladding of Block 1 at Our Lady of the Snows School, Methven.

**Please Note**: When undertaking seismic strengthening work, that most often involves intrusive work to flooring and wall lining removal, we will take the opportunity to also undertake appropriate upgrade work that has been previously identified by condition assessments as being appropriate for that room/block – e.g. carpet replacement; pinboard replacement, etc.

**What order would the implementation of the above principles generate?**

Using the %NBS information from the DEEs, this is the order of the 5YPP's seismic strengthening works that would result from the implementation of the nine suggested principles …

| Order | Seismic Hazard Factor | Principle | Technical Category | Lowest Classroom Block %NBS | School | Status |
|---|---|---|---|---|---|---|
| **1** | 0.3 | 1 | TC3/2 | <34% | OLA, Hoon Hay | **C** |
| **2** | 0.3 | 1 | TC3/2 | <34% | St Peter's, Beckenham | **WIP** |
| **3** | 0.3 | 1 | TC2 | <34% | Christ the King, Burnside | **C** |
| **4** | 0.3 | 1 | TC1 | <34% | St Bernadette's, Hornby | **WIP** |
| **5** | 0.37 | 1 | n/a | <34% | John Paul II, Greymouth | **WIPS** |
| **6** | 0.3 | 1 | TC3 | <34% | St Mary's, Christchurch | |
| **7** | 0.37 | 3 | n/a | 60% | St Mary's, Hokitika | **C** |
| **8** | 0.37 | n/a | n/a | 67% | St Patrick's, Greymouth | **CN** |
| **9** | 0.3 | 2 | TC3 | 35% | St James', Aranui | |
| **10** | 0.3 | 2 | TC3/2 | 34% | Catholic Cathedral College | |
| **11** | 0.3 | 2 | TC2 | 34% | St Joseph's, Papanui | |
| **12** | 0.3 | 2 | TC2 | 34% | Our Lady of Fatima, Mairehau | |
| **13** | 0.3 | 2 | TC2 | 54% | Star of the Sea, Sumner | |
| **14** | 0.3 | 3 | TC3 | 50% | St Albans Catholic School | |
| **15** | 0.3 | 3 | TC2 | 34% | St Patrick's, Bryndwr | |
| **16** | 0.3 | 3 | TC2 | 35% | Sacred Heart, Addington | |
| **17** | 0.3 | 3 | TC2 | 35% | St Teresa's, Riccarton | |
| **18** | 0.3 | 3 | TC2 | 36% | New Brighton Catholic School | |
| **19** | 0.3 | 3 | TC2 | 37% | St Anne's, Woolston | |
| **20** | 0.3 | 3 | TC2 | 37% | St Patrick's, Kaiapoi | |
| **21** | 0.3 | 3 | TC 1 | 35% | OLV, Sockburn | |
| **22** | 0.3 | 3 & 9 | n/a | 37% | St Joseph's, Rangiora | **WIPS** |
| **23** | 0.25 | 3 & 9 | n/a | 34% | OLOS, Methven | **C** |
| **24** | 0.24 | 3 | n/a | 39% | St Joseph's, Fairlie | |
| **25** | 0.2 | 3 | n/a | 53% | St Joseph's, Ashburton | |
| **26** | 0.17 | 3 | n/a | 41% | Roncalli College | |
| **27** | 0.17 | 3 & 9 | n/a | 76% | St Joseph's, Temuka | **WIPSbr** |
| **28** | 0.17 | 3 & 9 | n/a | >100% | St Joseph's, Timaru | **WIPSbr** |
| **20** | 0.17 | n/a | n/a | 95% | Sacred Heart, Timaru | **CN** |
| **30** | 0.17 | n/a | n/a | >100% | St Joseph's, Pleasant Point | **CN** |
| **31** | 0.14 | n/a | n/a | 73% | St Patrick's, Waimate | **CN** |

**Status Key:**

**C** = completed
**CN** = completed – no seismic strengthening work required
**WIP** = work currently in progress
**WIPS** = work currently in planning stage
**WIPSbr** = work in the detailed planning stage (brick recladding)

Please note that the work associated with St Paul's School (formerly of Dallington) will be incorporated into the new buildings for the development of the new school entity of St Francis of Assisi Catholic School, Mairehau.

Please also note that the Bishop will not be in a position to scope the work associated with Marian College (Christchurch) until after the geotechnical report on the College's North Parade site has been received – it is anticipated that the Bishop will receive this report in December 2013.

**I will be available to meet with board members who might wish to ask questions of clarification or comment on any matters arising from these proposed principles to underpin the Bishop's next 5YPP.**

**The dates and times for these meeting opportunities are as follows:**

| Date | Time | Venue |
|---|---|---|
| Thursday 7 November 2013 | 5.30pm | Roncalli College, **Timaru** |
| Thursday 14 November 2013 | 5.30pm | St Joseph's School, **Temuka** |
| Thursday 21 November 2013 | 5.30pm | Christ the King School, **Burnside** |
| Tuesday 26 November 2013 | 5.30pm | John Paul II High School, **Greymouth** |
| Thursday 28 November 2013 | 5.30pm | Catholic Cathedral College, **Christchurch** |
| Tuesday 3 December 2013 | 5.30pm | St Joseph's Parish Centre, **Papanui** |

**Please provide any written feedback your board of trustees might wish to make regarding the above principles by 1 March 2014.**

Please email or post your comments to:

Mike Nolan, Manager, Catholic Education Office, PO Box 4544, Christchurch 8140

mnolan@chch.catholic.org.nz

On behalf of Bishop Barry, I thank you for the work you so willingly provide in service to the Mission of the Church.

May God's peace be with you and your family.

Kind regards

**Mike Nolan**
**Manager**
**Catholic Education Office**

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## Appendix 1: 5YPP Works Undertaken Since September 2010

At the time of writing, and since September 2010, 5YPP works associated with the earthquakes (*e.g. temporary seismic strengthening works, DEEs, purchasing and leasing relocatable classrooms, permanent strengthening works, etc*.) totalling $7.01 million have been undertaken.

By way of information I note those schools where, to date, such works have exceeded $75,000:

| School | $ |
|---|---|
| Sacred Heart School, Addington | $97,001.06 |
| St Peter's School, Beckenham | $438,960.64 |
| Christ the King School, Burnside | $1,031,005.12 |
| St Mary's School, Christchurch | $83,172.89 |
| Our Lady of the Assumption School, Hoon Hay | $1,016,341.75 |
| St Bernadette's School, Hornby | $611,797.98 |
| Our Lady of the Snows School, Methven | $133,632.56 |
| Our Lady of Victories School, Sockburn | $80,902.01 |
| St Anne's School, Woolston | $151,054.59 |
| Catholic Cathedral College | $163,968.91 |
| Marian College | $2,021,306.57 |
| All Schools* | $617,736.76 |

**Please Note**: All Schools* = five relocatable classrooms that are moved on site in order to move students out of a classroom block to carry out the required strengthening work at a school.

These five relocatable classrooms will be released to schools with school property guide deficits when all the seismic strengthening works are complete.

## Appendix 2: Detailed Engineering Evaluation Process

In order to provide you with some further background information of a more technical nature, regarding the %NBS numbers that have been determined by the structural engineers from Opus International Consultants Ltd for our school buildings, I note the following:

- All the diocesan school buildings are being, or have been, assessed against the standard for a building of Importance Level 3 (IL3).
- An IL3 building (facility) in the school context is a primary school or secondary school facility (building) with a capacity greater than 250.
- The difference between designing and assessing a building to IL3 against designing and assessing a building to Importance Level 2 (IL2) is a factor of 1.3 times.
- Thus if one has a standard classroom (with a capacity of 30 students) and it is assessed with a 34%NBS using IL3 for the assessment, this equates to a 44%NBS if one was to assess the building using IL2 for the assessment.
- The reason for assessing against the IL3 for seismic design is that the Diocese wishes to maximise the safety for students and staff and the amount of damage sustained to an IL3 building will be less than in the same building designed for IL2.
- A final consideration regarding the %NBS numbers lies in the fact that where any assumptions are necessary in the structural engineers' assessments, conservative assumptions have been made.