

# Boot Factory

History of asset management,  
expenditure and decisions

A decorative graphic consisting of several small, colored squares arranged in a staggered, grid-like pattern. The colors include light blue, red, yellow, dark blue, green, purple, teal, light green, orange, and light purple.

Community Briefing

April 2013

# Management history

- 1892 – Boot Factory first constructed
- 1984 – Acquired by Council
- 1988 – Restoration works undertaken as part of a Bicentennial grant
- 1995 – Building had to be vacated for 10 months due to structural issues
- 1995 – Structural repairs carried out at a cost of approximately \$200,000
- 2004 – Council's first resolution to undertake strategic asset management planning
- SAMPs developed and considered by Council:
  - **2006 – SAMP1** – Boot Factory given preliminary rating of **Condition 2** (on a 5 point scale)
  - **2007 – SAMP2** – Boot Factory condition rating reduced to **Condition 3** after visual inspection
  - **2007** – Boot Factory selected to undergo more detailed condition study by independent expert
  - **2008** – Confirmation of serious structural problems and finding that building is not safe
  - **2009 – SAMP3** – Boot Factory assigned a rating of **Condition 5**
  - **2013 – SAMP4** – Boot Factory still assigned a rating of **Condition 5 despite structural works**



# Management history

- Since 2007 the Boot Factory has been the subject of:
  - 8 independent specialist engineering assessment reports
  - an external peer review of the independent engineer's assessments which supported his findings
  - a heritage design consultancy assignment to explore options for restoration and adaptive reuse
  - 7 Council reports
  - quite extensive stakeholder engagement over its condition, safety and occupancy
  - several media articles



# Maintenance expenditure

- Prior to 1999:
  - Bicentennial works – cost not known
  - Approx. \$200,000 in 1995 – structural works
  
- Post 1999:
  - \$440,000 – maintenance and temporary make safe

Boot Factory Maintenance Expenses	1999 to 2007	2008 to 2013	Total
Total	\$118,249	\$321,920	\$440,169



# Structural assessments

- Assessments all conducted by Building Diagnosis Centre (BDC)
  - 2007 – **Initial assessment** outlines serious structural problems
  - 2008 – **2<sup>nd</sup> assessment** confirms that building is not safe for occupation
  - Nov 2008 – Tenants informed and asked to relocate
  - Nov 2008 to Aug 2010 – Tenants refuse to relocate
  - Dec 2008 – **Council report (CHESP)** – outlines major structural and safety issues
  - Dec 2008 – Tenants refuse to relocate – lawyers on both sides – another **Council report**
  - Dec 2008 – Temporary safety works installed around tenants
  - May 2009 – **BDC report** concludes repairs are uneconomic and will not result in a BCA compliant building
  - Aug 2009 – **Peer review of BDC** report confirms its findings
  - Oct 2009 – Officers seek additional funding for more make safe works – **Council report**



# Structural assessments

- Assessments all conducted by Building Diagnosis Centre (BDC)
  - Nov 2009 – **Report from BDC** outlines further “mothballing” options and costs
  - Mar 2010 – **Council report** – Council resolves to seek architectural advice on reuse
  - May 2010 – Contract for make safe and window works
  - Aug 2010 – Tenants vacate
  - Nov 2010 – **BDC report**:
    - emphasises make safe works are temporary (9 months’ effectiveness only)
    - requires ongoing monitoring
    - confirms severe progressive bowing of walls
  - Mar 2011 – **smart design studio** heritage architectural consultants present options for adaptive reuse to prolong its life – **estimates of \$1.2M - \$3.6M** (excluding land)
  - Apr 2011 – **Council report** on options concludes adaptive reuse is not viable



# Structural assessments

- Assessments all conducted by Building Diagnosis Centre (BDC)
  - Sep 2011 – **Report from BDC** indicates increased deterioration and notes:
    - past and potential new termite activity
    - corrosion to sprinklers
    - wet rot
    - additional brickwork cracking
  - Dec 2011 – **Council report** – Update
  - Nov 2012 – **BDC dilapidation report** – outlines more bowing
  - Apr 2013 – **BDC letter** stating the building is in a “structurally unsafe” condition and further inspection is required



# Structural assessments

- Assessments all conducted by Building Diagnosis Centre (BDC)
  - Apr 2013 – **BDC report** confirms “**structurally unsafe**” condition:
    - Loosening tie rods
    - More and bigger cracks
    - Water migration through walls and roof
    - Weakening of mortar joints
    - Rotting of the ends of the structural timber joists
    - Current bad weather will have further detrimental impacts
    - Recommends that if the building is not demolished:
      - Hoarding of the Mill Hill and residential colonnades and extension of the safety line down to the gates
      - Extensive excavation around the building perimeter to assess effects of stormwater on foundations
      - Removal of plasterboard wall linings to determine termite damage
      - New box guttering
      - Monthly inspections
  - Apr 2013 – **Council report** – recommends demolition





# Alternatives explored

- Adaptive reuse has been explored thoroughly:
  - Produced some aesthetically attractive options
  - Showed technical risks, significant cost and poor financial and “QBL” returns
  - Works would not pass tests now required under Capital Expenditure Guidelines in the Local Government Act.
  
- The only options considered viable and feasible as of 2011 are:
  - “Mothball” in situ – viable for a short period only
  - Dismantle – ie., demolish and mothball heritage remnants and store for use in later development



# Alternatives explored

Option	Features	Outcome	Cost	Likely rent	Loan repayment
<b>1 Repairs</b>	Structural repairs. Raised flooring for services and air conditioning. Replace windows.	Won't be BCA compliant. Upper floors will have no toilets and access issues remain. Small floor plate split over 3 levels without a lift = unattractive to commercial market. Community rents possible. Need to repeat similar investment every 10 years.	\$1,162,387	Community = <\$40K Commercial = \$0 - \$105,000  Likely to need to reduce rent by >50% to attract "commercial" tenant	\$168,000 pa over 10 yrs

- Option of “repairing lease” considered at councillors’ request
  - Determined to be not feasible because:
    - An outlay of >\$1.2 million up front on a building you won’t own will impact profit calculations for any business and is likely to be well beyond the earning potential of a building that will still have very small floor plates and will not be BCA compliant
    - Banks would not lend to a commercial operator (especially risky ones like restaurants) for this level of risk, with or without security



# Alternatives explored

Option	Features	Outcome	Cost	NPV
<b>2</b> <b>Repairs &amp; additions</b> <b>New services core in south west corner and side</b>	As for Option 1 but: Remove internal staircase. Add services core to western side outside building on land not owned by Council. Add a 4th level. Remove courtyard tree.	Will be BCA compliant. Solves access issues. Small floor plate split over 4 levels is still quite unattractive to commercial market. Community rents possible. Possible need to repeat some structural works every 10 years. Adjacent owners very likely to object. Premium cost for land as compensation under Just Terms legislation would apply.	\$3,619,162 plus land cost	<b>-\$2,431,840</b>



# Alternatives explored

Option	Features	Outcome	Cost	NPV
<b>3</b> <b>Repairs &amp; additions</b> <b>New services core in south east corner - separate entry</b>	As for Option 1 but: Remove internal staircase. Add services core to the south eastern corner. Add a 4th level. Remove courtyard tree.	<ul style="list-style-type: none"> <li>.. Will be BCA compliant.</li> <li>.. Improves access but provides less circulation space than Option 2.</li> <li>.. Small floor plate split over 4 levels is still unattractive to private market and certainly less attractive than Option 2.</li> <li>.. Single tenant not likely and floors too small for multiple commercial tenants.</li> <li>.. Community rents possible.</li> <li>.. Entry basically at rear and next to a community services building which is not attractive to commercial tenants.</li> <li>.. Possible need to repeat some structural works every 10 years.</li> </ul>	\$3,161,757	-\$1,981,840

# Alternatives explored

Option	Features	Outcome	Cost	NPV
<p><b>4</b></p> <p><b>Repairs &amp; additions</b></p> <p><b>New services core in south east corner - sharing entry, lift &amp; stairs with Mill Hill Centre</b></p>	<p>As for Option 1 but:</p> <p>Remove internal staircase.</p> <p>Add services core to south east corner connected to Mill Hill Centre but not including lift or stairs.</p> <p>Utilise existing lift and stairs inside Mill Hill.</p> <p>Add a 4th level.</p> <p>Remove courtyard tree.</p> <p>Note: Mill Hill Centre is reasonably likely to be redeveloped or structurally changed in next 10 years</p>	<p>.. Will be BCA compliant.</p> <p>.. Improves access but circulation requires moving between buildings all day.</p> <p>.. Creates increased operational costs if building is open at night.</p> <p>.. Small floor plate split over 4 levels is unattractive to commercial market.</p> <p>.. Single tenant not likely and floors too small for multiple commercial tenants.</p> <p>.. Entry basically at rear and within a community services building - not attractive to a commercial tenant.</p> <p>.. Community rents possible.</p> <p>.. Possible need to repeat some structural works every 10 years.</p>	\$2,539,052	-\$1,351,840

# Why has this come about?

- Council has attempted several times to restore and maintain the building
- But ...
  - The building is 120 years old and was never designed to last this long
  - It was built with cheap substandard materials and construction methods suitable for a design life span of well less than 100 years - reflective of the construction standards for factories of the time
  - It was already in a fragile and degraded state and well past its structural design life period when it was transferred to Council in 1984
  - Council spent grant and other money on it as part of a bicentennial project in 1988
  - Because of its structurally fragile state it had to be vacated again only 7 years later for a full 10 months when approximately \$200,000 worth of structural works and repairs were carried out



# Why has this come about?

- Since 2009, after more specialist engineering reports, serious work has been done to brace the building together yet again
- This new bracing is failing due to the poor quality of the original materials and possible undermining from subterranean water intrusion and/or the proximity to the tree (which is likely to have exacerbated undermining of the foundations and termite infestation)
- Maintenance funds spent on the building since 1999 total \$440,000. - \$303,000 since 2008
- Any and all “repairs” are destined to be short-lived, given the building’s original construction quality

## Heritage facts

- The Boot Factory is not listed on the State Heritage register
- Its only heritage listing is in the Waverley LEP



# Why demolish?

Repairs will be ineffective:

- The materials such as mortar and the bricks themselves are porous
- Water penetration is increasing all the time
- Waterproofing will remain an ongoing and major problem given the original building materials quality
- "Restoration" would theoretically need to involve replacement of the bricks which would mean of course that it would no longer be the original building at all
- Foundations are quite likely to be unsound – suspicion that parts of the building are not on rock and/or have been undermined by subterranean water activity and tree roots
- If so, underpinning is necessary (not counted in estimates):
  - Underpinning is likely to present major challenges to the structural integrity of the building
  - We have no idea whether the foundations can even support another floor





# Why demolish?

- There is substantial danger of collapse:
  - The walls are bowing out and rotating
  - They are detaching from the steel tie rods that were put in 2010 in an attempt to pull the front and rear walls back together and prevent collapse
  - It is single skin brick only and the timber supporting columns that attach to the structural timber floor beams are rotting and becoming detached because of water penetration
  - We are advised the walls will continue to bow, rotate and detach from the supporting structures
  - Cement render is falling to the ground as a result
  - Cracking is increasing to the internal face of the 2nd floor level wall above and below the windows



# Why demolish?

- The independent expert engineer has repeatedly advised that the building can only be temporarily held up by "repair works". He says:

“In summary, the Boot Factory building is in a structurally unsafe condition as the brick walls have continued to settle and rotate outwards and inwards, including increased cracking since installing temporary wall supports in recent years. Our \$1,000,000 + estimate to repair the building, is not a rebuild nor modernisation, nor to make compliance with NCC 2013 BCAv1.

Sydney’s unprecedented rains and winds would continue to have a detrimental effect on the shell structure including continue to allow water to penetrate the structural timber floor beams including the already unsatisfactory foundations.

As it is not economically viable, and includes more structural bracing as time progresses, **demolishing the Boot Factory building now will provide a safer adjacent community.**”



# Why demolish?

- Reconstruction, as opposed to repair, would be the only viable means of “restoring” the heritage value of the site
  - Comes a point where no amount of “maintenance” will address the issues
  - The original fabric of the building simply will not hold to the steel bracing for any more than short temporary periods – it just rots and pulls away
  - Major investment is required
  - Assessments of QBL return from that investment have not led to positive conclusions
- This makes demolition common to any option for the future of the site, ie., for:
  - any proposal to produce a replica of the building as it originally looked from the outside; or
  - any proposal to create memories of it and the historical activities that went on in it by displays or incorporation of architectural features into a new building
- To save any part of it at all, the best approach would be to pull the building apart, rescue materials and store key features for incorporation into something new that is integrated better with surrounding properties

# What about the future?

- Possibilities are endless to meet values of the community:
  - An integrated strategic planning approach is required, not a piecemeal approach of “fix a bit here, repair a bit there”
- What do we need to do?
  - Consultation on preferred values needed
  - Assessment of strategic options against those values
- Building demolition does not cut off any options
- It simply prevents major risk

