Regenerating Australia’s Established Suburbs: Towards a New Greyfields Model of Development

Presentation to: John Cain Foundation Lunch

Graduate House, University of Melbourne
Wednesday 6 May 2015

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Overview of Presentation

1. What’s the problem/challenge?

2. Pathways for urban transition: models for urban infill in greyfields

3. Audience feedback
Metro [Melbourne] Challenges:

- Melbourne’s current & forecast high population growth
- Housing supply lagging demand…increasing gap; land supply issue
- Housing mix…..undersupply of medium density housing
- Housing affordability….capital city housing prices world leading…….
  Melbourne among least affordable globally
- High cost of delivering inner/middle suburban medium density housing
- Urban sprawl…greenfield continues to be where most new housing is built
  (negative externalities: economic, environmental, social)
- Suburbanisation of social and economic disadvantage (income, access to
  public transport, tertiary education, specialist health, concentration of
  social problems)
- Key urban infrastructures ageing and lagging development
  (especially public transport); Engineers Australia Report Card
- Developing new hybrid urban infrastructures for energy, water and waste
- Ecological footprint among highest globally (resource consumption + CO2)
- Plan Melbourne …. no comprehensive strategy for regenerative intensification
  in established, underperforming suburbs [Urban Infill ‘Report Card’]
Melbourne’s ecological footprint (EF) twice that of highly liveable European cities and four times the world average [resource use + CO2 emissions]

Why? Underpinning built environment (planning, housing, transport ..) & urban lifestyle factors

Developing countries rapidly urbanising + EF of their cities increasing

Limits to growth / planetary boundaries tested/ exceeded under BAU city development

• ▶ need for more sustainable –regenerative– urban retrofits
Melbourne’s population forecast to **double** in 45 years
Population shares by zone, Melbourne

Estimated actual and projected future annual population growth by Melbourne region

Source: Chris Loader (chartingtransport.com)
Housing market: constrained middle city housing supply increasing costs and suburbanising social disadvantage

Source: SGS and Chris Loader (chartingtransport.com)
Untapped Potential: Melbourne’s Established Middle Suburbs

The middle suburbs are persistently failing to meet their share of population and housing in a (rapidly) growing city.

Source: SGS
Greyfields are characterised by occupied residential areas that are physically and technologically obsolescent, environmentally poor performing and where the asset value resides in the land rather than the building (Newton, 2010; Built Environment).
Defining Greyfields

>30% housing stock in established inner / middle suburbs represent “Greyfield” built environments:
  • physically, technologically and environmentally poor performing (but occupied) dwellings
  • economically under-capitalised/under-utilised asset

• where > 80% total property value is vested in the land; indicating high redevelopment potential
  RDI = [land value/total property value]
RESIDENTIAL REDEVELOPMENT POTENTIAL BY MUNICIPALITY
Stages in the housing life cycle of a metropolitan region

Source: Newton et al 2011
Piecemeal infill: Most residential redevelopment occurring outside current designated development zones ... as fragmented, sub-optimal ‘knock-down-rebuild’

Currently there is no operational model for medium density residential precinct redevelopment in the Greyfields [in Neighbourhood and General Residential Zones]

(1) Activity Centres and (2) Transport Corridors are both necessary but not sufficient instruments for meeting infill targets and delivering more compact cities. They are not acting as the ‘twin magnets’ planning policy has articulated.
What’s happening with urban infill in Melbourne? : a Report Card

• Urban Infill is an objective of Plan Melbourne, BUT net new housing infill below 50%

• Brownfields (BF): Greyfields (GF) ratio of new dwelling construction running approximately 45:55 ……need for a publically accessible audit of Melbourne’s BF

• Types and scale (YIELD) of dwelling projects vary significantly between BF & GF:
  - Greyfields: 27% 1:1 50% 1:2-4 units
  - Brownfields: 17% 1:50-100 56% 1:100+ units

• Public transport access level (PTAL ) is not a magnet for attracting higher levels of infill; households remain attached to cars and developers to offering car parking

• CBD is only Activity Centre attracting significant rate of new housing development

• Type of infill housing varies by area socio-economic status:
  - Above ave. SES locations: 1:1 replacement; high rise apartments dominate
  - Average-to-Below ave. SES locations: 1: 2-4 and 1: 5-9 projects dominate

  ▶ Slow burn with piecemeal infill development: creeping loss of green space (UHI); increased traffic/congestion; increased demand on local government services
Medium density **precinct scale** redevelopment significantly under-represented in urban infill projects in greyfields and brownfields

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<td>1.3</td>
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<td>0.7</td>
<td>2.8</td>
<td>4.1</td>
<td>5.9</td>
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<tr>
<td><strong>Greyfield</strong></td>
<td>17.9</td>
<td>32.3</td>
<td>6.3</td>
<td>2.3</td>
<td>3.2</td>
<td>2.3</td>
<td>1.3</td>
<td>65.6</td>
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<tr>
<td><strong>Totals (%)</strong></td>
<td>19.2</td>
<td>32.8</td>
<td>7.0</td>
<td>5.1</td>
<td>7.3</td>
<td>8.2</td>
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<td>21,947</td>
<td>37,614</td>
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<td>8,309</td>
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Source: Newton & Glackin (2014; *UP&R*)
Precincts offer the prospect for more innovative regenerative (re-)design of more sustainable, resilient, low carbon neighbourhoods:

- Housing (variety, affordability, yield)
- Energy (low/zero carbon; distributed generation eg. PV + storage)
- Water (integrated stormwater/ rainwater/ greywater for non-potable re-use; water sensitive design)
- Waste (optimise recycling, reuse, food composting)
- Mobility and health (more walkable, cyclable)
- Neighbour contact (community places, spaces, gardens)

→ creates a dividend additional to housing yield

Several tools now exist for precinct design performance assessment:
Green Star Communities (GBCA); PrecinX (Kinesis); EnviroDeveloper (UDIA); SSIM (AECOM); IRM (ARUP); LESS (Hassell); OnePlanetCommunities (BioRegional Aust.)
Innovation Arenas for Initiating Greyfield Precinct Regeneration

Source: Newton et al 2011
Set parameters for spatial queries:

Select: ‘Market option’ or ‘Planning option’

ENVISION will be accessible from August 2015 on AURIN e-Research portal
ESP tool: rapid environmental performance assessment of innovative sketch designs of low-to-mid rise housing typologies envisaged for a greyfield residential precinct → permits calculation of potential environmental and financial **DIVIDEND** from project
How? Alternative models for financing greyfield precinct redevelopment

Alternative pathways for neighbouring landowners to participate in Greyfields precinct redevelopment process

ENVISION Financial Feasibility Assessment Module
Melbourne neighbours band together to net big profit from developers

March 22, 2015

Christina Zhou
Domain reporter
View more articles from Christina Zhou
Email Christina
Boisdale St. Redevelopment Project………the thorny issue of *neighbourhood character*

VCAT was not opposed to the scale of the development, but rather was focused on the development’s response to *neighbourhood character* (J and C Australia Unit Trust v Whitehorse CC [2009] VCAT 2759)
Appeals to VCAT, 2007–2012, by municipal council area, Melbourne: can planning be better than this……

Source: Newton & Glackin (2014)
Cantankerous cities: intensification, neighbourhood change and resident reaction
### New Zoning system introduced July 2014:

**NRZ** - Neighbourhood Residential Zone: ‘single dwellings and some dual occupancies’

**GRZ** - General Residential Zone: ‘single dwellings and some medium density’

**RGZ** - Residential Growth Zone: ‘mixture of townhouses and apartment with u/g parking’
How to progress? Residential Growth Zone limited….significant residential redevelopment potential in BOTH General and Neighbourhood Residential Zones
Municipal Housing Strategy process as catalyst for exploring precinct/neighbourhood change/ regeneration opportunities

Scope for identifying prospective locations for ‘Regen’ [Greyfield Regeneration] Overlays designed to support medium density precinct residential development projects:

Regen overlays require clear specification of the design & performance features required for any precinct development proposal
Redevelopment of Greyfield **public housing stock** as catalyst for neighbourhood regeneration

- 23,000 public housing allotments in Melbourne
- Much of the stock ageing and poor quality
- Owned by single entity (state government)

Business-as-usual redevelopment of a public housing allotment: ($5.6B Social Housing Initiative enabled some innovation, but restricted to small parcels and not extending beyond state-owned property)

Source: AHURI (Monash and Swinburne), 2015
Multiple benefits (dividend) deriving from precinct scale regeneration of public housing:

- Area uplift; increased yield through mid rise medium density; increased quality of public open space, amenity, increased safety, connectivity, walkability

Source: AHURI (Monash Architecture) 2015
How? Leadership + effective stakeholder engagement processes

['Engagement' featured prominently in Metro planning strategies for Melbourne and Sydney]

Challenging Transition Process
↓
Existing Regimes
↓
Innovation Arenas
↓
Leadership for Urban Change: Need Top-Down & Bottom-Up Engagement +
↑
New Tools & Processes for Co-Design

Engagement Arenas:
1. State government (planning department, related departments and appeals tribunals etc)
2. Property development industry (for profit; not-for-profit etc)
3. Local government (council officers; elected councillors etc)
4. Local community (entire municipality; specific neighbourhoods etc)
5. Envisioning future development – major projects; planning appeals
6. Envisioning future development – individual projects (pre-planning permit discussions)
7. Community engagement: long term development strategy for municipality
8. Community engagement: long term development planning for municipality
9. Brokering precinct regeneration projects
10. Envisioning and agreeing future development strategies for municipalities and urban sub-regions

Source: Newton and Glackin (2013; Built Environment)
THANK YOU

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