Unlocking the Greyfields

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Affordability & Liveability in our Cities Conference

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Challenge:
→ accommodating a doubling of capital city populations by mid 21\textsuperscript{st} century
→ enhancing liveability across entire city
→ shrinking ecological and carbon footprints
→ delivering more affordable housing – in the right locations (brownfields + greyfields infill)

Greyfields are those established, well located inner and middle suburbs of cities that have built assets that are physically, technologically and environmentally poor performing and where the asset value resides in the land (typically >70%) rather than the building. They represent economically under-performing assets, but are occupied – in contrast to the brownfields (Newton, 2010).

Urban planning / zoning strategies for greyfields:

- **Activity centres**: higher densities
- **Transport corridors**: mid-range
- **General residential**: low/ K-D-R

Problem: New housing falling well short of 70% infill target (e.g., Melbourne ~ 50% greenfield)
Challenge: develop a new model [processes + instruments] for GREYFIELD RESIDENTIAL PRECINCT REGENERATION

4 KEY APPLIED RESEARCH QUESTIONS:

1. WHERE are the geographic concentrations of greyfield properties?
   - # public housing
   - # private property
2. WHAT to design into these precincts? [regenerative medium density development]
3. WHO will be attracted to medium density development?
4. HOW to create an implementable model for greyfield precinct renewal/regeneration?
   - # new statutory zones/overlays
   - # new models for community engagement
   - # citizen-led lot consolidation / development (‘kitchen table’ instruments) etc
WHERE? …… over 750,000 privately owned greyfield residential properties in Melbourne

Envision multi-criteria analysis CRC SI software identifies properties with high redevelopment potential (>70% value in land) plus other key planning and development attributes conducive to precinct-scale redevelopment.
Urban infill: what’s actually happening?

| Residential infill yields of Projects, Melbourne, 2004-2010 (% total infill) |
|---|---|---|---|---|---|---|---|
| 1 | 2-4 | 5-9 | 10-18 | 20-49 | 50-99 | 100+ | Total |
| Brownfield | 1.3 | 0.5 | 0.7 | 2.8 | 4.1 | 6.9 | 19.2 | 34.4 |
| Greyfield | 17.9 | 32.3 | 6.3 | 2.3 | 3.2 | 2.3 | 1.3 | 66.6 |
| Totals (%) | 19.2 | 32.8 | 7.0 | 5.1 | 7.3 | 8.2 | 20.5 | 100.0 |
| (N) | 21,947 | 37,614 | 8,029 | 5,833 | 8,309 | 9,374 | 23,487 | 114,593 |

- Net new housing infill < 50% (Melb.)
- Brownfields attractive for high rise
- Most greyfield redevelopment = KDR (low yield)
- Public transport access not a magnet for attracting high levels of infill
- CBD is only activity centre with high infill
- Medium density + precinct scale infill projects significantly under represented

Source: Newton & Glackin (2014) *Understanding Infill*
WHERE? ……Greyfield public housing stock as catalyst for neighbourhood regeneration

Multiple benefits deriving from precinct scale regeneration of public housing:
→ Area activation/uplift; increased yield through mid rise medium density;
→ increased quality of public realm open space, amenity,
→ increased safety, connectivity, walkability

Source: AHURI (Monash Architecture and Swinburne Institute for Social Research) 2015
Public Housing Renewal Program

The Public Housing Renewal Program will redevelop older public housing homes and create more social housing properties across metropolitan and regional sites.

The $185 million program will create vibrant neighbourhoods with housing that is safe, secure and modern.

The estates being renewed

Stage one will redevelop 1,100 ageing public housing properties in these nine estates:

- **Brunswick**: Gronn Place
- **North Melbourne**: Abbotsford Street
- **Heidelberg West**: Tarakan and Bell/Bardia estates
- **Clifton Hill**: Noone Street
- **Brighton**: New Street

- **Prahran**: Bangs Street
- **Hawthorn**: Bills Street
- **Northcote**: Walker Street
- **Ascot Vale estate**.

Stage two will upgrade public housing properties in regional Victoria.

The new homes

The estates will have:

- A mix of social and private housing
- 10 per cent more social housing properties
- A range of housing sizes

The new homes will be:

- Built to modern standards
- Accessible for all
- Better suited to the ongoing needs of Victorians.
WHAT? …Medium Density Housing….the ‘Missing Middle’ : …….Designing attractive, **regenerative** medium density **precincts**…..beyond re-development

**Regenerative urban design principles for precincts:**
- zero carbon housing;
- maximise green space (water gardens, tree canopy);
- water sensitive design/rainwater harvesting/greywater reuse;
- composting food waste;
- minimise space allocation to cars/parking;
- design in opportunity for shared mobility;
- smaller/smarter floor layouts;
- offsite prefabrication/modular construction;
- enhance walkability of neighbourhood;
- activate immediate streetscape for pedestrians and play

→ Demonstrate the additionality of benefits capable of flowing from precinct scale regeneration compared with BAU knock-down-Rebuild using CRCSI **Envision Scenario Planner (ESP)** software

Sources: Monash Architecture (Murray)    Skinner (Architectus)    Bolleter (UWA)
‘Missing Middle’ Medium Density Design Competitions in 2017

The Missing Middle

Single dwelling
  e.g. a detached house

Two dwellings*
  e.g. ‘duplex’, dual occupancy

Multiple dwellings*
  e.g. terraces, townhouses, low-rise apartments

1–3 Storeys

Single dwelling*
  e.g. terrace, townhouse, row house, dwelling house

Multiple dwellings*
  e.g. townhouses/towers with ground level, street-facing, universal design and/or mixed use suites

4–6 Storeys

High rise apartments

NSW Government
Planning & Environment

Missing Middle Design Competition

Design Process

Your neighbour and neighbourhood

Step 1
Download the Competition Brief together with the typical neighbourhood plan in 2D and 3D format.

Step 2
Determine the hierarchy of the four modes surrounding the neighbourhood block (e.g. street, greenwalk, local access roads) and alter the density, use and form of the surrounding development if this is relevant to your design proposal.

Queensland Government
DENSITY
AND
DIVERSITY
DONE WELL

Open Ideas Competition
WHO? ..what is the level of demand for well located [greyfield] medium density?

Question: *If you had to choose between the three living arrangements (below) --- which would you prefer?*

<table>
<thead>
<tr>
<th>Living Arrangement</th>
<th>Sydney (%)</th>
<th>Melbourne (%)</th>
<th>Total Sample (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separate dwelling with a garden in a suburb where there is poor public transport</td>
<td>45</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>Medium density dwelling with no garden but close to public transport</td>
<td>46</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>High rise apartment in CBD or surrounding inner city neighbourhood</td>
<td>9</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: Newton (2017)

Drivers: pent-up demand; massive under-occupancy of older households in detached housing

Constraints: small price point differential between old detached and new medium density housing in same suburb
Explicit greyfield policies are required to create planning context for precinct scale redevelopment:

**Policy 2.2.4**
Provide support and guidance for greyfield areas to deliver more housing choice and diversity.

Up until now, the redevelopment of these areas has been generally uncoordinated and unplanned. That must change. Greyfield areas provide an ideal opportunity for land consolidation and need to be supported by a coordinated approach to planning that delivers a greater mix and diversity of housing and provides more choice for people already living in the area as well as for new residents.

Methods of identifying and planning for greyfield areas need to be developed. A more structured approach to greyfield areas will help local governments and communities achieve more sustainable outcomes.
2. Local Government

→ some municipalities are developing capacity to respond pro-actively rather than reactively to metropolitan planning policy: ‘Town Hall’ engagement on future development; options for change in ‘neighbourhood character’ [suburban-to-urban transition], rezoning, precinct scale development overlays; visualisations etc
3. Residents

← instances emerging of neighbours consolidating their adjacent properties for sale as a ‘precinct’ → delivers 50 – 100% premium at auction compared to individual lot sale

Requires **scaling up and accelerating** via *Kitchen Table* brokering:

- Trusted and accredited broker
- Narrative / business case tailored for specific neighbourhood
- Financial feasibility instrument to assess profitability, tax, effect on benefits etc
- Legal instruments appropriate to land consolidation, timing of development etc
- Development options (stay/go?; co-design/develop?; co-invest ? etc)
- Amenability of municipal building and planning codes, guidelines; possible incentives via value uplift (greyfield renewal overlay) for prescribed locations
4. Property Developers

Transition from KDR infill redevelopment model to precinct medium density regeneration model for the greyfields →

Challenge: risk reduction ↑

← Challenge of reducing the 80% cost difference of building detached dwellings in the greenfields and mid-rise medium density in the middle suburban Greyfields (per m2)

Housing Typology | Metropolitan Location
--- | ---
Detached sole occupancy | Middle Suburban: 28% higher; Outer Suburban: 0.0 (baseline cost)
Low rise medium density | Middle Suburban: 36% higher; Outer Suburban: 17% higher
Mid rise medium density | Middle Suburban: 82% higher (insufficient projects)

Source: Newton et al (2011); derived from Victorian Building Commission Building Permit data
THANK YOU