



Department of Planning, Lands and Heritage

GOVERNMENT OF WESTERN AUSTRALIA

### **STAKEHOLDER BRIEFING**

Draft Medium Density Code



# **TODAY'S FORUM**

- 1. Why we are we doing this?
- 2. Process
- 3. Medium Density Code
- 4. Next Steps
- 5. Questions



# WHAT IS MEDIUM DENSITY?

Everything in-between low and high-density (apartments) Up to 4 storeys



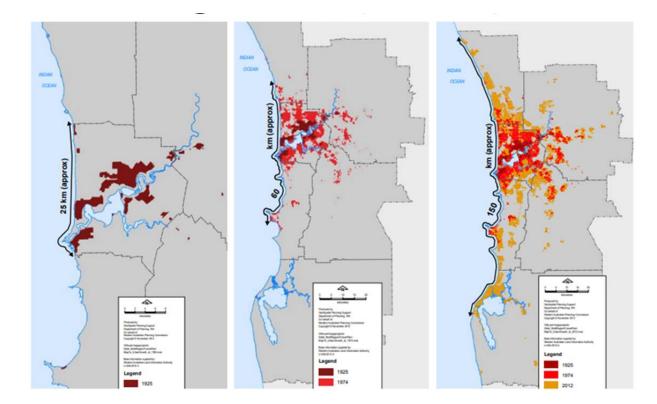
# WHY ARE WE DOING THIS?

# WHY ARE WE DOING THIS?

accommodating future growth...

Perth & Peel @ 3.5M

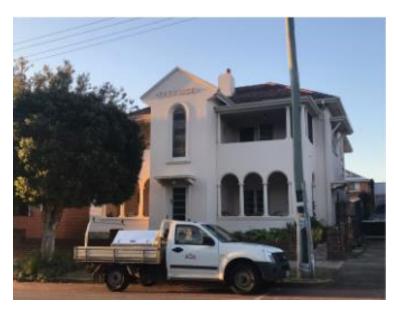
- ► 47% infill
- 800K houses for 1.5M people
- 376K houses in established areas



# **MEDIUM DENSITY IS NOT NEW**

Feature of WA's pre-1940s neighbourhoods (pre-car era):

- Integrated well into streetscapes
- Diversity of building types offered housing choice
- Enough density to support transit, local shops and jobs



Parkside Flats, Mt Lawley (4 x flats)



Holdsworth St, Fremantle (2 two-storey terraces)



Holdsworth St, Fremantle (single-storey terraces)



Moir Street, Perth

Group of 58 semidetached singlestorey, dwellings<sub>6</sub>

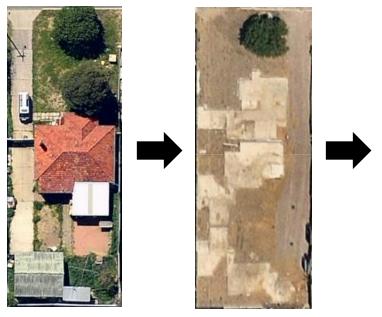
# **MEDIUM DENSITY NOW**

In subsequent decades newer suburbs (designed for cars) built at lower densities, and most infill medium density has been in the form of grouped dwellings (villas)



# WHY ARE WE DOING THIS?

poorly designed development comes at a cost...





Impact	Cost
Storm water runoff	\$4,400
Loss of private open space	\$5,800
Loss of trees	\$7,300
Active heating & cooling	\$600
Urban heat island effect	\$8,000
Embodied energy	\$1,600
Social isolation	\$1,500
TOTAL	\$29,200

Source: SGS Economics and Planning

Costs to the broader community is **\$29K** for every new business-as-usual dwelling over 20-year lifecycle or **\$1,460 / yr** Estimated cost to state **\$117M / yr** 

# **ARE WE DELIVERING?**

### GARDENS



#### Current

- No view of sky
- No place for a tree
- Hard surfaces
- No opportunity for solar access
- No outlook

#### Desired

- Open to sky
- Space for a tree
- Mix of surfaces
- Northern solar access
- Outlook to gardens

# ARE WE DELIVERING?

### INDOORS



#### Current

- No solar access
- Views to blank walls
- No possibility of cross ventilation
- Low, deep room

#### Desired

- Northern and eastern solar access
- View to garden
- Cross ventilation
- Good, human proportions of room and space

### **ARE WE DELIVERING?** STREETSCAPES



#### Current

- Car dominant
- Unusable setbacks
- Introverted, isolated spaces
- No street address or interface

#### Desired

- Boundary walls or usable setbacks
- Open, inviting spaces
- Good street address and opportunity for personalisation and connection

# **CHANGING LIFESTYLES**

17 Architects and Designers on **How the Pandemic Will Change Our Homes Forever** 

Australian housing market will hit the wall in coronavirus recession, experts say

Economists say house prices could fall as much as 20% if the recession lasts longer than six months



Life in lockdown has shown us our houses need to work harder for us





How COVID-19 is forcing a rethink on the idea of co-living Edited by Branko Miletic

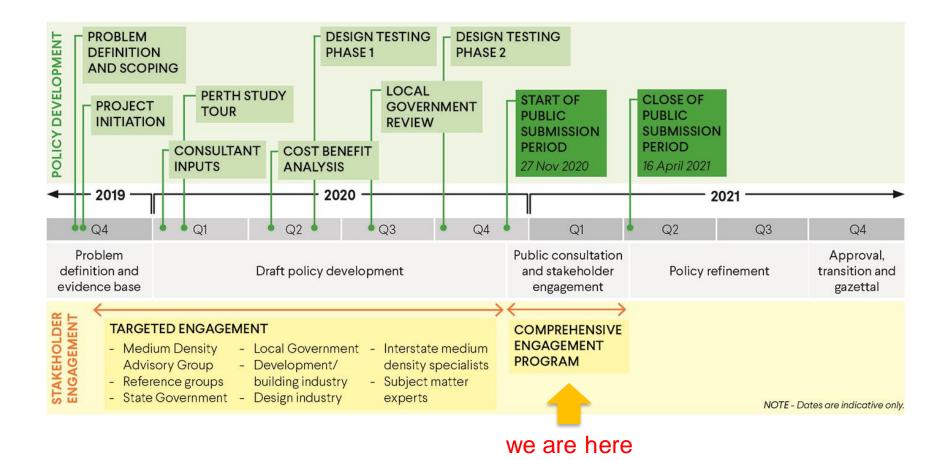
#### **Apartments designed for** working at home and selfisolation will be a new priority, experts say

SUE WILLIAMS DOMAIN REPORTER | APR 25, 2020

Why coronavirus must not stop Australia creating denser cities Max Holleran

# PROCESS

### PROCESS

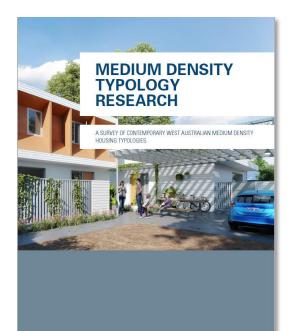


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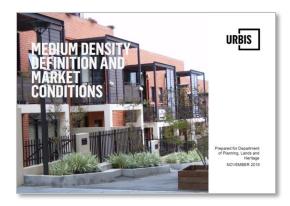
### **POLICY INITIATION AND RESEARCH**



HISTORIC OVERVIEW OF GROUP DWELLINGS AND LOW RISE MULTIPLE DWELLINGS IN PERTH, WESTERN AUSTRALIA



DATE: 15/11/19 PREPARED FOR DEPARTMENT OF PLANNING, LANDS & HERITAGE (DESIGN WA) PREPARED BY: DAVID BARR ARCHITECTS DEVISION-:



# **RESEARCH & WORKSHOPS**

Interstate expertise Office of the Victorian Government Architect, discussions with designers, builders, developers and residents



Including Bennett Springs, Fremantle, Hamilton Hill, and Scarborough

**Events** Forums, Workshops, Studios and Presentations





# ENGAGEMENT

#### **Reference Group Workshops**

 Approximately 130 attendees across 3 half-days

#### Medium Density Advisory Group

 Peak-body representation including Local Government, Industry and Community

#### **Government consultation**

- METRONET, Department of Communities and DevelopmentWA





## PHASE 1 - DESIGN TESTING

 SITE 1
 SITE 2
 SITE 3
 SITE 4
 SITE 5
 SITE 6

 Image: Site 1
 Image: Site 2
 Image: Site 3
 Image: Site 4
 Image: Site 5
 Image: Site 6

 Image: Site 2
 Image: Site 3
 Image: Site 4
 Image: Site 5
 Image: Site 5
 Image: Site 6

 Image: Site 3
 <td

BALCATTA	HAMILTON	CLAREMONT	TUART HILL	NORTH	BELDON
	HILL			PERTH	
R40	R40	R30	R40	R60	R20/40
760sqm	705sqm	1150sqm	1012sqm	749sqm	685sqm
Triplex	Single beds	Retained tree	Terraces	Apartments	Apartments

6 SITES - 12 DESIGNERS - 24 SCHEMES policy development - costing - feasibility

## PHASE 2 – DESIGN TESTING

- Test typical R40 lot: 728m<sup>2</sup>
- 6 diverse building types
- Impact on construction costs + feasibility
- Costed by volume builder

For more information see the Medium Density Code Testing Report at https://www.dplh.wa.gov.au /medium-density

#### WHAT WE LEARNT

- Construction costs similar to business-as-usual
- Relationship between land values and feasible building types
- Settings provide flexibility to achieve site responsive design



# **ASSESSMENT TESTING**

8 Local Governments (including one non-metro) reviewed policy for assessment efficacy & design outcomes

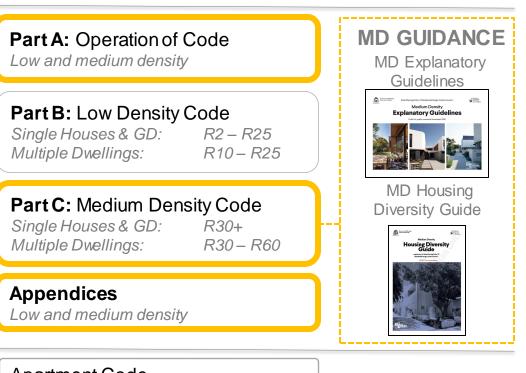


# MEDIUM DENSITY CODE - OVERVIEW

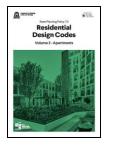
## **R-CODES – PROPOSED STRUCTURE**

#### R-CODES VOLUME 1





#### R-CODES VOLUME 2

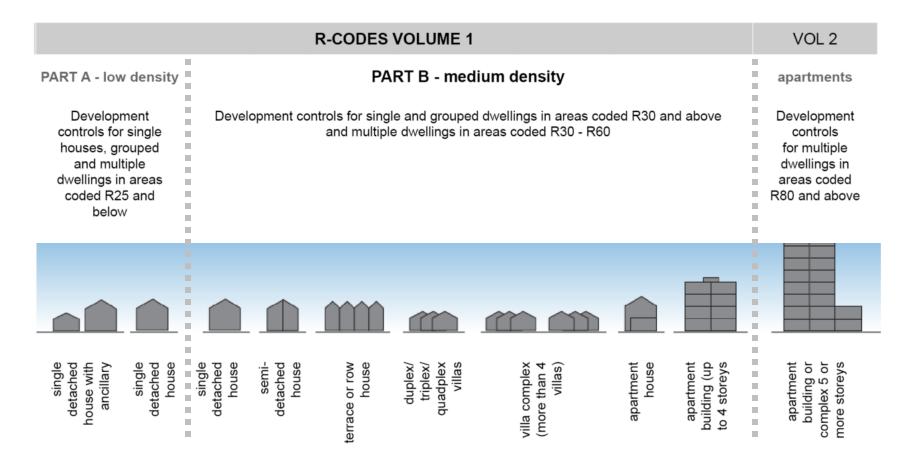


#### Apartment Code

Single Houses: N GD: N Apartments: R

N/A N/A R80+ Residential component of mixed use development

## **MEDIUM DENSITY CODE**



# **MEDIUM DENSITY CODE ELEMENTS**

### 1.0 LAND

- Site-responsive
   design
- Housing diversity
   and choice
- Incentivised approach



### 2.0 THE GARDEN

- Tree canopy
- Gardens
- Natural light & ventilation



### **3.0 THE BUILDING**

- Flexible, functional spaces
- Solar access & ventilation
- More space for people, less for cars



### **4.0 NEIGHBOURLINESS**

- Better streets
- Neighbouring amenity – privacy, solar access



# **DESIGN PROCESS**

#### Site and context responsive design...

- 1. Stage 1 Project Definition What's the brief?
- 2. Stage 2 Project Investigation How can we unlock the site's potential?
- **3.** Stage 3 Design Development What is the preferred concept and does this satisfy the requirements of the decision-maker?

Neighbourhood context

Street context



4. Locating the primary living space

6. Three-dimensional built form

Extracts from Medium Density Explanatory Guidelines (Draft) (WAPC, 2020)

5. Buidling performance and orientation

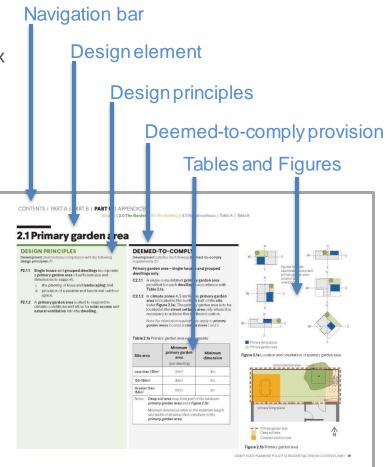
# **ABOUT THE DOCUMENT**

#### **GRAPHIC LAYOUT**

- Bold print has corresponding definitions in Appendix
- Element objectives
- Two column format. Left hand provides design principles pathway
- Right hand column provides deemed-to-comply pathway



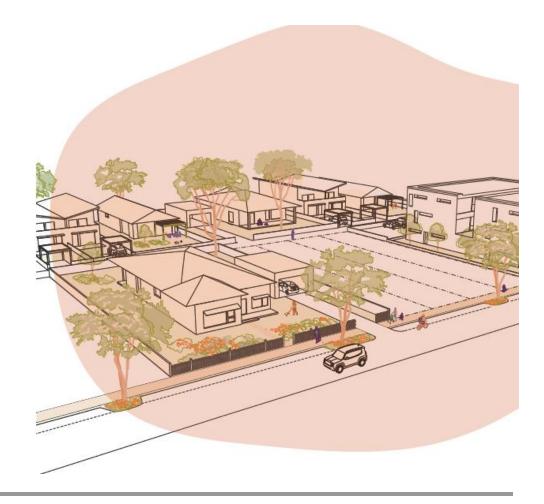
**Element objectives** 



#### Principles and DTC provisions

# MEDIUM DENSITY CODE - DESIGN ELEMENTS

- How do we achieve more housing diversity?
- How do we incentivise sites most suited to medium density?







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#### SITE CATEGORY 1

- BAU yield applies to all lots
- No laneway
- No amalgamation

#### SITE CATEGORY 2 (OPT-IN)

- Yield uplift
- Applies to corner lots, through lots, laneway access, and/or lots that are min. 1,200m<sup>2</sup>
- Grouped dwellings and single houses to front street
- Location A
- Development standards as per applicable R-Code

#### SITE CATEGORY 3 (OPT-IN)

- Yield uplift
- Applies to corner lots and min. lot size 1,500m<sup>2</sup>
- Approved LDP and design standards to qualify
- Location A
- Development standards as per applicable R-Code

#### **SCENARIO 1, R40** (728m<sup>2</sup> lot)

SITE CATEGORY 1

3 dwellings



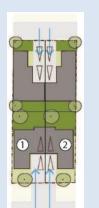
### **SCENARIO 2, R40** (2,265m<sup>2</sup> lot)

- **SITE CATEGORY 1**
- **19 apartments**



#### **SITE CATEGORY 2**

4 dwellings

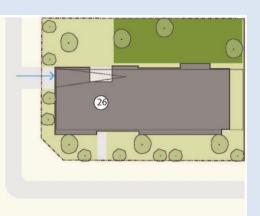


1 additional dwelling



**SITE CATEGORY 3** 

26 apartments



#### **MIXED SCHEMES**

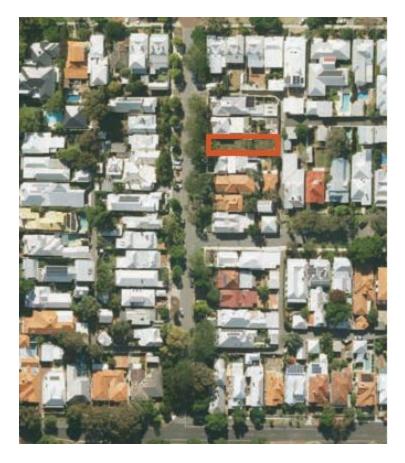
 Ability to assess and develop lots with a combination of grouped and multiple dwellings

#### LOTS UNDER 100M<sup>2</sup>

- Locational criteria applies
- Must be identified in approved structure plan
- Requires LDP

#### OTHERTYPES

- Ancillary dwellings Fonzie, granny flat, dual key dwellings
- Small dwellings
- Aged and dependent persons' dwellings



# 2.0 THE GARDEN

- An extension of a living space
- A place to play, sit and enjoy
- The place that unlocks sunlight and ventilation



# **2.0 THE GARDEN**

- **Primary garden area** for grouped dwellings and single houses, orientated for solar access into dwelling
- **Private open space** (balconies, terraces) for multiple dwellings
- **Communal open space** for multiple and grouped dwellings (more than 10 dwellings)

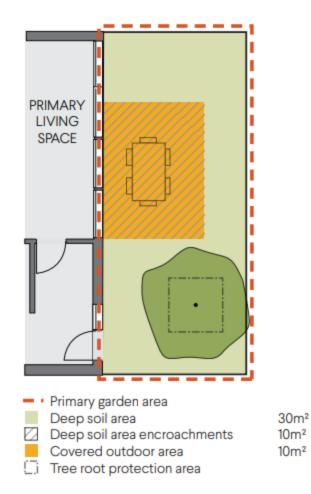
Primary garden area requirements				
Site area	Min. area	Min. dimension		
Less than 120m <sup>2</sup>	20m <sup>2</sup>	3m		
120 - 150m <sup>2</sup>	30m <sup>2</sup>	4m		
Greater than 150m <sup>2</sup>	40m <sup>2</sup>	4m		
Private open space requirements				
Dwelling Type	Min. area	Min. dimension		
Studio / 1 bdrm	8m <sup>2</sup>	2m		
2 bdrm	10m <sup>2</sup>	2.4m		
3 bdrm+	12m <sup>2</sup>	2.4m		
Ground floor apart.	15m <sup>2</sup>	3m		



# **2.0 THE GARDEN**

- Space for trees and deep soil areas (20% of site)
- Increased landscaping requirements

Dwelling type		Minimum tree requirements
Single houses and grouped dwellings (trees per dwelling)		1 small tree
Multiple dwellings	Less than 700m <sup>2</sup>	1 medium and 2 small trees
(trees per site	700-1000m <sup>2</sup>	2 medium trees OR 1 large tree and 2 small trees
	Greater than 1000m <sup>2</sup>	1 large tree and 2 medium trees OR 1 large tree and 4 small trees



# **3.0 THE BUILDING**

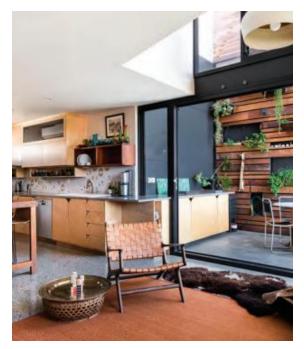
- 'One good room'
- How do we gather as a family and friends?
- Storage for cars, bikes and 'stuff'



# **3.0 THE BUILDING**

#### **INDOOR AMENITY**

- Dedicated primary living space
- Solar access and natural ventilation
   requirements
- Min. dwelling and room sizes



Dwelling	Minimum internal floor area	
Studio	36m <sup>2</sup>	
1 bed	47m <sup>2</sup>	
2 bed x 1 bath <sup>1</sup>	67m <sup>2</sup>	
3 bed x 1 bath <sup>1</sup>	90m <sup>2</sup>	

#### Minimum floor areas and dimensions for habitable rooms

Dwelling	Minimum internal floor area	Minimum internal dimension
Bedrooms	9m <sup>2</sup>	2.7m
Primary living space	N/A	4m

### **3.0 THE BUILDING**

#### PARKING

- **Parking** standards for occupant and visitor parking (bikes and cars)
- Minimum and **maximum** parking standards



Minimum and maximum car parking standards

LOCATION A		Studio & 1 bdrm	2 bdrm	3 or more bdrm	Ancillary dw elling
<b>Minim um required parking</b> (space per dw elling)		0	0	0	0
Maxim um parking	Garage parking	1	1	2	1
<b>permitted</b> (space per dw elling)	Carport, uncovered or basement parking	No maximum parking spaces apply			1
LOCATION B		Studio & 1 bdrm	2 bdrm	3 or more bdrm	Ancillary dw elling
<b>Minim um required parking</b> (space per dw elling)		1	1	2	1
Maxim um parking permitted (space per dw elling)	Garage parking	1	2	2	1
	Carport, uncovered or bas ement parking	No maximum parking spaces apply		1	

## **3.0 THE BUILDING**

#### HOUSING DIVERSITY

- Universal design requirements
- Ancillary dwellings now permitted for single houses (no. min lot size) and dual key dwellings for apartments
- Small dwelling site area concession (35%) to encourage 1 - 2 bedroom dwellings



#### Universal design requirements

Number of dwellings per lot	Silver Level	Platinum Level	
1- 4 dwellings	No minimum requirement		
5 – 9 dwellings	Minimum 1 dwelling	No minimum requirement	
10 or more dwellings	Minimum 20 per cent of all dwellings	Minimum 5 per cent of all dwellings	

- How do we contribute to local character?
- How does new development fit with existing development?

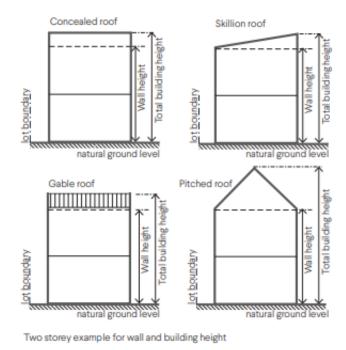


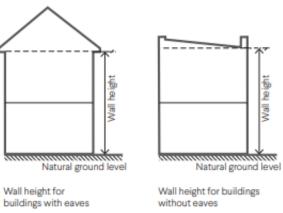
#### BUILT HEIGHT

- Building height measured in storeys
- Height caps to accommodate different roof pitches

Storey height

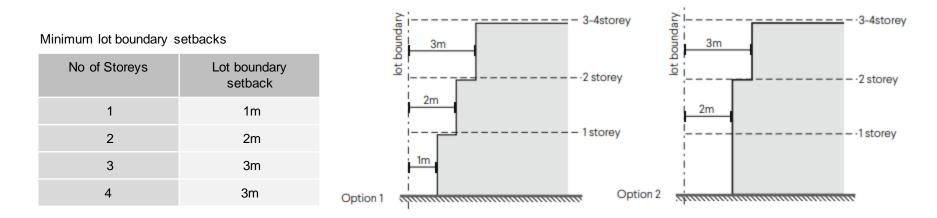
R-Code	Max number	Max. Wall Height	Max. Total Bu	uilding Height	
	of storeys	-	Concealed, gable or skillion roof	Pitched or hipped roof	
R30 – R35	2	7m	8m	10m	
R40 – R60	3	9m	10m	12m	
R80 – R100	4	12m	13m	15m	





#### LOT BOUNDARY SETBACKS

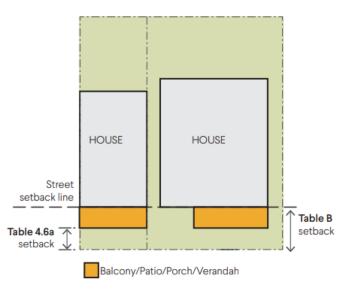
- Simple lot boundary setback calculations based on no. of storeys
- Deemed-to-comply boundary wall provisions to allow terrace typologies



#### STREET SETBACKS

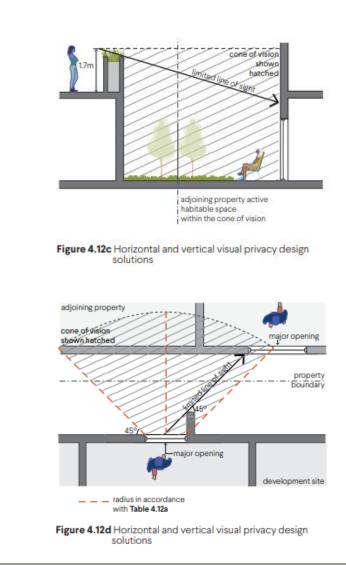
- Minimum street setbacks only (no averaging)
- Provisions to limit impact of garages on streetscapes
- Balconies, patios, porches and verandahs can encroach forward of primary street setback

R-Code	Minimum Primary Street Setback
R30	4m
R40	3m
R60	3m
R80	2m



#### PRIVACY

- 3D cone of vision assessment required where overlooking outdoor active habitable space or major opening of neighbouring lots
- Deemed-to-comply design solutions to address privacy:
  - Offsetting windows
  - Incorporating recessed windows, fins or planter boxes to interrupt line of sight
  - Providing highlight windows, obscure glazing or permanent screening
  - Setbacks



# LOCAL GOVT. VARIATIONS

Alignment with Action Plan for Planning Reform and amendments to the Regulations

- Local Planning Scheme
   Variation requires WAPC approval
- Precinct Structure Plan
   Variation requires WAPC approval
- Local Development Plan (LDP) Select built form elements do not require WAPC approval. New process involving WAPC
- Local Planning Policy (LPP) Select elements do not require WAPC approval

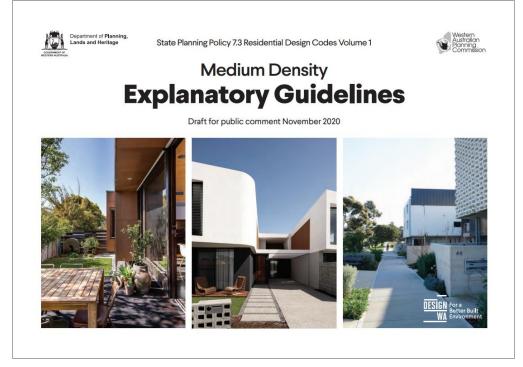
Allowance for regional variations

#### **Transitional arrangements**

- Audit LPP with WAPC input
- Grandfather clause existing structure plans, LDPs

Part C - Medium Density Code		Local planning framework instrument			
Element		Clause reference	Precinct Structure Plan	Local Planning Policy	Local Development Plan
1.1	Site area	All clauses			
2.1	Primary garden area	All clauses			
2.2	Private open space	All clauses			
2.3	Trees, deep soil area and landscaping	All clauses		Regional LG only	
2.4	Communal open space	All clauses			
2.5	Water management and conservation	All clauses			
3.1	Primary living space	All clauses			
3.2	Solar access and	C3.2.1, C3.2.3 and C3.2.4 onlys		Regional LG only	
	natural ventilation	All other clauses			
3.3	Size and layout of dwellings	All clauses			
	Desking	C3.4.3 only		Regional LG only	
3.4	Parking	All other clauses			
3.5	Storage	All clauses			
3.6	Waste management	All clauses			
3.7	External fixtures	All clauses			
3.8	Outbuildings	All clauses			
3.9	Universal design	All clauses			
3.10	Ancillary dwellings	All clauses			
3.11	Small dwellings	All clauses			
	Aged and	C3.12.1(ii) only			
3.12	dependent persons' dwellings	All other clauses			
3.13	Housing on lots less than 100m <sup>2</sup>	All clauses			

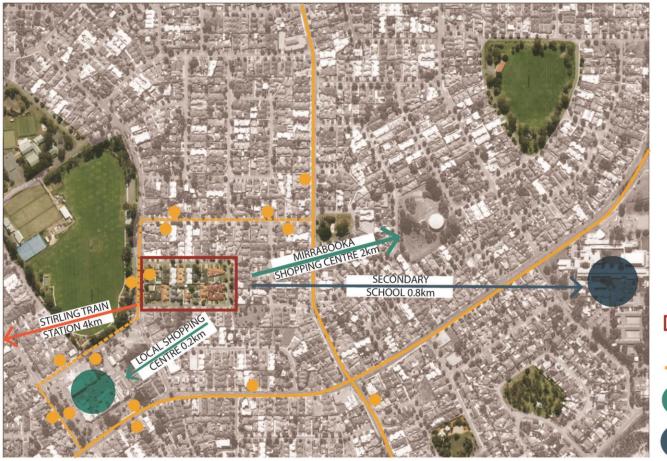
### **EXPLANATORY GUIDELINES**



- Design and assessment guidance
- Support good design process
- How to do site responsive design
- Alternatives to deemed-tocomply

# MEDIUM DENSITY CODE BLOCK STUDY

### **BLOCK STUDY**



### NOLLAMARA

R40

Typical 728m<sup>2</sup> lot sizes

Default triplex infill development



### **IMPACT OF INFILL**

1504

1503

11



1499

1498

1497

1502 1501 1500

Present

1495

1496

Cost to community:

~\$85K/YR

(based on \$1,460/dwelling) (Source: SGS Report)

### **BUSINESS AS USUAL**



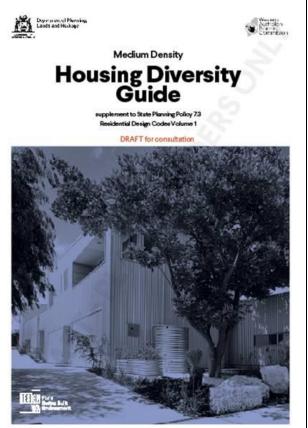


### **CODE BENEFITS**

				<b>MD Policy</b>	
			BAU	Outcomes	% Change
		Duplex	4 dwellings	2	
		Triplex	54 dwellings	24 dwellings	
	YIELD	Quadraplex	-	8 dwellings	
		Terrace	-	30 dwellings	
		Apartments	-	7 dwellings	
		TOTAL	58 dwellings	71 dwellings	+ 22%
	DEEP SC		1,875m <sup>2</sup>	4,140m <sup>2</sup>	
	AREA		12%	27%	+ 120%
			6 small trees	106 small trees (plus four medium retained trees)	+ 1700%
	TREES		<b>0.35%</b> tree canopy cover	6% tree canopy cover (based on average 3m small tree canopy)	+1600% more tree canopy cover

# **NEXT STEPS**

### **NEXT STEPS**





Project sheets demonstrate design and planning principles + site suitability

A resource for design, planning and development professionals to support the Code and greater housing choice

### **POLICY NEXT STEPS**

Code release	<ul> <li>Draft R-Codes, Vol.1</li> <li>MD Explanatory Guidelines</li> <li>Consequential modifications to Vol.2 - Apartments</li> </ul>	27 November 2020
Advertising and engagement	<ul><li>Information forums</li><li>Workshops &amp; Briefings</li></ul>	January to March 2021
Submissions close		16 April 2021
Respond to submissions	<ul> <li>Review submissions</li> <li>Design and feasibility testing</li> <li>Further engagement / workshops</li> <li>Policy modification</li> </ul>	Mid 2021

#### Finalisation and gazettal

Late 2021

### **NEXT STEPS - WORKSHOPS**

Community

**METRO Local government officers** 

**REGIONAL Local government officers** 

**Planning Consultants** 

**Developers/builders** 

Architects / designers

South-west local government tour

Tuesday 9 February 2021, 4.00pm to 6.30pm Thursday 11 February 2021, 9.00am to 12.00pm Tuesday 23 February 2021, 9.30am to 11.00am Tuesday 16 February 2021, 9.00am to 12.00pm Thursday 18 February 2021, 9.00am to 12.00pm Thursday 18 February 2021, 2.00pm to 5.00pm Tuesday 19 January – Thursday 21 January 2021





# **QUESTIONS?**



## **YIELD INCENTIVES**

R-		Site area per dwelling (m²)				
Code	Dwelling type	CATEGORY A	CATEGORY B	CATEGORYC		
For resid	lential development in	areas coded R25 and belo	w, refer to R-Codes	Vol.1		
R30	Single house and Grouped dwelling	Min 260 Ave 300	Min 220 Ave 260	Min 180 Ave 220		
	Multiple dwelling	Ave 300	Ave 260	Ave 220		
R35	Single house and Grouped dwelling	Min 220 Ave 260	Min 180 Ave 220	Min 160 Ave 180		
	Multiple dwelling	Ave 260	Ave 220	Ave 180		
R40	Single house and Grouped dwelling	Min 180 Ave 220	Min 160 Ave 180	Min 120 Ave 150		
	Multiple dwelling	Ave 115	Ave 100	Ave 85		
R50	Single house and Grouped dwelling	Min 160 Ave 180	Min 120 Ave 150	Min 100 Ave 120		
	Multiple dwelling	Ave 100	Ave 85	Ave 85		
R60	Single house and Grouped dwelling	Min 120 Ave 150	Min 100 Ave 120	NA		
	Multiple dwelling	Ave 85	NA	NA		
R80	Single house and Grouped dwelling	Min 100 Ave 120	NA	NA		
	Multiple dwelling	Refer R-Codes Vol. 2	NA	NA		
R100 <sup>1</sup>	Single house and Grouped dwelling	Min 80 Ave100	NA	NA		
	Multiple dwelling	Refer R-Codes Vol. 2	NA	NA		