WSROC

Advocating for the people of Western Sydney

SUBMISSION:
Response to the Draft Medium Density Design Guide and Design Code

December 2016
Representing the councils of Western Sydney

Executive Summary

Western Sydney Region Organisation of Councils (WSROC) welcomes the opportunity to comment on Draft Medium Density Design Guide and Draft Code.The varying waste collection services and waste infrastructure available across local government areas within NSW present a significant challenge for the Draft Design Guidelines and Draft Code. This varying nature continues to present a significant hurdle for the Draft Design Guidelines that have not fully been overcome and resolved from the earlier Discussion Paper.

Our in principle support regarding Code expansion and the adoption of the Design Guidelines is on the basis that further consideration be given to ensuring that new developments will provide high level urban design and protect local residential amenity. Furthermore, additional consideration will need to be given to ensuring that new developments will be able to be adequately supported by council infrastructure and services offered by council. Poor development outcomes have potential to result in developments that are unable to be integrated with councils' waste service once the developments are operational. This is likely to result in increasing financial and service delivery pressures for local councils and significant resident frustration.

Specific controls requiring further attention include the following:

- Concern is raised regarding the minimum widths provided for both lanes and internal roads. While the provision of minimum widths is essential in ensuring that the developments can function safely and effectively, the proposed minimum street and laneway widths do not currently consider the size and dimensions of emergency service vehicles and waste collection vehicles that will be required to service the development.
- Councils face considerable challenges servicing waste bins from rear laneways with inadequate setback. A 0m lane setback does not allow any space for bins to be collected, nor provide space for the arm of a collection vehicle to empty bins.
- The promotion of development design based on small collection vehicle sizes is strongly opposed by western Sydney councils. The Guidelines do not recognise that the majority of councils do not have access to smaller waste collection vehicles.
- It is essential for the bin-carting route to be identified for the dwelling to ensure that the bin-carting route does not require the carting of bins through habitable rooms of the dwelling.
- Concern is raised regarding the storage of bins within car garages and the implications on amenity in regards to the limited ventilation and potential for odour issues.
- It is important when promoting or allowing for reduced lot sizes and lot widths, that the implications for the council waste bins and kerbside servicing is understood.
- It is essential that communal bin storage areas be considered early in the design process so they can be successfully integrated into the overall design of the development and in an area convenient for all users.

It is essential in moving forward and expanding the Code that recognition of the importance of integrating waste management within the planning process is realised, early on in the design process. Too often failing to plan and design adequately for waste management result in inferior planning outcomes compromising residential amenity and council staff/contractor safety.

About WSROC

The Western Sydney Regional Organisation of Councils (WSROC), representing councils in Western Sydney, has reviewed components of the Draft Design Guide and Draft Code relevant to the waste and resource recovery services provided by councils to residents. These councils are Blacktown City Council, Blue Mountains City Council, Cumberland Council, Fairfield City Council, Hawkesbury City Council, Liverpool City Council, Parramatta City Council, Penrith City Council and non-member councils of The Hills Shire Council, Camden Council, Campbelltown City Council and Wollondilly Shire Council.

In 2014, the NSW Environment Protection Authority (EPA) funded WSROC to develop the *Western Sydney Regional Waste Avoidance and Resource Recovery Strategy* and to work towards fulfilling strategy projects. The strategy was developed to outline future directions for resource recovery practices across Western Sydney, and explore options for addressing common waste management challenges faced by councils in the region.

A key action in this strategy addresses the linkages between the planning system and provision of waste services to the community. As part of the regional waste initiative, WSROC seeks to ensure that the issues detailed in the Draft Design Guide and Draft Code maintain community amenity and safety, provide scope for waste diversion and resource recovery, and ensure there is no negative impact on the requirement of councils to provide waste services to their community.

Getting it right: understanding waste and resource recovery collection systems

All Western Sydney councils provide residual waste and recycling collections services to their residents. However, collection methods and operational requirements vary across the councils.

WSROC recognises that this varying nature of councils waste infrastructure and service requirements makes it difficult to deliver Design Guidelines and standards within the draft Code that are specific, measurable and deliverable in order for the benefits of this approval pathway to be realised and deliver housing supply and options with faster approval times.

Waste services offered by local councils and relevant to developments of this nature and density need to be understood, specifically in regards to:

- Bin allocation for all waste streams;
- Waste infrastructure such as bin sizes and types; and
- Servicing methods and servicing frequency.

Adding to the complexity in providing well-considered and meaningful design requirements and subsequent design standards within the Code is that Western Sydney councils have a combination of council staff and external contractors to carry out the collection of the various waste streams. This means that it is difficult to provide succinct and specific requirements that are appropriate for the variety of waste infrastructure and waste services offered across local government.

The waste collection services provided by councils can include:

- **Residual waste: 120L-240L mobile garbage bins collected weekly/fortnightly;**
- **Co-mingled recycling: 140L-240L bins collected weekly/fortnightly;**
- **Organic waste: 240L bins collected weekly/fortnightly;**
- **Bulk garbage waste services in high density dwellings: 660L-1100L bins collected weekly/fortnightly; and**
- **Bulky waste (hard rubbish) collection services.**

The methods used by Western Sydney councils to service the removal of waste from medium density developments include:

- **Kerbside collection: Bins presented to a nominated kerbside collection point for servicing;**
- **Collect and return collection: Bins collected from a nominated bin storage point on site to be accessed by council staff/contractors and returned to after collection; and**
- **On-site collection: Council/contractor waste vehicle enters site for waste collection.**

The Draft Design Guidelines do go some way in elevating waste management issues as an important consideration in the design process for medium density developments. However, it is our view that the Guidelines could go much further in ensuring applicants, land owners and developers understand the complexity surrounding waste management issues and the potential implications for councils, ratepayers and residents if waste management issues are not given due consideration early in the design process.

The Draft Design Guidelines will be an essential tool for ensuring all stakeholders get waste management right. Yet, there are still issues to overcome and should be considered further prior to finalising the Draft Design Guidelines and Draft Code. These issues are identified in detail later in this submission.

A pressing concern is that that the absence of design guidelines that fully understand waste management issues currently being experienced and faced by local councils at an operational stage will result in developments that councils have significant safety and logistical challenges providing waste services to, and significant amenity issues for residents, impacting community liveability.

WSROC recommends that the Design Guidelines recognise the importance of early consultation with councils' waste team and managers in the design process so that the applicant and landowner can fully understand the requirements of the council relevant to the proposal.

WSROC also recognises the importance for councils to be able to communicate these requirements in an effective and timely manner. This is a key responsibility for councils so that applicants can respond to councils' requirements early in the design process to avoid costly and timely amendments to the development. It is in everyone's best interest to ensure that the development is capable of delivering safe and sustainable planning and waste management outcomes.

Balancing Priorities: Challenges for Medium Density Developments

As raised in our initial submission to the Discussion Paper earlier this year, medium density developments present challenges for councils, mainly with provision of appropriate waste storage and collection facilities. Our experience has shown that waste management planning within multi-unit developments is often an after-thought for the developer.

Balancing priorities for promoting housing growth and development in line with Western Sydney councils' commitment to align council practices and operational standards with NSW 2021 and NSW Waste and Resource Recovery targets is a challenge but can be overcome.

All stakeholders involved in the development and design process need to understand the importance of waste management and that this is an issue that cannot be left to be resolved once the development is operational.

The Draft Design Guidelines and Draft Code has gone some way in elevating the importance of considering waste management issues. It is noted that both Part 2: Design Guidance and Part 3: Design Criteria of the draft Guidelines contain both consideration and requirements of waste management issues for the range of development types. However, it is our view that the waste management considerations and design criteria needs additional attention to the matters raised in our submission to ensure the many amenity issues that may arise as a consequence of ill-considered waste management facilities are not left for councils and residents to resolve post-development.

Often the experience throughout western Sydney is to ensure that the developer and applicant provide adequate space for waste management facilities, which may for larger medium density developments require space to facilitate on-site collection. Requirements for waste storage and collection areas are in strong competition against developer costs and financial returns, often resulting in waste management facilities that are not adequate and significant day to day impacts on residents.

In summary, poorly designed and inadequate waste management facilities in new developments will directly impact upon councils' ability to provide safe and cost efficient waste services, ongoing amenity issues for residents, and preventing council commitment to achieving NSW WARR targets by 2021. It is essential that the Draft Design Guidelines and proposed Code expansion does not detract from the achievements already made by local government in providing efficient waste services.

There are two key outcomes which need to be considered throughout the review of the Draft Code and Draft Guidelines; protecting residential amenity, and ensuring councils can provide safe and efficient services.

Protecting residential amenity

Appropriate and well-designed waste management facilities within developments can often be viewed as an additional financial imposition for the developer with reduced consideration of the needs of the residents and how the waste service can be provided to the development.

Not providing appropriate waste storage and collection areas within medium density developments can result in less desirable design outcomes where developments will offer poor amenity for future occupants and will fail to meet the on-going needs of the occupier in regards to convenience and ease of use. This is contrary to the intent and objectives of the Design Guidelines that are intended to assist in achieving better design and planning outcomes for low-rise medium density development.

It is considered that the design considerations in Part 2 of the Draft Guidelines could be expanded further to clearly outline the issues surrounding poorly designed waste storage and collection areas. This would go some way in ensuring that residential amenity and useability is protected.

It is also our view that the design criteria contained within Part 3 of the draft Guidelines need to be expanded further to contain clear requirements to protect residential amenity for both existing and future residents. It is recommended that the design criteria within Part 3 across all development types should go further in providing more specific requirements relating to bin storage and bin collection areas so that residential amenity is maintained.

This submission contains examples of design criteria that would be relevant for many councils in securing developments that protect residential amenity and that can be integrated with the waste services provided by councils.

Providing Safe and Efficient Services to residents

Where waste is neglected at a design and planning phase it can also result in developments, which are difficult for a council (and its contractors) to service at an operational level. This can often lead to increases to broader operational costs as well as increased risks to residents, operational staff and contractor health and safety.

It is appreciated that the varying nature of councils' waste infrastructure and waste services makes it difficult to outline succinctly councils' requirements. Notwithstanding, the draft Guidelines have an opportunity for encouraging consultation with relevant councils early in the design process to obtain an understanding of the council's requirements for bin allocation, bin servicing and collection and bin storage.

It is essential that councils also understand that they have a responsibility in providing clear and legible information regarding waste service requirements to external stakeholders. It is vital for councils to ensure that this information is readily accessible and can be provided to applicants and developers in a timely manner.

Delivering better quality and functional developments: Recommendations to explore

To respond to the issues and concerns raised in the submission thus far a number of recommendations are provided below and explored in more detail later in this submission.

It is our view that the following recommendations will ensure that the Draft Design Guidelines will assist in delivering better quality and functional developments:

- Promote waste planning considerations to occur early in the design phase of the development process.
- Require all developments to be supported by a well-considered waste management plan.
- Clearly identify that each council area offers different waste infrastructure and waste services.
- Establish more specific and deliverable parameters in both Part 2 and Part 3 of the Draft Guidelines. These parameters need to establish deliverable and measurable requirements for council staff and certifiers to meet regarding the provision of on-site waste management facilities for both waste storage and collection areas. This should include occupant amenity, sustainable design and ensuring safe access at an operational level to service the development.
- The Design Criteria needs to be significantly expanded to ensure design issues surrounding waste storage and waste collection areas are resolved.

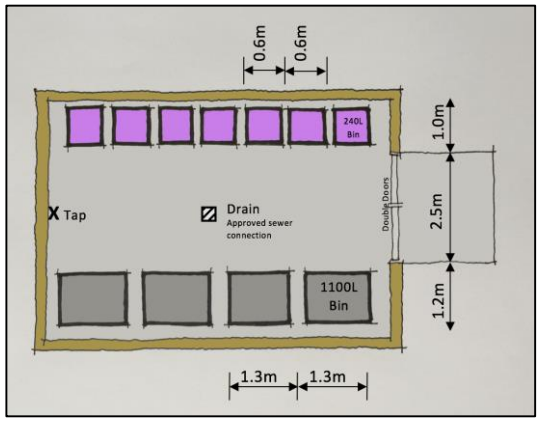
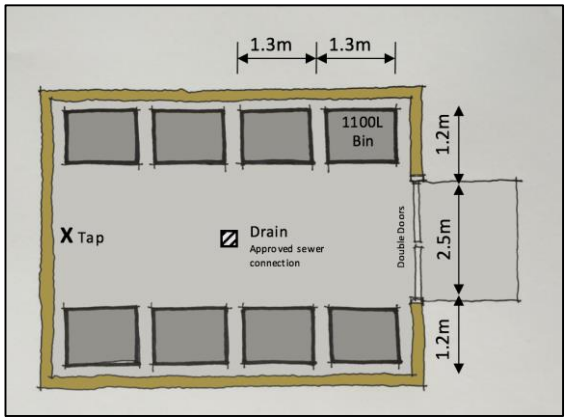
Medium Density Design Code		
Design Guidance		
Design Guideline	**Specific Requirements**	**WSROC Comments**
2A Building Envelopes – Heights and Setbacks:	General	• It is agreed that setbacks are important to the amenity of new developments and adjoining buildings. • It is also acknowledged that street setbacks accommodate front gardens and contribute to the landscape settings of buildings and the street. However, street setbacks also need to be able to accommodate and support essential waste infrastructure. This includes bin storage (including temporary holding areas) for certain developments, bin-carting areas and bulky household waste collection. Side setbacks are also important for not only general building access and maintenance but also for the carting and transfer of bins to collection points. • Developments should be encouraged to give due consideration to the waste management needs of any new developments in the early design phase of the development including the size of bins, number of bins and how they will be serviced by the council.
	15. Achieve setbacks which maximise deep soil areas, retain existing landscaping and support consolidation of mature vegetation across sites.	• This requirement should be expanded to ensure that setbacks are sufficient for accommodating all required waste infrastructure.
	17. Consider access around buildings for maintenance.	• This requirement should be expanded to also include consideration of bin transfer to the required bin collection point. To maintain residential amenity, bins should not be transferred through habitable rooms of the dwelling. This is extremely important given that some councils may collect bins from lane ways, while others councils will not. Therefore the developer needs to know the specific requirements of the council.
2F Internal Streets	General	• It is agreed that the location and design of vehicle access points can have a

– Pedestrian and Vehicle Access		significant impact on streetscape and site layout. The internal circulation of the development should be clear and legible and it is vital for internal roads to be designed to ensure safe and efficient vehicle access. Internal roads and vehicle manoeuvring areas should be designed to accommodate the largest vehicle that will be required to access and service the development. • In principle it is agreed that internal roads should prioritise pedestrian movements, however internal roads widths, layouts and manoeuvring areas need to be of sufficient design to allow these developments (particularly larger developments) to be serviced internally by waste vehicles. • Careful consideration needs to be given to the selection of surface materials, landscaping and bollards which may restrict and prevent Council and its waste contractors from servicing the development.
	1. Create a hierarchy of streets and lanes. Lanes: shared or pedestrian surfaces with a width of common area including landscape - minimum 6m wide. Streets: width of common area including landscape - minimum 12m.	• Concern is raised regarding the minimum widths provided for both lanes and internal roads. While the provision of minimum widths is essential in ensuring that the developments can function safely and effectively, the proposed minimum street and laneway widths do not currently consider the size and dimensions of waste collection vehicles that will be required to service the development. • It is recommended that the minimum widths provided in the Guideline be reviewed. It is vital for the Design Guide to provide adequate street and laneway widths to ensure new developments can be integrated with councils' waste service. The minimum widths must also recognise that across local government areas, a variety of different sizes and types of vehicles service these types of developments. It also must be understood that some councils own and control their waste collection fleet while others are under tender agreements with waste contractors. • For example, Penrith City Council current waste collection fleet consists of 10.5m (rear loaded) and 12.5m (side loaded) heavy rigid vehicles. These vehicles require a minimum unrestricted pavement width of 8m to allow a safe and efficient waste service to be conducted. • It is also recommended that minimum pavement widths and construction standards be provided in the Design Guide. It is necessary for internal roads (while they will remain in private ownership) be constructed to minimum standards

		for public roads where waste collection vehicles are required to access the site and manoeuvre.
	2. Streets should not have dead ends - they connect to other streets or lanes. They have a footpath on at least one side, include tree planting at regular intervals and have a carriageway of at least 6m.	• It is agreed that streets should not have dead ends. It is recommended to ensure safe and efficient internal circulation, that internal roads and circulation be designed so that all vehicles can exit the site in a forward direction. • Turning or manoeuvring areas will need to be provided that are of sufficient size and dimension to facilitate the largest vehicle servicing the site, exiting in a forward direction.
	7. Allow turning circles for services vehicles.	• Agreed. However, it is recommended that this requirement be expanded to also include waste collection vehicles.
	21. Integrate basement entries with the building's overall façade. Design solutions may include: • Choose materials and colour palette to minimise visibility from the street; • Adjust floor levels over garages to minimise the size of the void and recess in the facade; • Choose security doors or gates at entries which minimise voids in the	• It is important for the Design Guide to include requirements and considerations for basement design. While it is agreed that it is important for the design of the basement and vehicle entry points to be integrated holistically within the development and to reduce the appearance of "garage door" and "vehicle" dominance within development sites, it is essential for developments to be functional. • Some councils require bins to be collected within the basement. This requires consideration early in the design phase of the development, to ensure adequate heights, clearances and gradients are provided so that waste collection vehicles can safely access the basement and service the development.

	façade; and • Where doors are not provided, ensure the visible interior reflects the façade design and the building services, pipes and ducts are concealed.	
2L Dwelling Site and Layout	General	• The layout of dwellings establishes the way rooms are used and significantly influences resident amenity. • It is considered essential for dwelling layouts to consider how bins are transferred from individual bin storage areas to collection points. This is important consideration for terrace (attached) housing and manor homes where side setbacks may not be provided or of sufficient width to enable bin carting to the collection point. • It is recommended that the design requirements be expanded to ensure that internal dwelling design and layout maximises future residential amenity and include consideration of bin-carting route and to ensure that the bin-carting is not undertaken through the internal rooms of the dwellings. This approach would also maximise residential health and hygiene.
2Z – Waste Management	General	• Medium density developments present challenges for councils in regards to the provision of appropriate waste facilities. Our experience has shown that waste management planning within multi-unit developments is often an after-thought for the developer. • It is agreed that the minimisation and effective management of domestic waste from dwellings contributes to the visual and physical amenity of the building while limiting potentially harmful impacts on the environment. • The approach for encouraging consideration of waste management issues being undertaken early in the design process is welcomed. • Many amenity issues arise as a consequence of ill-considered waste management facilities in regards to visual intrusion, odour, hygiene and noise. Broader public health and safety issues are also experienced as a direct impact

		from poorly designed waste management facilities within medium density developments. • The inclusion of well-considered design requirements for waste management is strongly welcomed. However, for good and appropriate planning and waste management outcomes to be achieved post development, it is recommended that the Design Guidelines must include specific standards that align with and recognise other State and Council priorities including waste management. Poorly designed and inadequate waste management facilities in new developments will directly impact upon councils' commitment to achieving the NSW WARR targets by 2021 as well as resulting in developments with safety and amenity issues for residents and councils.
	1. Provide adequately sized storage areas for recycling, general and garden waste located discreetly away from the front of the development or in the basement car park.	• Agreed. • It is recommended that future proponents be encouraged to liaise with their local council to identify the number of bins allocated per dwelling and their size and dimensions. • It is recommended for developments which will locate bin storage areas within the basement car park of the development, that they liaise with the local council to identify whether the development will be serviced within the basement (and what the requirements area) or whether a holding area for collection will need to be provided at grade. • Should a temporary holding area be required, consideration of bin-carting routes, gradients and length of travel will need to be considered in the early design phase of the development.
	2. Provide waste and recycling storage areas that are well ventilated.	• Agreed. • It is welcomed that consideration be given to potential health, hygiene and amenity issues such as odour surrounding bin storage areas.
	3. Circulation design allows bins to be manoeuvred easily between storage and collection points.	• Agreed. • It is considered appropriate for an image be used to illustrate the layout of bin storage areas to ensure that bins can be manoeuvred for servicing, cleaning and maintenance. This should include identification of doorway widths, bin dimensions, spacing bin statements. An example is provided below in Figure 1.

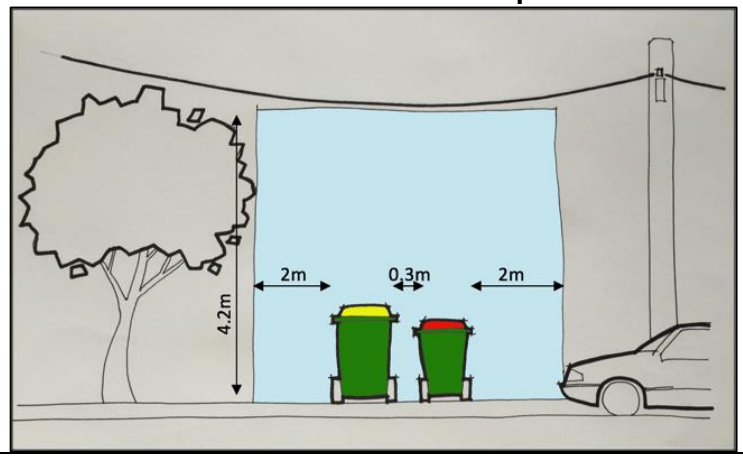
		Figure 1: Examples of illustrations for communal waste storage areas (layout)  
	4. For larger developments where a waste collection vehicle needs to access internal streets or basement car parking use the smallest waste vehicle possible to reduce heights and space required for turning paths.	• The promotion of development design based on small collection vehicle sizes is strongly opposed by western Sydney councils. • The Guidelines do not recognise that the majority of Council's do not have access to smaller waste collection vehicles. Often smaller waste collection vehicles are more costly to Council in regards to efficiency (i.e. the number of developments that they can service). • Rather, it is recommended that the Guidelines be amended to reinforce the importance of liaising with the relevant local council early in the design and site planning process to identify whether the development will be required to be serviced on-site and what the design requirements are. This is important for multi-unit housing developments and larger developments where lots will be subdivided yet serviced by internal roads. • The current approach would result in developments that are not able to serviced, or serviced at higher operational costs for councils, which would need to be cost recovered from residents under requirements of the *Local Government Act 1993*. Furthermore, some councils utilise private operated fleets through tender

		agreements and would not be in a position to negotiate the use of smaller vehicles. • The Guidelines should also reinforce the dynamic fleets currently used by councils throughout NSW and that methods in which councils service medium density development varies significantly. • The Guidelines would benefit from some definitions that define and outline the range of waste services offered by councils across NSW.
	5. Temporary storage for bulky items is provided in an area that is not visible from the street.	• Agreed. • The inclusion of requirements for temporary storage of bulky items is welcomed. Illegal dumping is a significant issue facing the majority of councils throughout NSW, and is common on kerbsides outside multi-unit dwellings with no provision for bulky waste storage. In addition, the illegal dumping of bulky household items not only presents a number of environmental and operational issues for councils but significantly detracts from the streetscape and has broader amenity impacts. • It is considered appropriate for the requirements to be expanded further to include appropriate locations for the temporary storage of bulky waste items. It is most appropriate for bulky waste storage areas to be located adjacent to communal waste storage areas. These areas should be suitably secured and of sufficient area (including dimensions) that enable items to be temporarily stored awaiting council collection.
	6. A waste management plan should be prepared.	• It is recommended that the Design Guidelines be amended to require the submission of a waste management plan with every application. The waste management plan is a necessary document that will outline not only how waste is minimised during construction phase but how the development will manage waste generated by residents and integrated with Council's waste service at the operational stage.
	7. Where access to the collection point is required on site, consider the use of a smaller collection vehicle to reduce space for circulation and head clearances in	• The promotion of dwelling design based on small collection vehicle sizes is strongly opposed by western Sydney councils. • The use of smaller collection vehicles is not a feasible solution or an approach that it recommended in the design of new developments. In most instances Councils do not have access to or have a fleet of smaller vehicles available to service developments. Smaller vehicles are not cost and resource effective for

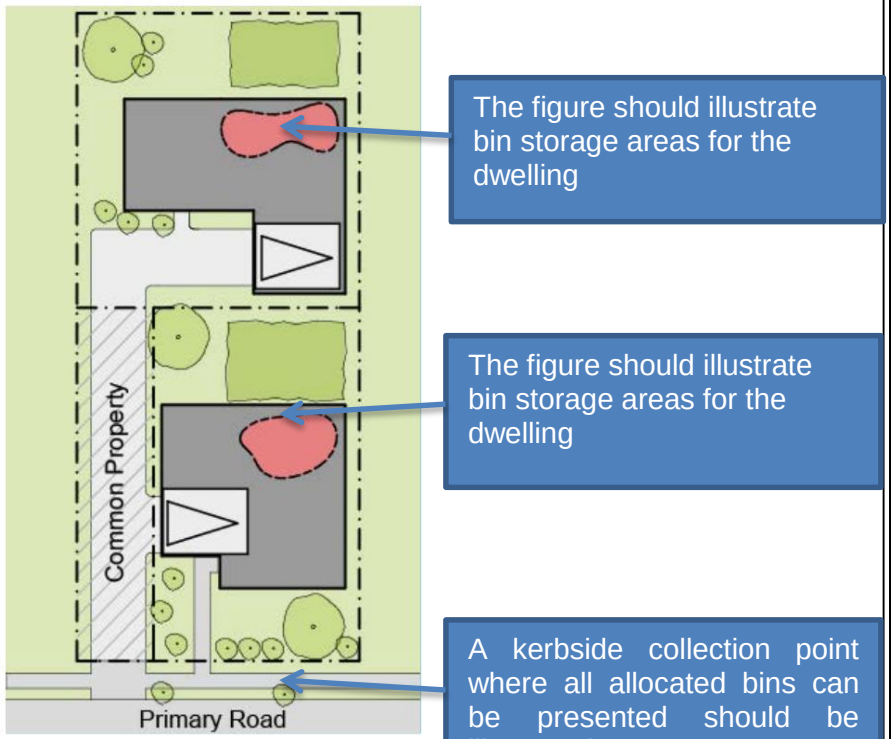
	basements.	most local government areas, as smaller vehicles are forced to make more frequent disposals to cater for increasing waste volumes attributed to greater density living. This approach would result in developments that are not able to serviced, or serviced at higher operational costs for councils, which would need to be cost recovered from residents under requirements of the *Local Government Act 1993*. Furthermore, some councils utilise private operated fleets through tender agreements and would not be in a position to negotiate the use of smaller vehicles. • An alternate approach would be to require development to be designed in accordance with the Australian Standard AS2890.2 and ensure that the applicant liaises with the relevant Council to identify the type of vehicle (medium or heavy rigid) that would service the development. A clearance height of 4.5m would be required which is consistent with the Australian Standard.
	8. Locate bin storage away from habitable room windows.	• Agreed. • The consideration of amenity issues associated with bin storage areas such as to odour, noise and visual impacts are an important in the early design process. • Locating bin storage areas away from front entries and foyers, habitable rooms and private open space is an important consideration.
	9. Ensure communal waste and recycling rooms are in convenient and accessible locations related to each vertical core.	• Agreed.
	10. Screen garbage collection, loading and servicing areas behind structures which are integrated into the overall design.	• This requirement is supported in principle as it aims to alleviate any adverse amenity and visual impacts that may be experienced from locating storage and collection areas in front of developments. However, it is also important for the applicant to consider operational issues surrounding how the development will be serviced. • In this regard, it is recommended that the applicant liaise with the relevant local council early on in the design phase to identify and understand how the development will be required to be serviced at an operational stage.

		• Some developments will require a bin holding area (or bin presentation area) that are to be located within the front setback so that the development can be serviced. The benefit of locating the bin holding area within the front setback will reduce the carting distance for Council (and/or its waste contractors) carting the bins where developments will utilise the “wheel in/wheel out” or “collect and return” service. Alternatively, the travel distance for Council waste collection vehicles would also be reduced where developments are required to be serviced through on-site collection methods.
	11. Provide green waste composting.	• Agreed.

Medium Density Design Code		
Design Criteria: Two Dwellings Side by Side		
Design Guideline	**Specific Requirement**	**WSROC Comments**
3.1A Building Envelopes	Site dimensions: 200sqm 6m width	• The importance of encouraging increased density and promoting housing growth and affordability that is consistent with NSW State priorities and planning strategies is understood and recognised. However, concern is raised that the reduced minimum lot sizes and lot widths that would be available under the Code go beyond what many councils have currently adopted within their local plans. • It is important when promoting or allowing for reduced lot sizes and lot widths, that the implications for the council relating to infrastructure and servicing is both understood and appreciated. • Reduced lot widths have potential implications for councils regarding waste servicing. • In most instances bin allocations for dwellings within this development type range between 2-3 mobile garbage bins. Adding to the complexity on how waste can be serviced on narrower lots and denser areas, is that the type and size of bins allocated varied across local council areas, making it difficult to adopt a “one fits all” approach. • In most instances, these development types would be required to be serviced through kerbside collection. To facilitate kerbside collection, a collection point is needed of a minimum 1m x1m for each mobile garbage bin to allow the development to be serviced in an efficient and safe manner. • It is recommended that the Design Code be amended to incorporate the developer to nominate a suitable kerbside collection point for the development, where all bins can be temporary stored for collection. In addition, applicants should be required to consider driveway width and any site and street

		restrictions that may impact on the placement of bins kerbside for collection. • Figure 2 has been provided illustrating kerbside collection requirements for two mobile garbage bins. • The following considerations regarding kerbside collection points should put forward to ensure that development sites are of sufficient dimensions to ensure that they can be serviced by Council: - Present all allocated bins in single file along the kerbside with a 30cm gap between bins. - Allow a minimum of 1m x 1m per bin for bins to be presented to the kerb side-by-side. - Ensure all allocated bins are placed within the site's allocated frontage (not in the driveway) and not in front of neighbouring lots. - Have a separation distance of 2m from street trees, bus stops, street furniture and road infrastructure such as round-a-bouts and speed humps. **Figure 2: Illustration of kerbside collection points** 

3.1Z Waste Management	96. Storage areas for rubbish and recycling bins should be provided: • Within garages, • In screened enclosure that is part of the overall building design discretely, or • in the basement car park.	• It is agreed that it is suitable for these types of developments to have their own individual bin storage area on their property. • Concern is raised regarding the storage of bins within car garages and the implications on amenity in regards to the limited ventilation and potential for odour issues. Furthermore, it is considered that bins being stored in garages are likely to impact on the amount of space being available for car parking. • It is recommended that the requirements be expanded to include the following requirements for individual bin storage areas: - Located behind the building line of the dwelling or where it is screened or cannot be viewed from public areas. - Located away from habitable windows and doors of adjoining dwellings to reduce noise and odour. - Allow residents to conveniently carry their waste to the correct bin from their dwelling. - Allow bins to be moved safely to collection points. - Ensure the bin-carting route from bin storage area to collection point does not pass through any internal rooms of the dwelling and must avoid steps and slopes. - The bin-carting route from the bin storage area to the collection point has a maximum distance of 50m (in the case of battle-axe properties). • Figures within the Code such as Figures 3-2, 3-3 and 3-4 could be amended to include the identification on bin storage areas and kerbside collection points so that this issue is identified as an early consideration for applicants. An example is provided in Figure 3 below.

		Figure 3: Recommended changes to Figure 3-2 from Guidelines 
	97. The number and type of bins provided is to be in accordance with Council policy	• Agreed. • It is recommended that this Code requirement be supported by appropriate advice within the Design Guidelines for applicants and proponents to enter into discussions with Council officers regarding bin allocation and servicing requirements. • Failure to understand bin allocation and how they will be

		serviced will result in poor urban design and waste management outcomes. Requiring applicants to liaise with the relevant council early in the design stage of the development will not only result in developments that can be serviced but will ensure that waste related infrastructure will not detract from the design of the development or reduce residential amenity.
Design Criteria: Terrace Houses		
Design Guideline	**Specific Requirement**	**WSROC Comments**
3.2A Building Envelopes	Site dimensions: 200sqm 6m width	• It is important when promoting or allowing for reduced lot sizes and lot widths, that the implications for councils relating to infrastructure and servicing is both understood and appreciated. • Reduced lot widths have potential implications for councils regarding waste servicing. • In most instances bin allocations for dwellings within this development type range between 2-3 mobile garbage bins. Adding to the complexity on how waste can be serviced on narrower lots and denser areas, is that the type and size of bins allocated varied across local council areas, making it difficult to adopt a “one fits all” approach. • In most instances, these development types would be required to be serviced through kerbside collection. To facilitate kerbside collection, a collection point of a minimum 1m x1m for each mobile garbage bin to allow the development to be serviced in an efficient and safe manner. • It is recommended that the Design Code be amended to incorporate the development to nominate a suitable kerbside collection point for the development, where all bins can be temporary stored for collection. In addition, applicants should be required to consider driveway width and any site and street restrictions that may impact on the placement of bins kerbside

		for collection. • It is recommended that the Design Code be amended to incorporate the development to nominate a suitable kerbside collection point for the development, where all bins can be temporary stored for collection. In addition, applicants should be required to consider driveway width and any site and street restrictions that may impact on the placement of bins kerbside for collection. • The following considerations regarding kerbside collection points should put forward to ensure that development sites are of sufficient dimensions to ensure that they can be serviced by Council: - Present all allocated bins in single file with a 30cm gap between bins. - Allow a minimum of 1m x 1m per bin for bins to be presented to the kerb side-by-side. - Ensure all allocated bins are placed within the site's allocated frontage (not in the driveway) and not in front of neighbouring lots. - Have a separation distance of 2m from street trees, bus stops, street furniture and road infrastructure such as round-a-bouts and speed humps.
	Lane Setback of 0m	• Councils face considerable challenges servicing waste bins from rear laneways with inadequate setback. A 0m lane setback does not allow any space for bins to be collected, nor provide space for the arm of the collection vehicle to empty the bin. • Waste collection points should provide a clear and unobstructed space behind the bins for waste collection vehicles' arm path, as bins cannot be collected when placed up against buildings, fences or within driveways. This is

		particularly important if narrow laneway widths do not allow the collection vehicle any space to manoeuvre within the laneway. • If bins are to be collected from a laneway, the requirement for setbacks on small lot sizes needs to also consider the requirement for unobstructed vertical space. Light fixtures, gutters and balconies must be considered when designing to ensure there is a minimum 4.3m of clear vertical space above the collection point, to prevent damage to fixtures by the arm of the collection vehicle when servicing bins. • If the building setback is minimal on a rear carriageway and there is two way traffic movement or narrow access, the waste collection vehicle is forced closer to the building which can increase the risk of property damage or injury. • Figure 4 below shows a waste collection vehicle having to manoeuvre towards the middle of the accessway to allow adequate space for the vehicle arm to safely collect bins without causing damage to the property.

		
3.2 Z Waste Management	105. Storage areas for rubbish and recycling bins should be provided: • Within garages, • In screened enclosure that is part of the overall building design discretely, or • in the basement car park.	• Consideration of bin-carting route from storage area to kerbside collection point needs to be addressed for this development type due to the limitation of side setbacks being available for both bin storage areas and bin-carting route. • It is essential for the bin-carting route to be identified for the development to ensure that the bin-carting route does not require the carting of bins through habitable rooms of the dwelling. This approach will protect future residential amenity. • An appropriate requirement to be included in the Code would be: - Ensure the bin-carting route from bin storage area to collection point does not pass through any internal rooms of the dwelling and must avoid steps and slopes. • Please see earlier comments for 3.1Z Waste Management made above.

	106. The number and type of bins provided is to be in accordance with Council policy.	• Agreed • Please see earlier comments for 3.1Z Waste Management made above.
	107. A temporary collection space at the street frontage may be un-screened if only used on the day of collection	• A number of issues surround the use of temporary collection spaces or temporary bin holding areas, where they are used for certain development densities and/or when kerbside collection is not an option. • It is recommended more stringent perimeters be established around the use of temporary collection spaces or temporary bin holding areas. • It is recommended that a definition for temporary collection space or bin holding area be provided so that it is clear for applicants what is meant by this term. • The temporary holding area will be required to be of sufficient size to allow the temporary storage of all allocated bins for the development. The holding area will only store bins so they can be serviced and must be returned to the permanent bin storage area once the service is complete. In most instances for this development type, the holding area will be required to be accessed by council waste staff (or its contractors) and utilise the "collect and return" waste service. This means, council waste staff (or its contractors) will collect and return bins from the temporary holding area. The health and safety of all users including caretakers and council waste staff is an important consideration when selecting an appropriate location for the temporary holding area and should be reflected in the Code. • Developments proposing a temporary holding area will require a caretaker to transfer all allocated bins from the bin storage area to the temporary holding area for servicing. This will be difficult to manage and control for developments that are subdivided as Torrens Title. • The following considerations should be incorporated into the

		design criteria for temporary holding areas: - Should be located within 10m of a layback to the nominated collection point to facilitate access to Council's collect and return service. - Only temporarily store bins so they can be serviced. - Be located fully within the development site. - Be located within the front setback of the development but suitably screened so it is not visible from the public domain. - Be of sufficient size to accommodate all allocated bins with additional room for manoeuvring. - Be clearly separated from car parking bays, footpaths and landscaped areas.
Design Criteria: Multi-Dwelling and Master Planned Communities		
Design Guideline	**Specific Requirement**	**WSROC Comments**
3.3F Internal Streets – Pedestrian and Vehicle Access	19. Create a hierarchy of streets and lanes: Lanes: shared or pedestrian surfaces with a width of common area including landscape - minimum 6m Streets: width of common area including landscape - minimum 12m	• Concern is raised regarding the minimum widths provided for both lanes and internal roads. • While the provision of minimum widths is essential in ensuring that the developments can function safely and effectively the proposed minimum street and laneway widths do not currently consider the size and dimensions of emergency service vehicles and waste collection vehicles that will be required to service the development. • It is recommended for the design criteria to be expanded to include a minimum pavement width for developments. This will ensure all internal roads and lanes are able to cater safely for all vehicle movements. • It is recommended for the design criteria to be amended to include a minimum pavement width that is able to support the largest vehicle that would be required to service the development such as emergency services and waste collection vehicles.

		• These pavement widths are essential to be identified correctly at the design stage to ensure good planning and waste management outcomes. Not identifying adequate road and laneway widths early on in the design process has the ability to result in poor waste management outcomes and in instances where the council may be required to accept developments that cannot be integrated with Council's waste service. • Council servicing larger multi-unit housing and master planned communities through on-site collection is essential in ensuring waste is collected in an efficient and effective manner. Adequate waste collection vehicle access to the on-site collection point is essential so council services are provided safely and additional costs are not imposed on rate payers.
	24. Parking spaces and circulation to comply with AS2890.1	• It is recommended that additional criteria be identified at this stage within the Code for developments that require Council to service the development through on-site collection so that internal roads and circulation areas are designed correctly upfront. • Where on-site waste collection is to occur, access, vehicle route of travel and any manoeuvring and circulation areas will need to be designed to comply with AS2890.2. • Given that size and type of waste collection vehicle varies across local government areas, it is recommended that the applicant be required to liaise with the relevant Council to identify the vehicle class that will service the development. • Many Councils will service this type of development through either a medium rigid or heavy rigid vehicle as defined by AS2890.2 and needs to be taken into consideration as soon as possible in the design process. These vehicles will also be required to enter and exit the site in a forward direction.
3.3Z Waste Management	117. Storage areas for rubbish and recycling bins should be	• Concern is raised that the design criteria in the Code for this development type does not differentiate the differences

	provided: • Within garages; • Away from windows to habitable rooms; • In screened enclosure that is part of the overall building design; or • In the basement car park.	between individual bin storage areas and communal bin storage areas. • Multiple dwellings within one property present a number of challenges in providing an effective and convenient waste management system for future residents. It is essential the waste management system selected ensures occupant amenity and safety as well as provides bin storage areas that can be used conveniently. • Understanding how the development will be required to be designed so that it can be integrated with Councils waste service is essential. • It is vital that the applicant understand when it is appropriate for individual bin storage areas to be provided and when a communal bin storage area should be provided. • It is recommended that the Design Guidelines include a definition of individual bin storage areas and communal bin storage areas, so that applicants not familiar in waste management systems understand what councils require. • Individual bin storage areas are suitable for smaller multi-unit housing developments and where all allocated bins can be presented kerbside for collection within the street frontage of the development. • It is recommended that the application identify bin storage areas and kerbside collection point. • It is recommended that the design criteria within the Code be expanded to include the following or similar provisions to ensure good planning and waste management outcomes for developments and the residential amenity is maximised for future residents: - Located behind the building line of the dwelling or where it is screened or cannot be viewed from public areas. - Located away from habitable windows and doors of adjoining

		dwellings to reduce noise and odour. - Allow residents to conveniently carry their waste to the correct bin from their dwelling. - Allow bins to be moved safely to collection points. - Ensure the bin-carting route from bin storage area to collection point does not pass through any internal rooms of the dwelling and must avoid steps and slopes. • A communal bin storage area is likely to be required for larger multi-unit housing developments that do not have adequate kerbside space available for allocated bins. • It is essential that communal bin storage areas be considered early in the design process so they can be successfully integrated into the overall design of the development and in an area convenient for all users. • It is also important the communal bin storage area is located so it will not impact on residential amenity in regards to noise, odour and visual impacts for both residents within the development and adjoining the site. • In determining the appropriate location for the bin storage area, consideration should be given to the following factors which should form part of the Design Guidelines: - All residents have easy, safe and convenient access to the waste and recycling service. - Location cannot be viewed or easily accessed by the public domain. - Location protects amenity for residential occupants and adjoining residential properties. • Table 1 provides a summary of general requirements that

		should be applied to ensure that communal bin storage areas are appropriately located and designed to ensure efficient functioning, residential amenity and all user safety and convenience.
	118. A temporary collection space at the street frontage may be unscreened if only used on the day of collection.	• It is agreed that the design criteria should include requirements and considerations of temporary holding areas. Adding to the complexity, as how this can be adequately resolved within the Code is that the way these developments are serviced and the waste collection vehicles utilised varies across council areas. • Temporary holding areas are required for developments where bins cannot be collected from the communal bin storage area or where the bin storage areas are located in the basement. It is important for applicants to liaise with the relevant local council to determine whether Council vehicles will access the basement to service the development. • Temporary holding areas are required to be of sufficient size to allow the temporary storage of all allocated bins for the development. The holding area will only store bins so they can be serviced and must be returned to the permanent bin storage area once the service is complete. • It is important for the applicant to understand that developments which propose or require a temporary holding area will require a caretaker to transfer all allocated bins from the bin storage area to the temporary holding area for servicing. • It is strongly recommended that the applicant liaise with Council staff to identify how the bins will be serviced from this holding area. • Some councils will utilise a “collect and return” service where bins are wheeled from the bin storage or holding area to the

		waste collection vehicle. • In other circumstances, Council will require the waste collection vehicle to access the site and collect the bins directly from the storage area. It is important that if on-site collection is required, that the applicant understand the design implications for the development in regards to vehicle access, manoeuvring and circulation. • Please see Table 2 that provides a summary of general considerations and requirements for when on-site collection will be required. These requirements could be incorporated into the Design Guidelines, however given the differences between councils the Guidelines should stress the importance of understanding the council specific requirements.
	119. Screened enclosures are not to be provided within the front setback.	• It is recommended that the requirements for communal bin storage areas as identified in Table 1 be incorporated into the Design Guidelines.
	120. Communal compost and green waste facilities are to be provided.	• Agreed.
	121. The number and type of bins provided is to be in accordance with Council policy.	• Agreed.
Design Criteria: Manor Homes and Dual Occupancies		
Design Guideline	**Specific Requirement**	**WSROC Comments**
3.4A Building Envelopes	Site dimensions: 200sqm 6m width	• Please see earlier comments for other development types regarding to waste management issues associated with smaller lot sizes and dimensions.
3.4Z Waste Management	103. Storage areas for rubbish and recycling bins should be	• Please see earlier comments regarding other development types specifically dwellings side by side and terrace housing

	provided: • Within garages; • Away from windows to habitable rooms; • In screened enclosure that is part of the overall building design; or • In the basement car park.	regarding bin storage areas.
	104. The number and type of bins provided is to be in accordance with Council policy.	• Agreed. • However, understanding bin allocation and how they will be serviced is essential in ensuring that the development will not result in poor urban design and waste management outcomes. • Requiring applicants to liaise with the relevant council early in the design stage of the development will not only result in developments that can be serviced but will ensure that waste related infrastructure will not detract from the design of the development or reduce residential amenity.

Table 1: Summary of requirements for communal storage areas

Communal Bin Storage Area Design	
Size	• The development must provide a bin storage area that is of sufficient size to accommodate all bins allocated for the development. • Sufficient space must be provided to ensure adequate room for manoeuvring, cleaning and maintaining all bins. • Sufficient space must be provided for any required equipment to manage waste and bins (including washing and cleaning).
Location	• Within 10m of a layback to the nominated collection point if requiring inclusion in a council's collect and return service. • Will need to liaise with individual Council requirements if Council requires to service this development type (particularly for larger developments) through on-site collection. • Its use and operation will not adversely impact the amenity of occupants in terms of noise and odour.
Design	• The storage area is to be a designated room or a separate bin enclosure. • The design must be integrated into the overall design of the development. • Where a bin enclosure is provided it is required to be screened from public view by a visual barrier of at least 1.5m high.
Layout	• The layout is free from obstructions so as not to restrict the movement and servicing of the bins. • An aisle space of 1.5m minimum is required to access and manoeuvre the bins. • The layout must not allow for the stacking of bins. • All bins must be placed side-by-side with equal access to all bins.
Access	• Access for all intended users is safe and convenient. • Any doorways are at least 2.5m wide with doors unobstructed by any locks and security devices. • Designed so to restrict or deter access by non-residents (if locks are to be used, confirm with Council whether a "master key" would need to be provided for servicing. • To confirm doorways are of sufficient width, the applicant should liaise with Council to identify the bin sizes and dimensions.
Construction	• The bin storage area is to be designed so that the floors can be constructed of concrete at least 75mm thick and graded and drained to a Sydney Water approved drainage fitting. • Is to be designed so that the floors must be finished to a smooth even surface. • Is to be designed so that the walls must be constructed of solid impervious material. • Is to be designed so that the ceilings must be finished with a smooth faced non-absorbent material capable of being cleaned. • Is to be designed so that the walls, ceiling and floors must be finished in a light colour. • Is to be designed so that the storage area can be provided with an adequate supply of hot and cold water mixed through a centralised mixing valve with hose cock. • Is to be designed so that a close fitting and self-closing door that is capable of accommodating the largest bin allocated for the development. • Is to be designed so that the storage area can be provided with adequate light and ventilation.

Table 2: Summary of requirements for on-site collection

3.6.4 On-site Collection	
Vehicular Access Requirements	• Access to the nominated collection point is to be designed to ensure a Medium or Heavy Rigid Vehicle can safely access and manoeuvre within the site. See individual Council for vehicle classification requirements. • The vehicle must be able to enter and exit the site in a forward direction. The collection point should be located to minimise manoeuvring within the site. • The route of travel (including vehicle manoeuvring areas) for the waste collection vehicle to the collection point is to satisfy the typical dimensions of a Medium or Heavy Rigid Vehicle. This also includes adequate vehicle clearances for the vehicle. *Australian Standard AS2890.2 Parking Facilities: Off-Street Commercial Vehicle Facilities* provides typical dimensions and turning circles. See individual Council for vehicle classification requirements. • The grades of entry and exit routes must not exceed the capabilities of the waste collection vehicle and are to comply with *AS2890.2 Parking Facilities: Off-Street Commercial Vehicle Facilities for heavy rigid vehicles*.
Waste Collection Loading Area	• A waste collection vehicle loading area is to be nominated on the submitted plans. • Located so as not to impede or restrict other vehicle and pedestrian movements during collection times. • Clearly separated from car parking bays, footpaths, and landscaped areas. • Located to minimise impact on residents within and adjoining the development site. It is not to be located near sensitive land uses or any habitable room windows.
Bin-carting Route	• The bin-carting route to the loading area from the storage area: - Be direct and as short as possible; - Wholly within property boundaries; - Is to be solid, concrete and non-slip; - Is a minimum of 2.5m wide; - Is to be free from obstructions and not to include any steps. - Is to be a maximum distance of 10m to the designated truck loading area and a maximum grade of 1:30.

Summary

WSROC supports the State Government's to commitment to delivering faster approvals and the efficient delivery of housing supply and choice for residents of Western Sydney. WSROC also supports the State Government's waste minimisation targets, and as such it is extremely important that the two policy directions do not contradict each other, or restrict councils' commitment to achieving NSW WARR targets by 2021.

WSROC maintains its in principle support of the expansion of the Code to assist in alleviating housing supply and housing affordability pressures experienced by our residents and community. WSROC also recognises that the development of the Design Guidelines will be a valuable and essential tool for all stakeholders in ensuring new developments are well designed and function. WSROC shares your objective for ensuring new development results in good planning and urban design outcomes.

In addition, WSROC continues to advocate for new development to not only be innovative but needs to result in sustainable outcomes and be functional.

Our concern that was raised following the initial discussion paper was that waste management issues are not given adequate consideration in the design and development process. This results in significant amenity issues for residents as well as operational issues for councils. While the Draft Guidelines have incorporated design considerations and design criteria for waste management issues, it is our view that these requirements need to be given further attention.

WSROC maintains that the requirements need to be expanded to incorporate more detail regarding a range of waste management issues. Our submission has detailed a number of recommendations for how the criteria could be expanded to ensure safe, sustainable and functional outcomes.

It is our view that the requirements can be further expanded to ensure effective and efficient waste management outcomes are achieved. In addition, it is vital that the requirements of the Code to incorporate provisions that afford councils a high level of certainty that they will not be unfairly impacted upon by the inability or increased difficulty in servicing new developments for waste and resource recovery. Early consultation with local councils on their waste servicing requirements is strongly encouraged and is an approach that should be reflected in any amendments to the Draft Design Guidelines.

WSROC commends the Department of Planning and Environment in continuing to consult on planning reforms. Providing opportunity for increasing the range and availability of housing stock will respond to housing affordability issues that are currently being experienced within our region.

It is imperative that new development is balanced with sustainable development outcomes and we ensure that new development can be integrated with councils' infrastructure and services to not add additional costs to the residents and ratepayers.