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The Secretary
Department of Planning and Environment
22-32 Bridge Street
Sydney NSW 2000

Architecture
Urban Design
Planning
Interior Architecture

Draft SEPP 65 and Apartment Design Guide Submission

This letter is a submission to the Draft State Environmental Planning Policy No. 65 (SEPP 65) and the accompanying exhibited Apartment Design Guide (ADG).

Architectus strongly supports the draft SEPP 65 Instrument and the Apartment Design Guide.

We have reviewed the two documents and raise the following three key issues that should be addressed in the ADG to ensure their successful and clear application to apartment and mixed use development based on our extensive experience as urban designers, urban planners and architects. In addition we have appended a number of detailed points for your consideration when finalising the two documents.

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1. The structure of the performance criteria, acceptable solutions and alternative solutions need to be further clarified.
2. Clarity is required around the applicability of certain standards, including clear determination of centres and densities where less than 3 hours of direct sunlight access is considered acceptable, and clearly defining the determination of sites being “within” a certain amount of distance from railway stations.
3. New standards minimising, or in some cases permitting no car parking, should be coupled with the opportunity to standardise the use of alternative means of transport.

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These issues are elaborated below.

1. Structure of the performance criteria and alternative solutions.

The separation of performance criteria under each topic with a discrete list of Acceptable Solutions is problematic. In the current RFDC, objectives are grouped at the front of each topic. The grouping is important because the objectives are interrelated and in the design process are often addressed holistically. By separating the criteria, the nexus and hierarchy between criteria is lost. In some instances key performance criteria are lost.

Example:

Visual Privacy is separated into a criteria (3F-1) that addresses privacy between neighbouring sites and a criteria (3F-2) that addresses site and building elements (such as screens) that aid privacy. No criteria address privacy between units within a development site. Half of the criteria in 3F-1 apply between sites and others are more general and would also be relevant within a site. Criteria 3F-2 states, the use of building elements are best used where separation distance cannot be achieved. By splitting the criteria this importance is lost.

Visual Privacy is the only element with performance criteria that includes numeric for building separation as 2F Building Separation is now guidance for “Developing the

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Controls". The role of separation in creating useful open space and promoting solar access is lost.

Recommendation: We recommend performance criteria be grouped at the front of each topic (similar to AMCORD) and be reviewed to ensure the intent of the wording is correct and that appropriate linkages are established across elements. In some cases, the information provided in the performance criteria is incorrect.

Example:

3E – 2 Deep Soil: These performance criteria imply that the role of Deep Soil is to allow for limited servicing and access. The role of Deep soil is to sustain tree planting and facilitate water management. Ideally deep soil zones are unimpeded. Intrusions of paving and services should be avoided but where unavoidable, should be limited as described in solutions 1 and 2.

Recommendation: Criteria need to be reviewed and carefully edited. Landscape information in particular should be reviewed by a landscape architect.

2. Clarification of standards/solutions

The ADG maintains a number of potentially unclear and problematic terms that may lead to inconsistent application, or result in unnecessary misinterpretations and disputes during strategic planning, development assessment processes and Court cases. These include:

- Clarification of how a site is defined as being "within" 400 or 800 metres of a railway station or light rail stop. The term "within" is ambiguous. It does not clarify whether a whole, or part, or certain proportion of a site needs to be "within" the prescribed distance. Further, the ADG does not clarify how distance is measured (i.e. walking distance or within a radius of a point). Ambiguity in this area will be particularly problematic for sites on the fringes of town centres, where interface issues between higher and lower density housing will be most prevalent and sensitive. It is recommended further clarity is provided such as a simple straight-line radius from the rail station entry to the lot and that the benchmark number is set at 800m rather than a range (some Councils will choose 400m and the developers may choose 800m). Or you could say with near level walk of good walkway permeability 800m is suitable and with hilly low street permeability 400m may be suitable.
- The Alternative Solutions to *Section 4L – Solar and Daylight Access* states examples where the minimum three hours of direct sunlight in mid-winter to apartments may not be achieved. The uses of terms such as 'major centre or areas characterised by high density' are ambiguous and likely to be applied differently across the state. For example, high density may be perceived differently in local government areas such as City of Sydney or North Sydney, compared to more suburban or regional local government areas, where the perception of what is high density may be much lower. 'High density' should be characterised by a measurable figure, such as a minimum floor space ratio of 2.0:1 as a guide, which sets a standardised benchmark and provides clarity to designers and planners.

3. Promoting alternative means of transport

The requirement to allow for a minimum parking standard (including none in certain centres) is perhaps one of the most significant evolutionary of changes presented in draft SEPP 65 and the ADG and is supported (it is in fact the current case for progressive Councils). The ADG should take the opportunity to encourage a cultural shift toward non private car transport. Whilst in *Section 3J Bicycle and car parking* - the ADG acceptable solutions provide vague suggestions for alternative means of transport, it does not identify types of alternative means of transport as acceptable solutions. The final ADG should consider the following suggestions:

- Mandatory provision of motorcycle parking spaces equivalent to the area of 1 car parking space per 20 apartments (based on average of various standards across Australia);
- Mandatory provision of car share parking space(s) that are publicly accessible for developments above a certain threshold say 100 apartments;
- A minimum acceptable standard for the provision of bicycle parking (such as the City of Sydney requirements).

Conclusion

In conclusion, Architectus congratulates the DP&E for the Review and considers importantly that the critical content of SEPP65 and the RFDC has not been lost and that it has been updated and appropriately evolved. These 2002 documents were transformative for residential development in NSW and placed the state as a clear leader in good quality higher density living.

It is very appropriate to have the Review and even if there are to be little or no change to the draft documents, we consider they would be very effective in continuing the evolution to better residential living at higher densities as the State faces population growth and the demand is ever greater for apartment living.

Thank you for considering this submission and the appendix to make the ADG even more practical and useful.

Regards



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Appendix

The following provides detail suggestions for inclusion in the ADG based on our experience in designing and reviewing very many apartment and mixed use developments.

Building depth and floor plate

- Building depth should be defined between glass lines as was the RFDC – 18m max is appropriate. Max building depth incl balconies could be up to 23m with 2.5m deep balconies to each face for perimeter block apartment buildings.
- More information is needed on towers and slenderness - allow flexibility for building depth of towers e.g. a 30 storey tall tower that has a floor plate of 30m x 30m can achieve slenderness objectives
- For towers, their slenderness is an important consideration. Derived from work at Green Square, it was concluded that a 25 storey tower is considered slender with a tower floor plate (incl balconies) of 800sqm maximum. Similarly, higher towers are considered slender with the following floor plate maximums:
 - 35 storeys – 950sqm
 - Above 35 storeys – 1,100sqm

Natural ventilation, apartment depth

- Natural ventilation standards should not apply above 30m high (this height was recently adopted by the Central Sydney Planning Committee) where natural wind pressure is sufficient for single aspect apartments.
- Single aspect apartment max 8m depth and all apartments max 8m to the back of living/kitchen is unnecessarily onerous – needs qualification. Could be increased to 10m to back of kitchen/living. A simpler guide is for any single aspect apartment to be wider than it is deep

Sunlight access

- Clarity needed where 2 hours can apply - adopt 2 hours for FSR of 2.0:1+ (both for developments themselves and impacts on existing housing) , 3 hours for up to 2.0:1
- The winter hours could be extended to 8am-4pm as the 3 hour standard between 9am and 3pm can be onerous. The Court has accepted such an extension of times – early morning sunlight is quite beneficial. However, given that the ADG is a guide, then such extensions of the time period could be part of the merit consideration.
- Qualify the 70% standard by
 - in dense urban centres of FSR>4.0:1 that the standard may be varied to 30% providing good design provides high levels of daylight (e.g. full height windows for 80% of the external wall)
 - for sites with views and primary aspect oriented to the south
 - be clear about the area of an apartment to which the standard applies – the simplest way to measure sunlight is to say 5sqm on the vertical window/balcony area of the front elevation of the apartment. This can be easily modelled in a simple 3D digital model and checked in the DA assessment process.

Building separation

- The building separation standards are now commonly accepted and have become defacto setback standards – examples of variations to the standards should be highlighted – in dense urban centres for example where FSR's exceed 4.0:1 then less separation may be appropriate particularly for offset towers.

Deep soil and planting depth

- Deep soil requirements are onerous for urban centre sites - further circumstances where deep soil may not apply – e.g. dense urban centres(not just CBDs) where FSR's exceed 4.0:1.
- Deep soil zones should encourage large trees – not small trees
- Planting soil depths needs to be simpler – the ADG has 6 depths categories – should reduce to 3 or 4. Suggest deleting the small trees and shrubs. Combine ground cover with shrubs (shrubs can grow well in 300-450mm).

Building orientation

- Building orientation needs to allow flexibility – while north aspect is desirable it is not essential, east and west aspects are quite acceptable providing suitable external operable sun shading is provided at least to the west aspect.
- In *Section 4L-1 Solution 3 – the number of single aspect west and south facing apartments is minimised* – this can be deleted because the proportion of south facing apartments is stated below in the same section and west facing apartments provide quite acceptable amenity if there is operable external shading (and trees).

Parking

- Circumstances for above ground parking should be made clear – convertible floor to floor heights, screened from the street with uses, maximum number of levels, whether architectural screening is appropriate.
- Above ground parking in perimeter block developments can impact on the amenity of common courtyard spaces by separating them too much from direct views of the street between buildings and reducing effective deep soil planting for trees.

Accessible/visitable/adaptable/barrier free apartments

- It would be good if all these terms could be encapsulated into ‘universal design’ It is not clear if this is so.

Vehicle access

- Driveway widths should be proportional to the number of cars being parked – e.g 3m for up to 20 cars, 4.5m for up to 100 cars, and 6m for more than 100 cars. The idea is to balance the amenity of the street by having narrow driveways with the operational and safety requirements for vehicle movement.

Apartment size and layout

- The RFDC minima may be further reduced with good design/functional layout (including furniture layout testing).
- Width of cross-over or through apartments should be at least 4m otherwise they feel like tunnels.
- 25% of kitchens in a development to have an external wall used not to be applied but now seems to be more consistently applied in the last few years and is appropriate.
- Apartment layout flexibility: principles should include some standards:
 - Minimum plan dimensions – it would be useful to say that living rooms should have a min plan dimension of 4m for furniture layout flexibility and internal amenity. Good to see the acceptable solution for bedrooms at 3m clear of robes.
 - Lightweight internal walls to enable internal reconfiguration of apartments
- Provide furniture layouts to typical apartments to demonstrate functional efficiency
- Snorkel rooms (rooms that have their only window opening to a deep slot in the plan of a building) are only OK if the slot is open to the sky (no overhanging slabs) and the slot is at least 2.5m wide, have good daylight and not be too deep (no greater than 6m to the rear wall of the bedroom).

Apartment mix

- Some percentage proportions should be provided as acceptable solutions - needs to be very simple e.g. for developments with more than 20 apartments e.g. max 50% studios/1beds, min 40% 2 beds, min 10% 3 beds to provide social mix in a development.

Balconies

- Allow a proportion of apartments to not have full balconies – say 20% can have Juliet style or balustrade full height openable windows.
- Exempt almost fully enclosed balconies above 30m high from GFA for wind amelioration (this is a recent decision by the Central Sydney Planning Committee for tall towers).
- Outdoor rooms rather than open balconies can be provided at lower levels where there is significant overshadowing by other buildings.

Ceiling heights

- 2.7m is good practice and commonly accepted.
- 3.1m minimum floor to floor is needed to allow for structure, flooring and ceiling services.

- The formula in the alternative solution Section 4N which is room depth = ceiling height x 2.5 is nonsensical - for 8m depth the ceiling height would need to be 3.2m and for 10m depth 4m. A more suitable formula would be starting from 10m room depth at 2.7m ceiling height. That is, room depth = ceiling height x 3.7.
- There should be alternative solutions for adaptive re-use of existing non-residential buildings.

Number of apartments per floor

- The limit of 8 does not have common acceptance (incl L&E Court). Better to say that the amenity of common corridors is increasingly important with the number of apartments it serves:
 - More than 4 apartments – external outlook
 - More than 8 apartments – external outlook and wider corridor, special design to apartment entries (e.g. entry recesses, fanlight/sidelight windows, wider recess, security/flywire doors to open corridors, skylights, double height spaces etc.)

Common rooms

- Apartment developments with more than say 50 apartments should have internal common facilities such as a multipurpose room that could be a recreation room for young people or music practice room or a function/meeting room

Communal open space

- Winter sun should be enabled to a common outdoor area – even a narrow slot of sunlight for a brief period.
- Community gardens (at least for herb growing)
- Play equipment should be provided.

Waste management and furniture removal

- Often an onerous issue due to having to accommodate rubbish trucks on-site in basement. The ADG should provide guidance. E.g. there should be thresholds such as up to 20 apartments kerbside service, 21-50 apartments truck reversing to a loading bay at ground level, 51+ apartments basement/rear ground servicing with full truck turnaround on site out of view of the street.
- Garbage chutes (general and recycling separate chutes) for all apartment buildings with more than 20 apartments.
- Chutes should not be adjacent bedrooms.

Services – water and air conditioning

- The highest efficiency for hot water is to have common hot water to units.
- No condensers on balconies – noise issue and blowing hot air in summer when it is desirable to encourage natural ventilation by opening the balcony door.

Electricity sub-stations

- The electrical kiosks are not to be located in the street. A preferred location is below ground with top access and located in the driveway

Roofs

- Parapets should be used where there is cross-viewing from neighbours or seen from the public domain and various roof paraphernalia should not be visible.
- Green roofs are encouraged – particularly where ground level communal open space is not sufficiently provided and where sunlight access to apartments is unduly limited (e.g. less than 2 hours of direct sunlight to at least 70% of apartments in a development in mid-winter between 9am and 3pm).
- Accessible parts of roofs should be set back at least 2m from the edge to contain overlooking.

External materials

- External materials should be self-finishing to avoid costs of maintenance for residents. Painted finishes are the worst, rendered masonry tends to crack and concrete leaches.

Window overhangs

- 1.8m deep awnings (can be glass depending on orientation) to allow doors to open onto courtyards and not be affected by summer rain splashing off paving and coming into the apartment.