

Introduction

This workshop is an open education session aimed at raising awareness of how building heights are measured and applied within Tweed Shire.

The NSW State Government has directed all NSW councils to prepare a Local Environment Plan (LEP) which conforms to the Standard Instrument (Local Environmental Plans) Order 2006 (Standard Instrument LEP). The Tweed LEP 2014 and Tweed City LEP 2012 were prepared in accordance with those requirements.

The Standard Instrument LEP requires building heights to be shown in metres (see LEP practice note PN 08–001). The State Government has advised a maximum number of storeys in a building can still be specified as a development control (within the overall maximum building height in metres) but this should be addressed in the Development Control Plan (DCP). The NSW Department of Planning and Environment has considered requests to allow Reduced Levels (the height measured above sea level) to be used on the Height of Buildings map in certain locations, such as Tweed Heads. This approach provides a ‘ceiling’ to development, irrespective of the ground level. The use of Reduced Levels as a height control can be beneficial when there are specific view fields or airspace operational requirements prevalent to an area.

Why is building height important?

Building height influences locality character.

The height of buildings has a direct visual and physical influence on how a space or place looks and feels.

Building height can reinforce an area’s character or relate to community aspirations for an area’s future character. Appropriate building height is derived from local context, street conditions, visual amenity, key view fields and character objectives for an area.

Building height influences locality amenity.

The height of buildings and overall resultant density influences some of the qualitative elements or amenity of the built environment.

The location of buildings on their lot, their height and overall shape – can affect neighbourhood character, sunlight to adjoining buildings and open spaces, impact on view and outlook, privacy and overlooking of other uses, the quality of spaces inside the building, the amenity and usability of private open spaces, and the sense of pedestrian scale and amenity in nearby streets.

Building height is influenced by planning policy and vice versa.

The height of buildings are set and controlled through planning policy.

Building heights are derived from specific planning and design objectives rather than arbitrary limits or targets. For example, the maintaining a low scale village atmosphere would be supported and facilitated by lower maximum building height limits. Similarly a town or city, which supports a larger population and has greater access to services supporting opportunity for higher density living would also have higher maximum building heights.

Increase in density, service provision and building height



Village.

Lower density areas typically have smaller scale development within a more natural setting with a limited mix of retail, commercial and service needs principally servicing the village.



Town.

Townships include a diversity and mix of low to mid-rise building types and offer a range of retail and service needs which often extend beyond the townships boundary.



City.

Higher density areas include a diversity of building types including high rise development, and wide range of retail, commercial and services uses.

History of Tweed's building height



Tweed Then

In the 1950's Tweed Heads was still predominately a low-scale township settlement characterised by small fibro cottages. This image is looking south over Jack Evans Boat Harbour towards Mt Warning (Wollumbin) with Greenbank Island on the left.



Tweed Now

Tweed Heads is now designated as a regional city where a number of multi-storey high rise buildings have been developed over the last 30 years. Some parts of Tweed Heads now have a maximum building height of 49.5m AHD.



Kingscliff Then

In the 1922 Marine Parade in Kingscliff has a series of two storey shop top houses which included retail at the lower level and residential tourist accommodation at the upper level with an open deck overlooking the street.



Kingscliff Now

Shoptop housing along Marine Parade integrates an active ground floor use and residential units at the upper level with decks overlooking the street within a 12-13m (3 storey) building height.



Murwillumbah Then

In the 1928 Murwillumbah Street Murwillumbah was defined by two storey buildings with upper level verandahs that projected out and over the footpath.



Murwillumbah Now

The predominately small scaled retail frontages and single and two storey building height (4-9m high) remains along with only one projecting upper level verandah remaining.

Tweed building height time line

Tweed coast early european history

In 1844 the cedar-getters arrived searching for timber with which to build the houses of Sydney. The towns of the Valley grew slowly. Tweed Heads began to develop from 1870 onwards after a pilot station was opened there, and later the villages of Murwillumbah, Tumbulgum, Chinderah, Tyalgum and Uki became service centres. The railway from Lismore reached Murwillumbah in 1894 and the rail from Brisbane arrived at Tweed Heads in 1903. They were linked by river ferries until the 1930s. During the early to mid 20th century, Tweeds network of coastal villages began to slowly grow with development and population growth directly relating to agricultural and industry growth including sand mining focussed around Kingscliff in the 1950's and 60s.

Gold Coast development boom 1960s & 70s

From about the 1950's the South East Queensland area was starting to experience significant grow and development with some of the first mid rise buildings being developed at Surfers Paradise in the late 1960's and early 1970's. Growth and development of Surfers Paradise continued steadily throughout the 1980's as a burgeoning high rise seaside tourist destination.



Tweed Coast in the 1970s

It was this exponential development of Surfers Paradise which also started to exert development pressure on the Tweed. During the 1970's a number of mid to high rise schemes and interim town plans to facilitate high rise development had been conceptualised for Green Bank Island in Tweed Heads, Kingscliff Hill and along Marine Parade and along coastal land between Kingscliff and Bogangar (now Salt, Seaside and Casuarina). Other high-rise developments conceptualised at the time included a multi-storey tower development within proximity to Cabarita Headland and a multi-storey developments along Surfside Crescent (16 storeys) and Elanora Avenue (7 storeys) in Pottsville. Within Kingscliff a 5 storey and 14 storey developments were being considered along Marine Parade followed by an 8 storey proposal along Murphys Road.

1960s Interim Development Order Shire of Tweed

Tweed Shire's first statutory planning instrument which prescribed development which could be carried out without consent, development which could be carried out with Council consent and development which could not be carried out. The IDO did not specifically contain any maximum building height controls or guidelines.

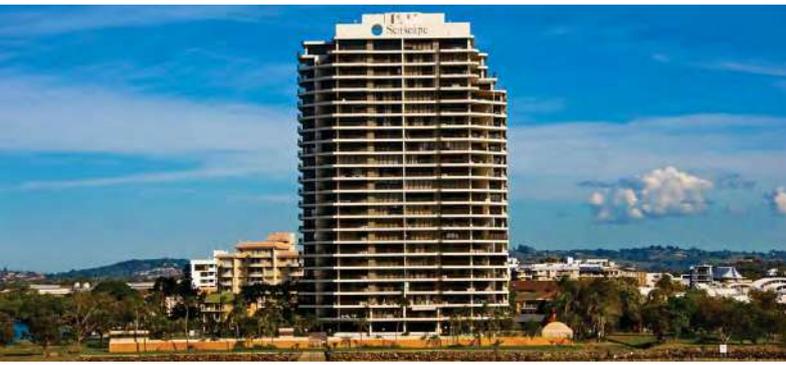
1979 Environmental Planning and Assessment Act

The EP&A Act 1979 incorporated a three-tiered system of state, regional (since repealed) and local levels of significance, and required the relevant planning authority to take into consideration the impacts to the environment (both natural and built) and the community of proposed development or land-use change. The EP&A Act 1979 thereby provided a framework for plan making and the merits assessment of development applications.

1981 Planning Minister Request for High Rise Study

1981-82 Approval & construction of 25 storey Seascape Apartments

1981-82 Approval & construction of 3 x 27 storey Pinehurst Apartments



Seascap Tweed Heads.

Developed in the 1982 and at 25 storeys, the Seascap building is still one of the largest buildings within the Tweed Shire.



Pinehurst, Tweed Heads.

The 27 storey Pinehurst building was the first of three towers originally planned. The other two buildings were never constructed.

1982 Ministerial Commission of Inquiry into High Rise Development

In the context of mounting high-rise development pressure within the Tweed and lack of a robust planning framework guiding building heights at that time, the commission of inquiry was conducted into the desirability, location and design of high rise development (over 9m) in the Tweed Shire. The Commission investigated building height in the context of key landscape fixtures (including Razorback), view plane analysis strengthening the relationship between built form, landforms and vegetation. Key recommendations from the commission included the need to prepare height controls for specific localities based on view plane analysis and general recommendation of 9.0m building height to urban areas in the absence of more specific local analysis.

1983 Approval of 5 storey Murphys Road Kingscliff Apartments

In 1982 the Minister of Planning removed Council's authority to approve all buildings over nine metres. As such the original proposal for three eight storey apartment buildings along Murphys Road Kingscliff was referred to the Secretary of Environment and Planning. In April the Ministers verdict was for a reduced five storey development. On 07/09/1983 Tweed Council approved a five storey 16.5m apartment building.

1987 Local Environmental Plan

Gazetted in 1987, the LEP 1987 included a building height map which set the height at 3 storeys across the Shire with the exception of Kingscliff Hill which was set at two storeys and Tweed Heads which predominantly incorporated the view analysis findings of the 1982 Inquiry.

1988 Proposed eight storey Ocean Blue Resort at Fingal

1990 ICAC Report on Investigation into North Coast Land Development

2000 Local Environmental Plan

LEP 2000 maintained maximum height in storeys, however defined a maximum storey height for residential uses at 4.5m and maximum storey height for a commercial use at 5.0m.

2004 DCP 48 Tweed Coast Building Heights - Repealed 2008

Prescribed maximum building heights in metres for 2 and three storey residential, commercial and mixed use buildings. It also provided two methods for calculating height; overall building height and height to top plate.

2008 DCP A1 Residential and Tourist Development Code

Prescribed maximum building heights for different building typologies including dwelling houses, row and town houses, residential flat buildings and shop top housing developments.

2012 & 2014 Local Environmental Plans

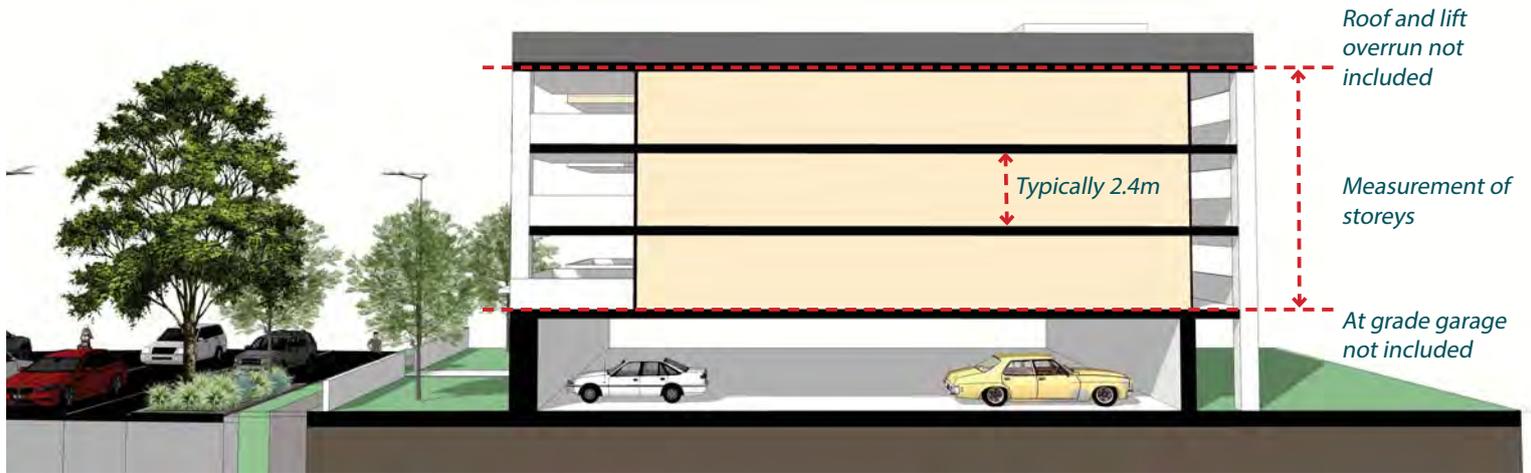
Local Environmental Plan 1987

Measurement in storeys with no prescribed height in metres.

Building height map setting height at 3 storeys with the exception of Kingscliff Hill which was set at 2 storeys and Tweed Heads which predominantly incorporated the view analysis findings of the 1982 Inquiry.

“storey” means a floor within a building other than a floor -

- (a) used principally for storage which has no habitable rooms;
- (b) used principally for parking which has no habitable rooms; or
- (c) a roof, or part thereof, used as an uncovered garden, terrace or deck.



Local Environmental Plan 2000

Height defined and measured in storeys however storeys were defined in metres as follows:

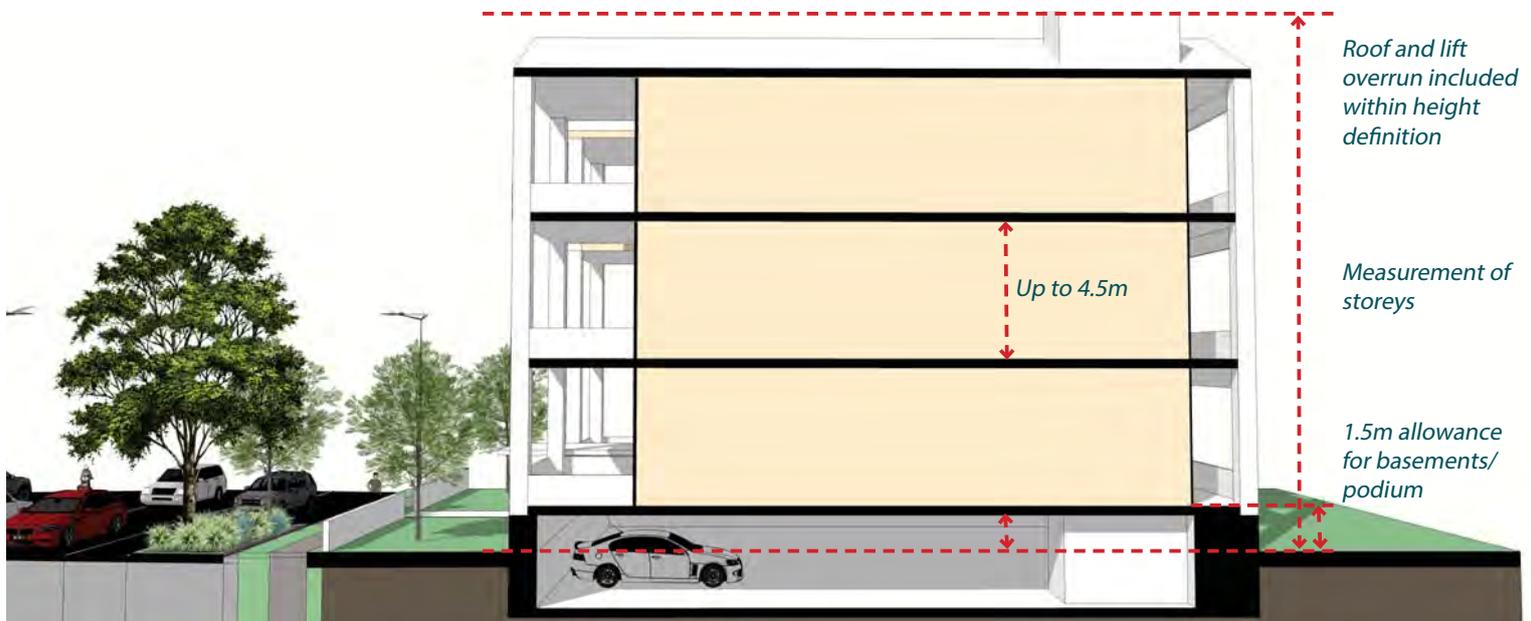
A storey which exceeds 4.5 metres for residential buildings is counted as two storeys.

A storey which exceeds 5 metres for commercial buildings is counted as two storeys.

“Height” means the greatest distance measured vertically from any point on the building to the finished ground level immediately below that point.

“Storeys” means:

- (a) the space between two floors, or
- (b) the space between a floor and any ceiling or roof immediately above it, or
- (c) foundation areas, garages, workshops, storerooms and the like, excluding access paths to basement areas, where the height between the finished ground level and the top of the floor immediately above them exceeds 1.5 metres in height.



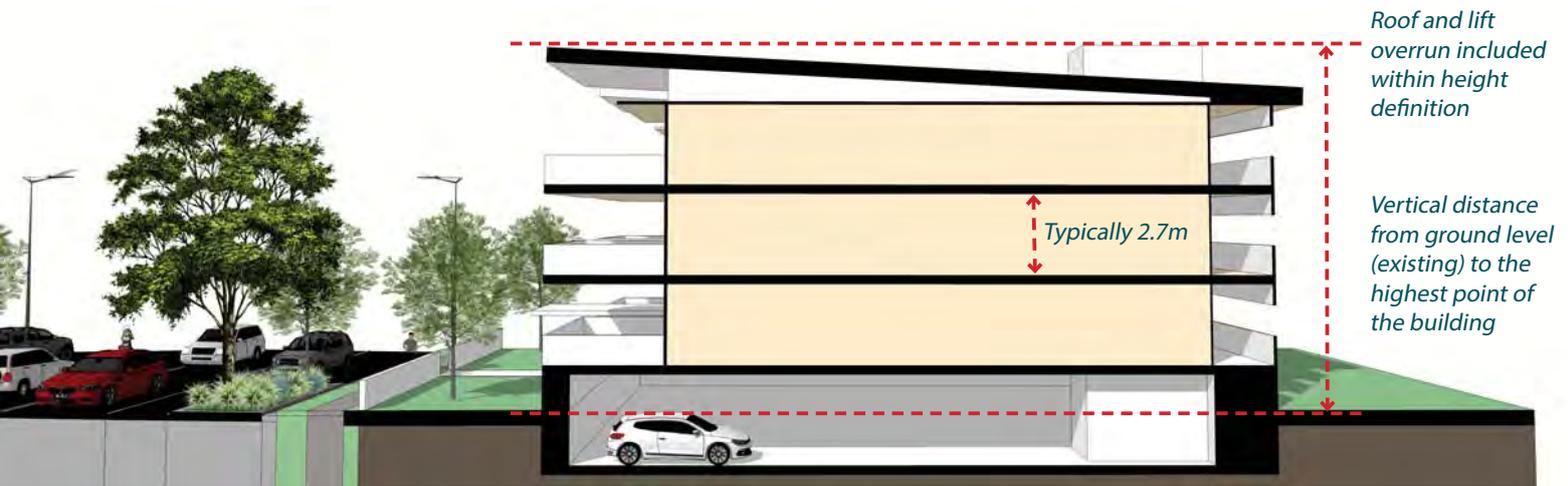
Local Environmental Plan 2012 & 2014



Prescribes height in metres and maps height of individual lots on height of buildings map.

“Building Height” is defined as:

- (a) in relation to the height of a building in metres—the vertical distance from ground level (existing) to the highest point of the building, or
- (b) in relation to the RL of a building—the vertical distance from the Australian Height Datum to the highest point of the building, including plant and lift overruns, but excluding communication devices, antennae, satellite dishes, masts, flagpoles, chimneys, flues and the like.



DCP A1 Residential and Tourist Code

- The role and purpose of DCP A1 is to guide the planning and design of residential and tourist development and development ancillary to residential and tourist development within Tweed Shire. Where the LEP defines maximum building heights, the DCP A1 provides specific design guidelines and development controls relating to the following different building typologies; Detached dwelling houses, Dual occupancy, Townhouses, Row houses, Residential flat buildings and Shop top housing.
- Building height based on building typologies in metres:
 - Houses, town houses row houses – 9m (Slopes greater than 12 degrees may apply up to a 1m height variation)
 - Residential flat buildings – 12.2m
 - Shop top housing – 13.6m
- DCP A1 uses the same building height definition as LEP 2014.



Although the LEP through the height of building map nominates the maximum height for a specific site or area, this height is further controlled by DCP A1 and is linked to building typologies.

How is building height measured?

The Tweed LEP 2012 & 2014 provides the following definitions for measuring building height:

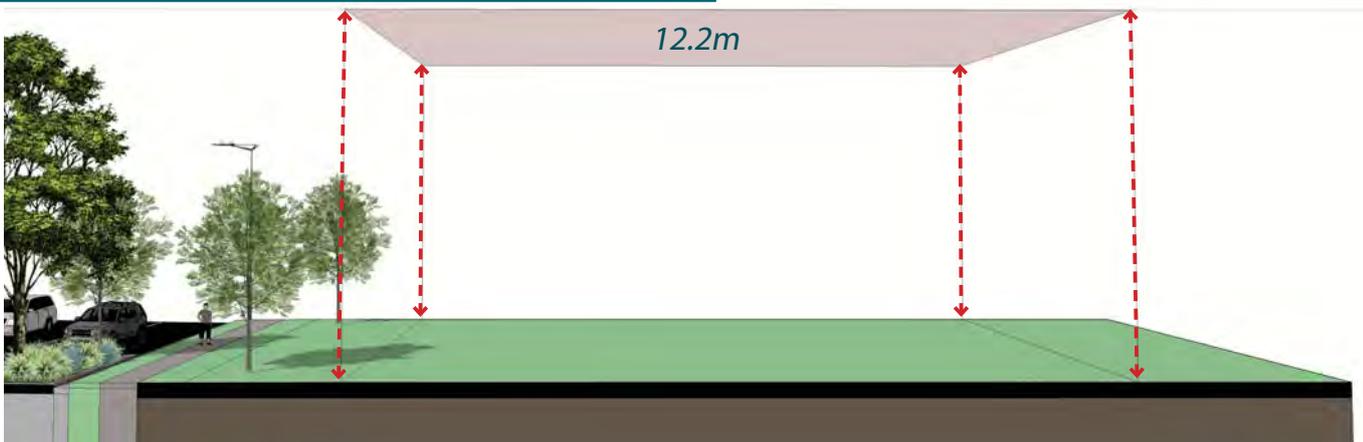
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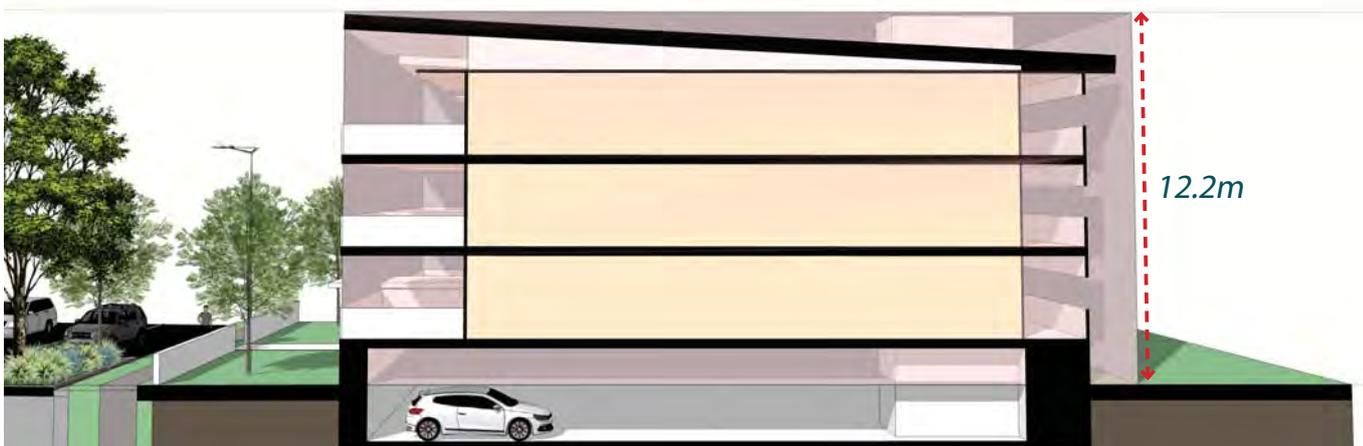
Step 01 - Determine height off LEP Map



Step 02 - Offset height from existing ground level



Step 03 - Design within maximum building height envelope

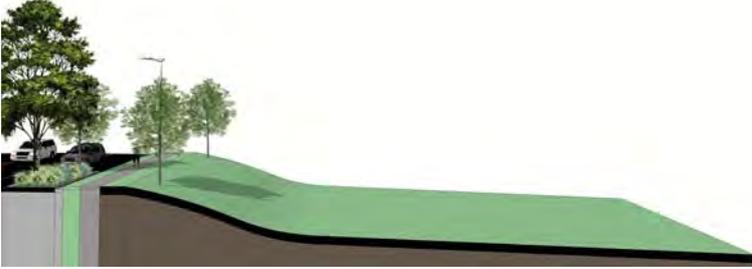


Sloping and filled sites

Site earthworks influence overall building height.

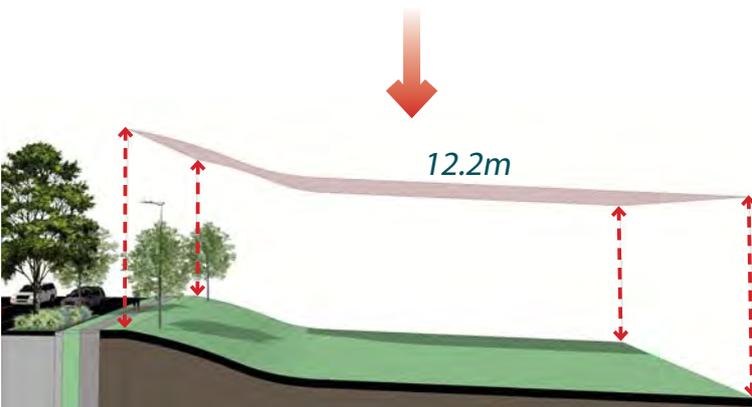
- By way of building height definition, which uses ground level (existing) to the highest vertical point of a building to define height, final building height is influenced by site works particularly on sloping land.
- For example if a site is pre-filled, which is often the case as part of a subdivision approval, that filled level becomes the existing ground level at the time of building development. This would result in a higher building than if the same building were developed on an unfilled site.

Sloping site example



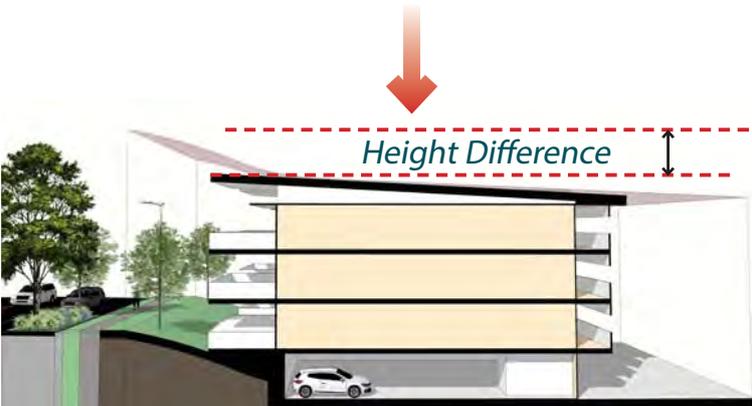
01 Sloping site retained.

In this example, the sloping integrity of the land remains without significant bulk earth works (excavation of fill) to adjust the existing ground level.



02 Height projected from existing ground level.

The maximum building height for a residential flat building (12.2m) is projected above the existing ground level. The building height envelope follows the contour of the sloping site.



03 Building designed within the height plane.

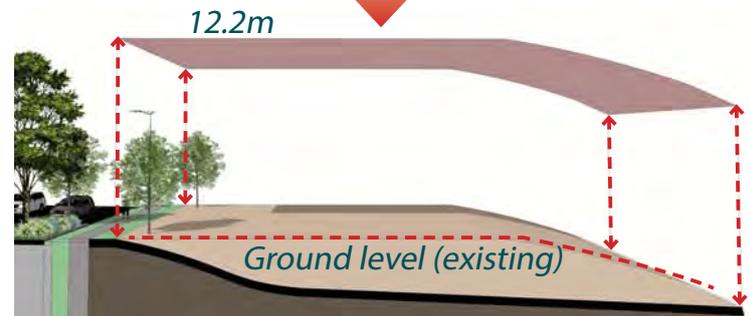
The building has been designed with the slope to fit below the maximum building height envelope resulting in a lower set building particularly experienced from the streetscape.

Filled site example



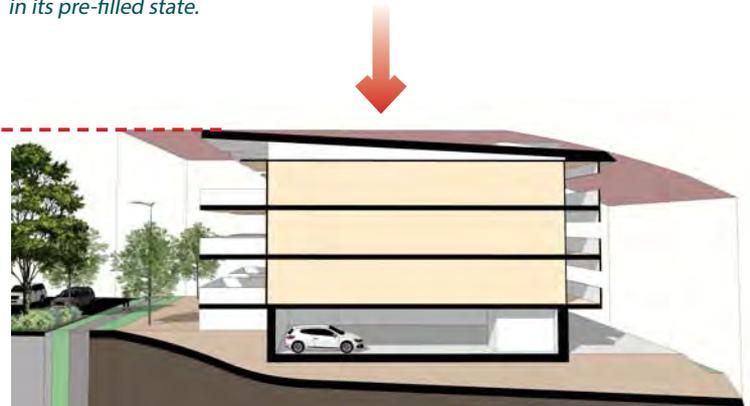
01 Site filled.

In this example the original sloping site has been filled to form a level transition from the street level across the site creating a flat building platform prior to consent for the development of a building. This is common in subdivision scenarios. This filled site then becomes the sites existing ground level by definition.



02 Height projected above filled site level.

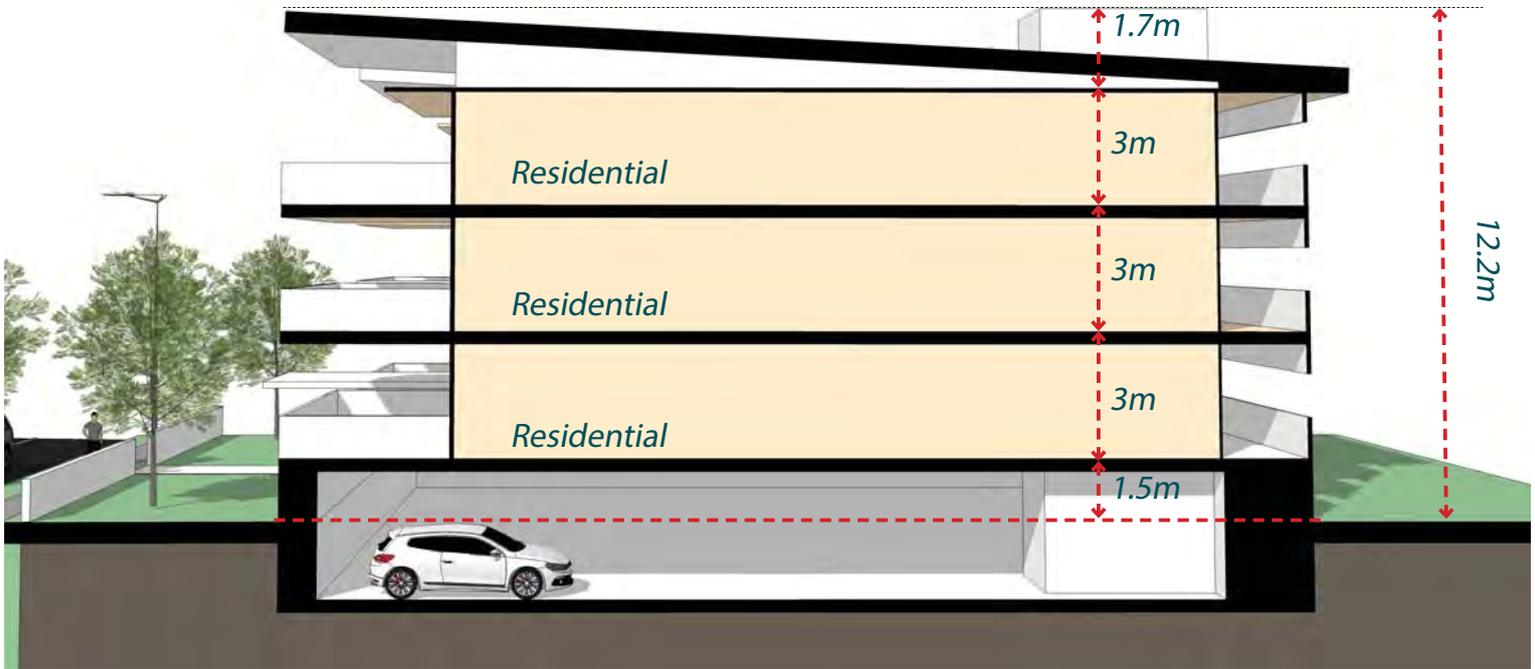
The maximum building height for a residential flat building (12.2m) is projected above the filled level which is the existing ground level. As the site has been filled the projected maximum building height is higher than the site in its pre-filled state.



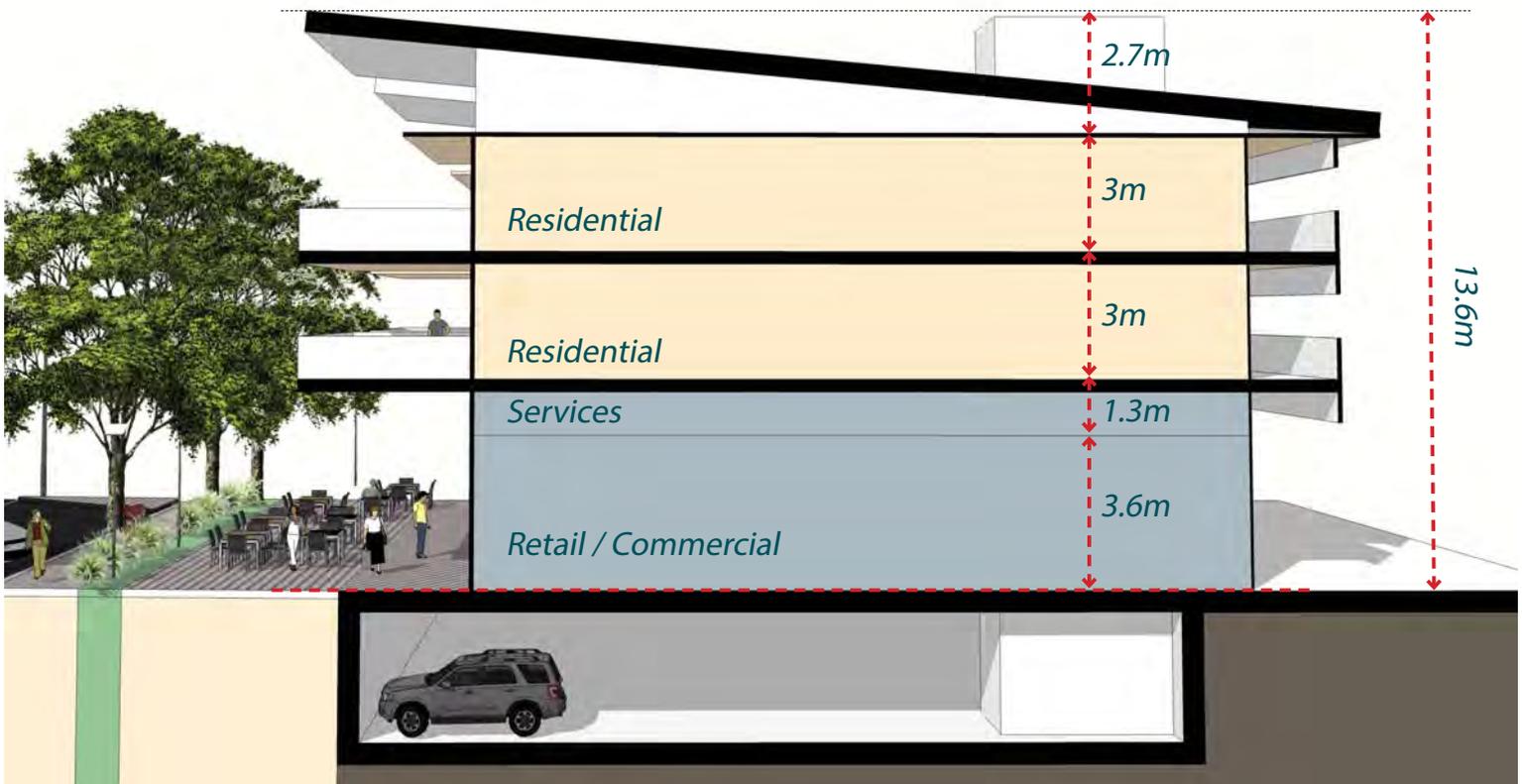
03 Building designed within the height plane.

Although the building over the filled is identical to the sloping building example by way of floor to ceiling dimensions and roof design, it is higher set atop of a small podium and semi-basement area. This results in an overall higher building.

Typical 12.2m residential flat building



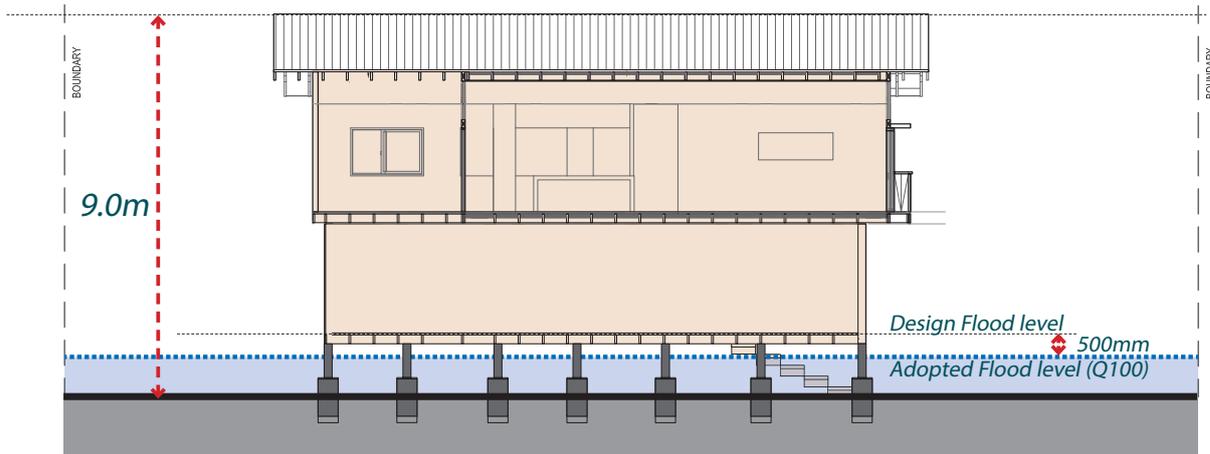
Typical 13.6m shop top building



Building height in flood prone areas

Flooding

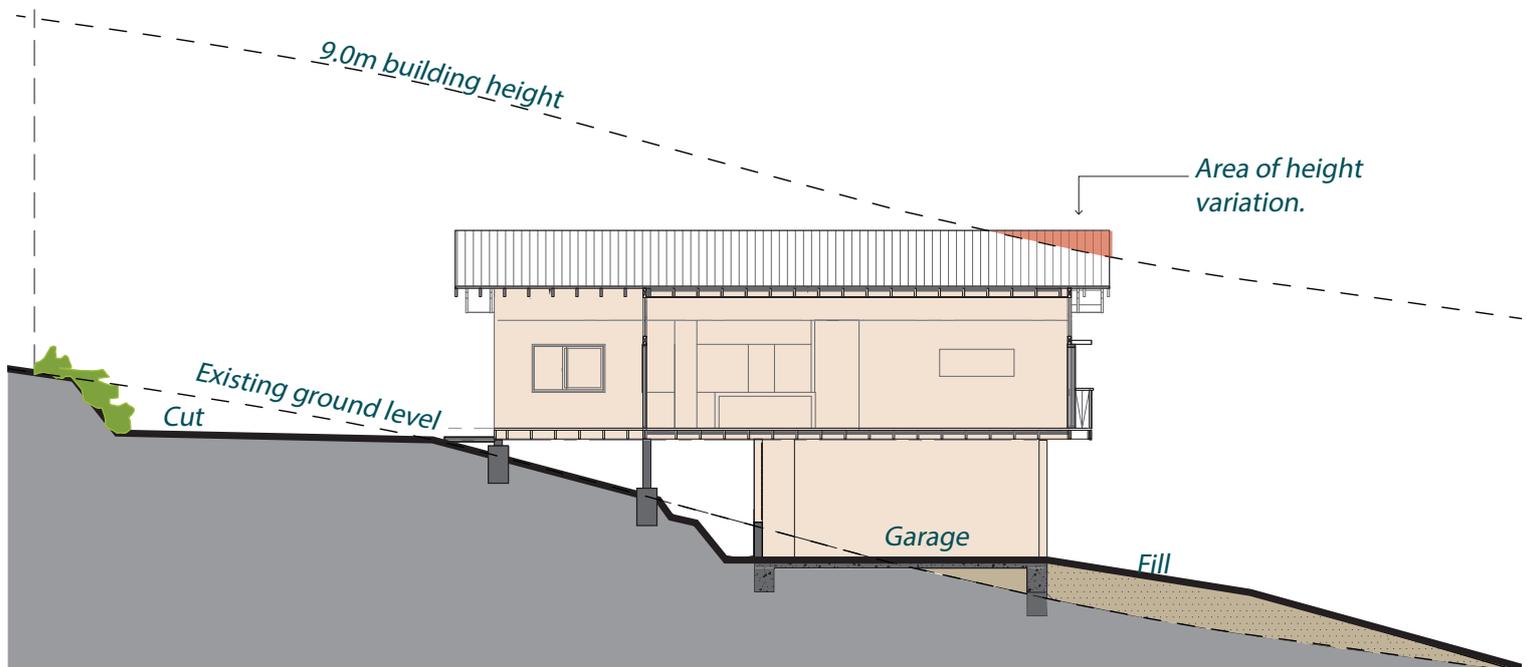
- Significant amounts of existing urban land in the Tweed is identified as flood prone. Council's flooding policy requires:
- The level of habitable areas of all residential buildings must be at or above Council's adopted floor level for development which is 500mm above the adopted flood level (Q100).
- Areas below Council's design flood level cannot be totally enclosed. Consideration will be given to applications to enclose laundries, stairway entries and double garage spaces, provided an enclosure does not significantly restrict flood flows. An area of 50m² will generally encompass these facilities.



Building height on sloping sites

Slope

- Much of the Tweed Shire's existing and greenfield urban development sites are located on sloping land which, if designed poorly can increase the visual prominence of the development.
- To address the complications of building on sloping lots, DCP A1 includes design principles and an objective that buildings will generally step with the natural topography, to remain under the height limit and avoid excessive cut and fill.
- Council's existing framework also provides opportunity for overall building height to be increased from nine metres to 10 metres on slopes of greater than 12 degrees (21.25%). Any Development Application seeking to utilise this height provision needs to address Clause 4.6 - Exceptions to development standards, of the Tweed LEP 2012 & 2014.



Design elements influencing visual appearance

Bulk, Scale, Mass, Articulation, Detailing, Colours, Materials and Landscape

- In addition to overall building height, there are a number of other design elements significantly influence the visual appearance of a building and perception of its overall bulk, scale and mass. These design elements include; architectural form including roof form, elevation articulation which is the interplay of solid to void, setbacks, mix of materials, windows and structure. Within Tweeds subtropical context it is important climatic influences are well considered in the building design to improve occupant amenity. It is often appreciation of passive design measures that leads to well articulated buildings.*



Varied form and complimentary materials result in a well scaled building.



Rectilinear form and heavy materials result in a larger looking building.



Well proportioned elevation with generous decks taking advantage of view, aspect and subtropical context.



Singular use of material (brick) with limited architectural form or articulation.



The overall elevation length, despite articulation through verandahs, upper level setbacks, materials and roof forms significantly influences the visual appearance and overall bulk, scale and mass.

Design elements influencing visual appearance



Facade Layering - Articulated and varied use of materials provides depth and layering to this mixed use development.



Structure - Rectilinear form is broken down by deeper upper level deck areas articulated with screens with the top storey set back from the elevation.



Diversity - Townhouses with a strong individual vertical articulation creates a sense of diversity and material richness within a unified medium density scheme.



Scale - The scale of this larger mixed use building is broken down with a distinctive ground, mid and upper level articulated with blade walls, projecting decks, material and colour.



Colour - Use of expressive colour and building form adds architectural interest.



Form - Fluid form, expressed volumes and material differentiation on the upper setback level articulates this contemporary residential flat building.

Building height plan making process

- As building height is a development standard within the Local Environmental Plan (LEP), a planning proposal is required to make statutory amendments. A planning proposal is usually prepared by Council and made by the NSW Minister for Planning.
- Clause 4.6 of the LEP can however provide opportunity to make variations, typically minor, to development standards as part of development applications.
- The following steps highlight the planning proposal process involved in amending the LEP provisions for building height:

Step 01 - Identify strategic intent or merit to varying building height

Undertake locality or site specific study justifying change

- Building heights are often reviewed as part of Council's locality planning framework. Undertaking locality based studies provides the opportunity to understand in more detail future development opportunities and constraints set against an understanding of the local communities aspirations and desired future character.
- In areas undergoing transition and incremental growth part of the future development opportunity may mean exploring higher buildings as a way of making the best and most efficient use of available well serviced land, providing for housing mix and housing diversity and providing greater density opportunities within walkable catchments of service centres, open space and recreation opportunities.
- Locality Plans are undertaken with significant community input with final locality strategies and development controls ultimately endorsed by Council.
- On specific sites, the planning framework allows for individual property owners to seek development standard amendments through the planning proposal process, however the strategic merit of the proposed amendments need to be justified.

Step 02 - Initiate a planning proposal

Council resolve to proceed with a planning proposal (Draft LEP)

- Following the establishment of strategic justification to amend any development standard (including building height) a formal Council resolution is required to initiate a planning proposal (Draft LEP).

Step 03 - Gateway determination from the Department of Planning and Environment

Gateway Determination - Department of Planning and Environment

- Upon reviewing the strategic intent, the Minister (or delegate) determines whether the planning proposal can proceed (with or without variation) and details any other matters necessary as part of the plan preparation, such as further studies, public consultation, public hearings, agency consultation and project time frames.

Step 04 - Draft LEP consultation

- Any specific studies detailed within the gateway determination are prepared and the planning proposal is publicly exhibited as required by the Minister.

Step 05 - Council review and determination

- The Council reviews public submissions received and determines whether to proceed, amend the planning proposal or terminate the planning proposal.
- Council will also resolve whether a public hearing be held should it be raised during the consultation period.

Step 05 - State Government review and determination

- Should Council resolve that the planning proposal proceed or proceed with amendment, the NSW Department of Planning and Environment undertake a review. Post review DP&E staff provide recommendations to the Minister of Planning, who determines the LEP.
- With the Minister's (or delegate's) approval the local environmental plan is published on the NSW legislation website and becomes law.