6.0 - Design Resources

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6.1 HOW TO USE THE DESIGN RESOURCES

This part of the document provides further design information to ensure development complements Hastings Point's desired future character as a small coastal settlement.

Discussion is provided using text, diagrams and a variety of photographic design precedent images designed to illustrate that a particular consideration can be creatively solved in many different architectural styles to allow for architectural variety and innovation.

The part also provides constraints maps and a list of native indigenous species.

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6.2 BUILT FORM AND LANDSCAPE DESIGN IDEAS

6.2.1 DESIGNING TO SUIT HASTINGS POINT

Hastings Point's desired future character is as a small coastal village. As such buildings; whether single detached houses or multi-dwelling buildings, need to reflect the scale of a smaller settlement rather than an urban setting.

This necessarily requires a greater degree of design consideration for breaking down the bulk of the building, carefully detailing the building to give it a residential feel, breaking up the roof form and using lightweight materials.

Responsiveness to the site and the local environment as well as improving internal amenity and livability will also help to further modulate the buildings form and assist in breaking down building bulk.

The building is clad and it ______ has a variety of domestically scaled windows and doors rather than all the walls being glass.

The garage is not more prominent than the buildings elevations. It has garage doors in line with the buildings elevation.

Landscaping features along the street using local species



This is just one example of a building that has some of the design attributes appropriate for buildings in Hastings Point.

A key technique is to design a building to have the appearance of a series of interconnected forms (considered in 3 dimensions) rather than one large mass. This will result in the building having the massing of a large house or a series of closely spaced large houses rather than a multi-dwelling building suitable for an urban setting.

It is important that buildings have cladding, are well detailed and combine a variety of complementary building materials with the majority being lightweight.

Varying the roofscape and avoiding large areas of flat roof are also important considerations.



Other Practice

Buildings more suitable to an urban setting may have long unbroken elevations and less variation to the buildings form; its length and height. Designing a building in this way may be appropriate in an urban setting where a block edge form is the future character for the street and the area and where creating a strong edge to the street and continuous building frontages are desirable.

The scale of built elements may be large with minimal detailing and large expanses of concrete and glass to further enhance the block edge form. All levels of the building may have a similar plan and a flat roof.

Simple concrete frame buildings without the addition of cladding or detailing, lengths of unbroken concrete walls and large painted surfaces are architectural design solutions more suited to an urban context. Walls visible along the street to hide semi-basement carparking and retaining walls to ramps detract from pedestrian amenity and the residential feel along the street where the desired future character is of a small coastal settlement.



Visually the dominant forms on both these buildings are the horizontal concrete floor plates. (A, B, C) There are no differences in the elevation treatment along the building nor little definition between different parts. The three dimensional nature of each building form has not been considered.

6.2.2 BUILDING FORM

The concept of designing a building as a series of forms and in three dimensions is a key strategy in creating quality buildings suitable for Hastings Point as a small coastal settlement.

Designing buildings as a series of forms results in less bulky buildings, better articulation, improved internal amenity and site responsiveness.

A building designed in three dimensions recognizes that a building has width, depth and height and that these can be manipulated to give a human and domestic scale even to larger buildings such as a multi-dwelling buildings.

Buildings designed as a series of forms and in three dimensions can play with solid and openness on the elevations. The building can be stepped in and out and up and down to reflect the internal plan configuration and to better regulate the thermal environment within the building.

Form A - is more solid

than Form B and sits

forward of forms B,

Designing a series of different forms can allow the building to more readily express the varying functions occurring internally and be more responsive to contextual considerations thereby improving building amenity and sit more comfortably alongside neighbouring buildings and within the settlement.

The overall effect is to break up a long building to appear as a series of linked buildings rather than one large form and then employ materials and detailing to articulate and express each different form.

Designing a building in three dimensions results in a different outcome than a building designed in plan, then elevation or designed only as a series of horizontal plates.

A building designed as a series of horizontal and identical plates (even if stepped) does not employ width and depth nor solid and void.

Form C - is long and

sits forward of the

circulation core.



Form B - sits backwards

is more transparent and

houses the circulation

Form D creates a central focal point marking the entry to the building. It is narrower, taller and more solid than forms A, B and C. Materials are used to further define and contrast.

Form E - creates a solid base to the building and extends across the whole ground floor. It wraps inside into the circulation core giving visitors clear visual cues on where to enter the building.

This is just one example of a building made up of a series of interconnected forms. The use of solid and openness on each form as well as stepping backwards and forwards and varied heights breaks up the buildings bulk.

A varied roofscape and varied materials help express the different parts of the building.

Landscaping could be more continuous along the street frontage and matched to the height of the building. The driveway also needs to be rationalised to allow for more landscaping and better pedestrian access to the front door. If this style of building generally is also not articulated beyond the concrete structural frame it will have the appearance of a commercial building without sufficient detailing to be sympathetic to a residential area and to Hastings Point.





This diagram shows how a building can be conceived as a series of 3 dimensional parts or forms. Here there are 5 different forms of varying heights, setbacks, lengths and levels of openness and enclosure.

The addition of roofs of varying types ie flat, pitched and skillion and materials will further express the difference between each park.

enclosed form expresses the corner location.

A tall, narrow element expresses the circulation

Stacked balconies create an open form. They do not extend along the full length of the building but are counter posed next to an enclosed form.

Much of the buildings elevations have walls with windows rather than open balconies to provide privacy and weather



Materials are used to define forms, they wrap over and around parts of the building. Enclosed forms contrast with open frames and blade walls.

Design Ideas

- Use a variety of mainly enclosed or three dimensional forms ie. walls with windows, combined with some open or planar forms, ie. such as stacked balconies.
- Work to a grid that gives the building a human scale, for example 3, 4 or 5m. Different forms can contrast by having varying lengths and heights ie. tall and skinny next to short and squat.
- Embellish forms by the use of materials and colour and articulate the building to express 3 dimensional forms.
- · Consider closed or 3 dimensional forms by designing the four sides and the roof together.
- Design a building in 3 dimensions by considering a level of enclose on the buildings elevations. This ensures that the building is articulated, designed to suit the climate, site conditions and internal amenity.
- Design forms to contrast with one another to create variety, to respond to the internal layout and the external environment. For example contrast can be created in parts of the building by;
 - step up and down,
 - step backwards and forwards,
 - being light and heavy,
 - being translucent and solid.



The use of natural building materials and subdued colours emphasis the 3 dimensional forms of this building. Mature trees are a feature within courtyards, providing a pleasant outlook and shading the building.



The idea of interlocking forms is expressed in this simple two storey building by the use of materials, colour and roofs.



The design of this building has resulted in the appearance of a series of linked pavilions break down the bulk of the building.

- Employ the language of designing enclosed 3 dimensional forms by considering:
 - The same material may wrap around all sides and even over the top of the form.
 - Solid forms have elements; cut out of it, stuck onto it, colliding with it and piercing through it.
 - Punched openings or windows.
 - Detail elements are attached to the outside of the form to contrast in colour, material and proportions to the forms flat surfaces.
- Open forms may be either vertical or horizontal or both. They are generally an expression of the bare structure or frame of the building. They are best used where it is desirable for the building to open up to the outside or to express more public areas ie. Entries.
- · Open forms can also be used to lighten the top of the building and to separate enclosed forms.
- In contrast to closed forms the language of designing an open form considers:
 - Clean lines and crisp edges.
 - Linearity ie. Thin and long elements.
 - Layering of transparent or semi-transparent elements
 - The expression of edges (thick or thin).
 - Operable lightweight elements ie. Sliding screens.

This building has a varied facade with projecting and receding areas, extended by pergolas and stepped with recessed balconies.





Although this building requires a greater amount of lightweight materials to be appropriate for Hastings Point and is larger than buildings will be in Hastings Point it is a good example of where the design has worked hard to break up blank walls and express the different functions and levels of the building. The variety of windows types, window shading, roof overhangs and enclosed balustrades add to a diverse elevation and break up the buildings bulk and increases internal privacy.



Building forms can be designed to change expression from day to night.

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6.2.3 BUILDING FOOTPRINT AND HEIGHT

Using design devices to reduce building length and height are critical considerations when designing larger houses and multi-dwelling buildings. Buildings that maximise length and height will not be suitable in Hastings Point.

Buildings that feature part storeys and stepped alignments are key features suitable for Hastings Point.

Ensuring buildings have compact footprints maximises the area available for landscaping and water percolation.

Design Ideas

- Nest the building into the topography to reduce its height.
- Courtyard layouts can break up the building length and achieve sun penetration where the site is wide enough to accommodate them.
- · The ground floor is flush with the ground.
- Carparking is fully underground and neatly within the building footprint
- The buildings height is varied across the site.
- The building is broken into a series of stepped forms that relate to internal amenity, site context conditions and orientation.
- Transparent or open stair cores can serve to visually separate the building form and break long elevations.

Other Practice

- The building appears as one long form.
- Amalgamated and large sites have very long building forms along the streets.
- The building is high off the ground on sloping sites.
- Carparking raises the building off the ground.



This building appears as two storeys although it is three. The third level is concealed in the roof. Fly roofs taper the building towards the sky reducing the apparent building height.



This building is broken down into two parts. One being two storeys and the other three to the rear of the site where is less visible. Importantly the building steps with the contours and nestles with the topography to reduce building height.



This building has added another half level making the building appear as nearly four levels.



This building has a continuous height of three storeys and is raised off the ground to the rear where is does not step with the topography.

6.2.4 MATERIALS AND DETAILING

Although the main structural system of a building may be of concrete or masonry for cost, thermal, structural and acoustic reasons, the appearance of the building will be dictated by what materials are used to clad it, how those materials are articulated.

Buildings in Hastings Point need to employ materials and detailing to give them a coastal village character and residential scale and feel. Unclad buildings; where the whole elevation is painted brick or block work, concrete or glass, will not have the right appearance for Hastings Point.

> Lightweight materials are used throughout

A variety of ______ complementary _____ materials are used

Colours are subdued and subtle, almost 'bleached'.



The natural colour of the material is used

Other Practice

- Large areas of paint in bold, bright colour ie. blue and yellow, is applied to the concrete frame to express one or two primary forms.
- The building has little detailing and no cladding.
- All of the building has a flat roof giving the building a monolithic quality.
- Retaining walls within the front setback reduce the visual qualities of an informal residential garden along the street.
- Building elevations are either all painted concrete and/or floor to ceiling glass.
- One material is used throughout ie. painted concrete.





Design Ideas

- · Clad building elevations facing public places including roads, streets, parks and foreshores.
- Select mainly lightweight building materials and minimise the use of heavy mass building materials. Including but not limited to; timber, weatherboards, plywood, fibrecement sheeting, custom orb, and mini orb.
- Building materials are chosen to give a more solid base and a lighter weight upper level to the building.
- Screening to balconies, doors and windows; include louvres, drop blinds, and fixed battens or louvres, are good ways to add cladding to a building whilst providing operability. Large banks of full glass window, door and balustrades do not give the building cladding.

Battens, screens and louvers can provide part shade and fit with the coastal theme. Use a variety of complementary materials. The natural colour of the material can give a subtle finish.



Using light weight building materials allows manipulation of the elevation which cannot be so readily achieved with solid masonry or concrete walls. In these examples the use of materials, form and space creates indoor and outdoor rooms.

- The use of painted or bare masonry and concrete should be limited.
- Feature walls of masonry, stone or brick are provided where this adds to detailing and contrast in the buildings elevations.
- Add interest to elevations by providing a mix of solid materials, transparent materials (glass) and voids (balconies or space between building elements).
- A palette of complementary building materials is chosen. A palette of around 4 or 5 building materials can be used.
- The design of building materials can have a logical beginning and end. For example, cladding in a similar way a group of rooms that protrude from the main face of the building and changing to a different material for rooms that recede.
- Link material selection to internal and external building amenity.
- Use materials to define and enclose different functions. For example, private spaces such as bedrooms and service areas can be more enclosed with few small openings to provide privacy for occupant. Less private spaces such as living rooms and balconies can be more open or transparent through the use of louvres or screens.
- Design outdoor living areas not just for views but also for privacy and weather protection.
- Provide flexible sun shading devices, such as pergolas, screens and louvres in order to allow the building environment to be quickly adjusted to suit atmospheric conditions.
- The use of wall to wall, ceiling to floor glass doors and windows for the full length of the building plus full glass balconies without screening devices is avoided.
- Solid materials are used where minimal openings are required in order to match internal amenity and can also be used to provide a feature on the elevation such as:
 - An entry feature of stone or masonry to delineate between private and public spaces by providing a focal point or point of interest to which the visitor is guided.
 - Blade walls between balconies offering acoustic privacy and delineation between adjoining private spaces.
 - A solid base of brick or block work to a building can break up the vertical height of the building and differentiate the ground level.
- When designing outdoor living spaces consider:
 - Generous balconies and loggia that have operable







Screens (particularly to second and third levels) allow views out yet provide privacy to occupants.

- Aluminium fixed or operable louvres provide a low maintenance option.
- Timber batten screens provide a natural building material and colour.
- Screens need not only cover one window, they can be use as a feature that allows a variety of functions to occur behind.
- Strategically placed louvres block views to adjoining properties but are open to the bush views.



enclosure devices create year round amenity and protects from the elements for outdoor living spaces whilst providing occupants with choice in the level of enclosure or openness in response to the time of year, the time of the day and the level of privacy desired.

- Vary the amount of enclosure depending on the location of the balcony or loggia in the building, the orientation and its planned use
- Balconies off living spaces may need to be larger, provide a variety of openness and screening in order to allow for use all year round, either fully open or fully closed depending on weather conditions.
- Balconies off bedrooms can be smaller and more enclosed to provide greater privacy.
- Service balconies which house drying courts or air conditioning units are well screened.
- Pergolas which allow winter sun to penetrate the building can extend private outdoor spaces on the ground and top levels of the building. Pergolas can be operable or fixed at an appropriate angle to allow winter sun penetration into the building and to reflect summer sun.
- Movable or fixed screens or blade walls from the building that project into outdoor spaces can help define and enclose the space.
- Shutters can be located to provide relief from the predominant weather conditions and provide sun protection.
- Louvres can be located in order to capture predominant sea breezes.
- Sun shading devices can be located and designed appropriate to their orientation.

Louvred screens overhangs provide privacy to windows and balconies and visual privacy yet allows some sunlight and sea breezes through.







This building uses a rust finish to delineate the base of the building. It breaks down the buildings bulk and creates an interesting backdrop for landscaping.

6.2.5 LANDSCAPING

Landscaping is one of the most important considerations for developments in Hastings Point.

Landscaping contributes to the quality of a settlement nestled within a natural landscape both when viewed from a distance and when seen within the settlement from streets, parks and bushland areas.

Currently many lots in Hastings Point have mature vegetation and trees in the front and rear setbacks. Landscaping in the front setback contributes to the natural, coastal and residential feel of streets. In the rear setbacks landscaping on many lots creates a transition to natural areas such as the creek, the dunes or conservation areas.

FRONT SETBACKS

Design Ideas

AFT Privacy for dwellings and private open spaces is . achieved through the careful selection and placement of vegetation and trees where required.



- Planting is provided at the same height as the building where it is desirable to screen it from the street.
- Species include a majority of remnant and new local native indigenous trees and shrubs, intermingled with exotic semi-tropical planting.
- · Private landscapes are designed to blend with public landscapes.
- Internal and external micro-climatic conditions are improved by utilizing trees and other vegetation to provide shade and protection from the wind.
- · Existing vegetation and trees are retained.
- Pools or other structures are avoided within the front setback.
- · Basement car parking is fully under the building.
- Hard surfaces are minimised. For example finishes such as crushed stone are used for walkways inter-spaced with stepping stones, this helps continue the beach side ambience. Grass is used between wheel lines along driveways and timber decks can be used instead of concrete and tile for terraces.
- External areas between the street and ground floor dwellings are used for private gardens rather than as communal spaces to enhance the amenity of ground floor dwellings and provides a more friendly and residential feel to the street.



Existing landscaping along the Tweed Coast Road provides screening and privacy and is important to be retained.

Other Practice

- Setbacks are not deep enough for mature trees.
- New trees and shrubs are not local indigenous species.
- Low planting does not providing privacy to ground floor dwellings.
- Tall palm trees do not providing shade or screening for upper level dwellings.
- Pools, parking and large paved areas are located in the front setback leaving no room for vegetation or trees.
- The front boundary has a solid wall up to 1.5m.
- Trees are not retained within front and rear setbacks.
- Shading the building and external spaces has not been considered.
- Basement carparking intrudes beyond the buildings footprint.



Communal spaces within the front setback featuring pools and hard surfaces leave no room for vegetation.

REAR SETBACKS

The rear of many lots in Hastings Point are characterised by informal planting and remnant coastal vegetation that is on some lots quite dense.

Vegetation to the rear of lots provides a transition to natural areas as well as providing screening and privacy to dwellings where the lot adjoins a busy public area.

The rear of lots may be extensively used by residents as their main private area for relaxation and entertaining particularly on lots with a busy frontage such as lots along the Tweed Coast Road.

Design Ideas

- Species selection includes remnant and new native trees and shrubs.
- Private landscapes contribute aesthetically and ecologically to adjacent riparian and coastal landscape areas.

- Shrub and tree planting to provide low level screening and filtered upper level screening or more open planting where views are desirable.
- Trees and/or other vegetation match the height of buildings.
- Contribute to micro-climatic conditions of garden areas and the dwelling by planting trees and shrubs for shade and protection from wind.
- · Existing trees are retained.
- New trees are planted to establish a continuous tree canopy.
 - Local indigenous native coastal vegetation species are used.

Hard surfaces are minimised le. Crushed stone walkways interspaced with stepping stones helps continue the beach side amenity and is encouraged, timber decks can be used instead of concrete and tile.



6.2.6 ROOFS

A series of roof planes and fractured roof forms help to break up the roof and express the different parts of the building. This contributes to breaking down the overall bulk of the building. Roofs are also important in contributing to the image of a small coastal settlement when viewed from street or from within a wider vista where the building is seen as a group with other buildings against a natural setting.

Design Ideas

- Combining a variety of roof forms ie. Pitched, skillion and flat can break up large areas of roof.
- Tapering the roof eaves for skillion roofs to give a feathered edge to the building.
- Break up large ares of roof by reflecting the internal layout of the building. For example larger volumes can be used over living areas and lower ceilings can be used over service rooms and bedrooms.
- A series of smaller roof planes can make up the overall roof form and relate to the buildings structural grid.
- When designing a roof consider how it will be viewed from along the street and other views and vistas throughout the settlement.
- A corner to a building is an opportunity to reinforce the street corner and provide an interesting design element within the settlement.
- Where a flat roof is incorporated into the design, shading of windows should occur via other shading devices on north, east and west elevations eg. External louvres or small roofs over individual windows which would normally be shaded by the roof's eaves.
- The roof colour can be used to regulate the buildings temperature. For example lighter roof colours reflect heat and light.



The building can be significantly reduced in height and the overall bulk of the building reduced by using a variety of smaller broken up roof forms.

6.2.7 COLOUR

Colour is an important architectural consideration and can affect how the building contributes to the streetscape.

It is desirable in Hastings Point to choose colours that complement the natural environment. This can be achieved by keeping the palette muted, light and subtle and using the natural finish of materials. Metal, timber, rusted steel, face brick and river gravel are material with a natural finish that can be considered.

Bright, bold colour should be used only in small areas such as to highlight a detail or point of interest.

Elements of minor importance such as blank concrete walls, garage doors should blend in with the buildings elevations.

Design Ideas

- · Choose a palette of subtle and muted complementary colours.
- Use light, neutral colours with very small splashes of rich colour.
- · Use shades of same the colour.
- Use the natural colour of materials where possible ie. Timber.
- The use of one main building material and colour can create a monolithic building type and should be avoided.
- · A palette of around 2 to 4 colours is often sufficient.
- The design of a building's colour palette should not start and end in random locations disassociated from use and function. They should have a logical beginning and ending, for example expressing a particular form.



Solid elements or walls can be used to enhance an important part of the building such as the entry to the building. Important features such as the front door may be more visually prominent.



This building uses a splash of very rich colour to contrast with the mainly neutral tones.

6.2.8 FENCES AND WALLS

Fences in Hastings Point need to retain a visual blending of private and public areas along streets whilst also defining the boundary of private land. Fences assist in providing a level of security and privacy but need to be low and open enough not to detract from the quality of the street.

It may be desirable not to have front fences on lots where there is only one dwelling and the boundary line is fairly obvious however where a lot has more than one dwelling fences are likely to be needed to improve privacy and maintenance.

In multi dwelling buildings clearly defining which area belongs to which dwelling increases the level of ownership over that land thereby assisting in maintenance and enhancing the character of that space. It also improves safety by makes what is public and what is private clear. Spatial definition; by the use of fences, can avoid the area between the building and the street becoming an unloved and unused space.

Design Ideas

- Front and return fences can reflect the design character of the dwelling through the use of materials, colour and design.
- · Vertical battens in preference to horizontal battens.
- Picket fences can have a hedge or other shrubs planted adjacent to them in order to provide privacy to ground level apartments.
- Fencing is low and open and reflects an open and friendly atmosphere along the street.
- Fences which include a masonry base where there is a change in level can be painted in colours that compliment the building design.
- The use of landscaping is important in achieving the desired levels of privacy required for outdoor living spaces located facing the street.

Other Practice

Blank walls to the street reduce the friendly feeling along the street.

Solid built elements reduce the green qualities of the street.



Balconies, fencing, and landscaping contribute to a village feel.



6.2.9 ANCILLARY DESIGN ELEMENTS

The careful design and location of ancillary detail elements, such as downpipes, window frames, soffits, post boxes and street numbers can add a human and residential scale to a building.

Design Ideas

- Downpipes are to be integrated into the design of building elevations.
- · Hide downpipes disposing water from balconies.
- Where downpipes are highly visible from streets or located near the entry, consider making a feature of them.
- The thin vertical lines of downpipes can help break up an elevation when painted in a colour that complements the wall onto which it is located. To make a downpipe blend in with the wall on which it is located it is generally better to paint the downpipe in the same colour as the wall.
- Integrate post boxes into the design of the front setback area.
- Consider the importance of window frames and soffits; in colour and design to give the building visual detail.

6.2.10 RAMPS AND DRIVEWAYS

Ramps and driveways can have a significant impact on the street and front setback if not carefully designed. Car manoeuvring areas can take up valuable space needed for landscaping resulting in extensive hard surfaces and little vegetation.

Design Ideas

- Minimise the visual impact of ramps and car manoeuvring areas by concealing them as much as possible under the buildings footprint.
- Start ramps at the building line not the boundary line.
- · Minimise driveway widths as much as possible.
- Fully conceal ramps within the building and located under the building footprint.
- Consider reducing carparking numbers, locating visitor parking on the street to reduce the size of the basement.
- · Drain hard surfaces to lawns and planting areas.
- Consider alternative materials to bitumen and concrete such as permeable pavers.
- Align garage doors with the buildings elevation so as to blend it with the buildings elevation.
- Provide driveway gates to match the boundary fence to break up the large expanse of the driveway.
- · Chose different materials and finishes for surfaces in the public domain and private domain.
- On smaller developments consider alternatives to concrete driveways such as timber sleepers, permeable pavers, gravel or wheel lines only.



Ramps can be concealed within the buildings envelope. This avoids unsightly retaining walls, gives the building a more residential character and improves pedestrian safety and amenity on sites.

Other Practice

- The ramp starts at the street boundary.
- Driveway widths are maximised.
- The ramp is visible within front setback.
- Car parking rates are exceeded on site.
- The driveway is all concrete.
- The ramp creates a hole under building and unsightly retaining walls.
- No gates are provided along the fence line.





Buildings that have not concealed car access and movement areas such as ramps and carparks result in large areas of concrete and bitumen dominating the ground plane and detracting from the character of a small coastal settlement.

6.3 SPECIES LIST

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6.4 CONSTRAINTS MAPS















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