

5. Carnoustie Landscape Capacity Study

5.1 Landscape Assessment

Natural Heritage Zone (SNH 2002):
Eastern Lowlands

Regional Landscape Character Type (LUC 1997):
Coast with Sand
Coast with Cliffs
Dipslope Farmland

Landscape Character Unit (LUC 1997):
Barry Links
Carnoustie
South East Angus Lowland

5.1.1 Landscape Character Assessment

The landscape and visual analysis is shown on figure 5.1.

Carnoustie is situated on the north shore of the Firth of Tay predominantly on the flat areas of marine deposited and windblown sand. The settlement extends northwards onto more productive agricultural land.

On the coast Carnoustie straddles two landscape character types, Coast with Sand and Coast with Cliffs. However, the coast north-east of Carnoustie is soft with intertidal rock slabs extending 5km towards Arbroath and has been incorrectly classified in the Tayside Landscape Character Assessment. It would be more appropriately classified as Coast with Sand.

On the coast, the combination of distinct physical characteristics and a strong coastal influence on the landscape, with the sense of exposure, the presence of the sea, the influence of the tides and the expanse of the sky create a very different landscape character than that of inland areas. In the Coast with Sand landscape character type, fields tend to be of medium size and rectilinear where topography allows. Pasture is generally only found on dune slack such as at Barry Links or along lower sections of river valleys. Fields are defined by a combination of dykes, hedges and often supplemented by post and wire fences. Field boundary trees are uncommon on the coast and views are typically distant.

The drama on this section of coast is provided for by Barry Links, the largest sand dune complex within the United Kingdom. Barry Links is a Site of Special Scientific Interest and is noted for its botanical, ornithological, entomological and geological interest. Barry Links is also designated as a Special Area of Conservation. Golf is a traditional land use on Links areas and located on Barry Links is the Carnoustie Championship Golf Course. The remainder of Barry Links is used as a military firing range.

Inland, Carnoustie is within Dipslope Farmland landscape character type. The area is characterised by extensive areas of agricultural land generally sloping northwest to the southeast. The land use is dominated by productive agricultural land. Woodland cover is generally low, except on large estates and along river corridors. Fields are typically medium to large and rectilinear. Many field boundaries are absent, with others marked by hedges or post and wire fences and views are typically intermittent.

5.1.2 Landscape Setting

Carnoustie is situated on the North Sea coast at the eastern side of Barry Links which marks the entrance to the Firth of Tay. The A92 which passes around 1.5km to the north of the settlement has extensive views across the local landscape and along the coastal strip. However, views towards Carnoustie are typically obstructed by higher ground for most of the route nearby. The settlement appears beyond the higher ground down by the coast.

Carnoustie is set within a sloping and south-facing terraced landscape which is strongly marked by fluvio-glacial formations originating from the four major periods of glaciation. Situated on the North Sea coast, the east coast railway passes between most of Carnoustie and the coast. Beyond the coast, Carnoustie is set within a productive arable landscape, with trees and woodland principally associated with estates and watercourses.

The Angus coastline experienced four major periods of glaciation which has led to four former shorelines. Typically, fluvio-glacial deposits have been reworked by waves and tides to form raised beach formations along much of the coastline. Of the four raised beach levels, there are two which are important to the setting of Carnoustie. The oldest part of Carnoustie is situated on what is known as the 8m raised beach. This forms a relatively flat terrace typically less than 10m AOD. To the north of the western part of Carnoustie is what is known as the 30m raised beach. Between the two raised beach terraces is a dramatic escarpment which is clearly visible to the east of Monifieth. The escarpment snakes its way along the northern boundary of Carnoustie before working its way into the town centre and petering out as it meets the Lochty Burn. The steepest and highest part of the escarpment is to the west of Carnoustie within an area of ancient woodland. Above the escarpment the 30m raised beach terrace is relatively flat, before stepping up again more steeply between 30 and 40m AOD between Pitskelly and Clayholes and also from Carlogie Farm to the west of San Melito. (See photo 5.1)

The diminutive Lochty Burn passes between the areas of higher ground and joins the Tay Estuary within Carnoustie town centre. Sections of the Lochty Burn have been straightened as it crosses agricultural land and passes through Carnoustie. The straightening of the burn had already been carried out by the late 1800's. By this time, the field and road pattern in the area around Carnoustie had already become established and both remain very similar today. Whilst the Lochty Burn is itself an understated feature in the landscape, its zigzagging path has influenced both the field and road pattern within the surrounding area, particularly to the north of Carnoustie. Some of the field boundaries from this period have been lost as fields have been amalgamated.

Two large estates are important to the setting of Carnoustie. Carnoustie House was built in 1840 on the 30m raised beach terrace and its former associated policy woodlands and enclosures extend more than a kilometre westwards along the top of the escarpment which is situated immediately to the south. It marks one end of a well-defined corridor of deciduous woodland which bounds Carnoustie to the north-west and links into the green corridor of the Barry/Pitairlie Burn to the west. This well connected green corridor of deciduous woodland is an important structural landscape feature which complements and contrasts with the predominant agricultural landscape that is largely devoid of deciduous woodland.

Further north, above the 30m raised beach terrace, Carlogie House was built in 1854 and similarly developed extensive policy woodlands and now forms an important wooded skyline north of Carnoustie in an otherwise open arable landscape.

To the south and south-west of Carnoustie lies Barry Links. This dramatic feature is another raised beach, with vast quantities of glacial deposited sands transported by tide and waves on top of a platform of pebbly sandstone and clay. As sea levels began to drop these sand deposits were exposed to wind action which has now formed a nationally important sand dune complex.

5.1.3 Settlement Form and Pattern

Carnoustie is believed to have been first settled in 1797. Prior to that time it was wild and uncultivated similar to Barry Links today and was not considered suitable for habitation. Thereafter, the village grew slowly until the railway between Dundee and Arbroath opened in 1838. From its origins on the 8m raised beach terrace, in the vicinity of the modern day town centre, the village rapidly expanded westwards in the area bounded to the south by the railway and to the north by the escarpment woodland. The rectilinear road layout which already existed became the structure for the urban street pattern, with development arranged in perimeter blocks and with building ridgelines across to the slope. The original road layout was supplemented to enable buildings to efficiently fill the space. The street pattern of early Carnoustie therefore reflected the broad pattern of the wider landscape. Streets are typically straight with the loose regular grid pattern of the street layout covering a large area but this pattern is interrupted when meeting terraced landforms and other landscape features. For example, where built development abuts the escarpment, Braefoot follows the bottom of the escarpment and Terrace Road is along the top. Similarly, angled modifications to the standard grid pattern of the street layout occur adjacent to the Lochty Burn to take account of its changes in direction. (See photos 5.2 & 5.3)

This pattern of development continued until the second half of the twentieth century when extensive housing development expanded the settlement eastwards. The escarpment which restricts development to the north at the western end of the settlement does not extend across the eastern end of Carnoustie. During this period, housing development therefore also extended northwards at the eastern end of the settlement, incorporating the parkland which marks the site of the demolished Carnoustie House. Whilst the site of the former Carnoustie House is now within the urban area, much of its former policy woodlands and enclosures, which extend westwards along the top of the escarpment, remain outwith the settlement. This reinforces the role of the escarpment as a bounding feature to the north of the western end of Carnoustie.

Interestingly, the twentieth century development at the eastern end of Carnoustie successively incorporated nineteenth century fields into the urban area thereby retaining a relationship with the grain of the wider landscape within the urban fabric. However, development in the later part of the twentieth century no-longer had rectilinear permeable layouts which have led to this development being insular and relating relatively poorly to the wider landscape.

The settlement form is characterised by a well-marked linear edge to the east whereas the western edge is slightly less defined and more fringed, with the village of Barry close to the western edge but situated across the Barry/Pitairlie Burn. Generally the settlement is highly compact with the urban areas being rarely interrupted by green areas and landscape features.

5.2 Visual Assessment

Refer to figure 5.2 for key to photographs.

5.2.1 Views Out or Across Settlement

The location of Carnoustie situated on relatively flat and low-lying ground tends to limit views out of the settlement. Views across Carnoustie and Barry Links are however enjoyed from the paths of the escarpment woodland. The network of paths situated to the north of the escarpment has open views to the north over agricultural land and from some areas views across Carnoustie and towards the North Sea and Barry Links are possible. Other important public views are from the coastal recreation areas where views across Barry Links and over the Firth of Tay are enjoyed.

Householders on the edge of the settlement on the eastern end of the northern boundary and on the eastern boundary in particular, enjoy views across open countryside. Householders along the coast will similarly enjoy views over the Firth of Tay.

5.2.2 Views of Settlement

The combination of its coastal location and the topography dictate that views of Carnoustie from a distance are not generally possible from land, except when travelling east on the A92 as one passes the junction with the C62 (Balmachie Road). (See photo 5.4)

5.2.3 Approaches

Approach from West via A930 (Barry Road)

Prior to the construction of the Barry bypass, the scattered development as one approaches Barry created a mixed and confusing visual image with no clear distinction between urban and countryside character. However, the bypass which has been built since the Landscape Capacity Study of 2003, has led to a more definite transition from countryside to town, with the village of Barry appearing as a separate village next to Carnoustie. The crossing of the Barry/Pitairlie Burn before Carnoustie is entered together with the new roundabout further contributes towards a sense of arrival. Scattered trees along MacDonald Smith Drive create a strong visual edge. (See photo 5.5)

Approach from North via C1 (towards Greenlawhill)

One does not get a sense of entering an urban area until the C1 meets the A930. The escarpment and the woodland together provide a very strong visual northern edge across the western end of Carnoustie. (See photo 5.6)

Approach from North via C62 (Balmachie Road)

Views of Carnoustie are only possible after the bends at Clayholes. To the west, views of Carnoustie are partially masked by a shoulder of higher ground within the field to the north of the urban area. This gives this northern boundary a moderately strong visual edge. To the east is recent housing which has been built since the Landscape Capacity Study (2003). (See photos 5.7, 5.8 & 5.9).

Approach from North via A930 (Carlogie Road)

Views of Carnoustie from this approach become possible after the bend at Carlogie Hotel. To the immediate west are the playing fields which include young woodland (around 15 years old) on the perimeter which is starting to provide a level of structure to the northern urban edge. Also, immediately to the west is recent housing which has been built since the Landscape Capacity Study (2003). These factors together should lead to a strong visual edge in the future across the eastern end of Carnoustie to the west of the A930. To the east of the A930, hedgerows parallel with the urban boundary help give this boundary moderate visual strength. (See photos 5.10, 5.11 & 5.12)

Approach from the North via U508-2 (From U508 Panbride Crossroads to A930)

Views of Carnoustie are not possible until the crest of the hill is crossed less than 1 km from the urban area. Views towards the northern edge of Carnoustie are initially intermittent due to roadside hedges. The broken line of the urban edge to the west, together with some trees and hedges; help give this boundary moderate visual strength. (See Photo 5.13 & 5.14)

Approach from East via C61 (Easthaven Road)

Views of Carnoustie become possible after the walls and trees of Panbride House are passed. The urban edge to the south of Westhaven House and its grounds has a relatively stable appearance having evolved over many years and incorporating mature trees on or near to the urban edge. This has led to a strong visual edge. The straight urban boundary follows a nineteenth century field boundary, which remains part of the structure of the wider landscape. Hedges provide a level of softening of the boundary. However, the twentieth century housing faces inward which weakens the relationship with the wider landscape. Overall, this boundary is considered to have moderate visual strength. (See Photo 5.15).

5.3 Detailed Analysis of Directions of Growth

Refer to figure 5.3 for key to directions of growth analysed below.

5.3.1 East

The eastern edge of Carnoustie stops abruptly at the U508 (Westhaven Road). The trees and buildings at Westhaven House soften this at the southern end Westhaven Road. A hawthorn hedge which formerly enclosed the fields has been retained as the eastern boundary of the built area. There is a further hedge to the east of Westhaven Road. Whilst the management of the hedge adjacent to the housing has been variable along its length, both hedges do nevertheless soften the urban edge and help integrate the urban area with the wider landscape.

The straight line of the eastern urban edge, whilst abrupt, is consistent with the general field patterns in the area which are rectangular and like the urban edge, form visual divisions in the landscape which are perpendicular to the gently rising elevation from the coast landward. As referred to above, the insular layout of the eastern edge of Carnoustie has weakened its relationship with the wider landscape, with impermeable stretches of properties' backs facing the landscape. The relationship of the eastern edge of Carnoustie with the wider landscape has been further weakened by the amalgamation of fields to the east and the subsequent erosion of landscape structure to which the settlement can relate.

The clear eastern urban edge helpfully preserves the setting of Panbride Conservation Area which, although less than 200m from Carnoustie,

maintains a distinctive setting atop a shallow ridge of higher ground overlooking the North Sea, set within an arable landscape clearly separate from Carnoustie. This simple relationship of Panbride with topography, the North Sea and the edge of Carnoustie is visually coherent. An urban extension would risk weakening this setting and risk the sprawling of development in this direction, which would compromise the well-defined edge and the opening of the landscape towards the sea. (See photo 5.14)

The coast is an important recreational resource with the Angus Coastal Path adjacent to the C61 (Easthaven Road). Whilst, the railway exists parallel with the coast, it is nevertheless considered that built development eastwards would create an urban character to the coast and would lead to a move towards it being considered developed coast. This part of the coast is of high landscape value and is visually sensitive.

Given the above, it is considered that there is no landscape capacity for urban extension to the east of Carnoustie.

5.3.2 North (west of C62 Balmachie Road)

The higher ground around Carlogie Hotel and the former policy woodlands and enclosures associated with Carlogie House provide a level of visual containment to the north of the existing urban area. The level of visual containment however varies significantly. There is a large relatively flat area of the 30m raised beach terrace extending between Clayholes Farm eastwards. The northern extent of this area is marked by a sudden steepening of gradient between 30 and 40m AOD between Carlogie Farmhouse and San Melito. Carlogie Farmhouse and the houses at The Bensil and San Melito are positioned along the top of this slope.

When travelling east on the A92 for less than a kilometre, as one passes the junction with the C62 (Balmachie Road), Carnoustie is visible on the lower ground between the higher ground at Carlogie to the east and Pitskelly to the west. This visual containment has an organic appearance and generally defers to the underlying landscape character. Approaching from the A930 (Carlogie Road), Carnoustie is generally not visible until the houses at The Bensil and San Melito, where the slightly elevated position gives a similar effect.

Further urban extensions on the 30m raised beach terrace would generally not alter the relationship of Carnoustie with the wider landscape. There is greater landscape character sensitivity in the vicinity of the Lochty Burn. Appropriate layouts could respond positively to the Lochty Burn by allowing sufficient green space along its length; making a feature of it within any layout and enhancing its biodiversity value by sustainable urban drainage systems.

North of the 30 to 40m AOD slope the landscape capacity for urban extension is much reduced. The increased elevation means that it would be more widely visible in the landscape. The former policy woodlands and enclosures of Carlogie House do help create a level of visual enclosure to the north. The hilltop location of woodlands makes them visible, even from the coast to the east and development would be similarly visible. Unfortunately, the woodlands are declining in condition and are at risk of being progressively lost. The woodlands east of the A930 (Carlogie Road) in particular have declined rapidly over the last 10 years and now provide only a very limited landscape framework for development. The woodlands straddle the top of the hill with the east-west woodland being on the part of the hill with a northerly aspect.

Development on areas between 40 and 50m AOD would be highly visible and would be likely to require extensive mitigation in the form of woodland planting and management. Even with such mitigation, development would be more likely to appear less deferring to the underlying landscape character than development on the lower 30m raised beach terrace.

Accordingly, it is considered that the landscape capacity for development is significantly higher on the 30m raised beach terrace than on the hilltop between 40 and 50m AOD. There nevertheless remains substantial landscape capacity for urban extension to the north of Carnoustie west of the C62 (Balmachie Road)

Employment land typically has taller buildings than would be expected for housing areas in Angus. Similarly, employment land is either reasonably flat or capable of being modified to form relatively large flat areas for development. Therefore, in terms of the type of development, the relatively flat and visually contained areas on the 30m raised beach terrace has greatest capacity for both housing and employment land.

The visual sensitivity of the higher ground would mean that building heights would be an important consideration, with smaller and lower building being more readily capable of being satisfactorily incorporated into the landscape. A layout which works with the topography would also be important. The areas with a northerly aspect and the eastern area are particularly visually sensitive and limiting development in those directions and incorporating woodland planting would limit and partially mitigate adverse landscape and visual effects.

5.3.3 North (between C1 towards Upper Victoria and C62 Balmachie Road)

At the western part of Carnoustie, the settlement is largely contained below the wooded escarpment which separates the 8m and 30m raised beach terraces. The former policy woodlands and enclosures associated with Carnoustie House extend along the top of the escarpment. The woodlands enclose a series of fields along the top of the escarpment. Towards the eastern end one of the fields is now occupied by Carnoustie High School and towards the western end is Shanwell Cemetery. The combination of mature woodland, a network of tracks and its close proximity to the urban area have made this a popular area for informal recreation. Accordingly, there are a number of Core Paths above and below the escarpment. The area has the character of a country estate, despite its closeness to Carnoustie. The landscape character sensitivity and landscape value of this area are both considered to be high.

When viewed from the north and the A92, Carnoustie is not generally visible behind and below the escarpment and woodland. This forms a strong sense of containment and development north of the escarpment would compromise the historic pattern of development and its relationship with the underlying landscape.

The former policy woodlands and enclosures associated with Carnoustie House are situated on the relatively flat 30m raised beach terrace. The northern edge of the raised beach terrace is again marked by a sudden steepening of gradient between 30 and 40m AOD, this time between Pitskelly and Clayholes Farm. To the north of this, the land rises up to 45-50m AOD providing a level of visual containment to the flat raised beach terrace. This leaves a relatively narrow 190m wide east-west strip of flat, visually contained land between Shanwell Cemetery and Pitkelly Farm which narrows to 90m further east. The trees at Shanwell Cemetery are around 14 to 18m tall. From the A92, more than the top halves of the trees typically remain visible above higher ground between Shanwell Cemetery and the A92. Therefore, it is likely that most forms of development would protrude above the intervening topography. West of Pitskelly Farm, screening from topography reduces and visibility from the north-west increases. Overall, without mitigation, the horizontal extent of Carnoustie (when viewed from the north) would be extended westwards and the likely frequency of which Carnoustie would be visible would significantly increase. (See photo 5.16 & 5.4)

Development within the former policy woodlands and enclosures to the east of Shanwell Cemetery would be visually contained by surrounding woodland. This option would however have the greatest impact upon the high landscape character sensitivity and landscape value of the area.

The greatest capacity for urban extension west of the C62 (Balmachie Road) lies between the buildings, trees and mounding at Clayholes Farm and Carnoustie High School. Further west, mitigation could include woodland planting on the rising ground to the north of the 30m raised beach terrace both east and west of Pitskelly. Notwithstanding mitigation options, they would continue to adversely affect the area with both high landscape character sensitivity and landscape value.

An urban extension which included the rising land to the north of the 30m raised beach terrace would be visually prominent and be difficult to satisfactorily mitigate. As with further east, even with such mitigation, development would be more likely to appear less deferring to the underlying landscape character than development on the lower 30m raised beach terrace. This area is uncharacteristic of the Dipslope Farmland as it has retained a large proportion of field boundaries formed by a combination of dykes and hedges. As a result of this and its proximity to the important network of Core Paths, and its widespread visibility, it is considered to have higher landscape character sensitivity; landscape value; and visual sensitivity when compared to other parts of the Dipslope Farmland.

Employment land typically has taller buildings than would be expected for housing areas in Angus. Similarly, employment land is either reasonably flat or capable of being modified to form relatively large flat areas for development. Therefore, in terms of the type of development, the relatively flat and visually contained areas on the 30m raised beach terrace has greatest capacity for both housing and employment land. Capacity is however considered to be low relative to options further east as discussed within Section 5.3.2.

5.3.4 North (west of the C1 towards Upper Victoria)

The wooded den of which extends from the A92 to Barry provides a level of visual containment to the west. However, there is no topographical screening from the A92 and there are few existing trees. The wooded den is a prominent landscape feature of the area in an otherwise open landscape. There are a few field boundary trees towards the west bounding a track leading to Ravensby. Barry Mill, which is situated within the wooded den, is a National Trust for Scotland visitor attraction.

A substantial green corridor formed by the woodland from Carnoustie House up to Barry, joining the Barry/Pitairlie Burn constitutes a strong structural landscape feature which at present bounds the settlement to the north-west. This feature is important to defining the green infrastructure and open space network.

Development in this area would significantly increase the frequency of views of Carnoustie from the north. Development would affect the setting of both Barry Den and Barry Mill and would also poorly relate to the rest of Carnoustie. Therefore, the landscape capacity of this area is considered to be low.

5.3.5 West (south of Barry and west of Carnoustie)

The village of Barry is loosely connected by ribbon development to the west of Carnoustie. The Barry bypass built since the Landscape Capacity Study (2003) directs traffic from the west to enter Carnoustie without passing through Barry. This has assisted Barry in maintaining an identity as a separate settlement from Carnoustie. The Barry/Pitairlie Burn further helps maintain separation between the two settlements. Whilst there may be limited scope

for infill development between Barry and the bypass, it would be important to keep the built-up area well back from the bypass to help maintain its individual identity.

The area between the western edge of Carnoustie and the Barry/Pitairlie Burn is low lying, prone to flooding and probably unsuitable for urban extension. The unimproved nature of the land gives it a level of biodiversity value, connecting to the wider green network along the Barry/Pitairlie Burn and the escarpment.

It is not considered that there is scope for the westward extension of Carnoustie

5.3.6 South

The area to the south of the east coast railway contains the recreational seafront; beach; and the Carnoustie Championship Golf Course. There is considered to be no capacity for urban extension in this direction.

5.4 Conclusion

The landscape capacity for significant urban extension to Carnoustie varies in different directions.

The greatest capacity is considered to exist to the north (west of C62 Balmachie Road) where the relatively flat raised beach terrace provides substantial opportunities for built development without affecting areas with higher landscape character sensitivity; visual sensitivity and landscape value. Whilst this area has some visibility from the north, further development would be unlikely to significantly increase this. Development would appear framed by the higher ground either side of the Lochty Burn. The Lochty Burn, whilst being a modified watercourse, could provide a design focal point for development. Development in this area may obviate the need to impact upon more valued landscapes with greater landscape character sensitivity above the escarpment to the west and the coast.

Development on the higher ground east and west of the shallow Lochty Burn valley would be visually sensitive and would require a careful layout and substantial mitigation. Even with this taking place, the impacts are likely to be greater than those of development on the 30m raised beach terrace. Development on the higher ground is less likely to be deferring to the underlying landscape character.



5.1 Raised Beach Escarpment from Core Path 174



5.2 Raised Beach Escarpment from Braefoot



5.3 Raised Beach Escarpment from Terrace Road



5.4 Carnoustie from A92



5.5 Approach from West via A930 (Barry Road)



5.6 Approach from North via C1 (towards Upper Victoria)



5.7 Approach from North via C62 (Balmachie Road)



5.8 Approach from North via C62 (Balmachie Road)



5.9 Approach from North via C62 (Balmachie Road)



5.10 Approach from North via A930 (Carlogie Road)



5.11 Approach from North via A930 (Carlogie Road)



5.12 Approach from North via A930 (Carlogie Road)



5.13 Approach from the North via U508-2 (From U508 Panbride Crossroads to A930)



5.14 Approach from the North via U508-2 (From U508 Panbride Crossroads to A930)



5.15 Approach from East via C61 (Easthaven Road)



5.16 Pitskelly Farm from Core Path 176

Figure 5.1 Carnoustie Landscape and Visual Analysis

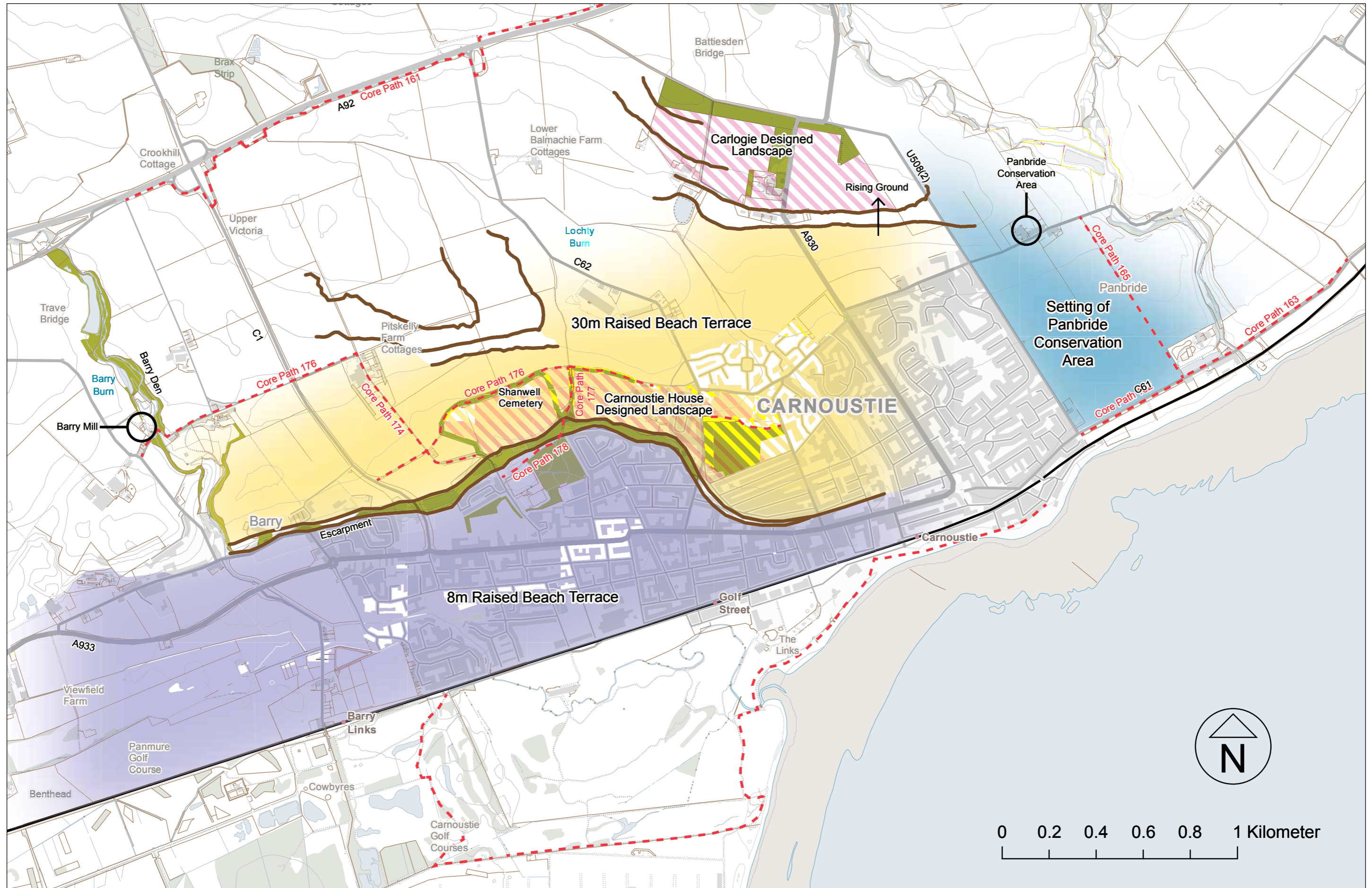


Figure 5.2 Carnoustie Key to Photographs

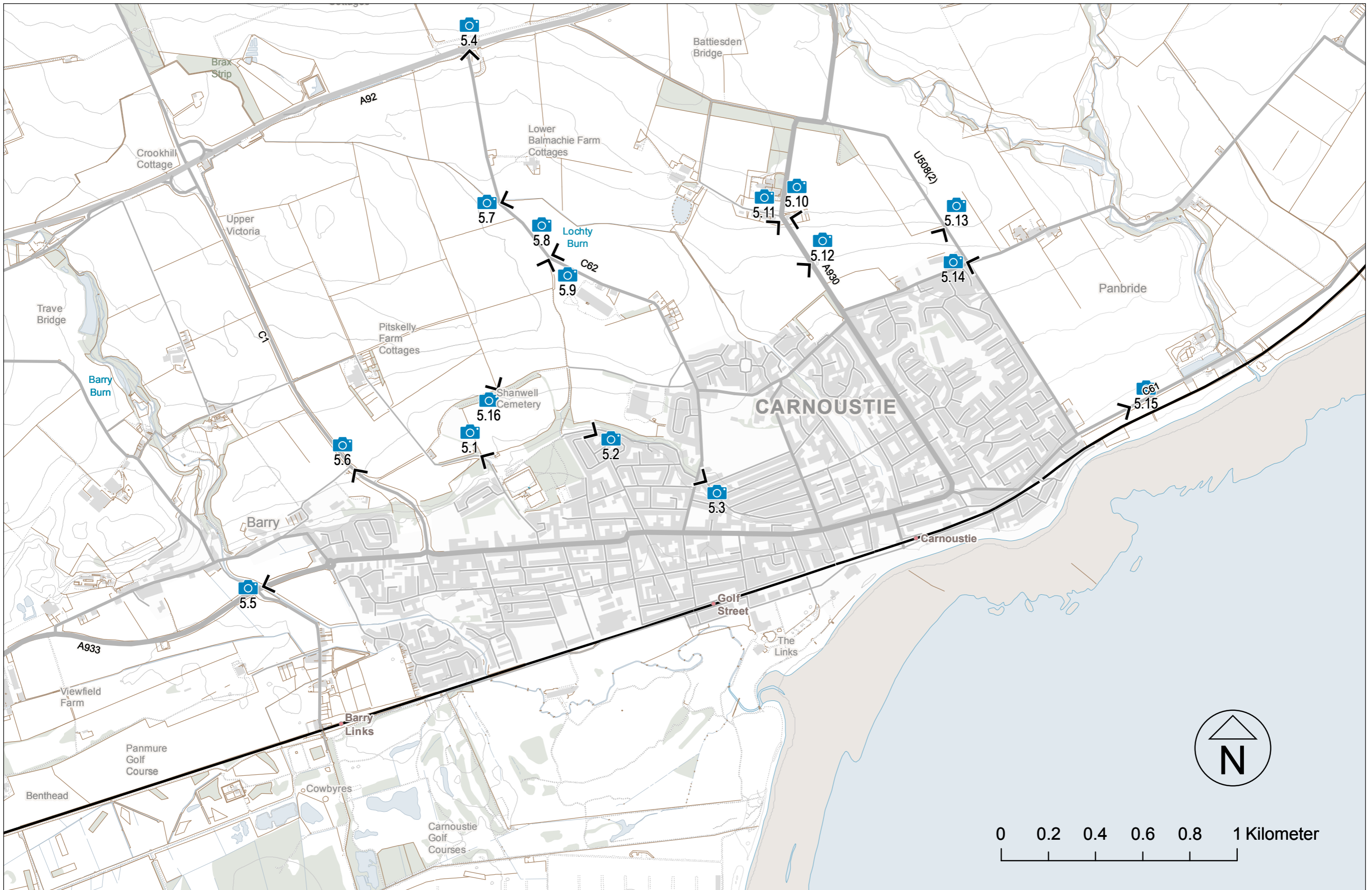


Figure 5.3 Carnoustie Key to Analysis of Directions of Growth

