



The City of Edinburgh Council require 36,000 homes (of which 16,600 are to be affordable) over the next 10 years. As part of the preparation of the Local Development Plan (LDP) each of the Council's Neighbourhood teams suggested sites considered to have potential for housing development. The sites were all on Council HRA land. Planning Committee approved the inclusion of Curriemuirend in the Proposed Local Development Plan (PLDP). The Proposed Local Development Plan sets out the development principles for the site.

The Council commissioned a Design Team led by Patience and Highmore Ltd to complete a feasibility study whose findings and output will enable the Council to establish if there is a robust business case to deliver housing with quality open space and allotments on the site at Curriemuirend Park, Edinburgh.

It is intended that the findings of this feasibility study will also help inform the next stage of the Proposed Local Development Plan for the site.

It should be noted this document is part of a feasibility exercise only, and does not constitute any form of design framework or masterplan proposal, and any drawings and plans should be viewed as being diagrammatic only.

Any images shown are used to demonstrate how certain elements or features could appear in a built scheme but are included for illustrative purposes only.

The Design Team comprises:

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Site Analysis Pages



site location within Edinburgh

Curriemuirend Park is a triangular piece of land, approximately 4.8ha in size, located within the south west neighbourhood of the city. It is situated between Wester Hailes Road, Viewfield Road and the slip road onto Edinburgh City bypass.

The site is currently underused as a park due to limited means of access and the presence of the intimidating and unpopular underpass to Clovenstone.

The site is bounded to the east by the established traditional housing on Viewfield Road, built in the 1930's, and across Wester Hailes Road there are large areas of housing from the 1960's and 1970's with more modern infill developments.

The site is allocated as HSG 29 in the Proposed Edinburgh Local Development Plan, March 2013.



aerial view of site from west



orientation, prevailing wind and sun path diagram

The site slopes down from the south-east to the north-west and is laid out as open space broken by extensive belts of millennium tree planting.

There is tree and shrub planting, of various thicknesses, on all three sides. The planting adjacent to Wester Hailes Road is on mounding, hiding much of the site from view.

The extensively planted embankment boundary with the A720 City of Edinburgh bypass affords the site a degree of shelter from the prevailing south west wind.

Views from the site are limited due to the downward sloping nature of the site, and extensive tree planting, however there are views over to Corstorphine Hill from the higher eastern end of the site.



limited views out generally



views to Corstorphine Hill



tree belt to Bypass boundary



millennium planting



routes through and from site

Curriemuirend Park does not have particularly good pedestrian or cycle links with adjoining areas or existing path networks.

While there is safe pedestrian access into the site from the north eastern corner, once in the site, there are no safe or desirable continuing routes out of the site. The remainder of the boundary to Wester Hailes Road has no footway, and there is no footway on the opposite side of the carriageway.

Access to the Clovenstone area to the north involves navigating an intimidating underpass which travels under six lanes of roadway. Once on the other side there are few options for safely continuing onwards as there is a lack of footways due to the area being designed around vehicle movement, rather than pedestrian or cycle movement.

There is a foot / cycle path which runs from east to west through the site but again at the west boundary of the site, there is no safe option for continuing to enable access onto the existing route which runs parallel to the Wester Hailes Road heading towards the centre of Wester Hailes. The only way of doing this is by crossing the slip road to the bypass then the access road to Baberton. Neither of these road crossing points have any form of traffic control.

There is no pedestrian link from the southern corner of the site to the Lanark Road due to restricted space between the Viewfield housing and the Bypass embankment. The only existing safe pedestrian link to the Lanark Road is at the eastern corner heading back to the Gillespie Crossroads at the junction of Wester Hailes Road and the A70 Lanark Road.



site access and footway end



underpass from site



underpass to site



"Crossing" to west



Curriemuirend Park is very well served by major roads with immediate access to the southbound lane of the A720 City of Edinburgh Bypass which in turn provides links to the main arterial routes south such as the A1, A701, A702 and A68.

The B701 Wester Hailes Road provides a link to the northbound access to the Bypass which in turn provides links to the main arterial routes such as the A71, A8, M8 and M9. The B701 also links to Wester Hailes and the Gyle to the north and across the southern suburban edge of the City to Dregghorn and Oxfgangs areas and beyond.

The A70 Lanark Roads leads to the City centre to the east, and to Currie and Balerno to the west.



Lothian Bus routes near site

Curriemuirend Park is very well connected with public transport routes, with many services providing cross city access.

The immediately accessible bus services are the Lothian Buses Service Nos18 and 20. These services both run along Wester Hailes Road; the No18 runs between The Gyle and The New Royal Infirmary; the No20 runs between The Gyle and Slateford.

The No44 & 44a services accessed from the nearby Lanark Road runs from Balerno to the City Centre, to Tranent in East Lothian.

The No45 service, also accessed from Lanark Road links Heriot Watt University Campus with Musselburgh.

From the Clovenstone area adjacent to the site:

The No3 bus links Wester Hailes with Mayfield in Midlothian.

The No30 bus links Wester Hailes with Queen Margaret University in Musselburgh.

The No21/32 service links Wester Hailes with The Gyle, and via North Edinburgh and Leith, ends up at the New Royal Infirmary.

Many routes also have rail connections either directly serviced by the route or within walking distance, such as; Wester Hailes, South Gyle, Edinburgh Park, Kingsknowe, Slateford, Haymarket, Waverley, Newcraighall, Musselburgh and Wallyford.

Some of these routes will also have connections with the new tram service running between the City Centre and The Airport.



The preliminary researches have indicated that the site has never been subject to any significant build development.

The natural superficial deposits in the area include made ground, although the source of this material is unknown at this stage. The underlying natural soils are shown to be glacial till, with rocks of the Gullane Formation of the Strathclyde Group beneath. We have no information on any mining within this sequence at this location.

The natural soils suggest that normal foundations may be attainable, subject to the thickness of fill deposits.

The geological researches suggest that there is fill within the site. This fill may be a result of material arising from the construction of Wester Hailes Road and or the housing, however, in the absence of exact knowledge on the source, we should assume that it could be contaminated. Similarly, any fill could be a source of gas emissions and investigations would be required to confirm if this is the case and its impact to the development.

If contamination is found on the site, remedial measures may be required within garden ground. It is unlikely that contamination would have a significant effect on road design. We consider the risk associated with contamination and gas emissions to be medium until further investigation is undertaken.

Summary Assessment of Potential Geo-environmental Abnormals

- Contamination – may exist.
- Gas Emissions – may exist.
- Mining – not known to exist in the area.
- Foundations – to be determined but possibly normal.

Existing utility services underlay the development site. Fortunately the majority of services tend to run along the site perimeter either on or on the other side of Wester Hailes Road.

Drainage:

Scottish Water records indicate a combined sewer passes below the site, this is 675mm diameter and is at depths between 5m and 9m below the site. This is a significant service and diversion should be avoided by designing around the sewer.

There is also a 150mm diameter surface water sewer at the north east corner of the site. This could be used to drain surface water from the site and will require to be upgraded – this will be subject to network analysis by Scottish Water. Costs for upgrading can only be established following network analysis completion.

Water:

Existing water services exists at the north east corner of the site with a 225mm diameter main. Diversion of this is not required and assessment of existing networks is not required at this time.

Power:

Scottish Power Networks record mains along the south boundary and also a cable serving street lighting through the park. The cable along the south boundary could possibly be left in place through gardens (a wayleave would be required) or diverted out into a new roadway. Street lighting cable would be redundant and could therefore be isolated and removed.

It is likely that a sub-station will be required for this site to serve the amount of potential new properties.

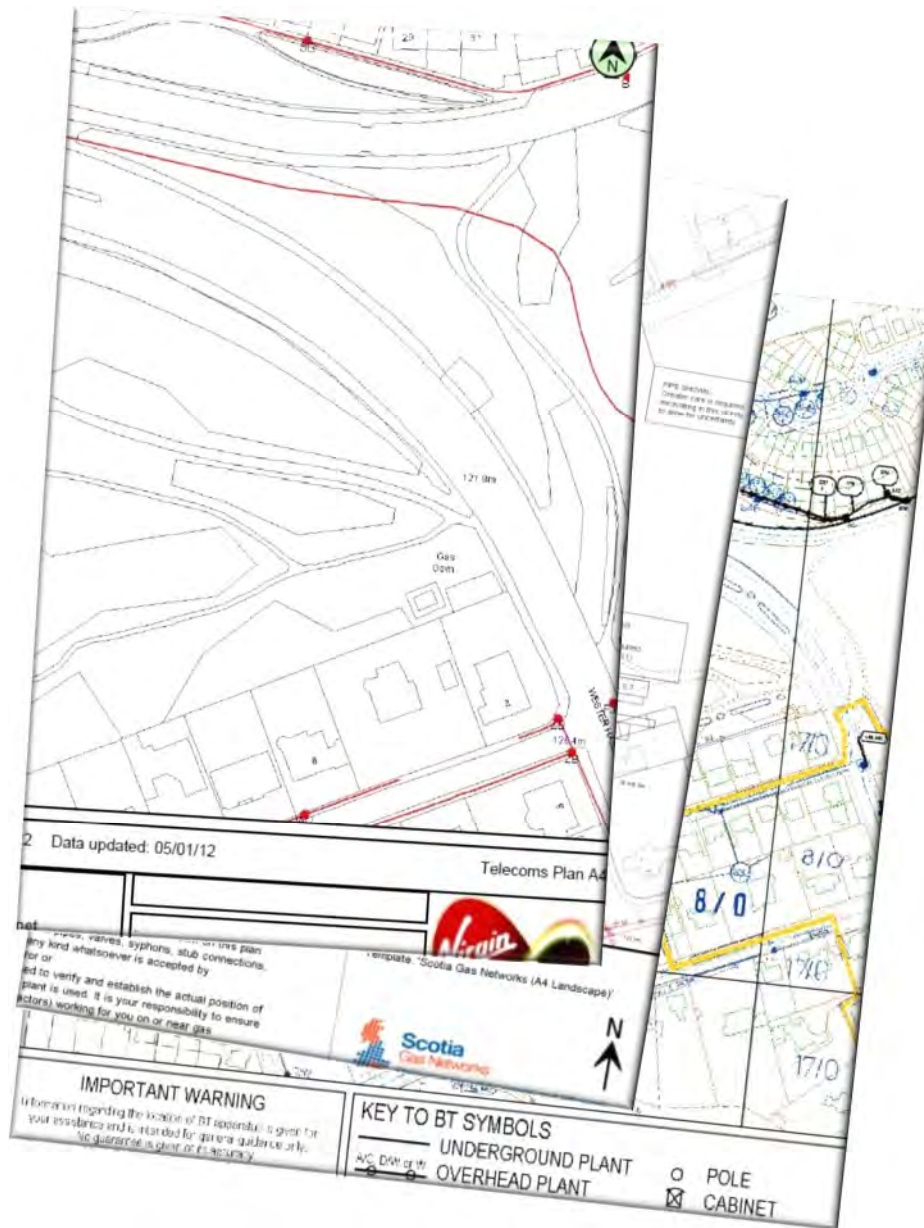
Gas:

Scotia Gas Networks indicate a 250 Dia. medium pressure gas main in the southeast corner of the site. There are other items of plant including gas governors, valves etc. covering an area equivalent to two house plots. Moving this plant would be costly hence the final design of housing around this area should reflect future maintenance in the area.

Telecom:

Virgin Media have an optical cable on the north side of Wester Hailes Road. Care will be required to work around the cable during any road works in that area.

BT have cabling along the north boundary and along the north side of Wester Hailes Road. Care will be required during any road works and the cabling along the south boundary should not be a significant issue.





Brief extract from initial report provided by CEC:

Although there are no known archaeological sites recorded within the area, the 1850's 1st Edition and later editions of the OS Map for the site indicate that it has remained undeveloped in the modern era, principally being used as open farm land.

As such the site's archaeological potential especially for prehistoric and medieval activity remains unknown and cannot be ruled out at this stage. The aim should be to preserve archaeological remains in situ as a first option, but alternatively where this is not possible, archaeological excavation or an appropriate level of recording may be an acceptable alternative.

The results of this work would allow for informed planning decisions to be made and allow for the production of appropriate more detailed mitigation strategies to be drawn up to ensure the appropriate protection and/or excavation, recording and analysis of any surviving archaeological remains.



existing building frontage lines



building "frontage" on Clovenstone Drive

There are no buildings in close proximity to the site with an element of frontage that would influence potential frontage orientation for a new development.

The housing to the south east at Viewfield Road presents rear gardens to the site while the nearest buildings to the north are too far away, and at a lower level than the site, to influence streetscape at Curriemuirend Park. Only some of these buildings have an element of frontage, the remaining properties turn their back on the perimeter roads around Clovenstone.



noise pollution issues

The site is bounded to the south west by the slip road leading to the four lane Edinburgh City Bypass with vehicles moving from motorway speeds, to slow speeds, during rush hour times. The northern boundary is formed by Wester Hailes Road reaching dual carriageway status on the approach to the Clovenstone / Baberton roundabout. It is used as an alternative route during peak times on the bypass and when there is congestion or accidents.

Consequently, traffic noise is a major issue for this site. An acoustic assessment was carried out by a specialist consultant and although high levels were recorded it is considered possible to build on this site by using noise mitigating techniques such as acoustic window systems and air vents combined with whole house ventilation systems. Certain walls facing the bypass would require enhanced levels of construction. A 1.8m high close boarded timber fence would be erected within the tree belt bordering the embankment to the bypass to provide further acoustic attenuation.

Living walls where trellis frameworks for climbing plants are fitted to the external walls could also be used improving noise attenuation properties for the wall constructions. They also offer environmental benefits by enhancing biodiversity, improving the thermal insulation / cooling properties of the building, and can help improve air quality, and improve visual amenity.



Wester Hailes Road



Clovenstone Roundabout



view of bypass from Lanark Road looking across to site



There is no doubting that the site at Curriemuirend Park is a challenging site due to existing major roads, site shape, level changes and lack of adjacent suitable built context to relate to. In development terms, the site has Constraints and Risks but also offers Opportunities. In some instances a Constraint can also be deemed an Opportunity, depending on how it is dealt with e.g. site levels.

Constraints:

- Noise from adjacent roads requires careful building location and detailing;
- Existing roads and sightlines determine the extent of possible development;
- Site access points for vehicles are limited;
- Sloping topography of sites constrains developable areas;
- Tapered site shape limits developable areas.

Risks:

- Potential for site contamination;
- Potential for unrecorded utility services;
- Potential for Archeological works (although considered minimal);
- Potential for protection of wildlife species either limiting construction timescales or areas for development after investigations have been carried out.

All of these risks could result in increased costs and delays to any potential future development.

Opportunities:

- Potential to create substantial amounts of quality new housing in a green landscaped setting;
- Potential to take advantage of established site and boundary planting;
- Potential to use site levels to advantage to create interesting and attractive housing arrangement;
- Potential to integrate allotment and growing spaces in an established green landscaped setting.

Feasibility Study Proposals Pages



The proposed site layout provides 180 units of affordable housing & new housing for sale, amenity/play areas, allotments and community gardens and new shared surface roads infrastructure.

New two storey housing is located on the south eastern boundary at the highest point in the site, with three and four storey blocks running along the northern boundary to Wester Hailes Road. The western most block of housing is set further into the site allowing the retention of existing tree planting on that boundary. Further into the site are two crescent shaped blocks of four storey flats.

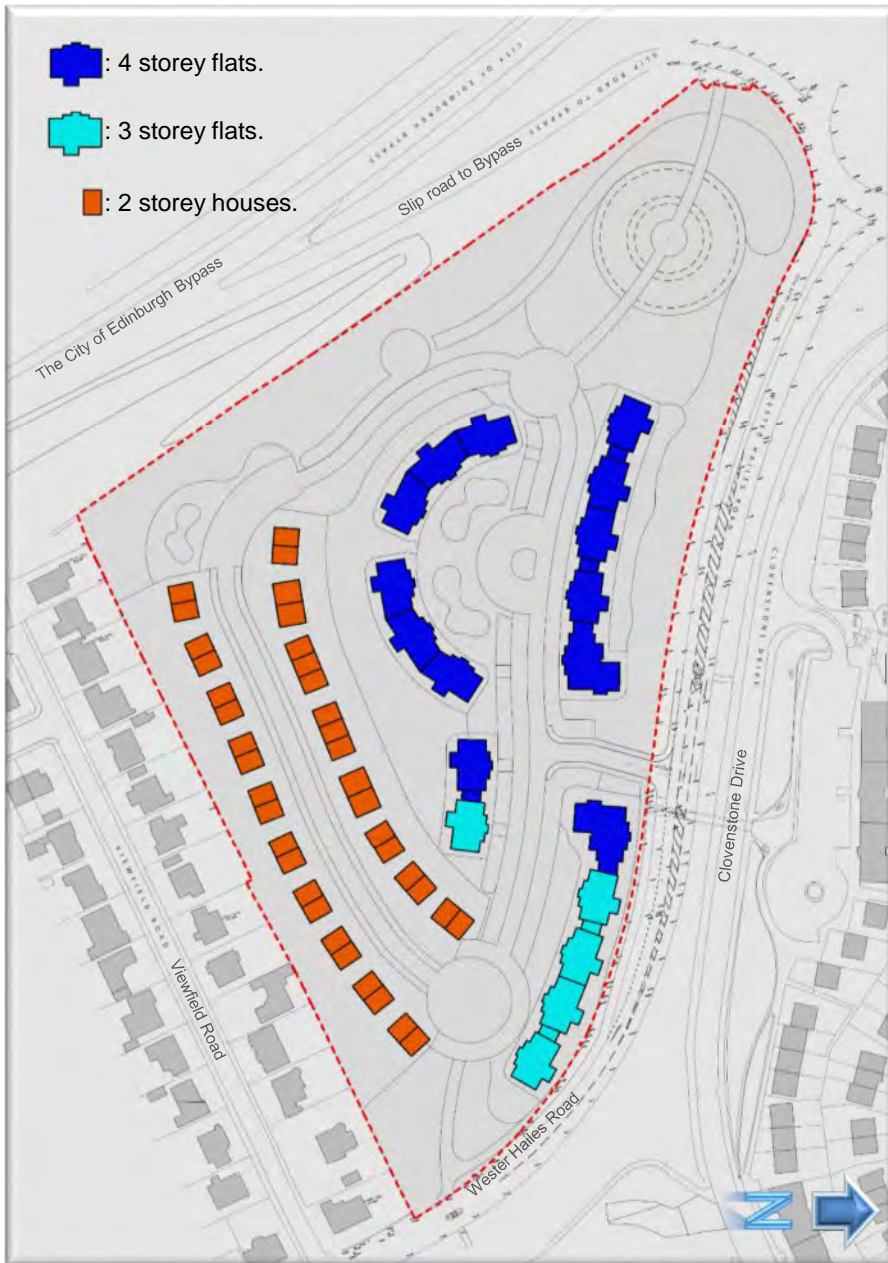
Pedestrian/cyclist access to the site is to the north east corner at the existing access point and links eventually to the new shared surface access road running east to west alongside a new swale, leading to a central formal landscaped area, with play spaces, in front of the crescent shaped flats.

Community garden space would be provided in the western end of the site, leading to more formal individual allotment spaces. A footpath runs through both of these spaces and across a low level footbridge running across the planted SUDS area ensuring that the existing link to the footpath/cyclepath from the original access point in the north east corner of the site to Wester Hailes is maintained.

Two options for treating Wester Hailes Road are considered in the study; one option with road narrowing works and a new junction, the other maintaining the existing width, with new junction and slip road. Both options include for two new pelican crossings; one to replace the underpass to Clovenstone Drive, the other linking to Clovenstone Park to the north east. Initially the brief suggested that there could be an increase in the potential number of units on the site if the road was narrowed due to an increase in site area. However, as the area gained is a linear area rather than a complete block, and is limited due to the requirement for incorporating a slip road at the new junction, it is concluded that narrowing Wester Hailes Road would not result in an increased number of units.

All new roads would be pedestrian priority with shared surfaces and speed reducing measures such as offset parking bays, road narrowing and tree planters, while still maintaining service vehicle access.

The design allows for substantial new housing to be built on the site while still maintaining areas of Millennium Planting particularly to the main road boundaries.



The site diagram shows two storey housing to the south east, the highest part of the site. Flatted units starting at 3 storeys run alongside Wester Hailes Road rising to four storeys at the corner block at the new road junction. Another block of four storey flats is set further into the site, parallel to the Wester Hailes Road and faces two crescent shaped blocks of four storey flats.

A total of 180 units are indicated and the unit mix is as follows:

Housing for Sale:

- 1no. 2person 1bedroom flats
- 102no. 3person 2bedroom flats
- 3no. 4person 2bedroom flats

28no. 5person 3bedroom houses

134no. total units for sale

Affordable Housing:

- 21no. 2person 1bedroom flats
- 12no. 3person 2bedroom flats
- 3no. 4person 2bedroom flats

- 6no. 5person 3bedroom houses
- 4no. 6person 4bedroom houses

46no. total units for Affordable Housing

Any units of 3 bedrooms or more are accommodated within the two storey houses with private gardens.



The proposed site arrangement has improved pedestrian links to the Clovenstone Park and housing areas with the addition of two new pelican crossings across Wester Hailes Road, the existing underpass would be sealed up. However, once on the other side there are few options for safely continuing onwards as there is a lack of footways due to the area being designed around vehicle movement, rather than pedestrian or cycle movement. Any upgrading works would be outwith the scope of this study. A preference has been made to infill the pedestrian underpass and replace it with two at grade crossings, one near the current underpass and the other close to Viewfield Road to allow access to Clovenstone Park. The reasonings behind this are:

- Maintaining the underpass would sterilise a substantial portion of the site due to the requirement to maintain levels in the vicinity of the access point.
- The underpass is exceptionally long, passing under two roadways and is perceived to be a barrier to connectivity to Curriemuirend Park by some people and by logical extension, would be perceived by residents of the new development as a barrier to outwards connectivity.
- Underpasses are generally unpopular for personal safety reasons.

The existing safe pedestrian link is at the eastern corner heading back to the Gillespie Crossroads (at the junction of Wester Hailes Road and the A70 Lanark Road) would be maintained and extended down towards the new site junction, on both road options, narrowed or left full width.

A new road junction would be formed onto Wester Hailes Road and new vehicle, pedestrian and cycle routes are provided to link with the existing park entrances to the east and west.

Due to restricted space between the Viewfield housing and the Bypass embankment it is not feasible to create a safe and secure pedestrian link between the site and Lanark Road from the southern corner of the site.

The route of the existing east west footpath / cyclepath is maintained, and would be recreated via a mixture of paths and shared surfaces. However, there are no real options to make the western access from the site onto the existing route which runs parallel to the Wester Hailes Road, heading towards the centre of Wester Hailes, any safer. This is because it would be impractical to have any form of controlled crossing so close to the roundabout and access slip road to the southbound City Bypass.

New pedestrian / cycle routes are provided through and around the site as well as link points along the route.

A benefit of shared surfaces for roads is that it greatly increases the amount of, and alternative, pedestrian and cycle routes through and around the site.



Due to the lack of existing buildings influencing potential frontage orientation for a new development, the new buildings would present frontage onto newly created roads, streets and amenity spaces.

The two crescent shaped blocks and the block opposite would form a formal area by presenting frontages onto this space, overlooking amenity and play areas.

A major benefit for the existing properties on Viewfield Road to the east is the location of the first line of new two storey houses as these would present new private rear gardens to the existing boundary. This would provide much need security for the very exposed existing back gardens of the Viewfield properties.

The rear of the flats in the middle of the site would form secure backland with the inner layer of two storey houses and their private back gardens.

The new flats to the east of the site could potentially have an element of dual frontage with possible accesses from the newly formed footways on Wester Hailes Road.

The brief had requested an active frontage onto Wester Hailes Road. Active frontage usually refers to streets and streetscape, and indeed the PLDP proposals refer to an active “street” frontage. Wester Hailes Road, either in narrowed or un-narrowed form, is a road and vehicle route, and could not be deemed a street in traditional terms. The only value for a pedestrian route is to serve the site itself, as access to the wider footpath network is not achievable safely due to having to negotiate the extensive road network of the Clovenstone and Wester Hailes area. This network was designed in the 1960’s and 1970’s with vehicle movement as a priority.

There are also no buildings on the other side of Wester Hailes Road for the site to address. The nearest housing at Clovenstone is over 40metres from the site boundary at it’s closest point, and is separated by the four lanes of Wester Hailes Road and also the two lanes of Clovenstone Drive. To further increase the separation, the housing at Clovenstone is at a substantially lower level to Curriemuirend Park.



Any future development will have to be designed in accordance with the street design and placemaking principles contained in Edinburgh Standards for Streets, Designing Streets (Scottish Government) and Designing Places (Scottish Government).

The site layout shown is purely diagrammatic but the zoning allows for the space and flexibility in final detailed designed building footprint arrangement, road / street design to enable these principles to be realised.

The entire concept diagram for Curriemuirend Park is centred on placemaking, and providing interesting places along routes. The current under used open space would be transformed into an active, vibrant and attractive site with play facilities, growing spaces and an avenue route running east west through the site onto shared surface roads and cycle tracks linked by footpaths over small bridges across landscaped drainage swales. A central formal landscaped area, with play spaces, in front of the crescent shaped flats is at the heart of the site.

Node points are shown at areas where routes merge or access to amenity areas occur, with minimal delineation of roadway within a shared surface, but allowing full swept curve radii for service vehicles. For example there are node points where:

- The entrance foot / cyclepath meets the shared road;
- The road to the east meets the route alongside the west boundary;
- The roads and swales meet the entrance to the Community Garden areas;
- The roads meet the formal landscaped area at the crescent shaped flats.

“Street” arrangements within the street zone indicated can be designed to ensure pedestrian priority over vehicle movement by using methods such as shared surfaces, offset road lines and narrowings, varied parking arrangements and positioning of street furniture and street trees.