Appendix 11.1

Landscape Mitigation and Planting Strategy

APPENDIX 11.1

Conceptual Landscape Mitigation

DESCRIPTION AND LOCATION OF LANDSCAPE DESIGN ELEMENTS

All of the following should be read in conjunction with Figures 20.1a – 20.1g: Conceptual Mitigation Strategy Sheets 1 to 7.

(i) Semi natural woodland planting

Description – a tree and shrub mix with a substantial content of native species found in the local landscape character areas. This includes nurse and climax species, and species which will grow to sufficient height to fulfil a screening function (particularly of larger vehicles and taller road infrastructure and furniture) and include sufficient variety to provide a habitat value. In some areas where Ancient Woodland is being replaced, species specific to those woodlands will be planted. Trees are planted in a random mix or in non-geometrical groupings.

Extension of existing woodland blocks and belts increases their value as habitat corridors.

Approximate chainage/location	Semi natural woodland planting - mitigation requirements
M8 Main Route, A8 APR and associated junctions	
New A89/A8 roundabout at Swinton.	Planting in centre of roundabout mitigates the removal of existing planting, reinforcing and enhancing screening potential and creating new habitats and biodiversity. It also screens views of on-coming headlights approaching the junction.
East of new A89 roundabout north of Baillieston Interchange.	Planting to cuttings and ground above screens views of road and traffic in views from residential/recreational areas towards Baillieston Interchange from residential/recreational areas at Bargeddie. Planting also softens new landform.
M8, 85-240	Planting of substantial height strengthens existing character at Baillieston Junction.
M8, 565-765	Planting replaces some railway-side planting lost during construction and integrates bridge.
M8, 865-1200	Woodland planting softens cuttings and screens views between the M8 and A8 APR, also limiting views from Bargeddie.
M8, 1200-2730	Linear belts on the roadside soften the profile of cuttings and the infill embankment. They also mitigate views to the road generally and to the new road bridge from Kirkwood and Old Monkland Cemetery in the north. Tree planting to embankment at chainage 1970 helps mitigate views to the footbridge from users of the M8.
M8, 2220-2365	Woodland block planting strengthens the landscape character of woodland blocks associated with the North Calder Water corridor and screens Bankhead Farm
M8, 3040-4210	Woodland planting on the north side of the road helps screen local views, softens cuttings and mitigates loss of mature trees.
A725 Shawhead Junction and slip roads north of A8 APR	Woodland blocks bordering the A725 help absorb traffic impact and lighting, and limit views from residential areas in Shawhead and ware-houses in East Shawhead.
A725 Shawhead Junction and slip roads south of A8 APR	Semi natural woodland is planted in blocks next to the A8, B7070, A725 and slip roads to the A8 APR and M8. It helps mitigate views from Shawhead residential areas and ware-houses in East Shawhead; views between roads and slip roads; views of the infrastructure and earth works for road and foot bridges and footpaths; it softens areas of cut and fill, reflects the general landscape character of woodland blocks in the local area and significantly extends them. South of the junction the woodland serves to replace some of sections of existing deciduous tree belts.
M8, 4210-4700	Woodland planting mitigates loss of Ancient Woodland on the course of the North Calder Water and helps mitigate any

	views to the junction from Shirrel and adjacent NMU routes.
M8, 4930-4990	Semi-natural woodland planting to the east side of the SUDS pond aids habitat creation, helps mitigate the loss of TPO trees and mitigates views to the west from Carnbroe Mains Farm.
M8, 5130-5325	Woodland planting to the embankments of the accommodation bridge helps soften views of the structure from the A8, M8 and Carnbroe Mains.
M8, 5250-5670	Woodland block planting compensates for TPO loss.
A8 APR at Orchard Farm and nearby property	Woodland planting blocks to sections bordering A8 APR and M8 mitigate skyline views of road structures and moving vehicles from nearby properties. It also screens some views from Orchard Farm.
M8, 6600-7225 and associated slip roads of Eurocentral Junction	Woodland planting belts to the flanks of approach roads screen road infrastructure and embankments, and replace some mature trees lost from the area of Protected Open Space to the south, whilst maintaining open views to the water features to the north west of the junction.
Chapelhall Junction, north side of M8	Woodland blocks planted on the embankments, bunds and areas between approach roads on the north side of the junction screen and soften road infrastructure and associated landform in views of users of the associated road network and the properties to the north; limit light pollution between carriageways reflect and replace woodland blocks of local landscape character; and strengthen the woodland habitat potential generally in the area.
B799 north of M8 at Chapelhall Junction,	Woodland planted on the embankments helps screen the road infrastructure and traffic from the industrial area to the east, and from road users to the west.
B799 south of M8 at Chapelhall Junction,	Woodland planted on the embankments and adjacent redundant carriageway helps screen views of the road and traffic from the industrial area to the east; softens the landform; reflects and replaces trees lost in this area; and strengthens the woodland habitat potential generally in the area.
Roundabout on B799 south of M8 at Chapelhall Junction,	A woodland block to east side of the roundabout screens views from the industrial estate to the east and enhances the habitat potential of the SUDS pond.
North side of M8, 8860-10215	Strip planting on embankments replaces lost mature hedge trees, and existing road side planting; and helps screen views of lighting and vehicles from the north.
Newhouse Junction, M8	Woodland planting on the roundabout and bridges replaces lost woodland, enhances local landscape character and helps soften the associated structure and landform.
Slip roads east of Newhouse Junction, M8	Woodland strips reduce impact of traffic and infrastructure of M8 overpass whilst maintaining views from the M8 to the

	open countryside in the north.
M8, 11300-11500	A woodland block screens views from Fairybank Farm.
M8, 11570-11770	Native woodland trees to reflect the species of the local Ancient Woodland lost at Shotts Burn during construction.

(ii) Shrub/scrub planting

Description – a predominantly shrub mix with a substantial content of native species found in the local landscape character areas. This includes species which may need to be maintained to prevent growth to tree size and to retain good lower storey growth. Species will grow to a sufficient height to fulfil a low level screening function (particularly of vehicle headlights, moving vehicles, low level road infrastructure and furniture), soften sharp changes in landform and include sufficient variety to provide a habitat and amenity value. Shrubs and scrub are generally planted in a random mix or in non-geometrical groupings.

Approximate chainage/location	Shrub/scrub planting - mitigation requirements
M8 Main Route, A8 APR and associated junctions	
M8, 200-520	Shrub planting screens views of lights and vehicles between motorway and slip road.
M8, 345-470	Shrub planting softens views of retaining wall and accommodation bridge.
M8, 885-1110	Shrub planting softens the form of the substantial embankment and complements the habitat potential of conservation grassland planting, whilst maintaining views to the North Calder Water in the south.
M8, 1610-1970	Shrub planting on the embankments helps screen and separate the road from the right of way and provides habitat potential in a location close to the water course.
M8, 2690-2880	Shrub planting helps mitigate the visual impact of the embankments and accommodation over bridge.
Pedestrian/cyclist routes Shawhead Junction	Shrub planting on the embankments and flanks of pedestrian/cyclist bridges helps soften the abrupt landform, also forming some separation from road traffic. Planting complements the habitat potential of the conservation grassland planting.
A725 south of Shawhead Junction	Shrub planting on the embankment helps screen some higher level skyline views from nearby residential areas and forms an edge to existing mature trees.
Pedestrian bridge over A8 south of Carnbroe	Shrub planting helps screen and soften the bridge and embankment structures from users of the A8, Orchard Farm and Ivy Cottage.
Eurocentral Junction, M8, 6630-7120	Shrubs on the M8 flanks of the junction, between the approach roads and the M8 help screen views to traffic and of headlights, and to mirror treatment of Chapelhall Junction.
Chapelhall Junction, M8	Shrubs on the M8 flanks of the junction, between the approach roads and the M8 help screen views to traffic and of headlights, and to mirror treatment of Eurocentral Junction.
A8 APR Chapelhall Junction, M8	Shrub planting on the bund on north side of A8 APR helps mitigate views of the road and the sound of traffic from residential properties to the north.
M8, 8750-9540	Shrub planting on the south side supplements the existing planting screen of the industrial premises and acts as part of the habitat creation of an ‘ecological corridor’ which also includes a SUDS pond.
South side Newhouse Junction, M8	Shrub planting on the outer banks of the roundabout on the southern side helps soften visual impacts and improves containment of views within roundabout.
North side Newhouse Junction, M8	Shrubs physically and visually separate the western SUDS pond access road from the A73.

(iii) Wet woodland/scrub

Description – a shrub/tree mix with a substantial content of native species found in the damper local landscape character areas and tending to be associated with the North Calder Water and Shotts Burn. This includes species which tolerate occasional flooding and may need to be maintained to prevent growth to tree size and to retain good lower storey growth. Wet woodland/scrub planting occurs near SUDS attenuation ponds or in areas requiring assisted drainage. Planting will provide a good habitat value by increasing diversity in plant species in and around the attenuation ponds, although it can also fulfil low level screening and amenity value functions. Wet woodland/scrub is generally planted in a random mix or in non-geometrical groupings.

Approximate chainage/location	Wet woodland/scrub planting - mitigation requirements
M8 Main Route, A8 APR and associated junctions	
Railway overbridge M8, east of Baillieston Interchange	A block of wet woodland/scrub planting on the damp area between the railway and new access road/footpath embankment helps screen views between railway, M8 and access road/footpath, and to soften the landform whilst reflecting wetland vegetation of the North Calder Water environs and assisting drainage.
SUDS ponds at railway overbridge A8 APR and M8, east of Baillieston Interchange	Planting provides a wetland habitat associated with the attenuation pond and forms a transition between shrub/scrub or native woodland planting and conservation grassland planting. Planting also assists in the drainage associated with the new road and attenuation ponds.
SUDS pond south side of M8 near Bankhead Farm	Planting to the periphery of the pond margins acts as a buffer between the pond and the M8 providing a wetland habitat associated with the marginal wetland vegetation. The planting also provides topographical integration and amenity value as the foreground vegetation in the long views across the North Calder Water from the M8, and in views from the nearby right of way. Planting assists in the drainage associated with the new road and attenuation ponds.
M8, 3385-3510	Planting adjacent to the access tracks replaces vegetation removed during construction and enhances habitat value of the surrounding Site of Importance for Nature Conservation. Planting also assists in the drainage associated with the new road and attenuation ponds.
SUDS attenuation pond, A725 south of Shawhead Junction	Planting forms a transition between marginal wetland and existing vegetation, as well as forming a buffer between the wetland habitat and the adjacent path/access road and A725. Planting also assists in the drainage associated with the new road and attenuation ponds.
M8, 4835-4920	Planting forms a transition between existing vegetation and proposed marginal wetland and conservation grassland planting, as well as forming a buffer between the wetland habitat and the M8.
SUDS attenuation ponds east of Orchard Farm	Wet woodland planting acts as a continuation of existing wetland vegetation associated with the water bodies to the east and west, linking them to the proposed SUDS ponds. Planting also assists in the drainage associated with the new road and attenuation ponds.
SUDS attenuation pond approx 500m east of Eurocentral Junction	In addition to their contribution to the wetland habitat, blocks of wet woodland and scrub act as a continuation of existing vegetation and form structure planting to enclose the pond feature. Planting also assists in the drainage associated with the new road and attenuation ponds.
SUDS attenuation ponds north and south sides	Planting acts as structure planting or the transition from taller vegetation to wetland marginal vegetation on the pond

Chapelhall Junction	peripheries in addition to enhancing wetland habitat potential and amenity value of ponds. Planting also assists in the drainage associated with the new road and attenuation ponds.
South side Chapelhall Junction	A strip of wet woodland/scrub planting acts as a buffer between native woodland and conservation grassland planting in an area of Protected Open Space offering habitat and amenity value. Planting also assists in the drainage associated with the new road and attenuation ponds.
M8, 8860-9730	Strips of wet woodland/scrub strengthen road-side planting and aid road side drainage.
SUDS attenuation ponds north of Newhouse Junction.	Wet woodland/scrub planting introduces new habitats by increasing the diversity in plant species in and around the attenuation pond. Planting also assists in the drainage associated with the new road and attenuation pond and forms a continuation/replacement of existing woodland/scrub.

(iv) Ornamental planting

Description – a shrub and ground cover mix with a substantial content of ornamental non-native species. This planting is located on roundabouts at junctions where it will be viewed from multiple directions. It will require high levels of maintenance and is likely to be planted in structured and geometrical groupings with the multiple use of single species planted together.

Approximate chainage/location	**Ornamental Planting- mitigation requirements**
M8 Main Route	
A89 north of Baillieston Interchange	Formal planting on the roundabout functions as a gateway feature to Bargeddie.
All roundabouts, Eurocentral and Chapelhall Junctions	Ornamental planting to the centres of these roundabouts acts as a focus of formal planting within a generally native species and informal road planting scheme and helps strengthen the character of the junctions. These roundabouts form the approaches to the industrial estates from the M8 and A8 APR.

(v) Hedgerow planting

Description – hedge planting comprises locally prevalent hedge species which are mostly native. It will undergo regular maintenance, promoting dense growth at all levels. It tends to be located on highway boundaries to delineate open grassland planting areas ie if there are no larger trees or shrubs located on the transition. Often hedges bound agricultural fields and have an important wildlife linkage function. They sometimes also act as a low level visual screen of vehicles and headlights whilst allowing some views from travelling vehicles to the surrounding countryside.

Approximate chainage/location	Hedgerow planting - mitigation requirements
M8 Main Route, A8 APR and associated junctions	
A89 roundabout north of Baillieston Interchange	Hedge planting to the west side of the roundabout creates enclosure of the roundabout.
A8 APR between A89 and Kirkwood.	Hedge planting on the north side of the APR reinstates and reflects the local landscape character and provides some lower level screening of the APR and traffic from residential areas to the north.
M8, 200-530	Hedge planting to the south side of the M8 screens lower level views from the adjacent access track and separates it from the M8.
M8, 1200-1450	Hedge planting to the tops of cuttings and the road edge to screen lower level views between the M8 and A8 APR, also forming the visual boundary of the broadened M8 road curtilage in this area.
M8, 2170-3400	Hedge planting on the south side of the M8 provides low level and compact physical and visual separation from the parallel agricultural access/recreational route.
M8, 2750-3630	Hedge planting to north side of the M8 and south side of the A8 APR reinstates field boundaries and provides low level screening of vehicles.
M8, 3380-4200	Hedge planting to both sides of M8 delineates the edge of the road curtilage and reflects local landscape character.
Shawhead Junction, north	Hedges are planted on the western side of the junction to replace the loss of existing hedges during construction and to provide visual enclosure and screening of low level views.
A725, Shawhead Junction, south	Hedges are planted on the western side of the road and bordering the SUDS pond to provide visual enclosure and the screening of low-level views, separating the NMU access from the road.
M8, 4770-6700	Hedge planting on the both sides of the M8 reflects local landscape character, addresses the loss of hedgerows and allows views to the surrounding landscape in the south from the road.
Pedestrian bridge over A8 APR south of Carnbroe	Hedge planting bounding the bridge and approach ramps reflects local landscape character, addresses the loss of hedgerows and allows limited views from the road to the surrounding landscape.
A8 APR, ponds area north of Orchard Farm	Hedge planting bounding the road reflects local landscape character, addresses the loss of hedgerows, allows limited views from the road to the wetland landscape and acts as a buffer to the wetlands.
M8, 5730-6850	Hedge planting separates the M8 from the Protected Open Space allowing some views from the M8

M8, 7000-8050	Hedges planted in conjunction with specimen trees on both sides of M8/A8 corridor reflect the local landscape character and also create a formal planted edge to the northern boundary of the Eurocentral Industrial Estate allowing views from the M8 whilst reducing headlight pollution.
Chapelhall Junction	Hedges planted on the outer northern and southern boundaries of the junction give the junction some enclosure and visual screening to the recreational area in the north and industrial estates in the south.
A8 APR, east of Chapelhall Junction	Hedges planted in conjunction with specimen trees on both sides of M8/A8 corridor reflect the local landscape character and supplement the formal planting of the Industrial Estates to the north and south allowing views from the M8 whilst reducing headlight pollution.
A8 APR, 9500-10340	Hedge planting on both sides of the M8/A8 corridor reflects the open local landscape character, replaces lost hedges and allows views from the road to the surrounding landscape.
SUDS ponds, Chapelhall Roundabout	Hedge planting to the outer boundaries of the SUDS ponds forms a visual and physical enclosure and limit for the conservation grassland planting whilst allowing views to the broader countryside from the road network.
M8, 10530-11770	Hedge planting on both sides of the M8 delineates the extent of the conservation grassland planting, the edges of areas of cut or fill, and reflects the local landscape character which tends to comprise open fields bounded by hedgerows.

(vi) Specimen tree planting

Description – specimen tree planting comprises single, well shaped trees planted in feathered or standard form with the intention of establishing early effect or individual trees in the landscape. They are located on roundabouts, in association with hedge planting to reflect the existing hedgerow trees, or as groups within grass areas. They are generally planted for an amenity purpose or to reflect the existing local landscape character.

Approximate Chainage/location	Specimen tree planting – mitigation requirements
M8 Main Route, A8 APR and associated junctions	
A89 roundabout north of Baillieston Interchange	Formal tree planting on the roundabout functions as a gateway feature to Bargeddie and marks the roundabout for drivers.
A8 APR between A89 and Kirkwood.	Interval planting of specimen trees within the proposed hedge on the north side of the APR reflects local landscape character and provides some screening of the APR and traffic from residential areas to the north.
M8, 2200-2500	Informally placed specimen trees located in conservation grassland reflect the existing vegetation pattern and form an intermittent and permeable screen for on-coming traffic on the A8 APR and the M8.
M8, 2800-4200	Interval planting of specimen trees within the proposed hedge on both sides of the M8 reflects local landscape character.
Shawhead Junction	Specimen trees are planted in the hedge on the western side of the junction approach roads to replace loss of existing hedge trees during construction.
M8, 4850-6700	Interval planting of specimen trees within the proposed hedge on the both sides of the M8 reflects local landscape character, addresses the loss of TPOs and allows views to the surrounding landscape from the road.
Pedestrian bridge over A8 APR south of Carnbroe	Interval planting of specimen trees within the proposed hedge bounding the bridge and approach ramps reflects local landscape character, and allows views from the road to the surrounding landscape.
All roundabouts, Eurocentral and Chapelhall Junctions	Specimen tree planting to the centres of these roundabouts marks the roundabouts for drivers and acts as a focus of formal planting within a generally native species and informal road planting scheme, and helps strengthen the landscape character of junctions. These roundabouts also form the approaches to the industrial estates from the M8 and A8 APR.
M8, 7170-8000	Specimen trees planted in hedges on both sides of M8/A8 corridor reflect the local landscape character and are also used to create a formal planted edge to the northern boundary of the Eurocentral Industrial Estate but allowing views from the M8.
Chapelhall Junction	Specimen trees planted in hedges on outer northern and southern boundaries of the junction give the junction some enclosure and visual screening from recreational area in the north and industrial estates in the south.
Recreation ground access road, Chapelhall Junction	Specimen trees are planted within conservation grassland planting to help visually integrate the new access to the

(north)	recreation area.
A8 APR, east of Chapelhall Junction	Specimen trees planted in hedges on both sides of the M8/A8 corridor reflect the hedge trees of the local landscape character and create a formal planted edge to the boundary of the Industrial Estates in the north and south but allowing open views from the M8.
A8 APR, 9500-10340	Interval planting of specimen trees within the proposed hedge on both sides of the M8/A8 corridor reflects the open local landscape character and allows views from the road to the surrounding landscape.

(vii) Conservation grassland

Description – conservation grassland comprises meadow grass and herbaceous species and has a good habitat value. It reflects the species found in the local landscape and requires a mowing regime which encourages low fertility and floristic diversity. Areas are seeded with appropriate mixes to develop a sward which is visually attractive and easy to maintain. The vegetation type is used to create areas of open space associated with the road scheme, to allow views from the roads to the open countryside, and occasionally for visibility reasons. The planting is found in conjunction with grass verges and sometimes with specimen trees, and is often bounded by hedgerows.

Conservation grassland is also planted in areas too narrow for other planting such as hedged margins to roads and small or very steep embankments and is sown as a 'default' vegetation where other planting types are not appropriate. Conservation grassland is planted in the following locations for a more specific mitigation purpose:

Approximate chainage/location	Conservation grassland - mitigation requirements
M8 Main Route, A8 APR and associated junctions	
New A89/A8 roundabout at Swinton	Conservation grassland extends the visibility splay for drivers approaching the roundabout junctions.
SUDS pond, M8, 700-900	Grassland on the south side of the M8 facilitates views from the road to the open countryside in the south west.
M8, 950-1300	Grassland on cutting slopes creates an open section which is enclosed by planting and the height of landform and adds variety to the character of the road.
SUDS pond, M8, 2000-2100	Grassland on the south side of the M8 and A8 APR facilitates views from the roads to the North Calder Water Valley.
M8, 2250-2900	Grassland on cutting slopes creates an open section which is enclosed by the height of landform and adds variety to the character of the road.
North side of Shawhead Junction	A mosaic of grassland in conjunction with semi-natural woodland in areas between the slip roads creates good habitat potential.
M8, 6300-6400	Grassland on the north and south sides allows views from the A8 and M8 onto the wetland north of the road.
South side Chapelhall Roundabout	A large area of grassland planted in conjunction with wet woodland/scrub and semi natural woodland creates a varied habitat.
M8, 9000-9900	Grassland planting creates a species rich swathe over the route of the existing A8 APR in conjunction with the planting of the SUDS attenuation pond. This reflects the more open landscape character of the eastern section of theM8 works.
Newhouse Junction	Grassland planting to the SUDS pond foreground allows views from the junction to the area of locally high landscape value in the north east.
M8, 10500-12000	Grassland on cutting slopes, in combination with hedge planting, is typical of the relatively open landscape character of the local area.

(viii) Marginal wetland

Description - marginal wetland planting is located beyond the immediate road curtilages in areas which have potential to flood or become waterlogged. These areas include SUDS attenuation ponds, areas associated with watercourses and damp areas which are not free draining. A combination of seeding and herbaceous planting aids bank stability and filtration. Species are typical of the riparian areas of the region, and can withstand partial or temporary inundation by water. Vegetation establishment in these areas will be assisted by natural colonisation, and maintenance may be required to maintain the damp conditions. Source species may be translocated from existing local wetland areas. Wetland areas have an inherently high habitat value and complement the associated wet woodland/scrub planting and conservation grassland planting. Wetland planting mitigates the impact of pond excavation itself and also has an amenity function, providing a foreground to some views from the roads.

All marginal wetland has the above mitigation qualities and occurs in the following locations:

Approximate chainage/location	**Marginal wetland – mitigation requirements**
M8 Main Route, A8 APR and associated junctions	
Railway overbridge A8 APR and M8, east of Baillieston Interchange	Two SUDS attenuation ponds.
South side of M8 near Bankhead Farm	SUDS attenuation pond and watercourse/drainage ditch.
A725 south of Shawhead Junction	SUDS attenuation pond.
East of Shawhead Junction, south of M8	SUDS attenuation pond.
East of Orchard Farm, north of A8 APR	Two SUDS attenuation ponds and associated damp areas.
Approx 500m east of Eurocentral Junction	SUDS attenuation pond.
North and south sides Chapelhall Junction	Three SUDS attenuation ponds.
M8, 9150-9470	SUDS attenuation pond and watercourse/drainage ditch.
North of Newhouse Junction.	Two SUDS attenuation ponds

(ix) Landscape earthworks

Description – landscape earthworks occur in areas of landform change associated with the road construction requirements where the engineered profile is modified to create a better fit with the landscape. Generally the effect of the landscape earthworks is to reduce gradients, round off the toe and tops of embankments and cutting slopes, infill unusable troughs and act as a screen to views from the roads or surrounding receptors.

Landscape earthworks occur in the following locations:

Approximate chainage/location	**Landscape earthworks - mitigation requirements**
M8 Main Route, A8 APR and associated junctions	
M8, 950-1300	The angle of cut on both sides of the road is relaxed and the toe and top rounded to form a more sensitive landform and create a more open section in the road corridor as perceived by road users.
M8, 1630-2000	The awkward narrow trough located between the M8 and A8 APR is in-filled to create a more elevated section on which to plant screening vegetation.
M8, 1630-1760	A reinforced earth retaining wall supports the elevated M8 structure to mitigate potential adverse impact on the Luggie Burn and adjacent right of way; appropriate planting and/or seeding mitigates views of the structure itself
Eastbound A8 APR west of Eurocentral	Trough between APR and SUDS pond access infilled for better integration and to improve potential for planting.
Slip roads on north side of Chapelhall Junction	The engineered profiles associated with the construction of the various slip roads and roundabouts are remodelled to create two bunds with a more sensitive flowing form which also serves to screen views of the junction from the properties and recreation grounds in the north and west.