



AUSTEN ASSOCIATES

LANDSCAPE DESIGN REPORT

D 001

Quay Street and Environs, Balbriggan

CLIENT: Paul Keogh Architects

April 2022

Rev B

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Introduction

Austen Associates are a team of Landscape Architects who work to create both distinctive and environmentally sustainable landscapes. Our philosophy with regard to landscape stems from a desire to both enrich peoples' lives through creation of high quality landscape designs, and to minimise our impact on the natural world. In this regard the practice always attempts to introduce principles of sustainability in to its designs.

Austen Associates have been commissioned by Paul Keogh Architects to provide consultation on the horticultural, landscape and arboricultural elements of the project. The Arboricultural elements are covered in detail in the tree survey drawings '074021_TS_01 Tree Survey' and '074021_TP_01 Tree Protection Plan' and the tree survey report '074021_Quay Street and Environs Tree Report'.

Working closely with the design team, made up of Paul Keogh Architects (Architecture), Hayes Higgins Partnership (Consulting Engineers), Turner Townsend (Project managers), Nolan Construction Consulting (Quantity Surveyors) and Doyle Kent Planning Partnership Ltd. (planning Consultants), Austen Associates have provided consultation on the horticultural and landscape design elements of the project. In particular, working closely with Paul Keogh Architects in relation to planting design, technical aspects of planting and tree retention.

Austen Associates have been in consultation with Fingal County Council through several teams meetings. Topics covered include:

- Play space design
- Open space design,
- Bio-diversity and green infra-structure
- Tree retention
- Technical aspects of tree planting
- SUDS measures
- Planting design

Austen Associates have approached the landscape design taking account of the following documents:

- Fingal Development Plan 2017 – 2023
- The All Ireland Pollinator Plan – National Biodiversity Centre
- 'Keeping it Green, An Open Space Strategy for Fingal'
- 'The Forest of Fingal Tree Strategy'
- The Department of Children and Youth Affairs' Ready, Steady, Play: A National Play Policy)
- The Urban Design Manual: A best practice guide by the Department of Environment, Heritage and Local Government
- The Building Regulations 2010 Part M of Buildings for Everyone by the Department of Environment, Heritage and Local Government
- Space for Play - A Play Policy for Fingal; Fingal County Council Play Policy

Tree Retention

An arboricultural survey has been undertaken. All of the trees on site have been surveyed and evaluated. Consultations meetings have taken place with Paul Keogh Architects and an approach to tree protection has been agreed. The general consensus is to retain important trees on site where possible.

The trees in the existing car park to the north west of the site will be retained for the most part. These are semi-mature *Acer pseudoplatanus* Sycamore.

There are two corpses of mature and semi-mature trees either side of the stepped pedestrian entrance off Mill Street. A universal accessible sloped path is proposed here, along with a stepped entrance, this will see the loss of some of the trees. Many of the larger trees here will be retained.

There is a corpse of *Fraxinus excelsior* Ash trees towards the centre of the existing park area, that are suffering from Ash Die Back disease *Hymenoscyphus fraxineus*. These trees will fail within the next 10 years. They are proposed for removal.

A number of weeping Willow, possibly *Salix × sepulcralis* 'Chrysocoma' or *Salix alba* 'Tristis' are located on the bank of the Bracken River. One of these is proposed

for removal, to the east where the river is to be widened. Two specimens to the west are proposed for retention.



Figure 1: Weeping Willow proposed for retention

Trees to be retained will be protected with tree protective fencing. An arborist is appointed to consult and give ongoing advice regarding tree protection.

Existing trees survey was undertaken by Austen Associates. All trees shall be protected in accordance with the recommendations of this survey.

Planting Approach



Figure 2: planting plan

There has been much discussion between Paul Keogh Architects and Austen Associates Landscape Architects regarding the planting approach. Early on in the project, a planting approach influenced by the work of the plantsman Piet Oudolf has been favoured for many of the planting areas. This approach takes a naturalistic view to the planting using a mixture of robust perennials and grasses, along with some other planting, to create patterns visible in nature.



Figure 3: Piet Oudolf style planting, Trentham

For Quay Street, this planting style is worked into angular landscape wedges in the garden area alongside open grass lawn zones to create a comforting tapestry. This is interspersed with paving, which follows desire lines through the landscape areas. Gradually ascending Corten steel edging defines the landscape wedges and works with the planting to create an interesting blend of naturalistic planting and complementary man-made elements.

Riparian planting will be used close to the river to create waterside planting that will be of high habitat value for wildlife and will also soften the river edge at its interface with the stepped approaches to the river. The planting will be set into biodegradable wraps that are held in place at the river edge with a low quantity of placed rocks.

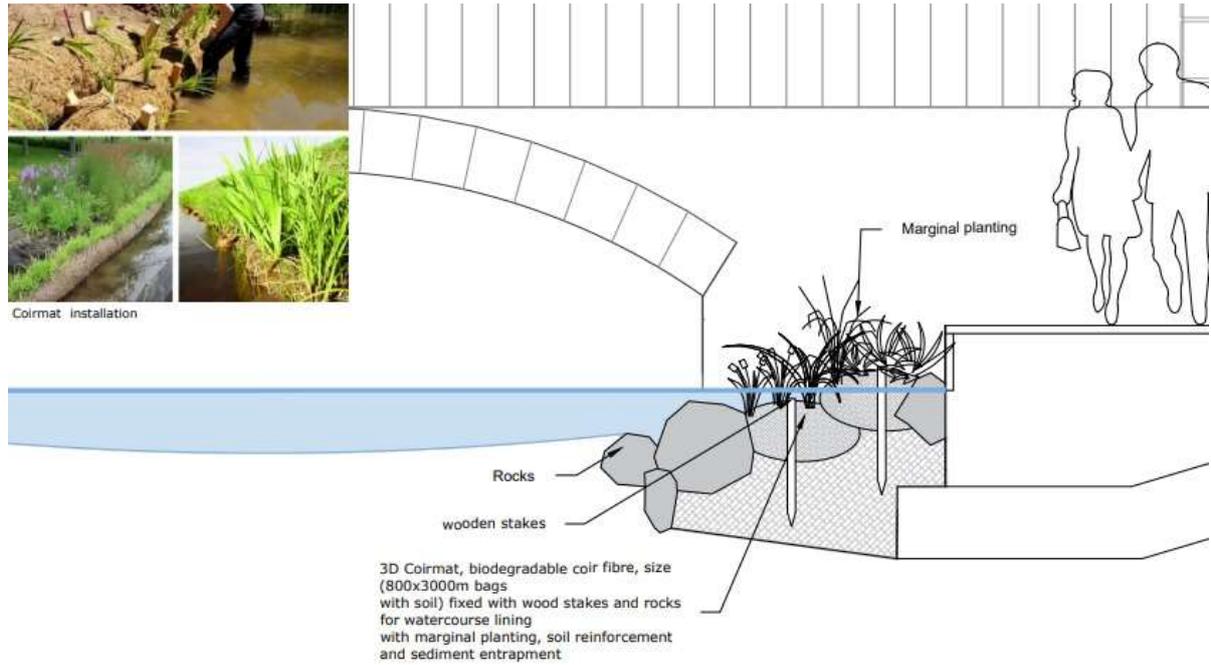


Figure 4: Marginal planting detail

Elsewhere, planting to the edge of the hardscape areas is in the form of rain gardens. These planting areas will take a quantum of surface water flow from the paved areas both to water the plants and also to provide filtration of the water as it seeps to groundwater levels. Plants selected for these areas will be tolerant of periodic wetting and dry spells.

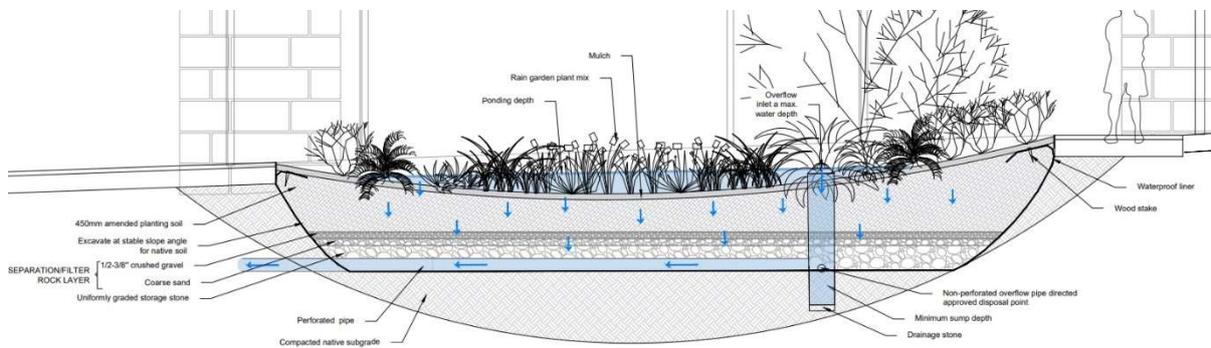


Figure 5: Filtration rain garden detail

Tree Planting

Native specimen trees will be selected for planting after discussion between the Architect and Landscape Architect, taking on board Fingal County Councils approach to tree planting.

The proposals require the removal of 33 existing trees to facilitate the development. However, 37 no. new trees are being planted resulting in a net gain in the quantity of trees at this location at the end of the development of the new park.

Wild Cherry *Prunus avium* 'Plena' specimen trees are proposed to soften the interface between the plaza and the river edge to the south. These are relatively good in a coastal situation and will have a degree of added protection from the harbour and viaduct infrastructure. They will provide seasonal interest, with white double flowers in the spring and red/orange autumn colour.



Figure 5: *Prunus avium* 'Plena'

Where trees are located in paving, the Stockholm paving system will be utilised. A tree pit of 16m³ will be allocated for each tree planted in paved areas.

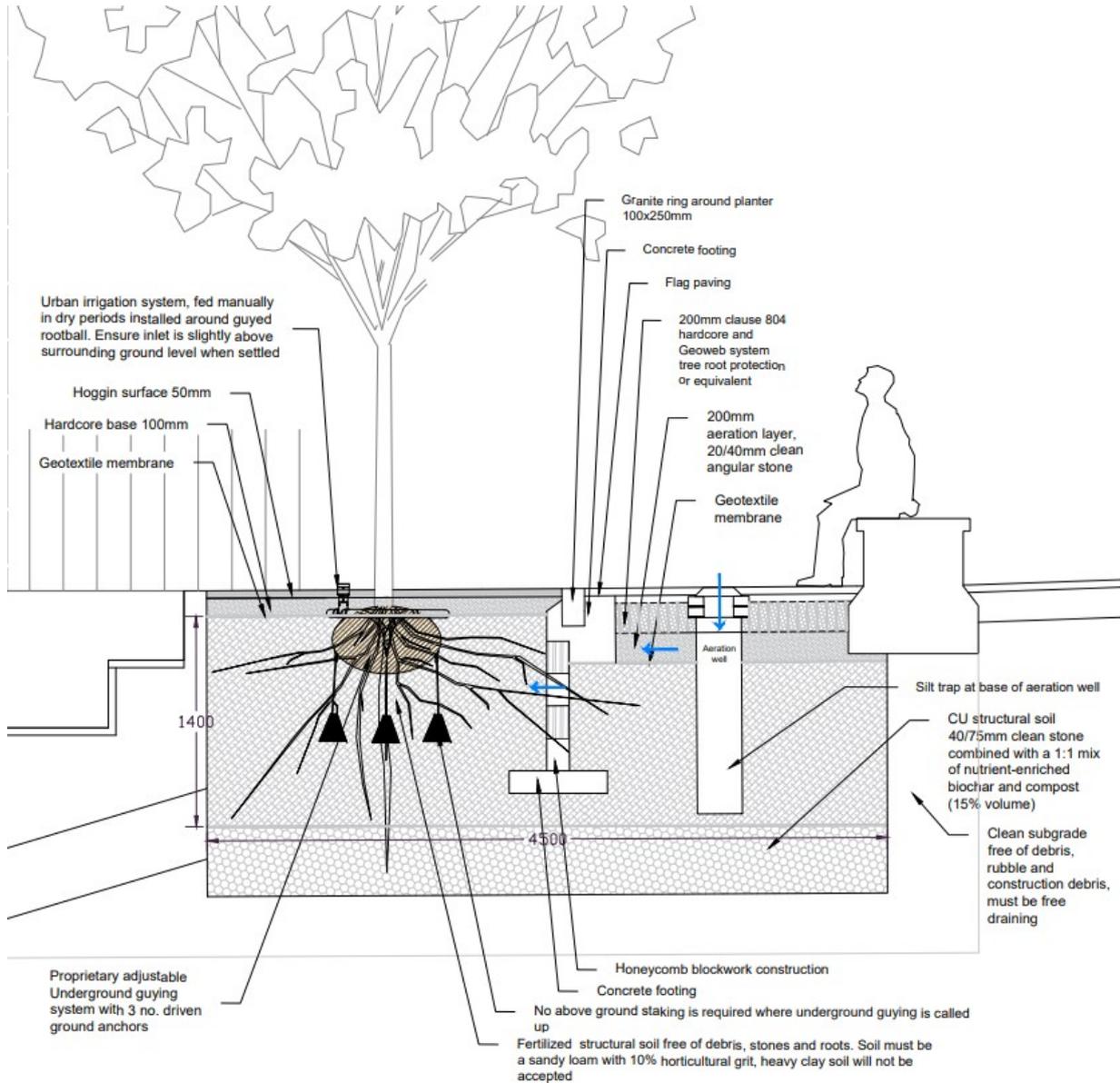


Figure 6: Tree pit detail with Stockholm paving system

Play strategy

The play strategy has been discussed with Fingal County Council. A 'play on the way' approach has been put forward and will be adopted by Paul Keogh Architects and Austen Associates in consultation with the design team. Play opportunities will

be created at intervals through the garden area. Particular attention will be given to nodes where a number of paths intersect.

Play items will be located in 3 circles with epdm mulch surfaces, like the existing playground. The circles are located near footpaths to give direct entrance to the play area and help wheelchair users. The play surface also promote design for all.

The proposed also reused two existing play equipments that will need to be relocated and get some maintenance from the suppliers.



Figure 7 and 8: Existing carousel also for wheelchair users (from GL Jones -playground.Co.Ku supplier) and train (from Europlay supplier) to be reused in a new location



Figure 9 and 10: Tower and net with slide and Tree climber, by Kompan or equivalent

The proposal also present a tower and net with slide and a tree climber to complete the play areas with more adventurous and climbing play equipment, that will work also for older ages.

To complete the play strategy the proposal also present in one circle music instruments that will to be used by all ages.



Figure 11 to 13: Djembes, Marimba and Pentatonic tembos by Percussion Play or equivalent

Green Infrastructure

The landscape proposal and plant selection will provide habitat for pollinators, invertebrates, smaller mammals, birds and other species.

Further ecological measures will be incorporated such as bird boxes and insect hotels.

The retained trees and proposed tree planting will provide habitat linkage through the site and play its part in retaining an environmentally friendly green space in Balbriggan town centre. This will be part of a network of green spaces in the town and connect with the nearby maritime habitat, providing resting and nesting opportunities for birds and other wildlife.

The development will link with the wider pedestrian network, providing local connections and walking routes in the active travel strategy for Balbriggan. Linkage to cycle routes is promoted through the site.

Standards and specifications

- All relevant standards referred to in the landscape specifications shall be Irish Standards/ British or European Standards.
- Principles of Universal Accessibility shall apply to all design. Part M shall be apply to outdoor design.
- All materials required for paving shall be from a source approved by the Landscape Architect.
- Full specifications for workmanship and quality shall accompany the tender documentation.
- All landscape works shall be fully quantified.
- Topsoil shall conform to B.S. 3882:2015
- All plant material shall comply with the requirements of B.S. 3936: Parts 1-11 Specification for Nursery Stock. Advanced nursery trees shall comply with B.S. 5236: 1992
- A design risk assessment shall be prepared for all landscape works.
- Grass seed shall include a nurse species, such as dwarf rye grass and shall include a range of fescue and bent grasses to create a diverse sward. The grass shall obtained from recognised suppliers who will supply a list of the species, their percentage composition within the mix and the seeds sources.
- All play provision will be designed in compliance with BS EN 1176 and BS EN 1177 and shall be RosPA certified upon completion. And also includes the restauration of the existing play equipment that will be relocated on site.
- Existing trees survey was undertaken by Austen Associates. All trees shall be protected in accordance with the recommendations of this survey.
- Austen Associates are providing the arboricultural consultancy services for the duration of the project.
- Austen Associates are providing the landscape architecture consultancy services for the duration of the project
- A minimum maintenance period of 24 months for all landscape features both hard and soft including play features will be required.

- Certificate of Completion to the Parks and Green Infrastructure Division will be required for all play items / play facilities. RosPA Certificate will be supplied by the contractor that installs the play equipment.

Aftercare

A maintenance plan will be instigated by the developer.

Period:

The Contractor shall be responsible for aftercare of the completed works for 2 years from the date of completion of planting, including adequate watering of vegetation during dry periods of weather.

Organisation:

The aftercare program will be organised as follows:

- (a) Scheduled operations, in whose timing the Contractor will be permitted some flexibility, and which will be the basis of payment to the Contractor.
- (b) Performance standards, which the Contractor is required to meet at all times, and on which his performance will be assessed.
- (c) Critical dates, by which time scheduled operations, shall have been completed, and at which performance will be assessed.

Weed Control:

Weed control operations must be carried out in line with relevant legislation and European regulations, in particular the European Communities Sustainable Use Directive 2012. Non-chemical methods of weed control are to be prioritised over the use of chemical sprays.

Particular care is to be taken for the identification and control of Giant Hogweed and Japanese Knotweed. If identified on site a method statement for its eradication is to be drawn up for its eradication. This is to include the taking of a

photographic, mapping and written record of the plant location, size and any treatment undertaken.

All areas within the subject site are to receive weed control maintenance.

Watering:

The Contractor is responsible for the watering of all trees and shrubs during the maintenance period.

Plant Replacements

Following planting the site will be inspected in spring and again in the following September. Any tree or shrub found to have died from any cause except as provided below or the work of other Contractors shall be replaced by the Contractor at his own expense. Replacement planting shall conform in all respects with this Specification, including all specified excavation, provision and incorporation of all fertilizers and ameliorants.

Failures will not be charged to the Contractor in the following cases: -

- Damage by hares or rabbits, where protection by fencing or shelters was not originally specified.
- Damage by livestock, where protection by fencing was not originally specified.
- Failure solely due to prolonged dry weather, except where the Contractor will be responsible for watering.
- Losses due to theft, vandalism or disturbance by other Contractors.
- Persistence of weeds in planted areas will be regarded as a contributory cause of failure due to drought.

Performance standards:

The following maintenance standards shall be upheld for the duration of the maintenance period:

Performance Standards for Trees and Plants:

All plants shall show signs of healthy growth throughout the growth season after planting e.g. bud break, leaf extension, and branch extension, normal for such species.

All plants shall not show signs of drought for any period exceeding five days. Such signs include change in leaf colour, withering leaves or leaves dropping.

For all trees and shrubs pruning shall be carried out to ensure removal of dead or damaged branches and the retention of a healthy crown shape throughout the growing season.

The trees shall not show signs of bark damage as a result of failure to loosen tree ties.

Performance Standards for Grass:

The grass sward should be thick, healthy, a lush green colour and not deficient in nutrients. It should be dominated by the sown grasses and capable of out competing persistent weeds and ensuring year-round ground cover. The Contractor shall make good any areas not of this quality. Make up and seed over any depressions which develop after seeding. Re-cultivate and re-seed any areas which fail to germinate, or which die off.

Performance Standards for Hard landscape:

The contractor is expected to ensure that all hard landscape areas are clean and weed free for the duration of the maintenance contract. This shall be achieved by sweeping, washing and the mechanical removal of weeds as necessary. Gravel areas should be raked periodically to leave an even and level surface.

Hard-standing should be kept clear of rubbish and litter.

General maintenance guidelines on an <u>annual</u> basis as per contract specifications, overall 2-year maintenance program in total from month of commencement i.e. 24 months													
Operation	Date by month starts January												
	J	F	M	A	M	J	J	A	S	O	N	D	
Yearly maintenance to trees and shrubs													
Weed control in grass areas					X			X					
Top up Mulch			X						X				
Fertilise grass areas				x					X				
Trim edges to beds and hardscape					X				X				
Stone, litter from grass areas			X					X					
Pruning		X							x				
Hand weed all planting			x		X		x			x			
Litter removal	X				X			X				X	
Watering				x	x	x	x	x	x				
Check stakes and ties			x				X						
Fertilise trees and plants				X						X			
Leaf/debris removal	x				X					x		x	

Conclusion

The landscape design approach to this project has been devised in detail by the design team and considered by Fingal County Council in the various presentations put forward.

The landscape and planting approach will provide interesting spaces and experiences for those visiting the site. It will enhance the site, the immediate local area and the town Of Balbriggan. It will also provide ecological benefits within the site and the wider area.

Where possible existing trees will be retained and protected. This will retain useful existing vegetative infrastructure. Additional tree planting will be carried out,

resulting in a net gain in tree numbers and providing suitable replacements to trees lost on site, in particular replacement of the corpse of *Fraxinus excelsior* Ash trees that will be lost in any event due to Ash Die Back disease *Hymenoscyphus fraxineus*. Existing retained trees will be protected on site.

The result will be a unique space which will add character and dynamism to the town.