

WHITECHURCH STREAM FLOOD ALLEVIATION SCHEME

Landscape and Visual Impact Assessment Report



MDW0825
Whitechurch Stream FAS -
Landscape and Visual Impact
Assessment
F03
16 Jul. 20

LANDSCAPE AND VISUAL IMPACT ASSESSMENT REPORT

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
F01	For Issue	EO'C	RH	MD	20/04/2020
F02	For Issue	EO'C	RH	MD	06/06/2020
F03	For Issue	EO'C	RH	MD	16/07/2020

Approval for issue

Mesfin Desta



16 July 2020

© Copyright RPS Group Limited. All rights reserved.

The report has been prepared for the exclusive use of our client and unless otherwise agreed in writing by RPS Group Limited no other party may use, make use of or rely on the contents of this report.

The report has been compiled using the resources agreed with the client and in accordance with the scope of work agreed with the client. No liability is accepted by RPS Group Limited for any use of this report, other than the purpose for which it was prepared.

RPS Group Limited accepts no responsibility for any documents or information supplied to RPS Group Limited by others and no legal liability arising from the use by others of opinions or data contained in this report. It is expressly stated that no independent verification of any documents or information supplied by others has been made.

RPS Group Limited has used reasonable skill, care and diligence in compiling this report and no warranty is provided as to the report's accuracy.

No part of this report may be copied or reproduced, by any means, without the written permission of RPS Group Limited.

Prepared by:

RPS

Eimear O'Connor
Principal Landscape Architect

West Pier Business Campus
Dun Laoghaire, Co. Dublin A96 N6T7

T +353 1 488 2900
E eimear.oconnor@rpsgroup.com

Prepared for:

SDCC

David Grant
Project Resident Engineer

South Dublin County Council,
County Hall,
Tallaght,
Dublin 24

T 01-414 9000
E dgrant@sdublincoco.ie

Dublin | Cork | Galway | Sligo
rpsgroup.com

RPS Group Limited, registered in Ireland No. 91911
RPS Consulting Engineers Limited, registered in Ireland No. 161581
RPS Planning & Environment Limited, registered in Ireland No. 160191
RPS Engineering Services Limited, registered in Ireland No. 99795
The Registered office of each of the above companies is West Pier
Business Campus, Dun Laoghaire, Co. Dublin, A96 N6T7



Contents

1	INTRODUCTION	1
1.1	Scope	1
2	METHODOLOGY	3
2.1	General Approach	3
2.2	Study Area	3
2.3	Identification of Baseline Conditions	3
2.4	Assessment of Significance	3
2.4.1	Landscape Sensitivity	4
2.4.2	Magnitude of Impact – Landscape	6
2.4.3	Visual Receptor Sensitivity	6
2.4.4	Magnitude of Visual Impact	7
2.5	Significance of Effects	8
3	PLANNING POLICY – SOUTH DUBLIN COUNTY DEVELOPMENT PLAN 2016-2022	10
3.1	Landscape Character	10
3.2	Designations and Protected Views	11
4	BASELINE LANDSCAPE AND VISUAL AMENITY	12
4.1	Baseline Landscape Character	12
4.1.1	Areas 1 and 2 - St Enda's Park	12
4.1.2	Whitechurch Road Urban Area (from St Enda's Park to Junction of Ballyboden Road)	12
4.2	Baseline Visual Amenity	14
5	MITIGATION MEASURES	17
5.1	Construction	17
5.2	Operation	17
5.3	Proposed Planting	17
5.4	Proposed Structures	18
5.5	Landscape Management	18
6	ASSESSMENT	19
6.1	Construction Effects	19
6.1.1	Landscape and Landscape Character	19
6.1.2	Visual Amenity	20
6.2	Operational Effects	22
6.2.1	Landscape and Landscape Character – Year 1 of Operation	22
6.2.2	Visual Amenity – Year 1 of Operation	28
6.3	Residual Effects	30
6.3.1	Landscape Character – Year 15 of Operation	30
6.3.2	Visual Amenity – Year 15 of Operation	31
6.4	Effects on Planning Policy and Designations	32
6.5	Cumulative Effects	32
6.5.1	Landscape and Landscape Character	32
6.5.2	Visual Amenity	33
7	CONCLUSION	34
7.1	Effects on Landscape Character	34
7.2	Effects on Visual Amenity	34
7.3	Cumulative Effects	34

Tables

Table 1: Landscape Sensitivity	5
Table 2: Magnitude of Landscape Impact	6
Table 3: Visual Receptor Sensitivity	6
Table 4: Magnitude of Visual Impact	7
Table 5: Significance of Effect Criteria	8
Table 6: Significance of Effects Matrix	9
Table 7: Viewpoints and Existing Visual Amenity	15
Table 8: Area 2 - Area between St Enda's Park and Sarah Curran Bridge Inlet(Ch.: 0+510.10-0+572.25)	23
Table 9: Area 3 - Area downstream of Sarah Curran Bridge outlet to Whitechurch Road Bridge Inlet (weir) (Ch.: 0+578.80- 0+688.70).....	24
Table 10: Area 4 - Area from Whitechurch Road Bridge Outlet to St Gatiens Culvert inlet (Ch.: 0+700-0+803.03)	24
Table 11: Area 5 - Area from St Gatiens Court Culvert outlet to the inlet of the Garage Culvert at Rathfarnham Ford (Ch.: 0+828.07- 0+918.61)	25
Table 12: Area 6 - Area from Garage Culvert at Rathfarnham Ford to Willbrook Lawn Twin Culvert Inlet (Ch.: 0+983.91- 1+132.91).....	26
Table 13: Area 7 - Area from the outlet of the Twin Culvert at Willbrook Lawn to the Inlet of Bridge crossing Whitechurch Road (Ch.: 1+140.41- 1+410.43)	27
Table 14: Area 8 - Bridge crossing Whitechurch Road outlet to Willbrook Road Culvert inlet (confluence with Owendoher) (Ch.: 1+420.20- 1+455).....	27

Appendices

Appendix A Illustrated Figures 1a-1d and Figures 2a – 2e

Appendix B Photomontages Figures 3.1 – 3.7

1 INTRODUCTION

This report documents the landscape and visual effects of the proposed Whitechurch Stream Flood Alleviation Scheme in Rathfarnham, Co. Dublin.

The site for the proposed flood alleviation scheme extends from the north western part of St Enda's Park northwards to the junction between Whitechurch Road and Ballyboden Road. The site is located within an urban built up residential area with relatively busy road routes and featuring small areas of public open space and mature tree planting. The Proposed Development comprises a series of flood alleviation measures including vegetation clearance and introduction of new structures along the length of Whitechurch Stream.

1.1 Scope

The scope of the landscape and visual impact assessment and structure of this report is as follows:

- Approach and Methodology;
- Planning Policy of relevance to Landscape and Visual Amenity as documented in the South Dublin County Development Plan 2016-2022;
- Receiving environment comprising a description of the existing landscape and visual baseline within the study area defined for the project;
- Assessment of the significance of effects of the Proposed Development on landscape elements, landscape character and visual amenity during construction and operation;
- Mitigation measures, specifically additional measures incorporated into the final site layout and design of the Proposed Development to mitigate potential significant adverse effects; and
- Residual impact assessment documenting landscape and visual effects remaining with mitigation measures in place.

The assessment is also supported by the following illustrated figures:

- Figure 1a – 1d – Landscape and Visual Impact Assessment (LVIA), indicating the locations of the proposed landscape mitigation measures and the viewpoints selected for the visual impact assessment;
- Figure 2a – Landscape Proposals - St Enda's Park;
- Figure 2b – Landscape Proposals - Whitechurch Road (South of St Gatien Court);
- Figure 2c - Landscape Proposals - Whitechurch Road (North of St Gatien Court);
- Figure 2d – Landscape Proposals –Whitechurch Road near Willbrook Lawn; and
- Figure 2e – Landscape Proposals – Whitechurch Road near Willbrook Grove.
- Figures 3.1 – 3.7 – Photomontage views from 7 viewpoint locations as follows:
 - Figure 3.1 – Viewpoint 1 (3.1a Existing View, 3.1b Photomontage Year 1, 3.1c Photomontage Year 15);
 - Figure 3.2 – Viewpoint 2 (3.2a Existing View, 3.2b Photomontage Year 1, 3.2c Photomontage Year 15);
 - Figure 3.3 – Viewpoint 3 (3.3a Existing View, 3.3b Photomontage Year 1, 3.3c Photomontage Year 15);

- Figure 3.4 – Viewpoint 5 (3.4a Existing View, 3.4b Photomontage Year 1, 3.4c Photomontage Year 15);
- Figure 3.5 – Viewpoint 7 (3.5a Existing View, 3.5b Photomontage)
- Figure 3.6 – Viewpoint 8 (3.6a Existing View, 3.6b Photomontage Year 1, 3.6c Photomontage Year 15); and
- Figure 3.7 – Viewpoint 9 (3.7a Existing View, 3.7b Photomontage Year 1, 3.7c Photomontage Year 15).

The photomontage figures include the existing view, proposed view at year 1 and, where applicable, the proposed view at year 15 showing the maturing planting proposed as mitigation measures.

The assessment is informed by a tree survey undertaken by Arborist Associates for the purposes of the Whitechurch Stream FAS.

2 METHODOLOGY

2.1 General Approach

The methodology for the landscape and visual impact assessment (LVIA) was informed by best practice guidance described in the following documents;

- Guidelines for Landscape and Visual Impact Assessment, Third Edition (The Landscape Institute and Institute of Environmental Management & Assessment, 2013) (GLVIA3);
- Technical Guidance Note 06/19 Visual Representation of Development Proposals (The Landscape Institute, 2019).

GLVIA3 recommends that an LVIA '*concentrates on principles and process*' and '*does not provide a detailed or formulaic 'recipe'*' to assess effects, it being the '*responsibility of the professional to ensure that the approach and methodology adopted are appropriate to the task in hand*' (preface to the third edition).

2.2 Study Area

A study area measuring c.0.5km from the edges of the existing Whitechurch Stream from the southern end at A046 in St Enda's Park to the junction of Whitechurch Road and Ballyboden Road at W001 was identified for the purpose of capturing potential significant landscape and visual effects. The study area was identified having regard for the nature and scale of the development proposed and the baseline conditions. The baseline comprises parkland with mature planting at St Enda's Park and a built up urban area associated with Whitechurch Road. The nature of the baseline and the scale of the proposals are such that significant landscape and visual effects will be limited to within the study area as specified.

2.3 Identification of Baseline Conditions

Baseline conditions has been identified and assessed through analysis of;

- Up to date digital copies of Ordnance Survey Discovery Series raster and OS vector maps;
- Aerial photography;
- Development Plan for South Dublin County Council including County Landscape Character Assessment; and
- Description and Drawings of the Proposed Development.

Site visits were undertaken to assess the existing environment, to establish the existing landscape and visual baseline, to identify sensitive receptors, i.e. residential properties, scenic viewpoints. Site visits were also used to consider the potential effects on landscape and visual receptors arising as a result of the Proposed Development. The site based assessment concentrated on publicly accessible locations such as the surrounding road network and residential areas.

2.4 Assessment of Significance

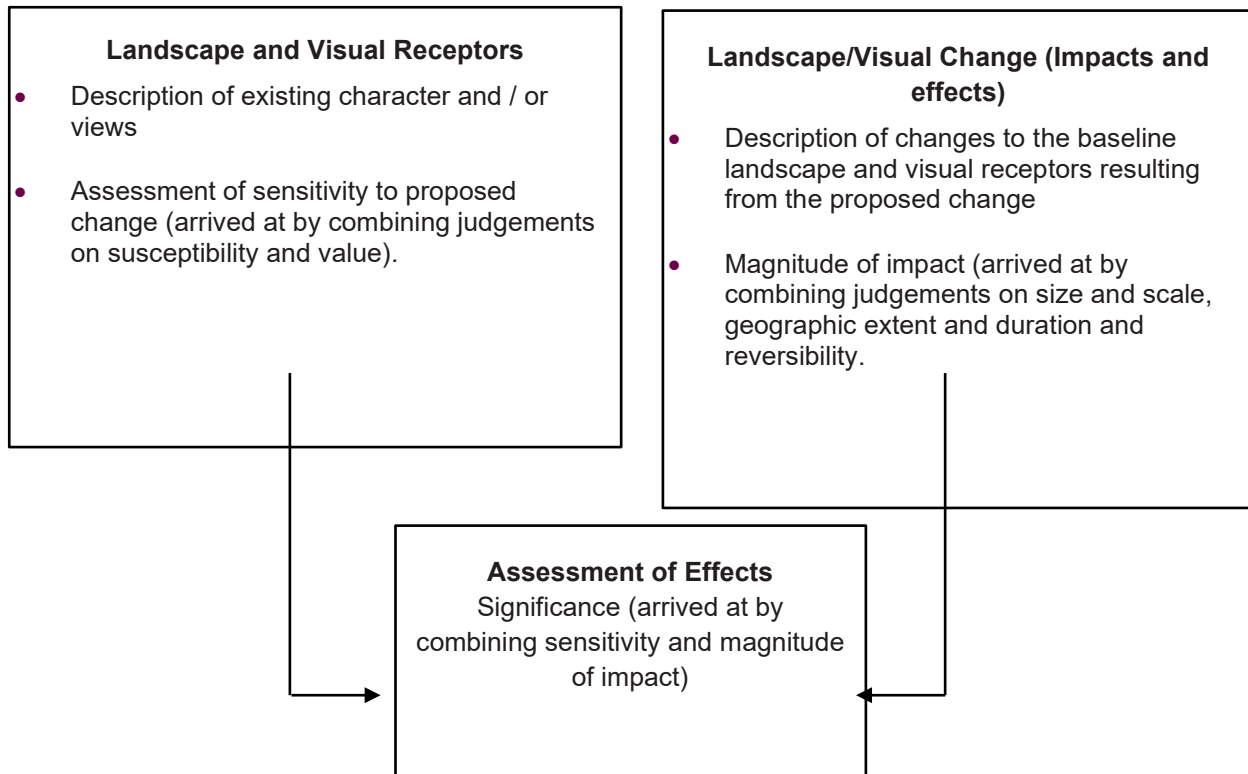
The effects of the Proposed Development on landscape and visual receptors (people) have been assessed by combining judgements concerning the **sensitivity** of the landscape or visual receptor with judgements concerning the predicted **magnitude of impact** resulting from the proposed change. It is important to note that significance is determined on a case by case basis using professional judgement with the methodology below as a guide and this approach accords with the guidance in GLVIA 3.

The guidance also states that 'The regulations require that a final judgement is made about whether or not each effect is likely to be significant. There are no hard and fast rules about what effects should be deemed significant but LVIA's should always distinguish clearly between what are considered to be significant and non-significant effects.

The sensitivity of the landscape and visual receptors is arrived at by combining judgements regarding the susceptibility of the viewer and the value of views. The magnitude of impact is arrived at by combining judgements concerning size and scale, the geographic extent and duration and reversibility.

The assessment methodology is summarised in the sketch below and is explained in detail in this section of the report.

Assessment Methodology Summary



The LVIA considers the potential effects of the project upon:

- Individual landscape features and elements;
- Landscape character; and
- Visual amenity and the people who view the landscape.

Assessing the significance of an effect is a key component of the LVIA and is an evidence based process combining professional judgment on the nature of a landscape or visual receptor's sensitivity (susceptibility or ability to accommodate change and the value attached to the receptor) and the magnitude of impact resulting from the proposed change (size and scale, geographic extent, duration and reversibility).

2.4.1 Landscape Sensitivity

The determination of the sensitivity of the landscape receptor is based upon an evaluation of the elements or characteristics of the landscape likely to be affected. The evaluation reflects such factors as its quality, value, contribution to landscape character and the degree to which the particular element or characteristic can be replaced or substituted.

GLVIA 3 at paragraph 5.39 states that '*landscape receptors need to be assessed firstly in terms of their sensitivity, combining judgments of their susceptibility to the type of change or development proposed and the value attached to the landscape.*

Susceptibility is defined by GLVIA 3 at paragraph 5.40 as '*the ability of the landscape receptor (whether it be the overall character or quality/ condition of a particular landscape type or area, or an individual element and/*

or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without due consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies’.

The value of a landscape receptor is determined with reference to the presence of relevant landscape designations, such as Areas of Outstanding Natural Beauty (AONB) and their level of importance. For the purpose of this assessment, landscape value is categorised as:

- **Very High:** Areas of landscape acknowledged through designation such as Areas of Outstanding Natural Beauty (AONB) or other landscape based sensitive areas. These are of landscape significance within the wider region or nationally;
- **High:** Areas that have a very strong positive character with valued and consistent distinctive features that gives the landscape unity, richness and harmony. These are of landscape significance within the district;
- **Medium:** Areas that exhibit positive character but which may have evidence of alteration/degradation or erosion of features resulting in a less distinctive landscape. These may be of some local landscape significance with some positive recognisable structure; and
- **Low:** Areas that are generally negative in character, degraded and in poor condition. No distinctive positive characteristics and with little or no structure. Scope for positive enhancement.

The levels of sensitivity for landscape receptors are broadly defined in accordance with **Table 1** below.

Table 1: Landscape Sensitivity

Definition		Sensitivity
Susceptibility	Value	
Exceptional landscape quality, no or limited potential for substitution. Key elements / features well known to the wider public.	Nationally / internationally designated/ valued landscape, or key elements or features of national/ internationally designated landscapes.	Very High
Little or no tolerance to change	Little or no tolerance to change	
Strong/ distinctive landscape character; absence of landscape detractors.	Regionally/ nationally designated/ valued countryside and landscape features.	High
Low tolerance to change.	Low tolerance to change.	
Some distinctive landscape characteristics; few landscape detractors.	Locally/ regionally designated/ valued countryside and landscape features.	Medium
Medium tolerance to change.	Medium tolerance to change.	
Absence of distinctive landscape characteristics; presence of landscape detractors.	Undesignated countryside and landscape features.	Low
High tolerance to change	High tolerance to change	
Absence of positive landscape characteristics. Significant presence of landscape detractors.	Undesignated countryside and landscape features.	Negligible
High tolerance to change	High tolerance to change	

2.4.2 Magnitude of Impact – Landscape

The effect on landscape receptors and the overall judgement of the magnitude of landscape impact is based on combining judgements on ‘*size or scale, the geographic extent of the area influenced, and its duration and reversibility*’ (GLVIA3, paragraph 5.48),

The changes caused to landscape and visual receptors as a result of the Proposed Development is evaluated in terms of their size or scale, geographical extent and duration and reversibility. Duration is defined as short term lasting 0-5 years, medium term lasting 5-10 years, long term lasting 10-20 years and permanent lasting more than 20 years. Levels of magnitude of impact on landscape receptors are defined in **Table 2** below.

Table 2: Magnitude of Landscape Impact

Definition	Magnitude of Impact
Total loss or addition or/ very substantial loss or addition of key elements / features / patterns of the baseline, i.e., pre-development landscape and/ or introduction of dominant, uncharacteristic elements with the attributes of the receiving landscape	Large
Partial loss or addition of or moderate alteration to one or more key elements / features / patterns of the baseline, i.e., pre-development landscape and / or introduction of elements that may be prominent, but may not necessarily be substantially uncharacteristic with the attributes of the receiving landscape.	Medium
Minor loss or addition of or alteration to one or more key elements / features / patterns of the baseline, i.e., pre-development landscape and or introduction of elements that may not be uncharacteristic with the surrounding landscape.	Small
Very minor loss or addition of or alteration to one or more key elements / features / patterns of the baseline, i.e., pre-development landscape and/or introduction of elements that are not uncharacteristic with the surrounding landscape approximating to a 'no-change' situation.	Negligible
No loss, alteration or addition to the receiving landscape resource	No change

2.4.3 Visual Receptor Sensitivity

Sensitivity of visual receptors is arrived at by combining judgements concerning their susceptibility to the type of change or development proposed and the value attached to the particular views.

Paragraph 6.32 of the GLVIA refers to the susceptibility of different visual receptors to changes in views and states that susceptibility is mainly a function of “*the occupation or activity of different people experiencing the view at particular locations*” and “*the extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience at particular locations.*”

Judgements on the overall visual receptor sensitivity are provided in **Table 3** below. The sensitivity of the visual receptor is based on combining judgements on the sensitivity of the human receptor (for example resident, commuter, tourist, walker, recreationist or worker, and the numbers of viewers affected) and judgements on the visual resource value (for example views experienced from residential properties, workplace, leisure venue, local beauty spot, scenic viewpoint, commuter route, tourist route or walkers’ route).

Table 3: Visual Receptor Sensitivity

Definition	Sensitivity
Views of remarkable scenic quality, of and within internationally designated landscapes or key features or elements of nationally designated landscapes that are well known to the wider public.	Observers, drawn to a particular view, including those who have travelled to experience the views. Little or no tolerance to change
	Very High

Definition		Sensitivity
Little or no tolerance to change.		
Views from residential property. Public rights of way, National Trails, Long distance walking routes and nationally designated countryside/ landscape features with public access.	Observers enjoying the countryside from their homes or pursuing quiet outdoor recreation are more sensitive to visual change.	High
Low tolerance to change.	Little tolerance to change	
Views from local roads and routes crossing designated countryside / landscape features and 'access land' as well as promoted paths.	Observers enjoying the countryside from vehicles on quiet/ promoted routes are moderately sensitive to visual change.	Medium
Medium Tolerance to change.	Medium tolerance to change	
Views from work places, main roads and undesignated countryside / landscape features.	Observers in vehicles or people involved in frequent or infrequent repeated activities are less sensitive to visual change.	Low
High tolerance to change.	High tolerance to change	
Views from within and of undesignated landscapes with significant presence of landscape detractors.	Observers in vehicles or people involved in frequent or frequently repeated activities are less sensitive to visual change.	Negligible
High tolerance to change.	High tolerance to change	

2.4.4 Magnitude of Visual Impact

The changes caused to landscape and visual receptors as a result of the Proposed Development is evaluated in terms of their size or scale, geographical extent and duration and reversibility. The size and scale of change in the view relates to the loss or addition of features in the view, and changes in the view composition. Important factors to be considered include: proportion of the view occupied by the Proposed Development and distance to the Proposed Development. Other vertical features in the landscape and the backdrop to the Proposed Development will all influence resource change. Duration is defined as short term lasting 0-5 years, medium term lasting 5-10 years, long term lasting 10-20 years and permanent lasting more than 20 years. Levels of magnitude of impact on landscape receptors are defined in **Table 4** below.

Table 4: Magnitude of Visual Impact

Definition	Magnitude
Complete or very substantial change in view dominant involving complete or very substantial obstruction of existing view or complete change in character and composition of baseline, e.g., through removal of key elements	Large
Moderate change in view: which may involve partial obstruction of existing view or partial change in character and composition of baseline, i.e., pre-development view through the introduction of new elements or removal of existing elements. Change may be prominent, but will not substantially alter scale and character of the surroundings and the wider setting. Composition of the view will alter. View character may be partially changed through the introduction of features which, though uncharacteristic, may not necessarily be visually discordant	Medium
Minor change in baseline, i.e. pre-development view - change will be distinguishable from the surroundings whilst composition and character will be similar to the pre change circumstances.	Small
Very slight change in baseline, i.e. pre-development view - change barely distinguishable from the surroundings. Composition and character of view substantially unaltered.	Negligible
No alteration to the existing view	No change

2.5 Significance of Effects

The purpose of this LVIA is to determine, in a transparent way, the likely significant landscape and visual effects of the Proposed Development.

GLVIA3 identifies that ‘..... a final judgment is made about whether or not each effect is likely to be significant. There are no hard and fast rules about what effects should be deemed ‘significant’ but LVIA’s should always distinguish clearly between what are considered to be significant and non-significant effects’.

Significance can only be defined in relation to each particular development and its specific location. The relationship between receptors and effects is not typically a linear one. It is for each LVIA to determine how judgements about receptors and effects should be combined to derive significance and to explain how this conclusion has been arrived at.

The identification of significant effects will not necessarily mean that the effect is unacceptable in planning terms. What is important is that the likely effects on the landscape and visibility are transparently assessed and understood in order that the determining authority can bring a balanced, well-informed judgement to bear when making the planning decision.

The significance of effects on landscape, views and visual amenity have been judged according to a six-point scale: Substantial, Major, Moderate, Minor, Negligible or None as presented in **Table 5** below, which contains a description of the significance of effect criteria.

Table 5: Significance of Effect Criteria

Significance of Effect	Landscape Resource	Visual Resource
None	Where the project will not alter the landscape character of the area.	Where the project will retain existing views.
Negligible	Where proposed changes will have an indiscernible effect on the character of an area.	Where proposed changes will have a barely noticeable effect on views/visual amenity.
Minor	Where proposed changes will be at slight variance with the character of an area.	Where proposed changes to views, although discernible, will only be at slight variance with the existing view.
Moderate	Where proposed changes will be noticeably out of scale or at odds with the character of an area.	Where proposed changes to views will be noticeably out of scale or at odds with the existing view.
Major	Where proposed changes will be uncharacteristic and/or will significantly alter a valued aspect of (or a high quality) landscape.	Where proposed changes will be uncharacteristic and/or will significantly alter a valued view or a view of high scenic quality.
Substantial	Where proposed changes will be uncharacteristic and/or will significantly alter a landscape of exceptional landscape quality (e.g., internationally designated landscapes), or key elements known to the wider public of nationally designated landscapes (where there is no or limited potential for substitution nationally).	Where proposed changes will be uncharacteristic and/or will significantly alter a view of remarkable scenic quality, within internationally designated landscapes or key features or elements of nationally designated landscapes that are well known to the wider public.

For the purposes of this assessment those effects indicated, in **Table 6** below, as being Substantial or Major to Substantial are regarded as being significant. Effects of ‘Minor to Moderate’ and lesser significance have been identified within the assessment, though are not considered significant. For those effects indicated as being of ‘Moderate’ or ‘Moderate to Major’ significance, the assessor has exercised professional judgement in determining if the effect is considered to be significant, having regard for the specific characteristics of the development and the baseline conditions.

Table 6: Significance of Effects Matrix

Magnitude of Impact	Sensitivity				
	Negligible	Low	Medium	High	Very High
No Change	No Change	No Change	No Change	No Change	No Change
Negligible	Negligible	Negligible to Minor	Negligible to Minor	Minor	Minor
Small	Negligible to Minor	Negligible to Minor	Minor	Minor to Moderate	Moderate to Major
Medium	Negligible to Minor	Minor	Moderate	Moderate to Major	Major to Substantial
Large	Minor	Minor to Moderate	Moderate to Major	Major to Substantial	Substantial

A conclusion that an effect is 'significant' should not be taken to imply that the Proposed Development is unacceptable. Significance of effect needs to be considered with regard to the scale over which it is experienced and whether it is beneficial or adverse.

3 PLANNING POLICY – SOUTH DUBLIN COUNTY DEVELOPMENT PLAN 2016-2022

The South Dublin County Development Plan 2016-2022 is the statutory plan which documents the policies and objectives of relevance to landscape and visual amenity. In this regard, the site is located within an area zoned as **Objective RES** – ‘To protect and/or improve residential amenity’;

Areas of public open space associated with St Enda’s Park and smaller areas on Whitechurch Road adjacent to Willbrook Lawn are zoned as **Objective OS** – ‘To preserve and provide for open space and recreational amenities’.

3.1 Landscape Character

The site is located within the Urban Landscape Character Area according to the County Landscape Character Assessment. This is described as *‘This urban landscape character area includes suburban south Dublin which is described as an area which ‘extends east from Tallaght/Oldbawn to Rathfarnham, and north/north-west along the county boundary to Clondalkin. The LCA retains little of historical significance and the setting of its primary settlements have been radically altered by built developments, notably through the 20th Century.’*

Key characteristics of relevance to the site are as follows:

- *‘Built – up urban area with extensive housing estates and industrial /commercial parks. Variety of house styles and layouts dating from the late 19th century to late 20th century;*
- *Corridors of natural and semi natural vegetation, notably along the River Dodder (a linear park) and the Camac River;*
- *Grass open spaces in gardens, industrial parks, golf courses, school playing fields, and miscellaneous spaces in housing areas;*
- *Street trees planting; and*
- *Recreational facilities – public parks and golf courses - provide amenities and ecological resources.’*

Elements or characteristics of relevance to the study area which are deemed to be of value are as follows:

- *Public Parks with recreational and ecological resources;*
- *Dodder River Valley;*
- *19th century industrial heritage; and*
- *Views out to Dublin Mountains and agricultural hinterland.’*

Guidelines for mitigation and management are as follows:

- *‘Grassland and other amenity area open spaces should be managed for the dual benefits of public access and biodiversity;*
- *Tree and shrub planting should be an integral component of amenity grasslands (schools recreational grounds, golf courses and playing fields);*
- *The development of green infrastructure to connect different habitats within the urban context.;*
- *Tree planting on streets and open spaces – particularly on ‘miscellaneous ‘open space in housing areas- to improve their character;*

- *Enhance connectivity between open spaces as a means of enhancing biodiversity while providing off road connections for pedestrian and cyclists.; and*
- *Proposed developments should be audited for their impact on views particularly those to the rural hinterland of the county.'*

3.2 Designations and Protected Views

There are no designated landscapes or protected views within the immediate vicinity of the site identified within the South Dublin County Development Plan 2016-2022. Views south to the Dublin Mountains are available from the southern end of the study area. These glimpse views are framed by the streetscape of Whitechurch Road and are of some value as referenced above. Wider more open views of this mountain skyline are available from within St Enda's Park.

4 BASELINE LANDSCAPE AND VISUAL AMENITY

4.1 Baseline Landscape Character

The site and study area is located within the Urban Landscape Character Area according to the landscape character assessment for South Dublin County.

The study area comprises two distinct areas which differ in terms of landscape character. These include the public open space associated with St Enda's Park and the built up area of Whitechurch Road extending north from St Enda's Park to the junction of Ballyboden Road. These distinct areas are described below.

4.1.1 Areas 1 and 2 - St Enda's Park

A description of the landscape baseline is provided below which corresponds to each section of the Proposed Development within St Enda's Park.

This comprises an extensive area of public open space with mature trees including native and ornamental species, shrub planting and large areas of open space as amenity grassland. A network of public footpaths extends through the park following an informal pattern, weaving in and out of the mature trees and woodland areas. Whitechurch Stream extends along the park boundary on the western side extending to the north west corner of the park at the corner of Sarah Curran Avenue and Whitechurch Road.



The landscape of St Enda's Park is valued as a recreational amenity and as a parkland landscape. The value placed on the park is also reflected in the CDP Policy **Objective OS** which states 'To preserve and provide for open space and recreational amenities'. The park is in good condition and is of high scenic quality overall. The key characteristics of the park will be susceptible to the type of change proposed (low tolerance to change). On this basis, St Enda's Park is considered to be of **high** sensitivity to the proposed change.

4.1.2 Whitechurch Road Urban Area (from St Enda's Park to Junction of Ballyboden Road)

The Whitechurch Stream runs broadly parallel to Whitechurch Road which is a busy route in terms of traffic. The stream is lined with vegetation comprised of mature trees and scrub with some bramble and ivy. The stream itself features a range of edge treatments including concrete walls, stone walls, embankments and palisade fencing which are usually in a poor state of repair. A number of derelict sites are present including a former motor garage and a derelict property further north of this (Capri Site). These elements together with the poor state of repair of the edges of the stream are detractors overall to the urban character of the area. This section of Whitechurch Road carries no landscape designation. It is however valued at a local level for its established urban character and the presence of mature trees and, to some extent, the available small areas of open space. It is of variable scenic quality due to the relatively intact urban character of part of this

landscape albeit with some notable areas in derelict or run down condition. It is of medium susceptibility to change. On this basis, Whitechurch Road Urban Area is considered to be of **medium** sensitivity to the proposed change.

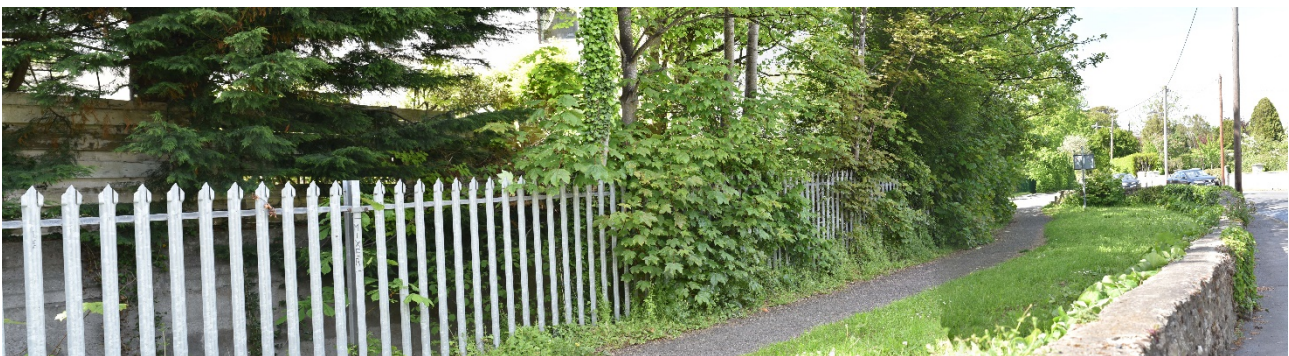
A description of the landscape baseline is provided below which corresponds to each section of the Proposed Development along the length of Whitechurch Road extending from south to north.

4.1.2.1 Area 3- Area downstream of Sarah Curran Bridge Outlet to Whitechurch Road Bridge Inlet (weir) (Ch.: 0+578.80- 0+688.70)

Whitechurch Stream follows a winding course north of Sarah Curran Avenue between the rear of a dwelling on Whitechurch Road and the rear of a small number of dwellings on Sarah Curran Road. The stream is lined with mature hedgerow and shrub vegetation. Thereafter the stream runs in a culvert under Whitechurch Road. Stone wall boundaries feature on either side of Whitechurch Road.

4.1.2.2 Area 4 - Area from Whitechurch Road Bridge Outlet to St Gatiens Culvert inlet (Ch.: 0+700- 0+803.03)

Whitechurch Stream extends north parallel and on the western side of Whitechurch Road. A footpath extends along the western edge of the road and a boundary palisade fence runs adjacent to this along the edge of Whitechurch Stream. Further north, a linear grassed open space and low boundary wall separates the road carriageway from the footpath and palisade boundary fence to Whitechurch Stream.



The footpath and linear open space extends north as far as St Gatien Court where the Whitechurch Stream is culverted under the road. A concrete block headwall and palisade fencing marks the culvert inlet. Small areas of grassed open space with informal tree planting feature at the entrance to St Gatien Court.

The eastern edge of Whitechurch Road features a sequence of low wall boundaries finished in pebble dashing or stone and driveway entrances to individual dwellings set back from the road edge and featuring front gardens with ornamental tree and shrub planting at varying stages of maturity

4.1.2.3 Area 5 - Area from St Gatiens Court Culvert Outlet to the Inlet of the Garage Culvert at Rathfarnham Ford (Ch.: 0+828.07- 0+918.61)

A white painted concrete block headwall marks the corresponding culvert outlet at Whitechurch Stream. The stream extends northwards beyond St Gatien Court, parallel on the western side of Whitechurch Road. The stream is lined on both sides by concrete walls of varying height and randomly placed sections of palisade fencing. A linear open space and footpath extends parallel and in between Whitechurch Road and Whitechurch Stream. The linear open space features amenity grassland and a dense thicket of mature ornamental vegetation with some mature trees. The footpath lies immediately adjacent to the road carriageway except for a short section where it is separated from the road by a linear open space with a line of mature Lime trees.

The eastern edge of Whitechurch Road features a sequence of low stone wall boundaries interrupted by the driveway entrances to individual dwellings set back from the road edge and featuring front gardens with ornamental tree and shrub planting at varying stages of maturity.

4.1.2.4 Area 6 - Area from Garage Culvert at Rathfarnham Ford to Willbrook Lawn Twin Culvert Inlet (Ch.: 0+983.91- 1+132.91)

The site of a former garage featuring a derelict building, forecourt, temporary fencing and low wall is located on the western side of Whitechurch Road. A narrow footpath and linear grassed open space extends along Whitechurch Road in front of this site. The eastern edge of Whitechurch Road also features a narrow footpath and boundary railing inside of which are located mature trees and small areas of grassed open space associated with a residential area. Whitechurch Stream is culverted at this location.

Whitechurch Stream emerges from the culvert outlet north of the Ford Garage site and follows a narrow course adjacent and parallel to the footpath along Whitechurch Road. It is bounded by a low concrete wall. Mature shrubs feature along the length of the stream. A derelict site (The Capri Site) is located immediately west of the stream. The eastern side of Whitechurch Road features a footpath with mature standard trees and dwellings, the curtilages of which are marked by white or brightly coloured pebble dashed walls. An existing bridge, enclosed in unsightly hoarding crosses Whitechurch Stream opposite the entrance to Grange Park.

Further north of this bridge, Whitechurch Stream is lined with mature trees and shrub vegetation and extends parallel and close to the footpath and road. The stream is culverted under the entrance to a cul de sac at Whitechurch Stream Bridge. At this point, a wider grassed open space separates Whitechurch Stream from the footpath and the road. The stream is lined with mature trees. The eastern side of Whitechurch Road features a narrow path and stone boundary wall inside of which are mature trees and shrubs.

4.1.2.5 Area 7 - Area from the Outlet of the Twin Culvert at Willbrook Lawn to the Inlet of Bridge Crossing Whitechurch Road (Ch.: 1+140.41- 1+410.43)

Whitechurch Road extends further north in a culvert under a linear open space featuring an amenity grass area. A line of existing trees extends from south to north along the western side of this open space. North of this point, Whitechurch Stream is an open winding watercourse with mature trees and shrubs on either side. A footpath and low boundary wall features on the eastern side of the stream adjacent to the road carriageway. A terrace of single storey cottages lines the east side of Whitechurch Road and further north, individual dwellings are set back from the edge of the road with front gardens featuring planting at various stages of maturity.

4.1.2.6 Area 8 Bridge Crossing Whitechurch Road Outlet to Willbrook Road Culvert Inlet (confluence with Owendoher) (Ch.: 1+420.20- 1+455)

Further north, the junction of Whitechurch Road and Ballyboden Road features larger scale commercial built development comprising a funeral home and a packaging facility. Whitechurch Stream passes under the road in a culvert thereafter extending north on the eastern side of Whitechurch Road towards the junction with Ballyboden Road. The stream, at this location, is lined with trees and shrubs at varying stages of maturity which currently screen the packaging facility from view.

4.2 Baseline Visual Amenity

Viewers with existing views of the site for the Proposed Development comprise residents of dwellings, road users, recreational users of St Enda's Park and pedestrians on Whitechurch Road. The existing visual amenity is described for 11 viewpoint locations, selected for the visual impact assessment. The viewpoint locations are indicated on Figures 1a – 1d and the baseline is outlined in **Table 7** below. The table lists the viewer types at each viewpoint and describes the nature of existing views.

Table 7: Viewpoints and Existing Visual Amenity

ID	Location	Viewer Types Represented	Description of Existing View	Visual Receptor Sensitivity
1	Public Footpath in St Enda's Park	Recreational visitors to the park	Views are available of the parkland including footpath, mature trees and woody vegetation. Whitechurch Stream is clearly visible at short range together with the banks on either side. A footpath is visible in the foreground along with a narrow stretch of path extending towards the edge of the stream.	High sensitivity – Recreational visitors enjoying quiet outdoor recreation who attain parkland views of scenic quality and value.
2	St Gatien Court	Residents of dwellings, Pedestrians and Road Users	Views are available in a southerly direction of Whitechurch Road with adjacent footpath, low concrete block wall, linear grassed open space and second footpath which runs adjacent to the boundary palisade fence at Whitechurch Stream. Mature tree and shrub vegetation extends along the banks of Whitechurch Stream within the palisade fence boundary. The concrete block wall associated with St Gatien Court inlet is clearly visible in the foreground together with some dwellings.	High sensitivity - Residents with proprietary interest in their surroundings attain views of some value at a local level.
3	St Gatien Court	Pedestrians, Road users	Views are available of the small grassed open spaces and dwellings at St Gatien Court. The white concrete culvert headwall associated with the culvert outlet of Whitechurch Stream is visible in the foreground. Palisade fencing is visible along the length of Whitechurch Road. The mature ornamental shrub vegetation which extends further north along Whitechurch Stream adjacent to Whitechurch Road is clearly visible.	High sensitivity – Pedestrians with interest in their surroundings attain views of some value.
4	Whitechurch Road, north of St Gatien Court	Residents of dwellings, Pedestrians, Road Users	Views are available of the footpath and grassed open space associated with Whitechurch Road. Boundary concrete walls and sections of palisade fencing associated with Whitechurch Stream are clearly visible. Mature ornamental shrub planting of variable quality is also visible.	High - Residents with proprietary interest in their surroundings. The available views are of limited value derived from mature ornamental planting combined with detracting built elements (concrete walls and fences).
5	Whitechurch Road, north of St Gatien Court	Residents of dwellings, Pedestrians, Road Users	Views are available of a line of mature trees and low boundary wall and footpath on the edge of Whitechurch Road. Inside this wall and tree line, a short section of existing footpath and boundary palisade fence at the edge of Whitechurch Stream is also visible.	High – Residents with proprietary interest in their surroundings attain views of some value attributed to the presence of mature trees.
6	Whitechurch Road, near Rathfarnham Ford	Pedestrians, Road Users	Views are available of Whitechurch Road and Whitechurch Stream along with vegetation on the banks of the stream. A low concrete wall separates the stream and vegetation from the footpath and road carriageway. The hoarding associated with the small bridge further north at The Capri Site is clearly visible In the distance. Distant views of mature trees are also available.	Medium - Pedestrians with interest in their surroundings. The available views are of limited value owing to some detracting built elements (concrete walls and hoardings).
7	Whitechurch Road, near Capri Site	Residents of dwellings, Pedestrians, Road Users	Views are available of Whitechurch Road and footpath and the low boundary to Whitechurch Stream along with some woody vegetation. The timber hoarding and derelict building at The Capri Site is clearly visible in the foreground. Further afield, dwellings associated with Willbrook Lawn are visible.	Medium – Residents with proprietary interest in their surroundings attain views of limited value. The views are not of any notable scenic quality, dominated by built elements and hoardings.
8	Whitechurch Road, near Willbrook Lawn culvert	Pedestrians, Road Users	Views are available of Whitechurch Road and footpath and mature woody vegetation and trees. A white concrete boundary wall is clearly visible in the foreground together with entrance and small	High – Pedestrians with interest in their surroundings attain views of some value attributed to the presence of

LANDSCAPE AND VISUAL IMPACT ASSESSMENT REPORT

ID	Location	Viewer Types Represented	Description of Existing View	Visual Receptor Sensitivity
			parking area. Dwellings are clearly visible along the banks of Whitechurch Stream. These elements are visible with the entrance and parking area in the foreground.	mature trees and grassed open space.
9	Willbrook Grove	Residents of dwellings	Views are available of the mature trees and woody vegetation associated with Whitechurch Stream with the small open space at Willbrook Grove in the foreground. The existing bridge crossing over the stream is visible as a small element in the view. Derelict structures on Whitechurch Road are partially visible in the background.	High – Residents with proprietary and continued interest in their surroundings attain views of some value attributed to the presence of mature trees and grassed open space.
10	Whitechurch Road, near Willbrook Grove	Residents of dwellings, Pedestrians, Road Users	Views are available of Whitechurch Road together with mature tree and shrub vegetation which extends along the banks of Whitechurch Stream. A low stone wall separates the stream from the footpath and road carriageway. A small concrete bridge crossing over Whitechurch Stream is clearly visible in the foreground.	High – Residents with proprietary and continued interest in their surroundings attain views of some value attributed to the presence of mature trees and woody vegetation along Whitechurch Stream as the main element in the existing view alongside other built elements.
11	Junction of Whitechurch Road and Ballyboden Road	Pedestrians and Road Users	Views are available at short range of the stone boundary wall associated with Whitechurch Stream. Mature tree and shrub vegetation is clearly visible inside the stone boundary wall which provides considerable visual screening of the packaging facility behind. The junction of Whitechurch Road and Ballyboden road is visible further afield.	Medium - Pedestrians with some interest in their surroundings. The available views are of limited value

5 MITIGATION MEASURES

Measures proposed to mitigate landscape and visual effects during construction along with a range of measures which are an intrinsic part of the Proposed Development designed to mitigate long term landscape and visual effects. These measures are described below.

5.1 Construction

A range of measures to be implemented during construction are outlined below:

- Temporary storage heaps associated with topsoil are not to exceed 1m height;
- Storage compound area will be reinstated to former use within St Enda's Park upon completion of the works;
- Vehicles exiting compound areas will be subject to wheel wash facilities or road sweepers shall be used in order to maintain clean roads;
- Any lighting used will be kept to a minimum, providing for site safety only and shall be directed into the compound and away from adjacent residential properties. Lighting at the site compound shall be shielded to avoid light spill onto adjacent properties and roads;
- Fencing used around site offices, welfare units and parking within the compound area shall be painted green in sympathy with the surrounding park landscape; and
- Prior to commencement of construction, existing trees which are to be retained will be protected with fencing to ensure no works or storage of materials occurs within the root protection zone. The tree protection works will be in accordance with BS 5837:2012 Trees in relation to construction.

5.2 Operation

A range of measures, incorporated as part of the Proposed Development, will mitigate long term landscape and visual effects and are outlined below.

5.3 Proposed Planting

New planting and seeding is proposed in St Enda's Park and at five locations along Whitechurch Road to mitigate adverse landscape and visual effects. The proposed landscape works are illustrated in Figures 2a, 2b, 2c, 2d and 2e. These measures include the following:

- Woodland planting on the left bank of Whitechurch Stream in St Enda's Park;
- Tree planting and grass seeding on Whitechurch Road, south of St Gaten Court;
- Tree planting and grass seeding on Whitechurch Road, north of St Gaten Court;
- Hedgerow planting within existing open space south of the Willbrook Lawn Culvert;
- Tree planting within the existing open space on Whitechurch Road, in the vicinity of Willbrook Lawn; and
- Mixed species hedgerow along the left bank of Whitechurch Stream together with bulb planting and grass seeding near Willbrook Grove. The proposed hedge planting will be maintained (cut) on a regular basis.

Additionally, tree planting will take place at a range of locations as directed by South Dublin County Council.. The extent of the proposed planting will be determined, having regard for the extent of tree and woody vegetation that will have to be removed to facilitate Whitechurch Stream FAS.

5.4 Proposed Structures

The Proposed Development will be designed to have regard for the existing built vernacular of the area. In this regard, built structures such as headwalls and hard defences walls will be faced in stone to match or complement that existing and levels (top wall heights) will, where possible, tie in with levels of existing retained walls.

5.5 Landscape Management

Long term landscape management and maintenance measures are recommended for implementation during the lifetime of the proposed development. These measures will include a range of arboricultural and landscape maintenance tasks for the purpose of maintaining or improving the health of existing retained vegetation and proposed planting.

6 ASSESSMENT

The assessment of effects on landscape and visual amenity are presented below for the construction phase and operational phases of the proposed flood alleviation scheme. Operational effects have been considered during year 1 and year 15 and has assumed the inclusion of a range of landscape and visual mitigation measures as being an integral part of the proposed flood alleviation scheme.

6.1 Construction Effects

Direct Impacts will arise during the construction phase as a result of a range of construction activities associated with the Whitechurch Flood Alleviation scheme. Short term effects on the surrounding landscape and visual amenity will arise from construction activities and the presence of construction plant, machinery and vehicles associated with the proposed works as follows:

- Presence of temporary works compound in a corner of the existing car park in St. Enda's Park, accessed off Sarah Curran Road;
- Tree removal, cutting, pruning and bankside maintenance;
- Debris management;
- Existing structure removal / replacement;
- Bank Improvements;
- Construction of new hard flood defences including sheet pile foundations to some of these structures;
- Construction works associated with the replacement of an existing pedestrian bridge north of Sarah Curran Avenue;
- Remediation works;
- Landscape works; and
- Traffic management measures.

These activities are expected to be short term lasting 12 months and phased over the length of the proposed works.

6.1.1 Landscape and Landscape Character

Temporary short term changes to landscape character will arise as a result of the visibility of construction activities, plant and machinery, site compound, construction vehicles and traffic management measures. These construction effects are outlined below.

6.1.1.1 St Enda's Park

Adverse effects on the landscape of St Enda's Park will arise as a result of the presence of the temporary compound and the construction activities associated with clearance of existing trees, bank raising measures, erosion protection measures and the introduction of the proposed debris trap and slipway. These effects will be limited to the north western corner of the park and will be short term (12 months).

Taking into account the adverse effects associated with the construction activities along with the short term nature of these effects, a **negligible** magnitude of impact is considered to arise to this landscape of **high** sensitivity resulting in a **minor and not significant adverse** effect.

6.1.1.2 Whitechurch Road Urban Area

Adverse effects on the urban landscape of Whitechurch Road will arise as a result of the range of construction activities referenced above. Although these will be short term (12 months), the activities will be intense for shorter periods of time (weeks) as the works progress in phases along the length of Whitechurch Stream.

The construction effects will be particularly intense on the sections of Whitechurch Road located both north and south of St Gatien Court as a result of the removal of mature woody vegetation and the construction of flood defence walls along Whitechurch Stream. Construction effects will also be intense on the section of Whitechurch Road located north of the Ford Garage as a result of the removal of mature woody vegetation, the construction of flood defence walls and the introduction of the replacement bridge. The removal of mature vegetation on the most northerly section of Whitechurch Stream, approaching the junction of Ballyboden Road will also be apparent as an intense construction activity.

The traffic management measures will generally result in adverse effects due to the increased presence of queues of vehicles on Whitechurch Road together with construction vehicles.

Taking into account the adverse effects associated with the construction activities along with the short term duration of the works overall (12 months), a **small** magnitude of impact is considered to arise to this landscape of **medium** sensitivity resulting in a **minor and not significant adverse** effect.

6.1.2 Visual Amenity

Visual impacts during construction are outlined below for each viewpoint. In each location, a description of the change in view is presented. Impacts take account of the short term duration of construction effects which are expected to last 12 months overall for the entire Whitechurch Stream FAS.

6.1.2.1 Viewpoint 1 – Public Footpath in St Enda's Park

Visitors to the park will attain short range views of the construction activities from a short section of footpath. Viewers will see construction plant and machinery associated with vegetation clearance, works on the left bank including the installation of the debris trap, erosion protection measures and slipway. This will be followed by the implementation of the proposed landscape measures on the left bank. These views will be attained from only a short section of the footpath.

Taking into account the short term duration of the works (12 months overall), a **negligible** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **minor and not significant adverse** effect.

6.1.2.2 Viewpoint 2 - St Gatien Court

Residents of dwellings and pedestrians will attain short range views of vegetation clearance and demolition of existing structures. This will be followed by construction activities associated with the proposed flood defence wall on the right bank and the culvert inlet at St Gatien Court and associated works. Construction machinery, vehicles and traffic management measures necessary for the works at this location will also be visible. This will be followed by the implementation of the proposed landscape measures.

Taking into account the short term duration of the works (12 months overall), a **negligible** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **minor and not significant adverse** effect.

6.1.2.3 Viewpoint 3 - St Gatien Court

Construction activities associated with the proposed flood defence wall on the right bank and the culvert outlet at St Gatien Court and associated works will be clearly visible along with the removal of existing structures. In the distance, the clearance of woody vegetation on the right bank downstream will be partly visible. Construction machinery, vehicles and traffic management measures necessary for the works at this location will also be visible. This will be followed by the implementation of the proposed landscape measures in the distance.

Taking into account the short term duration of the works (12 months overall), a **negligible** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **minor** and **not significant adverse** visual effect.

6.1.2.4 Viewpoint 4 - Whitechurch Road, North of St Gaten Court

Construction activities associated with vegetation clearance, removal of existing structures and the introduction of the proposed flood defence wall on the right bank and associated works will be visible. Construction machinery, vehicles and traffic management measures necessary for the works at this location will also be visible.

Taking into account the short term duration of the works (12 months overall), a **negligible** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **minor** and **not significant adverse** visual effect.

6.1.2.5 Viewpoint 5 - Whitechurch Road, North of St Gaten Court

The clearance of mature trees will be clearly visible along with the removal of the existing wall and palisade fence. This will be followed by construction activities associated with the proposed flood defence wall on the right bank and related works. Construction machinery, vehicles and traffic management measures necessary for the works at this location will also be visible. The implementation of the proposed landscape works will also be visible.

Taking into account the short term duration of the works (12 months overall), a **negligible** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **minor** and **not significant adverse** visual effect.

6.1.2.6 Viewpoint 6 - Whitechurch Road, Near Rathfarnham Ford

The clearance of vegetation and removal of the existing walls along Whitechurch Stream will be visible in the foreground and in the distance further north. This will be followed by construction works associated with the proposed flood defence walls on both sides of Whitechurch Stream and associated works. Construction machinery, vehicles and traffic management measures necessary for the works at this location will also be visible.

Taking into account the short term duration of the works (12 months overall), a **negligible** magnitude of impact is expected to arise to viewers of **medium** sensitivity resulting in a **negligible to minor** and **not significant adverse** visual effect.

6.1.2.7 Viewpoint 7 - Whitechurch Road, Near Capri Site

The clearance of vegetation and the removal of the existing walls along Whitechurch Stream will be clearly visible. This will be followed by construction works associated with the proposed flood defence walls and associated works which will be clearly visible in the foreground. Construction machinery, vehicles and traffic management measures necessary for the works at this location will also be visible.

Taking into account the short term duration of the works (12 months overall), a **negligible** magnitude of impact is expected to arise to viewers of **medium** sensitivity resulting in a **negligible to minor** and **not significant adverse** visual effect.

6.1.2.8 Viewpoint 8 - Whitechurch Road, Near Willbrook Lawn Culvert

The clearance of vegetation will be clearly visible along with the works to existing walls and railings at the Willbrook Lawn twin culvert. Construction machinery, vehicles and traffic management measures necessary for the works at this location will also be visible.

Taking into account the short term duration of the works (12 months overall), a **negligible** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **minor** and **not significant adverse** visual effect.

6.1.2.9 Viewpoint 9 – Willbrook Grove

During construction, the clearance of mature trees will be clearly visible along with some of the construction works associated with the proposed flood alleviation scheme. Taking into account the short term duration of the works (12 months overall), a **negligible** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **minor** and **not significant adverse** visual effect.

6.1.2.10 Viewpoint 10 - Whitechurch Road, Near Willbrook Grove

During construction, the clearance of mature trees will be clearly visible along the length of Whitechurch Road with some of the construction works associated with the proposed flood alleviation scheme, including the installation of the proposed railing to the top of the existing wall. Taking into account the short term duration of the works (12 months overall), a **negligible** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **minor** and **not significant adverse** visual effect.

6.1.2.11 Viewpoint 11 - Junction of Whitechurch Road and Ballyboden Road

Activities associated with the management of existing vegetation along with the required traffic management measures will be clearly visible. Taking into account the short term duration of the works (12 months overall), a **negligible** magnitude of impact is expected to arise to viewers of **medium** sensitivity resulting in a **negligible** and **not significant adverse** visual effect.

6.2 Operational Effects

Long term effects on landscape and visual amenity associated with the operational phase of the Whitechurch Stream Flood Alleviation Scheme will arise. These effects will result from the following permanent changes:

- Loss of existing vegetation including mature trees removed during construction at a number of locations along and adjacent to the banks of the Whitechurch Stream;
- Modifications to the existing banks including earthworks to raise bank levels;
- Introduction of trash screens and debris management poles;
- Replacement of existing walls and railings and the introduction of new hard defence structures. These will be present in the landscape as new walls faced in stone;
- Replacement of an existing pedestrian bridge; and
- Introduction of proposed woodland planting in St Enda's Park and proposed tree planting and grass seeding on Whitechurch Road to mitigate adverse landscape and visual effects.

6.2.1 Landscape and Landscape Character – Year 1 of Operation

Effects on landscape and landscape character are outlined below with reference to each section of the Proposed Development extending from south to north.

6.2.1.1 Area 2 - Area between St Enda's Park and Sarah Curran Bridge Inlet (Ch.: 0+510.10- 0+572.25)

Direct changes will arise to a small part of the north western corner of St Enda's Park (corner of Sarah Curran Avenue and Whitechurch Road). These effects relate to elements of the Proposed Development and are described in **Table 8** below.

Table 8: Area 2 - Area between St Enda's Park and Sarah Curran Bridge Inlet(Ch.: 0+510.10- 0+572.25)

Proposed Development	Direct changes to landscape	Effects on Landscape Character at year 1 of operation
Permanent loss of existing tree and shrub vegetation along the left bank of Whitechurch Stream. The left bank will also be subject to localised earthworks to raise the bank levels and erosion protection (rip rap) measures will be installed.	Direct removal of trees from the immediate vicinity of Whitechurch Stream. Small direct changes to the landscape adjacent to Whitechurch Stream due to earthworks required to raise bank levels and the introduction of rip rap at the edge of the river.	Vegetation losses and works to the left bank will be apparent over a very small part of the park in the immediate vicinity of the works.
Proposed debris trap and slipway access.	The new debris trap and slipway access will be introduced as new built elements into the landscape of Whitechurch Stream within St Enda's Park.	These structures will be scarcely apparent from the wider park landscape except for a very short section of the adjacent footpath.
Proposed woodland planting on the left bank of Whitechurch Stream as illustrated in Figure 2a		These beneficial changes will be apparent over a very limited area of the park in the immediate vicinity of the works.

These direct changes will occur to a very limited area within the north western corner of the park, specifically at a short section of Whitechurch Stream. Some limited small scale adverse changes to the landscape will result from the loss of trees and the introduction of new built structures.

6.2.1.1.1 Effects on Landscape Character – St Enda's Park

Effects on the wider landscape character of St Enda's Park will arise as a result of the visibility of the proposals. The proposed bank raising and erosion measures, debris trap and slipway will have influence on the surrounding park landscape in the immediate vicinity of these structures. These changes will be scarcely apparent at all from the wider open space within the park further east and south.

The absence of mature trees, removed at construction, is expected to be apparent over a limited area extent of the park in the immediate vicinity of the works. These losses will be apparent as visible changes from the adjacent footpath and also from the larger grassed open space further east within the park.

The loss or change to landscape elements within St Enda's Park will be relatively limited. Tree losses will be confined to those in the north west corner of the park and represent a small proportion of the overall tree cover in the park as a whole. The bank raising and erosion protection measures to the left bank of Whitechurch stream and the introduction of the debris trap and slipway will affect a very small part of the park and are therefore considered to amount to small scale changes to the park landscape. These direct changes will be scarcely apparent at all from the wider park apart from the tree losses which may be noticeable from within the open space to the east.

At year 1 of operation, adverse effects will be associated with the tree losses and introduction of proposed flood relief structures. Beneficial effects will be associated with the proposed planting on the left bank, albeit this will be in a juvenile state at year 1 of operation. A **negligible** magnitude of impact is considered to arise to this landscape of **high** sensitivity resulting in a **minor and not significant adverse** effect.

6.2.1.2 Whitechurch Road Urban Area

Direct changes will arise to the urban landscape of the Whitechurch Road Area, specifically in the vicinity of Whitechurch Stream immediately north of Sarah Curran Avenue and along Whitechurch Road extending north as far as the junction with Ballyboden Road. These direct changes are described for each section in the following tables extending from south to north. The effect of the main changes associated with each section on the wider landscape character is also described in the **Tables 8 -12** below.

Finally, an assessment of the overall magnitude of impact of the Proposed Development as a whole on Whitechurch Road Urban Area and significance of effect at year 1 of operation is outlined.

6.2.1.2.1 – Area 3 Area downstream of Sarah Curran Bridge outlet to Whitechurch Road Bridge Inlet (weir) (Ch.: 0+578.80- 0+688.70)

The Proposed Development within this section will result in direct changes to the urban landscape and effects on landscape character.as tabulated below.

Table 9: Area 3 - Area downstream of Sarah Curran Bridge outlet to Whitechurch Road Bridge Inlet (weir) (Ch.: 0+578.80- 0+688.70)

Proposed Development	Direct Changes to Landscape	Effects on Landscape Character at year 1 of operation
Permanent loss of existing trees and vegetation at the northern end of this section of the stream which runs parallel and very close to Whitechurch Road.	Direct removal of trees from the immediate vicinity of Whitechurch Stream.	The absence of the existing mature trees will be apparent in the immediate vicinity of the site including the curtilage of adjacent residential dwellings.
Bank protection measures on the left bank	Small direct changes to the landscape adjacent to Whitechurch Stream due to the works on the left bank	Changes will be scarcely apparent from the surrounding landscape.
Replacement of existing timber bridge with structure of similar size and in the same location. Some remedial works to existing walls may be required.	Direct change to the landscape will arise as a result of the introduction of the proposed replacement bridge.	The replacement bridge will be of similar size and in the same location as that existing. The introduction of the replacement bridge will be apparent in the immediate vicinity of the site and potentially from upper storey windows of adjacent residential dwellings.

6.2.1.2.2 Area 4 - Area from Whitechurch Road Bridge Outlet to St Gatiens Culvert inlet (Ch.: 0+700- 0+803.03)

The Proposed Development within this section will result in direct changes to the urban landscape and effects on landscape character as tabulated below.

Table 10: Area 4 - Area from Whitechurch Road Bridge Outlet to St Gatiens Culvert inlet (Ch.: 0+700- 0+803.03)

Proposed Development	Direct Changes to Landscape	Effects on Landscape Character at year 1 of operation
Mature tree and shrub vegetation losses will arise on the right bank.	Direct removal of trees from the immediate vicinity of Whitechurch Stream.	The absence of the existing mature trees will be clearly apparent as a distinct change from the curtilage of residential dwellings along Whitechurch Road and part of St Gaten Court.
Bank protection and underpinning works on the left bank will arise to protect same from erosion.	Small direct changes to the landscape adjacent to Whitechurch Stream	These measures will be apparent as small changes along the length of Whitechurch Road.
A new flood defence wall will be required along the right bank. This will include a new headwall at the culvert inlet immediately south of St Gaten Court requiring a sheet pile foundation. This new wall (including headwall) will replace the existing concrete block wall and railing at the culvert inlet at St Gaten Court and the existing palisade fence along the length of Whitechurch Road. The wall will be faced in stone in line with the existing urban character of the area. The wall will vary in height up to a maximum of 1.3m.	The new flood defence wall and associated headwall will be introduced into the urban landscape of Whitechurch Road. The proposed wall at the southern end will reduce the existing available linear open space and footpath which runs parallel to Whitechurch Stream. The wall will be faced in stone to match that locally present in the surrounding area.	The introduction of the proposed flood wall will be clearly apparent in the immediate vicinity of Whitechurch Road. The partial loss of the linear open space and footpath will also be clearly apparent. Beneficial changes will be associated with the replacement of the existing unsightly concrete wall and palisade fence with this stone faced wall.

Proposed Development	Direct Changes to Landscape	Effects on Landscape Character at year 1 of operation
Proposed tree planting, bulb planting and grass seeding as illustrated in Figure 2b	New planting introduced as beneficial direct change.	The proposed planting will be juvenile, having been recently planted and will contribute some beneficial changes along Whitechurch Road.

6.2.1.2.3 Area 5 - Area from St Gatiens Court Culvert outlet to the inlet of the Garage Culvert at Rathfarnham Ford (Ch.: 0+828.07- 0+918.61)

The Proposed Development within this section will result in direct changes to the urban landscape and effects on landscape character as tabulated below.

Table 11: Area 5 - Area from St Gatiens Court Culvert outlet to the inlet of the Garage Culvert at Rathfarnham Ford (Ch.: 0+828.07- 0+918.61)

Proposed Development	Direct Changes to Landscape	Effects on Landscape Character at year 1 of operation
Permanent loss of existing trees and shrub vegetation on the right bank	Direct removal of trees from the immediate vicinity of Whitechurch Stream.	The absence of the existing mature trees and shrub vegetation will be clearly apparent from the surrounding area including Whitechurch Road, St Gatiens Court and Willbrook Downs.
A new flood defence wall will be required along the right bank of Whitechurch Stream. This will include two new headwalls at each end, specifically at the culvert outlet immediately north of St Gatiens Court and at the Ford Garage culvert inlet both requiring sheet pile foundations. This new wall including headwalls will replace the existing concrete block wall at the culvert outlet at St Gatiens Court and the low wall and palisade fence along the length of Whitechurch Road and the existing wall at the Ford Garage culvert inlet. The wall, including headwalls will be faced in stone in line with the existing urban character of the area. The wall will vary in height from 1.2m at the southern end to 1.9m at the Ford Garage culvert inlet	The new flood defence wall will be introduced into the urban landscape of Whitechurch Road replacing an existing low concrete block wall and featuring sections of palisade fence. The wall will be faced in stone to match that locally present in the surrounding area.	The introduction of the proposed flood wall, including headwalls will be clearly apparent in the immediate vicinity of Whitechurch Road as it will replace a structure of lower height. Beneficial changes will be associated with this due to it replacing an existing low concrete block wall and existing sections of unsightly palisade fence.
Introduction of a trash screen at the Ford Garage culvert inlet.	The trash screen will be introduced as a new element within the northern end of this section of Whitechurch Stream.	The trash screen located within the Stream will be scarcely apparent from the surrounding landscape except at very short range.
Proposed tree planting, bulb planting and grass seeding as illustrated in Figure 2c	New planting introduced as beneficial direct change.	The proposed planting will be juvenile, having been recently planted and will contribute some beneficial changes along Whitechurch Road.

6.2.1.2.4 Area 6 - Area from Garage Culvert at Rathfarnham Ford to Willbrook Lawn Twin Culvert Inlet (Ch.: 0+983.91- 1+132.91)

The Proposed Development within this section will result in direct changes to the urban landscape and effects on landscape character as tabulated below.

Table 12: Area 6 - Area from Garage Culvert at Rathfarnham Ford to Willbrook Lawn Twin Culvert Inlet (Ch.: 0+983.91- 1+132.91)

Proposed Development	Direct Changes to Landscape	Effects on Landscape Character at year 1 of operation
New railing and replacement concrete plinth at culvert opening adjacent to the Ford Garage	New structure introduced as small element into the urban landscape of Whitechurch Road.	This measure will be apparent as a very small change.
A new flood defence wall will be required along both left and right bank of Whitechurch Stream extending downstream from the Ford Garage to the Capri Site. These walls will tie into a new headwall at the Ford Garage culvert outlet requiring sheet piling at this location. The wall along Whitechurch Road will be 1.2m height above path level and will be faced in stone.	These will be introduced as new structures into the urban landscape of Whitechurch Road	The introduction of the proposed flood wall will be clearly apparent in the immediate vicinity of Whitechurch Road as it will replace a structure of lower height. The replacement wall on the left bank will potentially be apparent from the rear of dwellings along Willbrook Lawn.
The existing wall on the right bank of Whitechurch Stream, north of the existing bridge at the Capri Site will be retained and faced with stone.	Remedial works and new stone facing as new element introduced into the urban landscape.	Some beneficial effects derived from the works including new stone facing which will be apparent along Whitechurch Road and Grange Park.
A new wall and railing, measuring 600mm above ground level, will replace the existing railing on the left bank of Whitechurch Stream extending north from the Capri Site to tie into the bridge parapet at the parking area at Whitechurch Stream Bridge.	New structures including wall and railing introduced into the urban landscape.	These changes will be apparent from a very limited area surrounding the works including the rear of dwellings along Willbrook Lawn.
Permanent loss of existing trees and woody vegetation.	Direct removal of trees from the immediate vicinity of Whitechurch Stream.	The absence of the existing mature trees and shrub vegetation will be clearly apparent as a distinct change from the surrounding area including Whitechurch Road, Grange Park and Willbrook Lawn.
The metal railing at the parking area off Whitechurch Stream Bridge will be replaced with a low flood defence wall measuring 400mm which will be faced with stone.	Very small scale direct changes to the urban landscape, namely a parking area, associated with these structures.	These measures will be apparent as small changes with limited influence on the surrounding urban landscape.
Proposed Beech hedgerow within existing open space south of the Willbrook Lawn Twin culvert as illustrated in Figure 2d.	New planting introduced as beneficial direct change.	The proposed planting will be juvenile, having been recently planted and will contribute some beneficial changes along Whitechurch Road.

6.2.1.2.5 Area 7 - Area from the outlet of the Twin Culvert at Willbrook Lawn to the Inlet of Bridge crossing Whitechurch Road (Ch.: 1+140.41- 1+410.43)

The Proposed Development within this section will result in direct changes to the urban landscape and effects on landscape character as tabulated below.

Table 13: Area 7 - Area from the outlet of the Twin Culvert at Willbrook Lawn to the Inlet of Bridge crossing Whitechurch Road (Ch.: 1+140.41- 1+410.43)

Proposed Development	Direct Changes to Landscape	Effects on Landscape Character at year 1 of operation
A short section of wall is proposed around the dual culvert inlet to tie into bridge parapet and existing boundary wall at the Willbrook Lawn Culvert.	Some very limited changes arising from the introduction of this structure.	The additional wall will be apparent as a very small change from the surrounding urban landscape in the vicinity of the parking area and adjacent open space.
Permanent removal of existing trees and vegetation from both sides of Whitechurch Stream will be required.	Direct removal of trees from the immediate vicinity of Whitechurch Stream.	The absence of the existing mature trees will be apparent in the immediate vicinity of Whitechurch Road.
Localised earthworks to raise levels on the left bank and erosion protection (rip rap) will be required. Permanent supports to be provided to decked structures along the bank.	Direct changes to the landscape adjacent and west of Whitechurch Stream.	These measures will be apparent as small changes along the length of Whitechurch Road.
Fence (wire mesh) measuring 1.2m in height above footpath to be installed along the left bank	Direct changes to the landscape adjacent and west of Whitechurch Stream.	These measures will be apparent as small scale changes along Willbrook Grove.
Proposed tree planting within the existing open space on Whitechurch Road, in the vicinity of Willbrook Lawn as illustrated in Figure 2d	New planting introduced as beneficial direct change.	The proposed planting will be juvenile, having been recently planted and will contribute some beneficial changes along Whitechurch Road.
Trash screen to be installed upstream of bridge culvert at the bridge crossing on Whitechurch Road.	The trash screen will be introduced as a new element into Whitechurch Stream at the northern end of this section.	The trash screen located within Whitechurch Stream will be scarcely apparent from the surrounding urban landscape except at very short range.
Existing walls along the right bank of Whitechurch Stream to be retained. Railing to be installed to top of wall to a height of 1.2m above the footpath.	New railing introduced on top of existing wall.	The proposed railing will be apparent on the existing wall along the length of Whitechurch Road from the culvert outlet at Willbrook Lawn to the bridge crossing at Whitechurch Road.
Proposed mixed species hedgerow together with bulb planting and grass seeding along the left bank of Whitechurch Stream near Willbrook Grove, as illustrated in Figure 2e.	New planting introduced as beneficial direct change.	The proposed planting will be juvenile, having been recently planted and will contribute some beneficial changes along Whitechurch Road.

6.2.1.2.6 Area 8 - Bridge crossing Whitechurch Road outlet to Willbrook Road Culvert inlet (confluence with Owendoher) (Ch.: 1+420.20- 1+455)

The Proposed Development within this section will result in direct changes to the urban landscape and effects on landscape character as tabulated below.

Table 14: Area 8 - Bridge crossing Whitechurch Road outlet to Willbrook Road Culvert inlet (confluence with Owendoher) (Ch.: 1+420.20- 1+455)

Proposed Development	Direct Changes to Landscape	Effects on Landscape Character at year 1 of operation
Pruning of existing trees and vegetation on both sides of Whitechurch Stream between to reduce risk of blockage will be required.	No direct removal of trees from the immediate vicinity of Whitechurch Stream.	The pruned vegetation will be apparent as a very small change in the immediate vicinity of Whitechurch Road and at the junction of Ballyboden Road.

6.2.1.2.7 Effects on Landscape Character– Whitechurch Road Urban Area

Effects on the wider landscape character of the Whitechurch Road Urban Area will arise during year 1 of operation as a result of the visibility of the proposed changes described in the tables above.

Adverse effects will be associated primarily with the tree and shrub vegetation losses in particular. Some adverse effects will be associated with the introduction of replacement structures including flood defence walls and a bridge because these will confer a more built up character to the area compared with that existing.

Beneficial effects to the local landscape of Whitechurch Road are anticipated to arise as a result of the proposed flood defence walls, where these are faced in stone and are due to replace concrete structures and palisade fencing in run down condition. The beneficial effects will be derived from the use of quality materials such as stone which is sympathetic with the local urban character.

Beneficial effects will be derived from the newly introduced tree planting, hedgerow planting, bulb planting and grass seeding with trees in a juvenile state during year 1 of operation. The changes will bring about improvements to the existing landscape of Whitechurch Road which is currently somewhat unkempt and of poor quality.

Taking into account the beneficial effects balanced with the adverse effects overall, a **medium** magnitude of impact is considered to arise to this landscape of **medium** sensitivity resulting in a **moderate and not significant beneficial** effect.

6.2.2 Visual Amenity – Year 1 of Operation

Visual effects will be experienced by a range of viewer types at a number of viewpoint locations as a result of the Proposed Development at year 1 of operation. These are discussed below.

6.2.2.1 Viewpoint 1 - Public Footpath in St Enda's Park

At year 1 of operation, recreational visitors to the park, on foot along a footpath, will see the proposed debris trap within Whitechurch Stream and slipway at short range. The localised increase in bank levels will be scarcely noticeable. The proposed planting will be visible at short range along with the absence of vegetation removed during construction. The changes overall will be seen in the context of the surrounding parkland in the immediate vicinity and would be noticeable as a change to the key characteristics of the baseline view. A **small** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **minor to moderate** and **not significant adverse** visual effect at year 1 of operation.

6.2.2.2 Viewpoint 2 - St Gatien Court

At year 1 of operation, the absence of mature woody vegetation, removed from the right bank during construction, will be clearly visible as an adverse change at short range. Beneficial changes will result from the removal of a low concrete block wall along and close to the edge Whitechurch Road. The proposed flood relief wall, faced in stone will be clearly visible as an improvement on the boundary palisade fence and concrete block headwall at St Gatien Court culvert inlet which it will replace. Newly established tree planting and grass seeding will be visible as a beneficial change albeit at a juvenile stage of maturity.

Taking into account the permanent and long term duration of these changes, a **medium** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **moderate** and **not significant beneficial** visual effect at year 1 of operation. This takes account of a balance between the adverse and beneficial effects associated with particular aspects of the proposed change in view.

6.2.2.3 Viewpoint 3 - St Gatien Court

At year 1 of operation, the absence of mature woody vegetation, removed from the right bank during construction, will be clearly visible as an adverse change to the existing view. The proposed flood defence headwall, faced in stone will replace the existing white concrete culvert headwall at St Gatien Court culvert outlet will be clearly visible as a beneficial change. The stone wall will also be visible along the length of Whitechurch Road replacing an existing wall and sections of palisade fencing. Newly established tree planting and grass seeding will be visible as a small element in the distance as a beneficial change albeit at a juvenile stage of maturity.

Taking into account the permanent and long term duration of these changes, a **medium** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **moderate** and **not significant beneficial** visual effect at year 1 of operation. This takes account of a balance between the adverse and beneficial effects associated with particular aspects of the proposed change in view.

6.2.2.4 Viewpoint 4 - Whitechurch Road, North of St Gaten Court

At year 1, some loss of ornamental woody vegetation, removed during construction, will be visible at short range as an adverse change. The viewer will also see the proposed flood defence wall, faced in stone which will replace the low concrete wall and sections of palisade fence. The proposed wall measuring 1.2m minimum in height at this location and faced in stone will screen an existing concrete wall on the left bank of Whitechurch Stream at this location. Some limited adverse effects will be associated with the vegetation losses however these will be balanced by the beneficial effects associated with the proposed flood defence wall faced in stone which will replace the existing low concrete wall and sections of palisade fence along the right bank of Whitechurch Stream and will also screen the concrete wall on the left bank of Whitechurch Stream, currently visible in the existing view.

Taking into account the permanent and long term duration of these changes, a **small to medium** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **moderate** and **not significant beneficial** visual effect. This takes account of a balance between the adverse and beneficial effects associated with particular aspects of the proposed change in view.

6.2.2.5 Viewpoint 5 - Whitechurch Road, North of St Gaten Court

At year 1 of operation, the absence of mature trees, removed during construction, will be clearly visible at short range as an adverse change to the view. The absence of the low stone wall along the edge of the road will be clearly visible. The replacement of the existing palisade fence with a flood defence wall also faced in stone and measuring up to 1.9m at this location will also be clearly visible. This will be seen as a beneficial change as it will replace a palisade fence considered to be unsightly. Newly established tree planting and grass seeding will be visible as a beneficial change albeit in a juvenile stage of maturity.

Taking into account the permanent and long term duration of these changes, a **medium** magnitude of impact is considered to arise. Thus viewers of **high** sensitivity will experience a **moderate** and **not significant beneficial** visual effect. This takes account of a balance between the adverse and beneficial effects associated with particular aspects of the proposed change in view.

6.2.2.6 Viewpoint 6 - Whitechurch Road, Near Rathfarnham Ford

At year 1 of operation, the proposed flood defence walls, faced in stone, will be clearly visible in the foreground as taller structures than the existing low concrete walls which will be replaced. The proposed walls will partly obstruct the distant views along Whitechurch Road. The vegetation losses, including mature trees in the distance will be apparent as an adverse change to the view. Both adverse and beneficial visual effects will be associated with the increased wall height which will partially screen views of the Whitechurch Streetscape and also the derelict Capri Site and hoarding. Beneficial effects will be associated with the stone finish.

Taking into account the permanent and long term duration of these changes, a **medium** magnitude of impact is expected to arise to viewers of **medium** sensitivity resulting in a **moderate** and **not significant beneficial** visual effect. This takes account of a balance between the adverse and beneficial effects associated with particular aspects of the proposed change in view.

6.2.2.7 Viewpoint 7 - Whitechurch Road, Near Capri Site

At year 1 of operation, the proposed flood defence wall faced in stone will be clearly visible as a taller structure measuring approximately 1.2m height replacing an existing low wall. The proposed wall, faced in stone will partly screen dwellings and the derelict building at the Capri Site in the existing view. Beneficial effects will be derived from the stone facing associated with this wall and the visual screening of derelict structures.

Taking into account the permanent and long term duration of these changes, a **medium** magnitude of impact is expected to arise to viewers of **medium** sensitivity resulting in a **moderate** and **not significant beneficial** visual effect.

6.2.2.8 Viewpoint 8 - Whitechurch Road, Near Willbrook Lawn culvert

At year 1 of operation, tree and vegetation losses on both sides of Whitechurch Stream will be clearly visible at short range as an adverse change to the existing view. Beneficial changes will result from the proposed stone cladding to existing wall along Whitechurch Road and a low wall similarly faced in stone topped with railing at the parking area at Whitechurch Stream Bridge together with proposed hedgerow planting. The proposed new stone finish to the existing wall and railing will present as an improvement to the existing view due to the more unified and coherent use of built materials which will replace that existing.

Taking into account the permanent and long term duration of these changes, a **medium** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **moderate to major** and not **significant beneficial** visual effect. This takes account of a balance between the adverse and beneficial effects associated with particular aspects of the proposed change in view.

6.2.2.9 Viewpoint 9 – Willbrook Grove

At year 1 of operation, the absence of mature tree and shrub vegetation along the length of Whitechurch Stream will be clearly visible as an adverse change to the existing view. These losses will open up views of Whitechurch Road with busy traffic and derelict buildings in the background. Proposed planting in the foreground will be clearly visible against the proposed fence on the bank of Whitechurch Stream. The planting, in a juvenile state, will result in some very limited beneficial effects during year 1 of operation.

Taking into account the permanent and long term duration of these changes, a **large** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **major to substantial** and **significant adverse** visual effect.

6.2.2.10 Viewpoint 10 - Whitechurch Road, Near Willbrook Grove

At year 1 of operation, the absence of mature tree and shrub vegetation along the length of Whitechurch Stream will be clearly visible as an adverse change. The proposed railing on top of the existing wall will also be visible. The tree losses will give rise to a large change to key characteristics of the existing view. An overall **large** magnitude of impact is considered to arise to viewers of **high** sensitivity resulting in a **major to substantial** and **significant adverse** visual effect.

6.2.2.11 Viewpoint 11 - Junction of Whitechurch Road and Ballyboden Road

At year 1 of operation, the reduction of mature woody vegetation (due to the proposed pruning / vegetation cutting works) will be visible with the road junction (Whitechurch and Ballyboden Roads) in the foreground. The reduction of the vegetation present will partially open up views towards an industrial building (packaging facility) on the other side of Whitechurch Stream. A **small** magnitude of impact is expected to arise to viewers of **medium** sensitivity resulting in a **minor** and **not significant adverse** visual effect.

6.3 Residual Effects

Residual effects on landscape and visual amenity will arise as a result of the Proposed Development. These effects have been assessed with mitigation planting in place at year 15 of operation. The residual effects therefore are the effects remaining after the mitigation planting has reached some level of maturity at year 15 thereby resulting in a further integration of the Proposed Development into the landscape and visual baseline. These residual effects are discussed below as follows.

6.3.1 Landscape Character – Year 15 of Operation

6.3.1.1 St Enda's Park

At year 15, the debris trap and slipway will continue to be apparent in the foreground against the backdrop of the maturing woodland vegetation. These structures over time and with weathering may result in reduced effects on surrounding landscape character. A **negligible** magnitude of impact is considered to arise to this landscape of **high** sensitivity resulting in a **minor and not significant adverse** effect.

6.3.1.2 Whitechurch Road Urban Area

The proposed planting at three locations along Whitechurch Road will have established and have reached a level of maturity at year 15. The planting will be of a size that contributes to the enhancement of the urban landscape especially both north and south of St Gatien Court. The tree planting will soften the urban landscape and will restore some of the original vegetative character previously lost during construction. Taking into account the beneficial effects associated with the maturing planting at year 15, a **medium** magnitude of impact is considered to arise to this landscape of **medium** sensitivity resulting in a **moderate** and **significant beneficial** effect.

6.3.2 Visual Amenity – Year 15 of Operation

The proposed planting will have established and have reached a level of maturity at year 15 and will result in further improvements to existing views attained at four of the viewpoint locations. These are discussed below.

6.3.2.1 Viewpoint 1 - Public Footpath in St Enda's Park

At year 15, the proposed woodland will have advanced in growth and will contribute some beneficial effects to the proposed view. The proposed flood relief structures will however continue to be clearly visible at short range in the foreground in front of the mature planting. A **small** magnitude of impact will continue to be experienced by viewers of **high** sensitivity resulting in a **minor to moderate** and **not significant** adverse visual effect at year 15 of operation.

6.3.2.2 Viewpoint 2 - St Gatien Court

At year 15, the proposed mature trees will result in some further beneficial changes in the view. A **medium** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **moderate to major** and **significant beneficial** visual effect at year 15 of operation. This is due to the presence of the maturing tree planting and the replacement of the palisade fence with a stone boundary wall.

6.3.2.3 Viewpoint 3 - St Gatien Court

At year 15, the proposed tree planting further north will have matured and will be a more visible element in the distance resulting in some further improvements to the view. A **medium** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **moderate to major** and **significant beneficial** visual effect.

6.3.2.4 Viewpoint 5 - Whitechurch Road, North of St Gatien Court

At year 15, the proposed tree planting and grass seeding will have matured. The proposed trees, at this level of maturity, will result in a further improvement in the view at year 15. Thus viewers of **high** sensitivity will experience a **medium** magnitude of impact resulting in a **moderate to major** and **significant beneficial** visual effect.

6.3.2.5 Viewpoint 8 Whitechurch Road, Near Willbrook Lawn culvert

At year 15, the proposed hedgerow will have matured and will result in a further improvement in the view at this location. Thus viewers of **high** sensitivity will experience a **medium** magnitude of impact resulting in a **moderate to major** and **significant beneficial** visual effect.

6.3.2.6 Viewpoint 9 Willbrook Grove

At year 15, the proposed planting will have matured resulting in a further improvement in the view at year 15. The proposed hedgerow, bulb planting and grass seeding will enhance the view and also provide screening of the derelict structures and traffic along Whitechurch Road. Thus viewers of **high** sensitivity will experience a **medium** magnitude of impact resulting in a **moderate** and **not significant adverse** visual effect.

6.3.2.7 Viewpoint 10 Whitechurch Road, Near Willbrook Grove

At year 15, the proposed planting at Willbrook Grove will have matured and will be partially visible in the background with the proposed new railing on the existing wall in the foreground on Whitechurch Road

resulting in some improvement in the view. Thus viewers of **high** sensitivity will experience a **medium** magnitude of impact resulting in a **moderate to major** and **not significant adverse** visual effect.

6.3.2.8 Viewpoints 4, 6, 7, and 11

In the case of all the remaining viewpoints in the assessment, these do not feature the proposed planting and thus, the assessment of effects at year 15 of operation is considered to be similar to that at year 1 of operation.

6.4 Effects on Planning Policy and Designations

The site for the proposed Whitechurch Stream FAS is located within an area zoned as **Objective RES** which states '*to protect and improve residential amenity*'. In regard to this policy objective, the Proposed Development will result in some deterioration in residential amenity as a result of the mature vegetation losses. Some improvements in residential amenity will result from the introduction of proposed structures where these replace existing unsightly concrete walls and palisade fences and the proposed tree planting. In this regard, the Proposed Development is not entirely in conflict with Objective RES.

Some of the proposed works, specifically loss of mature trees, associated with the proposed Whitechurch Stream FAS will affect a small area of open space in St Enda's Park and small areas of linear open space along Whitechurch Road. These areas of open space within the Park and on Whitechurch Road adjacent to Willbrook Lawn are zoned as **Objective OS** – '*To preserve and provide for open space and recreational amenities*'. A deterioration in recreational amenity to the particular areas zoned as objective RES will be attributed to the tree losses. These adverse effects, whilst contrary to the stated policy objective, will be offset in part by the proposed tree planting as this matures along with built elements where these replace concrete structures and unsightly hoardings.

6.5 Cumulative Effects

The cumulative assessment considered the proposed redevelopment of the Capri Site along with Whitechurch Stream flood alleviation scheme. The proposed development at the Capri Site comprises the demolition of an existing dwelling and replacement with 4 new dwellings, new entrance and landscape proposals including tree planting and grass seeding.

Cumulative effects on landscape, landscape character and visual amenity will arise as a result of the proposed development at the Capri Site and the proposed Whitechurch Stream flood relief scheme. These are described below.

6.5.1 Landscape and Landscape Character

6.5.1.1 St Enda's Park

Cumulative effects on St Enda's Park resulting from the proposals at the Capri Site and that associated with Whitechurch Stream flood relief scheme are not predicted to arise. The proposals at the Capri Site would result in no physical change to the landscape of St Enda's Park. In addition, the Capri Site proposals will not be apparent from the landscape of St Enda's Park and therefore, no cumulative effect on the character of the park landscape will arise.

6.5.1.2 Whitechurch Road Urban Area

Cumulative effects will arise to the urban landscape of Whitechurch Road. The proposals at the Capri Site would result in the removal of some existing trees, existing dwelling and hoardings. These changes, along with the proposed changes associated with Whitechurch Stream flood relief scheme, will result in cumulative physical changes to the urban landscape of Whitechurch Road.

Cumulative effects on the character of the Whitechurch Road Urban Area will also arise. Adverse effects will result from the combined vegetation losses due to the Capri Site development and Whitechurch Stream flood relief scheme.

Beneficial effects will result from the removal of derelict structures and replacement with new dwellings and proposed soft landscape at the Capri Site along with the flood defence wall faced in stone and proposed planting along Whitechurch Road. These beneficial changes are of considerable scale on the stretch of Whitechurch Road in the immediate vicinity of the Capri Site.

Taking into account the entire Whitechurch Road Urban Area, considered to be of **medium** sensitivity overall, a **small** magnitude of cumulative impact is expected to arise resulting in a **minor** and **not significant beneficial** cumulative effect.

6.5.2 Visual Amenity

Cumulative visual changes resulting from the proposals at the Capri Site and that associated with Whitechurch Stream flood relief scheme will arise at specific viewpoints where viewers will attain views of both developments. These are discussed below as follows.

6.5.2.1 Viewpoint 6 - Whitechurch Road, Near Rathfarnham Ford

The replacement of derelict structures and hoardings at the Capri Site with new dwellings and proposed tree planting and grass seeding along with boundary treatment to tie in with proposed flood defence walls faced in stone will result in a **medium** magnitude of cumulative impact to **medium** sensitivity viewers. A **moderate** and **not significant beneficial** cumulative visual effects at year 1 of operation. This level of effect will arise also at year 15.

6.5.2.2 Viewpoint 7 - Whitechurch Road, Near Capri Site

The proposed improvements at the Capri Site will be clearly visible along with the stone flood defence walls associated with Whitechurch Stream flood alleviation scheme. A **large** magnitude of cumulative change is predicted to arise to viewers of **medium** sensitivity resulting in a **moderate to major** and **significant beneficial** cumulative visual effect at year 1 of operation. This level of effect will arise also at year 15.

6.5.2.3 Viewpoint 8 - Whitechurch Road, Near Willbrook Lawn culvert

The proposed improvements at the Capri Site will be visible in the distance along with the proposed change at The Willbrook Lawn Twin Culvert in the foreground. A **small** magnitude of cumulative change is predicted to arise to viewers of **high** sensitivity resulting in a **minor** and **not significant beneficial** cumulative visual effect at year 1 of operation. The development at the Capri site will not be visible at year 15.

7 CONCLUSION

The Whitechurch Stream FAS comprises a series of flood alleviation measures proposed along the banks of the Whitechurch Stream extending from the northern end of St Enda's Park along Whitechurch Road as far as the junction with Ballyboden Road. The Proposed Development will result in direct changes to the landscape of the north western corner of St Enda's Park including loss of wooded vegetation and the introduction of proposed structures (debris trap and slipway). The Proposed Development will also result in direct changes to the landscape of Whitechurch Road due to the loss of mature trees and the introduction of the proposed structures including flood defence walls faced in stone.

The Proposed Development also includes for the provision of replacement tree planting and soft landscape proposals within St Enda's Park and at five locations on Whitechurch Road that are an integral part of the Proposed Development.

7.1 Effects on Landscape Character

Changes to the character of the park landscape at St Enda's Park will be fairly limited. Tree losses will be confined to those in the north west corner of the park and represent a small proportion of the overall tree cover in the park as a whole. The earthworks changes to the left bank of Whitechurch stream and the introduction of the debris trap and slipway are considered to amount to small scale change to the watercourse as a landscape element in the park. Woodland planting is also proposed on the left bank. Significant effects on landscape character are not considered to arise.

Effects on the wider landscape character of the Whitechurch Road Urban Area will arise as a result of the visibility of the mature tree and vegetation losses and the proposed flood relief structures. Effects of a more beneficial nature will be associated with proposed structures faced in stone and the proposed soft landscape treatment at 5 locations along Whitechurch Road. An overall not significant beneficial effect is predicted to arise to the character of the Whitechurch Road urban area at year one. At year 15 with maturing planting associated with the proposed scheme, moderate and significant beneficial effects are predicted to arise.

7.2 Effects on Visual Amenity

Adverse visual effects will arise to recreational walkers on the footpath within St Enda's Park adjacent to the Proposed Development due to the availability of views of tree losses and proposed flood relief structures at very short range. These effects are not predicted to be significant.

On Whitechurch Road during year 1 of operation, significant adverse visual effects are expected to arise at viewpoints 9 and 10 due largely to the loss of mature trees. Beneficial visual effects will be associated with the replacement of existing structures and palisade fencing with structures, including flood defence walls faced in stone at viewpoints 2 – 8. Some of these will also benefit from the proposed planting.

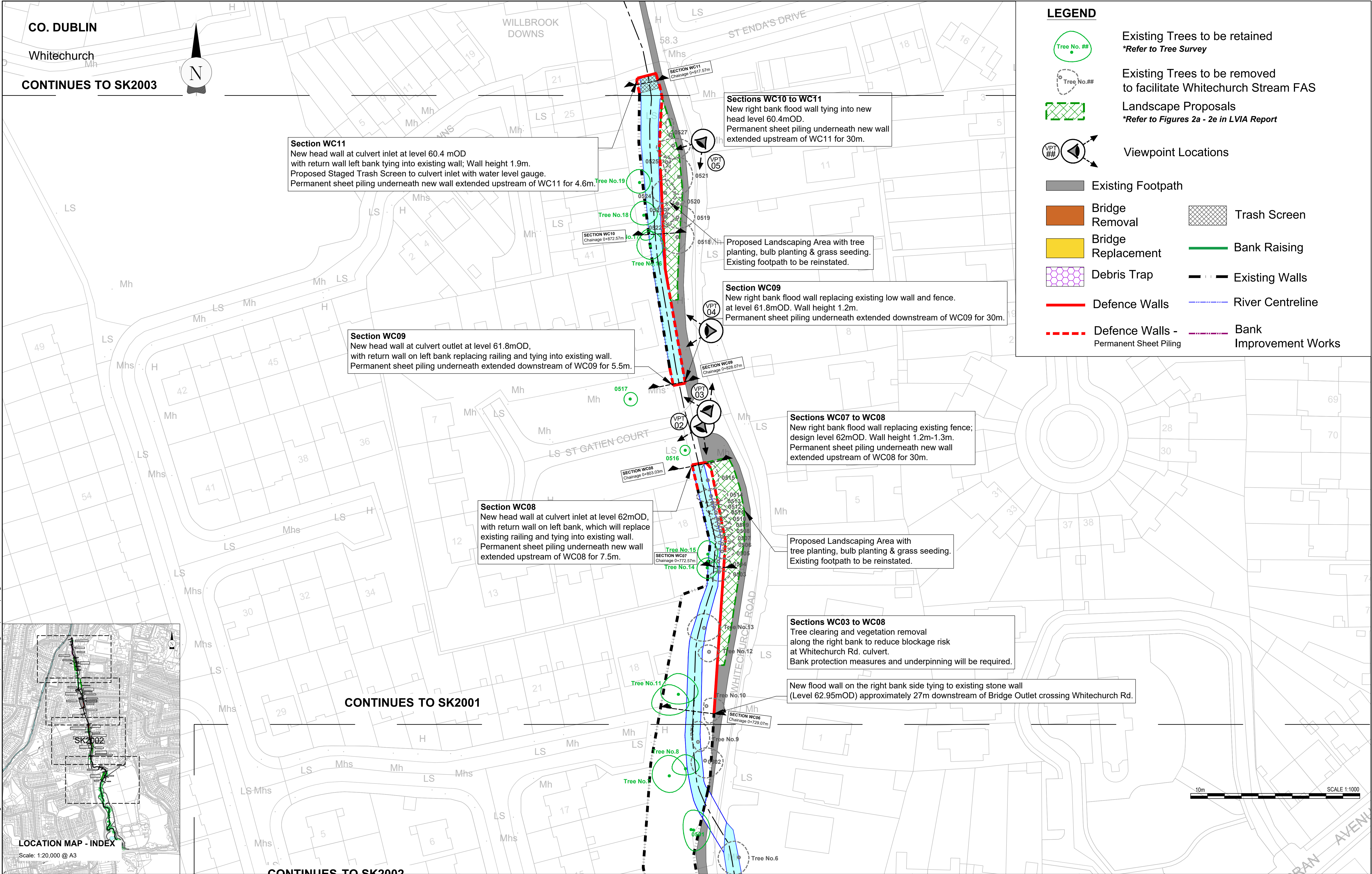
During year 15 significant beneficial visual effects will arise at viewpoints 2, 3, 5 and 8. At viewpoints 9 and 10, not significant adverse visual effects will arise.

7.3 Cumulative Effects

Cumulative effects on landscape, landscape character and visual amenity will arise as a result of the proposed development at the Capri Site and the proposed Whitechurch Stream flood relief scheme. These are expected to be beneficial owing to the improvements in the urban landscape of Whitechurch Road and improvements to existing views that would result from the proposals overall.

Appendix A

Figures 1a-1d and 2a-2e



LEGEND

- Existing Trees to be retained
**Refer to Tree Survey*
- Existing Trees to be removed
to facilitate Whitechurch Stream FAS
- Landscape Proposals
**Refer to Figures 2a - 2e in LVIA Report*
- Viewpoint Locations
- Existing Footpath
- Bridge Removal
- Bridge Replacement
- Debris Trap
- Defence Walls
- Defence Walls - Permanent Sheet Piling
- Trash Screen
- Bank Raising
- Existing Walls
- River Centreline
- Bank Improvement Works

R:\MDW0825 - Whitechurch Flood Alleviation\B.0 Drawings\SKMDW0825-RPS-00-XX-DR-L-SK2000 Landscape & VIA Figures (Set of 4).dwg

Client



Comhairle Contae
Átha Cliath Theas
South Dublin County Council



OPW

Oifig na
nOibreacha Poiblí
Office of Public Works

(i) Hard copies, dwf and pdf will form a controlled issue of the drawing. All other formats (dwp etc.) are deemed to be an uncontrolled issue and any work carried out based on these files is at the recipients own risk. RPS will not accept any responsibility for any errors from the use of these files, either by human error by the recipient, listing of the un-dimensioned measurements, compatibility with the recipients software, and any errors arising when these files are used to aid the recipients drawing production, or setting out on site.

(ii) DO NOT SCALE, use figured dimensions only.

(iii) This drawing is the property of RPS, it is a project confidential classified document. It must not be copied used or its contents divulged without prior written consent. The needs and expectations of client and RPS must be considered when working with this drawing.

(iv) Information including topographical survey, geotechnical investigation and utility detail used in the design have been provided by others.

(v) All Levels refer to Ordnance Survey Datum, Malin Head.

Rev	Date	Drawn By	Amendment / Issue	App
P01	26/06/20	DB	Issued for Information	MD

Model File Identifier



West Pier
Business Campus
Dun Laoghaire
Co. Dublin A96 N6T7

T +353 (0)1 4882900
W www.rpsgroup.com/ireland
E ireland@rpsgroup.com

Scale 1:500 @ A1
1:1,000 @ A3
Created on 13/11/2019
Sheets 02 of 04

Project WHITECHURCH STREAM FLOOD ALLEVIATION SCHEME
Title LANDSCAPE & VISUAL IMPACT ASSESSMENT (LVIA)
Figure 1b

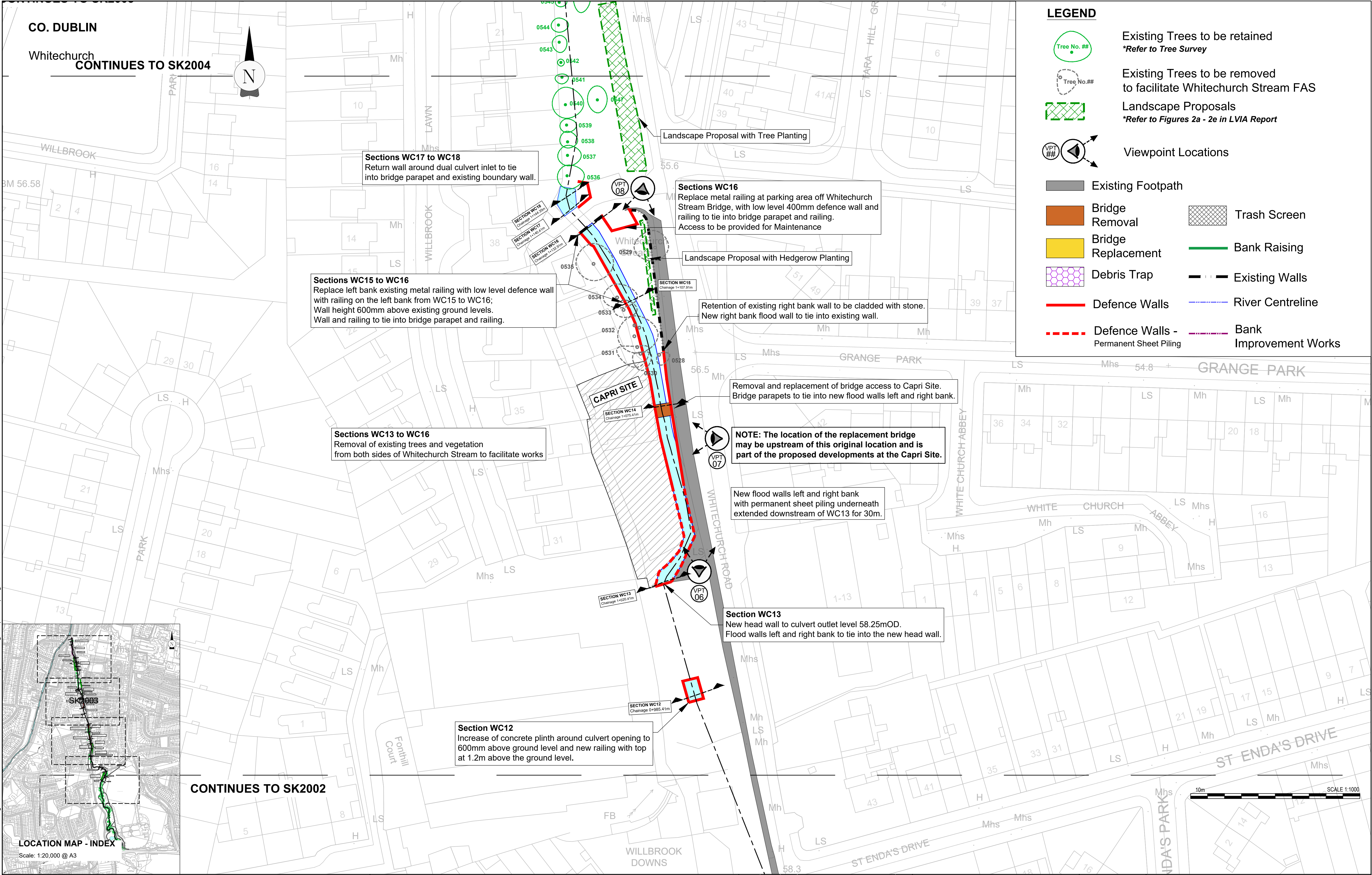
File Identifier MDW0825-RPS-00-XX-DR-C-SK2001 to SK2004

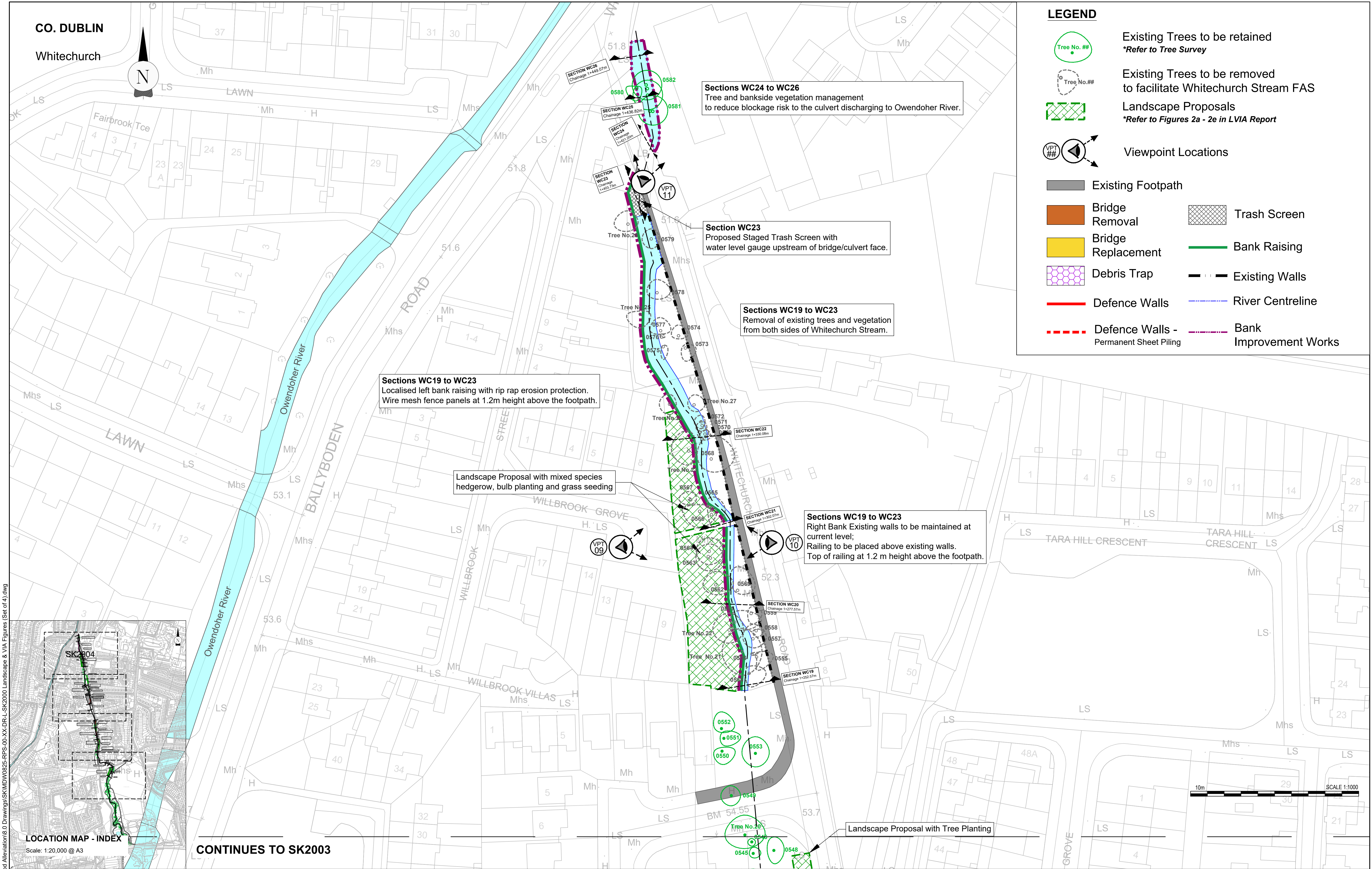
Drawing No. SK2002

Status S2

Rev P01

Ordnance Survey Ireland Licence No. EN0005019 © Ordnance Survey Ireland/Government of Ireland





LEGEND

Existing Trees to be retained
**Refer to Tree Survey*

Existing Trees to be removed
to facilitate Whitechurch Stream FAS

Landscape Proposals
**Refer to Figures 2a - 2e in LVIA Report*

Viewpoint Locations

Existing Footpath

Bridge Removal

Bridge Replacement

Debris Trap

Defence Walls

Defence Walls - Permanent Sheet Piling

Trash Screen

Bank Raising

Existing Walls

River Centreline

Bank Improvement Works


R:\MDW0825 - Whitechurch Flood Alleviation\B.0 Drawings\SKMDW0825-RPS-00-XX-DR-L-SK2000 Landscape & VIA Figures (Set of 4).dwg

LOCATION MAP - INDEX
Scale: 1:20,000 @ A3

CONTINUES TO SK2003

**Comhairle Contae
Átha Cliath Theas
South Dublin County Council**

OPW
Oifig na
nOibreacha Poiblí
Office of Public Works

General Notes				(iii) This drawing is the property of RPS, it is a project confidential classified document. It must not be copied used or its contents divulged without prior written consent. The needs and expectations of client and RPS must be considered when working with this drawing.				<div><div><div><div>MAKING COMPLEX EASY</div><div>West Pier Business Campus Dun Laoghaire Co. Dublin A96 N6T7</div><div>T +353 (0)1 4882900 W www.rpsgroup.com/ireland E ireland@rpsgroup.com</div></div></div></div>				Scale 1:500 @ A1 1:1,000 @ A3		Project WHITECHURCH STREAM FLOOD ALLEVIATION SCHEME													
(i) Hard copies, dwf and pdf will form a controlled issue of the drawing. All other formats (dwg etc.) are deemed to be an uncontrolled issue and any work carried out based on these files is at the recipients own risk. RPS will not accept any responsibility for any errors from the use of these files, either by human error by the recipient, listing of the un-dimensioned measurements, compatibility with the recipients software, and any errors arising when these files are used to aid the recipients drawing production, or setting out on site.				(iv) Information including topographical survey, geotechnical investigation and utility detail used in the design have been provided by others.				P01		26/06/20		DB PT		Issued for Information		MD		Created on 13/11/2019		Title LANDSCAPE & VISUAL IMPACT ASSESSMENT (LVIA) Figure 1d							
(ii) DO NOT SCALE, use figured dimensions only.				(v) All Levels refer to Ordnance Survey Datum, Malin Head.				Rev		Date		Dwg Cmk		Amendment / Issue		App		Model File Identifier		File Identifier MDW0825-RPS-00-XX-DR-C-SK2001 to SK2004		Drawing No. SK2004		Status S2		Rev P01	





LEGEND - Proposed Landscaping

- Proposed Woodland
- Proposed Bank Raising
- Whitechurch Stream
- Footpaths - existing, retained or reinstated & made good
- Existing Trees to be retained
- Proposed Debris Trap
- Proposed Slipway Access

PROPOSED AMENITY GRASS SEED MIX
Low maintenance grass seed mix sown @ 40g per m² to amenity grassed areas to be reinstated to replace disturbed grassed areas.
20% Hard Fescue 30% Strong Creeping Red Fescue 15% Smooth Stalked Meadow Grass 20% Chewings Fescue 15% Browntop Bentgrass

PROPOSED WOODLAND - plant at 1.5m centres or 0.44plants per sqm.		
Botanical Name	Specification	%mix
Crataegus monogyna	Whips 120-150cm tall -bare root	10%
Prunus avium	Whips 120-150cm tall -bare root	20%
Betula pendula	Whips 120-150cm tall -bare root	20%
Alnus glutinosa	Whips 120-150cm tall -bare root	10%
Corylus avellana	Transplants 90-120cm-bare root	10%
Crataegus monogyna	Transplants 90-120cm-bare root	10%
Pinus sylvestris	Rootballed min 60cm height	20%

Client



General Notes

(i) Hard copies, dwf and pdf will form a controlled issue of the drawing. All other formats (dwg etc.) are deemed to be an uncontrolled issue and any work carried out based on these files is at the recipients own risk. RPS will not accept any responsibility for any errors from the use of these files, either by human error by the recipient, listing of the un-dimensioned measurements, compatibility with the recipients software, and any errors arising when these files are used to aid the recipients drawing production, or setting out on site.


(ii) DO NOT SCALE, use figured dimensions only.

(iii) This drawing is the property of RPS, it is a project confidential classified document. It must not be copied used or its contents divulged without prior written consent. The needs and expectations of client and RPS must be considered when working with this drawing.

(iv) Information including topographical survey, geotechnical investigation and utility detail used in the design have been provided by others.

(v) All Levels refer to Ordnance Survey Datum, Malin Head.

P01.02	19/06/20	DRG	Issue for Stage Approval	MD
P01	08/04/20	DRG	Issue for Stage Approval	MD
Rev	Date	Dwg Cmk	Amendment / Issue	App



West Pier
Business Campus
Dun Laoghaire
Co. Dublin A96 N6T7

T +353 (0)1 4882900
W www.rpsgroup.com/ireland
E ireland@rpsgroup.com

Scale
1:250 @ A1
1:500 @ A3

Created on
25/11/2019

Sheets
01 of 05

Project
WHITECHURCH STREAM FLOOD ALLEVIATION SCHEME

Title
LANDSCAPE MITIGATION / PROPOSED PLANTING
Figure 2a: Landscape Proposals - St Enda's Park

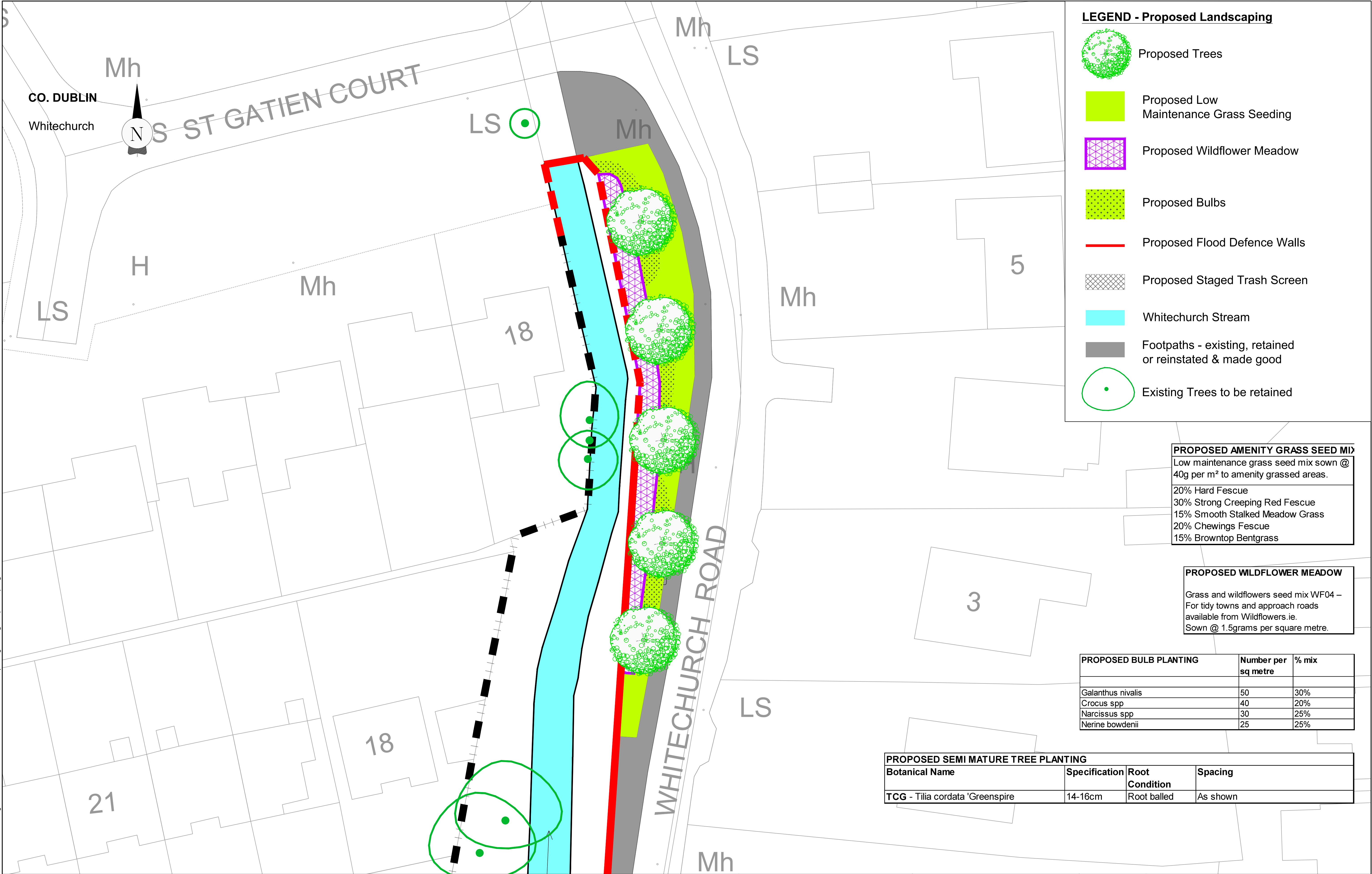
File Identifier
MDW0825-RPS-00-XX-DR-L-SK3000 Landscape Mitigation Figures (Set of 5)

Drawing No.
SK3001

Status
S4

Rev
P01.02

Ordnance Survey Ireland Licence No. EN0005019 © Ordnance Survey Ireland/Government of Ireland



Comhairle Contae
Átha Cliath Theas
South Dublin County Council

OPW
Oifig na
nOibreacha Poiblí
Office of Public Works

Client

General Notes

(i) Hard copies, dwf and pdf will form a controlled issue of the drawing. All other formats (dwp etc.) are deemed to be an uncontrolled issue and any work carried out based on these files is at the recipients own risk. RPS will not accept any responsibility for any errors from the use of these files, either by human error by the recipient, listing of the un-dimensioned measurements, compatibility with the recipients software, and any errors arising when these files are used to aid the recipients drawing production, or setting out on site.

(ii) DO NOT SCALE, use figured dimensions only.

(iii) This drawing is the property of RPS, it is a project confidential classified document. It must not be copied used or its contents divulged without prior written consent. The needs and expectations of client and RPS must be considered when working with this drawing.

(iv) Information including topographical survey, geotechnical investigation and utility detail used in the design have been provided by others.

(v) All Levels refer to Ordnance Survey Datum, Malin Head.

Rev	Date	By	Chk	Amendment / Issue	App
P01.02	19/06/20	JBB	EJC	Issue for Stage Approval	MD
P01	08/04/20	DB	EJC	Issue for Stage Approval	MD

West Pier
Business Campus
Dun Laoghaire
Co. Dublin A96 N6T7

T +353 (0)1 4882900
W www.rpsgroup.com/ireland
E ireland@rpsgroup.com

Scale 1:175 @ A1
1:350 @ A3

Created on 25/11/2019

Sheets 02 of 05

File Identifier MDW0825-RPS-00-XX-DR-L-SK3000 Landscape Mitigation Figures (Set of 5)

Drawing No. SK3002

Status S4

Rev P01.02

Project WHITECHURCH STREAM FLOOD ALLEVIATION SCHEME

Title LANDSCAPE MITIGATION / PROPOSED PLANTING

Figure 2b: Landscape Proposals - Whitechurch Road (South of St. Gaten Court)

Ordnance Survey Ireland Licence No. EN0005019 © Ordnance Survey Ireland/Government of Ireland



Appendix B

Photomontage Figures 3.1 – 3.7

PHOTOMONTAGES

Whitechurch Stream Flood Alleviation Scheme

Whitechurch Road, Willbrook, Dublin



Existing View



Camera	Nikon D600	Easting	714361	Title: <div>Viewpoint 01</div> <div>Public Footpath in St Enda's Park</div> <div>Existing View</div>	Figure 3.1a		Drawn by:	PM	Project: <div>Whitechurch Stream</div> <div>Flood Alleviation Scheme</div>	Client: <div><div> Comhairle Contae Átha Cliath Theas South Dublin County Council</div><div> Óifig na nOibreacha Poiblí Office of Public Works</div></div>	<div> Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914</div>
Date	03.12.19 - 14.05	Northing	727520		Revision:	Final	Checked:	EO'C/RH			
View height	1.63 m AGL	Direction	350°		Data Source:	RPS 2020	Job Ref:	MDW0825			
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020			



Photomontage @ Year 1

NOTE

Structures within the proposed view have been developed based on the preliminary design prepared by OPW dated July 2019.

The part of the proposed view where existing vegetation is removed is illustrated as an estimated photo-realistic render.



Verified photo location



Viewpoint location map

Camera	Nikon D600	Easting	714361	Title: <div>Viewpoint 01</div> <div>Public Footpath in St Enda's Park</div> <div>Photomontage Year 1</div>	Figure 3.1b		Drawn by:	PM	Project: <div>Whitechurch Stream</div> <div>Flood Alleviation Scheme</div>	Client: <div><div><div>Comhairle Contae Átha Cliath Theas South Dublin County Council</div></div><div><div>Óifig na nOibreacha Poiblí Office of Public Works</div></div></div>	<div><div>MAKING COMPLEX EASY</div></div> <div>Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914</div>
Date	03.12.19 - 14.05	Northing	727520		Revision:	Final	Checked:	EO'C/RH			
View height	1.63 m AGL	Direction	350°		Data Source:	RPS 2020	Job Ref:	MDW0825			
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020			



Photomontage @ Year 15

NOTE

Structures within the proposed view have been developed based on the preliminary design prepared by OPW dated July 2019.


The part of the proposed view where existing vegetation is removed is illustrated as an estimated photo-realistic render.



Verified photo location



Viewpoint location map

Camera	Nikon D600	Easting	714361	Title: <div>Viewpoint 01</div> <div>Public Footpath in St Enda’s Park</div> <div>Photomontage Year 15</div>	Figure 3.1c		Drawn by:	PM	Project: <div>Whitechurch Stream</div> <div>Flood Alleviation Scheme</div>	Client: <div><div><div>Comhairle Contae Átha Cliath Theas South Dublin County Council</div></div><div><div>O’f’ig na nO’ibreacha Poiblí Office of Public Works</div></div></div>	<div><div>Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914</div></div>
Date	03.12.19 - 14.05	Northing	727520		Revision:	Final	Checked:	EO’C/RH			
View height	1.63 m AGL	Direction	350°		Data Source:	RPS 2020	Job Ref:	MDW0825			
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020			



Existing View



Verified photo location



Viewpoint location map

Camera	Nikon D600	Easting	714276	Title: Viewpoint 02 St Gaten Court Existing View	Figure 3.2a		Drawn by:	PM	Project: Whitechurch Stream Flood Alleviation Scheme	Client: <div><div>Comhairle Contae Átha Cliath Theas South Dublin County Council</div><div>Oifig na nOibreacha Poiblí Office of Public Works</div></div>	 <div>Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914</div>
Date	11.03.20 - 12.35	Northing	727735		Revision:	Final	Checked:	EO'C/RH			
View height	1.63 m AGL	Direction	185°		Data Source:	RPS 2020	Job Ref:	MDW0825			
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020			



Photomontage @ Year 1

NOTE

Structures within the proposed view have been developed based on the preliminary design prepared by OPW dated July 2019.

The part of the proposed view where existing vegetation is removed is illustrated as an estimated photo-realistic render.



Camera	Nikon D600	Easting	714276	Title: <div>Viewpoint 02 St Gatien Court Photomontage Year 1</div>	Figure 3.2b		Drawn by:	PM	Project: <div>Whitechurch Stream Flood Alleviation Scheme</div>	Client: <div><div><div>Comhairle Contae Átha Cliath Theas South Dublin County Council</div></div><div><div>Óifig na nOibreacha Poiblí Office of Public Works</div></div></div>	<div><div>MAKING COMPLEX EASY</div><div>Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914</div></div>
Date	11.03.20 - 12.35	Northing	727735		Revision:	Final	Checked:	EO'C/RH			
View height	1.63 m AGL	Direction	185°		Data Source:	RPS 2020	Job Ref:	MDW0825			
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020			



Photomontage @ Year 15

NOTE

Structures within the proposed view have been developed based on the preliminary design prepared by OPW dated July 2019.

The part of the proposed view where existing vegetation is removed is illustrated as an estimated photo-realistic render.



Verified photo location



Viewpoint location map

Camera	Nikon D600	Easting	714276	Title: Viewpoint 02 St Gatien Court Photomontage Year 15	Figure 3.2c		Drawn by:	PM	Project: Whitechurch Stream Flood Alleviation Scheme	Client: <div> Comhairle Contae Átha Cliath Theas South Dublin County Council</div> <div> Óifig na n-Obair Poiblí Office of Public Works</div>	<div> Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914</div>
Date	11.03.20 - 12.35	Northing	727735		Revision:	Final	Checked:	EO'C/RH			
View height	1.63 m AGL	Direction	185°		Data Source:	RPS 2020	Job Ref:	MDW0825			
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020			



Existing View



Verified photo location



Viewpoint location map

Camera	Nikon D600	Easting	714275	Title: Viewpoint 03 St Gaten Court Existing View	Figure 3.3a		Drawn by:	PM	Project: Whitechurch Stream Flood Alleviation Scheme	Client: <div><div>Óifig na nOibreacha Poiblí Office of Public Works</div></div>	<div><div>Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914</div></div>
Date	03.12.19 - 14.25	Northing	727739		Revision:	Final	Checked:	EO'C/RH			
View height	1.63 m AGL	Direction	330°		Data Source:	RPS 2020	Job Ref:	MDW0825			
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020			

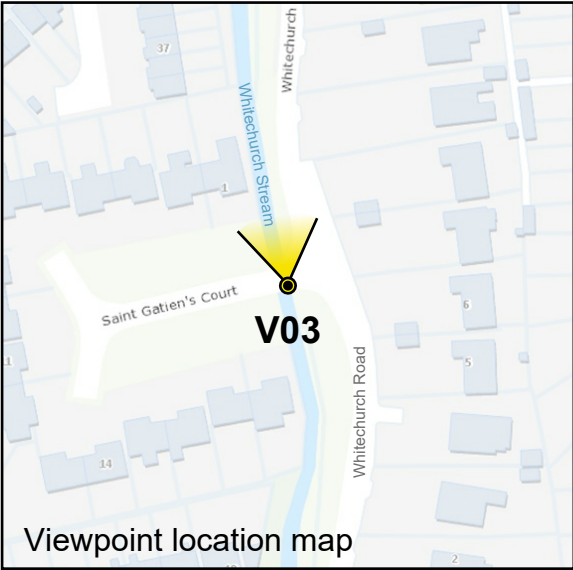


Photomontage @ Year 1

NOTE

Structures within the proposed view have been developed based on the preliminary design prepared by OPW dated July 2019.

The part of the proposed view where existing vegetation is removed is illustrated as an estimated photo-realistic render.



Camera	Nikon D600	Easting	714275	Title: Viewpoint 03 St Gaten Court Photomontage Year 1	Figure 3.3b		Drawn by:	PM	Project: Whitechurch Stream Flood Alleviation Scheme	Client:    Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914
Date	03.12.19 - 14.25	Northing	727739		Revision:	Final	Checked:	EO'C/RH		
View height	1.63 m AGL	Direction	330°		Data Source:	RPS 2020	Job Ref:	MDW0825		
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020		



Photomontage @ Year 15

NOTE

Structures within the proposed view have been developed based on the preliminary design prepared by OPW dated July 2019.

The part of the proposed view where existing vegetation is removed is illustrated as an estimated photo-realistic render.



Verified photo location



Viewpoint location map

Camera	Nikon D600	Easting	714275	Title: Viewpoint 03 St Gaten Court Photomontage Year 15	Figure 3.3c		Drawn by:	PM	Project: Whitechurch Stream Flood Alleviation Scheme	Client: <div></div>	Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914
Date	03.12.19 - 14.25	Northing	727739		Revision:	Final	Checked:	EO'C/RH			
View height	1.63 m AGL	Direction	330°		Data Source:	RPS 2020	Job Ref:	MDW0825			
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020			



Existing View



Camera	Nikon D600	Easting	714261	Title: Viewpoint 05 Whitechurch Road north of St Gatien Court Existing View	Figure 3.4a		Drawn by:	PM	Project: Whitechurch Stream Flood Alleviation Scheme	Client: <div></div>
Date	03.12.19 - 14.40	Northing	727812		Revision:	Final	Checked:	EO'C/RH		
View height	1.63 m AGL	Direction	210°		Data Source:	RPS 2020	Job Ref:	MDW0825		
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020		



Photomontage @ Year 1

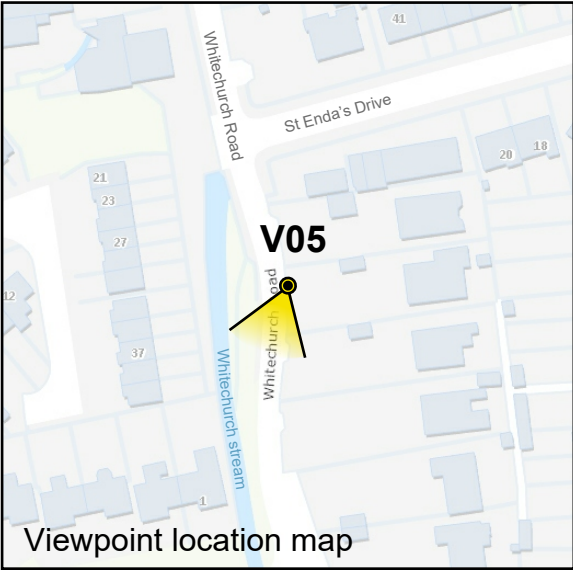
NOTE

Structures within the proposed view have been developed based on the preliminary design prepared by OPW dated July 2019.


The part of the proposed view where existing vegetation is removed is illustrated as an estimated photo-realistic render.



Verified photo location



Viewpoint location map

Camera	Nikon D600	Easting	714261	Title: Viewpoint 05 Whitechurch Road north of St Gatien Court Photomontage Year 1	Figure 3.4b		Drawn by:	PM	Project: Whitechurch Stream Flood Alleviation Scheme	Client: <div><div></div><div>Comhairle Contae Átha Cliath Theas South Dublin County Council</div><div>Óifig as nOibreacha Poiblí Office of Public Works</div><div>Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914</div></div>
Date	03.12.19 - 14.40	Northing	727812		Revision:	Final	Checked:	EO'C/RH		
View height	1.63 m AGL	Direction	210°		Data Source:	RPS 2020	Job Ref:	MDW0825		
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020		

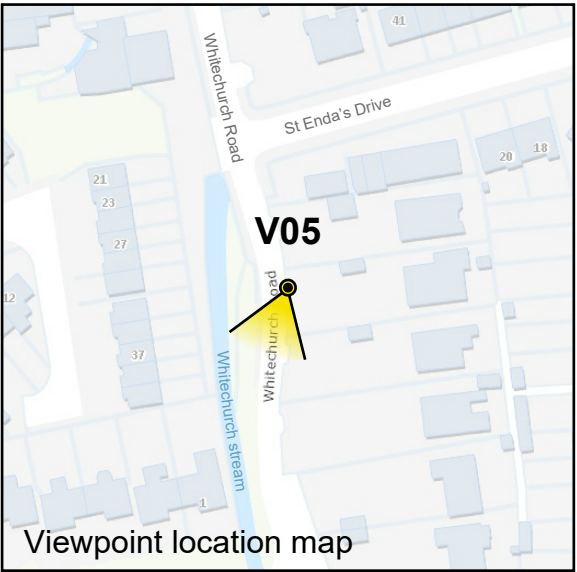


Photomontage @ Year 15

NOTE

Structures within the proposed view have been developed based on the preliminary design prepared by OPW dated July 2019.

The part of the proposed view where existing vegetation is removed is illustrated as an estimated photo-realistic render.



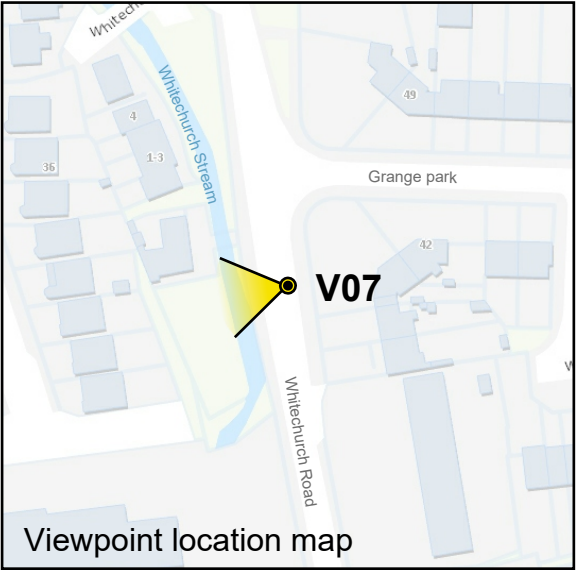
Camera	Nikon D600	Easting	714261	Title: Viewpoint 05 Whitechurch Road north of St Gatien Court Photomontage Year 15	Figure 3.4c		Drawn by:	PM	Project: Whitechurch Stream Flood Alleviation Scheme	Client: <div><div> Comhairle Contae Átha Cliath Theas South Dublin County Council</div><div> Óifig as mÓireacha Poiblí Office of Public Works</div></div>	<div> Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914</div>
Date	03.12.19 - 14.40	Northing	727812		Revision:	Final	Checked:	EO'C/RH			
View height	1.63 m AGL	Direction	210°		Data Source:	RPS 2020	Job Ref:	MDW0825			
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020			




Existing View



Verified photo location



Viewpoint location map

Camera	Nikon D600	Easting	714241	Title: <div>Viewpoint 07</div> <div>Whitechurch Road near Capri Site</div> <div>Existing View</div>	Figure 3.5a		Drawn by:	PM	Project: <div>Whitechurch Stream</div> <div>Flood Alleviation Scheme</div>	Client: <div><div> Comhairle Contae Átha Cliath Theas South Dublin County Council</div><div></div><div>OPW <small>Óifig na nOibreacha Poiblí</small> Office of Public Works</div></div>	<div> MAKING COMPLEX EASY</div> <div>Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914</div>
Date	03.12.19 - 14.55	Northing	727976		Revision:	Final	Checked:	EO'C/RH			
View height	1.63 m AGL	Direction	280°		Data Source:	RPS 2020	Job Ref:	MDW0825			
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020			

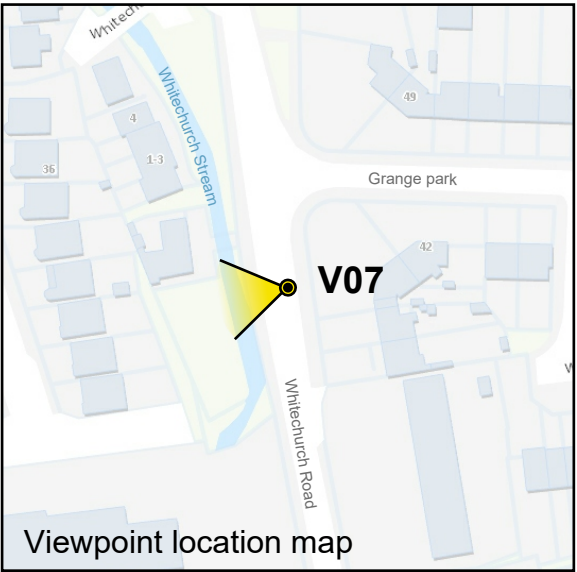



Photomontage @ Year 1

NOTE

Structures within the proposed view have been developed based on the preliminary design prepared by OPW dated July 2019.

The part of the proposed view where existing vegetation is removed is illustrated as an estimated photo-realistic render.



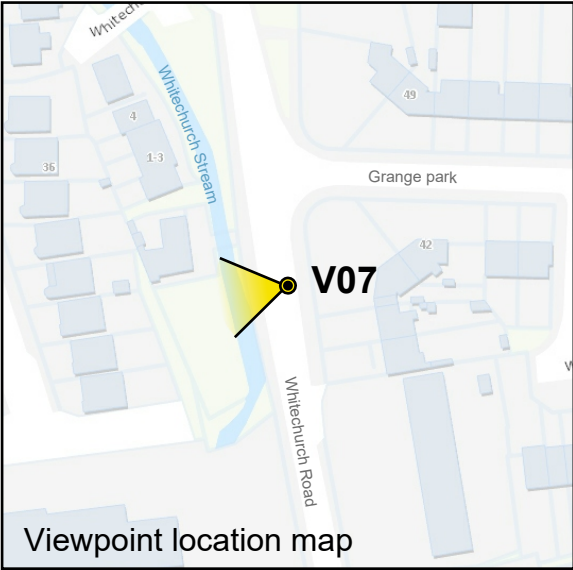
Camera	Nikon D600	Easting	714241	Title: <div>Viewpoint 07</div> Whitechurch Road near Capri Site Photomontage Year 1	Figure 3.5b		Drawn by:	PM	Project: <div>Whitechurch Stream</div> Flood Alleviation Scheme	Client: <div><div><div>Comhairle Contae Átha Cliath Theas South Dublin County Council</div></div><div><div>Oifig na nOibreacha Poiblí Office of Public Works</div></div></div>	<div><div>Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914</div></div>
Date	03.12.19 - 14.55	Northing	727976		Revision:	Final	Checked:	EO'C/RH			
View height	1.63 m AGL	Direction	280°		Data Source:	RPS 2020	Job Ref:	MDW0825			
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020			



Photomontage @ Year 1

NOTE
Structures within the proposed view have been developed based on the preliminary design prepared by OPW dated July 2019.

The part of the proposed view where existing vegetation is removed is illustrated as an estimated photo-realistic render.



Camera	Nikon D600	Easting	714241	Title: <div>Viewpoint 07</div> Whitechurch Road near Capri Site Photomontage Year 1 - Red Line	Figure 3.5c		Drawn by:	PM	Project: <div>Whitechurch Stream</div> Flood Alleviation Scheme	Client: <div><div><div>Comhairle Contae Átha Cliath Theas South Dublin County Council</div></div><div><div>Óifig na nOibreacha Poiblí Office of Public Works</div></div><div><div>Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914</div></div></div>
Date	03.12.19 - 14.55	Northing	727976		Revision:	Final	Checked:	EO'C/RH		
View height	1.63 m AGL	Direction	280°		Data Source:	RPS 2020	Job Ref:	MDW0825		
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020		

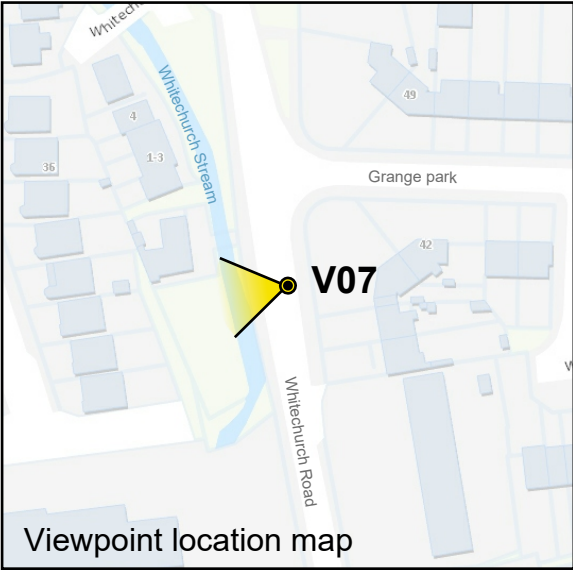


Approximate position - Capri site new entrance
Planning Ref: SD09A/0055

Photomontage @ Year 1

NOTE
Structures within the proposed view have been developed based on the preliminary design prepared by OPW dated July 2019.

The part of the proposed view where existing vegetation is removed is illustrated as an estimated photo-realistic render.




Camera	Nikon D600	Easting	714241	Title: Viewpoint 07 Whitechurch Road near Capri Site including proposed site entrance Photomontage Year 1	Figure 3.5d		Drawn by:	PM	Project: Whitechurch Stream Flood Alleviation Scheme	Client: <div><div> Comhairle Contae Átha Cliath Theas South Dublin County Council</div><div></div><div> Oifig na nOibreacha Poiblí Office of Public Works</div></div>	<div> Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914</div>
Date	03.12.19 - 14.55	Northing	727976		Revision:	Final	Checked:	EO'C/RH			
View height	1.63 m AGL	Direction	280°		Data Source:	RPS 2020	Job Ref:	MDW0825			
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020			



Existing View



Camera	Nikon D600	Easting	714219	Title: Viewpoint 08 Whitechurch Stream near Willbrook Lawn culvert Existing View	Figure 3.6a		Drawn by:	PM	Project: Whitechurch Stream Flood Alleviation Scheme	Client: <div><div>OPW Oifig as nÓbreacha Poiblí Office of Public Works</div></div>	Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914
Date	11.03.20 - 12.10	Northing	728049		Revision:	Final	Checked:	EO'C/RH			
View height	1.63 m AGL	Direction	190°		Data Source:	RPS 2020	Job Ref:	MDW0825			
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020			



Photomontage @ Year 1

NOTE
Structures within the proposed view have been developed based on the preliminary design prepared by OPW dated July 2019.

The part of the proposed view where existing vegetation is removed is illustrated as an estimated photo-realistic render.



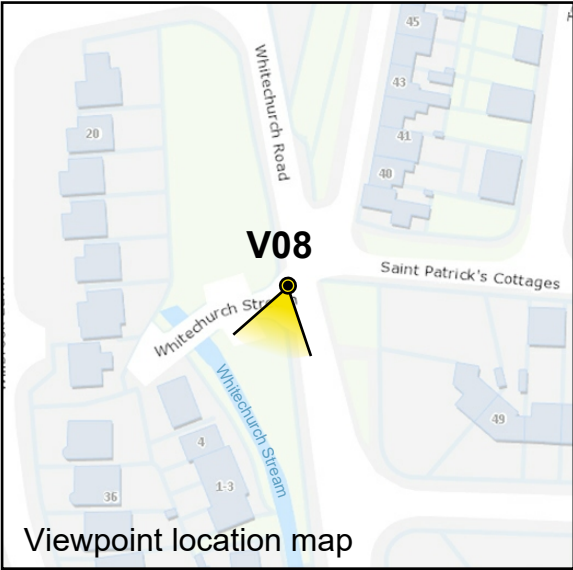
Camera	Nikon D600	Easting	714219	Title: Viewpoint 08 Whitechurch Stream near Willbrook Lawn culvert Photomontage Year 1	Figure 3.6b		Drawn by:	PM	Project: Whitechurch Stream Flood Alleviation Scheme	Client: <div><div>OPW Oifig na nOibreacha Poiblí Office of Public Works</div></div>	Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914
Date	11.03.20 - 12.10	Northing	728049		Revision:	Final	Checked:	EO'C/RH			
View height	1.63 m AGL	Direction	190°		Data Source:	RPS 2020	Job Ref:	MDW0825			
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020			



Photomontage @ Year 15

NOTE
Structures within the proposed view have been developed based on the preliminary design prepared by OPW dated July 2019.

The part of the proposed view where existing vegetation is removed is illustrated as an estimated photo-realistic render.




Camera	Nikon D600	Easting	714219	Title: Viewpoint 08 Whitechurch Stream near Willbrook Lawn culvert Photomontage Year 15	Figure 3.6c		Drawn by:	PM	Project: Whitechurch Stream Flood Alleviation Scheme	Client: <div><div>OPW Oifig as mÓbreacha Poiblí Office of Public Works</div></div>	Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914
Date	11.03.20 - 12.10	Northing	728049		Revision:	Final	Checked:	EO'C/RH			
View height	1.63 m AGL	Direction	190°		Data Source:	RPS 2020	Job Ref:	MDW0825			
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020			



Existing View



Camera	Nikon D600	Easting	714155	Title: Viewpoint 09 Willbrook Grove Existing View	Figure 3.7a		Drawn by:	PM	Project: Whitechurch Stream Flood Alleviation Scheme	Client: <div> Comhairle Contae Átha Cliath Theas South Dublin County Council</div> <div> Óifig na nOibreacha Poiblí Office of Public Works</div>	<div> Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914</div>
Date	03.12.19 - 15.05	Northing	728195		Revision:	Final	Checked:	EO'C/RH			
View height	1.63 m AGL	Direction	85°		Data Source:	RPS 2020	Job Ref:	MDW0825			
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020			



Photomontage @ Year 1

NOTE

Structures within the proposed view have been developed based on the preliminary design prepared by OPW dated July 2019.

The part of the proposed view where existing vegetation is removed is illustrated as an estimated photo-realistic render.



Camera	Nikon D600	Easting	714155	Title: Viewpoint 09 Willbrook Grove Photomontage Year 1	Figure 3.7b		Drawn by:	PM	Project: Whitechurch Stream Flood Alleviation Scheme	Client: 	 Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914
Date	03.12.19 - 15.05	Northing	728195		Revision:	Final	Checked:	EO'C/RH			
View height	1.63 m AGL	Direction	85°		Data Source:	RPS 2020	Job Ref:	MDW0825			
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020			



Photomontage @ Year 15

NOTE

Structures within the proposed view have been developed based on the preliminary design prepared by OPW dated July 2019.

The part of the proposed view where existing vegetation is removed is illustrated as an estimated photo-realistic render.



Camera	Nikon D600	Easting	714155	Title: Viewpoint 09 Willbrook Grove Photomontage Year 15	Figure 3.7c		Drawn by:	PM	Project: Whitechurch Stream Flood Alleviation Scheme	Client: <div> Comhairle Contae Átha Cliath Theas South Dublin County Council</div> <div> Óifig na n-Obraíochtaí Office of Public Works</div>	<div> Elmwood House, 74 Boucher Road BELFAST, BT12 6RZ 028 9066 7914</div>
Date	03.12.19 - 15.05	Northing	728195		Revision:	Final	Checked:	EO'C/RH			
View height	1.63 m AGL	Direction	85°		Data Source:	RPS 2020	Job Ref:	MDW0825			
Field of View	53.7 °	Irish Grid ITM			Status:	For Issue	Date:	June 2020			