

APPLICANT: MR. DAVID FALLON
PROPOSED DWELLING-HOUSE & GARAGE IN SIDE GARDEN OF
EXISTING FAMILY HOME AT BALDONNELL UPPER,
BALDONNELL ROAD, DUBLIN 22
FLOOD RISK IMPACT ASSESSMENT

PATRICK JOYCE ASSOCIATES
CONSULTING ENGINEERS
2 PROSPECT GROVE
STOCKING LANE
RATHFARNHAM
DUBLIN 16

FEBRUARY 2021
(Addendum Added August 2022)

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PATRICK C. JOYCE BE, MBA, C.Eng., MIEI

APPLICANT: MR. DAVID FALLON

PROPOSED DWELLING-HOUSE & GARAGE IN SIDE GARDEN OF
EXISTING FAMILY HOME AT BALDONNELL UPPER,
BALDONNELL ROAD, DUBLIN 22

FLOOD RISK IMPACT ASSESSMENT - ADDENDUM

The attached Flood Risk Impact Assessment was prepared for the previous planning application on the site.

Planning permission was granted on the 4th May 2021 for a two storey dwelling-house on the site – Planning Reference No. SD20A/0200. Condition No. 6 stated as follows:

‘All floor levels of the dwelling-house shall be a minimum of 500 mm above the highest known flood level for the site.

REASON: In the interest of public health, safety, the proper planning and sustainable development of the area, and in order to adequately protect against potential flooding on a site located in a 1 in 100 year flood risk zone.’

This planning application is in respect of a change of house type together with proposed domestic garage on the site.

As stated in the Report, I am instructed by the applicant that his family purchased the existing dwelling-house adjoining the site i.e. to the north of the site in 1985. The applicant confirmed that no flooding of the dwelling-house has occurred in the 35 years since they acquired the dwelling-house and the family is not aware of any flooding of the dwelling-house having occurred prior to their purchase of the property. The applicant also confirmed that no flooding has occurred on the proposed site during this period.

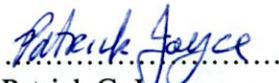
The floor level of the propose dwelling-house shall not be less than 100.40 m as shown on the attached Site Drainage Layout Plan.

The floor level of the proposed dwelling-house shall be 400 mm above the existing road level at the site entrance and shall be 700 mm above the floor level of the existing family dwelling-house on the site adjoining the proposed site.

Therefore, the floor level of the dwelling-house shall be significantly in excess of the 500 mm above the highest known flood level for the site as required by Condition No. 6 of Grant of Permission Reference No. SD20A/0200.

Based on the existing site levels and the 1% AEP Fluvial Flood Depth range of 0 – 0.25 metres for most of the site, I have calculated the modelled peak 100 year flood level for the proposed site at 100.10 metres as detailed in the Report. Hence, the proposed floor level is 300 mm above the peak flood level as per the flood risk management guidelines.

I am satisfied that the proposed layout and details as shown on the drawings adequately addresses any potential flood risk on the proposed site.

Signed: 
Patrick C. Joyce

Date: 4th July 2022

APPLICANT: MR. DAVID FALLON
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EXISTING FAMILY HOME AT BALDONNELL UPPER,
BALDONNELL ROAD, DUBLIN 22
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EXISTING FAMILY HOME AT BALDONNELL UPPER,

BALDONNELL ROAD, DUBLIN 22

FLOOD RISK IMPACT ASSESSMENT

1. INTRODUCTION

The proposed development consists of two storey dwelling-house in the side garden of existing family home, using the existing entrance to provide access to public road, at Baldonnell Upper, Baldonnell Road, Dublin 22.

A planning application, Planning Reference No. SD20A/0200, was submitted in respect of the development and the Planning Authority has requested Additional Information in respect of the proposed development. Item No. 2 of the Request for Additional Information, dated the 30th September 2020, states as follows:

“The site is located in a 1 in 100 year flood risk zone. The applicant is requested to submit:

- (a) A site specific flood risk assessment report of the proposed site. The report should show the flood risk and mitigation measures proposed for the development.
- (b) A drawing showing the flood risk and mitigation measures for the proposed development”

I visited the site on the 11th November 2020 and I carried out a visual inspection of the site. I also took spot levels on the site and I carried out a percolation test for the surface water drainage soakaway – refer separate Surface Water Drainage Report.

2. FLOOD RISK IMPACT ASSESSMENT:

Proposed Site:

The proposed site is located in the townland of Baldonnell Upper, Dublin 22 and the site is accessed via an existing entrance off the Baldonnell Road. The site has a stated area of 0.1512 hectares and is a level site mainly in grassland with a section of the site currently used as a paddock which is separated by timber fencing. There are no existing structures on the proposed site. The site is bounded to the eastern side by the public road and separated by a mixture of hedging and trees – refer photograph No. 1.

The applicant's family dwelling-house is located to the north of the site – refer photograph No. 2. There is an existing dwelling-house to the south of the site which I understand is occupied by a family member – refer photograph No. 3. There is a mature hedge in place on the southern and western boundaries of the site. The Casement Aerodrome, where the applicant is employed as a military pilot officer, is located on the lands immediately to the west of the site – refer photograph No. 4.

Site Topography:

I took spot levels on the site during my site inspection of the 11th November 2020. The relevant levels are shown on the attached Site Drainage Layout Plan. The site is very flat with a variation in level of less than 0.1 metre throughout the site. The site is slightly lower than the public road as shown on the attached drawing.

The family home of the applicant is located immediately to the north of the site. The floor level of the family dwelling-house is slightly lower than the ground levels on the proposed site i.e. varying from 0.1 m – 0.2 m below the site.

Flooding History:

I have reviewed the OPW flood risk maps on the National Flood Risk Mapping website (<http://www.floodinfo.ie>) in respect of any history of flooding in the vicinity of the proposed site. I herewith attach a copy of the Past Flood Event Local Area Summary Report generated from the website.

Based on the review of the OPW flood risk maps, the nearest recorded flood event to the proposed site is recurring flooding (Flood Event ID-1214) at Barney's Lane, Baldonnell. I herewith attach copy of the available documents referencing this flooding. The flooding appears to have occurred near the confluence of the Camac River and Brownsbarn Stream. The approximate direct distance from the flood event location to the nearest corner of the proposed site is circa 450 metres as marked on the attached extract from Flood Map. There is no evidence that any flooding that occurred at the flood event location had an effect on the proposed site.

Flood Risk Mapping:

I herewith attach OPW RPS Drawing showing the Camac Fluvial Flood Depths in the Baldonnell & Moneenalion Commons Area. The Drawing shows the 1% AEP Fluvial Flood Depth determined by the CFRAM Study. I have marked the location of the applicant's proposed site on the Drawing. I also attach an enlarged extract from the Drawing which identifies more clearly the boundaries of the proposed site.

As can be seen from the enlarged extract from the Drawing, most of the site is coloured light blue indicating that these parts of the site are classified as within the 1% AEP Fluvial Flood Depth range of 0 – 0.25 metres.

Hence most of the proposed site is in Flood Zone A i.e. in a 1 in 100 year flood risk category. The existing houses on the adjoining sites to the north and south of the proposed site are also in the same Flood Zone.

Flood Risk Assessment:

From a visual inspection of the site, there is no evidence of ongoing flooding occurring on the proposed site. The review of the available documentation does not provide any evidence that flooding has occurred on the proposed site or in the near vicinity of the site.

I note that a trial hole was excavated on the site as part of the investigations carried out in respect of the wastewater treatment system proposed for the development. The Site Characterisation Form, dated 10th June 2020, prepared by JMG Engineering Services Limited noted that bedrock was encountered at 2.3 metres in the trial hole while depth to water table in the trial hole was 1.45 metres.

I am instructed by the applicant that his family purchased the existing dwelling-house adjoining the site i.e. to the north of the site in 1985. He confirmed that no flooding of the dwelling-house has occurred in the 35 years since they acquired the dwelling-house and the family is not aware of any flooding of the dwelling-house having occurred prior to their purchase of the property. The applicant also confirmed that no flooding has occurred on the proposed site during this period.

As indicated above, I took spot levels on the site and on the floor level of the existing house on the 11th November 2020. The floor level of the existing family house is slightly lower than any of the ground levels on the proposed site i.e. varying from 0.1 m – 0.2 m below the site levels.

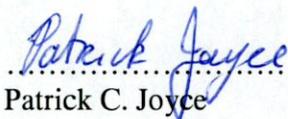
I have marked the ground levels on the attached Site Drainage Layout Plan. The existing ground levels on the site vary from 99.80 m to 99.90 m. I have also marked the floor level of the existing family dwelling-house (FFL: 99.70 m) together with the proposed floor level of the proposed dwelling-house (FFL: 100.40 m).

Based on the existing site levels and the 1% AEP Fluvial Flood Depth range of 0 – 0.25 metres for most of the site, I have calculated the modelled peak 100 year flood level for the proposed site at 100.10 metres.

Hence, in order to satisfy the 300 mm freeboard requirement above the peak flood level as per the flood risk management guidelines, the floor level of the propose dwelling-house shall not be less than 100.40 m as shown on the attached Site Drainage Layout Plan.

Therefore the floor level of the proposed dwelling-house shall be 400 mm above the existing road level at the site entrance and shall be 700 mm above the floor level of the existing family dwelling-house on the site adjoining the proposed site.

I am satisfied that the proposed layout and details as shown on the drawings adequately addresses any potential flood risk on the proposed site.

Signed: 
Patrick C. Joyce

Date: 11th February 2021

PHOTOGRAPH NO. 1 – EASTERN BOUNDARY:



PHOTOGRAPH NO. 2 – NORTHERN BOUNDARY:



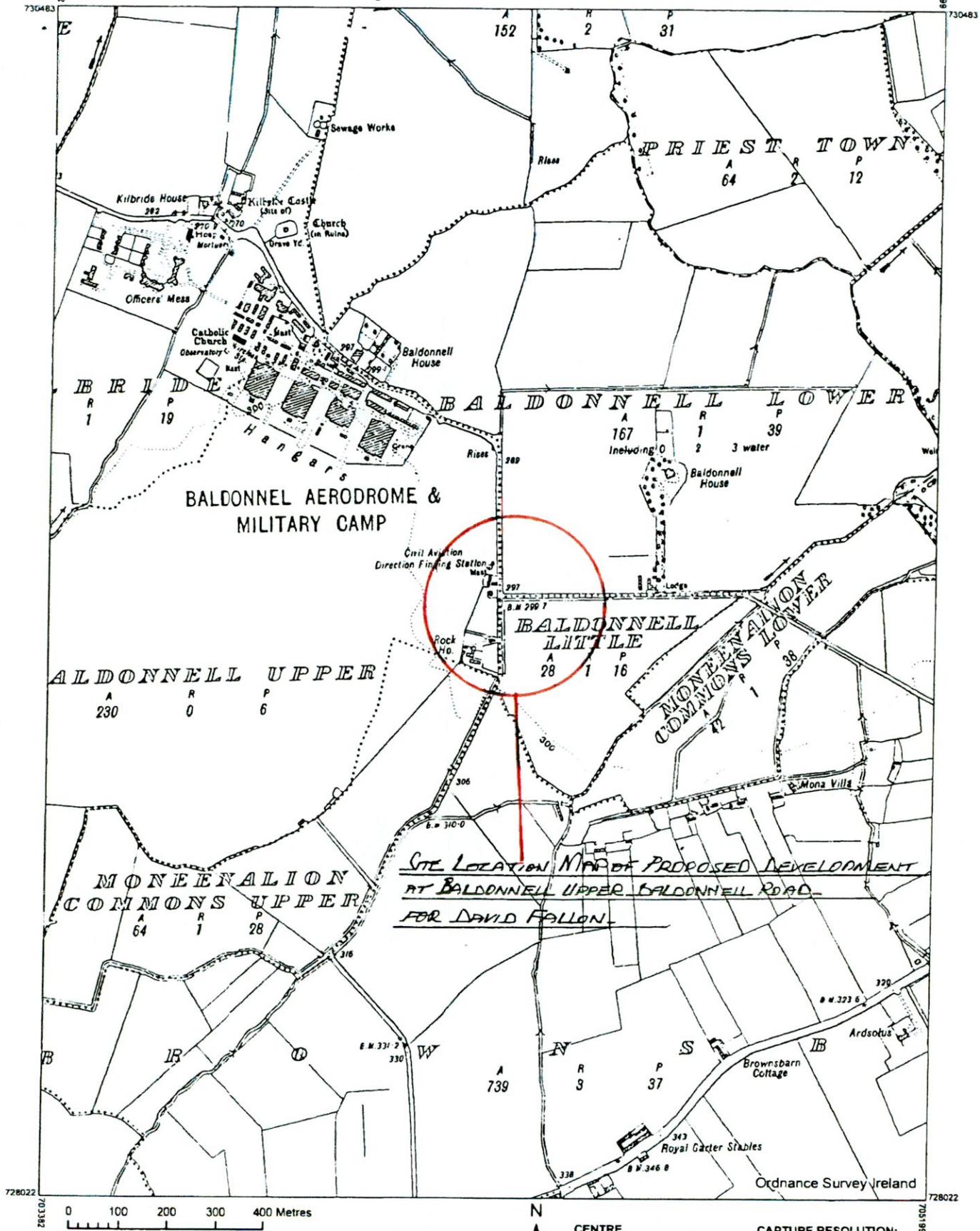
PHOTOGRAPH NO. 3 – WESTERN BOUNDARY:



PHOTOGRAPH NO. 4 – SOUTHERN BOUNDARY:



Site Location map



COMPILED AND PUBLISHED BY:
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Phoenix Park,
Dublin 8,
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Further information is available at
<http://www.osi.ie> search 'Capture Resolution'
LEGEND:
<http://www.osi.ie> search 'Large Scale Legend'



Past Flood Event Local Area Summary Report

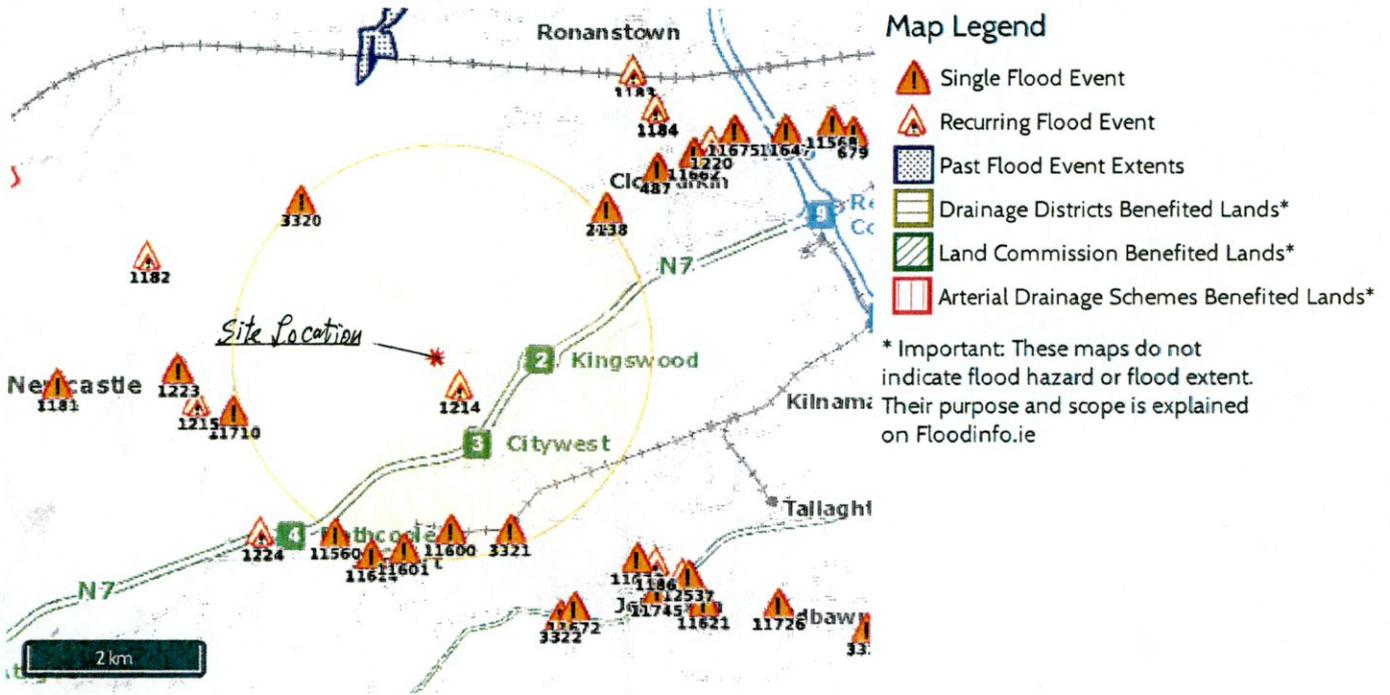


OPW Clár na nOibríochtaí Poiblí
Office of Public Works

Report Produced: 4/2/2021 17:18

This Past Flood Event Summary Report summarises all past flood events within 2.5 kilometres of the map centre.

This report has been downloaded from www.floodinfo.ie (the "Website"). The users should take account of the restrictions and limitations relating to the content and use of the Website that are explained in the Terms and Conditions. It is a condition of use of the Website that you agree to be bound by the disclaimer and other terms and conditions set out on the Website and to the privacy policy on the Website.



* Important: These maps do not indicate flood hazard or flood extent. Their purpose and scope is explained on Floodinfo.ie

6 Results

Name (Flood_ID)	Start Date	Event Location
1. Baldonnell Barneys Lane Recurring (ID-1214)	n/a	Approximate Point
Additional Information: Reports (2) Press Archive (0)		
2. Peamount R134 R120 junction Nov 2000 (ID-3320)	05/11/2000	Approximate Point
Additional Information: Reports (1) Press Archive (1)		
3. Fortunestown Lane Nov 2000 (ID-3321)	06/11/2000	Approximate Point
Additional Information: Reports (1) Press Archive (0)		
4. Flooding at Avoca Road, Saggart on 24th Oct 2011 (ID-11560)	24/10/2011	Exact Point
Additional Information: Reports (1) Press Archive (0)		
5. Flooding at Fortunestown Lane, Citywest, Co. Dublin on 24th Oct 2011 (ID-11600)	24/10/2011	Approximate Point
Additional Information: Reports (1) Press Archive (0)		
6. Flooding at Garter Lane, Saggart, Co. Dublin on 24th Oct 2011 (ID-11601)	24/10/2011	Approximate Point
Additional Information: Reports (1) Press Archive (0)		



MINUTES OF MEETING

Document No. / File Reference: P4D403A – F310 – 030 – 004

Project No.: PD403A

Project Title: OPW Flood Hazard Mapping – Phase 1

Purpose of Meeting: South Dublin County Council – Areas of flooding – Drainage Division and Roads(North County)

Participating: Senior Executive Engineer Drainage South Dublin County Council (SDCC)
Senior Engineer Env Serv (part-time) South Dublin County Council
Roads Engineer South Dublin County Council
Search Manager ESBI

Venue: South Dublin County Council Offices, Tallaght

Date(s) of Meeting: 25/04/05

Copies to: SDCC

Status: Final

Compiled by: Search Manager

Approved for ESBI: Search Manager

Approved for South Dublin County Council SEE Environmental Services Drainage

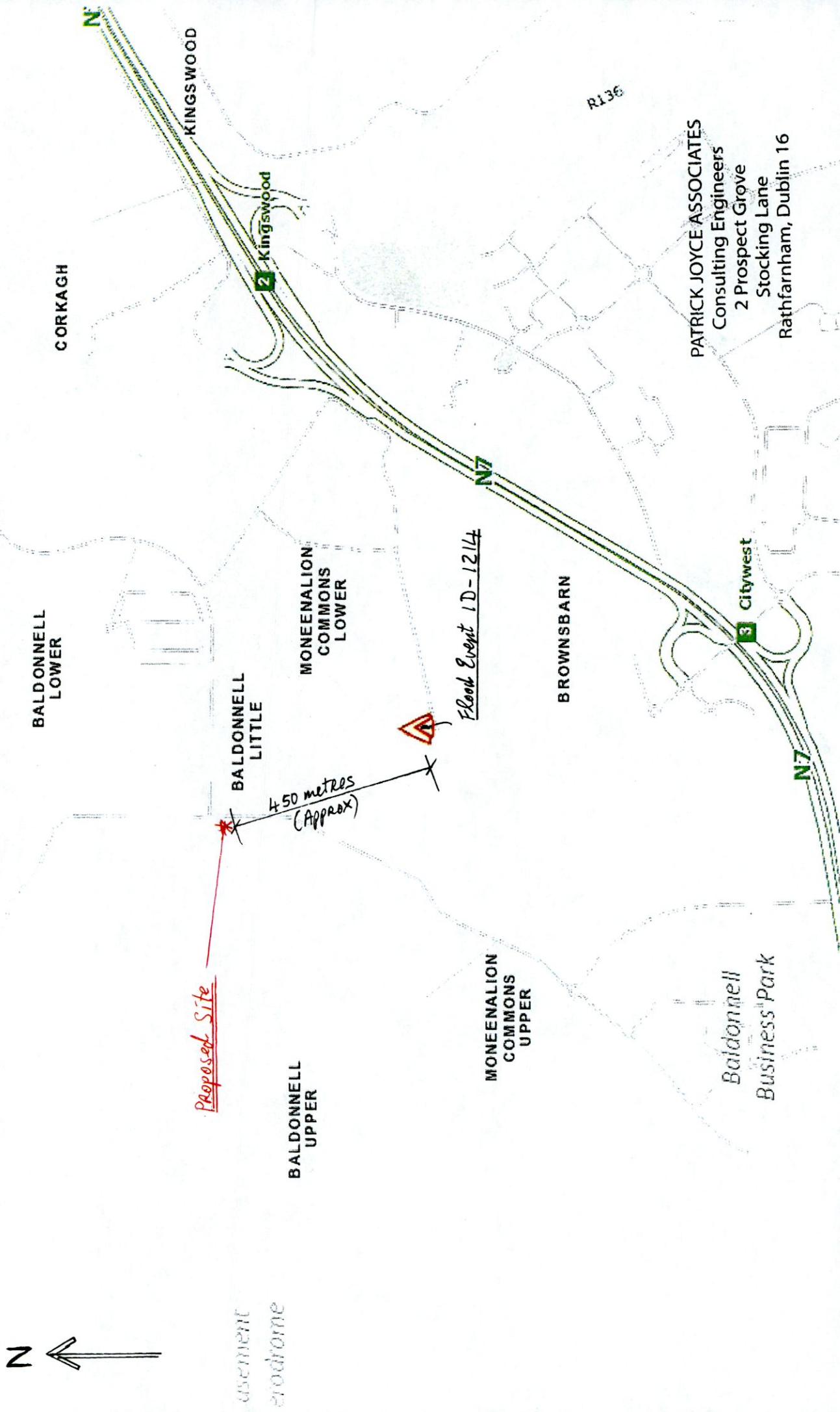
Date:



ITEM NO.	MINUTE	ACTION BY
1	Documents Issued	
1.1	<p>The following were issued by SDCC to ESBI:</p> <p>A. A map of South Dublin County illustrating areas vulnerable to flooding derived from discussions within the Drainage Section of SDCC.</p> <p>B. A list of locations vulnerable to flooding generated by the SDCC Roads Section (North) was presented.</p> <p>C. A CD issued by JB Barry to SDCC containing</p> <ul style="list-style-type: none"> ▪ Report of Flood Event 5/6 November 2000, ▪ Hydro Environmental Report on Lucan Village, ▪ Flood Extent mapping (Adobe pdf) ▪ Flood photos and ▪ As-built Flood Defence Asset drawings (AutoCAD). 	
1.2	<p>At the meeting, the locations vulnerable to flooding indicated on Map A (see heading 1.1) were reviewed by SDCC. The locations were assigned numbers and described. The locations and descriptions are listed below under Heading 2.</p> <p>The flooding information provided by the Roads Section (Document B heading 1.1) was added to Map A, then numbered and is described below under Heading 3.</p>	
2	Flood Locations (Drainage Section)	
2.1	<ol style="list-style-type: none"> 1. Newcastle Village – Glebe – Recurring. Basement of house. Flood ID 1181. 2. Peamount Road Recurring. Flood ID 1182. 3. Beech Row Cottages Ronanstown Recurring. 6 houses affected. Flood ID 1183. 4. Cappaghmore Culvert Recurring – 9th Lock Road. Flood ID 1184. 5. Camac Culvert recurring – Irish Farm Centre, Old Naas Road. Problems with structural integrity of culvert. Flood ID 1185. 6. Killinarden Stream Jobstown recurring. Blocked regularly with debris. Flood ID 1186. 7. Robinhood Stream Walkinstown Recurring. Flood ID 1187. 8. Whitehall Road Kimmage Recurring. Drainage Related. Flood ID 1188. 9. Dodder Mount Carmel Park recurring. Parkland. Flood ID 1189. 10. Dodder – Lower Dodder Road Recurring. Flood ID 1190. 11. Tobermaclog Backweston Stream Recurring. Refer to OPW and Kildare County Council. Flood ID 1211 * 12. Baldonnell Barney's Lane Recurring. Flood ID 1214 13. Newcastle Greenoge Recurring. Flood ID 1215 14. Palmerston – Mill Lane. Regular flooding near Liffey. Flood ID 1216 15. Camac Watery Lane Clondalkin Recurring. Flood ID 1220 16. Owendoher Stream Edmonstown Road. Nov 2000. Possible link to M50 works. Flood ID 1221 17. Hazelhatch Flooding Shinkeen recurring. Refer to OPW information 	
3	Flood Locations (Engineer - Roads Section – North by telephone)	
3.1	<ol style="list-style-type: none"> 18. Lucan St Edmonsbury. Flooding of Road. Flood ID 1222 19. Aylmer Road Newcastle. Location to be confirmed. Flood ID 1223 20. Rathcoole Bridge. Affects slip road Dublin bound traffic to Rathcoole. Flood ID 	

ITEM NO.	MINUTE	ACTION BY
4.	1224 21. Lyons Road Newcastle. Recurring. Flood ID 1225 Processing of Data	
4.1	The locations listed under Headings 2 and 3 above will be incorporated into the project database as Flood Events. They will then be mapped in the project GIS as points in accordance with the locations indicated on Map B.	

EXTRACT FROM FLOOD MAP



Proposed Site

450 metres
(Approx)

Flood Event ID-1214

usement
erodrome

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BALDONNELL UPPER
Baile Dhónaill Uachtarach

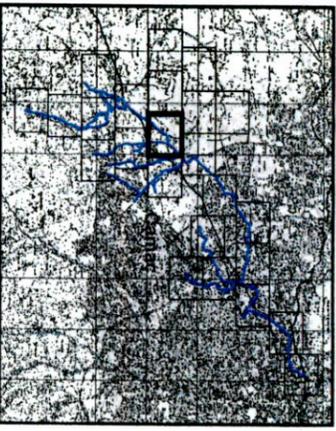
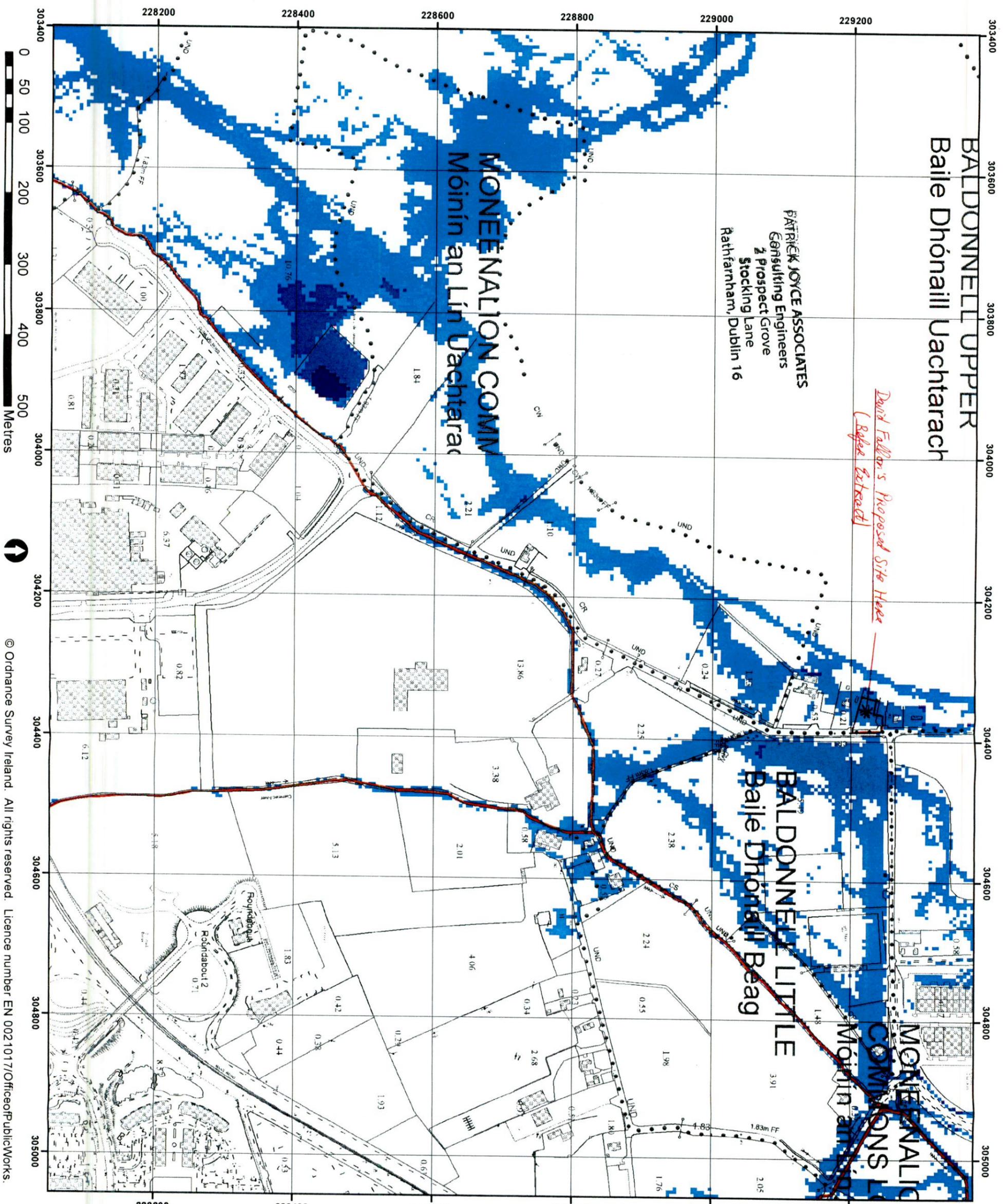
PATRICK JOYCE ASSOCIATES
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*David Fallon's Proposed Site Here
(Bayer Extract)*

BALDONNELL LITTLE
Baile Dhónaill Beag

MONEENALION COMM
Móinín an Lín Uachtarach

MONEENALION COMM
Móinín an Lín



IMPORTANT USER NOTE:
THE VIEWER OF THIS MAP SHOULD REFER
TO THE DISCLAIMER, GUIDANCE NOTES
AND CONDITIONS OF USE THAT
ACCOMPANY THIS MAP.

- Legend**
- 1% AEP Fluvial Flood Depth**
- 0 - 0.25m
 - 0.25 - 0.5m
 - 0.5 - 1m
 - 1.0 - 1.5m
 - 1.5 - 2m
 - >2m
- Modelled River Centreline
- - - AFA Extents

FINAL

REV	NOTE	DATE



OPW
The Office of Public Works
Jonathan Swift Street
Dublin

RPS
Erinwood House
T: +44(0) 28 90 657214
74 Boucher Road F: +44(0) 28 90 688286
Pulfer M: www.rpsgroup.com
Co. Wick B112SRZ E: rps@rpsgroup.com

Map:	Camac Fluvial Flood Depths
Map Type:	DEPTH
Source:	FLUVIAL
Map Area:	HPW
Scenario:	CURRENT
Drawn By:	C.C.
Date:	27 October 2017
Checked By:	A.S.
Date:	27 October 2017
Approved By:	S.P.
Date:	27 October 2017
Drawing No.:	E09CAM_DPFC010_F1_08
Map Series:	Page 8 of 24
Drawing Scale:	1:5,000 @A3

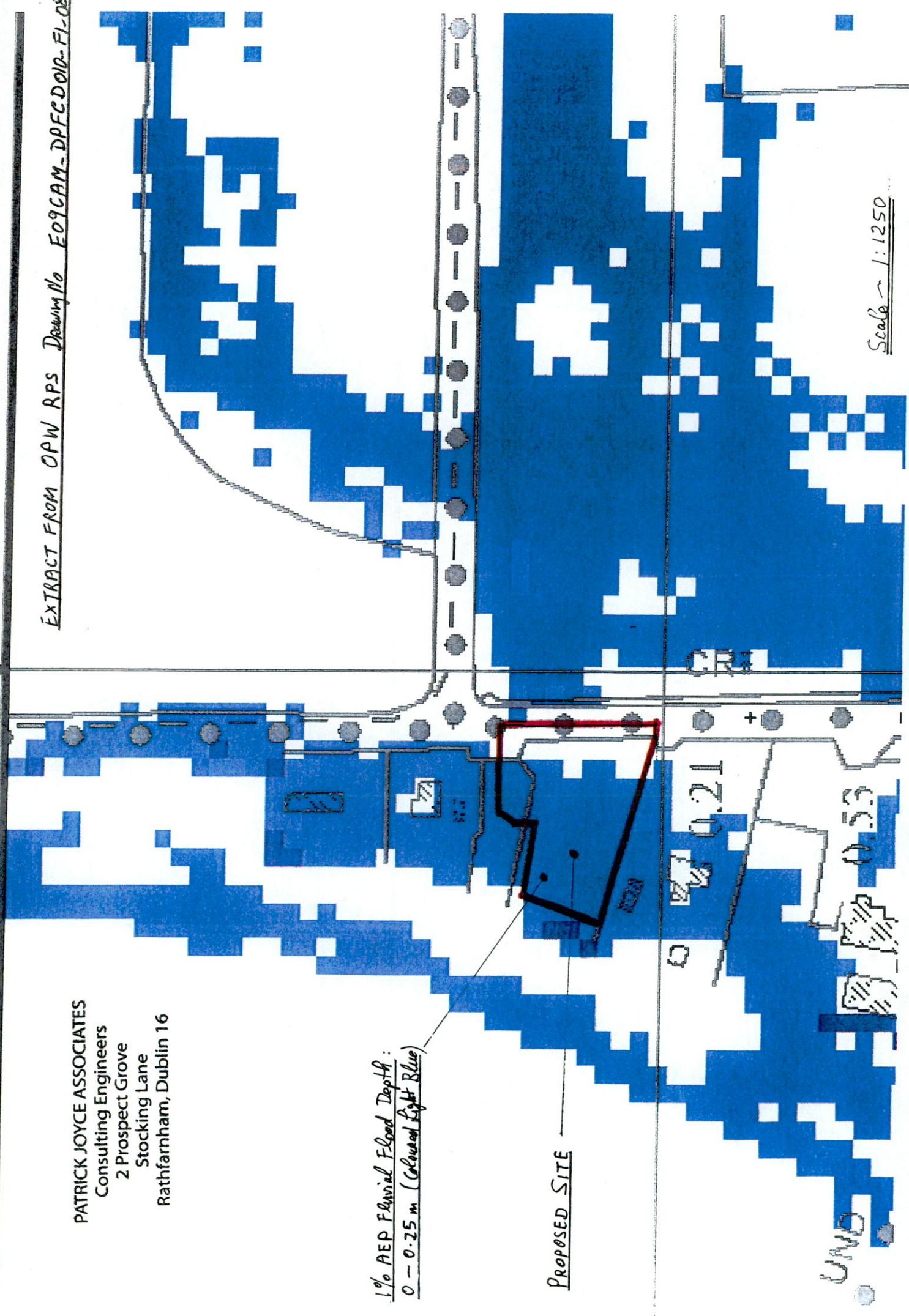
EXTRACT FROM OPW RPS Drawing No E09CAM-DFECD010-FI-08

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2 Prospect Grove
Stocking Lane
Rathfarnham, Dublin 16

1% AEP Fluvial Flood Depth:
0 - 0.25 m (Coloured Light Blue)

PROPOSED SITE

Scale 1:1250



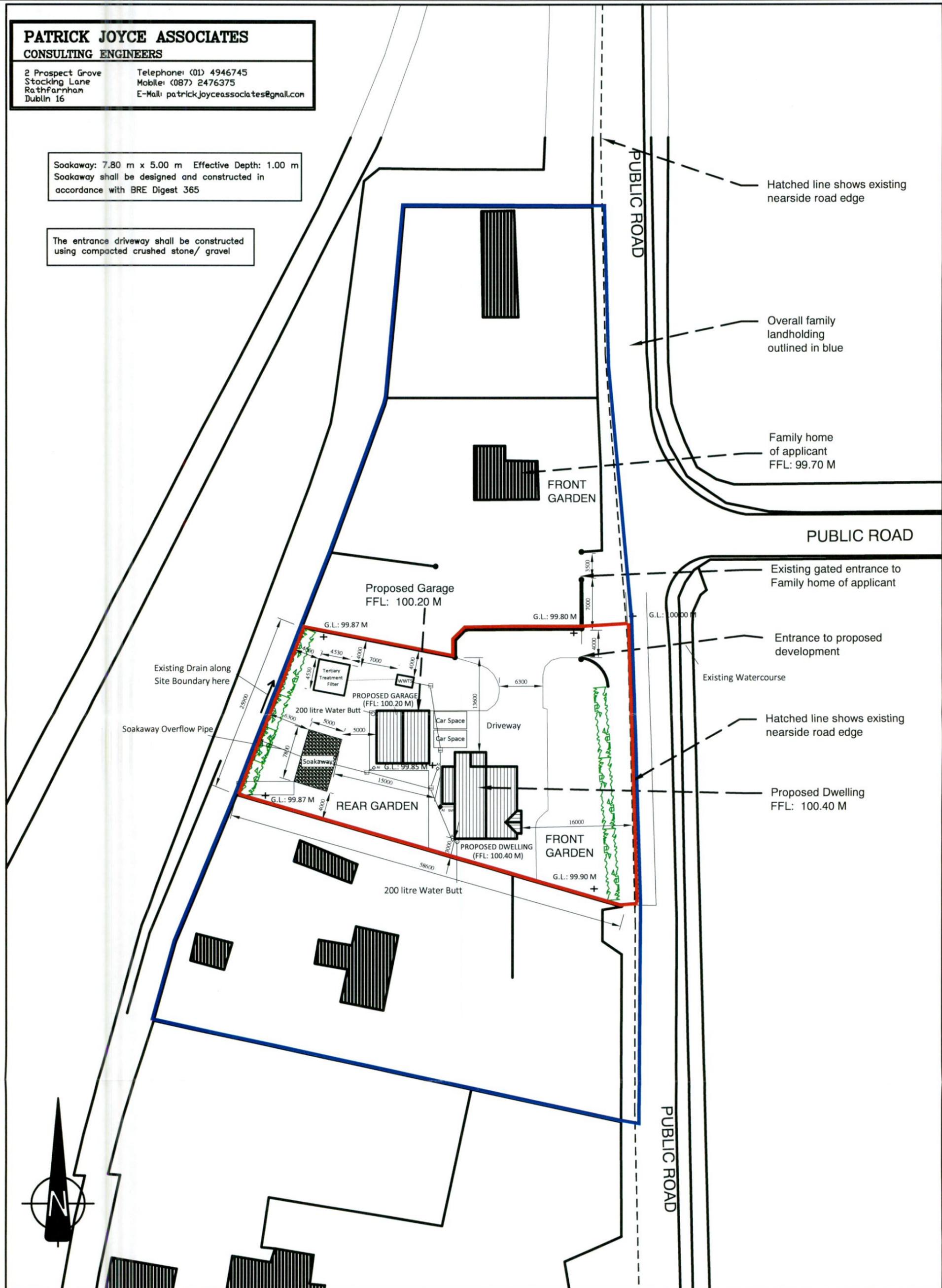
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Dublin 16

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E-Mail: patrick.joyceassociates@gmail.com

Soakaway: 7.80 m x 5.00 m Effective Depth: 1.00 m
Soakaway shall be designed and constructed in accordance with BRE Digest 365

The entrance driveway shall be constructed using compacted crushed stone/ gravel



ISSUED FOR PLANNING APPLICATION PURPOSES ONLY

MCGILLEN DESIGN SERVICES
PLANNING AND PROJECT MANAGEMENT

BURGAGE, T. (045) 891 468
BLESSINGTON, M. (087) 646 9079
CO. WICKLOW. E: petermcgillen@hotmail.com

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Use given dimensions. Contractor to check all dimensions on site prior to commencement of works. Any discrepancies are to be referred to the Site Architect/ Engineer.

MCGILLEN DESIGN SERVICES, "BURGAGE", BLESSINGTON, CO. WICKLOW.				
E-Mail: petermcgillen@hotmail.com Phone: 045/ 891468				
CLIENT: David Fallon Baldonnell Upper Dublin 22	PROJECT: Proposed Development at Baldonnell Upper, Baldonnell Road Dublin 22	DRAWING TITLE: SITE DRAINAGE LAYOUT PLAN		
PREPARED BY: PMcG/PJ	DATE: 02/08/2021	DWG NO.: PP008	SCALE: 1:500	REVISION: A
		STATUS: PLANNING		