RESIDENTIAL DEVELOPMENT AT SUNVIEW, SOUTH DOUGLAS ROAD, CORK

ENGINEERING SERVICES REPORT

Engineering Services Report for Planning

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3

Document Control Sheet

Project Number:	OM25		
Project Name:	Residential Development at Sunview, South Douglas Road, Cork		
Client:	Lyonshall Ltd.		
Document Title:	Engineering Services Report for Planning		
Document Reference:	OM25R001 SITE SERVICES REPORT	Current Revision:	A

Issue History

Rev.	Date	By	Chk	Description
A	13/02/2019	NF	PB	ISSUED FOR PLANNING

Review

Prepared By:	Niall FitzGerald
Date:	13th February 2019
Other Contributors:	Pat Brady
Checked by:	Pat Brady

Table of Contents

1.0 Introduction

Lyonshall Ltd. propose to develop a site at Sunview, South Douglas Road for Residential Development. This development will comprise of the following:

- Construction of an internal road network system & public open space
- Construction of accommodation units comprising of
    a. 9 no. 2-bed apartments
    b. 3 no. 1 bed apartments
    c. 12 no. 2 bed houses
    d. 1 no. 1 bed house
- Construction of site boundary

See Appendix A: Site Location Map & Proposed Site Plan

The following is an Engineering services report in support of a planning application for the above development. This report addresses the following engineering issues:

a. Foul Effluent Disposal
b. Surface Water Disposal
c. Water Supply

2.0 Report

a. Foul Effluent Disposal

The following is the proposed strategy for the disposal of foul effluent generated by the new residential development:

All foul from the proposed development will be collected by a gravity foul system, which will discharge to the existing Irish Water network(s) on South Douglas Road, Cork.

For details of the above, see Appendix B: Drg. No. OM25-002 Rev C – Proposed Foul & Storm Drainage Layout.

Furthermore, for details of the existing public services, see Appendix D – Local Authority & Irish Water Records.

a) Surface Water Disposal

The following is the proposed strategy for the disposal of storm water generated by the new residential development.

It is proposed that all surface water generated by the proposed development will be collected and discharged to a new gravity storm system.

This gravity system will discharge to the nearest existing Local Authority Storm drainage system on South Douglas Road. However, the rate of discharge to the public system will be controlled by means of a flow restrictor so as to reflect the green field run off from the site (circa 2 litres/sec). Attenuated water will be collected in an off line attenuation tank, which will be sized to reflect the volume of water attenuated.

Alternatively consideration will be given to on-site infiltration of storm water.

For details of the above, see Appendix B: Drg. OM25-001 Rev C – Proposed Foul & Storm Drainage Layout

Furthermore, for details of the existing public services, see Appendix D – Local Authority & Irish Water Records.

b) Water Supply

It is proposed to serve the proposed residential development by taking a connection from the existing Irish Water Network(s) on South Douglas Road and supply the proposed units with a new water main.

Fire hydrants will be installed to serve the new development and their number and position will be compliant with the Fire Safety Certificate for the development.

A sluice valve will be located immediately upstream of the proposed connection point from the existing network(s).

For details of the above, see Appendix B: Drg. No. OM25-002 Rev B – Proposed Watermain supply.

Watermain installation (mains, sluice valves & hydrants) shall be installed in accordance with the requirements of Irish water and the Water services section of Cork City Council.

Note: A pre-connection enquiry was submitted to Irish water on 22nd January 2019, in which the above strategy for foul, storm water and water supply were proposed. This enquiry included details of the following:

- Foul loadings from the proposed development to the Irish Water System on South Douglas Road, Cork.
- Water demand for the proposed development

A response was received from Irish Water to this application on 12th February 2019 and the following was confirmed:

- Wastewater and water connection can be facilitated
- The confirmation of feasibility does not extend to fire flow requirements. Determination of flow rate currently available will necessitate pressure/flow test on the existing network
- Discharge of storm water to the Irish Water networks cannot be accommodated. It is advised to consider on-site disposal means or connect to a nearby Local Authority Storm system, if available.

See Appendix C: Pre Connection Enquiry to Irish Water & Response from Irish Water

Appendix A -

Site Location Map

Proposed Site Plan

Site Location Map

SITE BOUNDARY

OS Map Ref: 6383-21; 6383-22
Ordnance Survey Ireland License No. AR 0005020

Revision Description	Date	Rev. No.	Issued by
Planning Submission	02/06/2020	P01	AW

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architecture|urban design
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tel: +353 1 202 7400
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Dublin
The Chapel
Mount St. Anne's
Milltown, Dublin 6
D06 XN52 Ireland

Cork
26 South Mall
Cork City
Co. Cork
T12 R2RV Ireland

Project No.:	P2060	**Scale @** A3:	1:1000
Project Lead:	AR	**Date Printed:**	02/06/2020
Drawn By:	AW	**Current Rev.:**	P01
Model No.:	1829-OMP-00-00-DR-A-XX-14000		
Purpose:	S4		

Project: Sunview
Location: South Douglas Road, Cork
Client: Lyonshall Ltd.

Drawing Title: Site Location Map
Drawing No.: 1829-OMP-00-00-DR-A-XX-14000

Suitability - Checked By - Date

Proposed Site Layout Plan at Ground Floor

Application site outlined in red

OS Map Ref: 6383-21; 6383-22
Ordnance Survey Ireland License No. AR 0005020
All levels (in meters) are related to malin head datum.
All dimensions in millimeters. Figured dimensions only are to be taken from this drawing.

Please refer to Landscape Architect's drawings for landscape proposals and boundary treatments.

Please refer to Engineer's drawings for road levels, site services and any other engineering proposals.

Revision Description	Date	Rev. No.	Issued by
Planning Submission	02/06/2020	P01	AW

o'mahony pike
architecture|urban design
email: info@omahonypike.com
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Dublin
The Chapel
Mount St. Anne's
Milltown, Dublin 6
D06 XN52 Ireland

Cork
26 South Mall
Cork City
Co. Cork
T12 R2RV Ireland

Project No.:	1829	**Scale @** A3:	1:500
Project Lead:	AR	**Date Printed:**	02/06/2020
Drawn By:	AW	**Current Rev.:**	P01
Model No.:	1829-OMP-00-00-DR-A-XX-10000		
Purpose:	S4		

Project: Sunview
Location: South Douglas Road, Cork
Client: Lyonshall Ltd.

Drawing Title: Proposed Site Layout Plan at Ground Floor
Drawing No.: 1829-OMP-00-00-DR-A-XX-10000

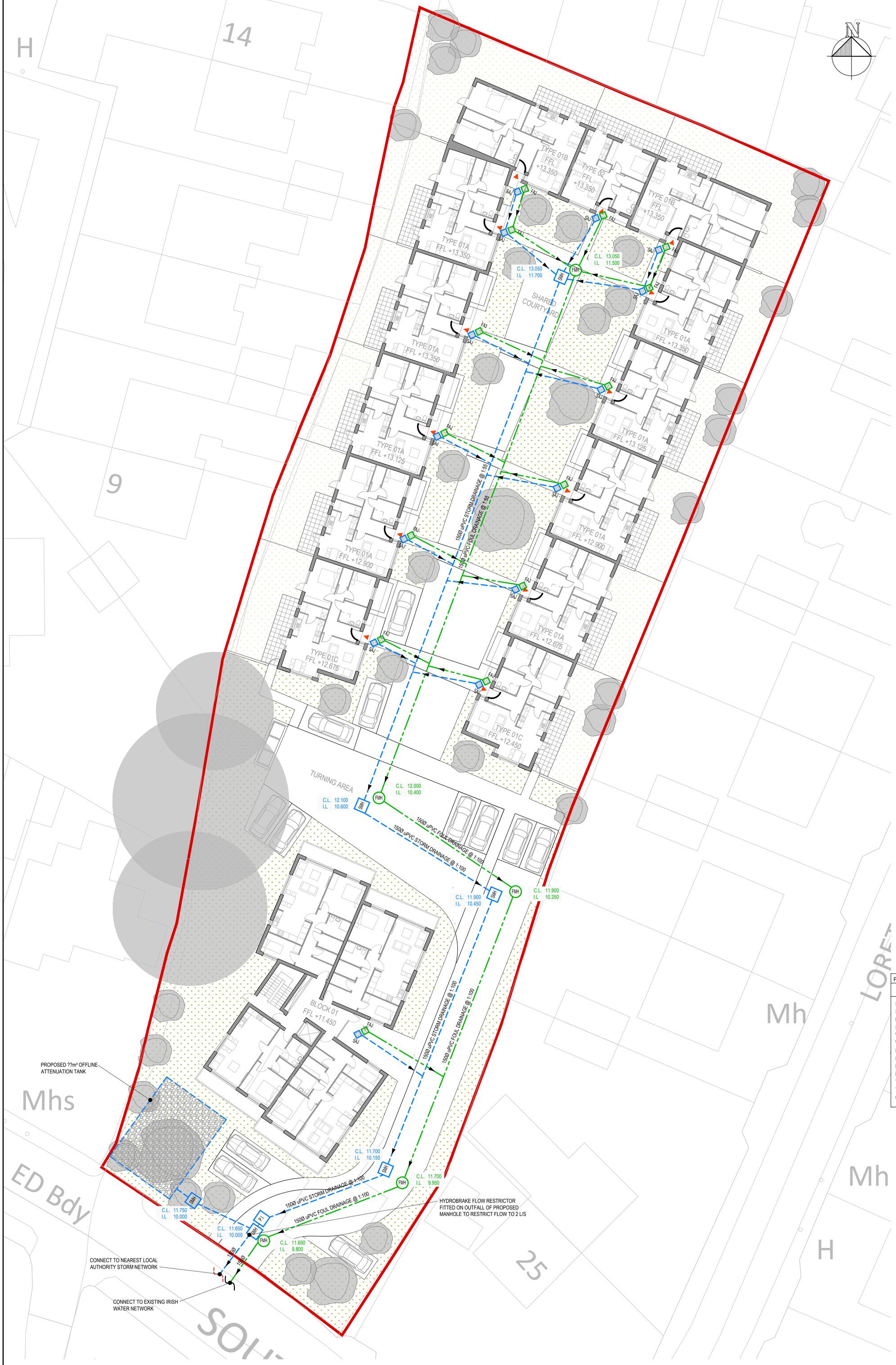
Suitability - Checked By - Date

Appendix B -

Site Services Drawings:

Drg. No. OM25-001 Rev C Proposed Foul & Storm Drainage Layout

Drg. No. OM25-002 Rev B Proposed Watermain Layout



PROPOSED SITE DRAINAGE LAYOUT

SCALE 1:200

ALL WASTEWATER DETAILS & LAYOUT ARE TO COMPLY WITH AND BE ADOPTED FROM THE IRISH WATER - CONNECTION AND DEVELOPER SERVICES DOCUMENT FOR WASTEWATER INFRASTRUCTURE STANDARD DETAILS. REF TO IRISH WATER DOCUMENT No IW-CDS-5030 & CODE OF PRACTICE FOR WASTEWATER DOCUMENT IW-CDS-5030

WATER TEST:

FOUL & STORM SEWERS SHOULD BE TESTED FOR A MIN OF 30 MINUTES, UNDER A HEAD OF NOT LESS THAN 1M OR GREATER THAN 2.5M

OVER THE HIGHEST POINT ON THE LINE UNDER TEST; THE PIPELINE SHOULD 'STAND' FOR A PERIOD 2 HOURS AFTER FILLING AND TOPPED UP AS NECESSARY BEFORE COMMENCING THE TEST.
THE MAXIMUM AMOUNT OF WATER LOSS SHOULD BE IN ACCORDANCE WITH LOCAL AUTHORITY GUIDELINES

AN AIR TEST MAY BE CARRIED OUT IN LIEU OF THE ABOVE AND IN ACCORDANCE WITH LOCAL AUTHORITY GUIDELINES

AT TIME OF COMPLETION THE DEVELOPER SHOULD ENSURE THAT ALL DRAINS WITHIN THE SITE ARE CLEAN AND FREE OF OBSTRUCTIONS

A CONDITION SURVEY SHOULD ALSO BE CARRIED OUT VIA CCTV FOOTAGE AND PRESENTED TO THE LOCAL AUTHORITY PRIOR TO SITE HANDOVER

PIPE COVER CHART: WITHOUT CONCRETE ENCASEMENT	
LOCATION:	MIN.COVER.
SEWERS IN ROAD	1200
SEWERS IN OPEN SPACES	-
NOT ADJACENT TO ROADS	900
SEWERS IN GARDENS	600
WATERMAINS ALL LOCATIONS	900
WATER SERVICES ALL LOCATONS	600
ELEC/ESB CABLE DUCTS IN ROADWAY	900
ELEC/ESB CABLE DUCTS IN FOOTPATHS	500
NATURAL GAS MAINS IN ROADWAYS	800
NATURAL GAS MAINS IN FOOTPATHS	600
TELECOM DUCTS IN ROADWAYS	750
TELECOM DUCTS IN FOOTPATHS	350
CABLE TV DUCTS IN ROADS & FOOTPATHS	450

LEGEND

- FAJ — PROPOSED FOUL AJ
- SAJ — PROPOSED STORM AJ
- FMH — PROPOSED FOUL MANHOLE
- 150Ø uPVC FOUL SEWER — PROPOSED FOUL SEWER
- SMH — PROPOSED STORM MANHOLE
- 150Ø uPVC STORM SEWER — PROPOSED STORM SEWER
- P.I. — PROPOSED PETROL INTERCEPTOR
- CMH — PROPOSED COMBINED SEWER
- EXISTING COMBINED SEWER

NOTES

GENERAL

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2) THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S, SERVICES ENGINEER'S AND HORGAN LYNCH DRAWINGS, DETAILS AND SPECIFICATIONS.

3) ALL DIMENSIONS TO BE CHECKED ON SITE AND ANY DISCREPANCY TO BE REPORTED TO THE ARCHITECT / ENGINEER. FIGURED DIMENSIONS ONLY TO BE USED, DRAWINGS NOT TO BE SCALED. ALL LEVELS ARE STRUCTURAL UNLESS OTHERWISE NOTED.

Rev	By	Date	Description
A	KL	04.10.18	ISSUED FOR INFORMATION
B	KL	08.10.18	ARCHITECTS BACKGROUND UPDATED - REISSUED FOR INFORMATION
C	KL	13.02.19	ISSUED FOR PLANNING APPLICATION

Scales		Date	Drawn	C.A.D. REF.
1:200	A1	OCT-18	KL	OM25-001.dwg

JOB TITLE

SUNVIEW DEVELOPMENT
SOUTH DOUGLAS RD

DRG. TITLE

PROPOSED FOUL & STORM LAYOUT PLAN

Horganlynch
Consulting Engineers

Tellengana, Blackrock Road, Cork.
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e: cork@horganlynch.ie

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e: dublin@horganlynch.ie

DRAWING NUMBER	OM25-001	REV. C

L:\OM\OM25\Working\OM25-002.dwg 08/10/2018 11:42 - A1

PROPOSED WATERMAIN LAYOUT

SCALE 1:200

PIPE COVER CHART: WITHOUT CONCRETE ENCASEMENT	
LOCATION:	MIN.COVER.
SEWERS IN ROAD	1200
SEWERS IN OPEN SPACES	-
NOT ADJACENT TO ROADS	900
SEWERS IN GARDENS	600
WATERMAINS ALL LOCATIONS	900
WATER SERVICES ALL LOCATONS	600
ELEC/ESB CABLE DUCTS IN ROADWAY	900
ELEC/ESB CABLE DUCTS IN FOOTPATHS	500
NATURAL GAS MAINS IN ROADWAYS	800
NATURAL GAS MAINS IN FOOTPATHS	600
TELECOM DUCTS IN ROADWAYS	750
TELECOM DUCTS IN FOOTPATHS	350
CABLE TV DUCTS IN ROADS & FOOTPATHS	450

LEGEND

- PROPOSED MANIFOLD METER CHAMBER
- PROPOSED WATER METER
- PROPOSED SLUICE VALVE
- PROPOSED AIR VALVE
- PROPOSED THRUST BLOCK
- PROPOSED 100Ø HDPE WATERMAIN
- EXISTING LOCAL AUTHORITY WATERMAIN

ALL WATER-SUPPLY DETAILS & LAYOUT ARE TO COMPLY WITH AND BE ADOPTED FROM THE IRISH WATER - CONNECTION AND DEVELOPER SERVICES DOCUMENT FOR WATER INFRASTRUCTURE STANDARD DETAILS. REF TO IRISH WATER DOCUMENT No IW-CDS-5020 AND CODE OF PRACTICE DOCUMENT IW-CDS-5020

NOTES

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Rev	By	Date	Description
A	KL	04.10.18	ISSUED FOR INFORMATION
B	KL	08.10.18	ARCHITECTS BACKGROUND UPDATED - REISSUED FOR INFORMATION

Scales		Date	Drawn	C.A.D. REF.
1:200	A1	OCT-18	KL	OM25-002.dwg

JOB TITLE

SUNVIEW DEVELOPMENT
SOUTH DOUGLAS RD

DRG. TITLE

PROPOSED WATERMAIN LAYOUT PLAN

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e: cork@horganlynch.ie

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e: dublin@horganlynch.ie

DRAWING NUMBER: OM25-002

REV. B

1:1

Appendix C – Pre-connection enquiry to Irish Water & Response from Irish Water

Pre-connection enquiry form

Industrial and commercial developments, mixed use developments, housing developments, business developments

This form is to be filled out by applicants enquiring about the feasibility of a water and/or wastewater connection to Irish Water infrastructure. If completing this form by hand, please use BLOCK CAPITALS and black ink.

Please refer to the **Guide to completing the pre-connection enquiry form** on page 12 of this document when completing the form.

Section A | Applicant details

1 WPRN number (where available):

2 Applicant details:

Registered company name (if applicable): LYONSHALL LTD

Trading name (if applicable):

Company registration number (if applicable):

If you are not a registered company/business, please provide the applicant's name:

Contact name: MR. KIERAN COUGHLAN

Postal address: FLOOR 3 BLACKROCK HALL
BLACKROCK AVENUE SKEHARD ROAD
CORK

Eircode: T12YR2P

Telephone: 021 4358680

Mobile:

Email: lyonshall@eircom.net

3 Agent details (if applicable):

Contact name: NIALL FITZGERALD

Company name (if applicable): HORGANLYNCH

Postal address: TELLENGANA BLACKROCK ROAD
CORKT

Eircode: T12HP7R

Telephone: 021 4936100

Email: cork@horganlynch.ie

4 **Please indicate whether it is the applicant or agent who should receive future correspondence in relation to the enquiry:**

Applicant ☐ Agent ☑

Section B | Site details

5 **Site address:** SUNVIEW

SOUTH DOUGLAS ROAD CORK

6 **Irish Grid co-ordinates of site:** E(X) 568692 N(Y) 570246

Eg. co-ordinates of GPO, O'Connell St., Dublin: E(X) 315,878 N(Y) 234,619

7 **Local Authority:**

Local Authority that granted planning permission (if applicable):

CORK CITY COUNCIL

8 **Has full planning permission been granted?** Yes ☐ No ☑

If 'Yes', please provide the current or previous planning reference number:

SUBJECT TO PART 8 PLANNING

9 **Previous use of this site (if applicable):** PITCH & PUTT COURS

10 **Date that previous development was last occupied (if applicable):** ☐☐/☐☐/☐☐☐☐

11 **Are there poor ground conditions on-site?** Yes ☐ No ☑

If 'Yes', please include site investigation report and a detailed site-specific report on the approach being taken to deal with ground conditions specifically with regard to pipe support and trenching.

12 **Are there potential contaminated land issues?** Yes ☐ No ☑

If 'Yes', please include a detailed site-specific report on the approach being taken to deal with contaminated land and the measures being taken to mitigate the impact on infrastructure.

13 **Is the development compliant with the local area development plan?** Yes ☑ No ☐

Section C | Water connection and demand details

14 **Is there an existing connection to public water mains at the site?** Yes ☑ No ☐

15 **Is this enquiry for an additional connection to the one already installed?** Yes ☑ No ☐

16 **Is this enquiry to increase the size of an existing water connection?** Yes ☐ No ☑

17 **Is this enquiry for a new water connection?** Yes ☑ No ☐

18 **Approximate date water connection is required:** ☐☐ / ☐☐ / 2020

19 **Please indicate pre-development water demand (if applicable):**

Pre-development peak hour water demand	N/A	**l/s**
Pre-development average hour water demand	N/A	**l/s**

Pre-development refers to brownfield sites only. Please include calculations on the attached sheet provided.

20 **Please indicate the domestic water demand (housing developments only):**

Post-development peak hour water demand	0.21	**l/s**
Post-development average hour water demand	0.16	**l/s**

Please include calculations on the attached sheet provided.

21 **Please indicate the business water demand (shops, offices, schools, hotels, restaurants, etc.):**

Post-development peak hour water demand	N/A	**l/s**
Post-development average hour water demand	N/A	**l/s**

Please include calculations on the attached sheet provided. Where there will be a daily/weekly/seasonal variation in the water demand profile, please provide all such details.

22 **Please indicate the industrial water demand (industry-specific water requirements):**

Post-development peak hour water demand	N/A	**l/s**
Post-development average hour water demand	N/A	**l/s**

Please include calculations on the attached sheet provided. Where there will be a daily/weekly/seasonal variation in the water demand profile, please provide all such details.

23 **What is the existing ground level at the property boundary at connection point (if known) above Malin Head Ordnance Datum?**

11.40 m

24 **What is the highest finished floor level of the proposed development above Malin Head Ordnance Datum?**

16.05 m

25 **Is on-site water storage being provided?** Yes ☑ No ☐

Please include calculations (details and capacity) of all water storage provided on-site on the attached sheet provided.

26 **Are there fire flow requirements?** Yes ☑ No ☐

Additional fire flow requirements over and above those identified in Q20, Q21 and Q22 above	35	**l/s**

Please include calculations on the attached sheet provided, and include confirmation of requirements from the Fire Authority.

27 **Do you propose to supplement your potable water supply from other sources?** Yes ☐ No ☑

If 'Yes', please indicate how you propose to supplement your potable water supply from other sources (see **Guide to completing the application form** on page 12 of this document for further details):

Section D | Wastewater connection and discharge details

28 **Is there an existing connection to a public sewer at the site?** Yes ☑ No ☐

29 **Is this enquiry for an additional connection to one already installed?** Yes ☑ No ☐

30 **Is this enquiry to increase the size of an existing connection?** Yes ☐ No ☑

31 **Is this enquiry for a new wastewater connection?** Yes ☑ No ☐

32 **Approximate date that wastewater connection is required:** ☐☐ / ☐☐ / 2020

33 **Please indicate pre-development wastewater discharge (if applicable):**

Pre-development peak discharge	N/A	**l/s**
Pre-development average discharge	N/A	**l/s**

Pre-development refers to brownfield sites only. Please include calculations on the attached sheet provided.

34 **Please indicate the domestic wastewater hydraulic load (housing developments only):**

Post-development peak discharge	0.21	**l/s**
Post-development average discharge	0.16	**l/s**

Please include calculations on the attached sheet provided.

35 **Please indicate the commercial wastewater hydraulic load (shops, offices, schools, hotels, restaurants, etc.):**

Post-development peak discharge	N/A	**l/s**
Post-development average discharge	N/A	**l/s**

Please include calculations on the attached sheet provided.

36 Please indicate the industrial wastewater hydraulic load (industry-specific discharge requirements):

Post-development peak discharge	N/A	**l/s**
Post-development average discharge	N/A	**l/s**

Please include calculations on the attached sheet provided.

37 Wastewater organic load:

Characteristic	Max concentration (mg/l)	Average concentration (mg/l)	Maximum daily load (kg/day)
Biochemical oxygen demand (BOD)	470		
Chemical oxygen demand (COD)	888		
Suspended solids (SS)	293		
Total nitrogen (N)	55		
Total phosphorus (P)	8.21		
Other			

Temperature range	
pH range	

38 Storm water run-off will only be accepted from brownfield sites that already have a storm/surface water connection to a combined sewer. In the case of such brownfield sites, please indicate if the development intends discharging surface water to the combined wastewater collection system:

Yes ☑ No ☐

If 'Yes', please give reason for discharge and comment on adequacy of SUDS/attenuation measures proposed.

surface water to be attenuated
on site and discharge to sewer
to reflect greenfield run off

Please submit detailed calculations on discharge volumes, peak flows and attenuation volumes with this application.

39 Do you propose to pump the wastewater? Yes ☐ No ☑

If 'Yes', please include justification for your pumped solution with this application.

40 What is the existing ground level at the property boundary at connection point (if known) above Malin Head Ordnance Datum?

11.40 m

41 What is the lowest finished floor level on-site above Malin Head Ordnance Datum? 11.45 m

Section E | Development details

42 Please outline the domestic and/or industry/business use proposed:

Property type	Total number of units for this application
Domestic	24
Office	N/A
Residential care home	N/A
Hotel	N/A
Factory	N/A
School	N/A
Institution	N/A
Retail unit	N/A
Industrial unit	N/A
Other (please specify)	

43 Approximate start date of proposed development: ☐☐ / ☐☐ / 2020

44 Is the development multi-phased? Yes ☐ No ☑

If 'Yes', application must include a master-plan identifying the development phases and the current phase number.

If 'Yes', please provide details of variations in water demand volumes and wastewater discharge loads due to phasing requirements.

Section F | Supporting documentation

Please provide the following additional information:

> Site location map: A site location map to a scale of 1:1000, which clearly identifies the land or structure to which the enquiry relates. The map shall include the following details:

a) The scale shall be clearly indicated on the map.

b) The boundaries shall be delineated in red.

c) The site co-ordinates shall be marked on the site location map.

> Details of planning and development exemptions (if applicable).

> Calculations (calculation sheets provided below).

> Site layout map to a scale of 1:500 showing layout of proposed development, water network and wastewater network layouts, additional water/wastewater infrastructure if proposed, connection points to Irish Water infrastructure (if known).

> All design submissions as outlined in the Irish Water Codes of Practice for Water Infrastructure and the Irish Water Codes of Practice for Wastewater Infrastructure, including the layout of all other services to be provided within the site (for example: gas, electricity, telecommunications).

> Any other information that might help Irish Water assess this pre-connection enquiry.

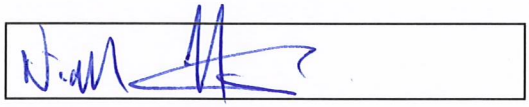
Section G | Declaration

I/We hereby make this application to Irish Water for a water and/or wastewater connection as detailed on this form.

I/We understand that any alterations made to this application must be declared to Irish Water.

The details that I/we have given with this application are accurate.

I/We have enclosed all the necessary supporting documentation.

Signature: 

Date: 15 / 01 / 2019

Your full name (in BLOCK CAPITALS):

N	I	A	L	L		F	I	T	Z	G	E	R	A	L	D															

Irish Water will carry out a formal assessment based on the information provided on this form.
Any future connection offer made by Irish Water will be based on the information that has been provided here.

Please submit the completed form to **newconnections@water.ie** or alternatively, post to:

Irish Water
PO Box 860
South City Delivery Office
Cork City

For office use only:

Input customer number: | | | | | | | | | | |

Calculations

Water demand

No. of Houses = 24

Per capita Consumption = 150 litres/person/day

Total occupancy based on an occupancy factor of 4 = 4 x 24 = 96

Average hour water demand = 150 x 96 = 14400 litres/day
= 0.16 litres/sec

Peak hour water demand = 1.25 x 14400 = 18000 litres/day
= 0.21 litres/sec

On-site storage

No. of Dwellings = 24

Storage per dwelling (incl. power shower) = 340 litres/day

Additional water storage (for additional shower ensuite) = 90 litres/day

Water storage per dwelling = 430 litres/day

Total Water storage = 24 x 430 litres = 10320 litres/day

Fire flow requirements

35 litres/sec

Foul wastewater discharge

No. of Houses = 24

DWF = 600 Litres/dwelling/day

Average discharge = 600 x 24 = 14400 litres/day
= 0.16 litres/sec

Peak discharge = 1.25 x 0.16 = 0.21 litres/sec

Guide to completing the pre-connection enquiry form

This form should be completed by applicants enquiring about the feasibility of a water and/or wastewater connection to Irish Water infrastructure.

The Irish Water Codes of Practice are available at **www.water.ie** for reference.

Section A | Applicant Details

Question 1: 'Water Point Reference Number (WPRN)' is a unique number assigned to every single water services connection in the country. The WPRN is prominently displayed on correspondence received from Irish Water, and can be found on water bills, previous connection offers, or previous enquiries in relation to the site. Existing customers and brownfield sites should have a WPRN. New customers are not required to answer this question.

Question 2: This question requires the applicant or company enquiring about the feasibility of a connection to identify themselves, their postal address, and to provide their contact details.

Question 3: If the applicant has employed a consulting engineer or an agent to manage the enquiry on their behalf, the agent's address and contact details should be recorded here.

Question 4: Please indicate whether it is the applicant or the agent who should receive future correspondence in relation to the enquiry.

Section B | Site details

Question 5: This is the address of the site requiring the water/wastewater service connection and for which this enquiry is being made.

Question 6: Please provide the Irish Grid co-ordinates of the proposed site. Irish grid positions on maps are expressed in two dimensions as Eastings (E or X) and Northings (N or Y) relative to an origin. You will find these coordinates on your Ordnance Survey map which is required to be submitted with an application.

Question 7: Please identify the Local Authority that is or will be dealing with your planning application, for example Cork City Council.

Question 8: Please indicate if planning permission has been granted for this application, and if so, please provide the planning permission reference number.

Question 9: Please specify the previous use of the site that is proposed to be developed, for example if greenfield, please state 'Agricultural'.

Question 10: Please specify the date that the development site was last occupied. Your answer will help us to determine the previous water usage/wastewater load of the development. If the site was previously greenfield, then this question does not need to be completed.

Question 11: Please provide details in relation to the ground conditions on the site if they are known to be poor, for example soil with a low bearing capacity, high water table, presence of peat, silt, etc. If a site investigation report is available, please include it with your enquiry.

Question 12: Please provide details in relation to contaminated land on your site (if any); this will determine what pipe material will be appropriate in the vicinity of the contaminated ground.

Question 13: Please indicate if the development is compliant with the local area development plan. You should contact your Local Authority in this regard and confirm same by ticking the appropriate box.

Section C | Water connection and demand details

Question 14: Please indicate if a water connection already exists for this site.

Question 15: Please indicate if this enquiry concerns an additional connection to one already installed on the site.

Question 16: Please indicate if you are proposing to upgrade the water connection to facilitate an increase in water demand. Irish Water will determine what impact this will have on our infrastructure.

Question 17: Please indicate if this enquiry concerns a new water connection for this site.

Question 18: Please indicate the approximate date that the proposed connection to the water infrastructure will be required.

Question 19: If the site was previously in use, please provide details of the pre-development peak hour and average hour water demand.

Question 20: Please provide calculations for domestic water demand and include your calculations on the calculation sheet provided. Demand rates (peak and average) are site specific. Average demand is the total daily volume divided by a 24-hour time period and expressed in litres per second (l/s). For design purposes, please refer to the Irish Water Codes of Practice for Water Infrastructure.

Question 21: If this connection enquiry concerns a business premises, please provide calculations for the water demand and include your calculations on the calculation sheet provided. Business premises include shops, offices, hotels, schools, etc. Demand rates (peak and average) are site specific. Average demand is the total daily volume divided by a 24-hour time period and expressed in litres per second (l/s). For design purposes, please refer to the Irish Water Codes of Practice for Water Infrastructure.

Question 22: If this connection enquiry is for an industrial premises, please calculate the water demand and include your calculations on the calculation sheet provided. Demand rates (peak and average) are site specific. Average demand is the total daily volume divided by a 24-hour time period and expressed in litres per second (l/s). The peak demand for sizing of the pipe network will be as per the specific business production requirements. For design purposes, please refer to the Irish Water Codes of Practice for Water Infrastructure.

Question 23: Please specify the ground level at the location where connection to the public water mains will be made. This is required in order to determine if there is sufficient pressure in the existing water infrastructure to serve your proposed development. Levels should be quoted in metres relative to Malin Head Ordnance Datum.

Question 24: Please specify the highest finished floor level on-site. This is required in order to determine if there is sufficient pressure in the existing water infrastructure to serve your proposed development. Levels should be quoted in metres relative to Malin Head Ordnance Datum.

Question 25: If storage is required, water storage capacity of 24-hour water demand must usually be provided at the proposed site. In some cases, 24-hour storage capacity may not be required, for example 24-hour storage for a domestic house would be provided in an attic storage tank. Please calculate the 24-hour water storage requirements and include your calculations on the attached sheet provided. Please also confirm that on-site storage is being provided by ticking the appropriate box.

Question 26: The water supply system shall be designed and constructed to reliably convey the water flows that are required of the development including fire flow requirements by the Fire Authority. The Fire Authority will provide the requirement for fire flow rates that the water supply system will have to carry. Please note that while flows in excess of your required demand may be achieved in the Irish Water network and could be utilised in the event of a fire, Irish Water cannot guarantee a flow rate to meet your fire flow requirement. To guarantee a flow to meet the Fire Authority requirements, you should provide adequate fire storage capacity within your development. Please include your calculations on the attached sheet provided, and further provide confirmation of the Fire Authority requirements.

Question 27: Please identify proposed additional water supply sources, that is, do you intend to connect to the public water mains or the public mains and supplement from other sources? If supplementing public water supply with a supply from another source, please provide details as to how the potable water supply is to be protected from cross contamination at the premises.

Section D | Wastewater connection and discharge details

Question 28: Please indicate if a wastewater connection to a public sewer already exists for this site.

Question 29: Please indicate if this enquiry relates to an additional wastewater connection to one already installed.

Question 30: Please indicate if you are proposing to upgrade the wastewater connection to facilitate an increased discharge. Irish Water will determine what impact this will have on our infrastructure.

Question 31: Please indicate if this enquiry relates to a new wastewater connection for this site.

Question 32: Please specify the approximate date that the proposed connection to the wastewater infrastructure will be required.

Question 33: If the site was previously in use, please provide details of the pre-development peak and average wastewater discharge.

Question 34: Please provide calculations for domestic wastewater discharge and include your calculations on the attached sheet provided. Discharge rates (peak and average) are site specific. Average discharge is the total daily volume divided by a 24-hour time period and expressed in litres per second (l/s). For design purposes, please refer to the Irish Water Codes of Practice for Wastewater Infrastructure.

Question 35: If this enquiry relates to a business premises, please provide calculations for the wastewater discharge and include your calculations on the attached sheet provided. Business premises include shops, offices, hotels, schools, etc. Discharge rates (peak and average) are site specific. Average discharge is the total daily volume divided by a 24-hour time period and expressed in litres per second (l/s). For design purposes, please refer to the Irish Water Codes of Practice for Wastewater Infrastructure.

Question 36: If this enquiry relates to an industrial premises, please provide calculations for the wastewater discharge and include your calculations on the calculation sheet provided. Discharge rates (peak and average) are site specific. Average discharge is the total daily volume divided by a 24-hour time period and expressed in litres per second (l/s). The peak discharge for sizing of the pipe network will be as per the specific business production requirements. For design purposes, please refer to the Irish Water Codes of Practice for Wastewater Infrastructure.

Question 37: Please specify the maximum and average concentrations and the maximum daily load of each of the wastewater characteristics listed in the wastewater organic load table (if not domestic effluent), and also specify if any other significant concentrations are expected in the effluent. Please complete the table and provide additional supporting documentation if relevant. Note that the concentration shall be in mg/l and the load shall be in kg/day. Note that for business premises (shops, offices, schools, hotels, etc.) for which only domestic effluent will be discharged (excluding discharge from canteens/ restaurants which would require a Trade Effluent Discharge licence), there is no need to complete this question.

Question 38: In exceptional circumstances, such as brownfield sites, where the only practical outlet for storm/ surface water is to a combined sewer, Irish Water will consider permitting a restricted attenuated flow to the combined sewer. Storm/surface water will only be accepted from brownfield sites that already have a storm/surface water connection to a combined sewer and the applicant must demonstrate how the storm/surface water flow from the proposed site is minimised using sustainable urban drainage system (SUDS). This type of connection will only be considered on a case by case basis. Please advise if the proposed development intends discharging surface water to the combined wastewater collection system. If so, please submit detailed calculations in relation to attenuation volumes, peak discharges and total discharge volumes.

Question 39: Please specify if the development needs to pump its wastewater discharge to gain access to Irish Water infrastructure.

Question 40: Please specify the ground level at the location where connection to the public sewer will be made. This is required to determine if the development can be connected to the public sewer via gravity discharge. Levels should be quoted in metres relative to Malin Head Ordnance Datum.

Question 41: Please specify the lowest floor level of the proposed development. This is required in order to determine if the development can be connected to the public sewer via gravity discharge. Levels should be quoted in metres relative to Malin Head Ordnance Datum.

Section E | Development details

Question 42: Please specify the number of different property/premises types by filling in the table provided.

Question 43: Please indicate the approximate commencement date of works on the development.

Question 44: Please indicate if a phased building approach is to be adopted when developing the site. If so, please provide details of the phase master-plan and the proposed variation in water demand/wastewater discharge as a result of the phasing of the development.

Section F | Supporting documentation

Please provide additional information as listed.

Section G | Declaration

Please review the declaration, sign, and return the completed application form to Irish Water by email or by post using the contact details provided in Section G.

Notes

Notes

Uisce Éireann
Bosca OP 6000
Baile Átha Cliath 1
Éire

Irish Water
PO Box 6000
Dublin 1
Ireland

T: +353 1 89 25000
F: +353 1 89 25001
www.water.ie

Niall Fitzgerald

12 February 2019

Dear Niall Fitzgerald,

Re: Connection Reference No CDS19000106 pre-connection enquiry - Subject to contract | Contract denied

Connection for Housing Development of 24 unit(s) at Sunview, South Douglas Road, Cork.

Irish Water has reviewed your pre-connection enquiry in relation to a water connection at Sunview, South Douglas Road, Cork.

Based upon the details that you have provided with your pre-connection enquiry and on the capacity currently available in the network(s), as assessed by Irish Water, we wish to advise you that, subject to a valid connection agreement being put in place, your proposed connection to the Irish Water network(s) can be facilitated.

Please note the confirmation of feasibility to connect to the Irish Water infrastructure does not extend to your fire flow requirements. In order to determine the flow rate currently available in the event of a fire, a pressure/flow test on the existing network is required. If you wish to undertake a test, please liaise with Cork City Council (Agents to Irish Water). While flows in excess of your required demand may be achieved in the Irish Water network and could be utilised in the event of a fire, Irish Water cannot guarantee a flow rate to meet your fire flow requirement.

In order to complete the proposed connection at the Premises, the Irish Water sewer network will have to be extended by approximately 41m. Irish Water currently does not have any plans to extend its network in this area. Should you wish to consider extending your private water infrastructure to a point to connect to the Irish Water network, please contact Irish Water.

While your water and wastewater connection can be facilitated, we regret to inform you that the discharge of stormwater as requested cannot be accommodated. You are advised to consider onsite disposal measures for the stormwater or alternatively consider contacting your Local Authority to discuss a connection to a stormwater sewer if one exists in the area.

All infrastructure should be designed and installed in accordance with the Irish Water Codes of Practice and Standard Details. A design proposal for the water and/or wastewater infrastructure should be submitted to Irish Water for assessment. Prior to submitting your planning application, you are required to submit these detailed design proposals to Irish Water for review.

You are advised that this correspondence does not constitute an offer in whole or in part to provide a connection to any Irish Water infrastructure and is provided subject to a connection agreement being signed at a later date.

A connection agreement can be applied for by completing the connection application form available at **www.water.ie/connections**. Irish Water's current charges for water and wastewater connections are set out in the Water Charges Plan as approved by the Commission for Regulation of Utilities.

If you have any further questions, please contact Brian O'Mahony from the design team on 022 52205 or email bomahony@water.ie. For further information, visit **www.water.ie/connections.**

Yours sincerely,

Maria O'Dwyer

Connections and Developer Services

Appendix D - Local Authority & Irish Water Records

Irish Water Web Map

February 12, 2019

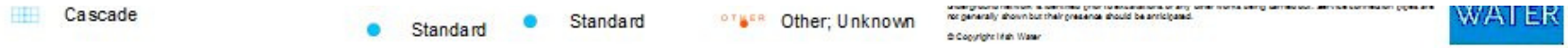
1:2,257

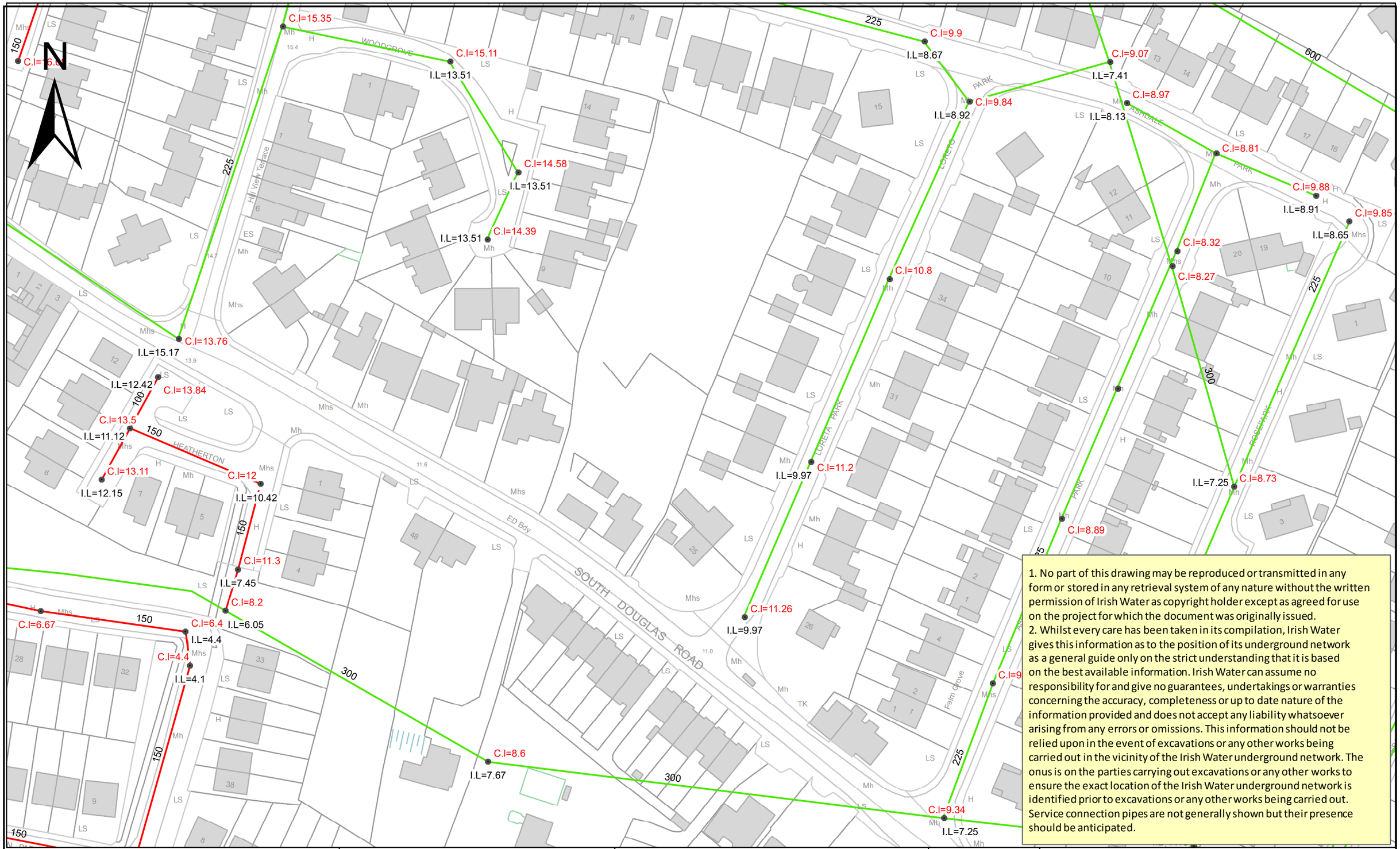
0 0.0175 0.035 0.07 mi

0 0.03 0.06 0.12 km

Legend

- Storm Culverts
- Gravity Main (Irish Water Owned)
  - Surface
- Gravity Main (Non-Irish Water Owned)
  - Surface
- Storm Manholes
  - Catchpit
  - Hatchbox
  - Lamphole
- Storm Inlets
  - Other; Unknown
  - Gully
- Storm Fittings
  - Other; Unknown
  - Vent/Col





Drainage Records

Legend

- LOCAL COMBINED
- LOCAL FOUL
- Manhole

THE SEWERS SHOWN ON THIS MAP ARE FOR REFERENCE ONLY. THE LOCATION AND PROPERTIES OF ALL SEWERS, LEVELS, PIPESIZES, etc, MUST BE CONFIRMED ON SITE.

1:1,000

N

CORK CITY COUNCIL ENVIRONMENT DIRECTORATE
(As agents of Irish Water)

Drawn By: A. Homan

Checked by:

Date: 13/02/2019

Drainage Records

Legend

LOCAL STORM

Manhole

THE SEWERS SHOWN ON THIS MAP ARE FOR REFERENCE ONLY. THE LOCATION AND PROPERTIES OF ALL SEWERS, LEVELS, PIPESIZES, etc, MUST BE CONFIRMED ON SITE.

1:1,000

N

CORK CITY COUNCIL ENVIRONMENT DIRECTORATE
Storm Network

Drawn By: A. Homan

Checked by:

Date: 13/02/2019

SUNVIEW APARTMENT AND HOUSING DEVELOPMENT AT SOUTH DOUGLAS ROAD, CORK FOR LYONSHALL LTD.

FIRE SAFETY STRATEGY REPORT.

Date: 25th July 2020.
Ref. No.: 3367/20.

CK FIRE ENGINEERING LTD.

FIRE SAFETY CONSULTING ENGINEERS,
CASTLEWARREN SAFETY CENTRE,
BARNAHELY,
RINGASKIDDY,
CO. CORK

TEL - (021) 4864044
FAX - (021) 4370934

1. DESCRIPTION OF DEVELOPMENT:

The proposed development is to consist of a 3-storey block of Apartments and a series of single-storey private dwellings.

The block of Apartments is to be located at the front of the site and will be served by a single stairway that serves 4 apartments per floor.
The single-storey dwellings are located in a U-shape at the rear of the site.
The site is long and narrow and fronts onto South Douglas Road.

Under the provisions of the Building Control Regulations 2006 – 2018, the Apartment block is to be the subject of a Fire Safety Certificate Application.
The application for the Fire Safety Certificate will be submitted to the Local Authority Fire Department and will be accompanied by a fire safety compliance report and fire safety compliance drawings.
The report and drawings will demonstrate in detail how the building and the works being carried out will be made to comply with Part B (Fire) of the Building Regulations 2006-2019.

The private dwellings are not required to obtain Fire Safety Certificates.

The following documents will be used to demonstrate this compliance;

i) BS 9991: 2015: Fire Safety in the Design, Management and Use of Residential Buildings – Code of Practice.

ii) Technical Guidance Document B – Fire Safety (2006) (Reprint 2020).

iii) BRE Report 187: External Fire Spread: Building Separation and Boundary Distances.

2. MEANS OF ESCAPE IN CASE OF FIRE FROM APARTMENTS:

2.1 Internal Layout of Apartments:

i) The internal layouts of each Apartment will be such that all habitable rooms are entered directly from a protected entrance hall. These entrance halls will be enclosed in half-hour fire rated construction and FD30 doorsets.

ii) The maximum travel distance within an Apartment entrance hall will not exceed 9m. This is measured from the door of the most remote room, within the Apartment, to the Apartment entrance door.

iii) The exit door from each Apartment leads to a protected common lobby/corridor which in turn leads to the common escape stairway in the case of the upper floor Apartments.

iv) The common lobby serving the ground floor Apartments is to be provided with a final exit leading direct to open air.

This layout ensures compliance with the principles set out under BS 9991: 2015, as required.

2.2 Protection of Common Escape Stairway and Common Lobbies:

i) The upper floors of the Apartment Block will be served by a single escape stairway. The escape stairway is to be enclosed throughout its height in 60 minute fire rated construction with access to the stairway from each common lobby to be by way of FD30S doorsets.
A single escape stairway is acceptable under the provisions of BS 9991. The building has a top floor height not exceeding 11m.

ii) The common lobbies/corridors that access the escape stairs at each level are to be enclosed in 60 minute fire rated construction with access to the Apartments from the lobbies to be by way of FD30S doorsets.

iii) The maximum dead-end travel distance from within a common lobby to the escape stairway is not to exceed 7.5m. This is measured from the most remote Apartment entrance door to the door accessing the escape stairs.

iv) Each common lobby is to be provided with a 1.5m^2 natural automatically opening smoke vent. This vent will go direct to open air. The vents will be arranged so that only the particular smoke vent serving the smoke-logged lobby will open at any one time.

v) The escape stairway is to be provided with a 1m^2 automatically opening smoke vent located at the head of the escape stairway. The vent will be arranged

to open on activation of the smoke detection within the particular stairs. The vent will also have a manually opening mechanism.

These provisions ensure compliance with the relevant principles set out under BS 9991: 2015, as required.

3. MEANS OF ESCAPE FROM SINGLE-STOREY DWELLINGS:

The single storey dwellings are to be provided with the following fire protection features;

i) All habitable rooms are to be accessed via an entrance hall that serves each dwelling.

ii) All dwellings are accessed directly from open air. There are no common escape routes associated with the dwellings.

iii) All bedrooms are to be provided with an escape window or door. The windows will be suitably sized and at a suitable height for escape purposes.

iv) Each dwelling is to be provided with a domestic fire alarm system that is compliant with BS 5839: Part 6: 2019. The domestic systems will be Grade D type systems providing at least Type LD2 detection/alarm coverage.

4. ACTIVE FIRE PROTECTION SYSTEMS FOR THE APARTMENT BLOCK:

i) The Apartment block will be provided with a comprehensive common automatic fire detection and alarm system that is compliant with IS 3218: 2013 +A1: 2019.
The system is to provide Type L2/L3x automatic detection coverage throughout the building.
This will consist of smoke detection coverage of the escape stairs and each common lobby.
Each Apartment entrance hall is to be provided with heat detection.

v) In addition to the provision of a common fire alarm system, each Apartment is to be provided with a domestic fire alarm system that is compliant with BS 5839: Part 6: 2019. The domestic systems will be Grade D type systems providing at least Type LD2 detection/alarm coverage throughout each Apartment.

vi) The Apartment block is to be provided with an emergency lighting system that provides coverage to all common lobbies and the escape stairs and the areas outside final exits. The system will be compliant with IS 3217: 2013 + A1: 2017.

vii) Maintained illuminated Exit signs will be provided at all common storey and final exits serving the building.
These signs will be of a type complying with BS 5499: Part 1: 2002.

viii) All routes of escape will comply with the general fire protection features set out in Section 1.4 of Technical Guidance Document B.

5. INTERNAL FIRE SPREAD AND STRUCTURAL FIRE PROTECTION

The provisions for ensuring that Parts B2 and B3 of the Building Regulations are being complied with for the development are set out in the following paragraphs. These are in accordance with the specifications set out under Section B2 and Section B3 of Technical Guidance Document B.

i) All internal wall and ceiling linings throughout the development will consist of plasterboard/fireline board and plastered masonry.
This applies to the Apartment block and also the private dwellings.
These materials will achieve a Class 0 rating which ensures compliance with Regulation B2 of the Building Regulations.

ii) All elements of structure associated with the Apartment Block (other than those which solely support the roof covering) will be fire rated to 60 minutes.
This applies to the following;

- Structural frame of the building.
- Each floor.
- Walls fire separating Apartments from each other.
- Enclosure to escape stairs.
- Enclosure to lift shaft.

iii) Each Apartment is to form a separate fire compartment.
The walls and floors fire separating Apartments from each other are therefore to form compartment walls and floors.

iv) The walls fire separating single-storey dwellings from each other are to form separating walls. These walls will achieve a 60 minute fire rating and will be imperforate.

v) The external walls/façade of the Apartment block are to be provided with adequate numbers and locations of fire rated cavity barriers so as to ensure the following;

- The cavity is firestopped where an internal fire barrier meets the external façade.
- The cavity is firestopped where a fire rated floor meets the external façade.
- There is no undivided length of cavity that exceeds 20m in length.

Cavity barriers are to achieve at least 30 minutes fire integrity rating and 15 minutes insulation rating.

vi) All services that penetrate the designated fire barriers within the Apartment block will be fully firestopped in accordance with the specific criteria set out in Section 3.4 of Technical Guidance Document B.

6. EXTERNAL FIRE SPREAD:

Regulation B4 of the Building Regulations is concerned with ensuring that external fire spread will not occur from this building to other buildings on the site or beyond the site boundaries.
The numbers and areas of windows and doors on the external walls of the Apartment block and each private dwelling will be limited in size so as to ensure they do not cause a risk of external fire spread beyond the site boundaries or from one dwelling to another on the site.

The type of roof covering associated with the development will be such as to ensure it achieves at least an AC classification.
In accordance with the provisions of Technical Guidance Document B there are no restrictions on the use of such a roof covering designation.

7. ACCESS AND FACILITIES FOR THE FIRE SERVICE:

Regulation B5 of the Building Regulations is concerned with ensuring that the development is provided with adequate access and facilities for the Fire Service in order to deal with a fire incident.
The following is being provided for in order to ensure compliance with Regulation B5 is being achieved;

7.1 External Fire Hydrants:

Adequate numbers and locations of external fire hydrants are to be provided within the site.
At least 2 no. fire hydrants will be provided and these will be fed directly from the Local Authority water main that runs along South Douglas Road.
The hydrants are to be sited at least 6m from each building.

7.2 Access for Fire Appliances:

The top floor height of the Apartment block is less than 10m above ground level.
All buildings on the site need to be provided with pump type fire appliance only.
This is being provided for by the following;

i) The Eastern and Northern elevations of the Apartment block are being provided with pump type fire appliance access.
A door affording access to the building interior is available along the Eastern elevation.

ii) There is a central dead-end roadway running down the centre of the private dwellings.
There is to be a turning facility at the Southern end of the dwelling block between the private dwellings and the Apartment block.

These provisions are considered adequate for fire appliance access by reference to the criteria set out in Section 5 of Technical Guidance Document B and BS 9991: 2015: Code of Practice for Residential Buildings.

7.3 Personnel Access for Firefighting Purposes:

Personnel access for the Fire Service into the Apartment block and each private dwelling is being provided for by means of escape from each building and the provisions for fire appliance access outlined above.

MAHONY PIKE

Architecture / Urban Design / Sustainability

Project no.	1829
Project :	Sunview
Client:	Lyonshall Ltd
Doc. No. :	1829-OMP-MDI-XX-DC-A-XX-10001
Doc. Title:	Master Document Control Index (Planning)
0002 OMP Cork	Aoife Roche
0100 Client	Lyonshall Ltd
0300 Structural/Civil Engineer	Horganlynch Consulting Engineers
0503 Planning Consultant	Harry Walsh Planning
0510 Surveyors	Precise Control
0600 Planning	Cork City Council
0800 Main Contractor	Clancy
0502 Fire Consultant	CK Fire Engineering Ltd

			Date	02/06/2020
			Purpose	Planning Submission
Sheet/File Identifier	**Description**	**Scale**	**Paper Size**	
1829-OMP-00-00-DR-A-XX-10000	Proposed Site Layout at Ground Floor	1:500	A3	x
1829-OMP-00-00-DR-A-XX-10001	Proposed Site Layout at Roof Level	1:500	A3	x
1829-OMP-00-00-DR-A-XX-14000	Site Location Map	1:1000	A3	x
1829-OMP-00-00-DR-A-XX-14001	Existing Site Layout	1:500	A3	x
1829-OMP-00-00-DR-A-XX-14100	Demolition Drawings - House to be demolished	1:100	A3	x
1829-OMP-00-00-DR-A-XX-14101	Demolition Drawings -Outhouse to be demolished	1:100	A3	x
1829-OMP-00-00-DR-A-XX-14102	Demolition Drawings - Outhouse to be demolished	1:100	A3	x
1829-OMP-00-ZZ-DR-A-XX-30000	Proposed Site Sections AA BB	1:250	A1	x
1829-OMP-00-ZZ-DR-A-XX-20000	Proposed Site Elevation to South Douglas Road	1:250	A3	x
1829-OMP-00-B01-DR-A-XX-10000	Apartment Block 01 - Ground Floor Plan	1:100	A3	x
1829-OMP-ZZ-B01-DR-A-XX-10001	Apartment Block 01 - First & Second Floor Plan	1:100	A3	x
1829-OMP-RF-B01-DR-A-XX-10002	Apartment Block 01 - Roof Plan	1:100	A3	x
1829-OMP-ZZ-B01-DR-A-XX-20000	Apartment Block 01 - North & South Elevation	1:100	A3	x
1829-OMP-ZZ-B01-DR-A-XX-20001	Apartment Block 01 - East & West Elevation	1:100	A3	x
1829-OMP-ZZ-B01-DR-A-XX-30000	Apartment Block 01 - Section AA	1:100	A3	x
1829-OMP-00-HT01A-DR-A-XX-10000	HT01A- Plans, Sections,Elevations	1:100	A3	x
1829-OMP-00-HT01B-DR-A-XX-10000	HT01B- Plans, Sections,Elevations	1:100	A3	x
1829-OMP-00-HT01C-DR-A-XX-10000	HT01C- Plans, Sections,Elevations	1:100	A3	x
1829-OMP-00-HT02-DR-A-XX-10001	HT02- Plans, Sections,Elevations	1:100	A3	x
1829-OMP-XX-XX-RP-A-XX-08002	AA Screening Report	n/a	A4	x
1829-OMP-XX-XX-RP-A-XX-08003	EIS Screening Report	n/a	A4	x
1829-OMP-XX-XX-SA-A-XX-06001	Schedule of Accommodation	n/a	A4	x
1829-OMP-XX-XX-PP-A-XX-90002	Architectural Design Statement	n/a	A3	x

PROPOSED HOUSING, SUNVIEW, SOUTH DOUGLAS ROAD, CORK

LYONSHALL LTD.

DESIGN STATEMENT
02 JUNE 2020

o'mahony pike
26 South Mall, Cork

1.0 SCHEDULE OF ACCOMMODATION

This design statement is prepared in support of a 25-unit housing scheme containing 13 no. single storey 1 & 2-bed houses and 12 no. 1 & 2-bed apartments located on a 0.48ha site at South Douglas Road, Cork.

Please refer to schedule opposite for a breakdown of unit types and floor areas.

Site Area (Ha)	0.48
Development footprint	1516 m²
Site Coverage	32%
Site ratio	1/3
Communal Open Space	23%
Demolition Area	221 m²
Density (per unit)	52 Units/Ha

UNIT TYPE	UNIT DESCRIPTION	NO. OF UNITS	Gross Internal Floor Area [m²]	Total Development Area [m²]
HT01A	2-bed wide plan mid-terrace house	8	73.2	585.6
HT01B	2-bed wide plan corner house	2	82.3	164.6
HT01C	2-bed wide plan end-terrace house	2	76.7	153.4
HT02	1-bed wide mid- terrace house	1	51.9	51.9
	Total Houses	***13***		***955.5***
APT01	1-bed	3	56	168
APT02	2-bed	9	77.6	698.4
	Total Circulation and services			171.6
	Total Apartments	***12***		***1038***
	Total Units	**25**		**1993.5 m²**

Aerial view of South Douglas Road and near by facilities

Aerial view of site

View of site from South Douglas Road showing existing building to be demolished

2.0 SITE

LOCATION, SUITABILITY, CHARACTERISTICS & AERIAL PHOTOS

The site is located on South Douglas Road in a mature and settled suburban residential area, which is located to the south east of Cork City Centre (please refer to aerial photographs of site opposite).

Buses which connect Douglas & Grange to Cork City Centre run along South Douglas Road, with bus stops in both directions located in close proximity to the site. The site is easily accessible by car, in particular given its proximity to the N40 South Ring Road to the southeast.

The surrounding area is generally quite flat, and the site is within walking distance of a range of local amenities, including shops such as Centra, pharmacy, post office and hair and beauty salons, as well as the amenity route in Tramore Valley Park. Douglas Village and Douglas Court shopping centres are located close by.

The site itself fronts onto South Douglas Road, and is bounded by existing 2-storey housing which backs onto it to the north, east and west, with some 1-storey housing to the west also along South Douglas Road. It used to be the home of Woodvale pitch & putt club, and also contains one disused two storey house with outbuildings fronting onto the street, which are to be demolished. The site is gently sloping up from South Douglas Road to the north west, and is currently for the most part grassed. It measures 0.48ha in area and is roughly rectangular, c. 125m in length and between 30m and 45m in width.

The site's location in relation to transport and amenities, and within an existing residential area with its roads and services infrastructure, means that it is well suited for the provision of a sheltered housing scheme as proposed.

site

neighbourhood centres / schools / clubs / retail

bus stop

3.0 SITE STRATEGY

SITE PLAN

The scheme is based around a central courtyard with a single entrance point from which all the units are accessed.
Wide plan single-storey houses line the site to the east, north and west, forming a communal courtyard space, whilst a 3-storey apartment block fronts onto South Douglas Road in place of the existing house.

This approach fosters a sense of community & security for the occupants, as well as securing boundaries with the existing rear gardens which surround the site on three sides. The houses are wide and shallow in plan in order to work with the relatively narrow dimensions of this site and allow for a courtyard of usable width in the centre.

The internal roadway will be lightly trafficked and designed as a shared surface with regard to DMURS principles, so traffic speeds will be low. 12 no. car parking spaces are provided in line with the Development Plan standards. The access point to the site is located so that adequate sightliness are available for exiting vehicles.

Total Public Open Space 1192 m ^{2}
23% of the overall site

3.0 SITE BOUNDARY

BOUNDARY SUMMARY

As existing the site is frame in green robust quality boundary. When possible existing boundary treatment will be retained. A new high quality boundary will be introduced along South Douglas road, on either sides of the pedestrian and vehicular entrance matching the height of the adjoining property's wall to the east. In addition, a proposed concrete post and panel fence will be added along the back of the houses. This will inssure privacy to the existing and proposed back gardens while minimising the impact on the existing green hedging.
We note the presence of an existing sod & stone ditch along the western boundary. It's intended to retained as much as possible of the existing western boundary when feasible.

Existing boundary conditions

PROPOSED BOUNDARY LEGEND

- Proposed 2 meter high concrete post and panel fence
- Proposed 0.6m brick wall with 0.70m steel fencing (1.3m total ht.)
- Existing mature green hedging retained as-is
- Existing sod & stone ditch retained as-is where possible

3.0 SITE STRATEGY

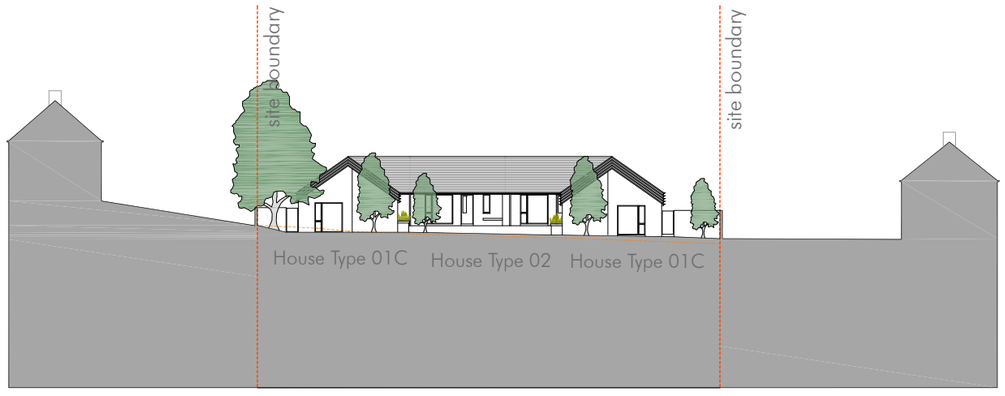
SITE SECTIONS, ELEVATIONS & MATERIALS

The houses are all on one level and accessible directly from the courtyard without negotiating steps. In order to increase density so that the site is used more sustainably, a small apartment block with a lift is provided adjacent the site entrance. This also gives the scheme some presence and scale on the main thoroughfare of South Douglas Road.

The communal courtyard at the heart of the scheme creates a sense of place for residents and visitors alike, whilst providing operational benefit in terms of passive surveillance. The single-storey houses surrounding this space mean that existing rear gardens are not overlooked, and the design of the houses will utilise simple pitched-roof forms familiar in the context.

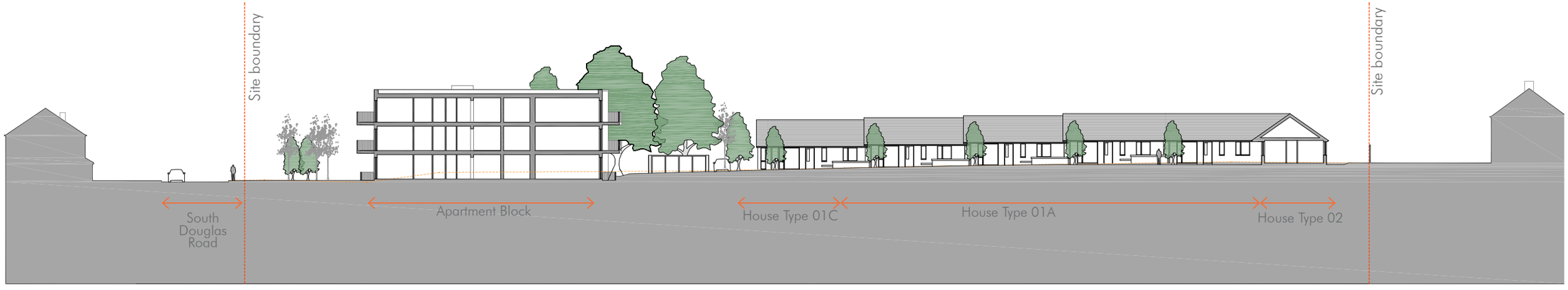
Elevations are simple and contemporary in expression, with a limited palette of robust materials - mainly render to walls with some brick to apartment block to break down massing, tile/slate pitched roofs to houses and quality aluclad windows.

Site elevation on South Douglas Road



Site section AA

Communal Courtyard - Reference image



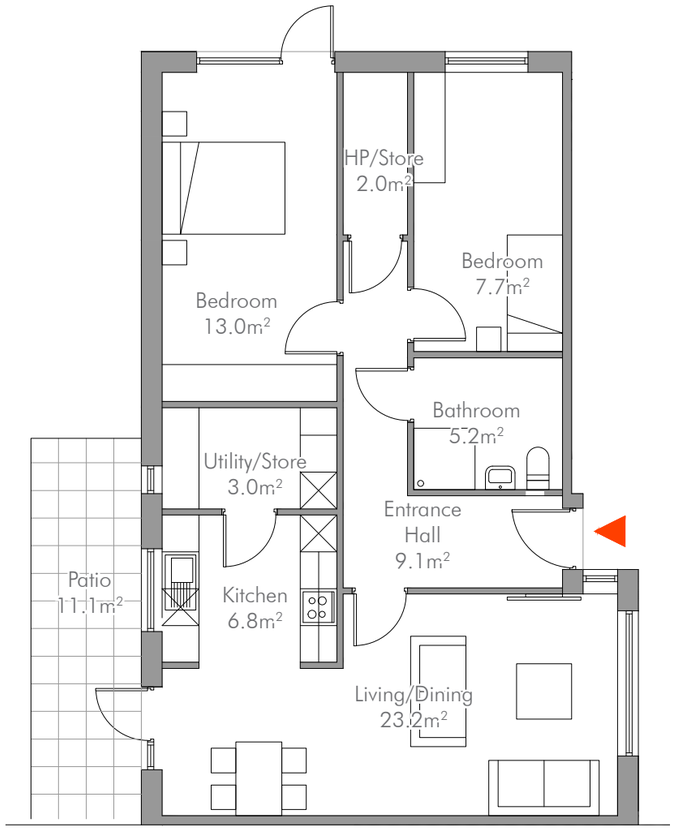
Site section BB

3.0 SITE STRATEGY

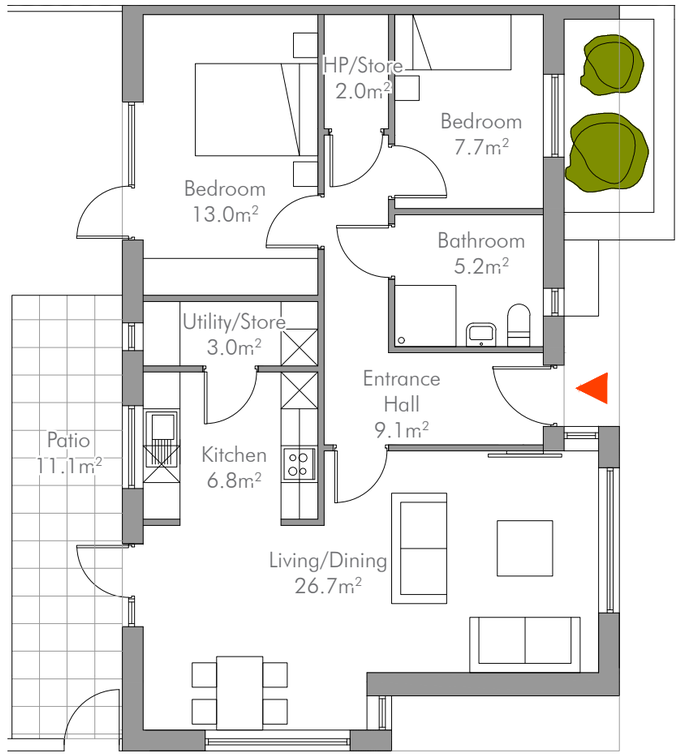
3D VIEWS

Street View of proposed apartment block- South Douglas Road looking west

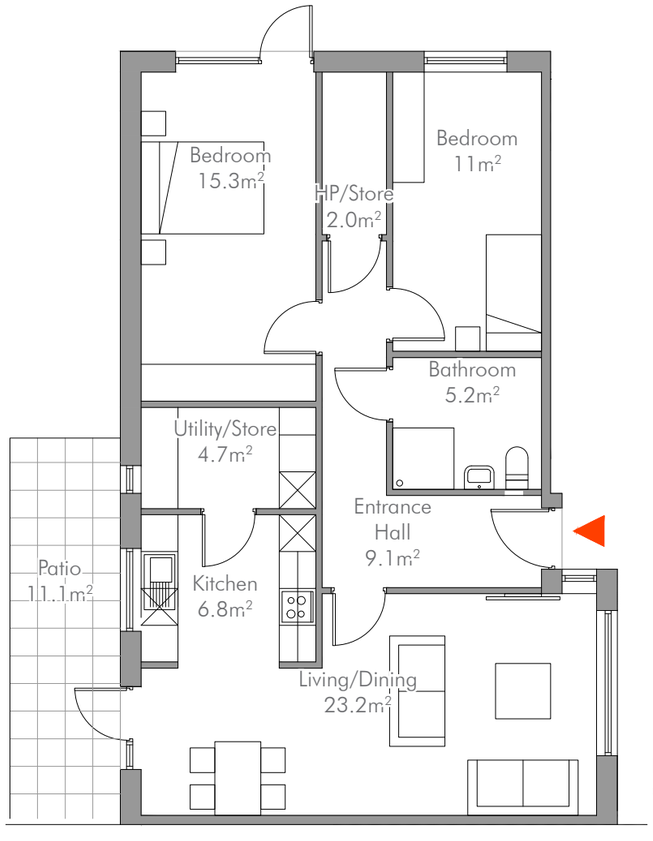
Street View of proposed apartment block - South Douglas Road looking east



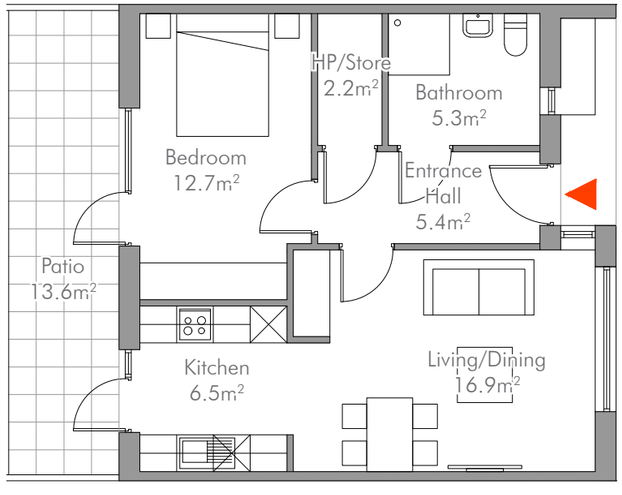
Housetype 01A
Mid-terrace 2-bed



Housetype 01C
End-terrace 2-bed



Housetype 01B
Corner 2-bed



Housetype 02
Mid-terrace 1-bed

3.0 SITE STRATEGY

HOUSES

All houses are dual aspect and typically orientated east-west. House Type 01C proposes a bay window to the dining area providing a view across the turning and parking area and towards the apartment block to the south of the site.

The covered area at the entrance to the dwelling from the courtyard provides seating, planting and protection against the weather, fostering interaction and a sense of community. Each house also has a small patio/garden area to the rear.

Total Gross Internal Floor Areas:

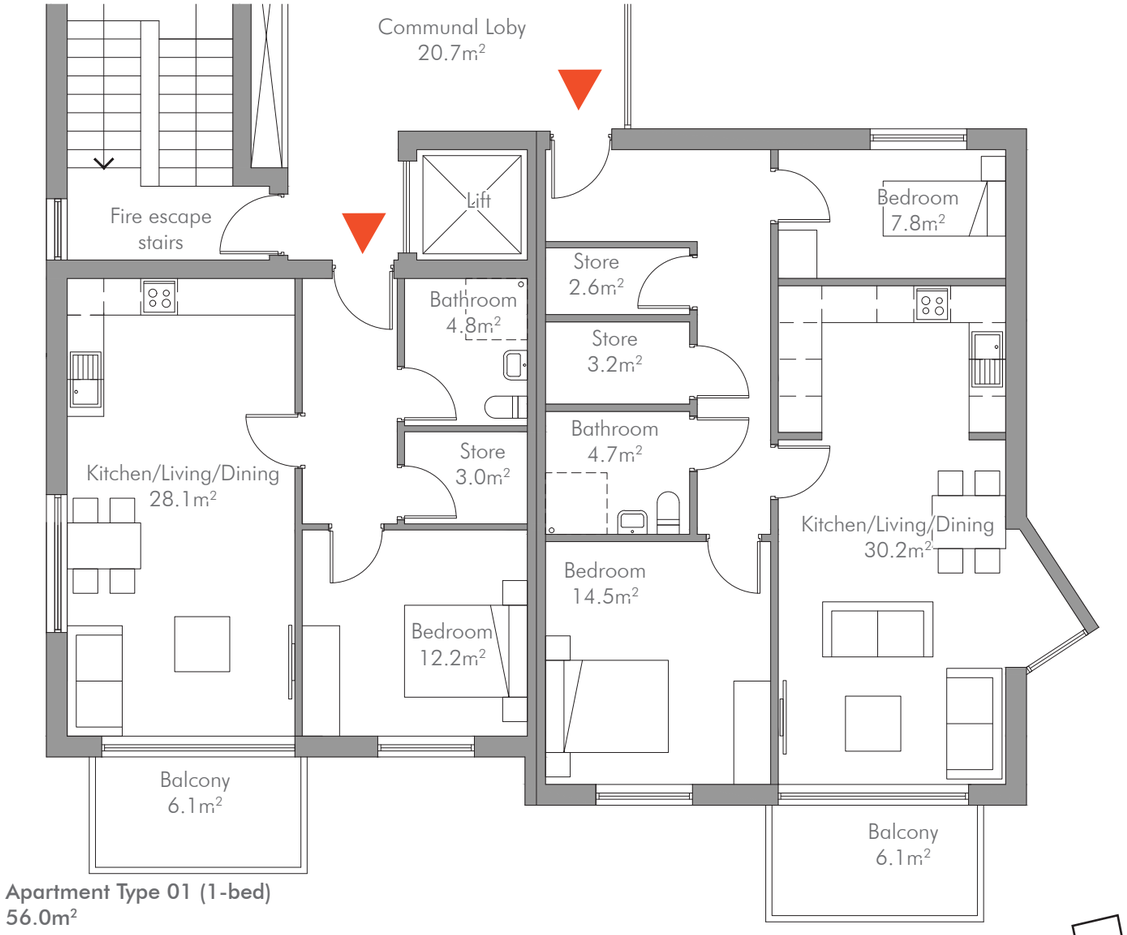
Housetype 01A (mid-terrace 2-bed): 73.2**m²**

Housetype 01B (corner 2-bed): 82.3**m²**

Housetype 01C (end-terrace 2-bed with bay window): 76.7 **m²**

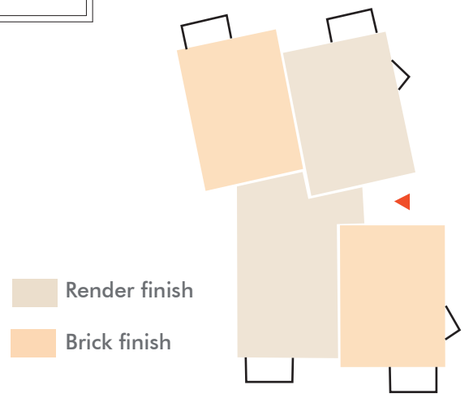
Housetype 02 (mid-terrace 1-bed) : 51.9 **m²**

Planting and seating area provided in front of houses - Arus Mhuire - Cork City



Apartment Type 01 (1-bed)
56.0m²

Apartment Type 02 (2-bed)
77.6m²



3.0 SITE STRATEGY

APARTMENTS

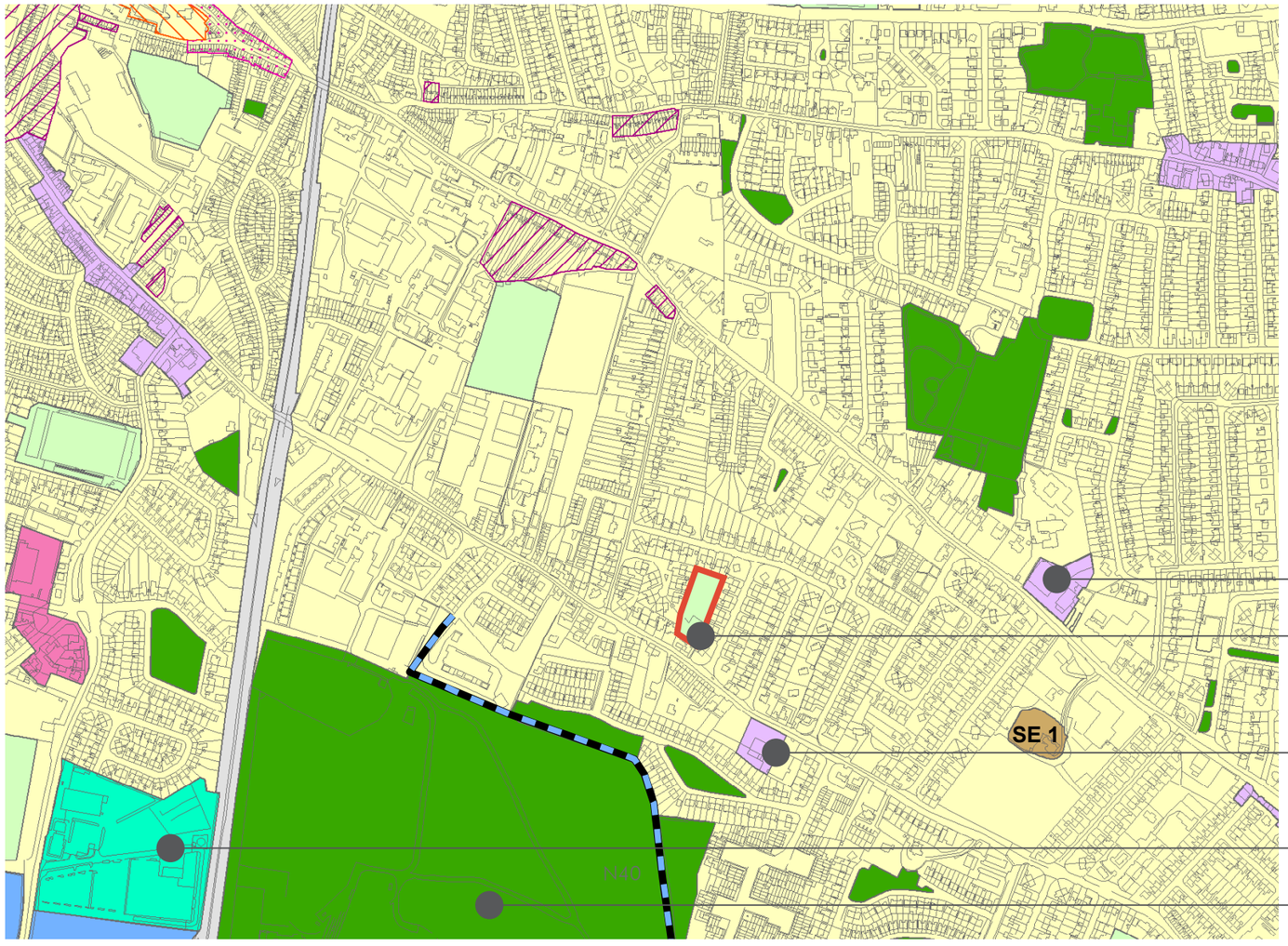
The apartment block is set back from Douglas Road in a similar manner to the existing surrounding houses. Its massing is broken down into four parts alternating brick and render, the southern two aligning with South Douglas Road and the northern two addressing the shared courtyard, with the main entrance between along the site access road.

All apartments are accessed from a compact lift and stair core, and are dual aspect. Balconies connected to the living room provide views either south to South Douglas Road or north to the shared courtyard, in order to avoid overlooking of adjacent properties. East & west facing secondary living area windows could potentially be opaque to further enhance privacy for existing houses.
A projected window is proposed on the east facade of the apartment block at first and second-floor levels to ensure further privacy for the adjacent properties.

Total Gross Internal Floor Areas:

Apartment Type 01 (1-bed): 56.0m²
Apartment Type 02 (2-bed): 77.6m²

Projected window detail on Dorgan Rd Student Accommodation - Cork City



Zoning Map (Cork City Development Plan 2015 - 2021)

4.0 DEVELOPMENT PLAN OBJECTIVES

Approximately 80% of the subject site is located in an area zoned ZO 13 'Sports Grounds' in the Cork City Development Plan 2015-2021 (with the remainder zoned 'Residential, Local Services and Institutional Uses' which is compatible with residential development). We understand that this is a historic zoning objective which reflects the former use of the lands as a private pitch and putt course. This use has ceased but the 'Sports Grounds' objective has been retained. Based on the current zoning objective, a material variation of the current City Development Plan would be required to facilitate a planning application in accordance with Part 8 of the Planning and Development Regulations, 2001. With regard to material variations, Section 15.5 of the City Plan indicates that

Similarly, the Development Plan objectives or policies can be changed in response to a change in circumstances, through the Variation process whereby Council Members, following public consultation decide to vary the Development Plan.

Having regard to the current requirement for social housing and the inefficient and inappropriate current use and zoning objective of the land, we consider that the proper planning and development of an area would be best served by a residential development that contravenes the zoning or objectives of the Plan. In accordance with Chapter 15 of the City Development Plan Cork City Council could move to vary the Development Plan to facilitate the development.

5.0 URBAN DESIGN CRITERIA

Context
The site lies within a mature and settled residential area. A residential development such as the one proposed could therefore be integrated easily and successfully at this location. The design approach for this development is to maximise the residential potential of the site with regard to housing, whilst being respectful of the context. The design seeks to create a central courtyard, securing boundaries with existing rear gardens where possible, whilst providing a larger building of some scale fronting onto the main thoroughfare of South Douglas Road in place of the existing house.

Connections
The site is well-connected, in reach of local services and easily accessed by various modes of transport, including two bus stops located directly outside the main entrance on routes connecting Douglas to the City Centre.

Inclusivity
Provision of a social housing scheme would be in accordance with the principle of the Joint Housing Strategy to promote a socially balanced and inclusive society in all housing areas within Cork City.

Variety
The scheme provides variety in tenure and in unit type/ size available in the area whilst remaining respectful of its surrounding context in terms of form and materiality. It also provides internal variety, comprising both 1 and 2-bed houses and apartments.

Efficiency
The development is proposed on a underutilised site in an established residential area with existing infrastucture. The efficient use of this well-located site (at a density of 52 units/ ha) is in accordance with sustainable design principles.

Distinctiveness
The proposed houses are similar to those in the surrounding area in terms of their form and materiality, with the objective that they blend into the existing context. The massing of the apartment block at the site entrance is broken down to respond to its domestic context; however being flat-roofed in contrast to the surrounding pitched roof housing lends distinctiveness to the scheme.

Layout
The layout of the scheme is based around a central courtyard with a single entrance point from which all the units are accessed. Wide plan single-storey houses line the site to the east, north and west, forming a communal courtyard space, whilst a 3-storey apartment block fronts onto South Douglas Road in place of the existing house. This approach fosters a sense of community & security for the occupants, as well as securing boundaries with the existing rear gardens which surround the site on three sides. The houses are wide and shallow in plan in order to work with the relatively narrow dimensions of this site and allow for a courtyard of usable width in the centre.

The houses are all on one level and accessible directly from the courtyard without negotiating steps. In order to increase density so that the site is used more sustainably, a small apartment block with a lift is provided adjacent the site entrance. The communal courtyard at the heart of the scheme creates a sense of place for residents and visitors alike, whilst providing operational benefit in terms of passive surveillance.

Public Realm
The central shared courtyard between the houses is the primary open space in the scheme, and its single storey enclosing buildings and the fact that it is open to the south ensure that it is a sunny and welcoming focus for the scheme. The setback of the apartment block as compared with the existing house to be demolished and more in line with the adjacent South Douglas Road streetscape allows for a front garden space and associated screening for the residents.

Adaptability
Dwellings are designed with lifetimes homes standards in mind (larger circulation spaces & bathrooms, large open plan living/dining/kitchen spaces, covered dwelling entrances etc.) so that they can be adapted as required for various occupants, or for changing needs over time.

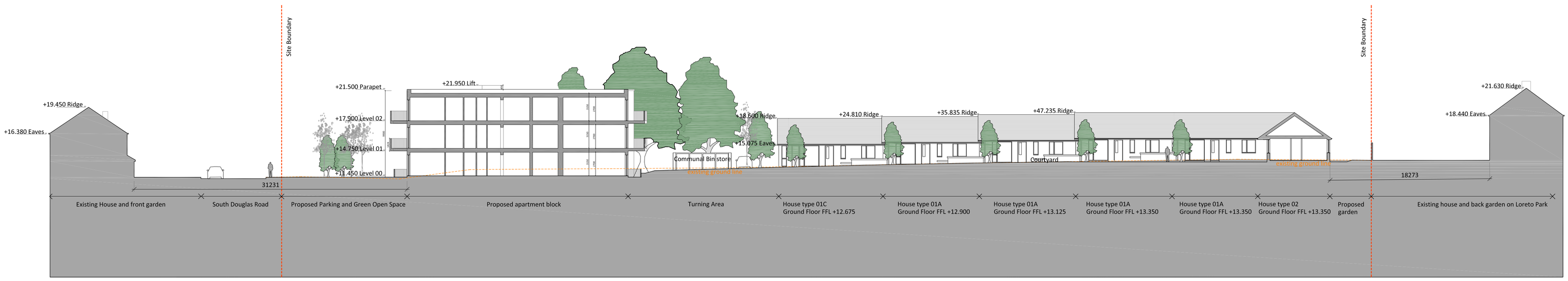
Privacy & Amenity
All dwellings are dual aspect, with each house having access to a small private outdoor space to the rear. The social and secure nature of the central sourtyard enriches the experience of the residents. The single-storey houses surrounding this space mean that rear gardens of surrounding houses are not overlooked. Apartment balconies, living spaces and bedrooms provide main views either south to South Douglas Road or north to the shared courtyard, in order to avoid overlooking of adjacent properties. East & west facing secondary living area windows could potentially be opaque to further enhance privacy for existing houses.

Parking
Car parking is to Development Plan standards (1 space per 2 units) and is distributed between the site entrance area and the vehicular turning space between the houses and the apartments. The internal roadway will be lightly trafficked and designed as a shared surface with regard to DMURS principles, so traffic speeds will be low.

Detailed Design
The simple palette of robust materials proposed - mainly render to walls with some brick to apartment block to break down massing, tile/slate pitched roofs to houses and quality aluclad windows - is appropriate to the domestic architecture in this context, being familiar and respectful to the nearby houses.

6.0 SITE SERVICES

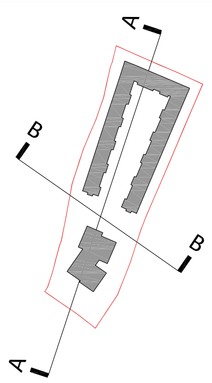
All mains services (water, foul & surface water sewers, electricity, gas, telecom) are available in the vicinity of the site - please refer to engineer's drawings and report.



SECTION AA

SECTION BB

Proposed Site Sections



Revision Description	Date	Rev. No.	Issued by
Planning Submission	02/06/2020	P01	AW

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Project No.: 1829 **Scale @** A1: 1:250
Project Lead: AR **Date Printed:** 02/06/2020
Drawn By: AW **Current Rev.:** P01
Model No.: 1829-OMP-00-00-DR-A-XX-30000
Purpose: S4

Project: Sunview
Location: South Douglas Road, Cork
Client: Lyonshall Ltd.

Drawing Title: Proposed Site Sections
Drawing No.: 1829-OMP-00-00-DR-A-XX-30000

Suitability - Checked By - Date

1. EUROPEAN SITE DATA

Great Island Channel candidate Special Area Of Conservation (site code 001058)	
Conservation objective	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.
Qualifying interests	Annex I listed habitats: mudflats, sandflats not covered by seawater at low tide, estuaries, spartina swards, Atlantic salt meadows.
References and further information	*Conservation Objectives for Great Island Channel SAC [001058]* (NPWS), *Natura 2000 Standard Data Form* (NPWS), *Site Synopsis Great Island Channel Site Code 001058* (NPWS) (see www.npws.ie for further details)

Cork Harbour Special Protection Area (site code 004030)	
Conservation objective	To maintain or restore the favourable conservation condition of the bird species listed as special conservation interests for this SPA.
Qualifying interests	Annex I-listed bird species: bar-tailed godwit, common tern (breeding), golden plover, ruff, whooper swan. Other birds of special conservation interest include black-headed gull, black-tailed godwit, common gull, curlew, dunlin, great crested grebe, grey heron, grey plover, lapwing, lesser black-backed gull, little grebe, oystercatcher, pintail, red-breasted merganser, redshank, shelduck, shoveler, teal, and widgeon. This site is an internationally important wetland site supporting > 20,000 wintering waterfowl.
References and further information	*Conservation Objectives for Cork Harbour SPA [004030]* (NPWS), *Natura 2000 Standard Data Form* (NPWS), *Site Synopsis Cork Harbour SPA Site Code 004030* (NPWS) (see www.npws.ie for further details)

2. DETAILS OF PROPOSED DEVELOPMENT

Reference no.	Sunview
Development consent type	*Part 8 Planning Application*
Development location	*Sunview, South Douglas Road, Cork*
Description of development	*The development is a residential scheme containing 13 no. 1-storey 1 & 2-bed terraced houses and 12 no. 1 & 2-bed apartments in a 3-storey block.*
Distance from cSAC	*c. 7.5km*
Distance from SPA	*C. 1.2km*
Relevant strategies or policies	*Cork City Development Plan*
EIA submitted?	*N/A*

3. ASSESSMENT OF LIKELY DIRECT, INDIRECT AND CUMULATIVE EFFECTS

	Yes / No
1. Is the proposed development directly connected to or necessary for the conservation management of the SPA and/or cSAC? *(If yes, no further assessment required. If no, screening required.)*	*No*
2. Is the proposed development located within or partly within the SPA?	*No*
3. Is the proposed development located within 100m of the SPA?	*No*
4. Does the proposed project involve the development, extension or upgrade of a cycleway or walkway within 200m of the SPA?	*No*
5. Does the proposed development involve development in the intertidal or coastal zone within the potential impact zone of the SPA?	*No*
6. Could the proposed project increase the level of recreational or other use of marine or intertidal areas within the potential impact zone of the SPA?	*No*
7. Does the proposed development involve the excavation of previously undeveloped land within an area that has been identified to be at risk of flooding within the potential impact zone of the SPA?	*No*
8. Does the proposed development involve the removal of significant amounts of topsoil within 100m of the SPA?	*No*
9. Does the existing wastewater treatment system have the capacity to treat any additional loading?	*Yes*
10. Would the proposed development result in direct surface water or other discharge to water bodies in or feeding into the SPA or cSAC? Would it result in additional storm flows into a combined sewer and subsequently into a combined sewer overflow (CSO), resulting in increased frequency, quantity and/or duration of overflow from the CSO to watercourses feeding into the European sites?	*Yes*

3. ASSESSMENT OF LIKELY DIRECT, INDIRECT AND CUMULATIVE EFFECTS

	Yes / No
11. Would the proposed development involve dredging or could it result in the mobilisation of marine sediments in the Harbour area?	*No*
12. Could the proposed development give rise to increased risk of oil or chemical spillage or leaks within the marine environment or watercourse within the potential impact zone for the SPA or cSAC?	*No*
13. Are there relevant plans or projects which, in combination with the proposed development, are likely to give rise to any cumulative effects?	*No*

Comments or notes

Having regard to the location of the proposed development site relative to the European sites and related watercourses and to the nature and scale of the proposed development it is considered that the proposed development would not affect the integrity of the European sites referred to above. The Appropriate Assessment Screening concluded that the proposed development would not be likely to have a significant effect on any Natura 2000 site.

4. SCREENING CONCLUSION STATEMENT

In view of the above it is considered that *(tick one box only)**:***

☐ **Appropriate Assessment is not required**
The proposed development is directly connected / necessary to the conservation management of a site.

X **Appropriate Assessment is not required**
It can be excluded through screening that the proposed development will have significant effects on the sites.

☐ **Further information is required**
Potential impacts have been identified through initial screening and/or there is insufficient information to enable the planning authority to screen out impacts, but on balance it is determined that the issues could be resolved through minor modifications to the proposed development or by appropriate conditions. The information required is specified below.

☐ **Appropriate Assessment is required**
Significant issues have been identified and/or significant effects are certain, likely or uncertain, and the submission of a Natura Impact Statement (NIS) is required, or the proposed development must be rejected.

Further information required / Comments or Notes

The Appropriate Assessment Screening concluded that the proposed development would not be likely to have a significant effect on any Natura 2000 site.

Name:	Tadhg Keating
Position:	Interim Director of Service - Housing
Date:	28th July 2020

SUB THRESHOLD EIA SCREENING REPORT
Sunview, South Douglas Road, Cork

Criteria for determining whether a development would or would not be likely to have significant effects on the environment as per the requirements of Article 120 of the Planning and Development Regulations 2001 as amended

1. CHARACTERISTICS OF PROPOSED DEVELOPMENT	
Size of Proposed Development	*The development is a residential scheme containing 13 no. 1-storey 1 & 2-bed terraced houses and 12 no. 1 & 2-bed apartments in a 3-storey block.* *Total floor area 1993.5 m2.; site area c. 0.48 hectares.*
Cumulation with other Proposed Development	*N/A*
The nature of any associated demolition works (* see article 8 of SI 235 of 2008)	*The development involves the demolition of an existing 2- storey dwelling house and associated sheds/outbuildings.*
Use of Natural Resources	*The use of natural resources associated with this development is limited to the materials to be used for its construction.*
Production of Waste	*Waste production during the demolition and construction phases will consist of the following:* *-General building waste.* *-Excavated soil-based fill material, with small pieces of waste material such as brick, glass, plastics, timber, wire and ceramics.* *Waste production during occupation of the development will consist of general domestic waste only.* *Waste material from all phases will be subject to segregation and appropriate disposal.*
Pollution and Nuisances	*No significant pollution and nuisances. Any impact is commensurate with that of a normal residential development in what is an existing residential suburban area of the city.*
Risk of Major Accidents	*No significant risk of accidents.*
Risk to Human Health	*No significant risk to human health.*

2. LOCATION OF PROPOSED DEVELOPMENT	
Existing Land Use	*Brownfield site, containing a single, currently vacant, dwelling house and associated sheds/outbuildings.*
Relative Abundance, Quality and regenerative Capacity of Natural Resources in the Area	*Limited, given the suburban nature of the area.*
Absorption Capacity of the Natural Environment	*Commensurate with the suburban nature of the area.*

3. CHARACTERISTICS OF POTENTIAL IMPACTS	
Extent of the Impact	*The impact of the development is considered slight given that the new residential development will* *take place in an established residential area and represents the sustainable use of suburban land.*
Transfrontier nature of the Impact	*n/a*
Magnitude and Complexity of the Impact	*The magnitude and complexity of the impact of the development is considered negligible, given the residential nature of the development in what is a residential suburban area of the city.*
Probability of the Impact	*The development is likely to proceed subject to planning/funding approval.*
Duration, Frequency and Reversibility of the Impact	*Any potentially significant impact is limited to the construction phase of the project, which is of a limited duration.*

SCREENING CONCLUSION STATEMENT
The Environmental Impact Assessment Screening therefore concludes that there is no real likelihood of significant effects and therefore an Environmental Impact Assessment is not required.

Name:	Tadhg Keating
Position:	Interim Director of Service - Housing
Date:	28th July 2020