Sustainable Swords

Technical Appendix

July 2021

Comhairle Contae Fhine Gall
Fingal County Council

Turner & Townsend | KPMG Future Analytics

Development Plan 2017 – 2023 - Swords Specific Object Area Extents

1.1 Socio-Economic and Demographic

1.1.1 Population

National and County Context

Fingal was the third most populous local authority in Ireland (after Dublin City and Cork County) with a total of 296,020 people as of the 2016 Census. In terms of population change, Fingal demonstrated the highest population growth rate of any local authority in Ireland growing from 273,991 in 2011 by 8.0% (or 22,029 persons) to 296,020 people. This was significantly higher than the regional and national population growth rates (5.3% and 3.8% respectively).

Swords * had a population of 44,446 as of the Census 2016. The town has seen a population increase of 5.9% between 2011 and 2016, a total increase of 2,462 persons since 2011, in line with the overall trend in the local authority.

Though the growth rate of Swords is relatively steady (as a whole) compared to other towns and settlements within the EMRA, the identification of Swords in the EMRA RSES as a Key Metropolitan Town and Fingal County Council's growth strategy aiming to accommodate 100,000 persons in Swords by 2035, these steady growth patterns will most likely change significantly over the coming years.

Swords has a relatively young population, in the context of Fingal which has the youngest population of any local authority in Ireland. 23.7% of the population of Swords are aged under 15 in comparison to Fingal (24.5%) and the national average (21.1%).

** For the purposes of this report KPMG used the Swords Specific Object Area boundary for Swords from the Development Plan 2017 – 2023. The CSO Small Areas were used for the socio-economic profiles and some assumptions were made in this process (i.e. Small Area that overlapped the boundary but that are majority green space or agricultural land were omitted.) For the purposes of the 2011, 2016 comparison the Small Area were not coincident due to changes made by the CSO but the closest match available was chosen with again the non-coincident areas being majority green space or agricultural. All references to Swords will be in reference to this study area boundary.*

There are many households and families within Swords that have lived in the village for many years and contributed to the local community through the establishment of local businesses (e.g. Taylor and Savage families) and voluntary work through local clubs and community groups which have been a focal point in Swords for many decades.

The average age of Swords was 32.8 years in 2016. This average age is lower than the county average, with Fingal County having an average age of 34.3 years. Fingal is also the youngest county in the state as of 2016.

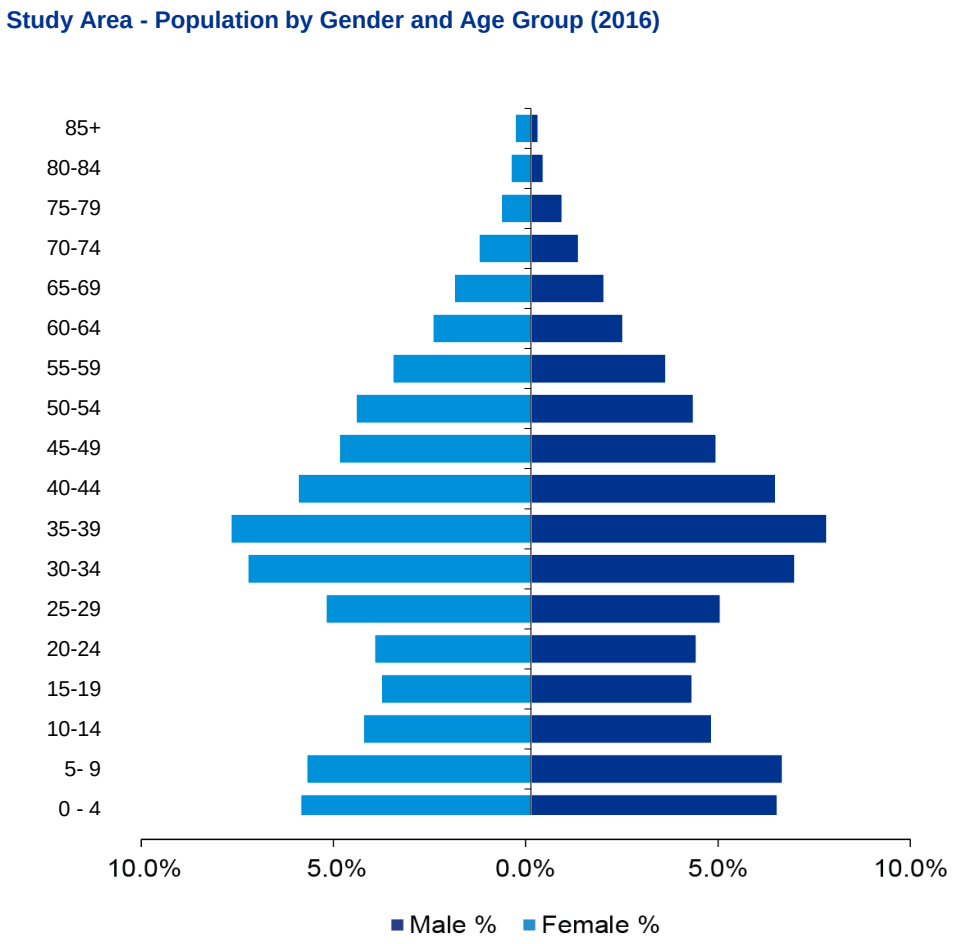


Figure 1-2 Swords Population Pyramid (CSO 2016)

The age dependency ratio is a metric used to analyse the age structure of a population. The dependency ratio is the relationship between those defined as young (0-14) and old (65+) as a percentage of the population of working age (15-64). This ratio identifies the reliance of the old and young on the performance of the working cohorts. The age dependency ratio of Swords was 43.5% in 2016, below the national average of 52.7%. This is indicative lesser reliance of the older and younger cohorts.

The dependency ratio of the young (0-14) in Swords was 33.9% whereas the same ratio of the elderly cohorts (65+) was just 9.5%. In isolation both of these are significantly lower than the Fingal youth dependency ratio (37%) and elderly dependency ration (13.8%).

Swords, like Fingal, has a young population further reinforced by the youth dependency ration being higher than the national average (31.9%) and the elderly ration being significantly lower than the national average (20.4%).

In an international context, Ireland had the highest youth dependency ratio in the EU28, at 31.9%, while also having the second-lowest old age dependency ratio at 21.2%.

An important indicator for future community and employment requirements is the age structure of the population. Approximately 69.7% (30,972 persons) of the population are aged between 15 and 64 years. This percentage of the population broadly represents the working labour force. This large cohort is a key driver of both social structure and the economy, and their importance cannot be understated. Having a substantial proportion of a population fall within this large grouping is vital to an economy, no matter what the scale. It is, therefore, important that this age group have access to vital accommodation, retail and social infrastructure benefits within the town in order to strive towards a model sustainable and resilient town. Approximately 23.7% (10,521 persons) of the population are under 15 years. This along with the numerous schools within the Study Area illustrates the need to consider and provide solutions that are child friendly as many of those using Main Street during the day are students and the working population that are travelling to/from their places of work or education via the key transport corridor along Main Street. It is also essential to cater for the elderly and less able in terms of ensuring trip hazards are minimised or eliminated, and in providing seating and clear signage.

Swords, much like Fingal, has a diverse population with 24% of residents born outside of Ireland, significantly higher than the national average (17%) in 2016. The percentage of non-Irish nationals' resident in Swords was 20.3%, relative to the County Fingal figure of 18.3%, and higher than the national average of 11.3%. Of these non-Irish nationals, 75.8% are European with 5.3% (2,322 persons) being Polish. The remaining 14% come from outside of the UK and Europe. The proportion of residents by nationality has been set out alongside figures for Fingal and other settlements for comparison in Table 1-.

Table 1-1 Nationality in Fingal and Settlements (CSO 2016)

	Fingal	Swords
Irish	**82.0%**	**79.7%**
Non-Irish	**18.0%**	**20.3%**
Polish	*3.9%*	*5.3%*
UK	*1.5%*	*1.4%*
Lithuanian	*1.3%*	*1.4%*
Other EU 28	*5.7%*	*7.3%*
Rest of World	*3.6%*	*3.0%*

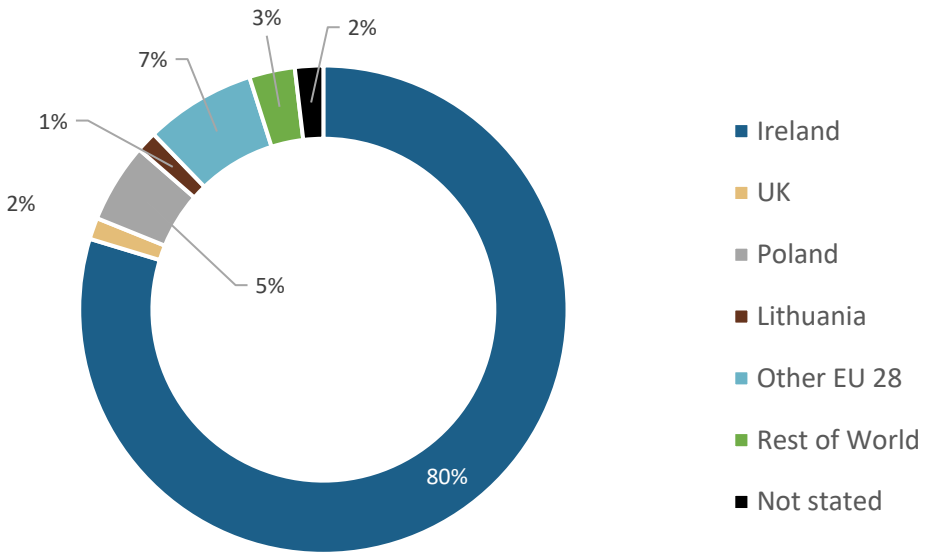


Figure 1-3 Swords resident population by nationality (CSO 2016)

Regarding ethnic and cultural backgrounds in Swords, 60% of those who did not identify as 'White Irish' identified as 'Other White'. The next largest ethnic cohorts were 'Asian or Asian Irish' at 3.3%, 'Not stated' at 3.3% and 'Black or Black Irish' at 2.3%.

The proportion of residents by ethnic group (as categorised by the CSO) has been set out alongside figures for Fingal and other settlements for comparison in Table 1-.

Given these figures, the need and continuation of social and cultural diversity initiatives both in Swords and nationally is paramount, in both future planning and development frameworks regarding inclusion and participation.

Table 1-3 Ethnicity in Fingal and Settlements (CSO 2016)

	Fingal	Swords
White Irish	71.5%	72.1%
Other White	14.5%	16.9%
Asian or Asian Irish	3.9%	3.3%
Black or Black Irish	3.9%	2.3%

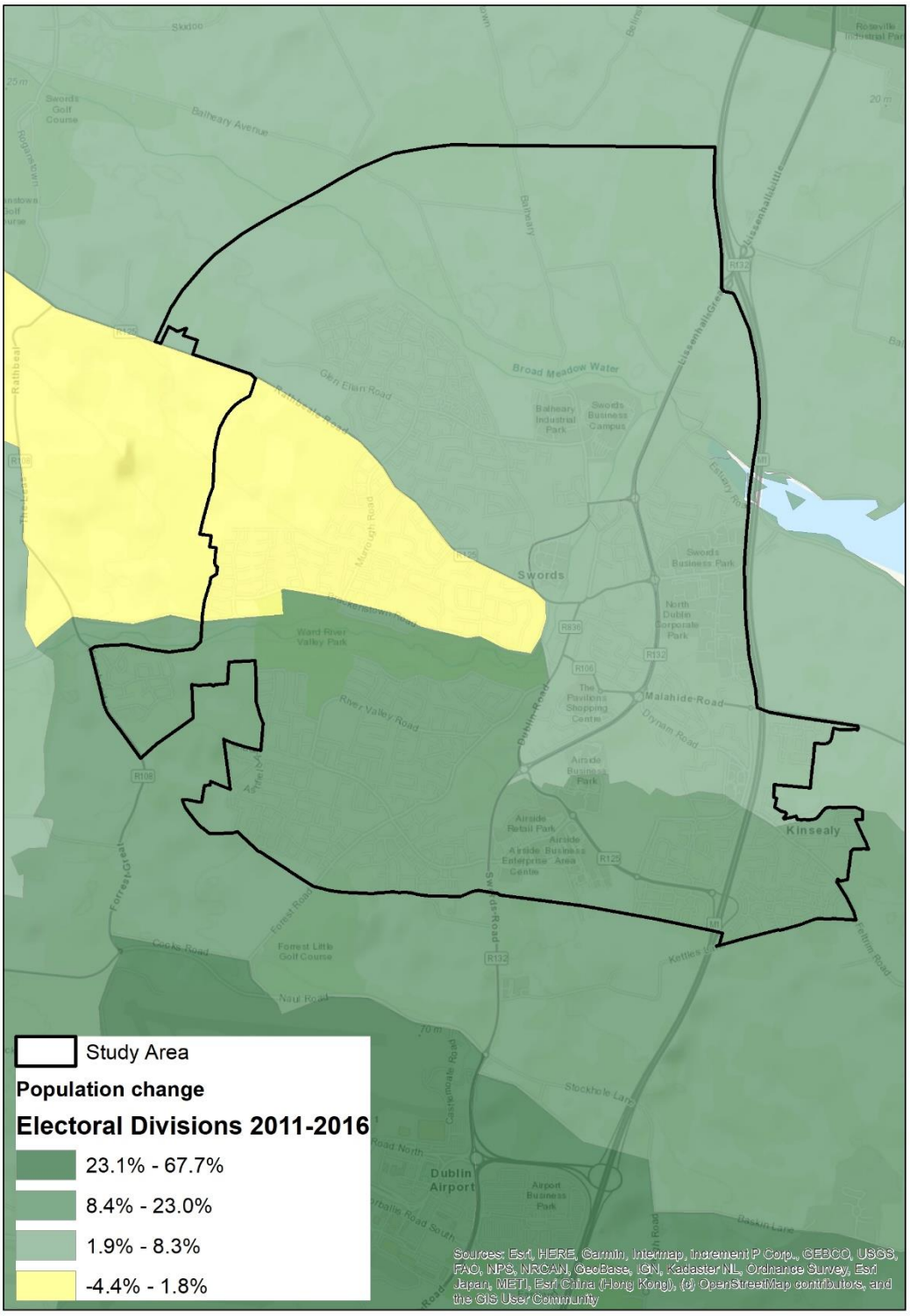


Figure 1-4 Swords & Kinsealy-Drinan Electoral Division population change 2011-2016

1.1.2 Education

Education is a fundamental driver of long-term economic and social growth. Locations with comparably strong educational attainment can harness their advantages to promote inward investment and high-quality employment.

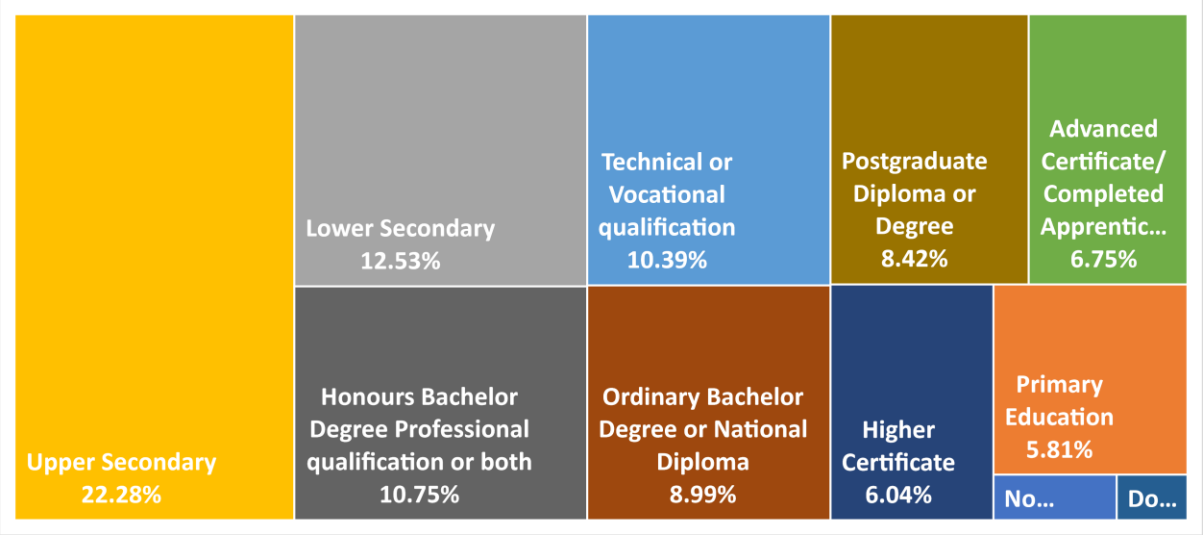


Figure 1-6 Educational attainment in Swords (CSO 2016)

Table 1-2 Educational attainment in Swords (CSO 2016)

Education Level	Total Persons	% of Total Population
Third Level (Level 7+)	7,937	28.7%
Third Level (Level 6+)	11,477	41.5%
Up to Leaving Cert	11,490	41.5%
Primary or Less	1,851	6.7%
Masters of Higher	2,472	8.9%

The CSO reports that higher educational attainment levels are linked with higher employment rates. Persons aged 25-64 years old with a third level qualification are more than twice as likely to be employed (86%) than those with no formal education/primary education (40%). Conversely, those with no formal education/primary education were twice as likely to be unemployed (6%) than those with a third level qualification (3%). The proportion of those aged 25-64 years old nationally with a third level qualification was 47% in Q2 2019, while one in twenty (5%) reported that they had primary education/no formal education.

1.1.3 Employment and Socio-economic Status

Swords

The socio-economic group with the largest percentage share of the total population is those identified as non-manual workers, which comprise 25.7% of the total population in 2016. 36% of the population are employed in managerial or professional services, which comprises employers and managers, higher professionals and lower professionals. 17.4% are skilled and semi-skilled workers with 11.7% representing all other gainfully occupied. 3.6% are unskilled, farmers or agricultural workers.

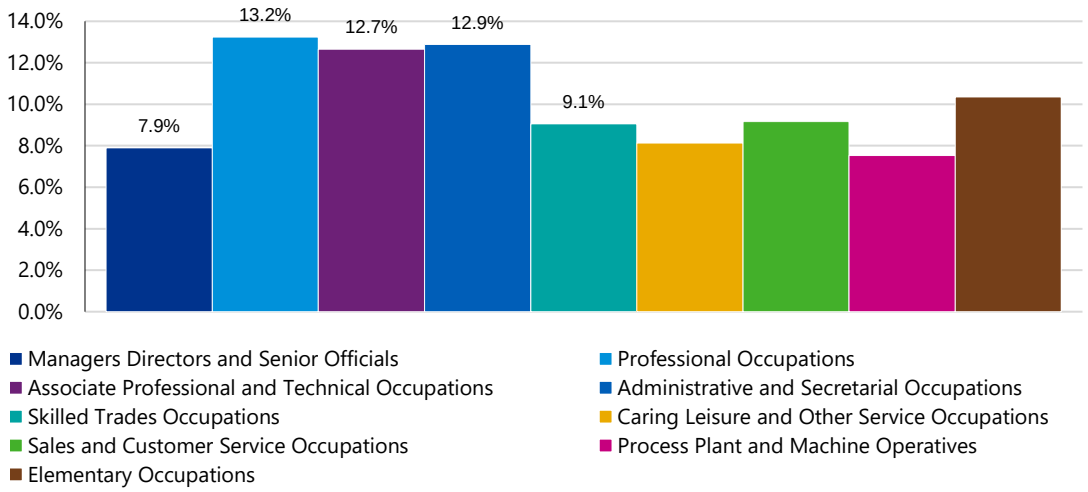


Figure 1-7 Persons at work or unemployed by occupation in Swords (CSO 2016)

In terms of stated industry of work, 26.7% of those in employment have listed 'Commerce and Trade' as their sector, followed by 'Professional Services' with 20.9%. 'Transport and communications' make up 17%. The figure also highlights that nearly a fifth of the population classify their occupation in the 'other' category. While this is high, this can largely be attributed to people's reluctance to classify themselves in one of the other categories.

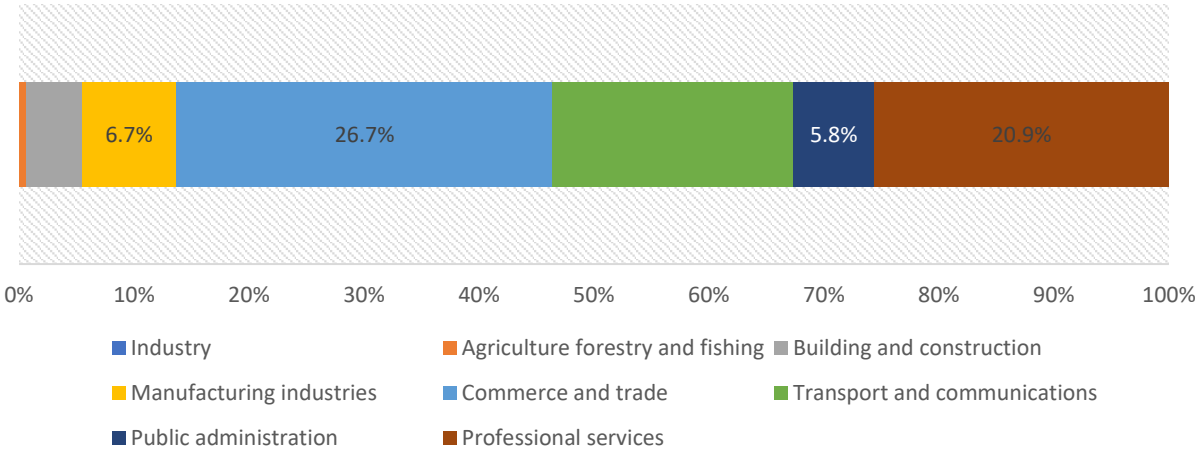


Figure 1-8 Industry of employment in Swords (CSO 2016)

Given the historic reliance on Dublin Airport and Dublin city centre for employment opportunities and relatively young population, it is important that Swords and particularly the town centre is promoted as

a leading place to work and live as part of Sustainable Swords in order to optimise liveability. Currently, many employment opportunities within and adjacent to Swords lay outside of the Study Area including the following:

- During 2019, **Dublin Airport** supported 19,200 full time equivalent (FTE) jobs and contributed €1.7 billion Gross Value Added. Indirectly, Dublin Airport is estimated to facilitate 129,700 jobs and contribute €9.8billion Gross Value Added nationally in total which is equivalent to 3.1% of national Gross Domestic Product.[1]
- **MSD Biotech** which has been operational since 1990 is currently investing and developing their facility adjacent to Barrysparks which is expected to provide around 350 additional jobs in the pharmaceutical and biotechnology industry.[2]
- **Airside Business and Retail Park, Swords Business Park and Swords Business Campus** which are along the R132 provide several major offices for commercial operators including headquarters for Ryanair, Tusla Local Area Office, Hertz, Harvey Norman, Eason's, the CSO, National Monuments Archive and City Jet.
- The **Tesco Distribution Centre in Donabate** is the national hub for distributing goods across Ireland and it employs over 600 people[3]; and
- There are a **range of food production and processing facilities** in North County Dublin including the Roslin Food Park to the north of Dublin Airport, Fingal Farm close to Oldtown and the Tully Nurseries, Ballymaguire Foods and McNally Family Farm along the M1 corridor north of Swords.

Within the Study Area, there are some important employment hubs including Fingal County Council offices on Main Street, the Pavilions Shopping Centre which comprises over 100 retail establishments (84 shops, 7 restaurants, 12 Kiosks) and a multiplex cinema with an estimated 12 million visitors per annum[4] along with SK Biotek on Watery Lane and the various social infrastructure, offices and retail establishments along the corridor of North Street – Main Street. Specifically, there is a relatively high concentration of social infrastructure within the Study Area, particularly along Main Street in Swords.

1.1.4 Health and Well Being

The health and wellbeing of Ireland's population is central to our society and the country. This more apparent now than ever given the ongoing COVID-19 pandemic and its associated influence on mental and physical health. The different types of health and health services vary widely, from physical health to mental health, primary care to acute care. The need to provide for all these areas is paramount to achieving a healthy, happy Ireland.

In 2016, 88.9% of residents in Swords identified as being in either 'very good' or 'good' health status. 5.3% identified as being in 'fair' health status while 1.2% identified as being in 'bad' health status.

Though the high percentage of those in good health status is a positive indicator towards the overall health and well-being of Swords, almost 500 residents identified as being in bad health. The lack of specified health status, such as physical health status and mental health status, produces discrepancies regarding the general health among the population. The provision of support and services for these residents at both a local and national level is essential towards achieving a strong and equal society.

The disability rate measures the number of people with an identified disability as a percentage of the total population. The disability rate of Swords in 2016 was 10.1% or 4,499 persons. This is below the

[1] Intervistas (2020) Dublin Airport Economic Impact Study: 2019.
[2] https://www.msdireland.com/resources/files/MSD%20to%20develop%20new%20biotechnology%20facility%20in%20Dublin,%20with%20the%20expected%20creation%20of%20up%20to%20350%20new%20jobs.pdf
[3] https://www.euromech.ie/pallet-racking-tescoireland-dublin.html
[4] Chartered Land – Swords Pavilions: Dublin. Available from: http://charteredland.ie/swords/

national average of 13.5% in 2016. Fingal is also the county with the lowest disability rate nationally, with a disability rate of 10.8%.

Notwithstanding these lower percentages when compared to other areas, equitable and inclusive access should be prioritised in order to deliver placemaking across Swords that supports and accommodates all irrespective of any vulnerabilities, health conditions or otherwise.

Both in Swords and nationally, the percentage of females with a disability was higher than that of males. This is in part due to lower life expectancy among males, with 69% of disabled persons aged 85 years or older being female. Interestingly, almost 20% of disabled persons nationally identified their disability as a psychological or emotional condition, with the largest disability type being those which included chronic illnesses at 46.1%.

1.1.5 Commuting and Transport

In the past two decades, the importance of multi-modal and sustainable means of travel has grown significantly. Within the NPF, *Strategic Outcome 4 - Sustainable Mobility* and *Strategic Outcome 8 – Transition to a Low-Carbon and Climate Resilient Society* are both heavily influenced by the way in which we travel.

From the analysis of the patterns of transport to places of employment, school or college, it is observed that there is a high reliance on private transport within Swords, with CSO Census 2016 data showing that 54% of people using a car to commute as either a driver or passenger. 15.2% of persons travel by foot, while just 2% of commuter's cycle. 19.8% of commuters use public transport (bus, train or LUAS).

Green Transport, for the purposes of this analysis, includes means of travel by foot, by bicycle and by public transport. 36.9% of the population travel by means of green transport. Of these green transport users, over half of these users are made up of those travelling to school or college. This can be both in due part to the proximity of schools to young family households and behaviour among students. 28.8% of all journeys in Swords were made up those to school or college. Though these numbers for green transport are still quite low, future projections would likely indicate towards these numbers increasing in future both nationally and within Swords; particularly if intended development comes forward e.g. Metro, Greenways, and BusConnects.

Travel by means of car makes up most of the trips by users in 2016. Of these car users, over 60% of users of are made up of those travelling to work. People travelling to school or college makes up 39% of all car journeys. 86.5% of all households had one or more motor cars, 42% having 2 or more motor cars and 10.3% having no motor car.

Remote Working

Interestingly, those who work mainly at or from home was only 1.3%. This has likely changed since the Census 2016. The transition to flexible or blended working arrangements in recent years and the sudden transition to remote working for many due to several Covid-19 national lockdowns will have impacted these figures greatly. In 2018, the CSO undertook a pilot national survey to inform the Census 2021, which showed that 18% of respondents worked from home, mostly one or two days per week. These figures have undoubtedly increased as of 2021.

Commuting

The average commute time in Swords in 2016 was 30.3 minutes. 56.5% of journeys lasted 30 minutes or less. 25.5% of journeys ranged from 30 minutes to an hour and a half while the remaining 7.1% of journeys had no stated commute time. Using Google Maps real-time data, the average commute time

from Swords to Dublin City Centre was 35 minutes (combining both private and public transport). There is a popular express bus serviced available in Swords that brings people directly to the city centre via the port tunnel. Given Fingal's low '*jobs to resident workforce*' [5] ratio of 0.72, indicating a net out-flow of workers, it can be inferred that many of these journeys in which commute time was 30 minutes or greater were to destinations outside of Fingal County. This inference is also supported by Dublin City's net in-flow of workers, which had a high '*jobs to resident workforce*' ratio of 1.24.

47.7% of all journeys to work, school or college in Swords occurred between 07:00 and 08:30. Almost half of all journeys occurred from 08:30 onwards.

POWSCAR Commuter Flow Analysis

The following extract contains insights from the Fingal Land Use and Economic Analysis report produced by KPMG FA. This provides information relating to the flow of commuters for employment in Swords and Fingal.

Table 1-3 Origin county of commuters working in key settlements across Fingal (CSO POWSCAR 2016)

	Swords	Total Fingal
Fingal	53.0%	48.0%
Dublin City	19.1%	21.6%
Meath	8.3%	11.2%
South Dublin	4.1%	5.3%
Kildare	2.8%	3.7%
Louth	4.6%	2.9%
Dún Laoghaire	2.1%	2.3%
Wicklow	0.8%	0.9%
Cavan	0.4%	0.5%
Westmeath	0.3%	0.5%
Laois	0.3%	0.3%
Cork County	0.6%	0.3%
Wexford	0.3%	0.3%
Offaly	0.3%	0.2%
Monaghan	0.3%	0.2%
Limerick City/County	0.3%	0.2%
Galway County	0.3%	0.2%
Carlow	0.2%	0.1%
Tipperary	0.2%	0.1%
Clare	0.3%	0.1%
Kilkenny	0.1%	0.1%
Roscommon	0.2%	0.1%
Cork City	0.3%	0.1%
Mayo	0.2%	0.1%
Donegal	0.1%	0.1%
Longford	0.1%	0.1%
Waterford City/County	0.1%	0.1%
Kerry	0.2%	0.1%
Sligo	0.1%	0.1%
Galway City	0.1%	0.0%
Leitrim	0.1%	0.0%

[5] Jobs to resident workers ratio is a metric used to measure jobs against workers in an area. It is derived from the number of jobs in an area divided by the number of resident workers. For Fingal this is 94,751 jobs/132,153 resident workers = 0.72.

Swords has the second highest concentration of workers commuting to the settlement for work in the county. A large proportion of workers living within the settlement work locally (<35%). Swords attracts up to 20% of resident workers in neighbouring areas in the north surrounding Lusk, in the west and in the east toward Malahide. 19.1% of workers commute in from Dublin City with a further 8.3% coming from Meath. The majority of Fingal has upwards of 5% of the working population commuting to Swords. The settlement has 14,920 local jobs and a diverse sectoral breakdown of employment.

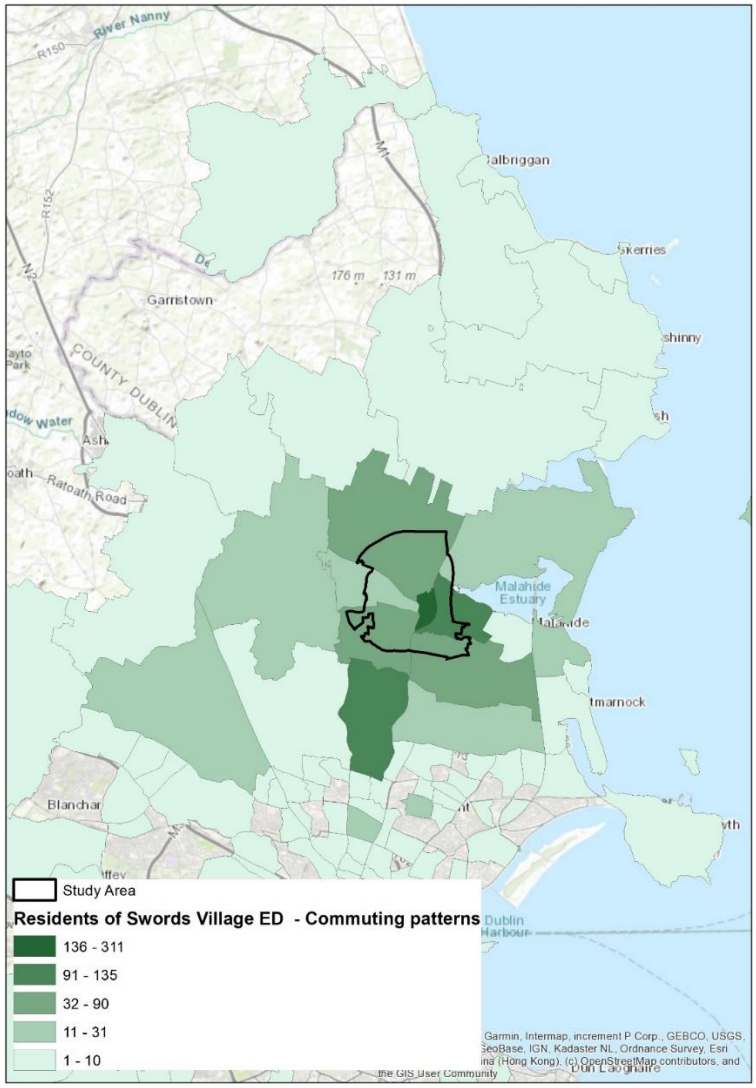


Figure 1-11 Swords residents Commuter Patterns

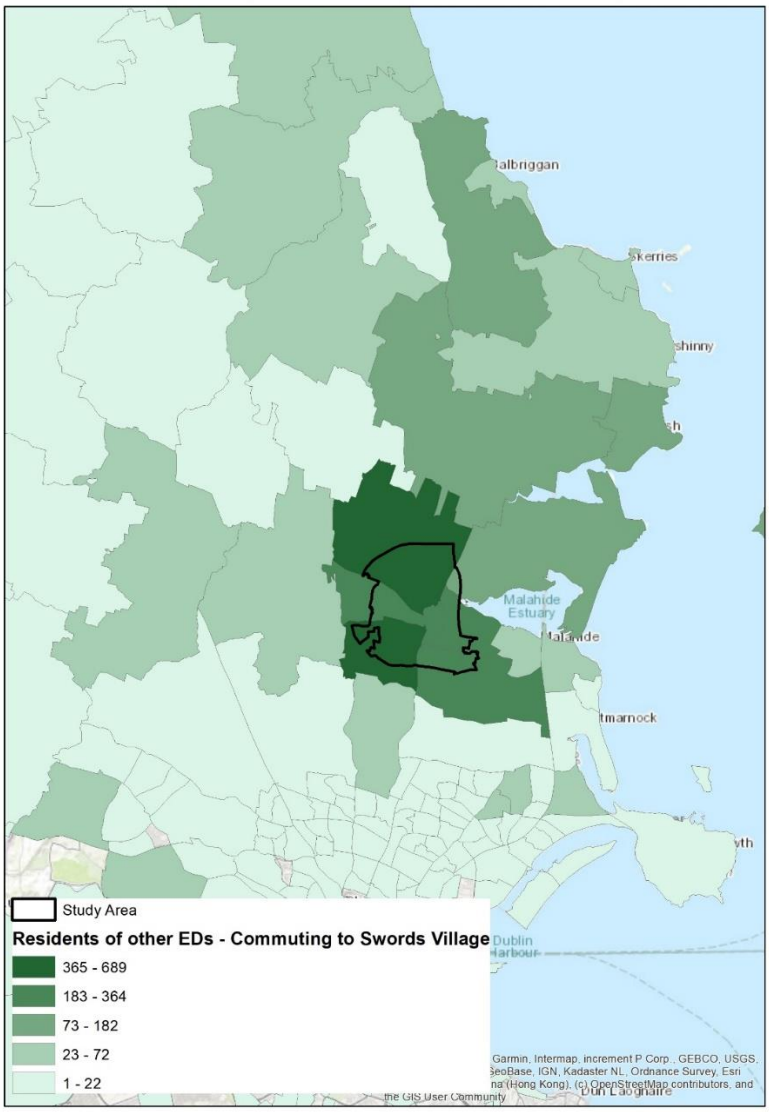


Figure 1-11 Commuter Patterns to Swords

1.1.6 Households and Accommodation

There are 14,765 private households with 44,364 persons resident in Swords as of the 2016 Census. The resulting average household size (AHHS) of 3.0 is aligned with the Fingal average household size (3.03). This is the highest AHHS of the local authorities in Dublin. Further, the average household size in is significantly higher than the regional and state average (2.75 and 2.80 respectively).

Location	Private Households	Persons in Private Households	AHHS
State	1,702,289	4,676,648	2.75
Eastern and Midlands Region	815,557	2,282,857	2.80
All of Dublin	479,683	1,308,854	2.73
Dublin City	211,747	525,299	2.48
Dun Laoghaire-Rathdown	78,601	213,468	2.72
South Dublin	92,523	277,168	3.00
Fingal	**96,812**	**292,989**	**3.03**
Swords	**14,765**	**44,364**	**3.00**

Table 1-4 Average household size context (CSO 2016)

Households in Swords are predominantly comprised of 3 persons or more, with 58.2% of households in Swords containing at least 3 persons. The remaining 41.8% is made up of households of either 1 or 2 persons.

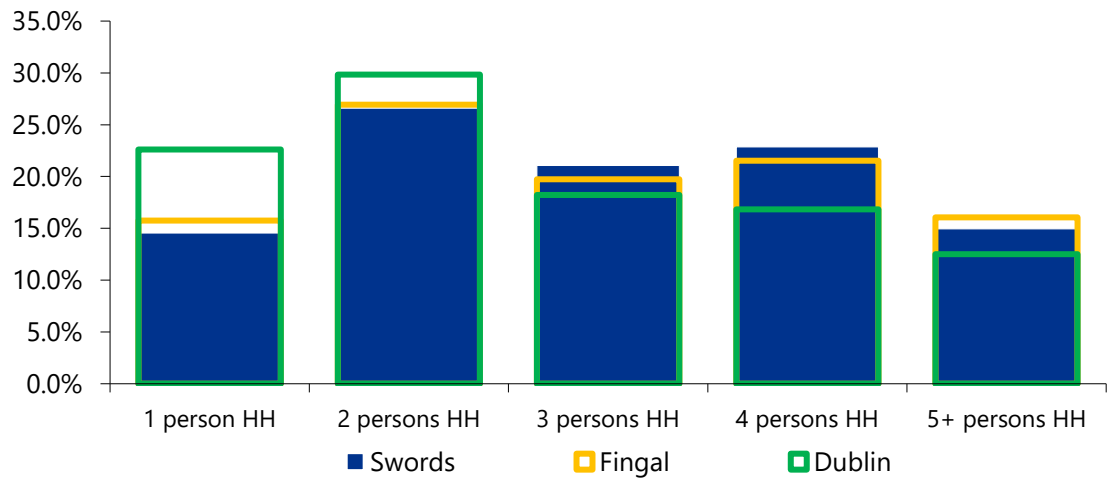


Figure 1-12 Household size in Swords, Fingal and Dublin (CSO 2016)

Private households by type illustrate the structure of each household. Households made up of married couples or with children comprise 85.2% of all households in Swords. Single parent households in Swords equate to 9.9%. Single person households comprise 5% of all households. There was a notable increase in 4-person (15.6%) and 5+ person (12.9%) households over the 2011-2016 intercensal period.

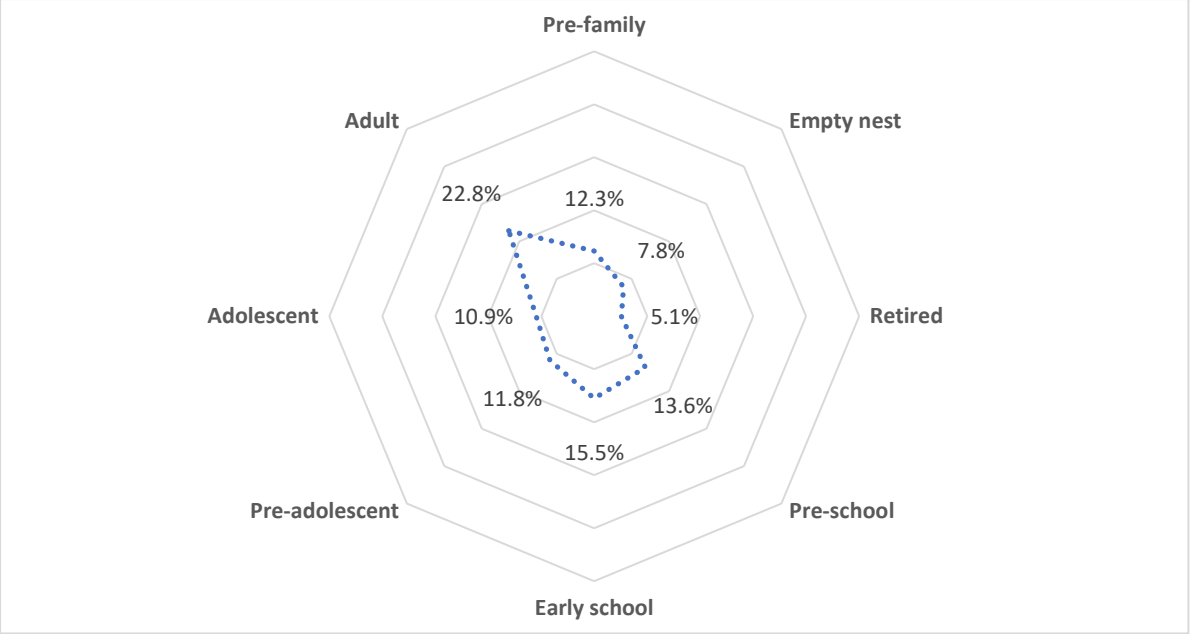


Figure 1-13 Family unit distribution in Swords (CSO 2016)

The type of housing in Fingal is predominantly units associated with family living such as houses and bungalows which comprise 80.7% of all households. Of the remaining households 17.6% can be defined as apartment-living (i.e. flats, apartments and bed-sits[6]). Swords reflects this with 88.6% of households living in houses and bungalows with the remaining 17.6% living in flats and apartments. There was little change in the type of units over the intercensal period with houses/bungalows increasing by just 1.2%. In contrast the number of flats/apartments grew by 5% over the same period.

Analysis of data regarding family cycles is important in understanding the trends and future projections of family households. In 2016, 50.7% of all family households in Swords had children. Of these families with children, 77.7% comprised of young children (pre-adolescent or younger), indicating the composition of family households in Swords is primarily made up of young families. Retired households or empty nest households equated to 13.5% of family households.

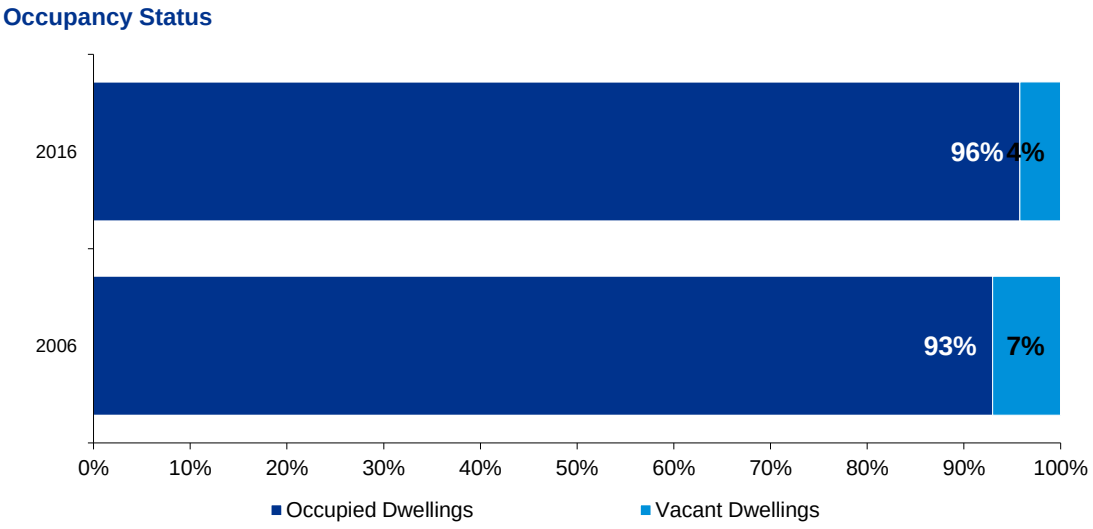
A total of 67.2% of all households were comprised of owner-occupied households (owner occupied with a mortgage and with no mortgage). 23.2% were made up of private rented occupancy and 5.9% were made up of social housing. Data from both household accommodation and occupancy indicate the majority of households in Swords are owner-occupied houses/bungalows mainly comprising of families with children. There were minor changes in tenure over the intercensal period with owner occupancy declining by 2.3%, private rent declining by 0.2% and social housing growing by 0.8%.

Figure 1-14 Tenure in Swords (CSO 2011, 2016)

The average year of housing stock in Swords in 2016 was 1992. Most housing units in Swords were also built either in or after 1991, with 55% of all housing units being built between 1991 and 2016. The nine-year period which saw the highest number of housing units built was the period 2001-2010, which saw the construction of 5,221 housing units. This comprises 35.3% of all housing units in Swords.

[6] It should be noted that it became illegal in 2013 for landlords to rent out bedsit-type accommodation over concerns that much of it was dilapidated, run-down and inadequate for modern habitation.

Residential vacancy rates in Swords on the night of the Census was low, with 95.7% of dwellings being occupied. The number of vacant dwellings in 2016 was 4.3%, or 670 dwellings.



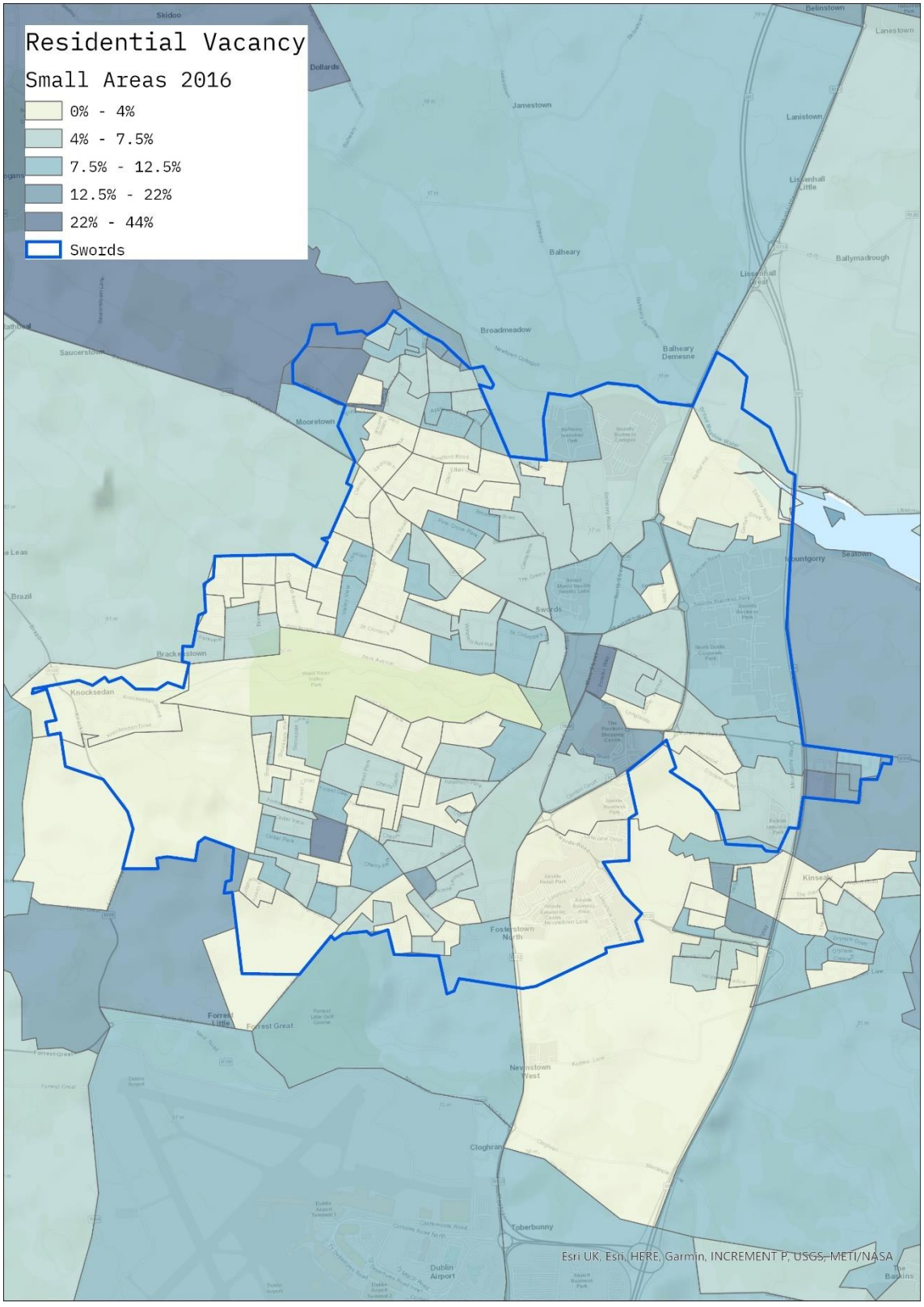


Figure 1-15 Residential vacancy in Swords (temporarily absent, vacant and holiday homes) (CSO 2016)

1.1.7 Settlement Size/Catchment (Existing/Potential)

The latest land use zoning from the Fingal CDP 2017-2023 (provided by Fingal County Council) has been illustrated in Figure 1-16. This sets out the various land use requirements for industrial, employment and residential lands. Further, data has been analysed following the latest review (2020 Q3) of land capacity for these zoning classifications.

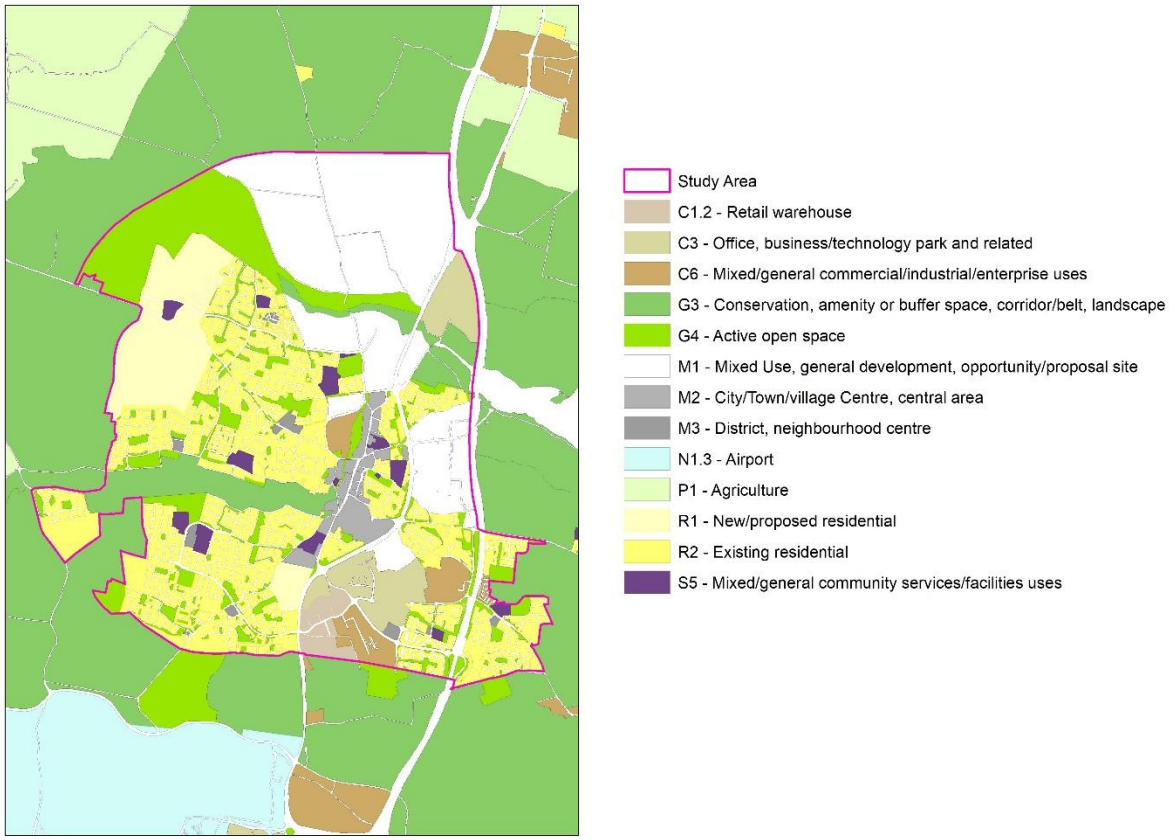


Figure 1-16 Land use zoning under the Fingal CDP 2017-2023 in Swords (Fingal County Council)

Industrial Zoning Capacity

The following table sets out industrial land supply in Swords assessed by Fingal County Council under review as of 2020 Q2. Swords has 10.3% of all lands zoned for industrial activity within Fingal County Council equating to 470 hectares. The remaining undeveloped capacity is in land zoned for the Metro Economic Corridor (MEC – 255hA), high technology (51hA), general employment (10hA) and retail warehousing (7hA).

Table 1-5 Industrial and employment land supply in Swords 2020 Q2 (Fingal County Council)

Location	**Swords**	
Classification	**Developed**	**Undeveloped**
DA - Dublin Airport	0	0
FP - Food Park	0	0
GE - General Employment	35	10
HI - Heavy Industry	0	0
HT - High Technology	18	51
ME - Metro Economic Corridor	80	255
RB - Rural Business	0	0
RW - Retail Warehousing	14	7
WD - Warehousing and Distribution	0	0
Totals	**147**	**323**
% Developed/Undeveloped	**31.3%**	**68.7%**
Of total lands in Fingal	**470**	**10.3%**

Residential Zoning Capacity

Fingal residential supply data (provided by Fingal County Council) indicates that there is 479 hectares of residential land supply with a unit capacity of 14,742 units as of 2020 Q3. This marks a 6.8% decline from the initial land supply zoned under the Fingal County Development Plan 2017-2023. Swords has the single largest residential capacity of any settlement in Fingal.

Residential Land Availability

The Residential Land Availability (RLA) Survey provides a database of lands zoned for residential or primarily residential purposes. This data was published in 2015 by the Department of Housing, Local Government and Heritage. In 2021, KPMG FA undertook a reassessment of this dataset to provide an up to date, approximate picture of the residential development potential of land in Dublin. This data uses a nominal density rate of 31 units per hectare and area to estimate the potential unit capacity of sites. Sites where reduced to the undeveloped portion of the identified site using the latest available

aerial imagery and spatial planning datasets. The lands identified in Swords for residential development are indicated in Figure 1-. It is estimated that residential lands (100 hectares) in Swords and its immediate surroundings (as identified on the map) have capacity for roughly 3,100 units.

Table 1-6 Residential Land Availability in Swords (KPMG FA)

Site	AreaHA	Capacity*	Electoral Division	Use Class
1	1.67	52	Swords-Glasmore	New/proposed residential
2	0.18	5	Swords-Forrest	Existing residential
3	0.78	24	Kinsaley	Existing residential
4	0.34	11	Kinsaley	Existing residential
5	1.99	62	Swords-Forrest	Existing residential
6	0.82	25	Swords-Forrest	Existing residential
7	12.89	400	Swords-Forrest	New/proposed residential
8	53.29	1652	Swords-Glasmore	New/proposed residential
9	1.02	32	Swords-Forrest	Existing residential
10	6.94	215	Swords-Lissenhall	New/proposed residential
11	8.95	278	Swords-Lissenhall	New/proposed residential
12	4.36	135	Swords-Lissenhall	New/proposed residential
13	7.20	223	Swords-Forrest	Existing residential

*Capacity under assumed density rate of 31 units per hectare.

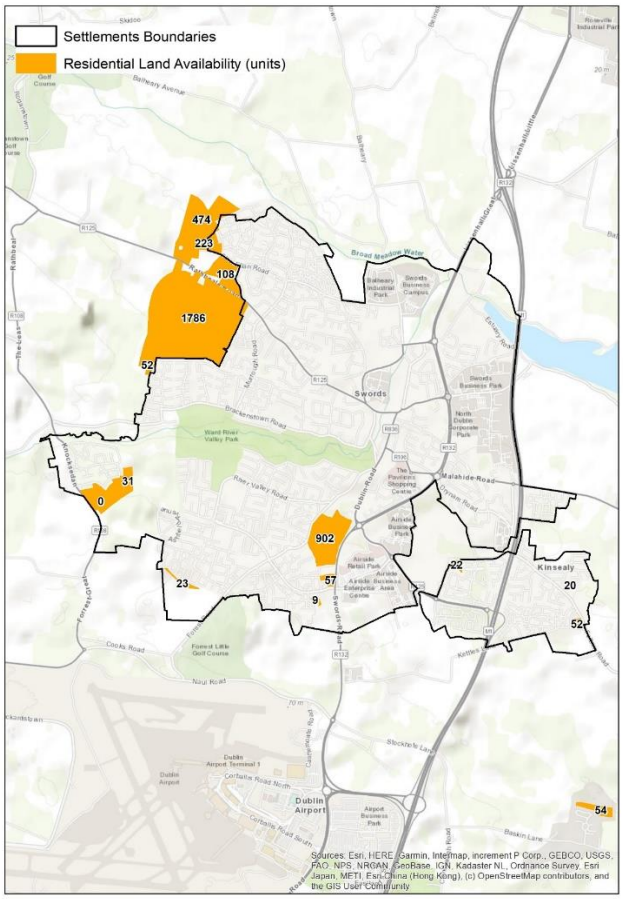


Figure 1-17 Residential Land Availability (KPMG FA 2020)

1.2 Economy and Retail:

1.2.1 Business Support and Promotion

Table 1-7 Fingal LEO grants / Supports

Grant / Support	Description	Grant payable
Feasibility Grant	Designed to assist with researching market demand for a product or service and examining its sustainability.	50% of the investment or €15,000, whichever is lesser
Priming (Start-up) Grant	Available to micro enterprises, within 18 months of start-up.	50% of the investment or €150,000, whichever is lesser
Business Expansion Grant	Designed to assist the business in its growth phase after 18-month start-up period.	50% of the investment or €150,000, whichever is lesser
Microfinance Ireland Covid-19 Business Loan	Available to businesses with a 15% or more reduction in turnover or profit and have trouble getting Bank Finance.	Business Loans from €5,000 to €25,000
Trading Online Voucher Scheme	Assists small businesses to trade online. Eligible businesses can apply for a voucher to invest in developing their eCommerce capability.	Voucher of up to €2,500
Technical Assistance for Micro Exporters	Part funding of the costs for investigating and researching export markets.	50% of eligible costs (net of VAT) to a max of €2,500.
Agile Innovation Fund	Enterprise Ireland fund open to LEO clients, supports product, process or service development projects.	50% in support for projects mentioned with a total cost of up to €300,000 with fast track approval.

Note: The table above provides a brief overview of the grants and supports available, many of these have eligibility requirements. Full details can be found on the Fingal LEO website.

Table 1-8: Enterprise Ireland Grants / Supports

Grant / Support	Description	Grant payable
Covid-19 Business Financial Planning Grant (Closes 15th June 2021)	Provides a strategic intervention for companies to work with third part consultants to prepare a detailed financial business plan.	Up to €5,000 (100% of expenditure) for engagement with an approved consultant.
Sustaining Enterprise Fund	Funding for Irish businesses to stabilise cashflow, adapt their operations and innovate to meet new customer needs.	Non-repayable grant of up to 50% of a funding package (up to €200,000) – Funding between €100,000 and €800,000.
Sustaining Enterprise Fund – Small Enterprise	Aimed at smaller companies to support business continuity and strengthen their ability to return to growth and be trading strongly in 3 years' time.	€25,000 - €50,000 short term working capital injection.
Lean Business Continuity Voucher	Available to eligible companies to access training or advisory services support to continue operation during the pandemic.	Voucher of €2,500 available.
Covid-19 Online Retail Scheme (Closes 25th May 2021)	Enable Irish-owned retailers to enhance their digital capability and develop a more competitive online offer.	Maximum of 80% of the project eligible costs with maximum grant of €40,000.
Ready for Customs (Closes 31st August 2021)	Provides companies with financial assistance to cover the cost of taking on much needed additional customs clearance staff.	€9,000 to support recruitment or redeployment of full time employee to dedicated customs role, €4,500 for part time employee to same role.

Note: The table above provides a brief overview of the grants and supports available, many of these have eligibility requirements. Full details can be found on Enterprise Irelands website.

KPMG

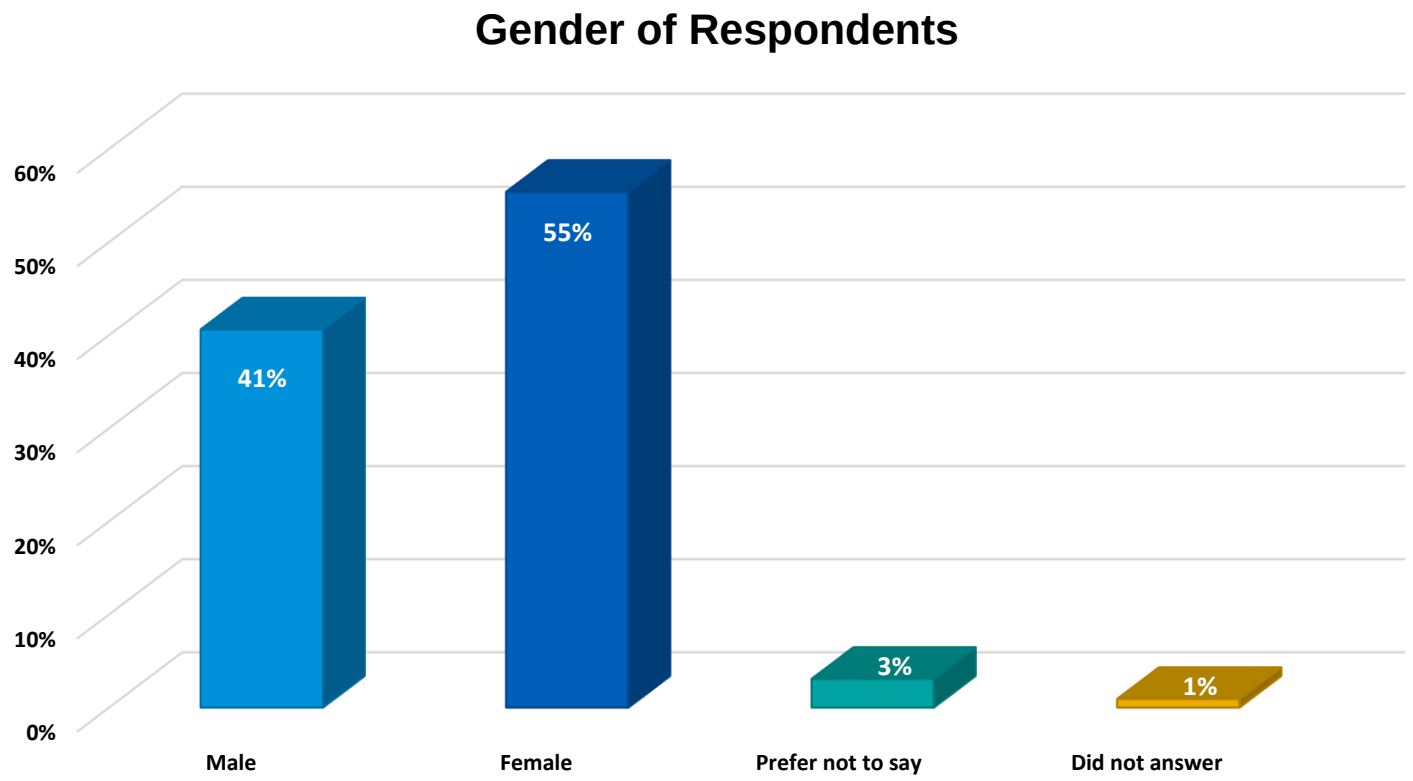
Sustainable Swords

Online Survey Analysis – Public Survey

Total Responses: 325

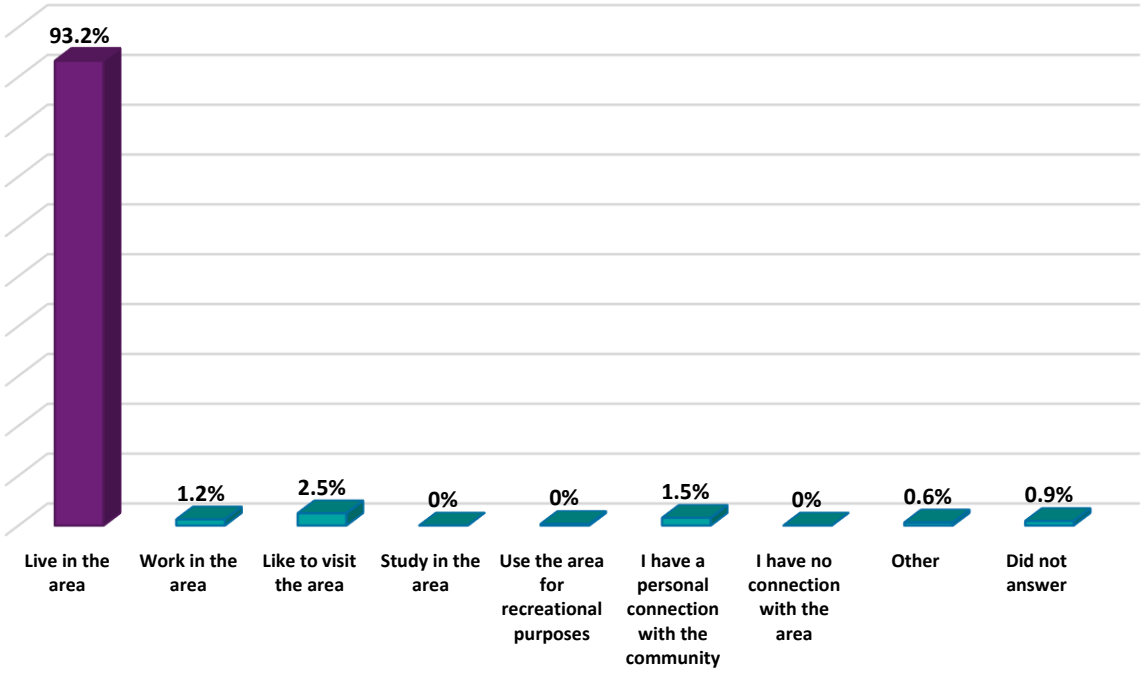
July 2021

Preface: Gender of Respondents

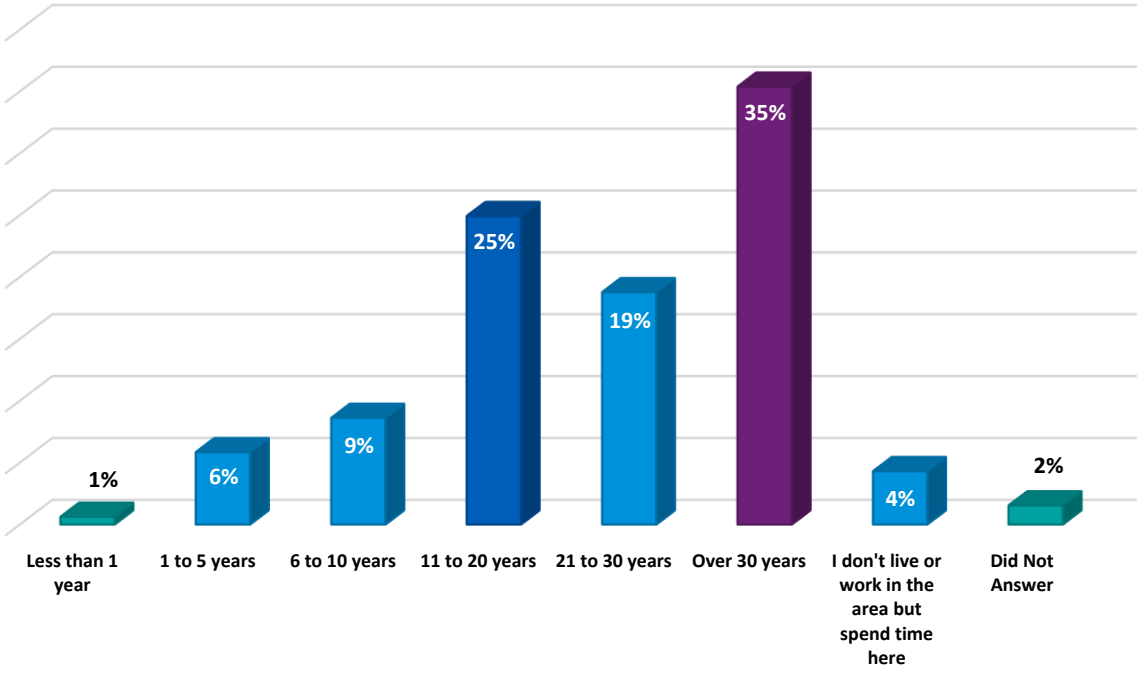


1. Connection with Swords

Connection with Swords

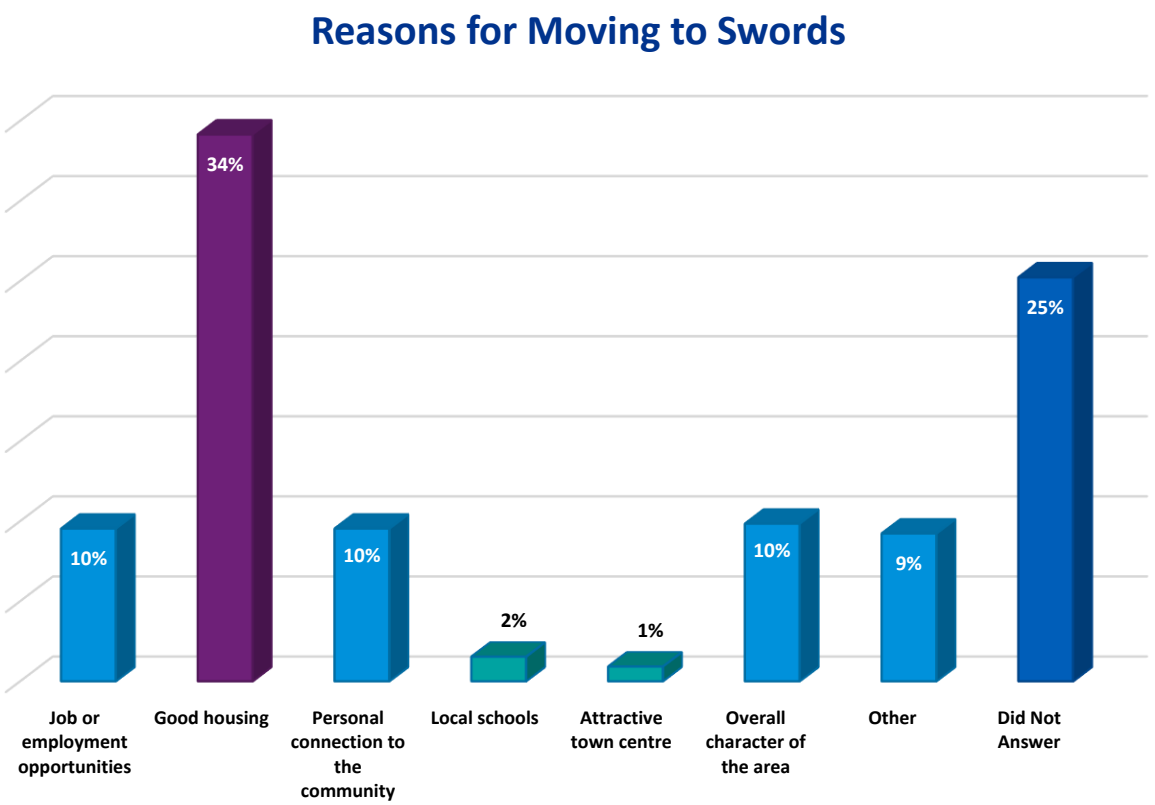


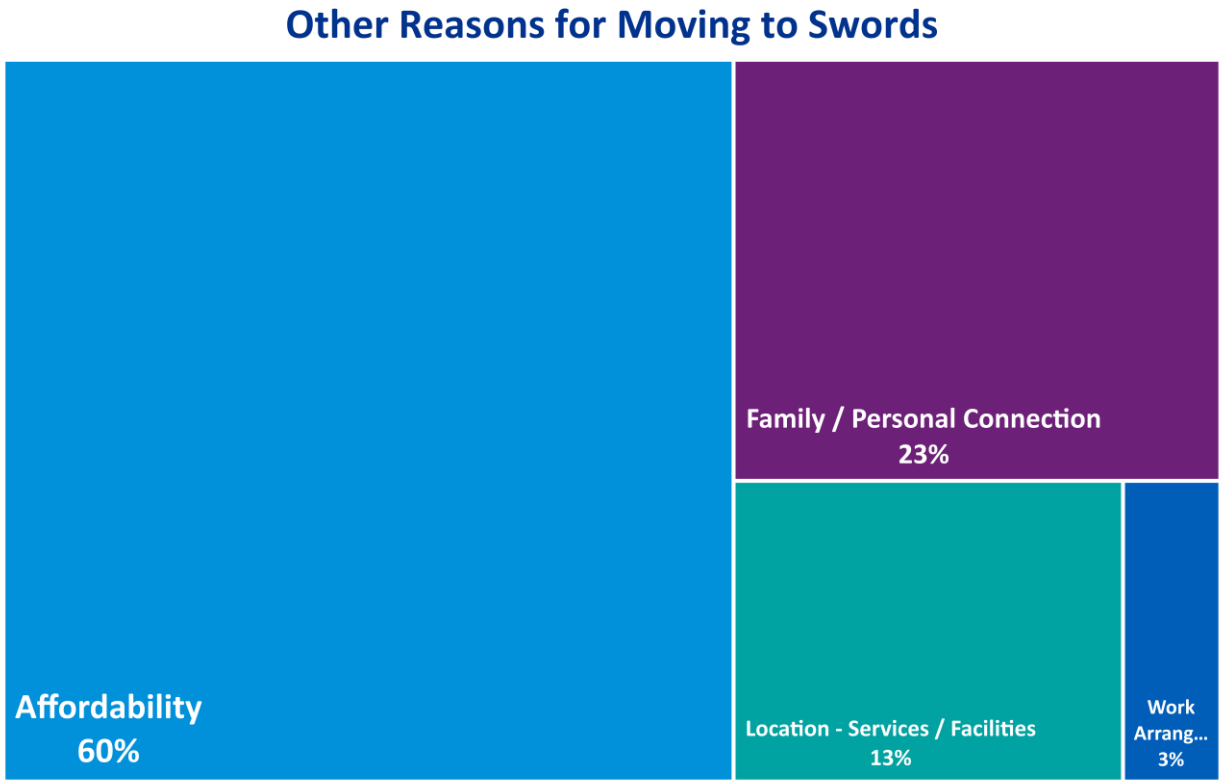
Years Living in Swords



- **Over 93%** of respondents live in the Swords area with **almost 80%** of respondents living in Swords for **over 10 years**

2. Reasons for Moving to Swords



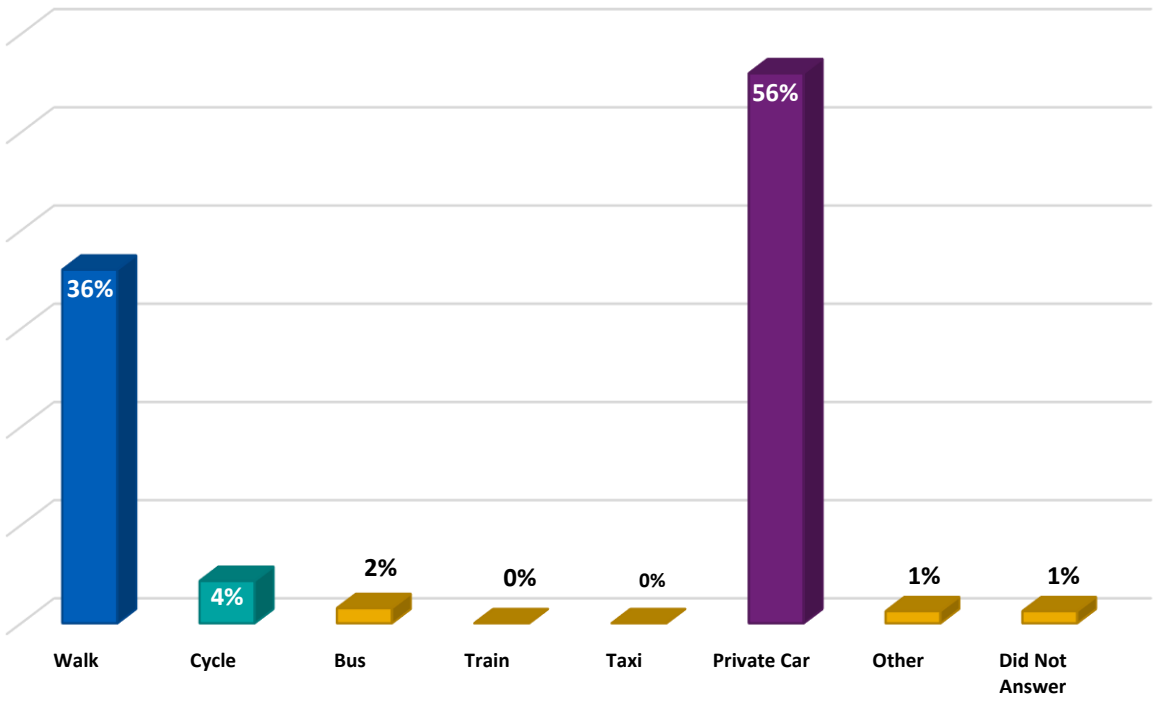


"I am from Beaumont and wanted to buy my own house on the Northside of Dublin. Swords was my first preference."

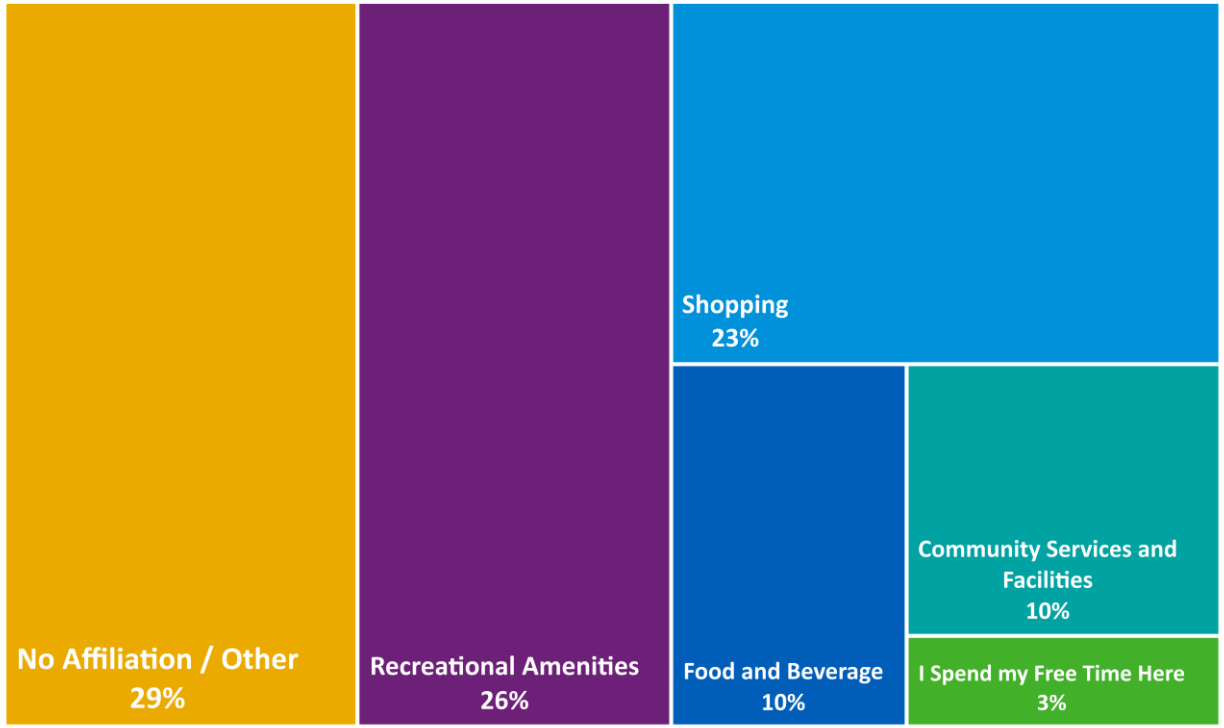
"Married a Swords girl.."

3. Reasons for Visiting Swords

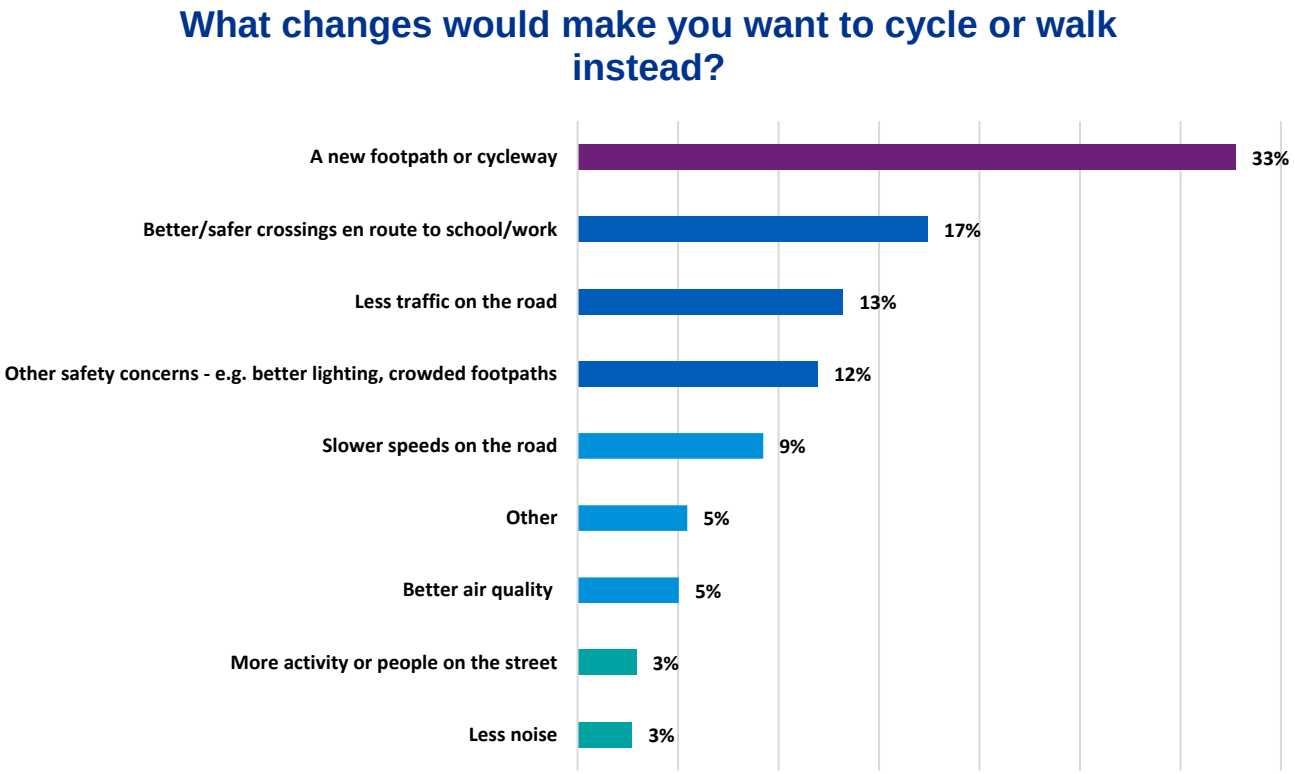
Primary Mode of Travel to Swords Town Centre

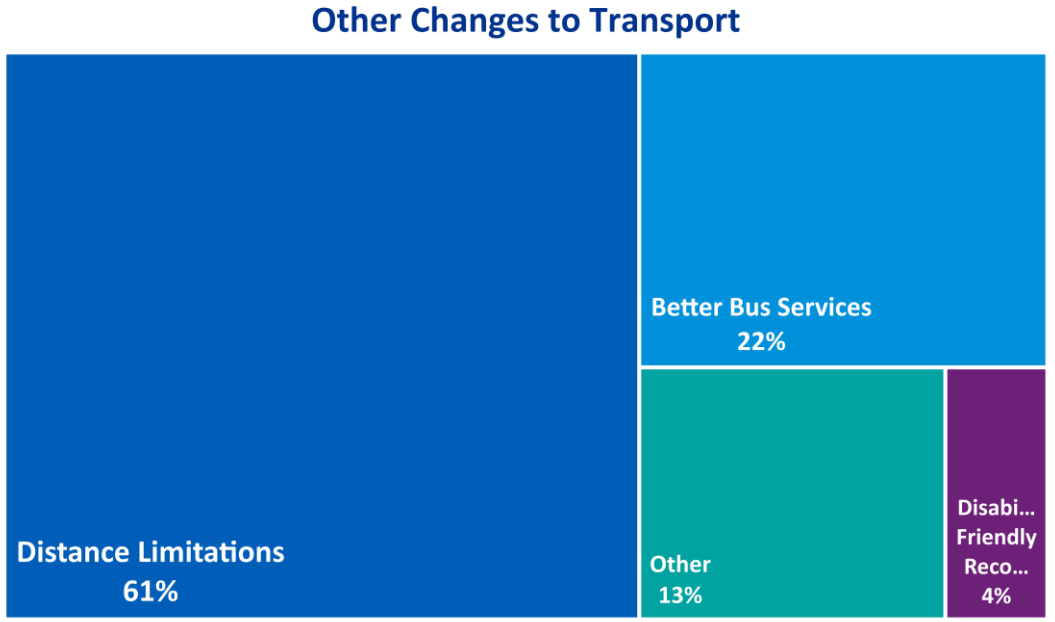


Other Reasons for Visiting Swords



4. Mode of Travel to Swords





"The footpaths on main street need maintenance. As someone with a pram, the unevenness can be hazardous.."

"Fix footpaths especially for the elderly.."

5. Strengths of Swords Town Centre

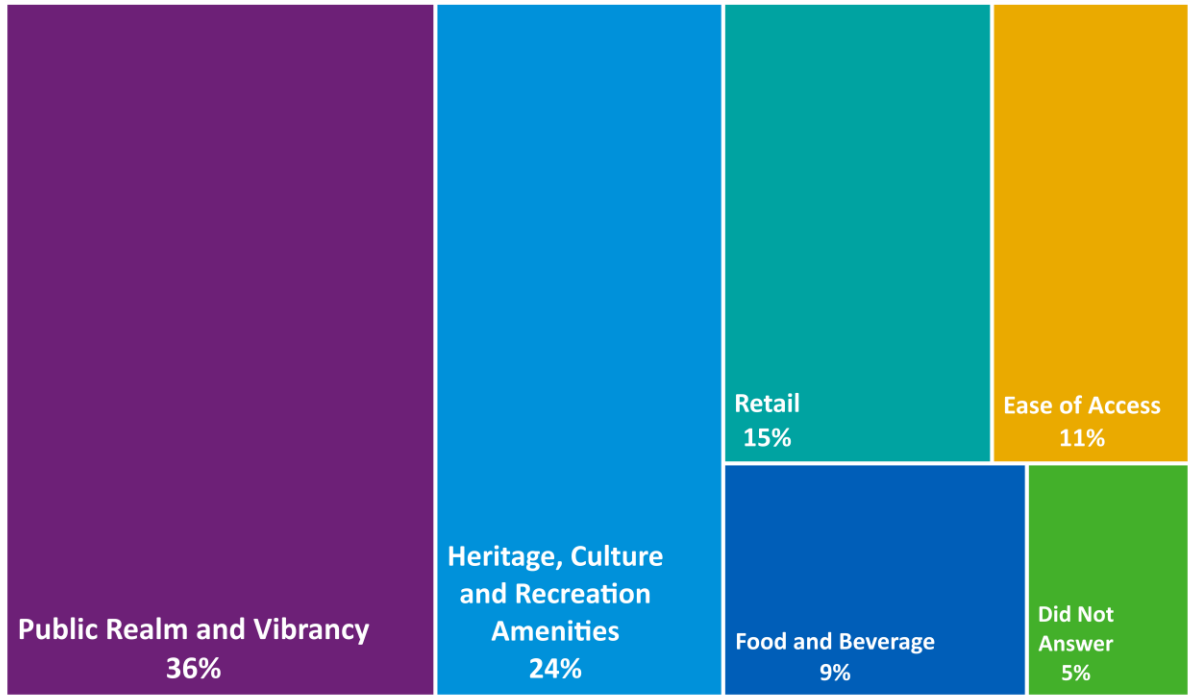
"It still retains a village quality about the Town Centre."

"I love how historic Swords is, Swords Castle is a beautiful place.."

"Main Street is always a hive of activity and the whole place has a nice village feel to it."

"Wide thoroughfare. Trees and flowers. Swords Tidy Towns do a good job on keeping it clean and litter free.."

What do you like most about Swords town centre?



6. Weaknesses of Swords Town Centre

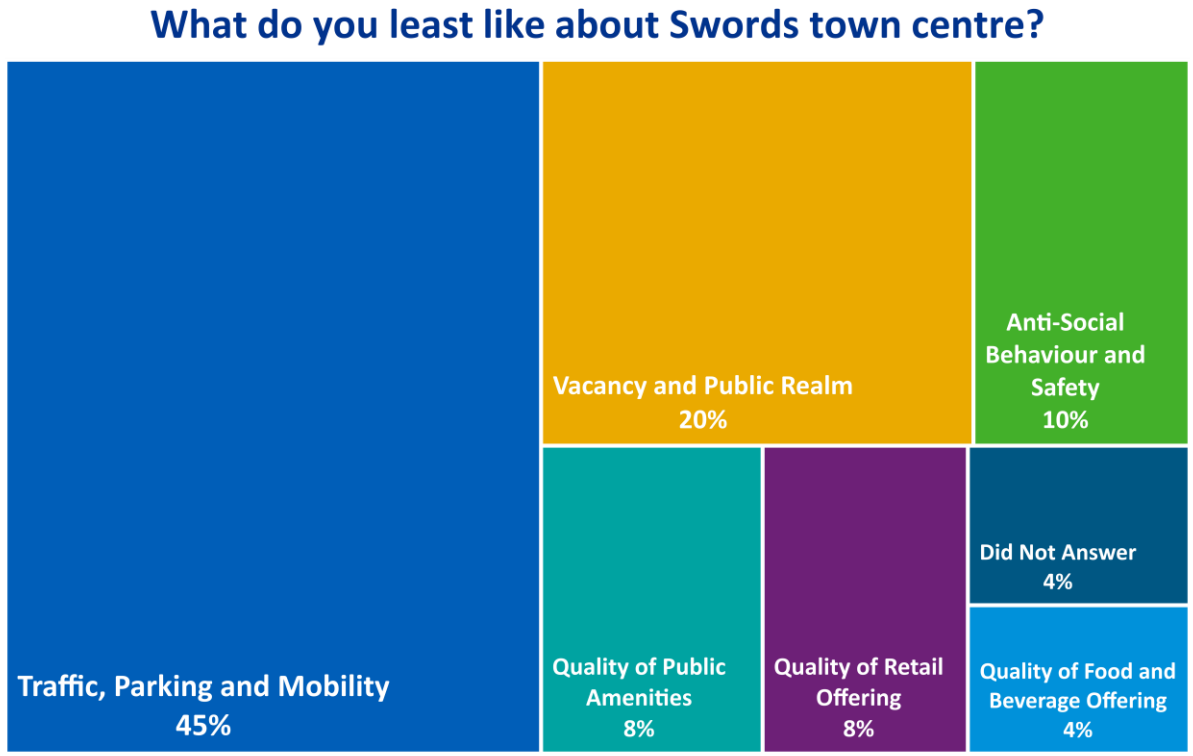
"Too much traffic."

"The footpaths are not great.."

"I would prefer if there were more cafes with nice outdoor dining options.."

"I don't often visit the town centre because of the situation with the wheelchair accessible parking.."

"Everything else, The main street is jaded and run down.."



7. Ideas for Swords Town Centre

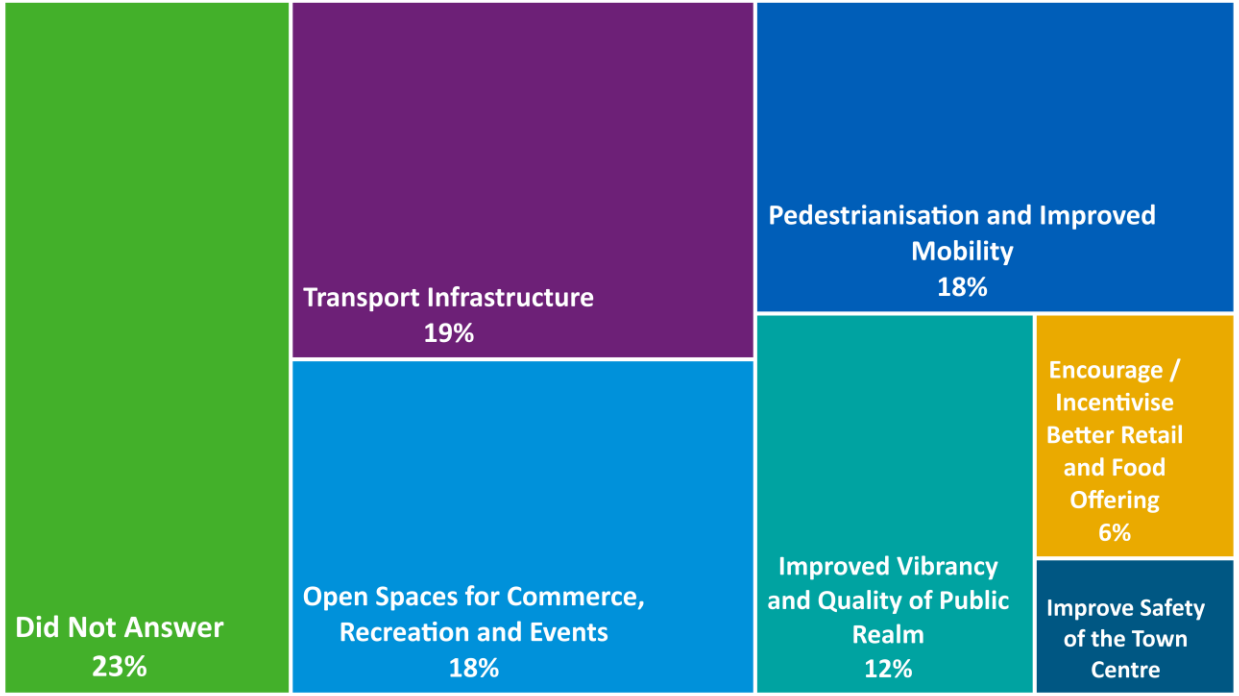
"Youth clubs and more amenities for kids and teenagers that don't cost too much.. We need a public swimming pool and other leisure facilities to give families something active to do with their kids."

"Give more space for pedestrians, diners and socialising on main street.. Making swords Village more pedestrian friendly"

"Walking and cycling is the biggest thing other towns are doing which Swords could benefit from.."

"Green the town.."

What are other towns doing that might benefit Swords?



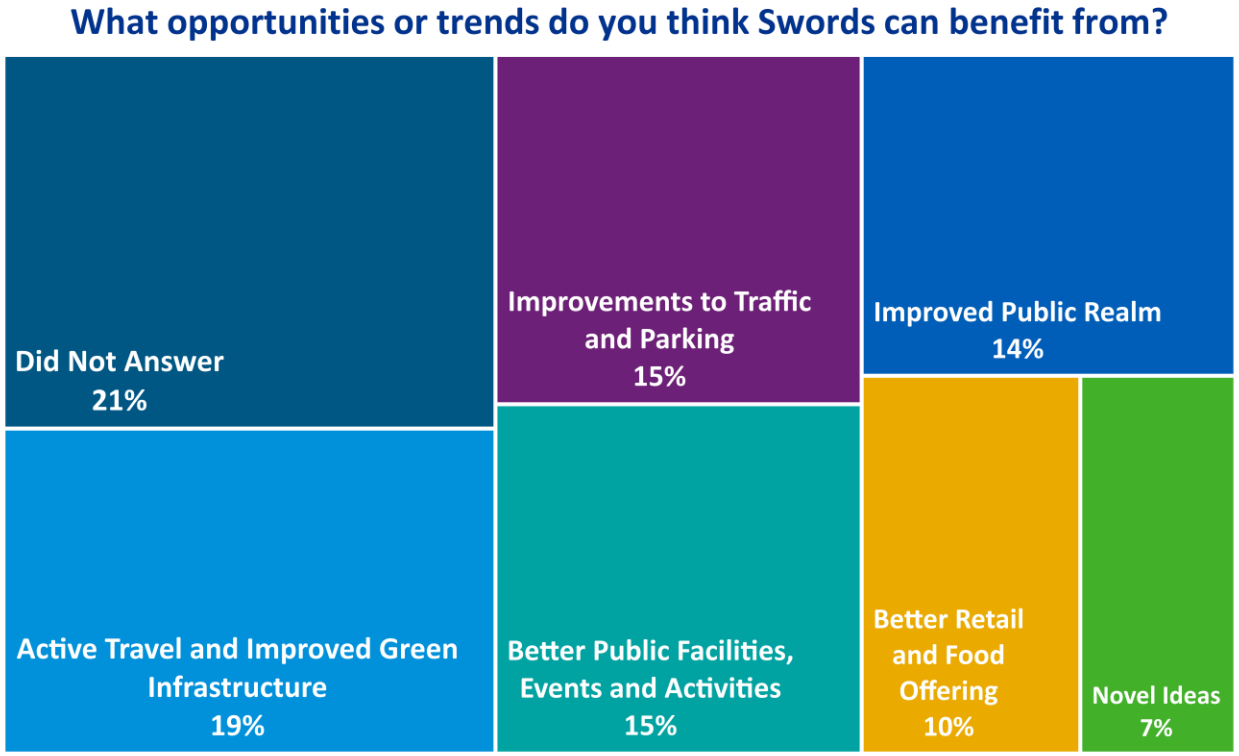
8. Opportunities for Swords Town Centre

"Perhaps it could be the first town in Fingal/Dublin/Ireland to become carbon neutral and/or eliminate single use plastic."

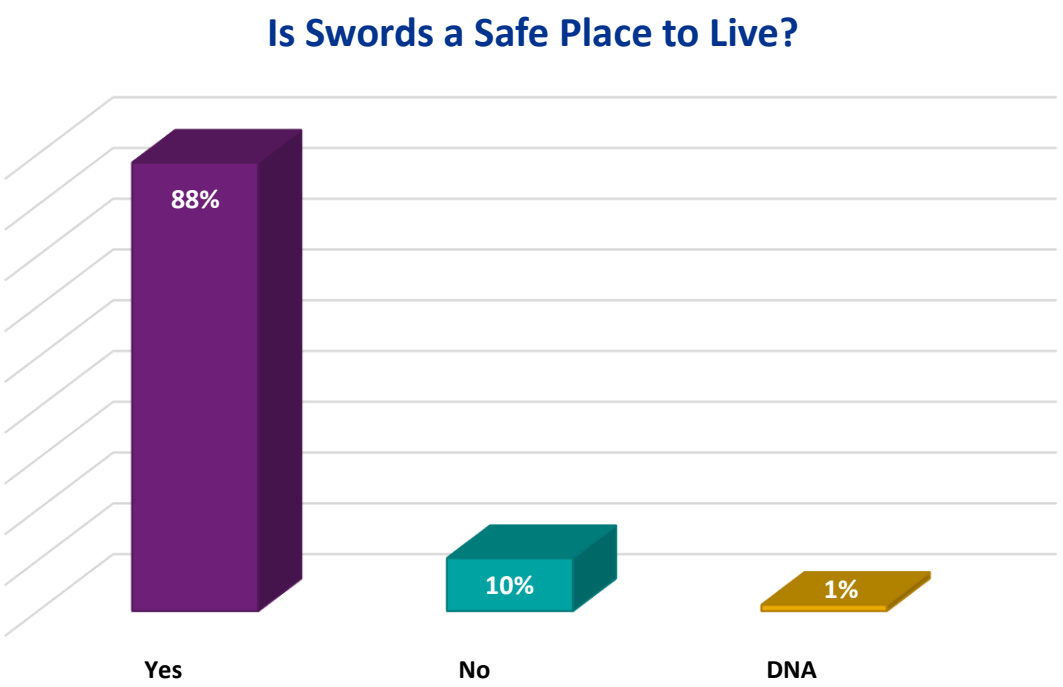
"Something for the young people.."

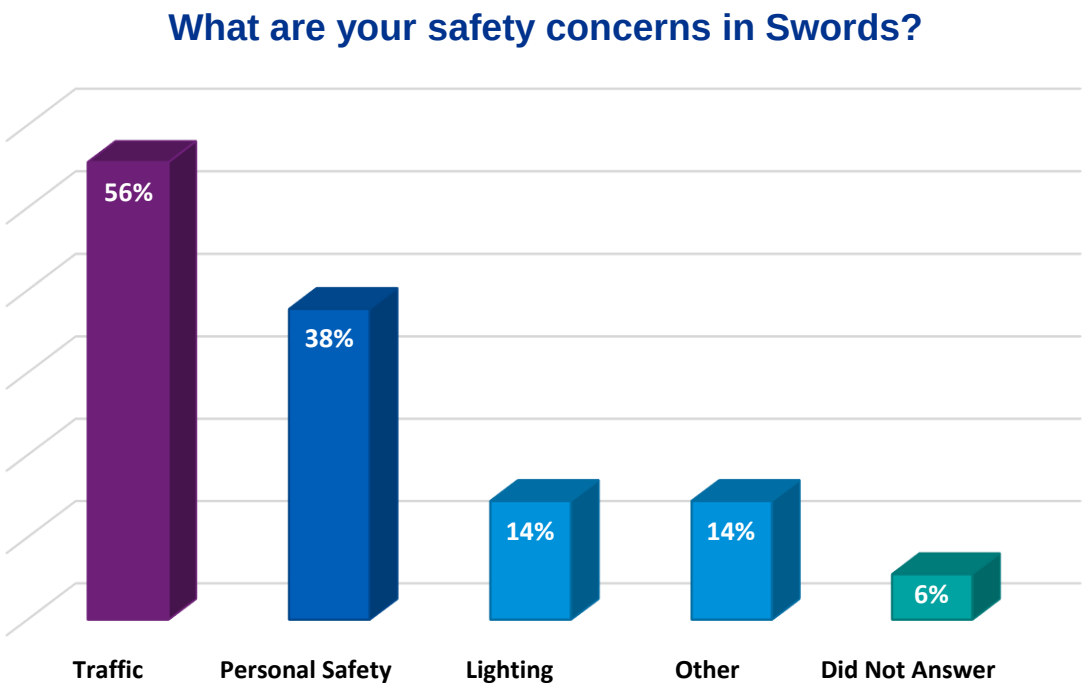
"The transport infrastructure does not match the population of the town.. Swords will benefit most if it gets the Metro."

"With its proximity to the airport/ Dublin city and the vast natural beauty spots/resources within a 30-50km radius I believe Swords could become a central hub/focal point for activity adventures such as cycling, walking, hiking, kayaking and other such activities."



9. Safety of Swords





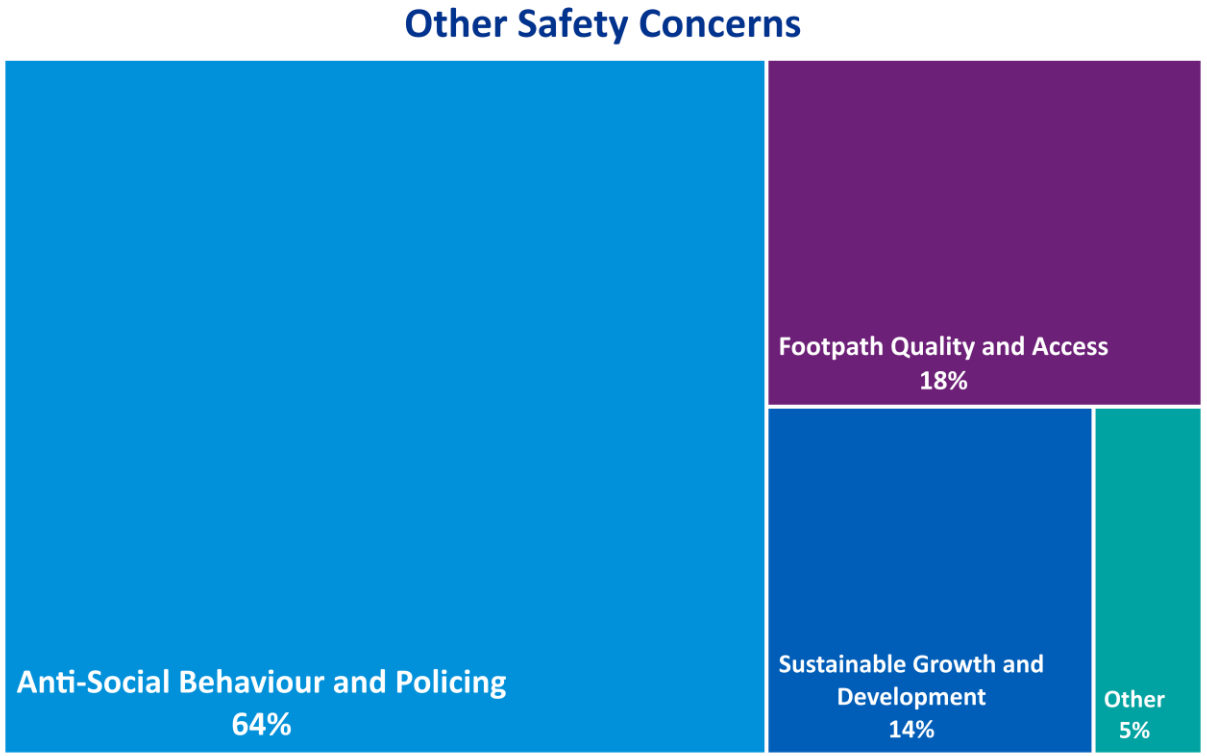
9. Safety of Swords cont.

"Have noticed increasing behaviour over past year from teens."

"Antisocial behaviour especially among teens is very real concern throughout Swords."

"Safe walkways as the only way we can get to swords from Knocksedan is through a forest and on back roads that have no footpaths."

"The future development of Swords without having an adequately developed infrastructure."



10. Outside Perspective - Strengths of Swords

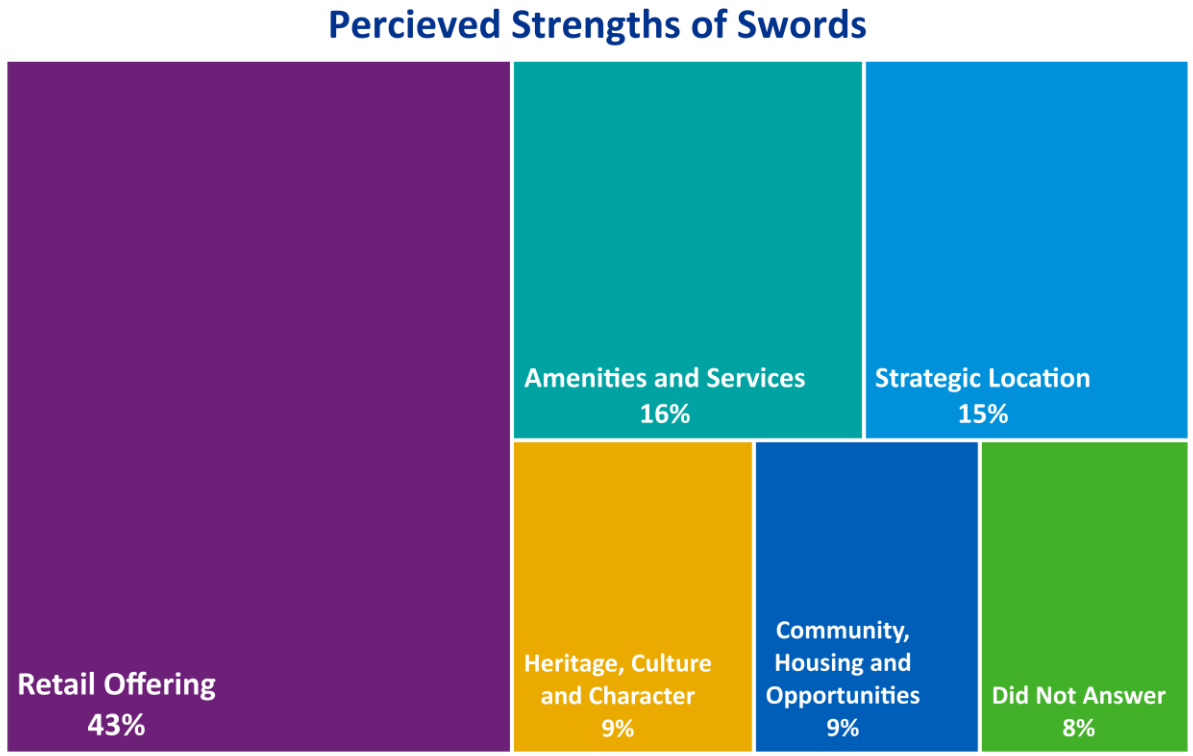
"Just a place to go to shop.. Pavilions."

"Close to the country & beaches in North County.. Close to the airport & M50 links. Good range of shops."

"It's history, great shopping & restaurants, good housing."

"Character of town, old style buildings."

"My family who live in local towns all love meeting in Swords many restaurants for a get together. They are a great advantage to the town.."



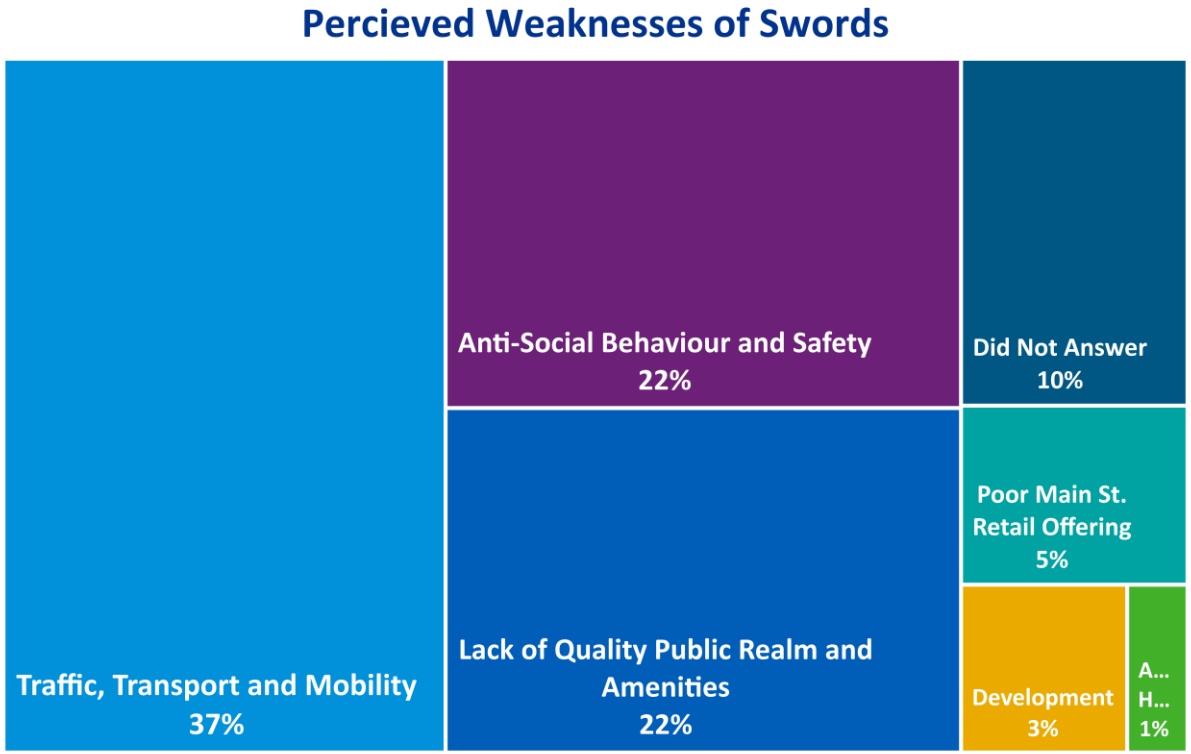
11. Outside Perspective - Weaknesses of Swords

"The Main Street is dominated by cars.. Traffic and time spent communication to city centre."

"Starting to be seen that estates have anti social behaviour and so many of our neighbours have moved out of swords and we have considered that too."

"The main weakness is that there's not a lot to see and do.. Run down main Street and castle shopping centre."

"Infrastructure has not kept pace with population growth.."



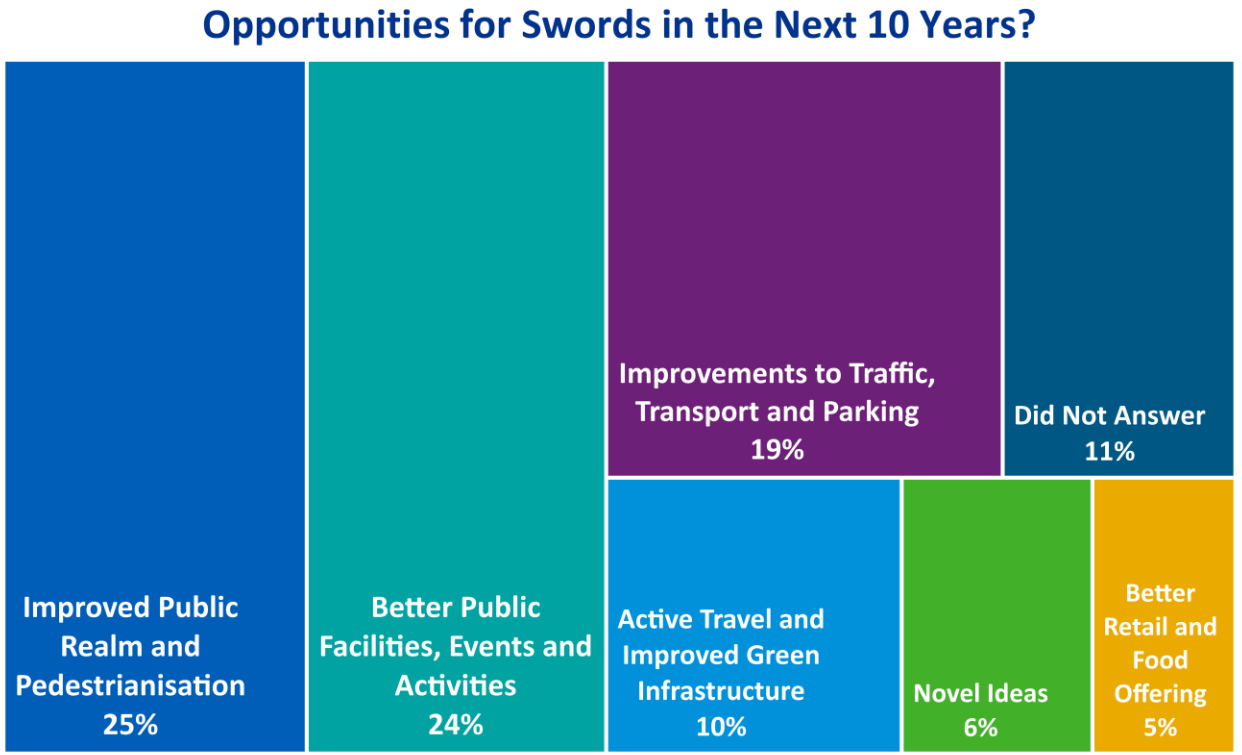
12. Opportunities for Swords in the Next 10 Years

"More community focused events for young people to keep them busy & to encourage them to care about their estates or the town."

"Bring Local business back to the Main Street, business that locals want with space to meet friends.. Local business support with minimal red tape."

"Make it more pedestrian friendly.. Make it pretty!"

"Embracing the heritage of it. All cities become the same over time, its only what was here before - nature and built heritage and culture - that makes Swords different to anywhere else."

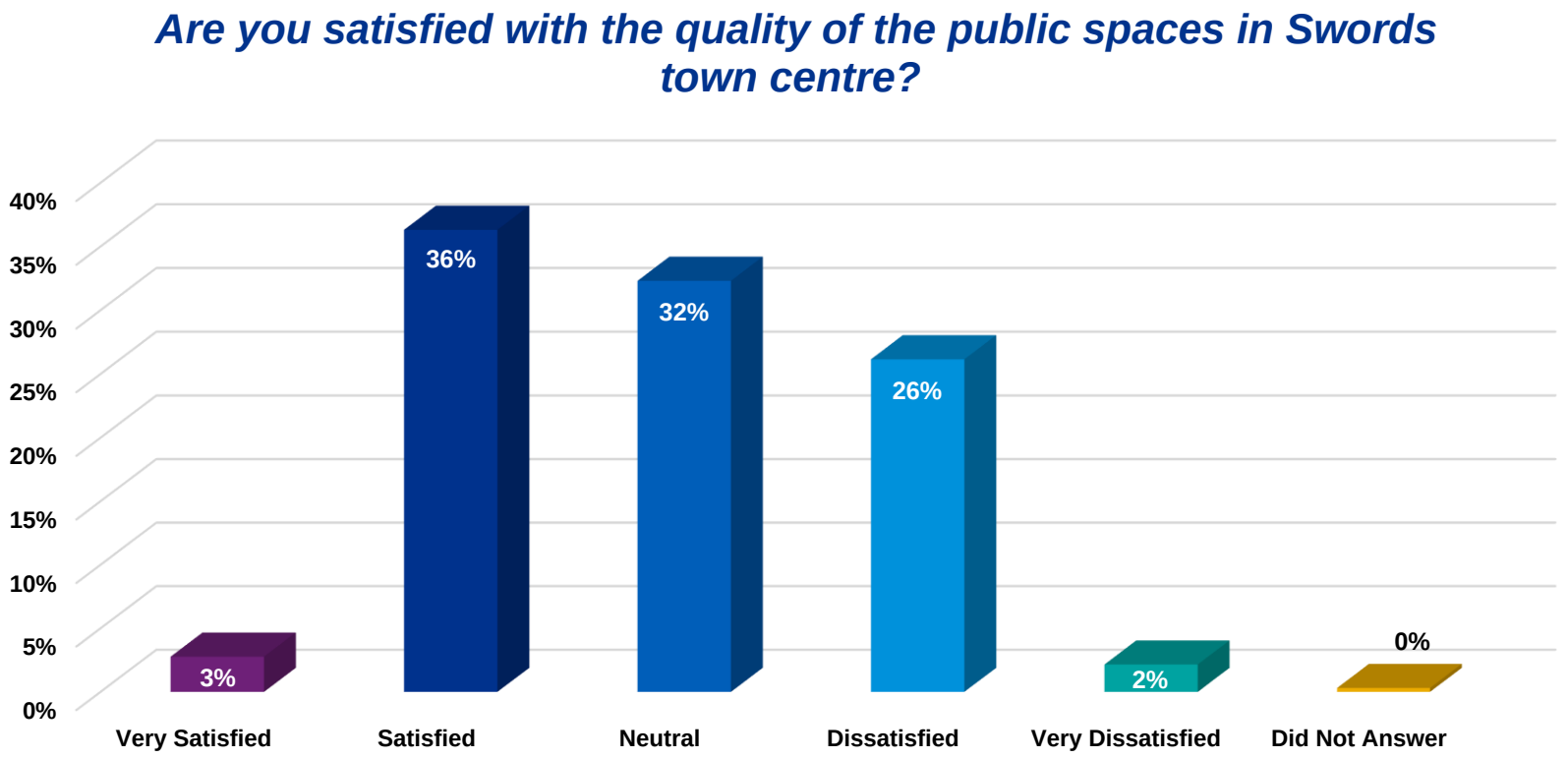


13. Quality of Services

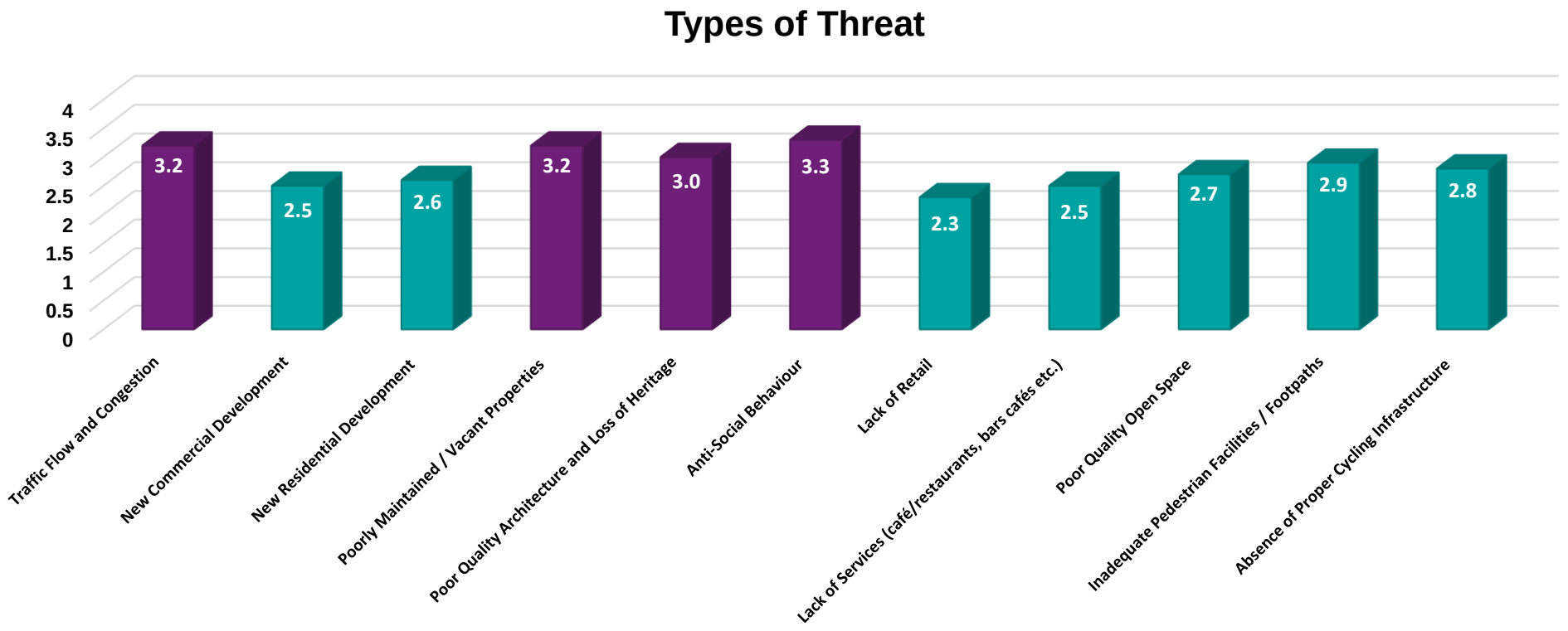
Average scores given to each type of service – **1:** Poor**, 2:** Fair**, 3:** Good **and 4:** Excellent

37.5% of services were scored as being below ‘Fair’ with **62.5%** scoring above ‘Fair’

14. Satisfaction with Services

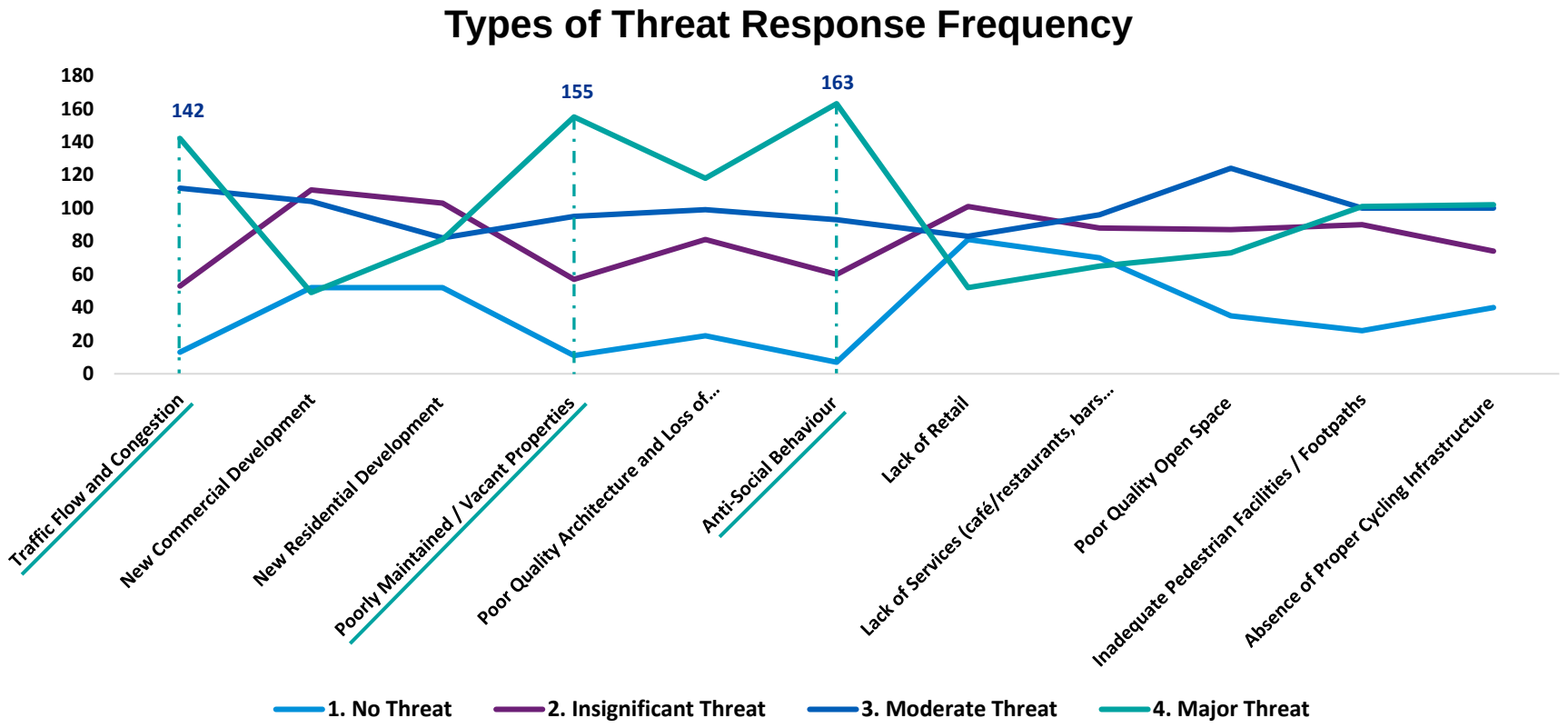


15. Types of Threats



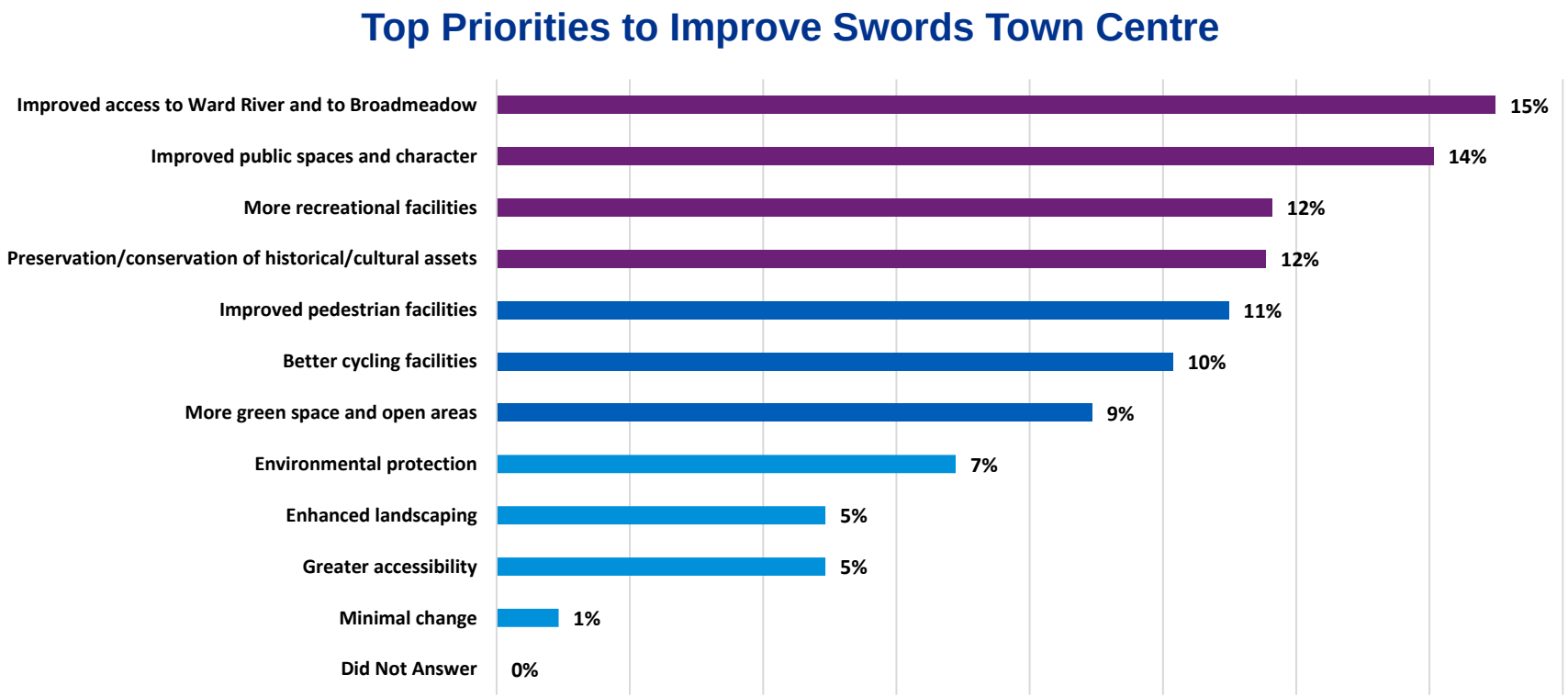
Average scores given to each type of threat – **1:** No Threat**, 2:** Insignificant Threat**, 3:** Moderate Threat and **4:** Major Threat

15. Types of Threats cont.



Over 44% of respondents identified 'Traffic Flow and Congestion' as a '**Major Threat**'; **Over 48%** identified 'Poorly Maintained / Vacant Properties' as a '**Major Threat**'; and over **50%** identified 'Anti-Social Behaviour' as a '**Major Threat**'.

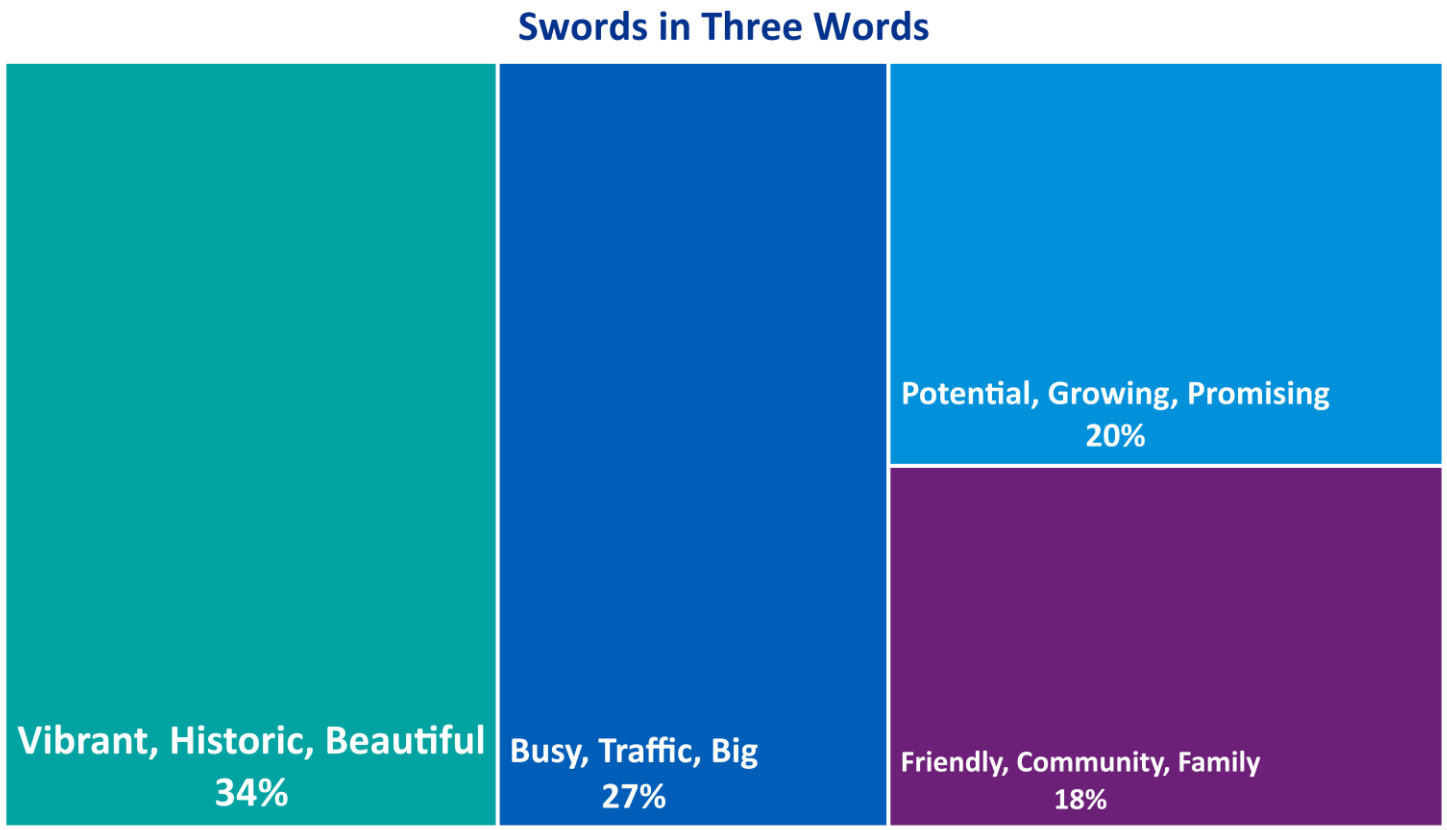
16. Top Priorities to Improve Swords Town Centre



17. Swords in Three Words

Respondents were asked to describe Swords in three words

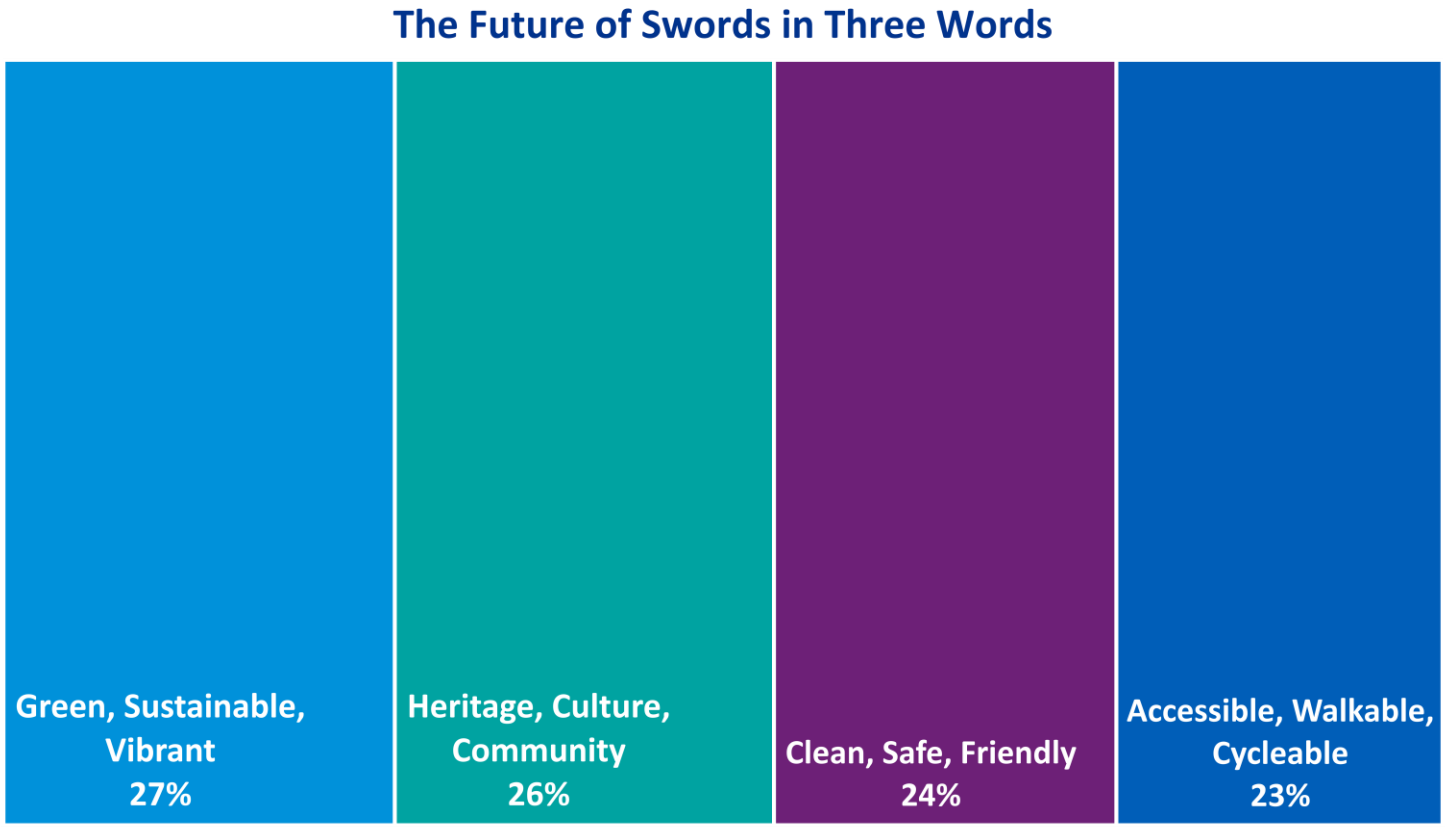
Overarching ***'three word themes'*** were developed and responses were categorised under these themes



18. The Future of Swords in Three Words

Respondents were asked to describe the future of Swords in three words

Overarching ***'three word themes'*** were developed and responses were categorised under these themes



KPMG

Sustainable Swords

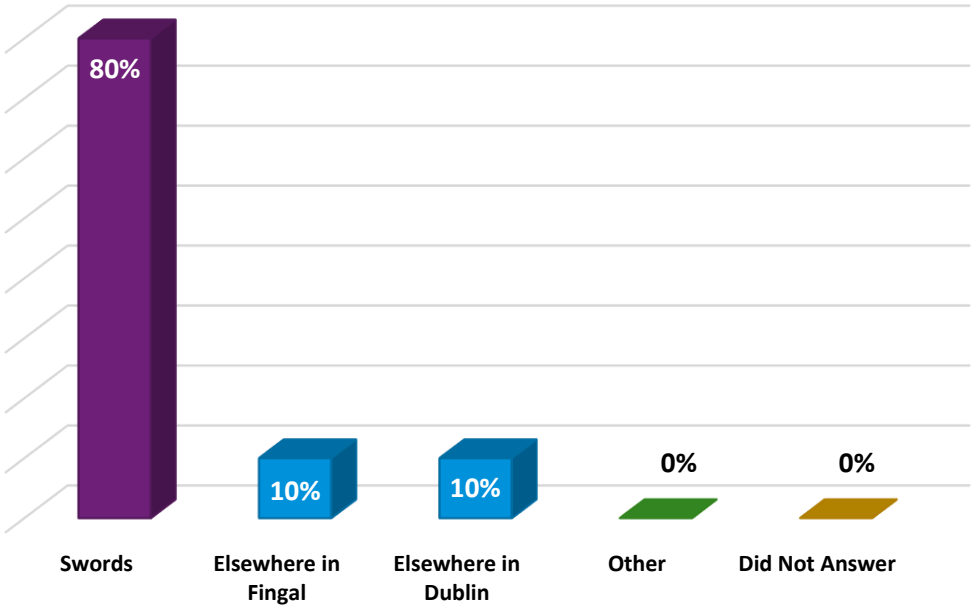
Online Survey Analysis - Business Survey

Total Responses: 10

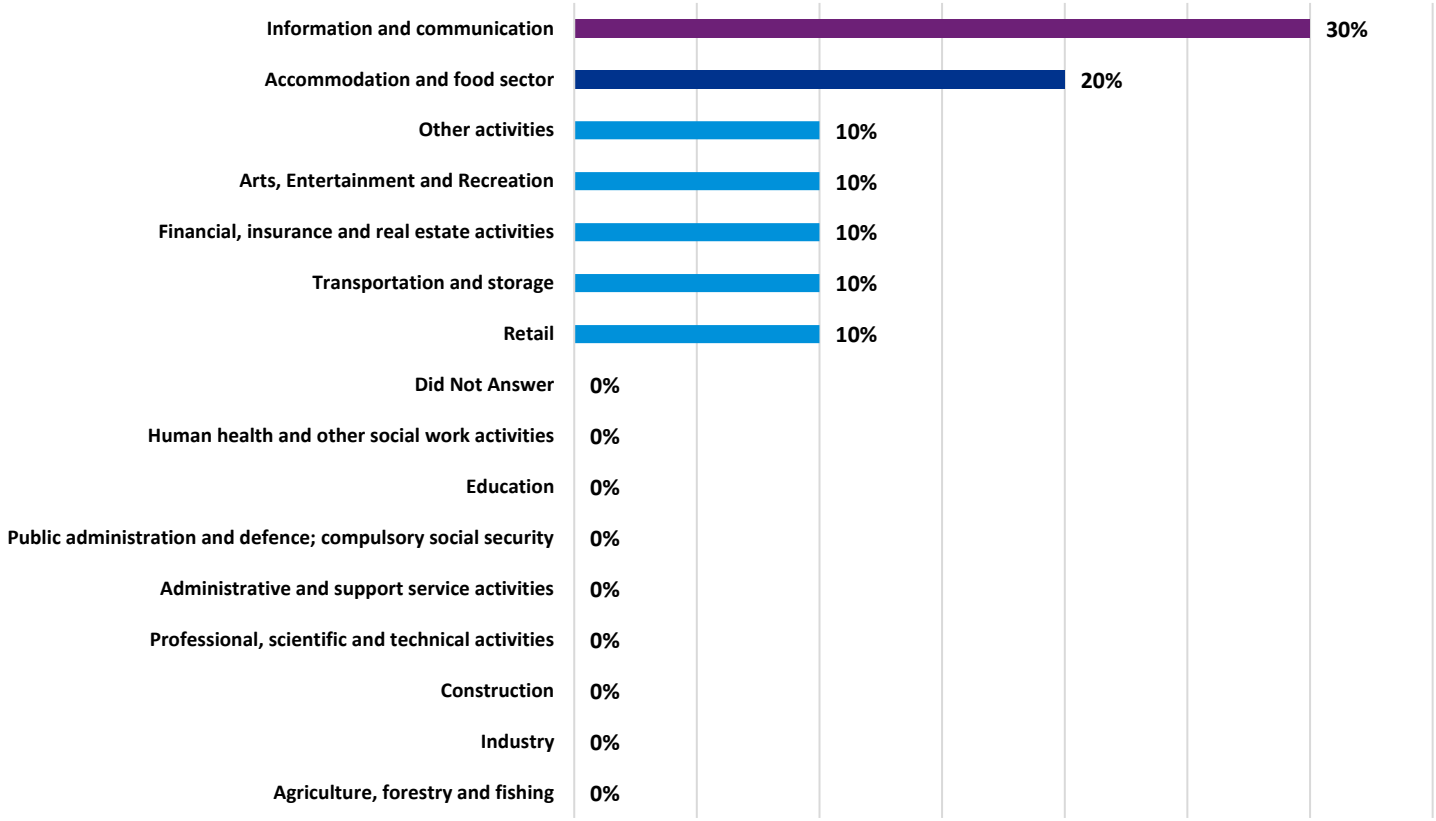
July 2021

1. Location and Type of Business

Location of Participants Businesses / Organisations

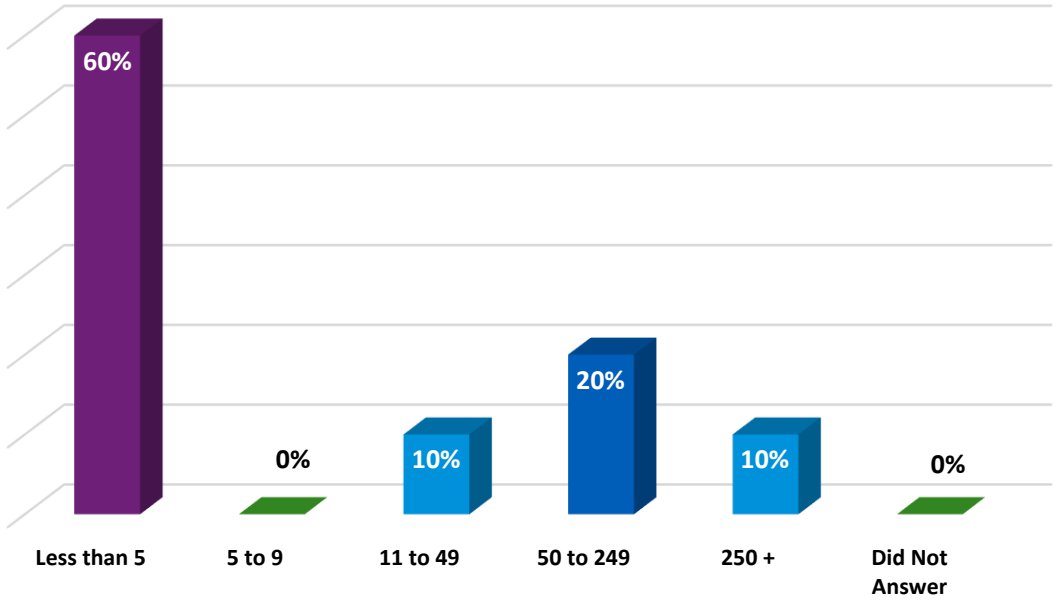


Businesses / Organisations by Sector

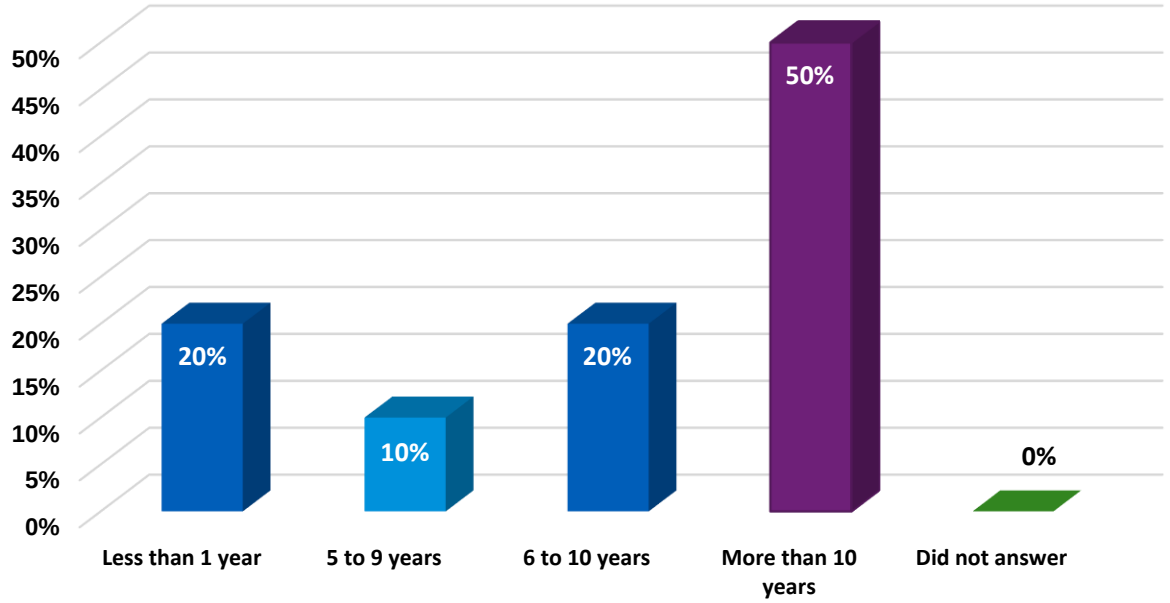


2. Years of Business and Employment

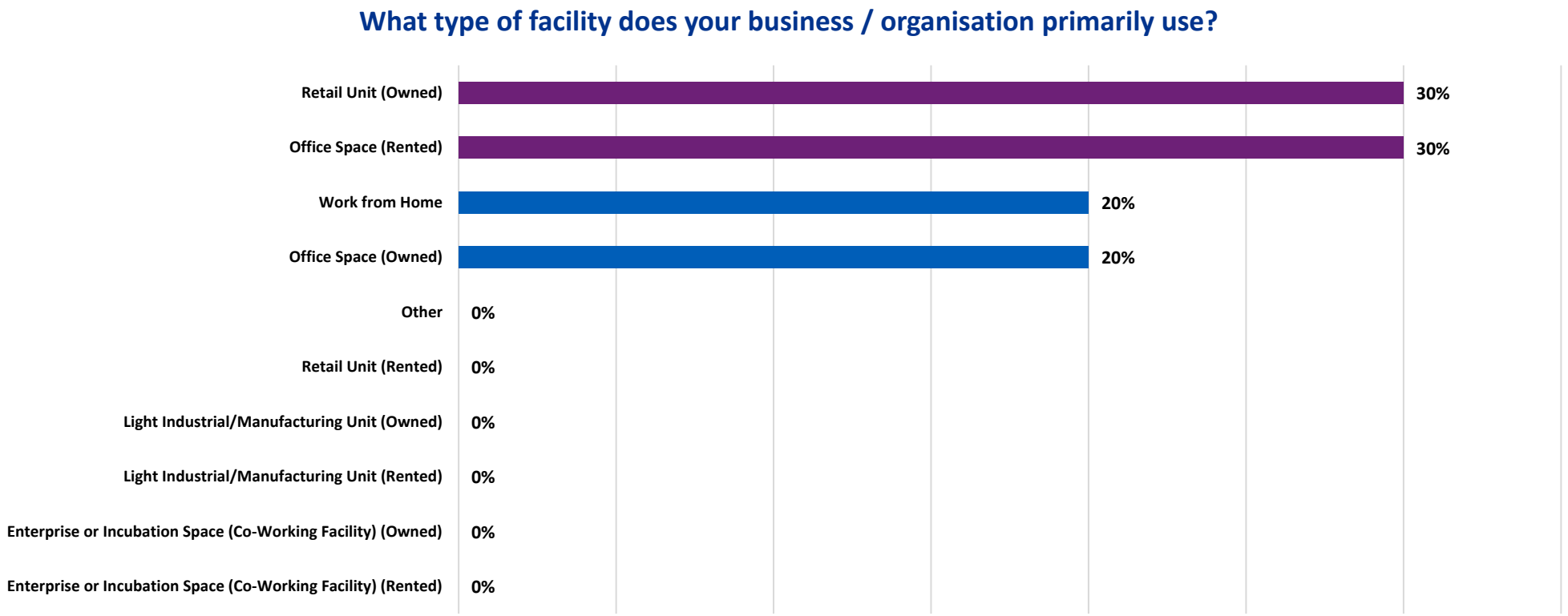
How Many People Does Your Business / Organisation Directly Employ?



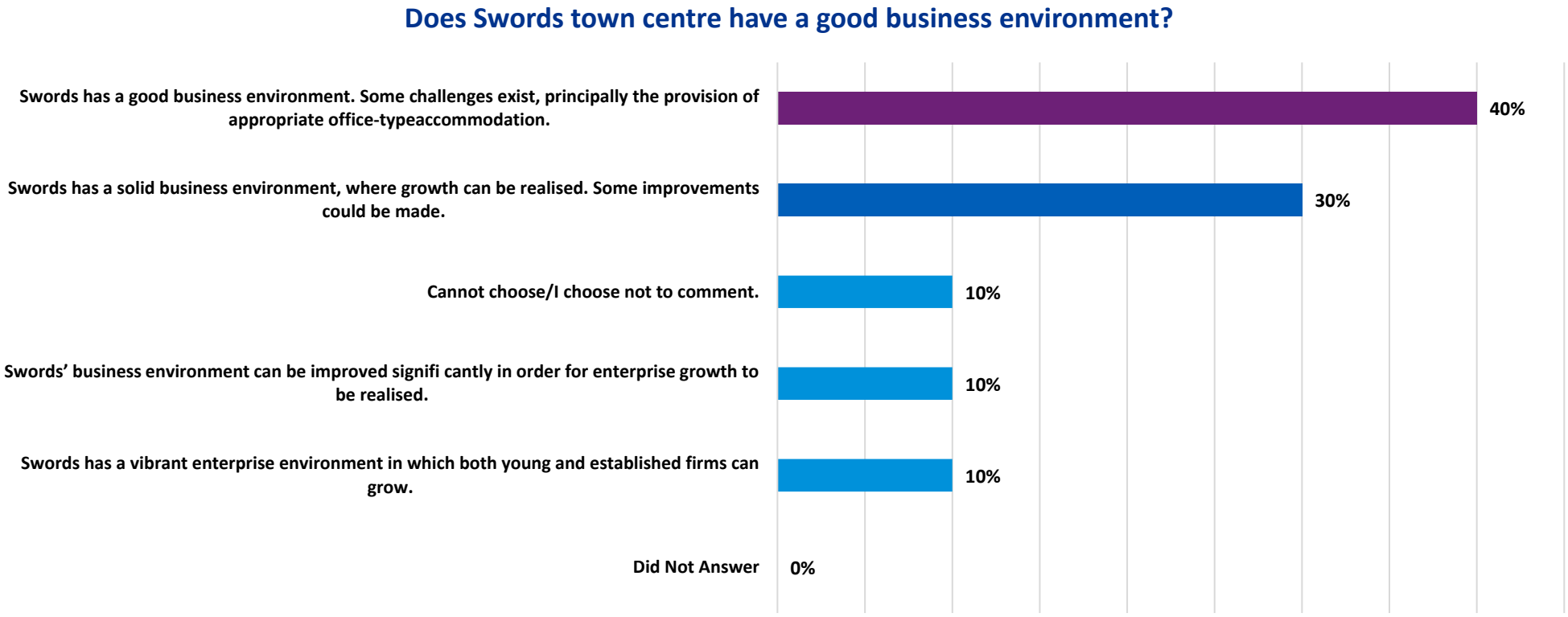
How many years have you been operating at your current location?



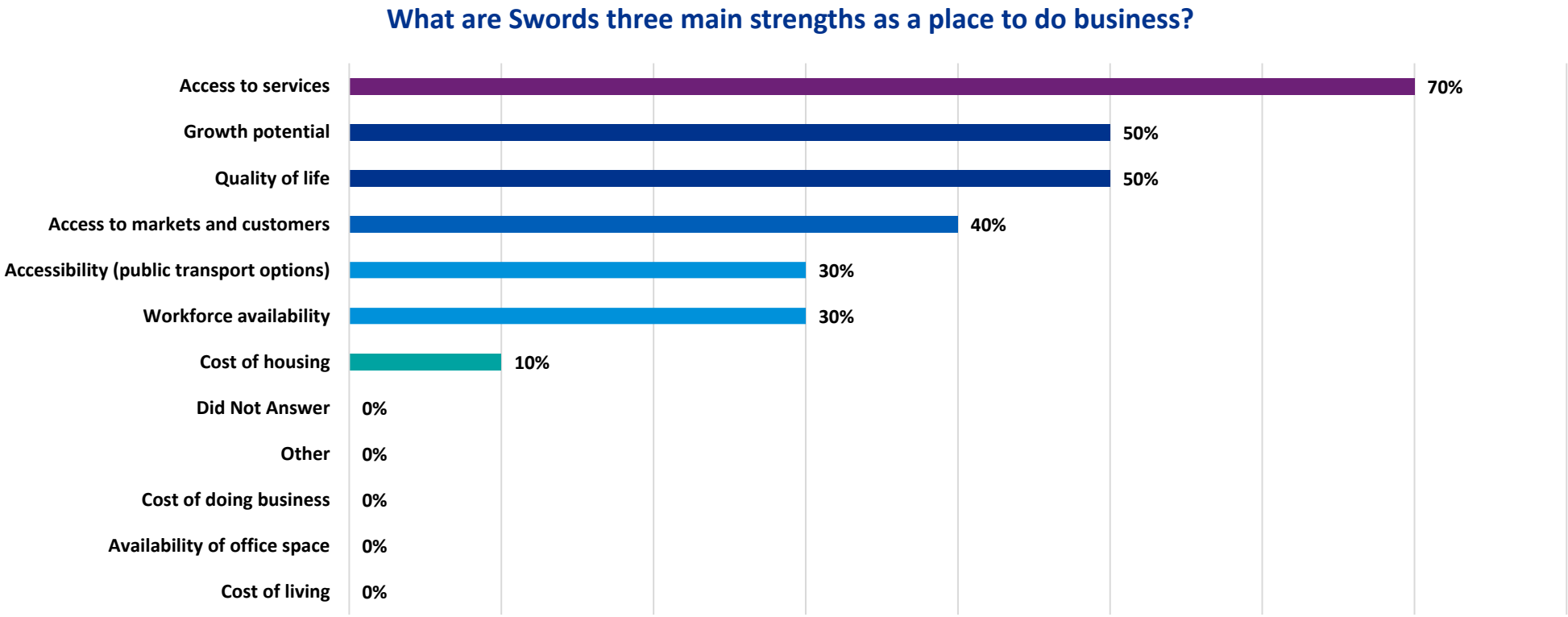
3. Types of Facilities



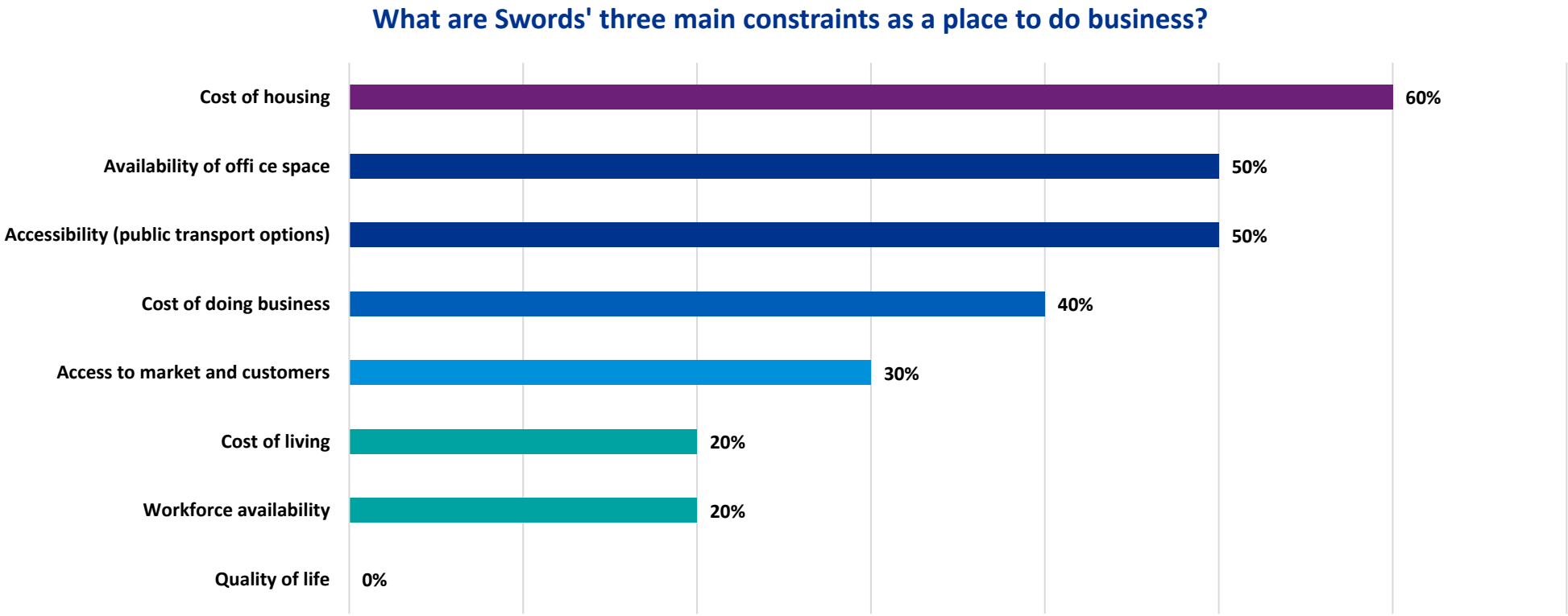
4. Swords Business Environment



5. Strengths - Swords Business Environment

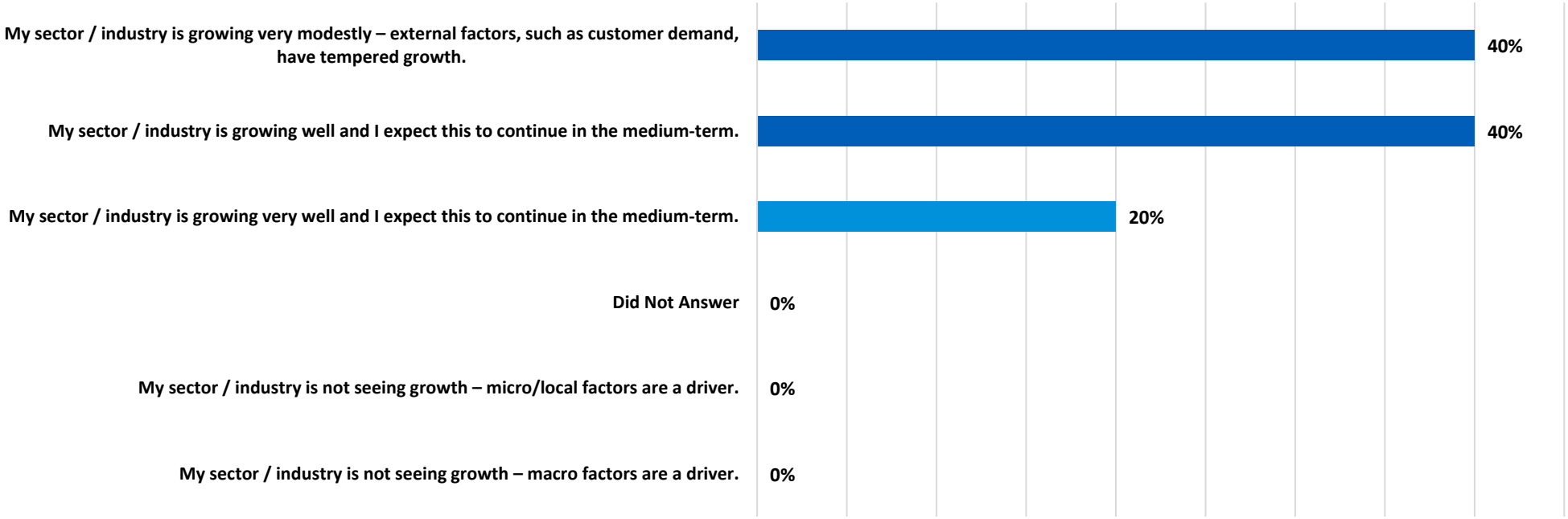


6. Constraints - Swords Business Environment



7. Outlook for Growth

Considering your own sector / industry and the outlook for growth, which of these statements would you agree with?



8. Supporting Economic Growth in Swords

Please comment on what you believe agencies could do to support increased economic growth in Swords town centre?

8. Supporting Economic Growth in Swords cont.

If relevant, have you previously considered establishing a business in Swords but decided not to, and if so why?

"More service base/catchment where I am in Santry - people travel from afar due to better accessibility to M50. Other local services refer provide referrals (e.g. GPs) in Santry but not Swords. More suitable premises with parking available in Santry."

9. Supporting Economic Growth in Swords

Any further comments you may have on the development the Sustainable Swords project?

KPMG

Thank you

kpmg.ie

SUSTAINABLE SWORDS

HISTORY & DEVELOPMENT OF SWORDS
&
AUDIT OF ITS HERITAGE ASSETS

April 2021
DRAFT A

HOWLEY HAYES ARCHITECTS

Howley Hayes Architects were appointed by Fingal County Council as part of a broader team working on the Sustainable Swords project. This project seeks to produce a place-making strategy focused on the strategic regeneration and compact development of Sustainable Swords, in order to increase resilience of the local economy and to provide for an enhanced, accessible, inclusive, child-friendly and healthy urban environment. More particularly, we were asked to prepare a report that clearly and succinctly sets out the historic development of the town from the middle ages to the present. The report then identifies every structure or place of significance – ancient and modern, designated and non-designated – in order to understand what is important and what has been damaging to them, their setting and Swords more broadly, to inform future urban planning and public realm improvements.

CONTENTS

Swords in relation to Dublin City.

1.0 BRIEF HISTORY OF THE DEVELOPMENT OF SWORDS

Brief History

Swords' proximity to Dublin and strategically fortuito¬us situation made it a natural location for the creation of both ecclesiastical and defensive settlements, which were largely responsible for the subsequent evolution and development of the town.

The exact origins of the medieval town remain unverified by documentary evidence and is the subject of scholarly debate. It appears to have originated from the foundation of a monastery here, in 512, by St. Columbkill. Local folk tradition records that when St. Colmcille established his monastery, he took possession of the pre-Christian well and blessed it. Sord Colmcille is from the Irish word sord meaning 'pure'.

The subsequent development of the town was hugely influenced by the transfer of the monastery to the Archbishop of Dublin, who built the castle at the northern end of the town in the early-thirteenth century, which at that time sheltered the entire population.

Throughout the medieval period Swords consisted principally of one long wide street, known as High Street - the alignment of which corresponds with the present Main Street. The most prominent surviving feature is the tenth-century coursed limestone round tower.

Though Swords appears on Rocque's 1757 map of County Dublin, it first appears with any clarity on Taylor and Skinner's map of 1788, which shows the principal arterial route from Dublin north to Donaghadee. Though not detailed, the Main Street is clearly discernible as is the castle enclosure with a number of streets running east to west.

Though not exact, Samuel Lewis's 1837 map depicts development as existing either side of Main Street and along smaller streets that branched out to the east and west at that time. Writing in 1837, Lewis somewhat harshly describes Swords as follows:

The town occupies a pleasing situation on the steep banks of a small but rapid stream, which discharges itself northwards into the inner extremity of the creek or pill of Malahide…It consists chiefly of one wide street, a mile in length, formed of houses which, with but few exceptions, are of mean appearance.

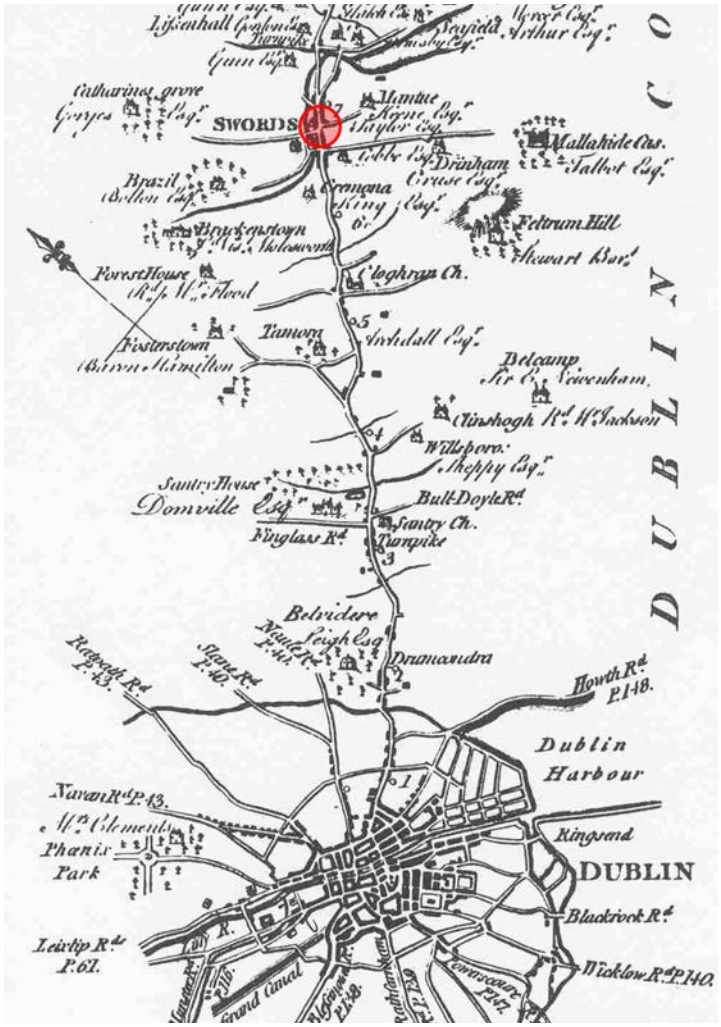
The first edition Ordnance Survey map of 1837 is the first to show in precise detail how developed Swords had become. Running from north to south buildings lined either side of the road, more or less contiguously, from around Scotchstone Bridge. These linear property plots (having evolved from medieval burgage plots) align either side of Main Street forming a nucleated settlement core. The extent of these land divisions is clearly discernible to the east and south and the boundary to the west is defined by the Ward River, while the castle dominates the northern extent of the settlement and the remains of the ecclesiastical settlement which overlook the town from the west;

There is little change to the urban morphology of Swords between the 1860 OS map and the 1888 map (revised 1913). What is noticeable is the changes in and around Swords House and demesne, particularly, the ancillary ranges to the south and east of the house, which had by this time been demolished, and the large formal garden to the east turned into arable land;

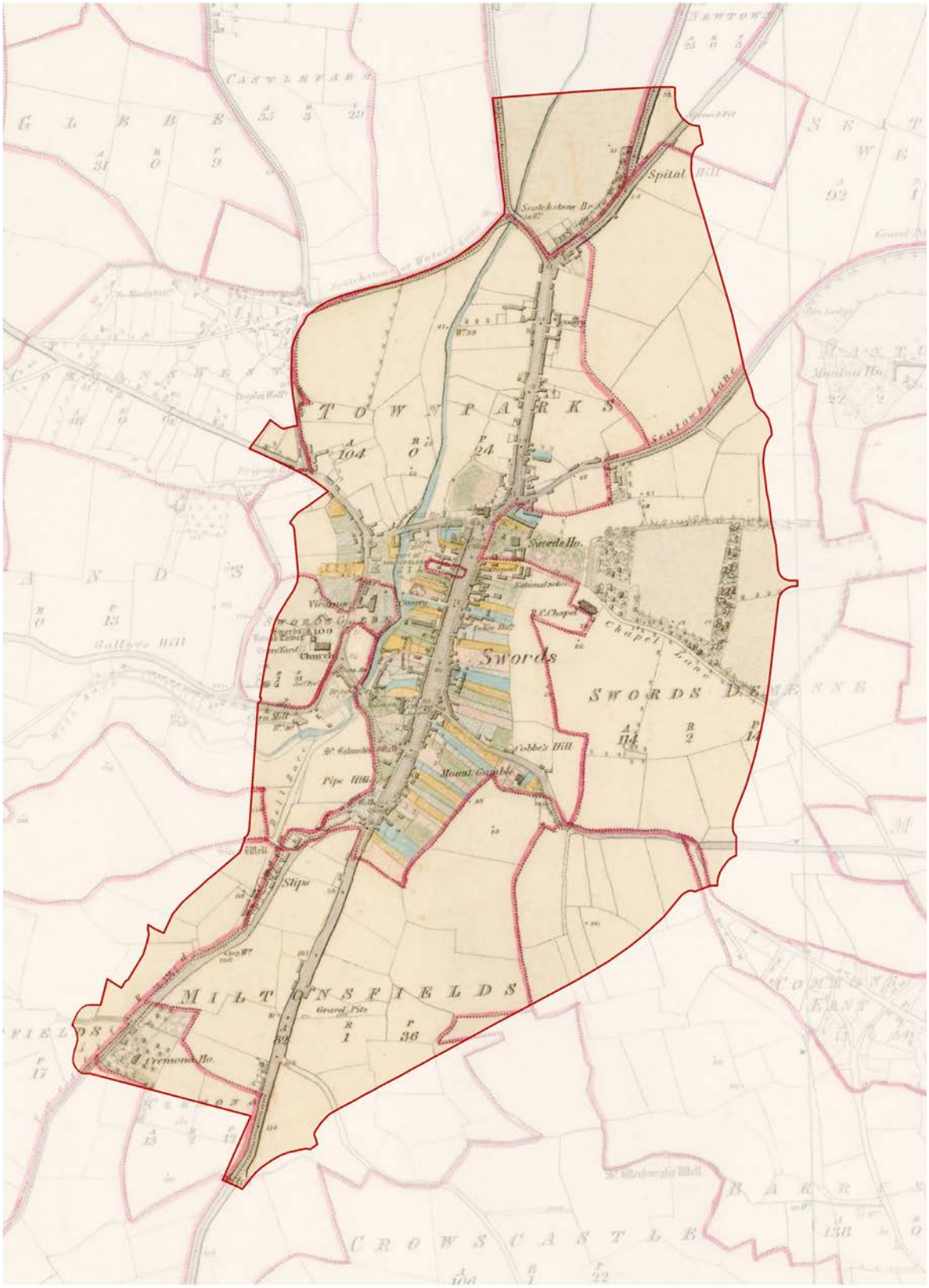
By the mid-twentieth century the two historic elements, the castle and ecclesiastical enclosure were clearly definable. The orientation of Main Street in Swords continued to respect the medieval burgage plot alignment, with properties extending in a perpendicular direction from the Main Street creating a strong linear identity;

During the late-twentieth and early twenty-first centuries, Swords underwent wholesale changes to its character and identity with a significant increase in traffic brought about by the creation of new roads and associated car parking. This was compounded by the building of large-scale shopping centres, multi-storey car parking and, notably, the demolition of Swords House to build County Hall, opposite the castle.

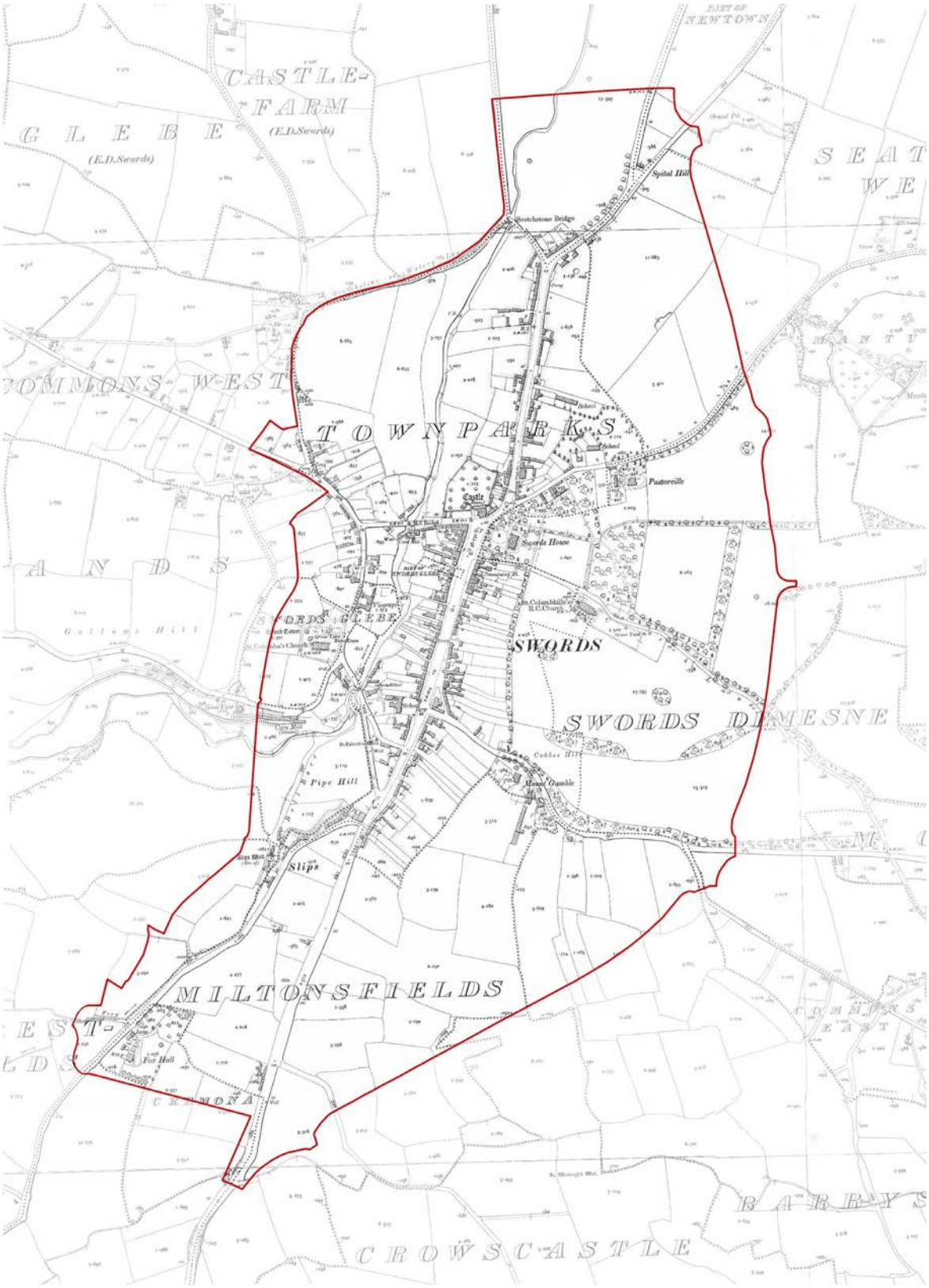
Down Survey Map, 1685, location of Swords in red.



Taylor & Skinner's Map of 1778, location of Swords in red.



1837-42 OS Map



1888-1913 OS Map

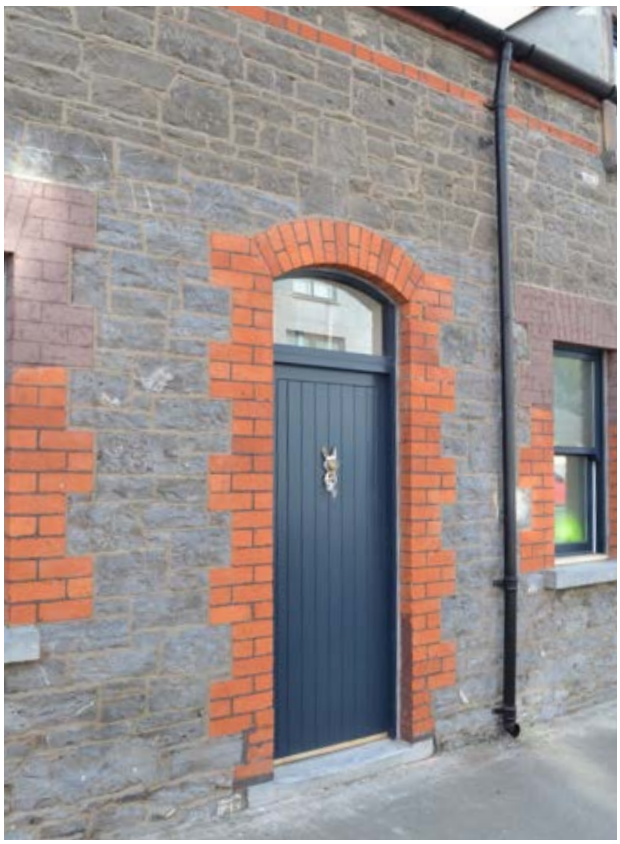
c.1929-1941 OS Map

Swords today.

1.0 THE BUILT HERITAGE OF SWORDS

The designated built heritage of Swords is better known and more immediately identifiable (cf.Table of Designated Heritage Assets below) and includes the following notable protected structures: Swords Castle; the Court House; the Carnegie Library; the Old Borough School ; the Sexton's House; the Old Vicarage, St. Columba's Church and St. Columcille's Church; the old School House, the National Irish Bank; the Parochial House; the Mill Bridge; Accord; and Swords Youth and Resource Centre. These structures define and provide character to the town and streetscape of Swords.

Images from top: No.68 Seatown Street West, to left.
64-74 North Street – a fine c.late-19th century terrace.
64-74 North Street – a fine c.late-19th century terrace ensemble that exemplifies local distinctiveness in terms of style and materiality.



Calp limestone & brick detailing to No.68 Seatown Road West

Local Distinctiveness

Local distinctiveness is characterised predominantly by plain forms and a simple palette of construction materials consisting of exposed calp limestone with brick dressings, and also stucco covered calp as the most commonly used local materials. There are also some former thatched cottages – typical of north county Dublin - that have been re-roofed, while brick was subsequently used in the construction of more recent buildings.

Undesignated Heritage of Merit

There is, however, more heritage of merit than first meets the eye, and much of this is currently, neglected, poorly maintained and as a result underappreciated. Many of these structures are not designated or protected as a result being obscured behind poor signage, later accretions or simply boarded up altogether (cf. Undesignated Built Heritage of Merit). Historic photographs attest to the character and appearance of the town and quality of what lies beneath the more recent surface treatments.

DESIGNATED HERITAGE

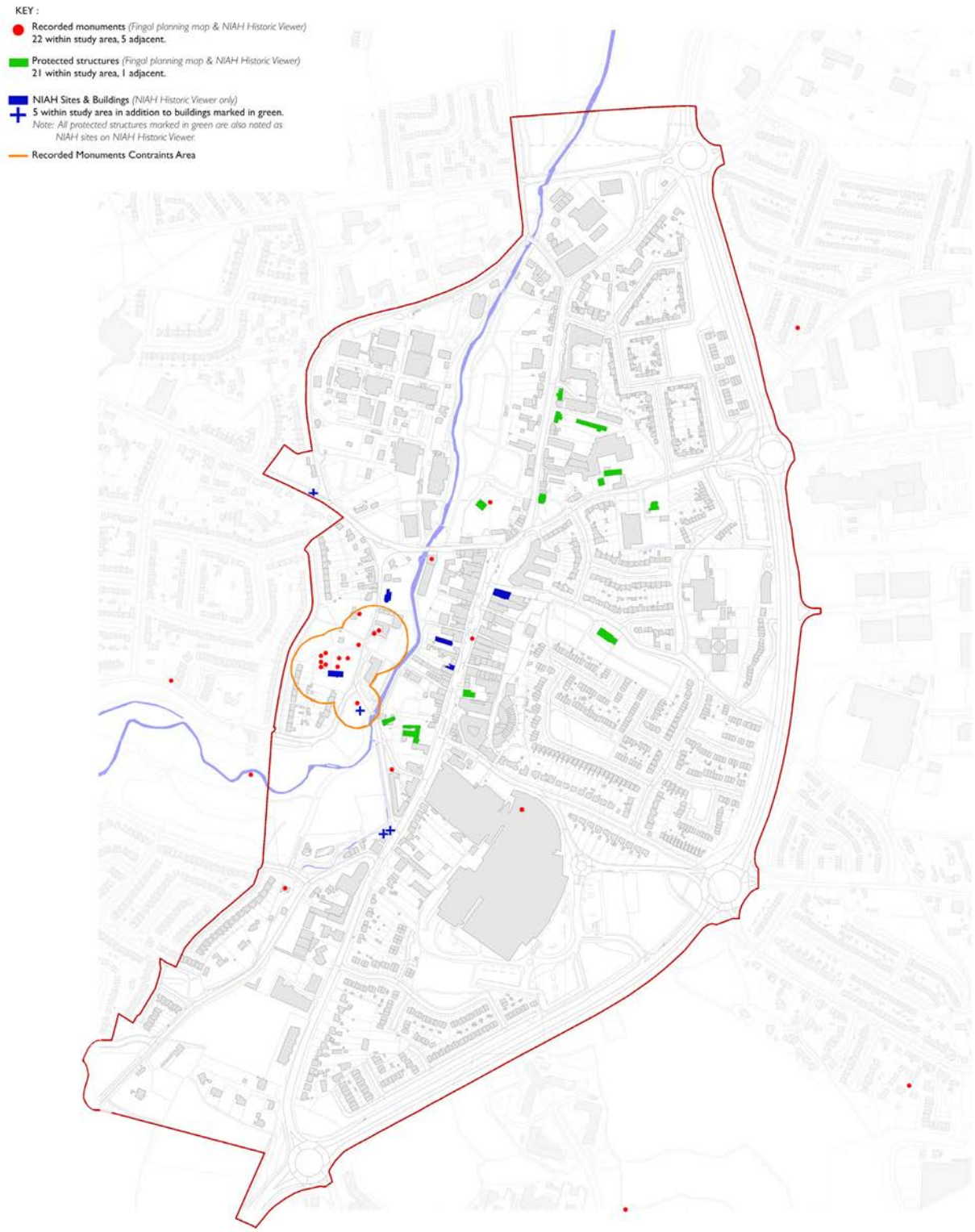


TABLE OF DESIGNATED ASSETS

RPS No.	NIAH Reg. No.	Address	Description	Rating	Image
345	11335008	Scotchstone Bridge, Balheary Road, Balheary Demesne	Three-point arch stone road bridge over River Ward	Regional	
346	**11335007**	North Street, Townparks.	Former Carnegie Library (1908), now museum/gallery. '*1908 by Anthony Scott for Balrothery RDC. Two-storey with a bay projecting forward of the main facade. The bay is built of red Portmarnock brick and has smooth limestone dressing around the window, a large limestone tablet over the door with the date and name carved in relief, and a Venetian window over the door at first-floor level.' (BOI)*	Regional	
347	11335015	44 North Street	One of a pair of late 19th century semi-detached houses. (Now part of St. Colmcille's Parish Office)	Regional	
348	11335015	42 North Street	One of a pair of late 19th century semi-detached houses. (Now part of St. Colmcille's Parish Office)	Regional	
	11335016	38-40 North Street	Detached four-bay two-storey ashlar sandstone house, c.1890, with gable-fronted projecting entrance porch and having three-bay single-storey wing to south.	Regional	

	11343017	'The Star' Public House, Main Street	End-of-terrace five-bay two-storey ashlar granite former bank, c.1910, with pilasters to ground floor and pair of single-bay single-storey bowed oriel window. Renovated and extended to rear, c.1990.	Regional	
	11343005	St. Margaret's, former presbytery,, Main Street	Detached three-bay two-storey red brick former curate's house, c.1895, with single-bay recessed entrance bay to right, having open internal porch. Re-fenestrated, c.1990.	Regional	
	11343008	49 Main Street	Terraced three-bay two-storey red brick former dispensary, c.1895.	Regional	
	11343009	National Irish Bank, Main Street	Detached five-bay single-storey ashlar granite bank, c.1920, with single-bay single-storey flat-roofed return to rear. ROOF: Hipped behind parapet wall; concrete ridge tiles; cast-iron rainwater goods; flat-roof to return.	Regional	
	11343014	Former Old Borough National School, Main Street	Detached nine-bay two-storey former national school house, on a T-shaped plan. *'1809 by Francis Johnston. Nine-bay two-storey building now in use as a public house and restaurant. In the entrance lobby is a framed drawing of 1805, the last of four designs prepared by Johnston, showing the front elevation and the upper floor. The playground with its cut limestone wall and entrance gates to the front has survived but inevitably has found a new use as a car park. '* (BOI)	Regional	
	11343015	Water Pump, Church Road	Cast-iron water pump, c.1890, now missing parts. Cast-iron plaque with inscribed Tonge and Taggart insignia. Freestanding cut stone trough to left-hand side.	Regional	

	11343011	Former Dublin Metropolitan Police Station	Detached five-bay three-storey rubble stone built former Dublin Metropolitan Police station, c.1820, on a T-shaped plan with single-bay three-storey return to rear.Re-roofed and refenestrated, c.1980,	Regional	
349	**11335006**	Rear of 44 North Street	Former New Borough Female Schools Late 19th century thirteen-bay single-storey former school building to rear of No. 44 North Street, now used by Swords Youth Reach	Regional	
350	**11335002**	Swords Courthouse, North Street	1843 courthouse designed by Alexander Tate	Regional	
351	DU011-0344001	Swords Castle, Bridge Street	Anglo-Norman castle built c.1200 as a residence of Archbishop of Dublin 'A fortified episcopal manor and administrative centre, rather than a castle in the purely defensive sense, begun c. 1200 by the first Anglo-Norman archbishop of Dublin, John Comyn. Picturesque, it terminates the view N along Main Street. Extensively restored 1995-2010 with further conservation works in 2018-19 and ongoing. A 300 m. long, calp rubble crenellated pentagonal curtain wall, three to ten metres high, encloses a little over an acre of ground – the castle ward – and connects the Chapel, Gatehouse, Constable's Tower and the Knights and Squires Chamber. Ruined remains to NE of the chapel are considered to be the earliest part of the castle, comprising Archbishop's Apartments, an East Tower and an eastern range.' (BOI)		

352	11343002	Bridge Street, Townparks	Single-storey stone arched Mill Bridge c.1870	Regional	
353	11335004	Seatown Road.	c.1890 former schoolmaster's house for teachers of New Borough Male School	Regional	
354	11335005	Seatown Road	Former Swords Boys School of c.1865 with new wing to left of c.1890. Now in use a training centre /creche.	Regional	
358	11335003	Seatown Road	Swords Parochial Office. Late-19th century 3-bay, 2-storey redbrick former presbytery designed by J. Kelly Freeman	Regional	
356	**11343010**	Chapel Lane	St. Colmcille's Roman Catholic Church Early 19th century Catholic Church within enclosed graveyard and archaeological artefact of round bowl-shaped font. *'A pre-Emancipation church built in 1827 on a site given by James J. Taylor Esq. of Swords House. Three-bay single-cell in a spare Neo-Romanesque style, with an E sanctuary and a modest stepped tower and spire over the W entrance. The front façade – including the steeple – 'tastefully altered to its present appearance by Peter Francis Russell, Architect' in 1924.*' (BOI)	Regional	
362	**11343004**	Old Vicarage, Church Road, Swords Glebe	17th century former vicarage, remodelled in early 18th century. Converted and extended into apartment complex in late 20th century	Regional	
361	**11343006**	Grounds of St. Columba's Church, 26 Church Road,	Late 19th century three-bay single-storey ashlar limestone Tudor Revival lodge	Regional	

		Swords Glebe,			
360b	DU011-034005	Grounds of St. Columba's Church, Church Road, Swords Glebe, Swords	Early Christian Round Tower, associated with monastic enclosure. '*C10. Roughly and unevenly built in uncoursed rubble, 82 ft (25 m.) high (above modern ground level) with a circumference at the base of 52 ft 6 in. (16 m.). The trabeated E-facing doorway suggests the early date, however, the irregular top portion windows and conical cap – is undoubtedly a later reconstruction; Lalor suggests a late C17 or early C18 date and this is supported by the anecdotal account of the cross being placed at the cap apex by the Rev. Henry Scardevile (vicar 1681-1703) to testify to the Christian origins of the tower.'* (BOI)		
360a	11343007	St. Columba's Church of Ireland Church, Church Road, Swords	Church of 1811 by Francis Johnston. '*Though often attributed to Francis Johnston, the design, according to the English topographer James N. Brewer, was 'suggested' by the barrister and amateur architect, Michael Trench, and 'skilfully carried into effect by Mr William Farrell, architect' and former clerk to Johnston at the Board of Works. Built on the site of a monastery founded by St Colmcille in 560 and a*later medieval church.' (BOI)	National	
908		Church Road	Mid 19th century double-arch road bridge over River Ward.		
359	**11343012**	Church Road, Swords Demesne.	Early 19th century three-bay two-storey Tudor Revival style former infants school	Regional	
	DU011-034004 (Recorded Monument)	Swords Glebe	Church		
	DU011-034003 (Recorded Monument)	Swords Glebe	Graveyard		

	DU011-034007 (Recorded Monument)	Swords Glebe	inscribed Early Christian grave slab fragment built into the base of the residential tower of the church (DU011-034004-) in the SE. It has a lunette-shaped terminal		
	DU011-034006 (Recorded Monument)	Swords Glebe	A small undecorated Latin cross was erected on the top of the round tower (DU011-034005-) in the late 17th century		
	DU011-034002 (Recorded Monument)	Swords Glebe	The boundary of Swords Glebe together with the curving alignment of the Brackenstown Road, Church Road and Rathbeale indicate the original extent of the early monastic foundation associated with St. Colmcille. On the south side the steep slope down to the Ward river immediately south of the Brackenstown Road forms a natural boundary. Cartographic evidence suggests that the western enclosure was most likely aligned along a former laneway visible on the Ordnance Survey six inch maps, now St Columba's Rise housing estate.		
	11343019	Glenview House, Brackenstown Road	c.1830 House	Regional	
	DU011-090	Windmill Lands	Burial		
	11343015	Church Road	Water Pump	Regional	
	11343016	Dublin Road	Road Bridge over river c.1900	Regional	

UNDESIGNATED HERITAGE OF MERIT.

No.40? North Street.

1920s former council houses with art deco-like porches.

Interesting boarded up double-fronted 19th Century House with unused long outbuilding adjacent.

19th century houses with poor signage & shopfronts.

Fingal Community College, North Street (c.1960s/'70s).

Main Street

County Hall, Main Street. Completed in 2000 to the designs of Bucholz McEvoy with BDP, and at a cost of £13.3 million, the impressive and highly regarded Fingal County Hall was designed to be an 'open and transparent expression of local government' and to accommodate 450 staff. The architects deliberately curved their building to respond to / define one side of an oval embracing 150 year old Himalayan Cedar and mature holm oaks on the site that had belonged the former Swords House, the ground of which it stands on. In February 2001, the Architectural Review described the office as '…having great civic presence.'

County Hall, Main Street, aerial view.

County Hall, Main Street.

19th century houses at the junction of Main Street & Bridge Street viewed from the good quality but poorly laid paved area outside County Hall. Late-19th century photo on right is view up Main Street from outside what was then Swords House, the future site of County Hall.

Late-19th century view down Main Street.

Swords mainstreet today.

Late-19th century view down Main Street towards the castle, at centre, and the tree-lined front of Swords House to the right.

Shopfronts on Main Street, opposite County Hall and across from the castle.

c.19th century cottage, Main Street

Terrace of houses at 59 Main Street that have been altered with poor quality shopfronts.

Small house of merit on Forest Road, at centre of photograph.

Terrace of houses at 59 Main Street that have been altered with modern shopfronts signage and street furniture.

64 Main Street.


Mudwalled former thatched cottage, probably early 19th century Church Road.


19th century house, 93 Main Street.


Early-mid-20th century house, Church Road .


Good quality, possibly co-eval, outbuilding to the rear of No.93 Main Street.

The Settings of Buildings, Public Realm & Opportunities

One of the biggest problems is that of the poor settings of three of the best buildings – the castle, the court house and County Hall, the latter of which was deliberately designed to be open and transparent, but is in fact shielded from the town by a dense stand of veteran, evergreen oak trees, which are very beautiful but also a problem as they are a complete visual barrier to the castle and the rest of the town. Some judicious thinning might improve visual connectivity between these key public buildings.

Car parking dominates the setting of the court house, as well as impinging negatively on the setting of the castle and County Hall. It would be highly desirable to remove this parking to improve the public realm. Visual clutter abounds in the town, with poor quality street signage, fascia boards and lighting. Generally pavements are wide and some are laid with good materials, but where they are failing, it is mainly because they have been laid poorly. Bus shelters block views to the castle from Main Street.

There are very few seats on Main Street or elsewhere, so there is little to encourage you to stop and sit and take in the town. Similarly, the large shopping centres in the town are fairly soulless, though it is hard to judge their vibrancy and contribution to it in the midst of a pandemic, when with most outlets are closed. There are therefore many opportunities for simple improvements to settings of historic buildings and public realm, along with the imaginative adaptation and the reuse of buildings currently unused or boarded up. A reappraisal of the Record of Protected Structures would also be a worthwhile exercise.

ALTEMAR

Marine & Environmental Consultancy

Preliminary Environmental Assessment- Identification of Ecological Issues in relation to the Sustainable Swords project in Swords, Co. Dublin.

17th June 2021

Submitted by: **Altemar Ltd.**
Submitted to: **Fingal County Council.**

Contents

1 Introduction

Altemar, Marine and Environmental Consultants has been commissioned to undertake a preliminary ecological appraisal report to assess the environmental considerations for the Sustainable Swords project.

Altemar Ltd. was commissioned by Fingal County Council to provide a preliminary ecological report (Ecological Appraisal) for the site area in question. This report includes a desk-based ecological assessment of a wide indicative area (Figures 1 & 2). The scope of the Preliminary Ecological Appraisal is to evaluate the area as a whole and assist in the identification of possible constraints in relation to the Sustainable Swords project.

The following report provides a preliminary site ecological assessment and follows the guidelines for Preliminary Ecological Appraisal outlined by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2013).

This review included:

- Review available desktop data
- Identifying any important environmental issues associated with the area
- For identified issues, identify the potential risks, constraints or impact on the project in terms of consents and licenses, potential timings, need for avoidance, mitigation, restrictions etc.
- As outlined by the CIEEM (Preliminary Ecological Appraisal)
    - is to establish baseline conditions and determine the importance of ecological features present (or those that could be present) within the specified area, as far as is possible;
    - is to establish any requirements for detailed/further surveys;
    - is to identify key constraints to the project and make recommendations for design options;
    - is to avoid significant effects on important ecological features/resources at an early stage;
    - is to identify the mitigation measures as far as possible, including those that will be required, and those that may be required (based on results of further surveys or final scheme design); and
    - is to identify enhancement opportunities.

Proposed Project

Fingal County Council have commissioned Altemar Ltd. to undertake a preliminary ecological appraisal to assess the environmental considerations for the Sustainable Swords project.

The Sustainable Swords project seeks to produce a place-making strategy focused on the strategic regeneration and compact development of Sustainable Swords, in order to increase resilience of the local economy and to provide for an enhanced, accessible, inclusive, child-friendly and healthy urban environment.

Figure 1. Area of study and location on satellite imagery (ESRI)

Figure 2. Area of Study.

2. Survey findings and evaluation

Designated sites

The study area is not within a designated site. However, the site is proximate to a number of designated conservation sites located within Malahide Estuary (Figures 3-10). Specifically, the area of study is proximate to the Malahide Estuary Special Area of Conservation (SAC) (440m) and Malahide Estuary Special Protection Area (SPA)(625m). These are Natura 2000 sites with National and international protection and there is a direct pathway from the study area to these sites, via the Ward River. In addition, the Malahide Estuary proposed Natural Heritage Area (pNHA) (440m) and Broadmeadow Estuary Ramsar site (700m) are also downstream of the proposed area, so if there are significant works there is potential for impact on designated sites, in the absence of mitigation measures. Careful consideration should be made in relation to projects and potential direct and indirect pathways to the Natura 2000 sites in particular, as it is likely that given the proximity of these sites to the study area and the direct or indirect pathway that Appropriate Assessment will be required. Given this it would be expected that the screening for appropriate assessment for many potential projects could result in a Stage 2 AA i.e. a Natura Impact Statement (NIS).

Watercourses

Watercourses in the vicinity of the site (as identified by EPA GIS data) are seen in Figure 11. The Ward River passes through the area of study, connecting with the Broadmeadow River further downstream, and eventually enters Malahide Estuary. As there are a number of designated conservation sites located within Malahide Estuary, there is the potential for a direct hydrological connection between the area of study and the aforementioned conservation sites via the Ward River. Further, this pathway opens up the potential for an indirect hydrological connection to marine-based conservation sites located within the Irish Sea (Figures 3, 5, 7, & 9).

On the Fingal Development Plan Green Infrastructure Map (Figure 12) the area is noted as part of the "Ward" River which requires a suitable riparian corridor as set out in DMS170 below:

Objective DMS170

Protect and enhance the ecological corridors along the following rivers in the County by ensuring that no development takes place, outside urban centres, within a minimum distance of 30m from each riverbank: Liffey, Tolka, Pinkeen, Mayne, Sluice, Ward, Broadmeadow, Ballyboghil, Corduff, Matt and Delvin (see Green Infrastructure Maps).

Objective WQ05

Establish riparian corridors free from new development along all significant watercourses and streams in the County. Ensure a 10 to 15 metre wide riparian buffer strip measured from the top of the bank either side of all watercourses, except in respect of the Liffey, Tolka, Pinkeen, Mayne, Sluice, Ward, Broadmeadow, Corduff, Matt and Delvin where a 30m wide riparian buffer strip from top of bank to either side of all watercourses outside urban centres is required as a minimum.

In order to identify these areas clearly a series of high resolution maps have been prepared. Ecological corridors that buffer watercourses within, and in close proximity to, the Area of Study are demonstrated in Figures 13-15. Figures 16-20 provide an enhanced view of 30m and 10m ecological corridors that buffer watercourses passing through the area of study. Further detail on the Ecological Requirements for 30m Buffer on the Ward River are seen in Appendix I.

[1] https://www.fingal.ie/sites/default/files/2019-03/Fingal%20Development%20Plan%202017-2023%20-%20Written%20Statement_compressed_compressed.pdf

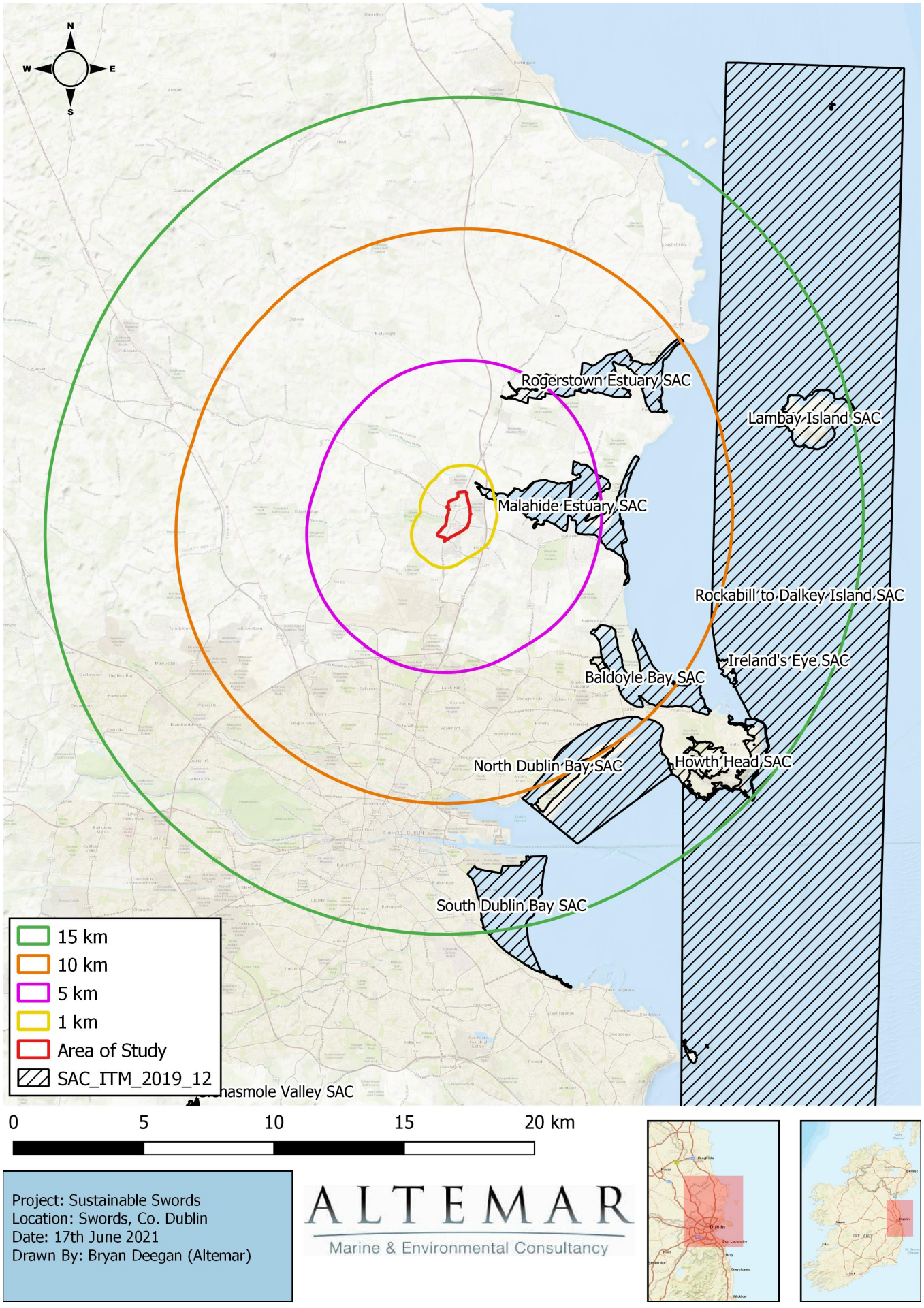


Figure 3. Special Areas of Conservation (SAC) within 15km of the Area of Study.

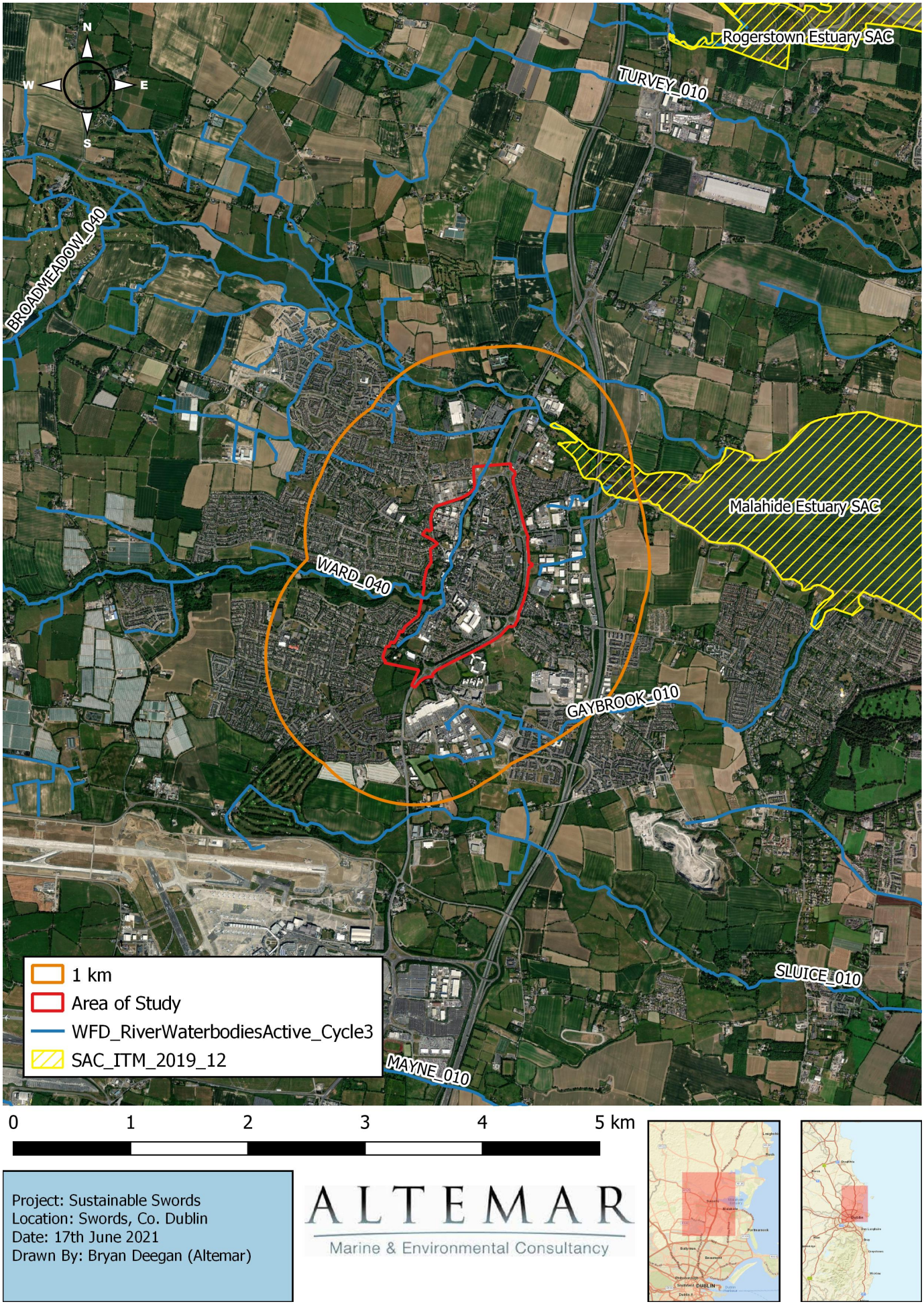


Figure 4. SACs and watercourses (rivers and streams) within 1km of the Area of Study.

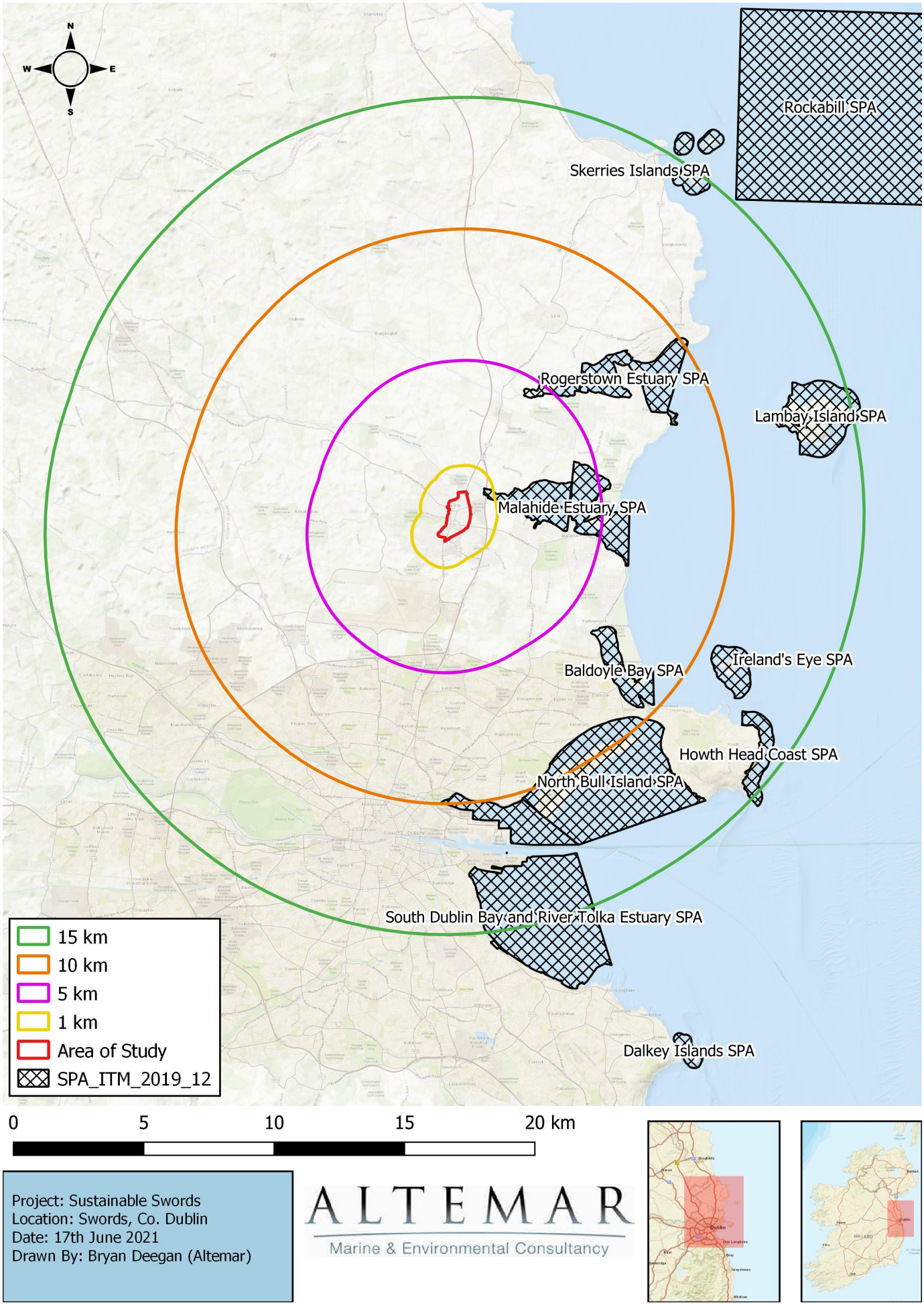


Figure 5. Special Protection Areas (SPA) in the vicinity of the area of study.

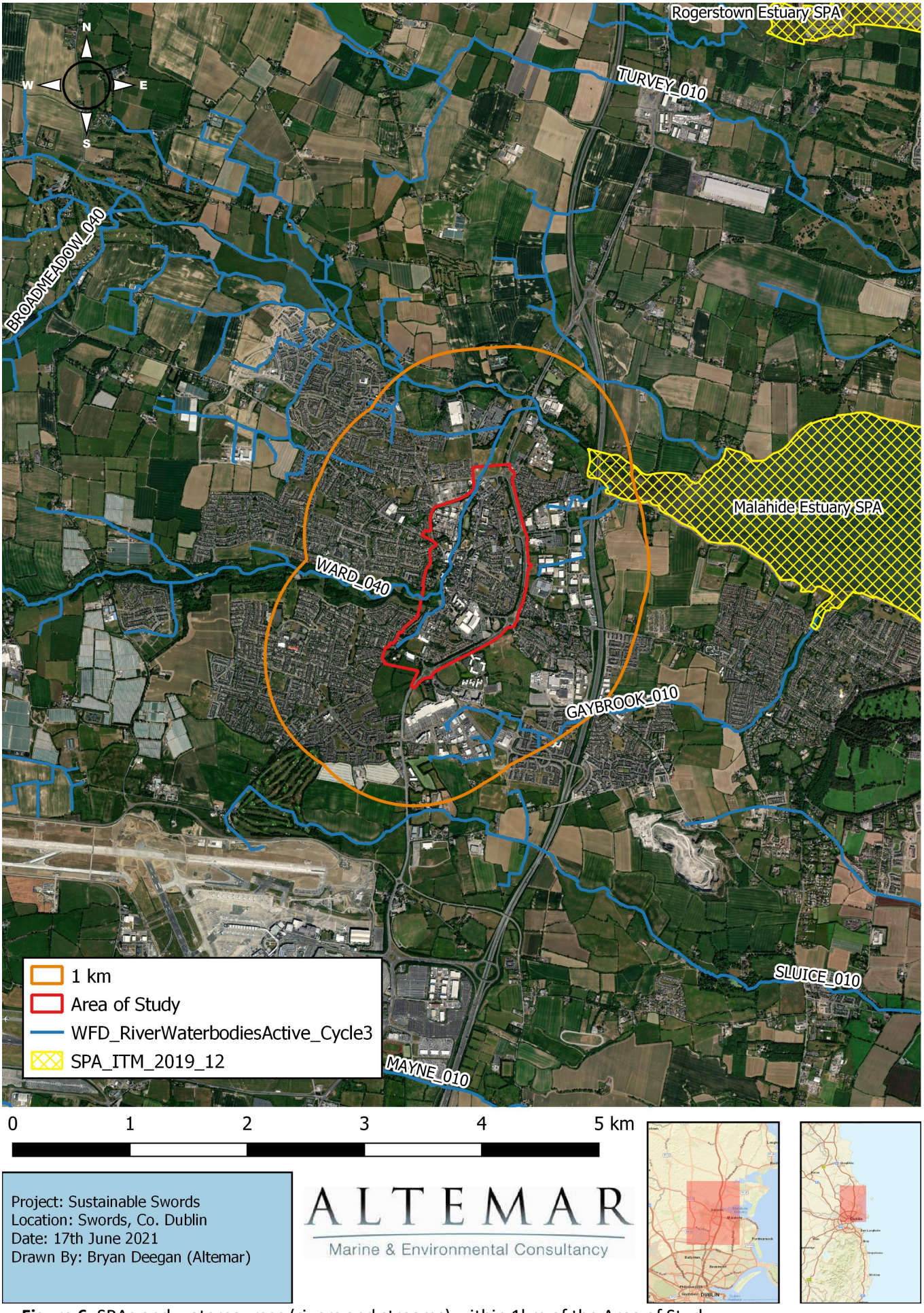


Figure 6. SPAs and watercourses (rivers and streams) within 1km of the Area of Study.

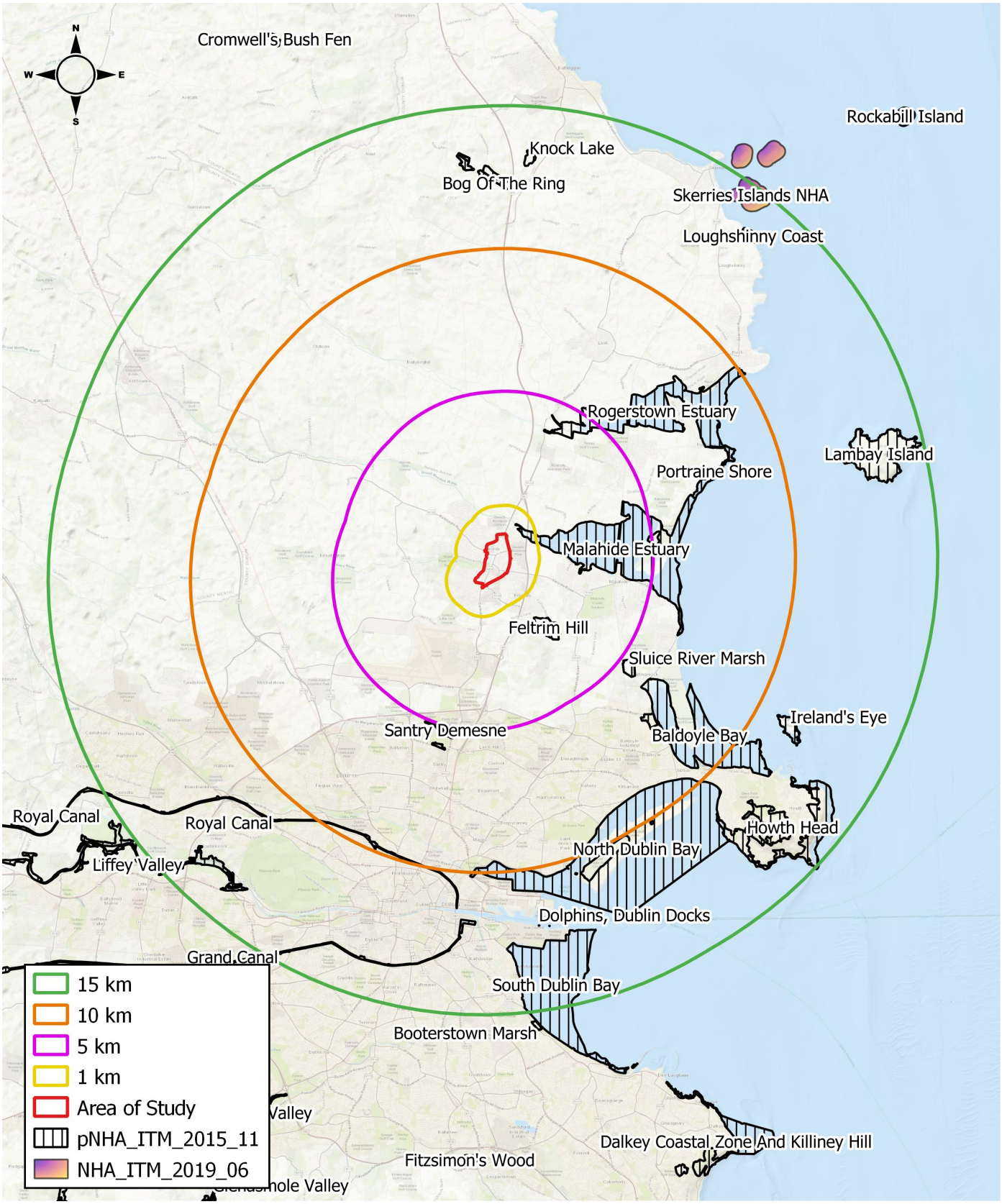


Figure 7. Natural Heritage Areas (NHA) and (pNHA) within 15km of Area of Study.

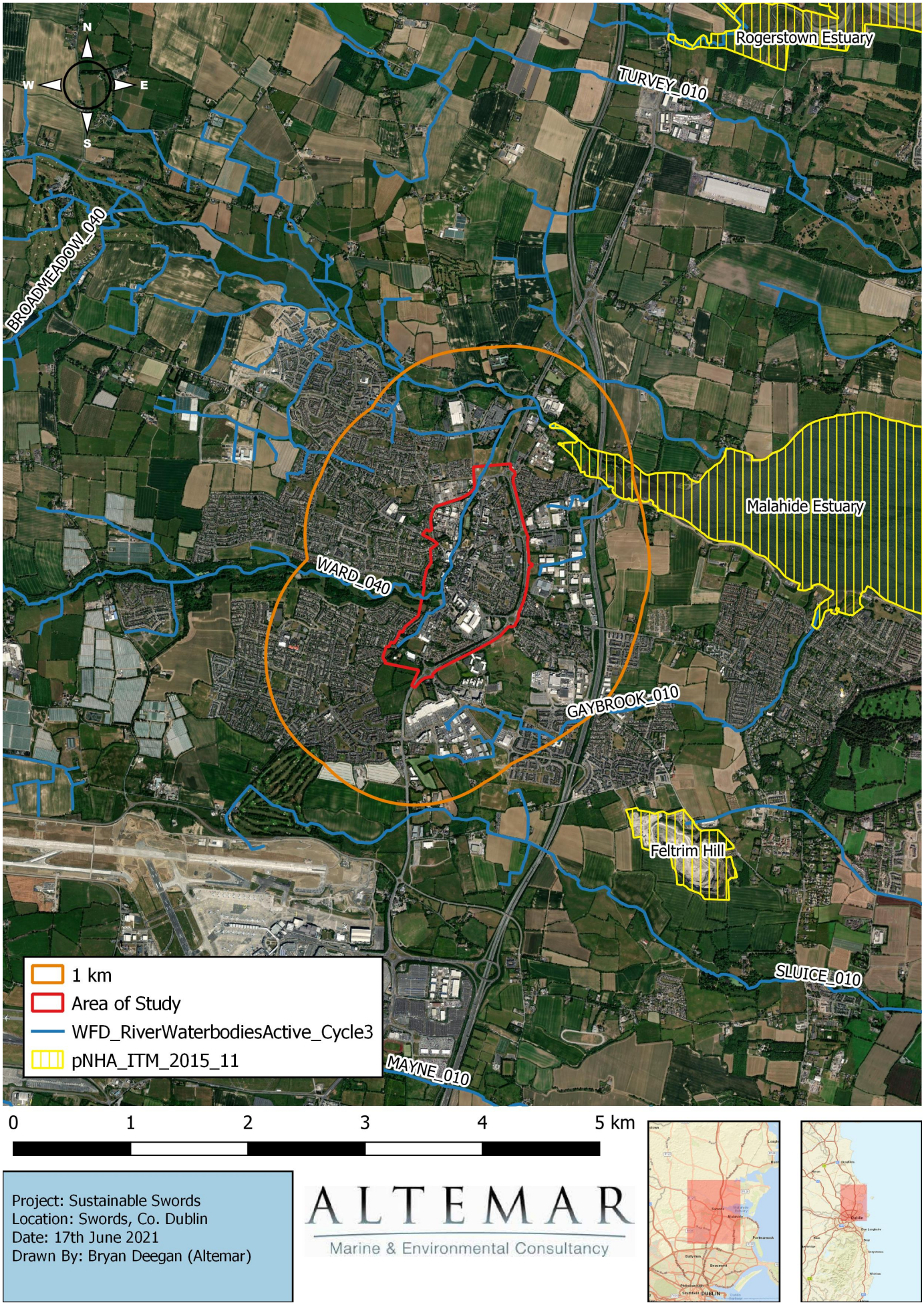


Figure 8. pNHAs and watercourses (rivers and streams) within 1km of the Area of Study.

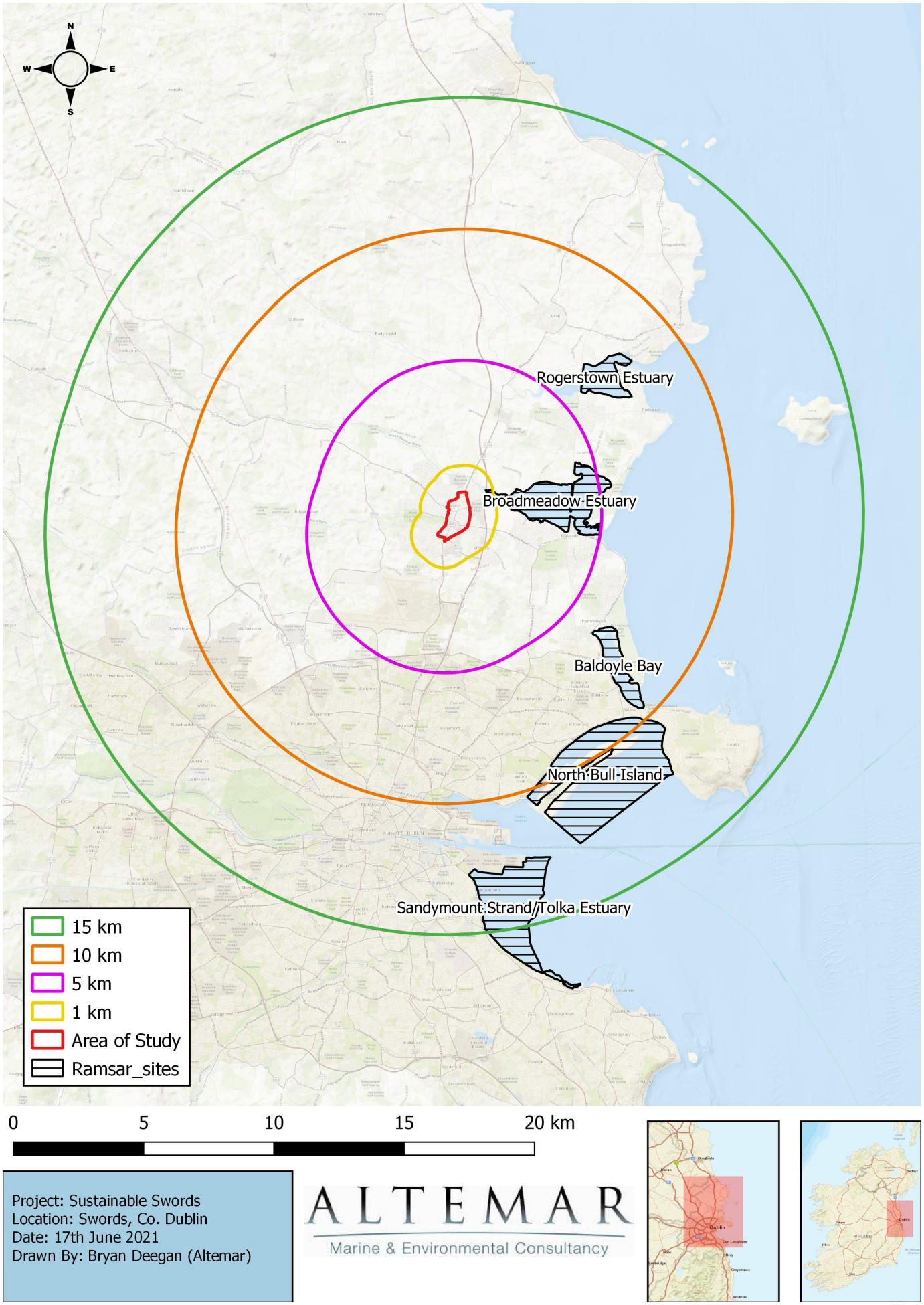


Figure 9. Ramsar sites within 15km of Area of Study.

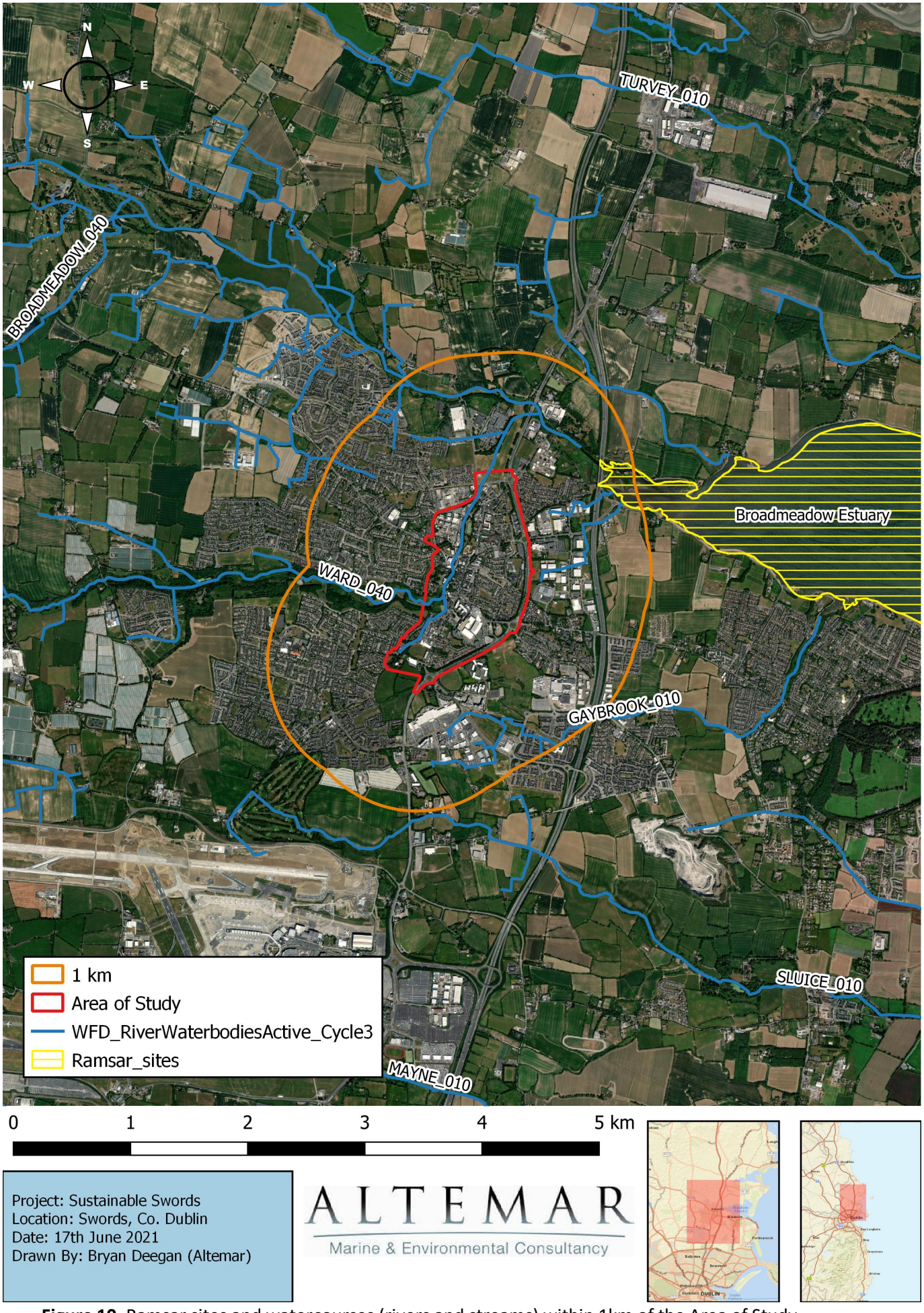
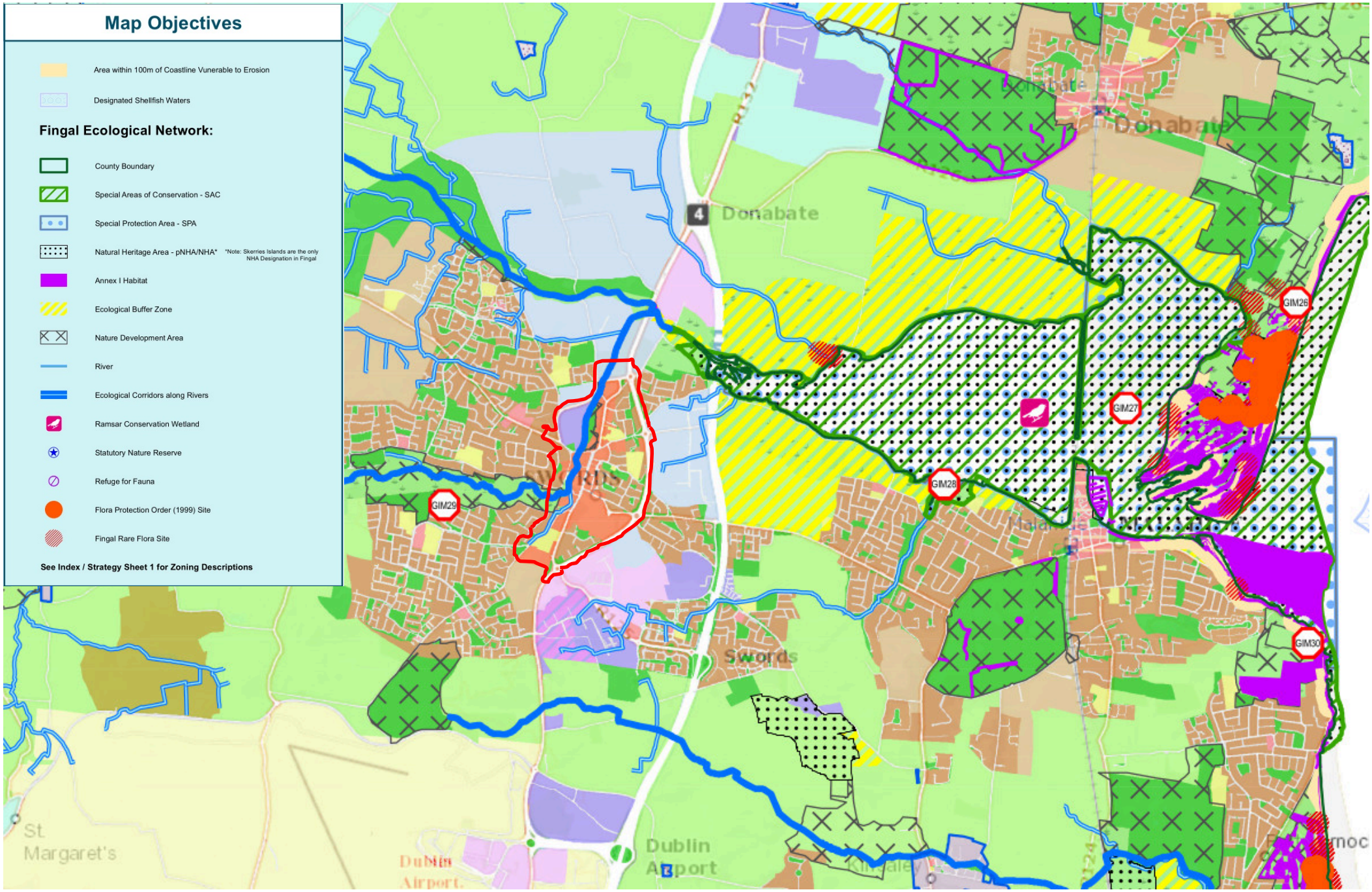


Figure 10. Ramsar sites and watercourses (rivers and streams) within 1km of the Area of Study

Figure 11. Watercourses in close proximity to Area of Study



https://www.fingal.ie/sites/default/files/2019-03/Fingal%20Development%20Plan%202017-2023%20-%20Sheet%2015%20Green%20Infrastructure%202.pdf

Figure 12. Fingal Development Plan Green Infrastructure Map (Study Area = Red)

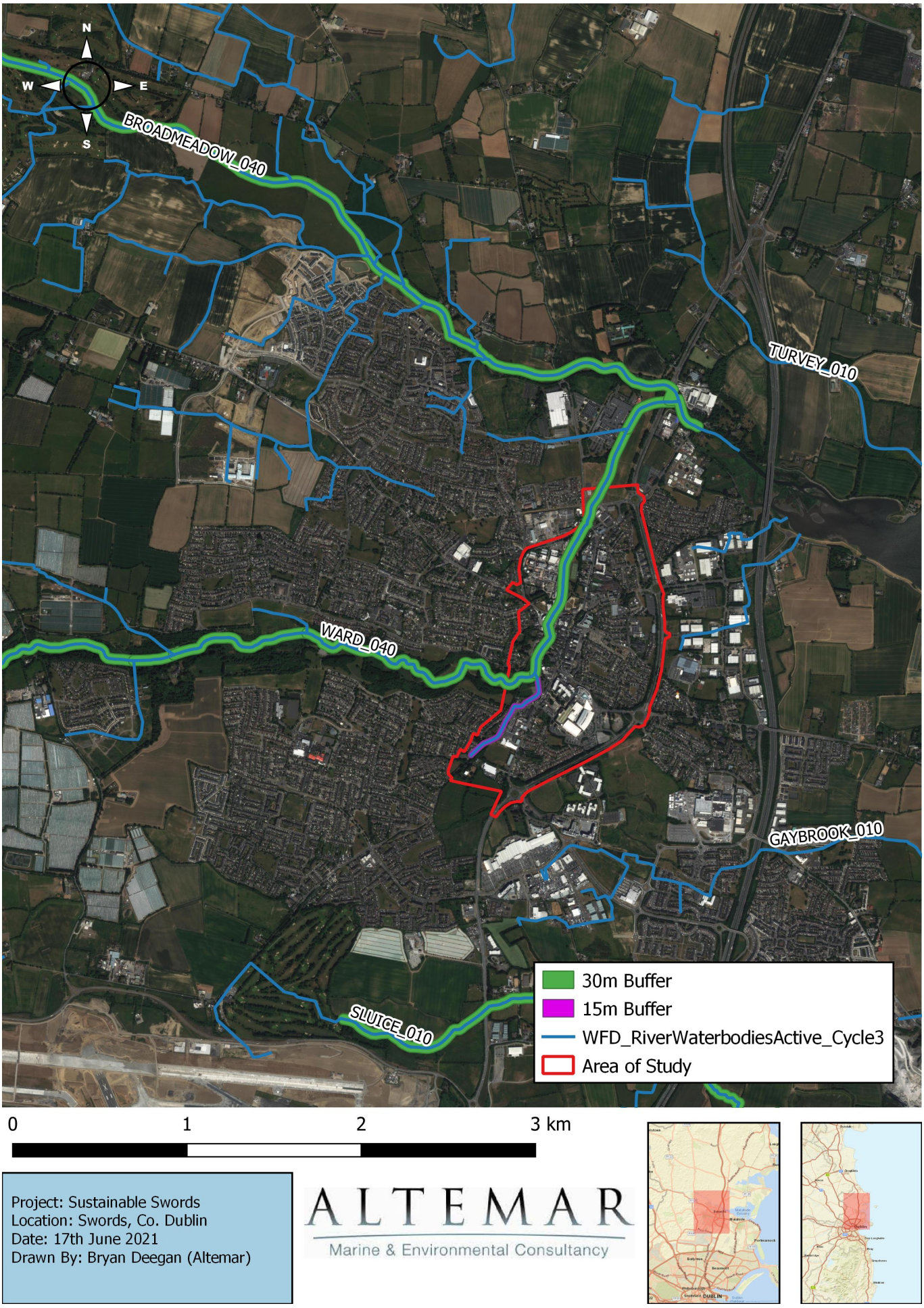


Figure 13. Watercourses in close proximity to Area of Study with designated ecological

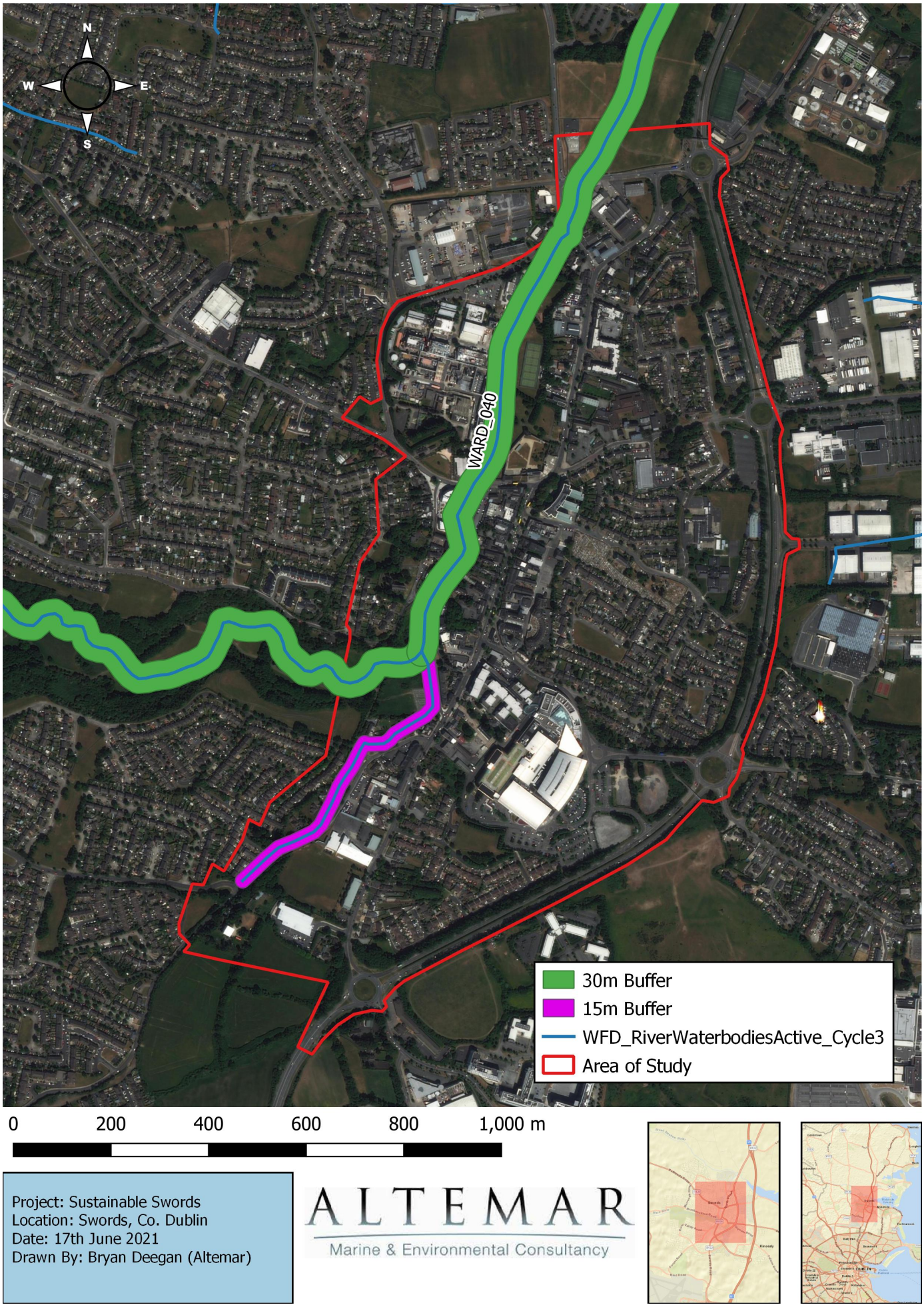


Figure 14. Watercourses within Area of Study with designated ecological corridors

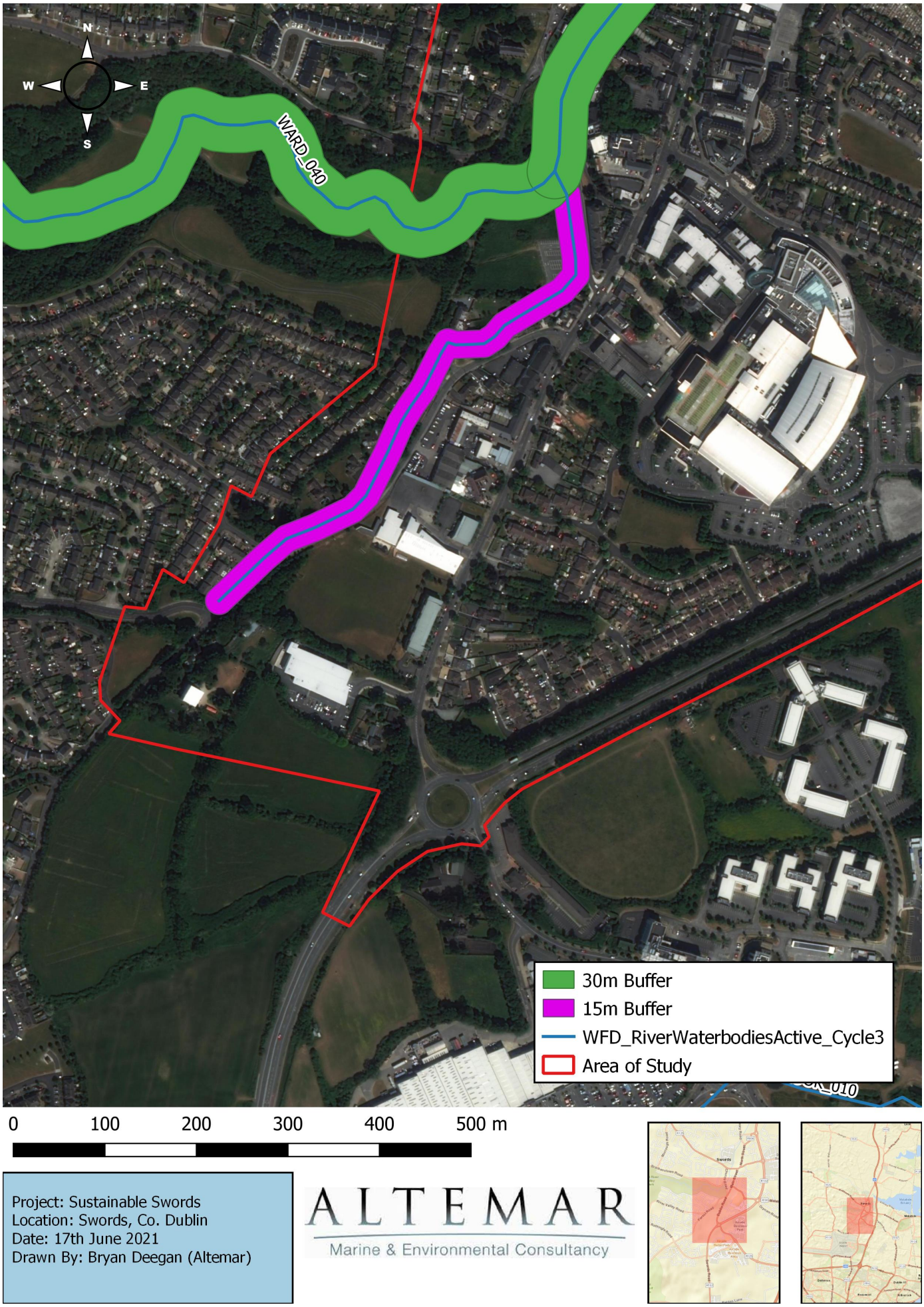


Figure 15. Watercourses within Area of Study with designated ecological corridors

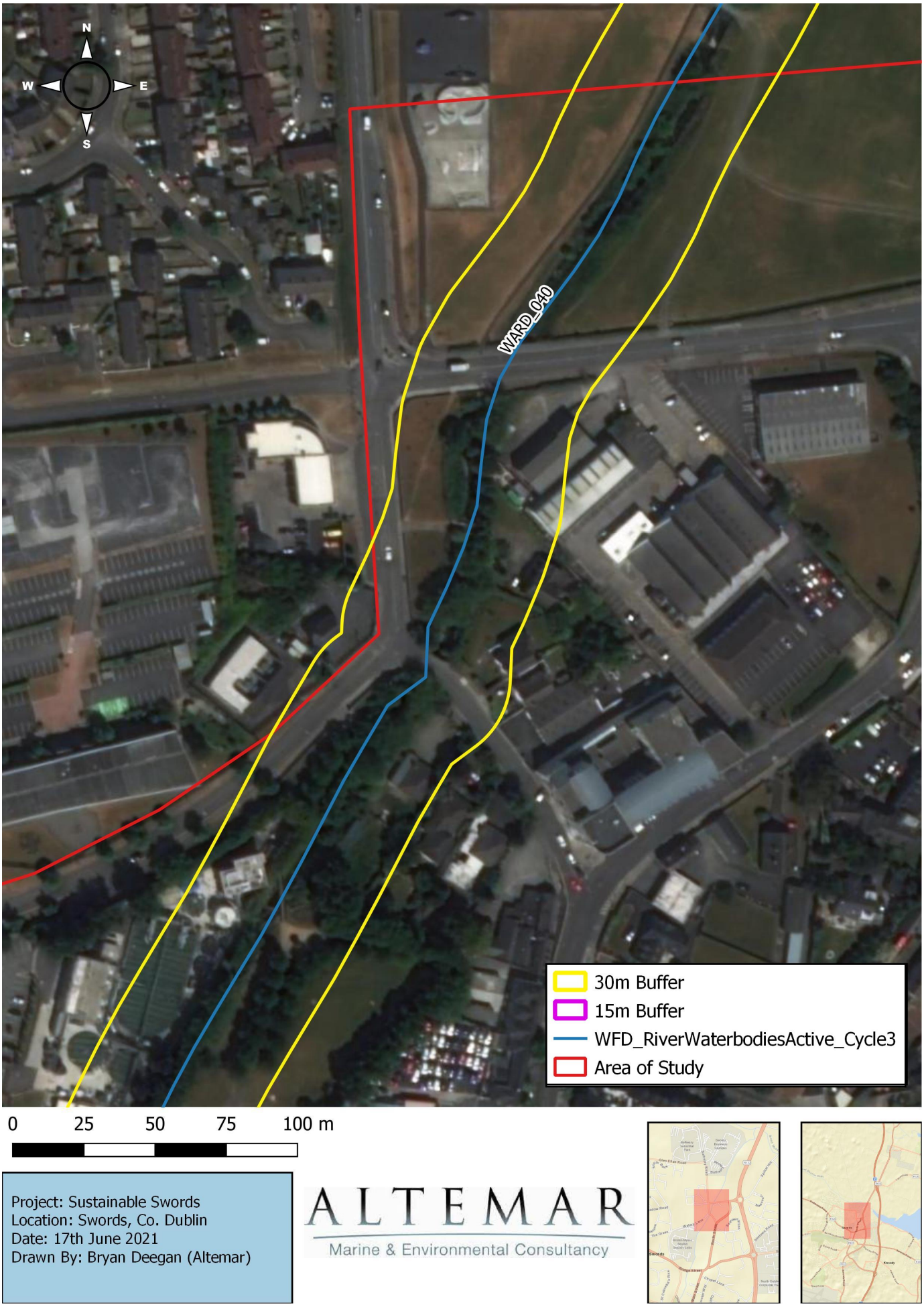


Figure 16. Enhanced view of watercourse with 30m ecological corridor within Area of Study

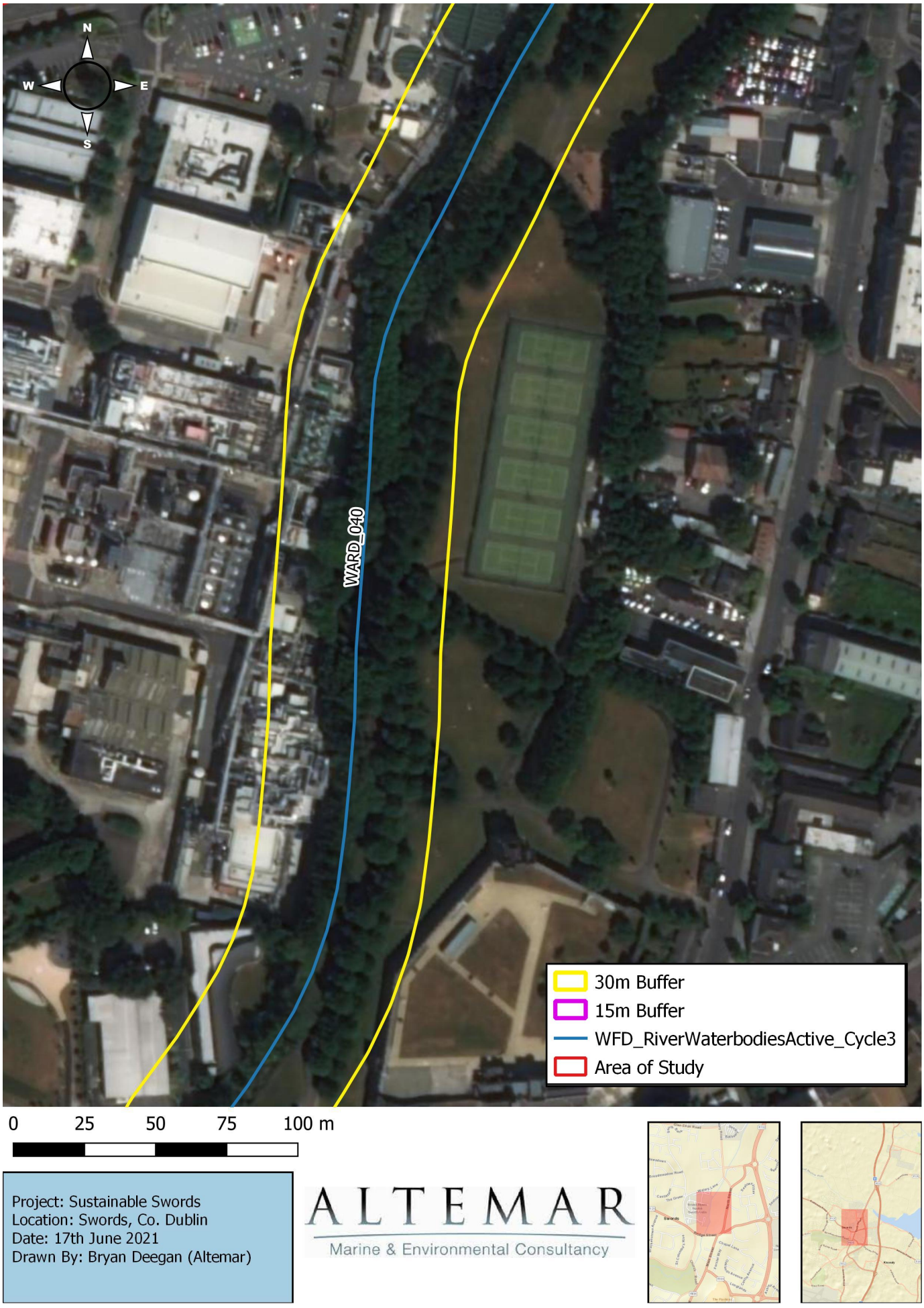


Figure 17. Enhanced view of watercourse with 30m ecological corridor within Area of Study

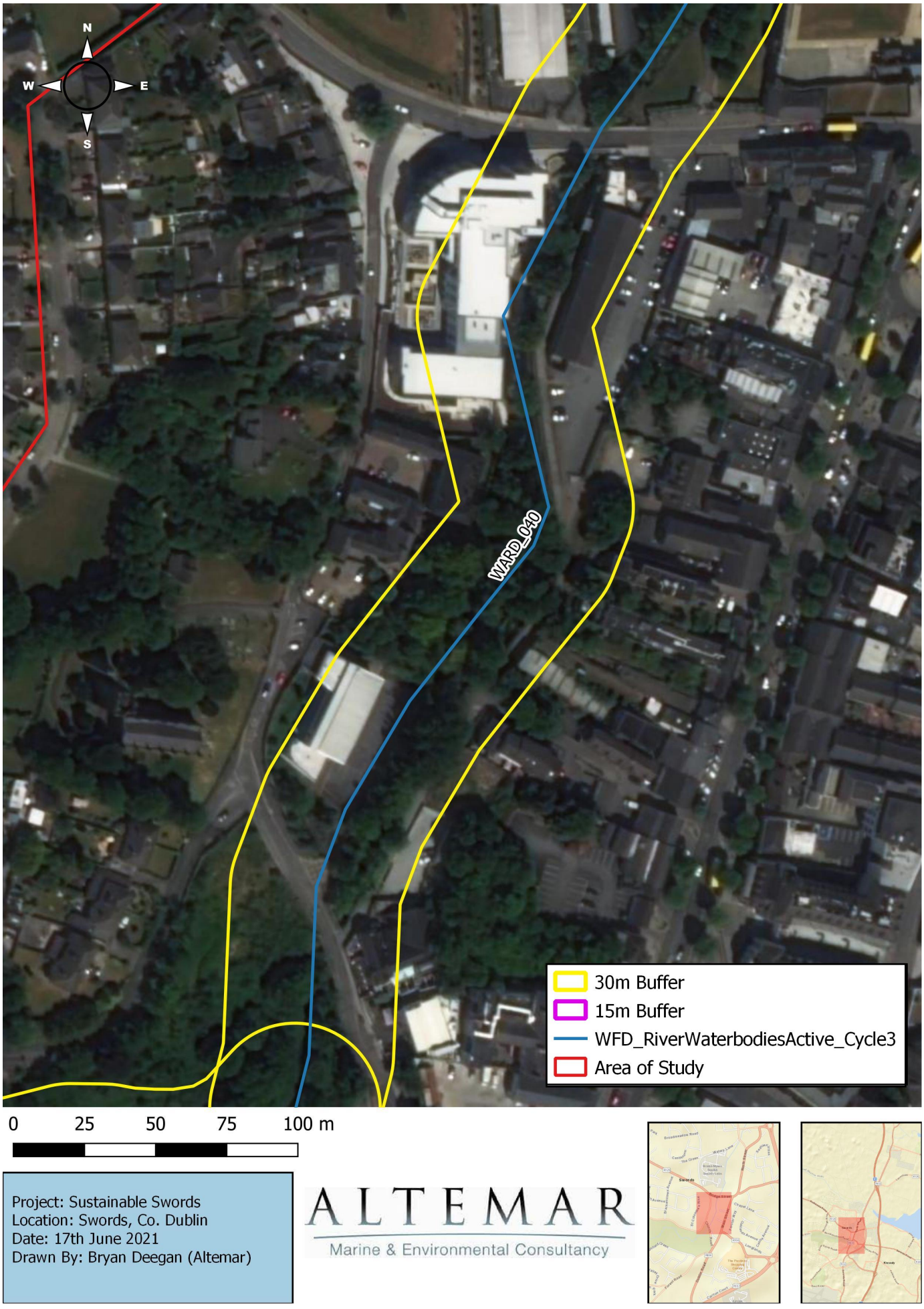


Figure 18. Enhanced view of watercourse with 30m ecological corridor within Area of Study

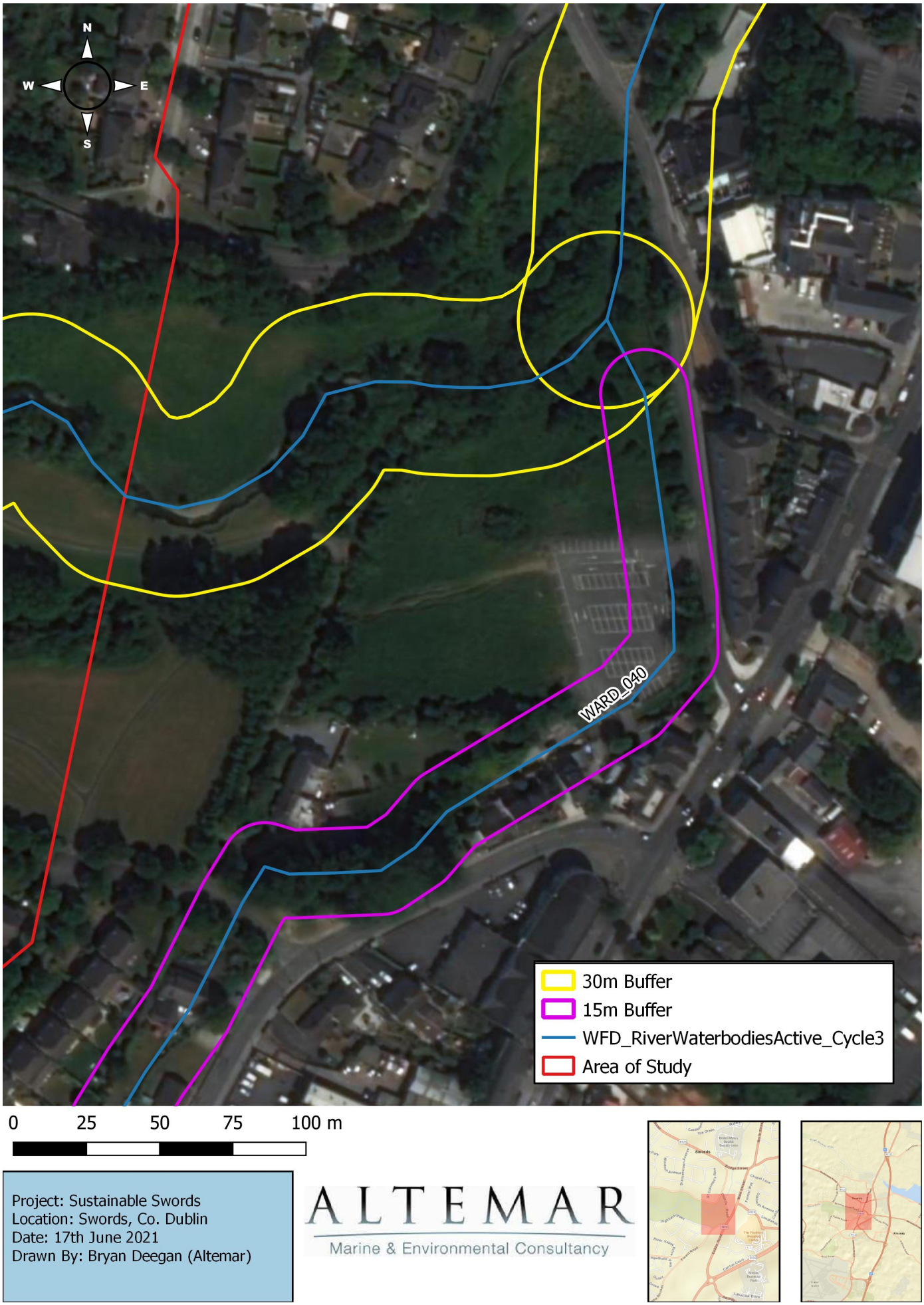


Figure 19. Enhanced view of watercourses with 15m and 30m ecological corridors within Area of Study

Figure 20. Enhanced view of watercourse with 15m ecological corridor within Area of Study

A portion of the Fingal Development Plan Green Infrastructure Map that encompasses the study area can be seen in Figure 12. As demonstrated in the map, the following are not present within the boundaries of the study area: Annex I Habitat, Ecological Buffer Zone, Refuge for Fauna, a Flora Protection Order (1999) site, or a Fingal Rare Flora site. A section of a Nature Development Area (defined as '*locations where nature conservation can be combined with existing activities such as farming, forestry, quarrying and recreation*'[2]) that encompasses a portion of the River Ward lies within the boundaries of the study area. There are a number of Green Infrastucture Mapped Objectives within close proximity to the site (Figure 12):

- GM27 – Prepare and implement a masterplan for Malahide Esturay;
- GM28 – Subject to full Appropritae Assessment the development of a boardwalk at Cave's Marsh, Malahide as part of the Fingal Coastal Way; and,
- GM29 – Prepare and implement a masterplan for the Tolka Valley Park and the Ward River Valley Park.

The Strategic Flood Risk Assessment for the Fingal Development Plan 2017-2023 details the site-specific flood risk concerns for the lands at Swords (Figures 21 & 22). The SFRA[3] details that: '*Some lands in the Swords town centre overlap with Flood Zones A and B. The flood extents are largely confined to car parking areas and public spaces adjacent to the Ward River. Any future expansion of the industrial / commercial development lands in the town centre must be reviewed in terms of flood risk and an appropriately detailed FRA submitted with any planning application. Highly vulnerable development should be avoided in the Flood Zones A and B with development subject to a detailed FRA where appropriate.*'

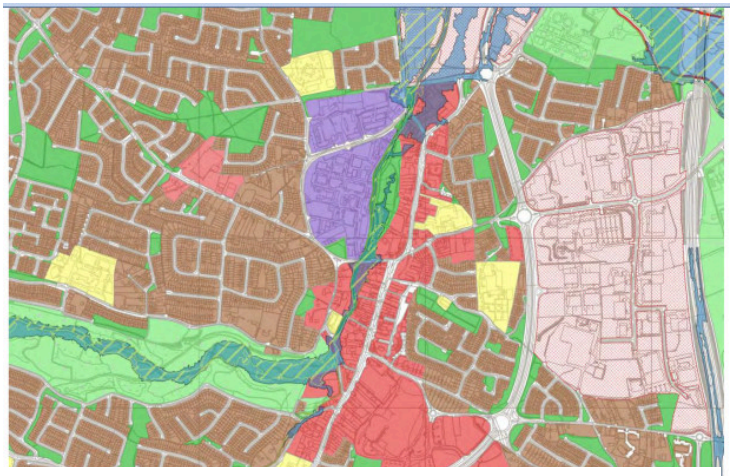


Figure 21. Swords - SFRA

As outlined in the Flood Risk Assessment[4] :

'*Criteria 1*
Swords is the county town of Fingal and it is a long established area and very well developed.

Criteria 2
The existing zoning remains compatible with the long established use and existing residential developments.

Criteria 3
A portion of the zoned lands is at risk. A detailed site specific FRA is to be carried out and submitted with any planning application to address flood risk, propose mitigation measures and assign appropriate development. Further flood risk assessment will also take place as part of the Masterplan process.

[2] https://www.fingal.ie/sites/default/files/2019-03/Fingal%20Development%20Plan%202017-2023%20-%20Written%20Statement_compressed_compressed.pdf
[3] https://www.fingal.ie/sites/default/files/2019-03/Fingal%20Development%20Plan%202017-2023%20-%20Strategic%20Flood%20Risk%20Assessment.pdf
[4] https://www.fingal.ie/sites/default/files/2019-03/Fingal%20Development%20Plan%202017-2023%20-%20Strategic%20Flood%20Risk%20Assessment.pdf

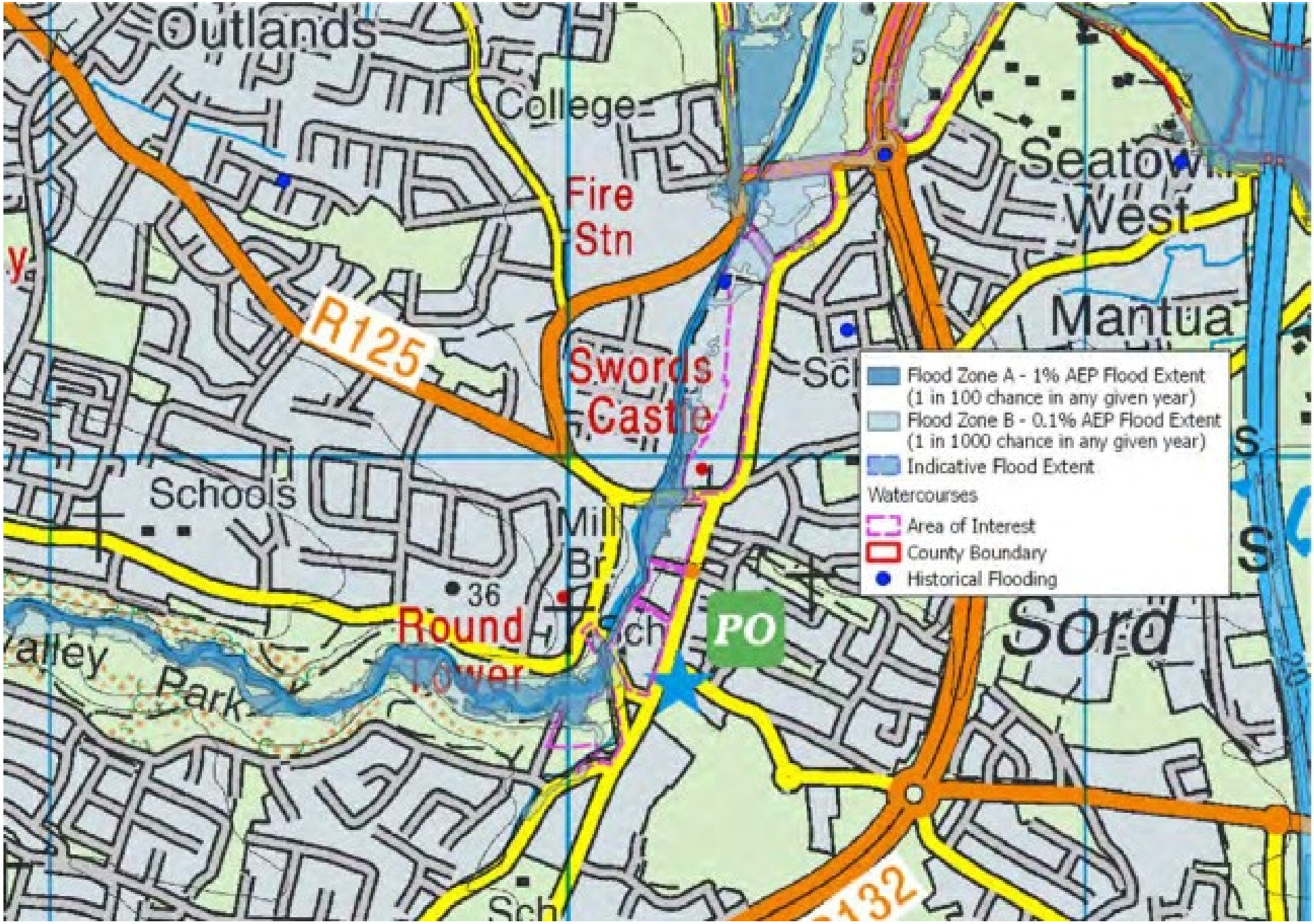


Figure 22. Flood Risk Assessment in Fingal Development Plan

Site Specific FRA should address the following:

- *Apply sequential approach should be applied through site planning and should avoid encroachment onto, or loss of, the flood plain.*
- *Highly Vulnerable Development shall not be permitted in Flood Zone A or B.*
- *Development in Flood Zone A should be either open space or water compatible.*
- *FRA should address residual risk of culvert blockage (where applicable), increased flood extents under climate change scenarios and pluvial risk which should be aimed at setting finished floor levels*
- *Compensatory storage for development that results in a loss of floodplain must be provided on a level for level basis and the land given to storage must be land which does not flood in the 1% AEP flood event.*
- *Conclusion **Pass**. It is recommended that any proposals for future development of this land will be subject to a site specific FRA to ensure that development is appropriate and satisfies Criteria 3 of the Justification Test'*

In addition the following objectives should be noted:

Objective SWORDS 2

Retain the Main Street as the core of the town centre, protect and enhance its character and ensure that any future new commercial and retail development reinforces its role as the core area of the town centre, by promoting the development of active ground floor uses and limiting the expansion of certain non-retail and inactive street frontages including financial institutions, betting offices, public houses and take aways/fast food outlets.

Objective SWORDS 3

Promote and enhance the identity of the town centre through the delivery of Swords Castle Cultural Quarter Architectural Masterplan, including development of Swords Civic and Cultural Centre and delivery of the conservation plan for Swords Castle thereby ensuring the protection, conservation and enhancement of the historic core of Swords.

Objective SWORDS 4

Promote the development of lands within Swords town centre in accordance with the principles and guidance laid down in the *Swords Master Plan (January 2009)*.

Objective SWORDS 8

Prepare and implement an Integrated Traffic Management Strategy in tandem with the development of a public realm strategy for Swords town centre.

Objective SWORDS 11

Provide for a comprehensive network of pedestrian and cycle ways, linking housing to commercial areas, to the town centre and to Metro stops and linking the three water bodies (the Ward River Valley, the Broadmeadow River Valley and the Estuary) to each other subject to Screening for Appropriate Assessment if required.

Objective SWORDS 15

Develop an appropriate entrance to the Ward River Valley from the town of Swords so that access to the amenities of the valley is freely and conveniently available to the people of Swords.

Objective SWORDS 17

Protect and conserve the historic core of Swords including the Zone of Archaeological notification in the centre of the town and implement the Swords Castle Cultural Quarter Architectural Masterplan.

Biodiversity Records within the Study Area

The National Parks and Wildlife Service was consulted and within the study area the following rare and protected species were noted: Common Frog (*Rana temporaria*) and Otter (*Lutra lutra*) in the study area. In addition, previous discussions with the Fingal County Council Biodiversity offices indicated that the Ward River is an Atlantic salmon (*Salmo salar*) where spawning potentially occurs within the study area (at the upstream boundary of the Ward River and the study area boundary). Therefore, this watercourse would be sensitive to impacts.

The National Biodiversity Data Centre's online viewer was consulted to determine the extent of biodiversity and / or species of interest in the area. An assessment of the site specific area demonstrated the following species of interest sighted within the study area:

Table 1. Table of species, NBDC

Date of Record	Species Name	Designation
15/08/2010	Barn Swallow (*Hirundo rustica*)	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
15/08/2010	Common Swift (*Apus apus)*	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
15/08/2010	House Martin (*Delichon urbicum)*	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
11/12/2017	Butterfly-bush (*Buddleja davidii*)	Invasive Species: Invasive Species || Invasive Species: Invasive Species >> Medium Impact Invasive Species
11/12/2017	Cherry Laurel (*Prunus laurocerasus)*	Invasive Species: Invasive Species || Invasive Species: Invasive Species >> High Impact Invasive Species
07/05/2020	Evergreen Oak (*Quercus ilex*)	Invasive Species: Invasive Species || Invasive Species: Invasive Species >> Medium Impact Invasive Species
11/12/2017	Himalayan Honeysuckle (*Leycesteria formosa*)	Invasive Species: Invasive Species || Invasive Species: Invasive Species >> Medium Impact Invasive Species
11/12/2017	Japanese Knotweed (*Fallopia japonica)*	Invasive Species: Invasive Species || Invasive Species: Invasive Species >> High Impact Invasive Species || Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
23/04/2016	Large Red Tailed Bumble Bee (*Bombus (Melanobombus) lapidarius*)	Threatened Species: Near threatened
31/12/2012	Eastern Grey Squirrel (*Sciurus carolinensis)*	Invasive Species: Invasive Species || Invasive Species: Invasive Species >> High Impact Invasive Species || Invasive Species: Invasive Species >> EU Regulation No. 1143/2014 || Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
03/05/1980	European Otter (*Lutra lutra*)	Protected Species: EU Habitats Directive || Protected Species: EU Habitats Directive >> Annex II || Protected Species: EU Habitats Directive >> Annex IV || Protected Species: Wildlife Acts
31/12/2012	Pine Marten (*Martes martes*)	Protected Species: EU Habitats Directive || Protected Species: EU Habitats Directive >> Annex V || Protected Species: Wildlife Acts
02/10/2013	West European Hedgehog (*Erinaceus europaeus*)	Protected Species: Wildlife Acts

The area is noted as moderately important (31.22 on 'habitat suitability' index) for all bat species, 45 for Soprano Pipistrelle, 42 for Brown Long-earedBat, 44 for Common Pipistrelle, 0 for Lesser Horseshoe Bat, 46 for Leisler's

Bat, 38 for Whiskered Bat, 31 for Daubenton's Bat, 1 for Nathusius' Bat, and 34 for Natterer's Bat (Bat Landscapes NBDC).

Treelines and Hedgerows

Treelines and hedgerows were preliminarily mapped (Figure 24). These potentially would form bat foraging corridors and roosting habitats for a small number of individual bats, particularly in unlit areas. It is expected that there may be bat roosts on in the darker areas particularly near the Ward River.

3. Recommendations

1. Sustainable Swords will be subject to Appropriate Assessment Screening and the preparation of a Natura Impact Statement as necessary.
2. As outlined earlier, all relevant Development Plan and Biodiversity Plan objectives will be reviewed in the context of the plan, including DMS170.
3. Further detailed assessment and surveys as required to inform the study will be examined and undertaken as necessary.
4. Habitats and species of conservation importance are possibly located within the study area. The hedgerow and treeline areas may have terrestrial mammals, flora and bats and additional surveys / assessments will be undertaken as necessary to inform the study.
5. Landscaping of the Sustainable Swords project should include species that could be used to encourage and maintain biodiversity. The proposed mixes of plants should see a minimal ornamental non- native species to a more dominantly native landscape strategy leaning towards species selection to promote and enhance biodiversity (native seeds fruits and pollinator friendly species). In relation to species it would be beneficial if there was a heavy reliance on native species that provide an ecological function and these are detailed within the Pollinator Friendly Planting Code[5] . In addition to the pollinater friendly plants additional planting and species were selected to encourage and sustain birds and bats. This included predominantly native but some non native planting to provide and encourage foraging on site. In addition, invasives such as Fuchsia, Cherry Laurel, Rhododendron, Sycamore, snowberry & *Allium triquetrum* should not be included within planting lists.

4. Conclusions

There are a number of designated conservations sites within 1km of the area of study, including Malahide Estuary SAC, SPA, and pNHA (440m, 625m, and 440m respectively), and Broadmeadow Ramsar site (700m). There is the potential for a direct hydrological pathway to these conservation sites via the Ward River, a watercourse that passes through the area of study. The Ward River connects to Broadmeadow River located further downstream and eventually outfalls to Malahide Estuary. This pathway also opens the potential for an indirect hydrological connection to marine-based conservation sites located within the Irish Sea.

It would be beneficial if landscaping would include native pollinator friendly species and expand the current network of treelines and hedgerows within the study area.

[5] https://www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-Council-Guide-Planting-Code-FINAL.pdf

Figure 24. Hedgerows (Purple) and treelines (yellow) in the vicinity of the study area

Appendix I- Ecological Requirements for 30m Buffer on the Ward River.

The Fingal Biodiversity Plan[6] outlines the Rationale for the 30m ecological corridor. A new Fingal Biodiversity Plan is currently being prepared by Fingal County Council.

'*The purpose of the Ecological Network is to provide a framework and focus for nature conservation efforts in Fingal for the next decade. Core sites will be enlarged and protected with bufferzones to create more space for sustaining habitats and healthy populations of protected species. Nature Development Areas will provide opportunities for habitat improvement in the wider countryside and urban landscapes. The core sites and the nature development areas will be connected by means of ecological corridors and steppingstones. This will create an interconnected landscape through which wildlife can move freely and healthy populations of both rare and common species can be maintained.*
The Ecological Network covers 13120 ha, including the islands and estuaries. A breakdown of the acreage of the individual elements of the network is given in table 4. The sites included in the network are the critical natural capital of Fingal. Much of the network is located on lands in private ownership and therefore the delivery of the network will depend to a large extent on the goodwill and interest of local landowners. The County Council will seek to work together with landowners and community groups to achieve this network over the next 10-20 years. For those lands in public ownership, the local authority will seek to protect and enhance these sites for wildlife. ***The selection of the sites for inclusion in the Fingal Ecological Network is based upon legislative requirements, ecological studies carried out over the last 6 years and expert opinion by various ecologists and nature conservation groups. It is likely that the network will expand and/or change over the next decades, as more ecological survey information becomes available, particularly in the countryside.***
The network shall also make provisions for recreational use, flood protection, farming and contribute to the quality of the living and working environment. The ecological network will thereby assist sustainable development in the countryside and towns in Fingal. ***This makes the ecological network approach far more pro-active and encompassing than the traditional species or site based approaches to biodiversity management. It does not focus solely on rare and threatened habitats and species, but it considers the whole biological resource and its integration with other land uses. The planning guidelines and principles associated with the ecological network are given in Appendix XII***.'

[6] http://www.fingalbiodiversity.ie/resources/general/Fingal%20Biodiversity%20Plan.pdf

'*ECOLOGICAL CORRIDORS & STEPPING STONES*

Ecological corridors are usually linear landscape features such as rivers, hedgerows, road verges that connect various nature conservation areas. These corridors can also comprise of a series of smaller landscape features such as small woodlands, scrub, grassland, pools and freshwater marshland. They are to be developed in such way that plants and animals can move from one nature conservation site to the other. (Please note that the terrestrial corridors with hedgerows and grasslands are included in the farmland nature development areas and are not described in this section).

The key corridors through Fingal are the rivers, their floodplains and the adjacent farm- or parkland. The general width of the river corridors is 30m on either side of the river. ***This width is based on the habitat range of the Otter, the top predator in the river habitat. The distance is wider where extensive floodplains occur along the river corridor as identified under the FEMFRAMS project and these areas are included in the corridor too.***

This wider corridor allows many other typical species associated with rivers such as the Atlantic Salmon, Brown & Sea Trout, Brook, Sea & River Lamprey, Kingfisher and Dipper to thrive. *Many of these species are internationally or nationally protected or endangered species and the robust river corridors provide an important breeding and feeding habitat for these species. By including the adjacent farm and parkland along the rivers within the corridors, these corridors act as linear distribution lines for terrestrial plants and animals too. This means that the corridors not only function as an aquatic/wetland corridor, but they also link important countryside areas rich in wildlife species.*

The river corridors play an important role in flood attenuate on & protection, erosion control and water quality improvement. Riparian habitat along the river can absorb a lot of nutrients from the adjacent farmland and will protect the riverbanks from erosion which will help to achieve the targets of the EU Water Framework Directive, while at the same time providing a suitable habitat for river related wildlife species. The floodplains with the wet grassland, scrub and marshland can hold water during heavy rainfall, thereby avoiding flooding in more sensitive urban areas.

Vision

The river corridors in the future shall comprise of a natural meandering river or stream with a mosaic of typical riverside and floodplain habitats on either side of the river such as marshland, alluvial woodland, scrub and wet grassland with pools. Stepping stones of approx. 3-5ha comprising of alluvial woodland, marshland and wet grassland with ponds shall be developed at 2-5km intervals to provide resting and feeding sites for target species such as Otter, Kingfisher and Common Frog. Straightened river channels will be restored to meandering courses and the water quality will be improved to Good Ecological Status.

Where the river is cut off from the adjacent floodplain, the connection will be restored to increase the floodplain capacity of the catchment. The corridors will be free of obstacles such as impassible culverts, weirs or bridges to allow for free movement of wildlife through the countryside and urban areas. The ecological corridors within the urban areas shall also provide space for amenity & educational use and flood attenuation. Where access is provided for amenity purposes, it will be planned in such a manner that the ecological qualities are not impacted upon or improved where possible.

Strategy

The first priority for the development of the ecological corridors is to undertake detailed ecological studies of the Corduff, Ballyboughal, Broadmeadow, ***Ward,*** *Sluice and Mayne rivers. These studies shall identify the current habitat quality, potential stepping stone sites and the range of measures required to improve the river habitat, the corridor function and water quality of these rivers.*

The actual improvement works to the river and the corridor is likely to take several decades and is tied in closely with the implementation of the Eastern River Basin Management Plan.

Lands within or adjacent to the corridors in ownership of the County Council shall be maintained and developed to provide a mosaic of typical river valley habitats for all target species associated with the ecological corridors. Fingal County Council together with other nature conservation organisations will seek to lease or acquire the most strategic nature conservation lands within the corridors and work with private landowners to develop and manage the remainder of the lands within the ecological corridors.

The Tolka River Valley, Royal Canal and the Liffey Valley shall be developed as a multi-functional amenity corridor, forming a "GREEN Zone" the Dublin 15 area. Similarly the Ward River Valley and the lower reaches of the Broadmeadow river will be developed for nature conservation and amenity purposes for the community in

Swords. Detailed masterplans are to be prepared within the plan period for each of these linear parks. The development of the ecological corridors in the countryside shall focus on flood protection, sustainable farming practices and nature conservation.

A 30m wide bufferzone on either side of the river will extend the length of the river corridor of the Liffey, Tolka, Pinkeen, Mayne, Sluice, Ward, Broadmeadow, Ballyboghil, Corduff, Matt and the Delvin. Previously impacted areas within this setback zone will be restored to a natural state where possible. New development and land-uses that may have a lasting negative impact on the corridor function and movement of flora & fauna shall be located outside the ecological corridors.'

'*APPENDIX XIIe: PLANNING GUIDELINES ECOLOGICAL NETWORK - NATURE DEVELOPMENT AREAS AND CORRIDORS*

Where landowners within the ecological network wish to develop or re-develop their property, the County Council will request the applicants to retain existing natural features as much as possible and provide new natural habitats. This will protect the existing wildlife on the site and enhance the nature conservation interest of the lands within the ecological network.

The following planning guidelines apply:

1) *Identify most important wildlife features and incorporate these features as part of the development. The aim should be to avoid an overall loss in acreage of natural habitats and maintain the existing wildlife corridors. This will conserve the existing wildlife value of the area and will provide a basis for improving the nature conservation interest of the site.*
2) *Design the footprint of the development to avoid impacts on areas of biodiversity value. Locate developments in areas of low biodiversity interest. Brownfield sites, improved agricultural grassland and arable lands often have a low biodiversity value and are generally most suitable for development.*
3) *Cluster development elements (e.g., buildings, sheds, parking areas) to leave larger natural areas. Locating structures close together can save time and money on development and maintenance and helps to keep large areas of the property in a natural state. Avoid bi-secting habitat patches with roads, fairways, or paths. Instead, place these features along the perimeter of a habitat patch where possible.*
4) *Avoid developments within the 30m buffer of the river corridor or in a floodplain of the Liffey, Tolka, Pinkeen, Mayne, Sluice,* ***Ward****, Broadmeadow, Ballyboghil, Corduff,Matt and Delvin. This will ensure that the corridor function of the river and adjacent lands is protected and that movement of flora and fauna is not compromised. Any developments near a river but outside the 30m bufferzone should include some habitat improvement works to the bufferzone where appropriate.*

   Use wetland features for water treatment. Reedbeds and ponds are natural filter systems and can be located at outfalls of drainage systems and septic tanks to intercept any fertilizers, pesticides and nutrients that have been washed out of the soil. Where reedbed systems are used to treat the effluent of septic tanks it is important to use a liner to prevent polluted water draining into the soil before it is fully treated in the reedbed.
5) *Assess potential for habitat improvement as part of development. New developments can provide an opportunity for creating ecological valuable habitats that can replace existing low quality habitats. The next appendix gives an overview of the range of habitat creation measures that can be undertaken as part of a development.*'

'APPENDIX XIIf: PLANNING REQUIREMENTS - NATURE

DEVELOPMENT AREAS & CORRIDORS

There is a range of habitat creation and management options that can be implemented to improve the wildlife value of the nature development areas and ecological corridors. It is recommended that all applicants consult with the Biodiversity Officer to assess which options are most appropriate at their site. New habitats should be located in areas where they improve the connectivity between natural habitats and the surrounding countryside. The footprint and intensity of the proposed development dictates the nature of the compensatory habitat requirement conditions.

1 *Develop or expand a pond. Ponds can be valuable and cheap additions to the drainage system of the farm. They can be developed near dwellings, sheds and access roads to receive the rainwater from these structures. Not only can costs be saved on the drainage system, they will also help to improve the water quality of the rivers and groundwater in rural Fingal. The pond should be at least 50m2 with a minimum depth of 50cm and a maximum depth of 1.5m.The edge habitat around the water is of key importance. An extended drawdown zone between the water surface and the land, caters for a lot of wetland plants, which increases the wildlife value and the water filtering function of the wetland.*

2 *Plant 250 trees that produce berries and seeds, such as Hawthorn, Blackthorn, Cherry, Oak and Hazel. Using trees that are native to the soils and climate of Ireland will usually require less water, less fertilizer, and less effort to maintain. Ideally these trees and shrubs are planted in copses of at least 500m2,with 3 tree species in the core of the planting area and the 3-4 shrub species along the edges. Natural looking sinuous edges to the planting provide more opportunities for wildlife than straight lines.*

3 *Plant 250m of a new hedgerow and/or maintain 250m of existing hedgerow where required. A connecting linear habitat can be developed by planting a new hawthorn hedgerow. Some other fruit and nut bearing species such as Hazel, Dog Rose and Blackthorn can be mixed into the planting. The aim is to develop these into a dense, 3m high hedge with a 2-8m wide woody base, combined with a 3m wide grassy verge that is only cut once a year. Where older hedgerows have escaped and turned into "lollipop" trees, hedgerow management measures should be taken to restore the hedge. This can be done by hedgelaying or coppicing, depending on the structure and age of the hedge. Where old hedges are being maintained the focus should be on old townland boundary hedgerows as these tend to be the oldest and most species rich. Ideally, any hedgerow management works are combined with exclusion fencing where livestock has direct access to the hedge to prevent the base of the hedgerows being eaten away.*

4 *Enhance streams and rivers. Where streams and rivers are located in the land holding that is to be developed these habitats may benefit from wildlife enhancement works. Alder and Willow trees can be planted in pockets or individuals along the riverbank (at least one tree for every 5m of linear riverbank) to provide cover for wildlife. Engineered bank protection measures should be avoided and soft engineering solutions such as Willow revetments should be used. Not only do they look more natural, they are also a lot cheaper to build and maintain. Exclusion fencing should be installed where livestock is poaching the riverbanks to prevent the loss of land and bank erosion. Species specific actions can be taken too such as building an Otter holt, King fisher bank, or adding a 100m of grave l and pool areas in the stream for Trout and Salmon.*

5 *Develop 250m of 3-5m wide linear strips or beetlebank with tussocky grasses along the headlands for 3 years. These strips would not be cut for at least 2 years or sprayed with pesticide or herbicides unless noxious weeds or pests are present within this strip. hese rank grassland strips provide suitable nesting habitat for many arable birds and a good wintering habitat for many insects. It is therefore important not allow for a build up of dead grass material (essential for successful nesting). Please note that other types of 3-5m wide linear strips along the headlands and hedgerows are also acceptable such as arable flower mixtures, just cultivated strips (no seeding),no spray strips (in crop, but no spraying),open cereal and linseed mix (Tritikale for brood rearing) and spring sown fodder crops such as Kale (wintercover for wildlife) or a mixture of tussocky grasses and cereals within the 3-5m strip particular where land is managed for Grey Partridge.*

6 *6 Develop or enhance 1000m2 of wildflower hay meadow (golf courses only). Haymeadows can be created by reducing the existing grass cutting regime in the rough. Ideally, these areas would be cut once or twice a year, depending on the maximum height of grass permitted and the levels of growth during the year. These meadow would be cut in Late March-early April and September and all the clippings are to be collected. It is important that these areas are not sprayed with pesticides or herbicides.*

7 *Develop and implement a pesticide and herbicide management plan aimed at reduce the input of these chemicals on the farm. Pesticides and herbicides can harm wildlife either directly by killing them or indirectly by poisoning their plant and animal food sources. Chemical exclusion strips approximately 3-5m wide along the edges of fields increase the abundance of birds, small mammals, and butterflies on farmland. Encourage natural control agents such as ladybirds, beetles, some wasps, and birds by sowing a wildflower mix along the edges of the field. Bird boxes could be provided to encourage natural pest control by songbirds and birds of prey.*

8 *Develop and implement nutrient management plan. A nutrient management plan can be prepared where development is proposed within agricultural land holdings that are located in the bufferzone near the Bog of the Ring or located along the river corridors. A nutrient management plan helps the farmer to make the most efficient use of the available nutrients on the farm and helps to minimize the loss of nutrients into the groundwater and nearby rivers and streams.*

9 *Develop and implement Biodiversity Management Plan for Quarry. This audits the habitat and species present in and around the quarry, identifies local and national priority habitats and species, and provides a framework to maximise site biodiversity during the extraction phase and restoration afterwards.*

10 *Prepare and implement an ecological management plan for the golf course. This plan would guide any nature conservation and environmental efforts on the golf course. It would give an overview of the existing wildlife and habitat resource within the golf course and outline a serious of actions on how the golf course could be improved for wildlife and how the various habitats can be connected.'*

IAC Archaeology

ARCHAEOLOGICAL, ARCHITECTURAL & CULTURAL HERITAGE CONSTRAINTS STUDY

SUSTAINABLE SWORDS PROJECT, COUNTY DUBLIN

ON BEHALF OF: FINGAL COUNTY COUNCIL

AUTHOR: SAM FAIRHEAD

JUNE 2021

IAC PROJECT REF.: J3745

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DOCUMENT CONTROL SHEET

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21.06.21	Archaeological, Architectural and Cultural Heritage Constraints Study Proposed Sustainable Swords Project, County Dublin	1	Sam Fairhead	Faith Bailey	Faith Bailey

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1 INTRODUCTION

1.1 GENERAL

The following report describes the archaeological, architectural and cultural heritage constraints identified within a study area for the proposed Sustainable Swords Project, Co. Dublin (Figure 1; ITM 716037, 747604). This assessment includes all recorded archaeological, architecture and cultural heritage sites and areas of archaeological potential within the study area. The study has been carried out by Sam Fairhead of IAC Archaeology on behalf of Fingal County Council.

The constraints study involved a detailed study of the archaeological, architectural and historical background of the study area. This included information from the Record of Monuments and Places of County Dublin, the Record of Protected Structures for County Fingal, the National Inventory of Architectural Heritage and a review of the Excavations Bulletin (1970-2020).

1.2 SUSTAINABLE SWORDS

The purpose of the Sustainable Swords project is to produce a place-making strategy focused on the strategic regeneration and compact, sustainable development of Swords. The goal is to increase the resilience of the local economy and to provide for an enhanced, accessible, inclusive, child friendly and healthy urban environment. A vibrant town for all.

The Sustainable Swords initiative is an output of strategic documents, including 'Your Swords – An Emerging City – Strategic Vision 2035' and the current Fingal County Development Plan 2017-2023. The vision of the former is to consolidate and strengthen the historic town centre of Swords; whilst the latter describes several specific objectives for the town centre within the context of a plan-led strategy.

The ambition for Sustainable Swords is to form a coordinating device that will establish a package of measures and projects that are prioritised, programmed and impactful, and that critically will enable the coordination of investment and decision-making across multiple stakeholders, maximising private sector engagement and identifying opportunities for synergies and collaboration.

The purpose of this report is to provide information on the location, nature and extent of archaeological, architectural and cultural heritage constraints within the study area, in order to inform the overall development of a package of measures and projects for the future.

2 METHODOLOGY

Research for this constraints study was undertaken as a desktop exercise. The following sources were consulted in order to identify archaeological, built heritage and cultural heritage constraints:

- Record of Monuments and Places for County Dublin;
- Sites and Monuments Record for County Dublin;
- National Monuments in State Care Database;
- Preservation Orders List;
- Topographical files of the National Museum of Ireland;
- Written sources relating to the study area;
- Cartographic and written sources relating to the study area;
- The Fingal Development Plan 2017–2023;
- Aerial photographs;
- Excavations Bulletin (1970–2020); and
- National Inventory of Architectural Heritage (NIAH): Architectural & Garden Survey

Record of Monuments and Places (RMP) is a list of archaeological sites known to the National Monuments Section, which are afforded legal protection under Section 12 of the 1994 National Monuments Act and are published as a record.

Sites and Monuments Record (SMR) holds documentary evidence and field inspections of all known archaeological sites and monuments. Some information is also held about archaeological sites and monuments whose precise location is not known e.g. only a site type and townland are recorded. These are known to the National Monuments Section as 'un-located sites' and cannot be afforded legal protection due to lack of locational information. As a result, these are omitted from the Record of Monuments and Places. SMR sites are also listed on a website maintained by the Department of Housing, Local Government and Heritage (DoHLGH) – www.archaeology.ie.

National Monuments in State Care Database is a list of all the National Monuments in State guardianship or ownership. Each is assigned a National Monument number whether in guardianship or ownership and has a brief description of the remains of each Monument.

The Minister for the DoHLGH may acquire national monuments by agreement or by compulsory order. The state or local authority may assume guardianship of any national monument (other than dwellings). The owners of national monuments (other than dwellings) may also appoint the Minister or the local authority as guardian of that monument if the state or local authority agrees. Once the site is in ownership or guardianship of the state, it may not be interfered with without the written consent of the Minister.

Preservation Orders List contains information on Preservation Orders and/or Temporary Preservation Orders, which have been assigned to a site or sites. Sites deemed to be in danger of injury or destruction can be allocated Preservation Orders under the 1930 Act. Preservation Orders make any interference with the site illegal. Temporary Preservation Orders can be attached under the 1954 Act. These perform the same function as a Preservation Order but have a time limit of six months, after which the situation must be reviewed. Work may only be undertaken on or in the vicinity of sites under Preservation Orders with the written consent, and at the discretion, of the Minister.

The topographical files of the National Museum of Ireland are the national archive of all known finds recorded by the National Museum. This archive relates primarily to artefacts but also includes references to monuments and unique records of previous excavations. The find spots of artefacts are important sources of information on the discovery of sites of archaeological significance.

Cartographic sources are important in tracing land use development within the development area as well as providing important topographical information on areas of archaeological potential and the development of buildings. Cartographic analysis of all relevant maps has been made to identify any topographical anomalies or structures that no longer remain within the landscape.

Documentary sources were consulted to gain background information on the archaeological, architectural and cultural heritage landscape of the study area.

Development Plans contain a catalogue of all the Protected Structures and archaeological sites within the county. The Fingal Development Plan (2017–2023) was consulted to obtain information on cultural heritage sites within the study area.

Aerial photographic coverage is an important source of information regarding the precise location of sites and their extent. It also provides initial information on the terrain and its likely potential for archaeology. A number of sources were consulted including aerial photographs held by the Ordnance Survey and Google Earth.

Excavations Bulletin is a summary publication that has been produced every year since 1970. This summarises every archaeological excavation that has taken place in Ireland during that year up until 2010 and since 1987 has been edited by Isabel Bennett. This information is vital when examining the archaeological content of any area, which may not have been recorded under the SMR and RMP files. This information is also available online (www.excavations.ie) from 1970–2020.

The National Inventory of Architectural Heritage is a state initiative established under the provisions of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999 tasked with making a nationwide record of significant local, regional, national and international structures, which in turn provides county councils with a guide as to what structures to list within the

Record of Protected Structures. The NIAH have also carried out a nationwide desk-based survey of historic gardens, including demesnes that surround large houses.

3 ARCHAEOLOGICAL & HISTORICAL BACKGROUND

The constraints study area comprises the majority of Swords town centre and is centred on ITM 716037, 747604. The area is bounded by the Swords Bypass (R132) to the east and by sections of Watery Lane (R125), St Columbas Rise, Highfield Downs, Ballintrane Wood and Hawthorne Park to the west. North to south the study area spans the area from the Estuary Roundabout to the Pinnock Hill Roundabout and measures c. 2km north-south by c. 0.9 km east-west (Figure 1). The constraints area encompasses all or parts of 17 townlands, all located within the civil parish of Swords, in the barony of Nethercross.

Table 1: Townlands, Parishes and Baronies located within the Scheme Study Area

Townland	Parish	Barony
Balheary Demesne, Newtown, Seatown West, Townparks, Swords Demesne, Greenfields, Swords Glebe, Commons West, Windmill Lands, Hilltown, Forrestfields, Miltonsfields, Barrysparks, Commons East, Crowscastle, Cremona, Fosterstown North	Swords	Nethercross

The site incorporates approximately three quarters of the zone of archaeological potential for the historic town of Swords, which is a recorded monument (DU011-035). There are a further 21 recorded archaeological sites within the constraints area, including the multiple recorded archaeological sites within the historic town, the majority of which are part of a cluster associated with St Columba's Church (Figures 1 and 2). In the wider vicinity, there is one further site within 50m of the boundaries of the constraints area, a burial (DU011-090) recorded in Ward River Valley Park, c. 30m to the west. One site within the town, Swords Castle, is a National Monument in state guardianship (Ref.: 340).

There are 25 structures within the constraints area that are recorded on the NIAH, 16 of which are also recorded as Protected Structures (Figures 3 and 4). A further four structures are recorded as Protected Structures, although not recorded on the NIAH, a notable example being Swords Castle (RPS 351), which is also a National Monument (Ref.: 340).

Prehistoric Period

Mesolithic Period (6000–4000 BC)

Although recent discoveries may push back the date of human activity by a number of millennia (Dowd and Carden 2016), the Mesolithic Period is the earliest time for which there is clear evidence of prehistoric activity in Ireland. During this period people hunted, foraged and gathered food and appear to have had a mobile transient lifestyle dependant heavily on riverine and coastal resources. The most common evidence indicative of Mesolithic activity in Ireland comprises of scatters of worked flint material; a by-product from the production of flint implements (Stout & Stout 1997).

A late Mesolithic shell midden was excavated at Sutton c. 10km to the southeast of the constraints area in the 1970s (DU015-024). Mesolithic activity has also been identified on Lambay Island, c. 12.2km to the east-northeast (Dolan and Cooney 2010). No Mesolithic material is known from the immediate vicinity of the constraints area; however, the River Ward flows through the area, making it an attractive location for prehistoric activity.

Neolithic Period (4000–2500 BC)

During the Neolithic period communities became less mobile and their economy became based on the rearing of stock and cereal cultivation. This transition was accompanied by major social change. To facilitate agriculture, forests were rapidly cleared and field boundaries constructed. There was a greater concern for territory, which saw the construction of large communal ritual monuments called megalithic tombs, which are characteristic of the period.

However, less ostentatious funerary rites were also practiced during this period. An example of a cremation pit was excavated c. 1.3km southeast of the constraints area in 2004. A single pit yielded over 70 sherds of Neolithic pottery alongside fragments of burnt bone (DU012-090).

Neolithic houses, which were large rectangular timber-built structures, are also associated with this period. Significant evidence for Neolithic settlement has been uncovered during excavations at Lissenhall c. 1.6km to the north-northeast of the constraints area. Two Neolithic post-built structures (DU012-079001–2) were excavated during the construction of the M1 motorway. Both structures measured c. 9m x 5-6m.

There are no known sites dating to the Neolithic Period within the constraints area or its immediate environs. As with the Mesolithic period, the topographic location and proximity to a water source may have made the area attractive for activity during the prehistoric period.

Bronze Age (2500–800 BC)

The Bronze Age was characterised by the introduction of metalworking technology to Ireland and coincides with many changes in the archaeological record, both in terms of material culture as well as the nature of the sites and monuments themselves. Though this activity has markedly different characteristics to that of the preceding Neolithic period including new structural forms and new artefacts (such as Beaker pottery), it also reflects a degree of continuity.

During the Bronze Age, Megalithic tombs were no longer constructed and the burial of the individual became more typical. Cremated or inhumed bodies were often placed in a cist, a small stone box set into the ground, or a stone lined grave. Burials were often made within cemeteries which were either unenclosed or else marked in the landscape with the construction of an earthen barrow. In general, ring ditches date to the Bronze Age, with the earlier examples being simpler in form and later examples incorporating entrances and a wider range of burials practices. Ring ditches

appear to have continued to be built and earlier monuments re-used, during the Iron Age and early medieval period.

The most common Bronze Age site within the archaeological record is the burnt mound or *fulacht fiadh*. Over 7000 *fulachta fiadh* have been recorded in the country and hundreds excavated, making them the most common prehistoric monument in Ireland (Waddell, 1998, 174). Although burnt mounds of shattered stone occur as a result of various activities that have been practiced from the Mesolithic to the present day, those noted in close proximity to a trough are generally interpreted as Bronze Age cooking/industrial sites. *Fulacht fiadh* generally consist of a low mound of burnt stone, commonly in horseshoe shape, and are found in low lying marshy areas or close to streams. Often these sites have been ploughed out and survive as a spread of heat shattered stones in charcoal rich soil with no surface expression in close proximity to a trough. A *fulacht fiadh* was identified by geophysical survey c. 1.3km west of the constraints area (DU011-148) and confirmed by test excavation. It consisted of two charcoal rich spreads (6m max. diam.) that contain fire cracked stone and a trough, oval in plan (1.75m diam.) and lined with wicker-work.

There are no known Bronze Age sites or monuments within the constraints area or its immediate vicinity; however, a ring-ditch (DU011-034019) is recorded c. 180m to the west in the townland of Windmill Lands, and a further four are recorded within 1km suggesting prehistoric activity in the wider landscape of Swords. One of these (DU012-093), located c. 900m to the southeast in the townland of Drinan, enclosed a large pit filled with charcoal and burnt bone from which fragments of Bronze Age pottery were recovered along, suggesting a multiple burial pit (Giacometti, 2005).

Iron Age (800 BC–AD 500)

As in Europe, there are two phases of the Iron Age in Ireland; the Hallstatt and the La Tène. The Hallstatt period generally dates from 700 BC onwards and spread rapidly from Austria, across Europe, and then into Ireland. The later Iron Age or La Tène culture also originated in Europe during the middle of the 5th century BC. For several centuries the La Tène Celts were the dominant people in Europe, until they were finally overcome by the Roman Empire. Despite the relative paucity of evidence for the Iron Age period in Ireland, the Fingal coastline presents one of the most interesting areas in Ireland in terms of Iron Age material.

Large defensive structures and earthworks were characteristic of the period, including coastal promontory forts. A promontory fort is a defensive structure located above a steep cliff, often only connected to the mainland by a small neck of land, thus utilizing the topography to reduce the ramparts needed. Although their dating is problematic, most seem to date to the Iron Age (Raftery, 1994).

The headland of Drumanagh, c. 12km northeast of the constraints area, is the location of the remains of one of the largest promontory forts in Ireland (consisting of c. 16ha). The neck of the headland is defended by a straight series of earthworks (L. 350m). They comprise three parallel banks with contiguous fosses, except at the north end where the defences are reduced to a single bank with an external fosse.

The upper portion of the inner bank is stone capped. It has long been suspected that the site may have some connection to Roman Britain. Because of this potential, the Discovery Programme commenced a programme of archaeological research in Fingal in autumn 2011. This research focused on the late Iron Age period and any interaction between Roman populations from England and Europe. Geophysical survey carried out within the promontory fort and in surrounding townlands has identified numerous features of archaeological interest, which will form the focus for future study (Dowling, 2015).

Early Medieval Period (AD 500–1100)

Swords was an important centre of the ancient Gaelic kingdom of *Brega*, which, from the late Iron Age to the Norman intervention of 1169, covered approximately the same area of modern Fingal, bounded by the River Tolka to the south and the River Delvin to the north. During this period Brega was ruled by the *Ui Chernaig* branch of the dynasty known as *Sil nAedo Slaine*, a southern branch of the *Ui Neill* who gained control of the territory in the early 8th century (Bradley, 1998). Ailbhe MacShamráin has published an extensive study of the political and ecclesiastical history of Swords during this period (2016). MacShamráin concludes that Swords formed part of the sub-kingdom of *Gailenga Becca* until the expansion of the Hiberno-Norse kingdom of Dublin in the late 9th and 10th centuries.

A large cemetery was excavated under licence 02E0608 (Bennett 2002:0686) on Malahide Road within the constraints area. There were 287 individuals represented in the burial ground with adults comprising the majority of these. Evidence suggests the cemetery was not defined by an enclosure and no evidence of a stone or timber church was identified (O'Donovan, 2016). The burials were subsequently dated to the early medieval period (specifically, 550 to 1150AD). Artefacts associated with the burials included aiglets or lace chapes, used to protect the end of lace cords to tie a shirt or vest. A single female inhumation had a ring on her finger. The cemetery is thought to represent the burial place of a small local population, with the overwhelming burial rite at the cemetery being in the Christian tradition of extended supine inhumation (ibid. 34-35). Some of the remains showed evidence for violent weapon trauma, suggesting that a warrior elite existed as an element in the population (ibid. 6).

A monastery, dedicated to St Colmcille, was founded on high ground to the west of the River Ward (DU011-034002), in the central portion of the constraints area, adjacent to the western boundary. It includes a church (DU011-034004), a round tower (DU011-034005), a graveyard (DU011-034003) and associated features (DU011-034010, 011, 007, 009, 006). The name 'Swords' derives from the Irish *Sord Colmcille* or St. Colmcille's Well. The Irish word *sord* means 'pure' and can also be applied to a spring or well (Joyce, 1995, 566). The well site (DU011-034013), located c. 140m south-southeast of the monastery near the junction of Church Road and Well Road, was an important local water source in the town, the water was believed to cure sore eyes. A souterrain (sub-terranean tunnel/chamber, usually stone-built), DU011-034022, recorded c. 100m northeast of the round tower, may also be associated with the monastery.

The association of the early foundation of Swords with St. Colmcille, who appointed St. Fínán Lobhar (the Leper) as abbot, could suggest a 6th century date for the foundation of the site (Gwynn and Hadcock, 1988, O'Donovan, 2016). Bradley states that the monastic foundation of Swords was first mentioned in the annals in AD 965 when the death of *Ailill Mac Maenach*, Bishop of Swords and Lusk, was recorded (Bradley, 1998, 44). MacShamráin (2016) has recently identified a reference to Fínán of Swords in the Martyrology of Tallaght dating to the late 8th century.

The monastic site was burned in AD 994 by *Maelseachlainn* of Meath. This attack was part of a wider move against the *Sitric Mac Amlaoimbh*, illustrating the extent to which Swords fell within the scope of the Hiberno-Norse kings of Dublin at this time. The conflict extended into the 11th century resulting in the burning of Swords by the Vikings of Dublin in 1012 and 1016 as recorded by the Annals of the Four Masters. These attacks clearly show that Swords fell outside of the control of Dublin for several years during the early 11th century. The area held prominence as one of the resting places of Brian Boru's funeral procession following the Battle of Clontarf in 1014.

This pattern of attack and counter-attack continued in the decades that followed as Swords again found itself on the border of warring kingdoms. The Dublin Vikings under Sitric recaptured and held Swords in the 11th century. *Conor O' Melaghlin* burned Swords in retaliation for Sitric's raids into Meath in 1035. The value of Swords to the Hiberno-Norse of Dublin made it a prime target for the *O'Melaghlin* Kings of Meath, with attacks being recorded for the years 1069, 1130, 1135, 1138, 1150, and 1166. In 1135, The Annals of the Four Masters record that Swords was wasted by *O'Melaghlin* who was eventually killed by the Vikings of Dublin and *Donal MacGiollaCholmóg* at Lusk.

The round tower (DU011-034005) is the only upstanding element of the original monastic establishment, the medieval church tower belongs to a structure which was erected in the later Middle Ages (DU011-034004). Three churches have been recorded at Swords, dedicated to Saints Fintan, Brigid and Catherine and it is believed that all three were located within the present St. Columbas Church of Ireland site (NIAH 11343007) (D'Alton, 1838, 264). St. Columbas Church itself, the medieval church tower and the round tower are all Protected Structures, RPS 360a, 360b and 360c respectively.

A reference to 'sixteen foreign burgess' in the extent of the manor in 1326, (*burgagii forinseci*) has been interpreted by Bradley (1998) as a term used to describe Ostmen/Viking Settlements. He suggests that there may have been a Hiberno-Norse settlement in the vicinity of the monastery in the period prior to the arrival of the Anglo-Normans. Further evidence for such a settlement may be inferred from the results of archaeological excavations at the site of Swords Castle gatehouse in 2014, which uncovered burials and structures beneath the castle found to date to the 11th century (Moraghan, Licence Ref.: C450/E4376).

Medieval Period (AD 1100–1600)

In the mid-12th century, the monastic site at Swords and its possessions were transferred to the Archbishop of Dublin. Swords subsequently became one of the principal archiepiscopal manors of Dublin. Following the Anglo-Norman invasion of 1169, the property of the monastery of Swords formed part of the lands of the See of Dublin, confirmed to Archbishop Laurence O'Toole in 1179 (McNeill, 1950). In 1197, King Richard granted a charter to Swords, by which each burgess was to pay 12 pence annually for his burgage. In a later charter, he confirmed the burgesses of Swords in their burgages and gave them the liberties and free customs of Dublin and established an annual rent of one shilling per burgage (Bradley, 1998; Ball, 1906).

Swords Castle (DU011-034001, National Monument No. 340) is located in the northern half of the constraints area, c. 240m northeast of the monastery. During the 13th century, the archbishops of Dublin occasionally resided at Swords. Expenditure on the upkeep of the castle was recorded and in the 1270s, a sum of £100 was accounted for the 'repairs of houses, mills, and other expenses in the manor of Swords' implying that mills along the River Ward were in existence at least as early as the late 13th century (Stalley, 2006).

Archbishop Alexander De Bicknor, whose episcopacy lasted from 1317 to 1349, was accused of misappropriating church monies and as a result an inquisition was held into the matter. Magnificent detail, not only of the arrangement of Swords Castle but of the elements within a 14th century manorial centre, are contained within the inquisition record which describe the castle as follows:

'*there are a hall; a chamber for the archbishop annexed to it, of which the walls are of stone and crenellated like a castle, roofed with shingles — there are a kitchen there with a larder, whose walls are of stone and roof of shingle, a chapel with stone walls and a shingle roof; there was a chamber for the friars with a cloister now thrown down; near the gate is a chamber for the constable and four chambers for knights and squires, roofed with shingles: under these a stable and bakehouse; there was a house for a derreria [dairy] and a carpentria [workshop], now thrown down. In the haggard a grange constructed of poles and covered with thatch, a timber granary roofed with wooden boards; a byre for housing nags and kine; these easements they extend at no value, for nothing is to be got from them either by letting or otherwise, since they need great repair, as they are badly roofed*.' (McNeill 1950, 175)

Such an extensive agricultural and industrial centre within the walls of the castle gives an indication of the level of activity that may have been carried out in the adjacent lands.

Many details of the castle have been discovered from excavations within the castle, initially by Tom Fanning (1975) and more recently by Mark Moraghan for IAC Archaeology (2014) and Christine Baker's community archaeology project (Bennett 2015:144; Licence Ref.: C450/E4619).

Post-Medieval Period (AD 1600–1800)

Swords was granted a charter and borough status during the reign of Elizabeth I and it appears that the castle was retained by the archbishop well into the 17th century, if not beyond. Samuel Lewis (1837) notes that:

'*James I, in 1603, granted to the archbishop of Dublin a confirmation of the privileges of the town, together with a weekly market on Monday; in this document the place is called the archbishop's manor of Swords. A grant of two additional fairs was made to it in 1699*.'

During the Wars of the Catholic Confederation in 1641 Swords Castle was used as a rendezvous for Confederate forces and attacked and routed by the forces led by Sir Charles Coote. Following the execution of Charles I, the aristocracy of Fingal remained loyal to the Royalist cause. A rebel force was defeated by Charles Coote at Swords in 1642.

Swords during the 18th century was a market and post-town and in 1837, Lewis describes the population as comprising '3722 inhabitants, of which number, 2537 are in the town'. He further describes the town as occupying a;

'*pleasing situation on the steep banks of a small but rapid stream, which discharges itself northwards into the inner extremity of the creek or pill of Malahide […] It consists chiefly of one wide street, a mile in length, formed of houses which, with but few exceptions, are of mean appearance. Fairs are held on March 17th and May 9th for cattle and pedlery; petty sessions on Wednesdays; and it is a constabulary police station. […] The soil is good, and the system of agriculture rapidly improving: there are several extensive corn-mills within the parish, and it is embellished with numerous seats and villas*.'

One of the mills that utilised the River Ward (DU011-034012) was located within the constraints area, c. 40m west of the castle on the eastern bank of the river adjacent to Mill Bridge (RPS 352, NIAH 1134016/02).

4 CONSTRAINTS STUDY

4.1 ARCHAEOLOGICAL HERITAGE

4.1.1 Recorded Monuments

A total of 22 RMP individual sites have been identified within the constraints area (one of which is a redundant record) and are listed below in Table 2. One of the sites is listed as a National Monument (Swords Castle, DU011-034001, Nat. Mon. 340) but none are further protected with a Preservation Order. Of the 22 sites, four are also listed as Protected Structures, one of which is also listed within the NIAH survey. (Figures 2, 3 and 4).

Table 2: National Monuments and Recorded Monuments located within the Constraints Area

RMP No.	Townland	Classification	Legal Status
DU011-035	Townparks, Swords Glebe, Swords Demesne, Commons West, Windmill Lands	Historic town	RMP
DU011-034001**	Townparks	Castle - Anglo-Norman masonry castle	RMP, Nat. Mon.
DU011-034012	Townparks	Mill - unclassified	RMP
DU011-034013	Townparks	Ritual site - holy well	RMP
DU011-034022	Townparks	Souterrain	RMP
DU011-101	Townparks/Miltonsfields	Burial ground	RMP
DU011-034002	Swords Glebe	Ecclesiastical enclosure	RMP
DU011-034003	Swords Glebe	Graveyard	RMP
DU011-034004**	Swords Glebe	Church	RMP
DU011-034005**	Swords Glebe	Round tower	RMP
DU011-034006	Swords Glebe	Cross	RMP
DU011-034007	Swords Glebe	Cross-slab	RMP
DU011-034008	Swords Glebe	Redundant record	No
DU011-034009	Swords Glebe	Graveslab	RMP
DU011-034010	Swords Glebe	Graveslab	RMP
DU011-034011	Swords Glebe	Graveslab	RMP
DU011-034014	Swords Glebe	Architectural fragment	RMP
DU011-034018	Swords Glebe	Burial ground	RMP
DU011-034021***	Swords Glebe	House - 17th century	RMP
DU011-070	Swords Demesne	Font (present location)	RMP
DU011-037	Forrestfields	Ritual site - holy well	RMP
DU011-034020	Windmill Lands	Midden	RMP

** listed as an RPS
***listed in both the NIAH survey and RPS

4.1.2 Summary of Previous Archaeological Fieldwork

A review of the Excavation Bulletin (1970–2020) has shown that 44 archaeological investigations have been carried out to date within the constraints area, 27 of which revealed nothing of archaeological significance. The investigations are summarised in Table 3 below and shown on Figure 5.

Table 3: Archaeological Fieldwork carried out within the Constraints Area

Ex. Bulletin Ref.:	Licence No.	Townland.	Site type	Results
2004:0648	04E1262	Swords Glebe	House extension within DU011-035	Monitoring revealed nothing of archaeological significance.
2012:248	12E341	Townparks	Extension to RPS 369	Monitoring revealed nothing of archaeological significance.
2017:194	17E032	Townparks	Adjacent to RPS 369	Monitoring revealed a medieval surface and watercourse.
2005:535	04E1553	Townparks	House extension within DU011-035	Monitoring revealed nothing of archaeological significance.
2002:0686	02E0608	Miltonsfields	Town centre development	Burials, possibly early medieval
2004:0650	-	Townparks	Development within DU011-035	Monitoring revealed nothing of archaeological significance.
2005:537	05E0183	Townparks	Development within DU011-035, to rear of RPS 369	Testing revealed nothing of archaeological significance.
1998:221	98E0317	Townparks	Development within DU011-035, to rear of RPS 369	Testing revealed nothing of archaeological significance.
2020:247	20E0329	Windmill Lands	Excavation following exposure of skeleton by erosion of riverbank	Medieval burials, preserved in-situ
2019:003	18E0755	Windmill Lands	Greenfield area adjacent to DU011-035	Linear features, pits and deposits of probable medieval date
1997:186	97E0272	Swords Glebe	Development to rear of RPS 362	Burials discovered during renovation of RPS 362
1995:110	95E0280	Townparks	Development within DU011-035	Testing revealed nothing of archaeological significance.
1996:140	95E0243	Townparks	Development within DU011-035,	Testing revealed nothing of archaeological significance.

			adjacent to Swords Castle (DU011-034001/RPS 351)	
1994:099	94E0088	Townparks	Development within DU011-035	Monitoring revealed nothing of archaeological significance.
2011:234	C450, E4376	Townparks	Restoration groundworks at Swords Castle (DU011-034001/RPS 351)	Walls and surfaces associated with castle gatehouse
2019:688	19E0192	Townparks	Development within DU011-035	Post-medieval cobbled surface
1971:15	-	Townparks	Restoration groundworks at Swords Castle (DU011-034001/RPS 351)	Burials and floor surfaces and structural remains associated with castle chapel
2002:0684	02E1279	Townparks	Development adjacent to Swords Castle (DU011-034001/RPS 351)	Medieval deposits
2009:363	C358, E4038, R184	Townparks	Demolition adjacent to Swords Castle (DU011-034001/RPS 351)	Monitoring revealed nothing of archaeological significance.
2001:474	01E0002	Townparks	Restoration groundworks at Swords Castle (DU011-034001/RPS 351)	Structural remains associated with castle gatehouse
2016:291	C450, E4676	Townparks	Restoration groundworks at Swords Castle (DU011-034001/RPS 351)	Yard surface, wall footings and pre-structural remains associated with castle
2002:0685	02E0382	Swords Glebe	Development within DU011-035	Monitoring revealed nothing of archaeological significance.
2018:806	18E0125	Townparks	Development within DU011-035	Medieval quarry and rubbish pits
1995:109	95E0244	Townparks	Development adjacent to DU011-035	Testing revealed nothing of archaeological significance.
1999:274	99E0320	Townparks	Development within DU011-035	Feature associated with 19th century quarrying
2008:495	08E0058	Windmill Lands	Development within DU011-035,	Early medieval middens (DU011-034020)

			adjacent to graveyard DU011-034003	
2015:260	15E0064	Townparks	Development within DU011-035	Testing revealed nothing of archaeological significance.
1998:218/ 2000:0347	98E0082/ 98E0082 ext	Windmill lands	Development within DU011-035	Medieval deposits
2004:0649	02E1179	Townparks	Development within DU011-035	Testing revealed nothing of archaeological significance.
1999:275	99E0554	Windmill Lands	Excavation following exposure of skull by erosion of riverbank	Medieval burials
2004:0652	04E1620	Townparks	Development adjacent to DU011-035 and DU011-101	Monitoring revealed nothing of archaeological significance.
2006:706	06E1029	Townparks	Development adjacent to DU011-035 and DU011-101	Testing revealed nothing of archaeological significance.
1998:219	98E0165	Townparks	Development within DU011-035	Monitoring revealed nothing of archaeological significance.
-	03E0329	Townparks	Development within DU011-035	Testing revealed nothing of archaeological significance.
1996:141	95E0035	Swords Glebe	Greenfield within DU011-035, to rear of DU011-034021/RPS 362	Testing revealed nothing of archaeological significance.
-	02E0313	Townparks	Development within DU011-035	Testing revealed nothing of archaeological significance.
-	04E1248	Townparks	Development within DU011-035	Monitoring revealed nothing of archaeological significance.
-	03E0751	Townparks	Development within DU011-035	Monitoring revealed nothing of archaeological significance.
1994:100	94E0191	Townparks	Development within DU011-035	Post-medieval pit and gully
1998:220	98E0443	Townparks	Development within DU011-035	Testing revealed nothing of archaeological significance.
2017:091	16E0605	Townparks	Development adjacent to DU011-035	Testing revealed nothing of archaeological significance.
2002:0687	02E0898	Townparks	Town centre development	Testing revealed nothing of archaeological significance.
2005:536	05E0525	Balheary Demesne	Town centre development	Testing revealed nothing of archaeological significance.
-	03E0053	Seatown	Town centre	Testing revealed nothing of

		West	development	archaeological significance.

4.1.3 Topographical Files

A review of the files held by the National Museum of Ireland identified five groups of stray archaeological finds that have been recorded within the constraints area (Table 4), all clustered in and around the ecclesiastical enclosure (DU011-034002) at the western side of the study area, now the site of St. Columbas Church.

Table 4: Stray archaeological finds within the Constraints Area

NMI No.	Object(s)	Townland.	Location
1945:18	Sheela-na-gig	Swords Glebe	No. 4 Brackenstown Road
1969:40-57	2 Bronze Pins; Bronze/Brass Finger Ring and Mount; 2 Coins; Decorated Bone Frag; Bone Pin; 2 Tanged Iron Knives; 2 Lead Frags; Metal Object; Brass Buckle; 4 Glass Beads; Frag of Green Enamel	Swords Glebe	C. 10m NW of St Columbas Church
1973:59-88	Portion of Whetstone; 7 Green-glazed Potsherds; Large Base-wall Sherd; 3 Brown Glazed Potsherds; Frag of Pottery Leg; 17 Misc Abraded Sherds	Swords Glebe	C. 10m S of St Columbas Church
1974:10a-j	2 Flint Chips; 50 Medieval Potsherds	Swords Glebe	The Old Vicarage, c. 75m NE of St Columbas Church
1978:11-12	2 Flint Frags	Swords Glebe	C. 15m W of St Columbas Church

4.1.4 Aerial Photographic Analysis

Inspection of the aerial photographic coverage of the constraints area held by the Ordnance Survey (1995-2013), Google Earth (2001-2020) and Bing Maps failed to identify any previously unrecorded sites of archaeological potential within the study area.

4.1.5 Areas of Archaeological Potential

Areas of Archaeological Potential (AAPs) can be defined as parts of the landscape that possess the potential to contain archaeological remains due to the presence of topographic features such as rivers, lakes, turloughs, high defendable ground and bog. Rivers and lakes are a focus for human habitation due to the obvious transport and food resources. They also have the potential to preserve organic archaeological deposits or artefacts such as wood or leather, which do not usually survive within the alkaline conditions associated with terrestrial archaeology. Rivers and lakes may have also played a role in prehistoric ritual, as significant artefacts from the prehistoric periods and into the early medieval period, are often found within river bed deposits. All areas that contain such features within the constraints area, and their margins,

should be considered as possessing archaeological potential. The Ward River runs through the constraints area.

4.2 ARCHITECTURAL HERITAGE

4.2.1 Protected Structures

A total of 21 individual or groups of protected structures are located within the constraints area. These are listed within the Record of Protected Structures included within the Fingal Development Plan (2017-2023) and are subject to statutory protection under the Planning and Development Act. The structures are listed in Table 5 below (Figure 3).

Of the 21 structures, 16 are also listed within the NIAH survey and a further 3 are listed as recorded monuments. One further structure is both included as a recorded monument and listed in the NIAH. Swords Castle (RPS 351), is a National Monument in state guardianship (Nat. Mon. 340).

Table 5: RPS within the Constraints Area

RPS No.	Townland	Classification	Legal Status
RPS 345*	Balheary Demesne/Townparks	Bridge	RPS
RPS 346*	Townparks	Library (early 20th century)	RPS
RPS 347*	Townparks	Semi-detached teachers house (19th century)	RPS
RPS 348*	Townparks	Semi-detached teachers house (19th century)	RPS
RPS 349*	Townparks	School (19th century)	RPS
RPS 350*	Townparks	Court House (19th century)	RPS
RPS 351**	Townparks	Anglo-Norman masonry castle	RPS, Nat. Mon.
RPS 352*	Townparks	Bridge	RPS
RPS 353*	Townparks	Teachers house (19th century)	RPS
RPS 354*	Townparks	School (19th century)	RPS
RPS 356*	Swords Demesne	Church	RPS
RPS 357*	Townparks	School (19th century)	RPS
RPS 358*	Swords Demesne	Parochial House	RPS
RPS 360a*	Swords Glebe	Church	RPS
RPS 360b**	Swords Glebe	Round tower	RPS
RPS 360c**	Swords Glebe	Medieval tower	RPS
RPS 361*	Swords Glebe	Sextons house	RPS
RPS 362***	Swords Glebe	Vicarage	RPS
RPS 369*	Townparks	School (19th century)	RPS
RPS 372*	Townparks	Bank (early 20th century)	RPS
RPS 908	Townparks	Bridge	RPS

*included in the NIAH survey
**listed as an RMP
***Listed as an RMP and included in the NIAH survey

4.2.2 Swords Castle

The Bishops Palace in swords, more commonly known as Swords Castle, is the best example of a medieval episcopal manor that survives upstanding in Ireland. The castle sits at the north end of Main Street, at the central-western side of the constraints area, forming a part of the town park area. Swords castle is recorded on the RMP (DU011-034001), the RPS (RPS 351) and as a National Monument (No. 340) and has been subject to ongoing restoration works for many years, involving various archaeological investigations (4.1.2). In 2013 a conservation plan for the castle was produced for Fingal County Council (Kelly and Cogan, 2013), which sets out a number of policies and recommendations, both short and long term, for the conservation, enhancement and future use of the castle. Any works on a National Monument require ministerial consent.

4.2.3 Architectural Conservation Areas (ACAs)

An Architectural Conservation Area is defined as 'A place, area, group of structures or townscape, taking account of building lines and heights, that is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or that contributes to the appreciation of a protected structure, and whose character it is an objective of a development plan to preserve.' (Architectural Heritage Protection Guidelines 2011, 40). Chapter II of Part IV of the Planning and Development Act 2000 states that that all development plans must now include objectives for preserving the character of ACAs.

ACAs are subject to statutory protection and are a key architectural heritage constraint. There are no ACAs within the constraints area.

4.2.4 National Inventory of Architectural Heritage: Built Heritage Survey

A total of 25 structures or groups of structures are located within the constraints area, which have been included within the NIAH survey (Table 6). Whilst inclusion in the survey does not result in statutory protection, these buildings may be added to the RPS by Fingal County Council in the future. Of the 25 structures, 17 are also listed within the RMP and/or RPS thus meaning that they do receive statutory protection under the National Monuments Act and Planning and Development Act (Figures 2, 3 and 4).

Table 6: NIAH within the Constraints Area

NIAH No.	Townland	Classification	Statutory Protection?
11335002*	Townparks	Court house	Yes
11335003*	Swords Demesne	Parochial house	Yes
11335004*	Townparks	School master's house	Yes
11335005*	Townparks	School	Yes

NIAH No.	Townland	Classification	Statutory Protection?
11335006*	Townparks	School	Yes
11335007*	Townparks	Library	Yes
11335008*	Balheary Demesne/Townparks	Bridge	Yes
11335013	Townparks	Post box	No
11335015*	Townparks	Teacher's house	Yes
11335016	Townparks	House	No
11343002*	Townparks	Bridge	Yes
11343003	Townparks	House	No
11343004***	Swords Glebe	Vicarage	Yes
11343005	Townparks	Presbytery/parochial/curate's house	No
11343006*	Swords Glebe	Sexton's house	Yes
11343007*	Swords Glebe	Church	Yes
11343008	Townparks	Building - misc	No
11343009*	Townparks	Bank/financial institution	Yes
11343010*	Swords Demesne	Church/chapel	Yes
11343011	Windmill Lands	Garda station/constabulary barracks	No
11343012*	Townparks	School	Yes
11343013**	Townparks	Holy well	Yes
11343014*	Townparks	School	Yes
11343015	Townparks	Water pump	No
1134301	Townparks	Bank/financial institution	No

*listed as an RPS
**listed as an RMP
***Listed as an RMP and RPS

4.2.5 Designed Landscapes

The first edition Ordnance Survey map of County Dublin (1843) shows the extent of demesne landscapes as shaded portions of land within the constraints area. These were established as a naturalised landscaped setting for the large houses of the landed gentry. Later OS mapping (1871-1909) can also indicate demesne extent, although they are not always shaded. Not all demesne landscapes are subject to statutory protection. However, where a demesne exists in association with a protected structure (dependant on the preservation of the landscape), this can be considered to be part of the curtilage and as such falls within the remit of the Planning and Development Act 2000.

A total of three designed landscapes have been identified from the desktop resource wholly or partially within the constraints area (Figure 1). These are described below in Table 7. Of the three landscapes, two retain their principal structures one of which, Cremona House, lies within the Constraints area, although neither structure is listed on the RPS or NIAH.

The NIAH have carried out a desk-based survey of identifiable demesnes within Fingal; however, none of the demesnes located within the constraints area are included within the survey.

Table 7: Designed Landscapes within the Constraints Area

Demesne Name	NIAH Garden Survey No.	Townland	Additional Comment
Swords House demesne	Not included	Swords Demesne	Remnant tree belt present at northern edge. Demesne heavily impacted on by modern development. Most of the demesne lies within the constraints area
Balheary House demesne	Not included	Balheary Demesne	Principal structure survives as do large portions of the demesne landscape, outside constraints area. Only the southern tip lies within constraints area and is heavily impacted by modern development.
Cremona House demesne	Not included	Cremona	Principal structure and its small demesne largely unchanged with the exception of the addition of modern sheds in the northern field. Demesne is entirely within the constraints area.

5 SUMMARY AND CONCLUSIONS

The purpose of this constraints study is to provide an analysis of the archaeological, architectural and cultural heritage resource within a study area in order to inform the design projects required as part of the Sustainable Swords Project in County Dublin. The study area contains all or part of 17 townlands, encompassing the majority of Swords town centre, including approximately three quarters of the zone of archaeological potential for the historic town of Swords, which is a recorded monument (DU011-035).

In addition to the historic town the Record of Monuments and Places (RMP) records a further 21 archaeological sites within the constraints area, the majority of which are part of a cluster associated with an ecclesiastical site, now occupied by St Columba's Church. Arguably the most significant RMP site within the constraints area is the episcopal manor of Swords Castle, which is the best-preserved monument of its kind in the country. The castle is recorded as a Protected Structure (RPS 351) and is a National monument (No. 340) in state guardianship.

The presence of the ecclesiastical site and Swords Castle would have made the surrounding area a focus of activity throughout the early medieval and medieval periods, as evidenced by the remaining RMP sites, most of which date to this era. Prior to this, there is currently no conclusive evidence for prehistoric activity within the constraints area beyond stray finds of flint flakes; however, the Ward River would have been a valuable resource at this time and has been identified as an Area of Archaeological Potential.

A review of the Excavations Bulletin (1970–2020) has revealed that 44 archaeological investigations have been carried out to date within the constraints area, 27 of which revealed nothing of archaeological significance. The majority of the remainder identified evidence of medieval activity, including burials. It remains possible that previously unrecorded archaeological features are present beneath the current ground level, particularly within small areas of undisturbed greenfield that survive intact within the constraints area.

All recorded archaeological sites should be considered as key cultural heritage constraints and avoided where possible. Any works that may affect Swords Castle will require ministerial consent and should also be informed by the Swords Castle Conservation Plan carried out for Fingal Council in 2013. All AAPs should also be considered as archaeological constraints and avoided where possible. Where avoidance is not possible, potential impacts should be minimised through design. This includes the use of clear span structures across water ways, for example. Any works that may affect recorded monuments, or the zone of archaeological potential for the historic town of Swords, will require detailed archaeological impact assessments with a suite of mitigation measures designed to reduce or remove any potential impacts upon the archaeological resource.

An analysis of the built heritage within the study area has provided a holistic view of the built heritage resource, with the later half of the post medieval period well-illustrated by the presence of a substantial number of school-related and church-related buildings, as well as banks, a library, courthouse and garda/constabulary barracks. Such structures that are architecturally and socially important are listed within the Fingal Development Plan and NIAH survey for County Dublin. A total of 25 structures or groups of structures are located within the constraints area, which have been included within the NIAH survey. Whilst inclusion in the survey does not result in statutory protection, these buildings may be added to the RPS by Fingal County Council in the future and 17 of the 25 structures are already listed within the RMP and/or RPS, thus they do receive statutory protection under the National Monuments Act and Planning and Development Act.

A total of 21 individual or groups of Protected Structures are located within the constraints area. Protected structures should be considered as key cultural heritage constraints during the design of the upgraded infrastructure with direct impacts and impacts on settings avoided where possible.

It should be noted that there are no Architectural Conservation Areas within the constraints area.

Three designed landscapes have been identified partially or wholly within the constraints area, two of which still retain their principal buildings, though these are not recorded on the NIAH, RPS or RMP and only one, Cremona House, falls within the constraints area. Swords House demesne and the southern tip of Balheary House demesne that lies within the constraints area have been largely covered in residential development, with the exception of the northernmost extreme of the constraints area (Balheary House demesne). The third demesne, associated with Cremona House, is largely undisturbed and comprises the north-eastern portion of the townland of Cremona. The small demesne lies almost entirely within the constraints area at the southern extreme.

These landscapes should be considered as cultural heritage constraints during the design of the required infrastructure. It is possible that original features, such as demesne walls that border the existing road network survive and it should be noted that analysis undertaken to date is desk based, field inspection will be required to assess the exact nature and extent of the designed landscapes within the constraints area.

With the exception of the demesne landscapes, archaeological and architectural constraints within the study area are largely confined to its north-western half, particularly the townlands of Townparks and Swords Glebe.

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CARTOGRAPHIC SOURCES

Ordnance Survey maps of County Dublin, 1843-1909

ELECTRONIC SOURCES

www.excavations.ie – Summary of archaeological excavation from 1970–2020.

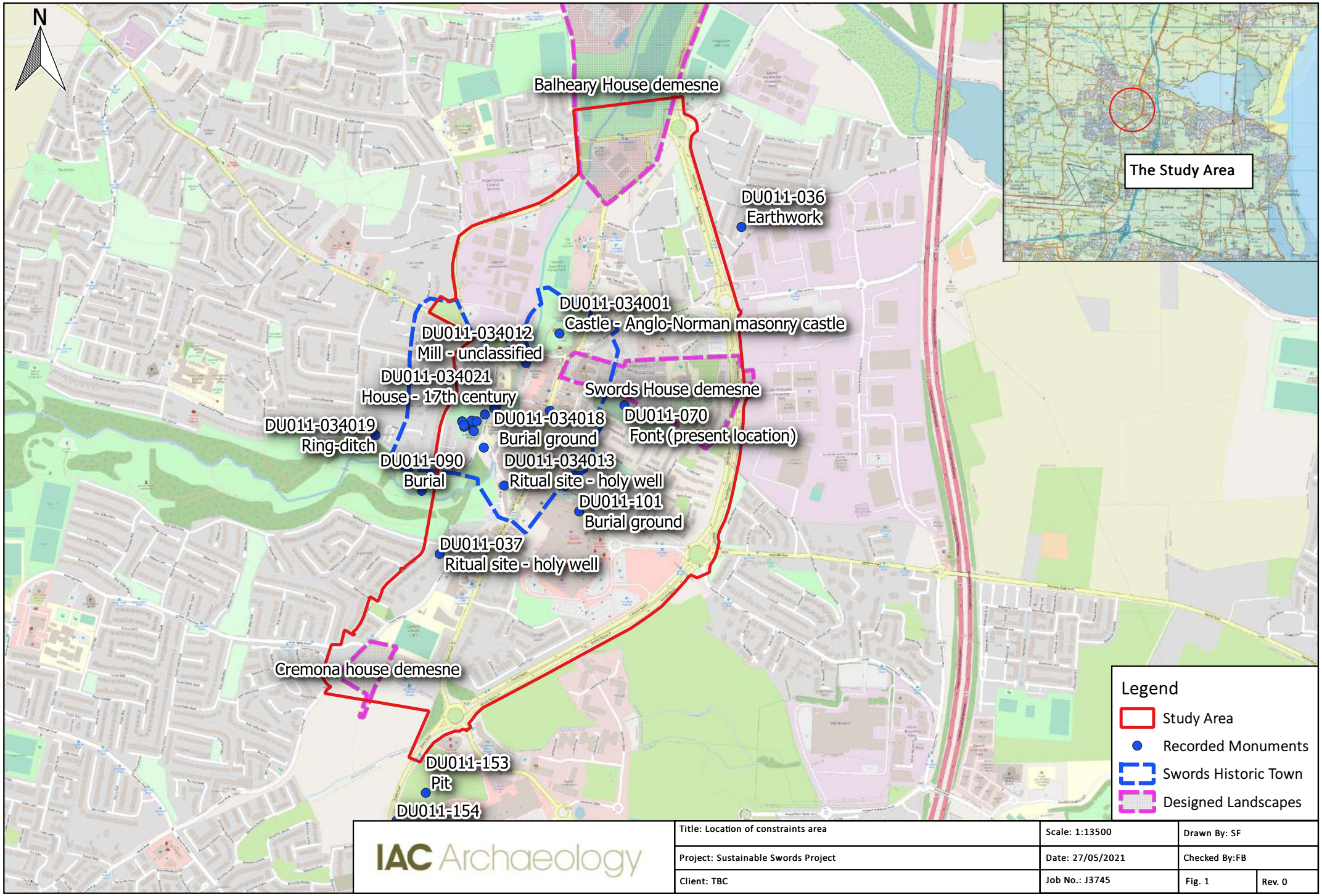
www.archaeology.ie – DoHLGH website listing all SMR/RMP sites.

www.osiemaps.ie – Ordnance Survey aerial photographs dating to 1995, 2000, and 2005 and 6-inch/25-inch OS maps.

www.heritagemaps.ie – The Heritage Council web-based spatial data viewer which focuses on the built, cultural and natural heritage.

www.googleearth.com – Satellite imagery of the proposed development area.

www.bingmaps.com – Satellite imagery of the proposed development area.



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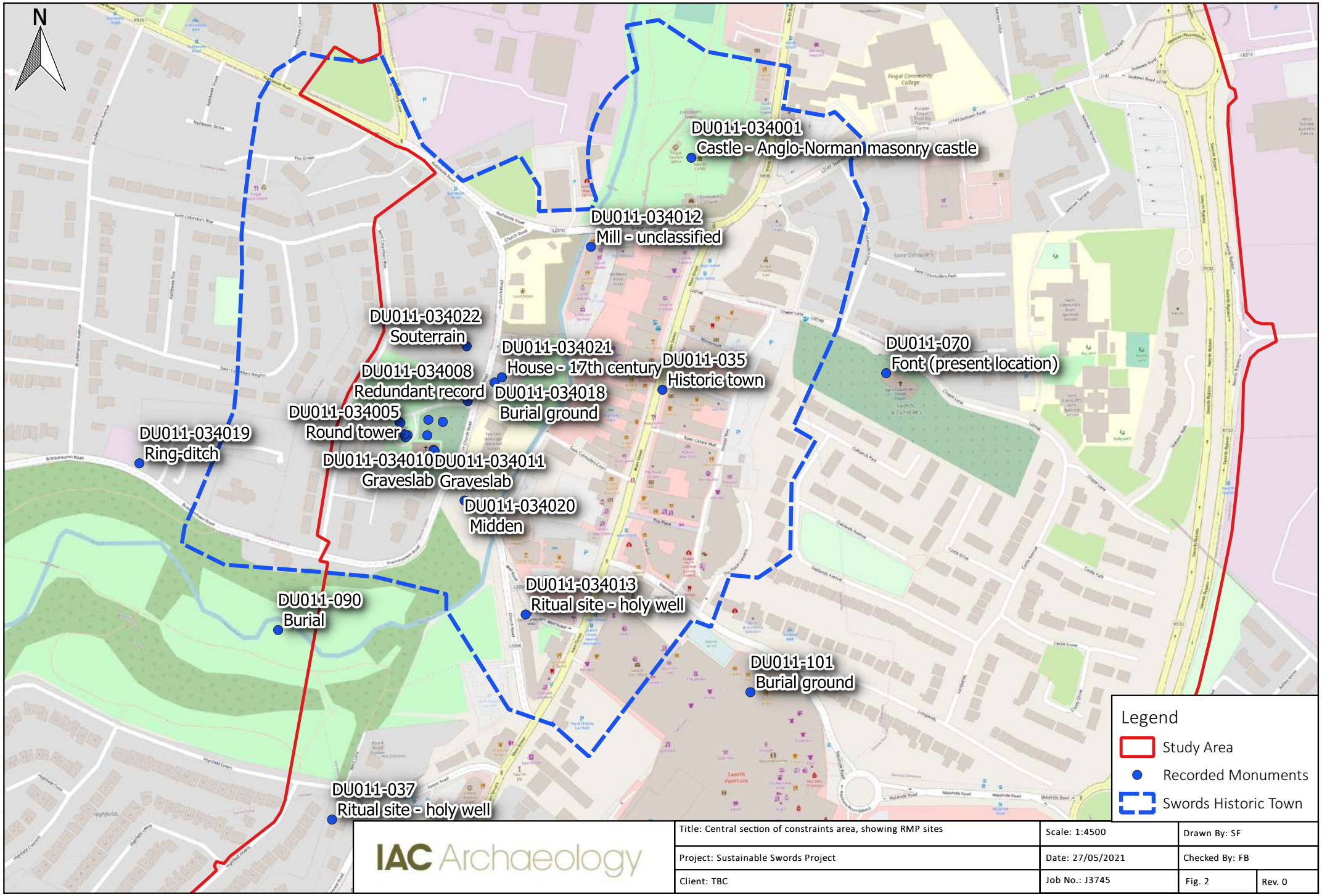
Client: TBC	Job No.: J3745	Fig. 1	Rev. 0



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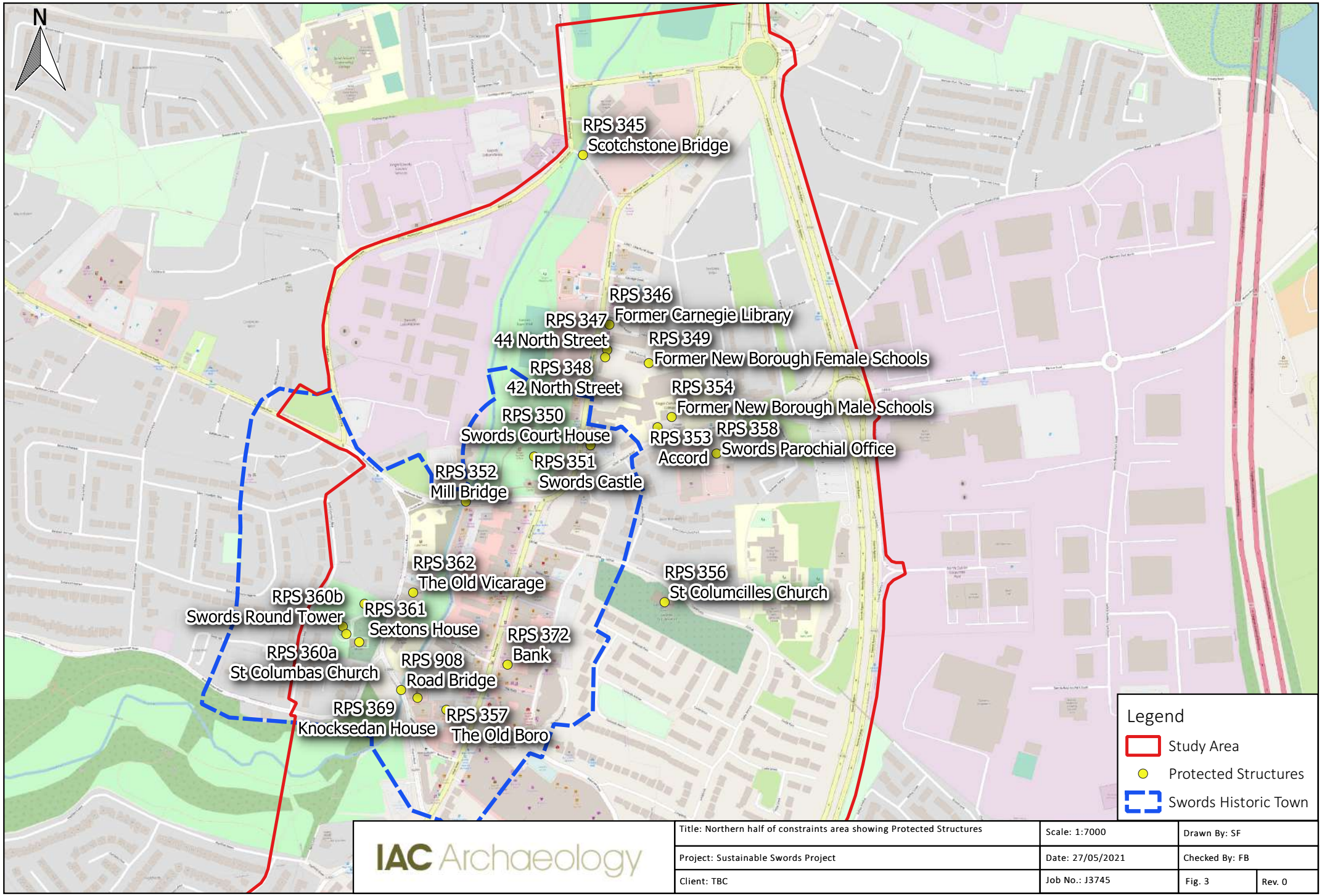

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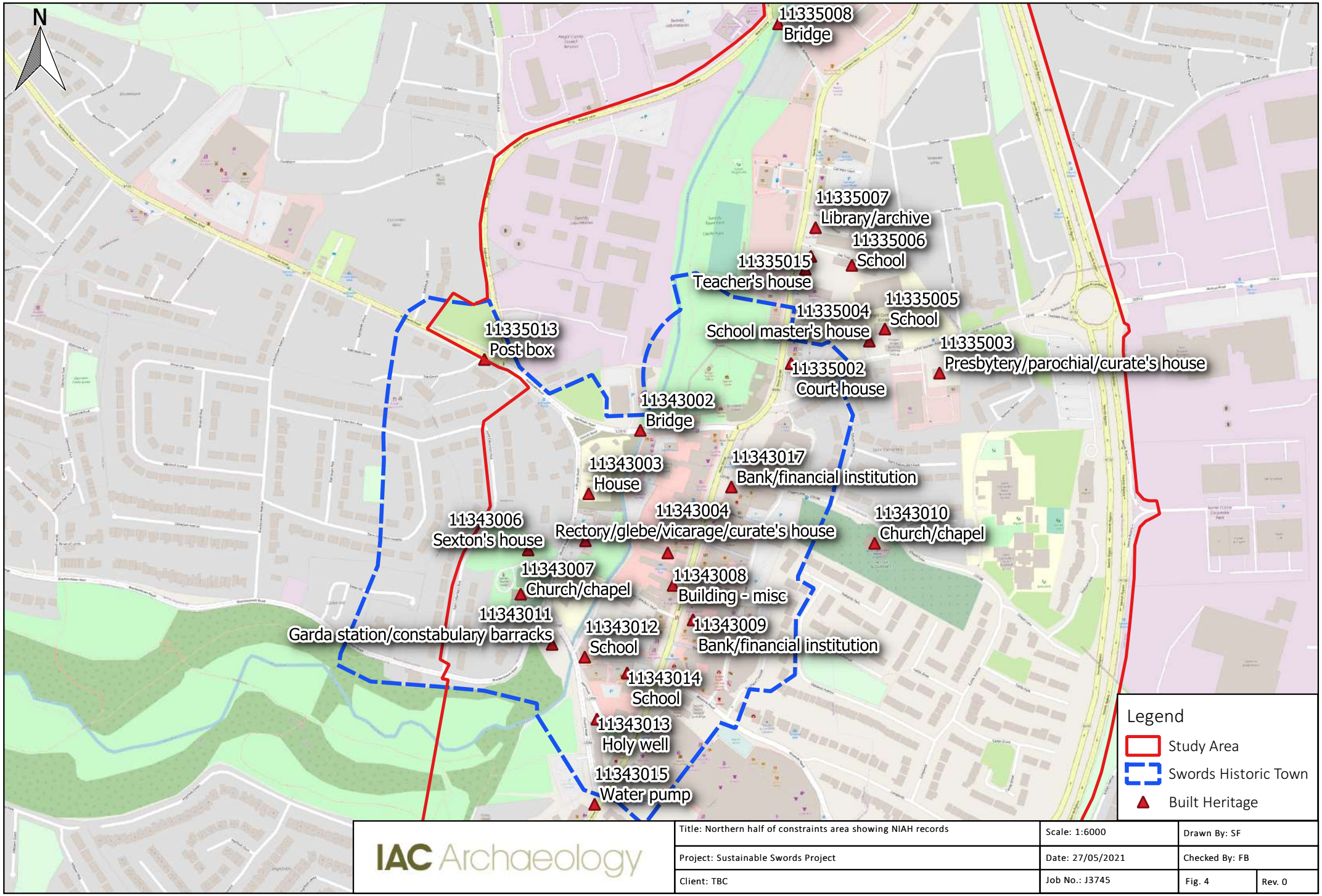
N
11335008
Bridge
11335007
Library/archive
11335006
School
11335015
Teacher's house
11335005
School
11335004
School master's house
11335013
Post box
11335003
Presbytery/parochial/curate's house
11335002
Court house
11343002
Bridge
11343017
Bank/financial institution
11343003
House
11343004
Rectory/glebe/vicarage/curate's house
11343010
Church/chapel
11343006
Sexton's house
11343007
Church/chapel
11343008
Building - misc
11343011
Garda station/constabulary barracks
11343012
School
11343009
Bank/financial institution
11343014
School
11343013
Holy well
11343015
Water pump
Legend
Study Area
Swords Historic Town
Built Heritage
IAC Archaeology
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Date: 27/05/2021
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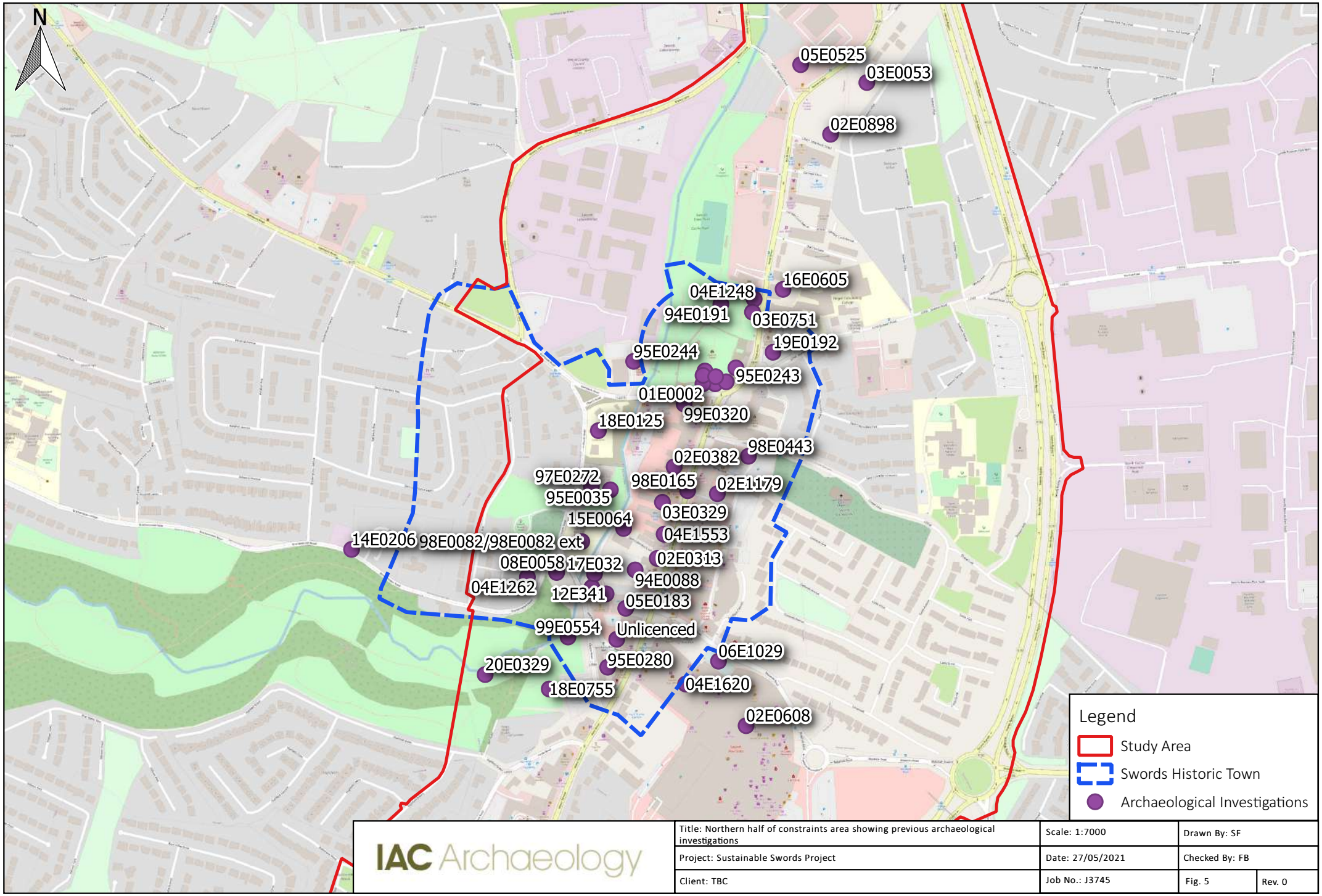
Job No.: J3745
Fig. 4
Rev. 0



IAC Archaeology

Title: Northern half of constraints area showing previous archaeological investigations	Scale: 1:7000	Drawn By: SF	
Project: Sustainable Swords Project	Date: 27/05/2021	Checked By: FB	
Client: TBC	Job No.: J3745	Fig. 5	Rev. 0

Table of Contents

1. Introduction to Green-Schools

Green-Schools is Ireland's leading environmental management and education programme for schools. Since 2008 the programme has aimed to increase the number of students and teachers who actively travel to school (walk, cycle, scoot) as well as promoting other sustainable modes of travel such as Park n' Stride, carpool and public transport.

There has since been a marked increase in the number of students who travel to school using sustainable modes with an average reduction of car journeys between 20-26%. The 2016 census also indicated an increase in the number of children who cycle to school, this is the first such increase in a generation. It is important to note that there has also been a cultural shift over the past decade which has resulted in a desire from students to travel to school in a sustainable way with 80% of students preferring to walk, cycle, scoot, Park n' Stride, carpool or use public transport.

2. Background to School Engagement

The school community of Swords has immense potential to make a huge difference and determine how Swords is shaped and re-designed for the benefit of current and future students. Swords has a population of 43,000 people, within that, nine schools, both Primary and Secondary, volunteered to take part in this project, which comprises approximately 4,500 students. Engaging with these schools and the wider school community is critical to ensure that the young citizens of Swords have a chance to inform how their town develops, whilst improving community health, transforming active travel opportunities and enhancing the air quality in Swords.

Primary schools who took part in the study were: Broadmeadow Community School, Holy Family Senior National School, Holywell ETNS, St. Cronan's Junior National School and Swords ETNS.

Secondary schools who took part were: Fingal Community College, Loreto College, St. Finian's Community College and Swords Community College.

Further school engagement is planned in the form of interactive educational workshops which will be carried out either in the classroom or virtually on the topic of 'Swords Past, Present & Future' to engage the students in a conversation about how they would like to see their town develop in the future.

2.1 Survey Analysis

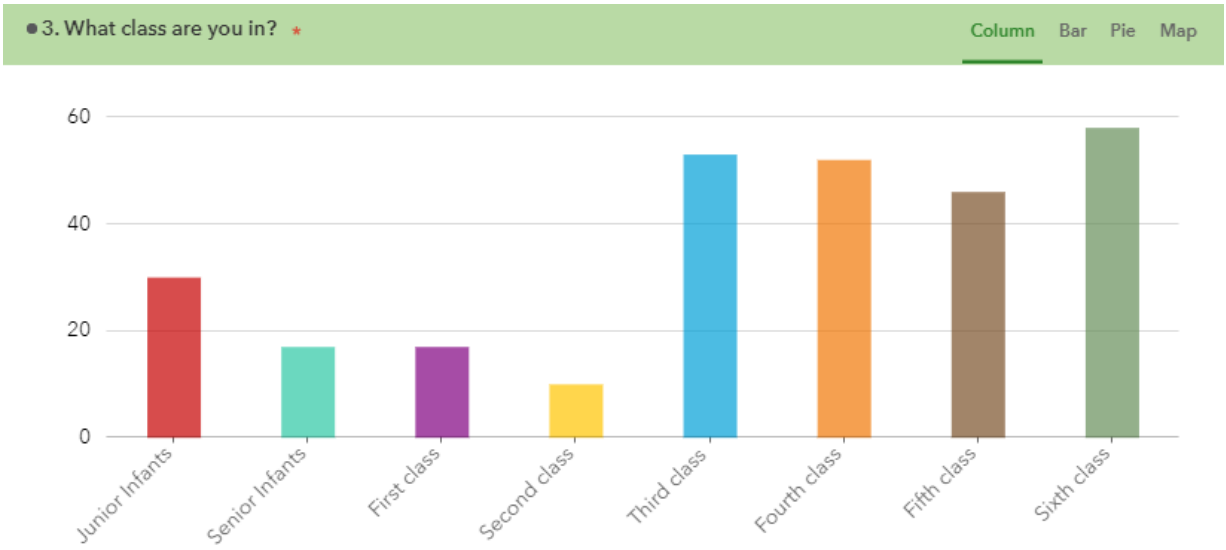
To engage with schools Green-Schools firstly devised a travel survey to send electronically to parents of the students of the nine participating schools. This survey was carefully designed using ArcGIS, to be clear and user friendly, while also maximising the data it would provide. Questions focused on how students usually travel to school, how they would prefer to travel to school, what are their perceived barriers to active travel, what improvements would encourage them to choose an active way to travel to and from school. The survey was very well received, with 647 responses.

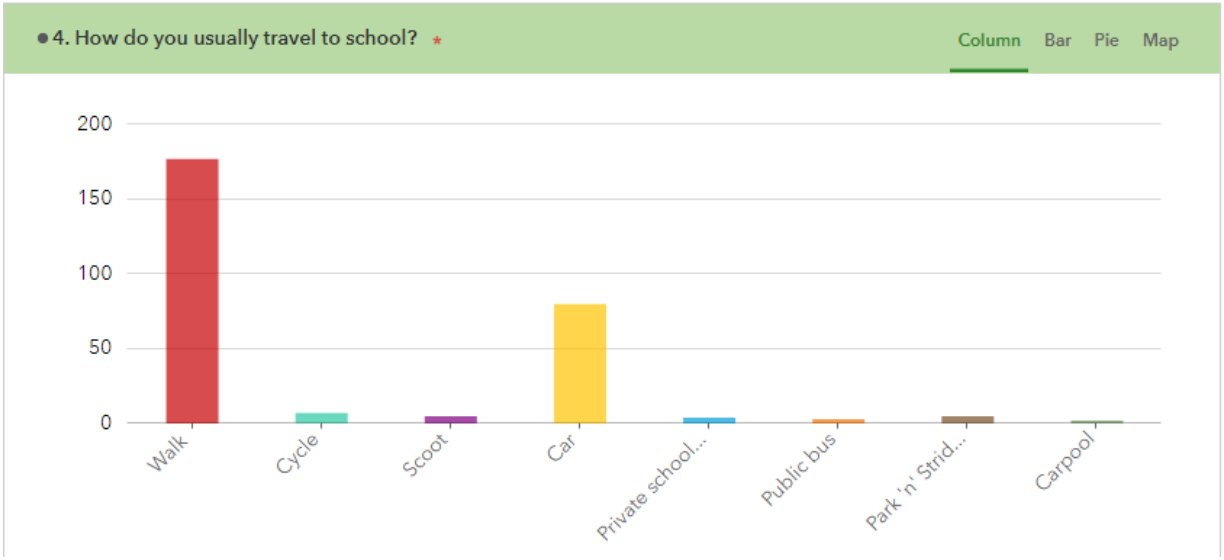
Some examples of the survey data are in graph form below. (More survey data is available upon request.)

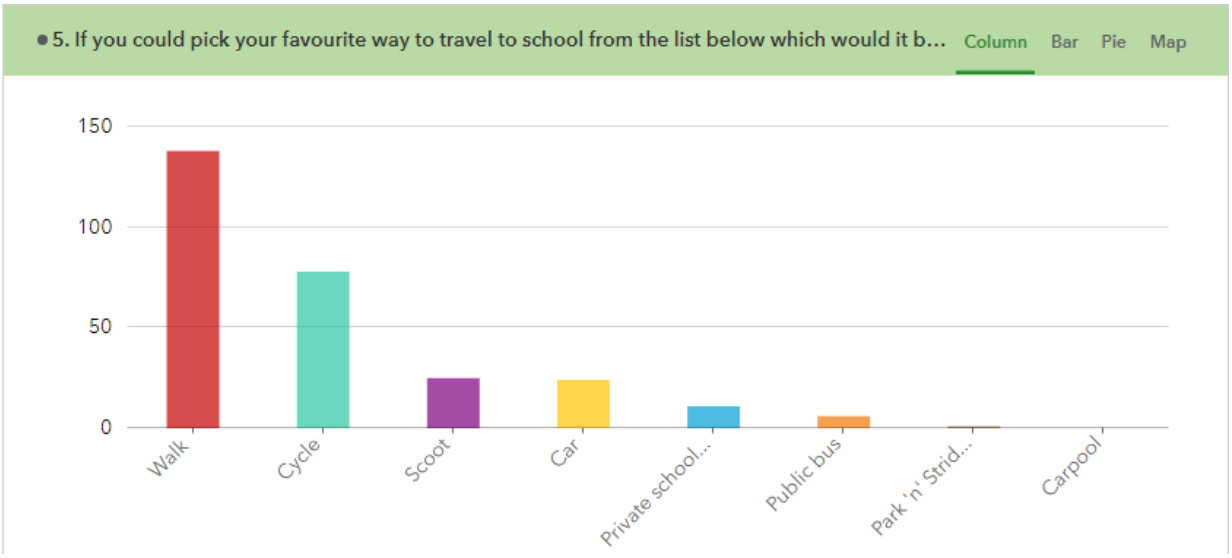
Primary School Survey Responses

Figure 2.1.1 Primary School Survey response example

Note : All graphs are given in count data , not percentages.

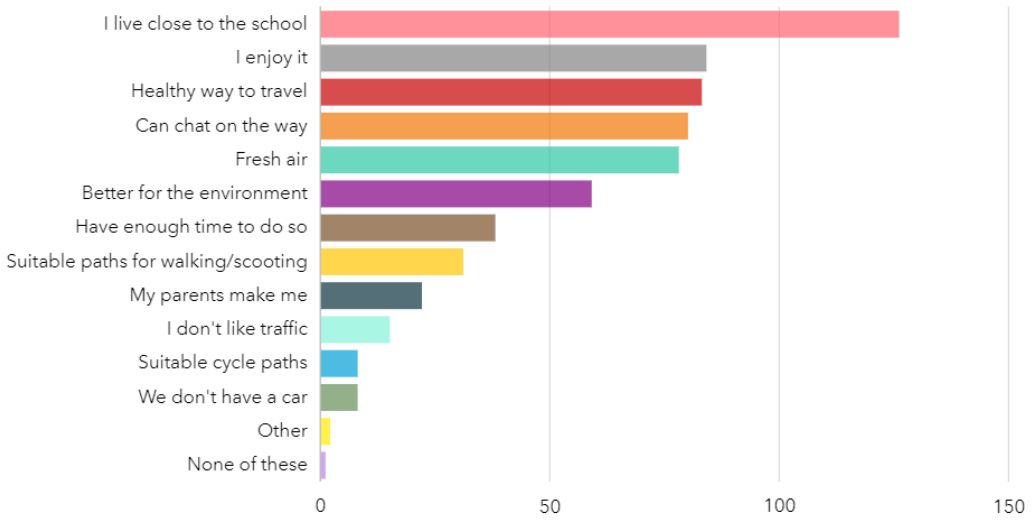





5. If you could pick your favourite way to travel to school from the list below which would it b...
Column
Bar
Pie
Map
150
100
50
0
Walk
Cycle
Scoot
Car
Private school...
Public bus
Park 'n' Strid...
Carpool

● 6. As you walk, cycle or scoot to school, what motivates you to do so? *

Column Bar



Answers	Count	Percentage
I live close to the school	126	44.52%
I enjoy it	84	29.68%
Healthy way to travel	83	29.33%
Can chat on the way	80	28.27%
Fresh air	78	27.56%
Better for the environment	59	20.85%
Have enough time to do so	38	13.43%
Suitable paths for walking/scooting	31	10.95%
My parents make me	22	7.77%
I don't like traffic	15	5.3%
Suitable cycle paths	8	2.83%
We don't have a car	8	2.83%
Other	2	0.71%
None of these	1	0.35%

● 6. As you travel to school by car, Park 'n' Stride or carpool, please tell us why? *

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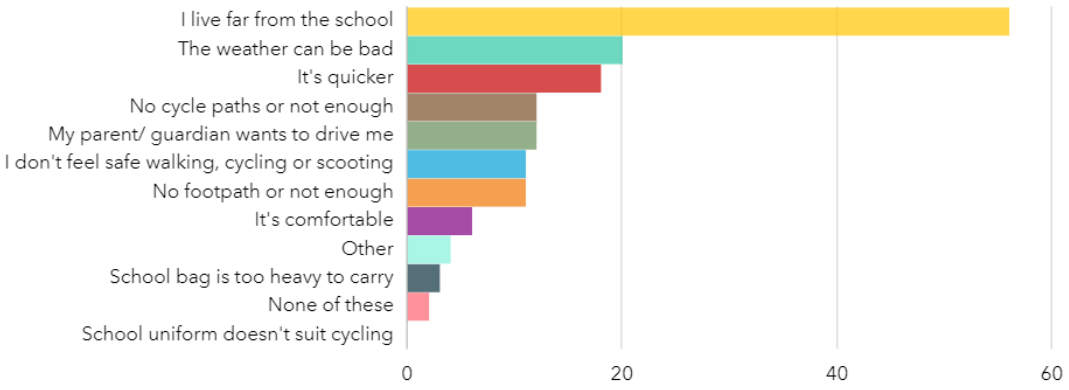
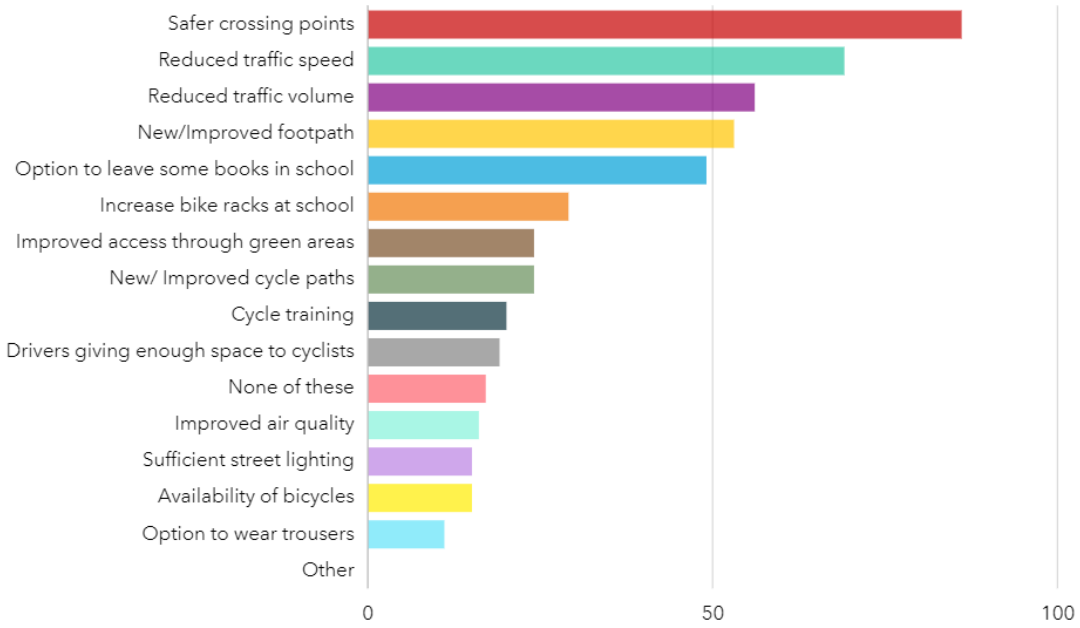


● 7. What would make you feel more comfortable as you walk, cycle or scoot to school? *

Column Bar



Answers	Count	Percentage
Safer crossing points	33	11.66%
New/ Improved cycle paths	27	9.54%
None of these	24	8.48%
New/Improved footpath	23	8.13%
Reduced traffic volume	22	7.77%
Reduced traffic speed	16	5.65%
Improved access through green areas	16	5.65%
Cycle training	11	3.89%
Sufficient street lighting	9	3.18%
Drivers giving enough space to cyclists	8	2.83%
Increase bike racks at school	7	2.47%

Primary School Analysis

The results from the survey were particularly interesting as to show the levels and reasons why families choose different modes of transport to get to school.

For primary schools it was observed that a considerably large portion use active travel to get to school, with walking (63%), cycling (2.5%) and scooting (2%). Whilst such a high percentage of students walking is encouraging, the considerably lower figures for cycling and scooting are noteworthy. The survey question of "If you could pick your favourite way to travel to school?" adds further to picture, with respondents giving cycling (28%) and scooting (9%). Though primary students would potentially like to take another mode of transport they may not feel able too.

When those who already travel to school in an active way were asked what would make them feel more comfortable about walking/ cycling to school the top four points that were selected were: safer crossing points (30%), reduced traffic speed (24%), reduced traffic volume (20%) and new/improved footpaths (19%).

By considering students responses as to their day-to-day experience of the paths and roads in Swords, considerations and improvements can be made to enable more to walk, cycle and scoot and to make the routes safer. It can also aid future development of the area in order to see what issues hinder people from choosing active travel modes.

Secondary School Analysis

The results of the secondary school survey revealed the following breakdown of those traveling in a sustainable way- walking (32%), cycling (6%), public bus (9%), private bus (4%) and with car travel at (40%). When asked how they would prefer to travel, walking was (34 %), cycling (15%), private bus (8%), public bus (6%) and car at (28%). [Though it is to be noted that the survey was conducted during Covid-19, and this may attribute to the decrease in wanting to use public transport)

With such a considerable amount travelling by car, and also expressing that it is not their preferred mode, it highlights further opportunity to improve the infrastructure and address concerns in order to encourage sustainable travel modes.

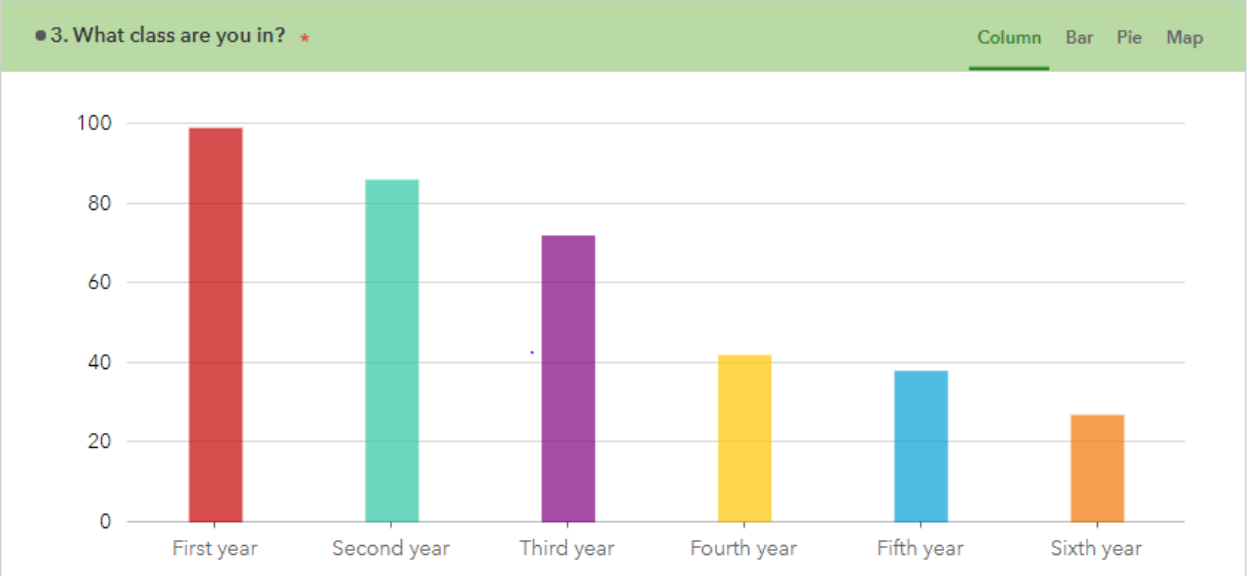
When respondents who do not walk, cycle or scoot were asked what would encourage them to, the answers were a mixture of behavioral and infrastructural. The option to leave books at school was (19%) and an option to wear trousers (15%) both rated highly. The second most popular response was improved access through green areas (18%) with other options which also featured quite highly being: new/improved cycle paths (12%), new/improved footpaths (12%) and safer crossing points (10%).

Both for primary and secondary school a large portion of students walk, with 63% and 34% respectively. Though it must be noted that the above attitudes to active travel on the school journey only reflect the eight schools surveyed, and not all of the schools in Swords. However, it

does indicate that there is huge potential in encouraging and supporting the school communities in the area to walk, scoot or cycle to school.

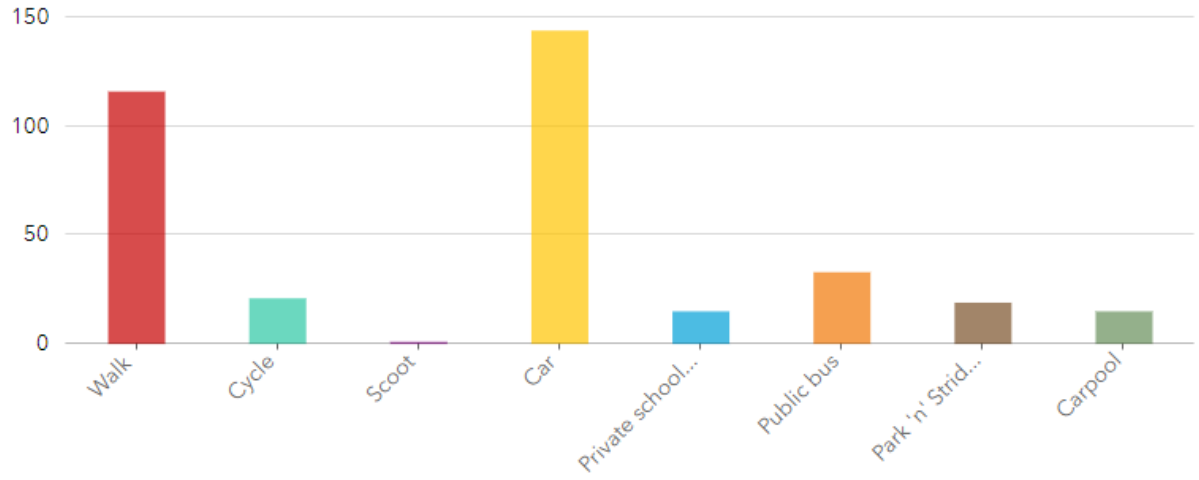
Secondary School Survey Responses

Figure 2.1.2 Secondary School response example



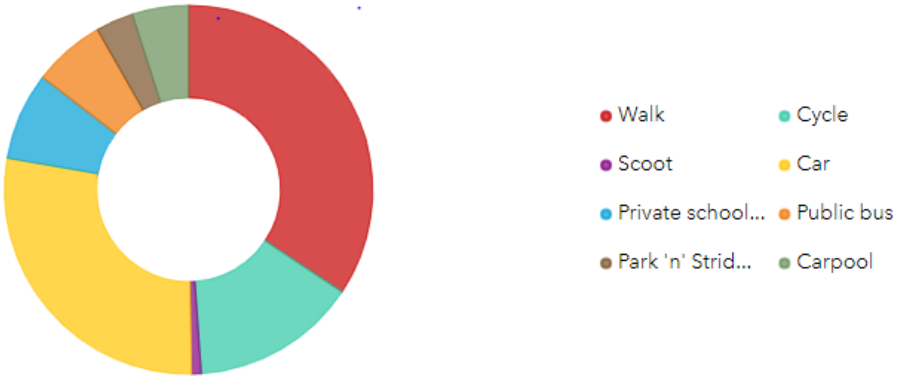
● 4. How do you usually travel to school? *

Column Bar Pie Map



Answers	Count	Percentage
Walk	116	31.87%
Cycle	21	5.77%
Scoot	1	0.27%
Car	144	39.56%
Private school bus	15	4.12%
Public bus	33	9.07%
Park 'n' Stride	19	5.22%
Carpool	15	4.12%

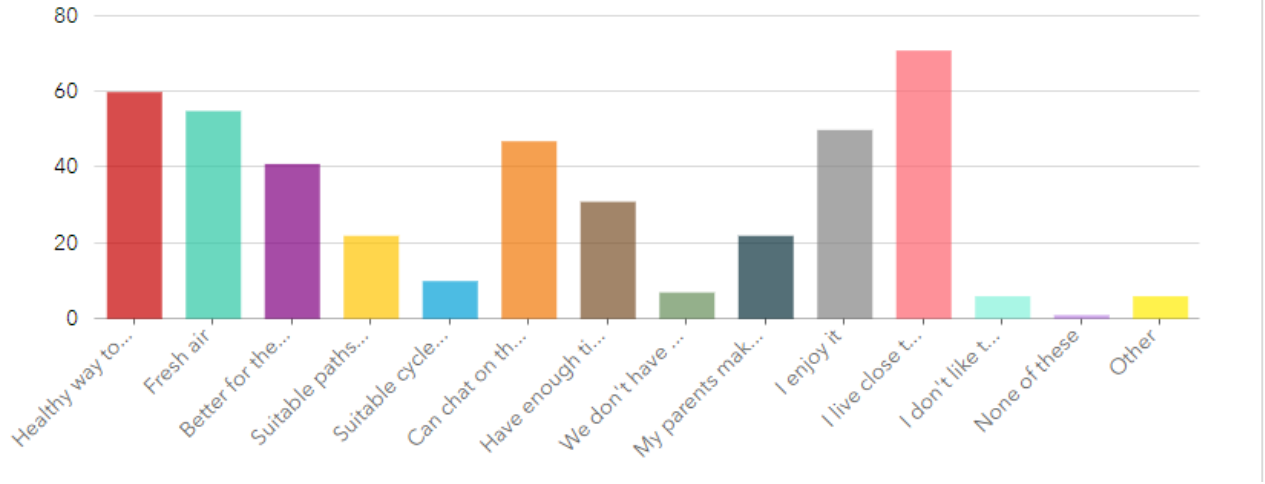
● 5. If you could pick your favourite way to travel to school from the list below which would it b... Column Bar Pie Map



Answers	Count	Percentage
Walk	125	34.34%
Cycle	53	14.56%
Scoot	3	0.82%
Car	102	28.02%
Private school bus	28	7.69%
Public bus	23	6.32%
Park 'n' Stride	12	3.3%
Carpool	18	4.95%

● 6. As you walk, cycle or scoot to school, what motivates you to do so? *

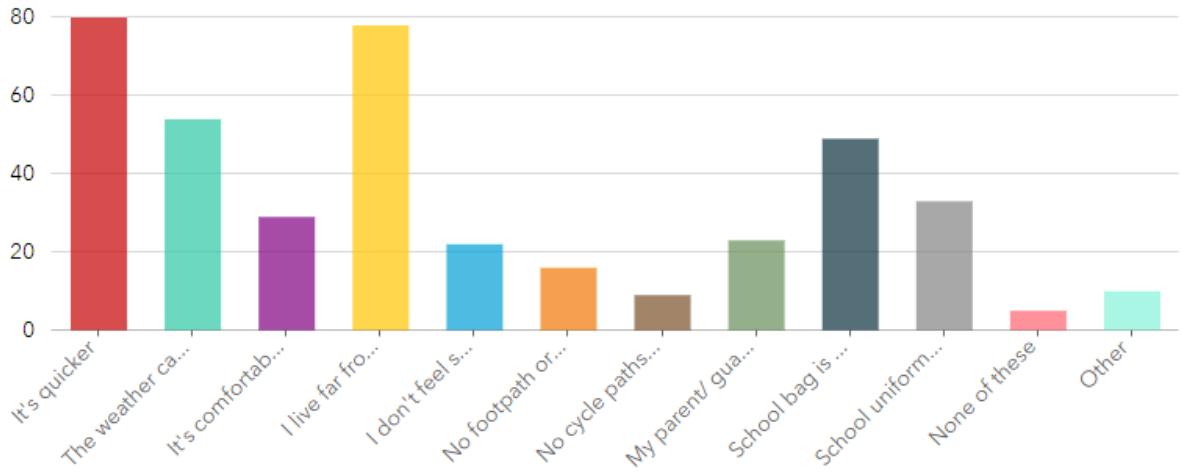
Column Bar



Answers	Count	Percentage
Healthy way to travel	60	16.48%
Fresh air	55	15.11%
Better for the environment	41	11.26%
Suitable paths for walking/scooting	22	6.04%
Suitable cycle paths	10	2.75%
Can chat on the way	47	12.91%
Have enough time to do so	31	8.52%
We don't have a car	7	1.92%
My parents make me	22	6.04%
I enjoy it	50	13.74%
I live close to the school	71	19.51%

● 6. As you travel to school by car, Park 'n' Stride or carpool, please tell us why? *

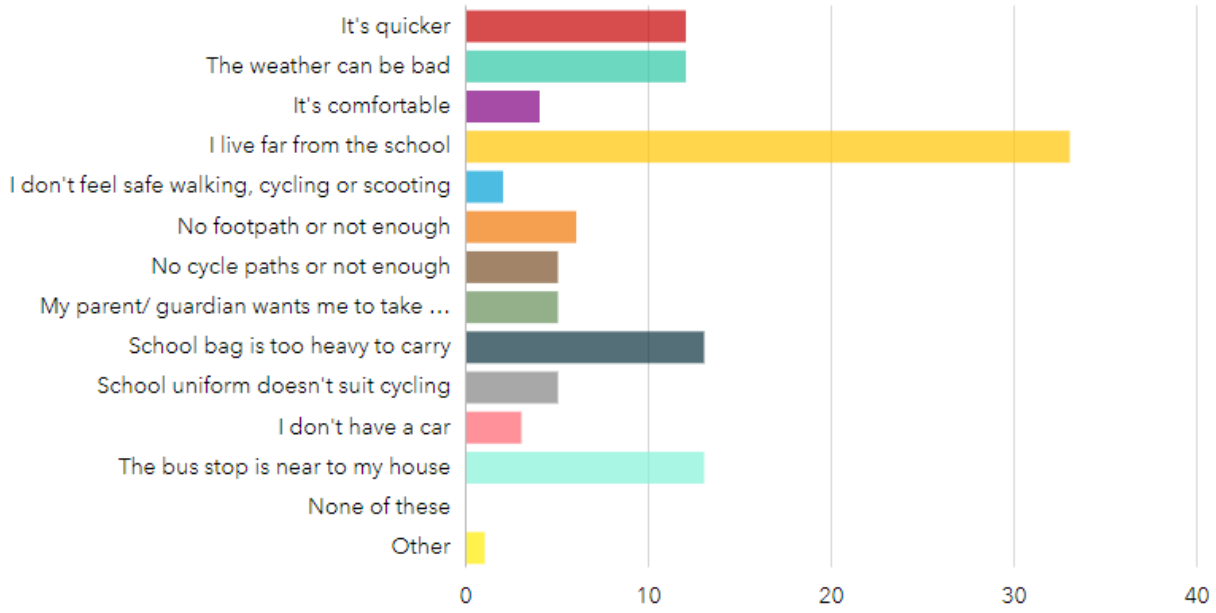
Column Bar



Answers	Count	Percentage
The weather can be bad	54	14.84%
It's comfortable	29	7.97%
I live far from the school	78	21.43%
I don't feel safe walking, cycling or scooting	22	6.04%
No footpath or not enough	16	4.4%
No cycle paths or not enough	9	2.47%
My parent/ guardian wants to drive me	23	6.32%
School bag is too heavy to carry	49	13.46%
School uniform doesn't suit cycling	33	9.07%
None of these	5	1.37%
Other	10	2.75%

● 6. As you travel to school by bus, please tell us why? *

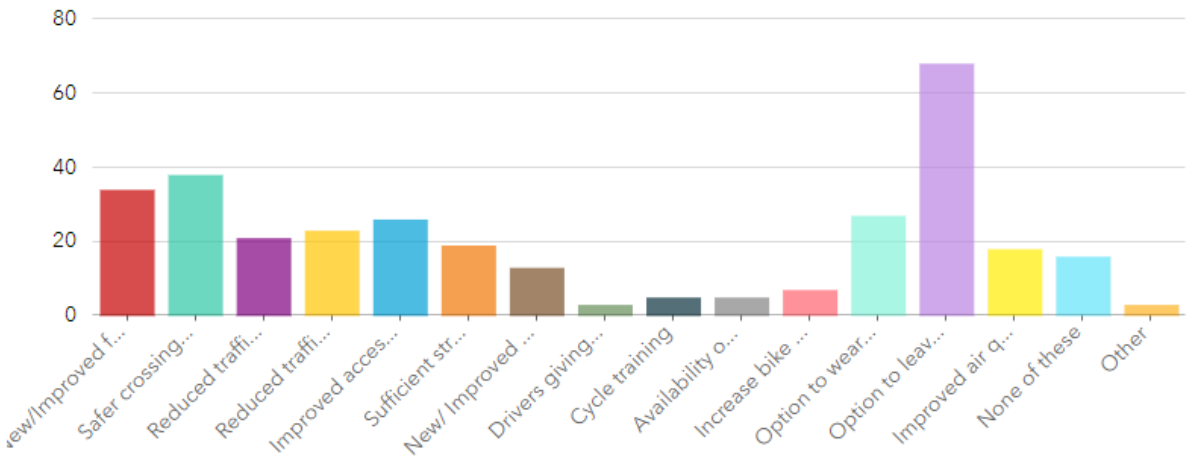
Column Bar



Answers	Count	Percentage
It's quicker	12	3.3%
The weather can be bad	12	3.3%
It's comfortable	4	1.1%
I live far from the school	33	9.07%
I don't feel safe walking, cycling or scooting	2	0.55%
No footpath or not enough	6	1.65%
No cycle paths or not enough	5	1.37%
My parent/ guardian wants me to take the bus	5	1.37%
School bag is too heavy to carry	13	3.57%
School uniform doesn't suit cycling	5	1.37%
I don't have a car	3	0.82%

● 7. What would make you feel more comfortable as you walk, cycle or scoot to school? *

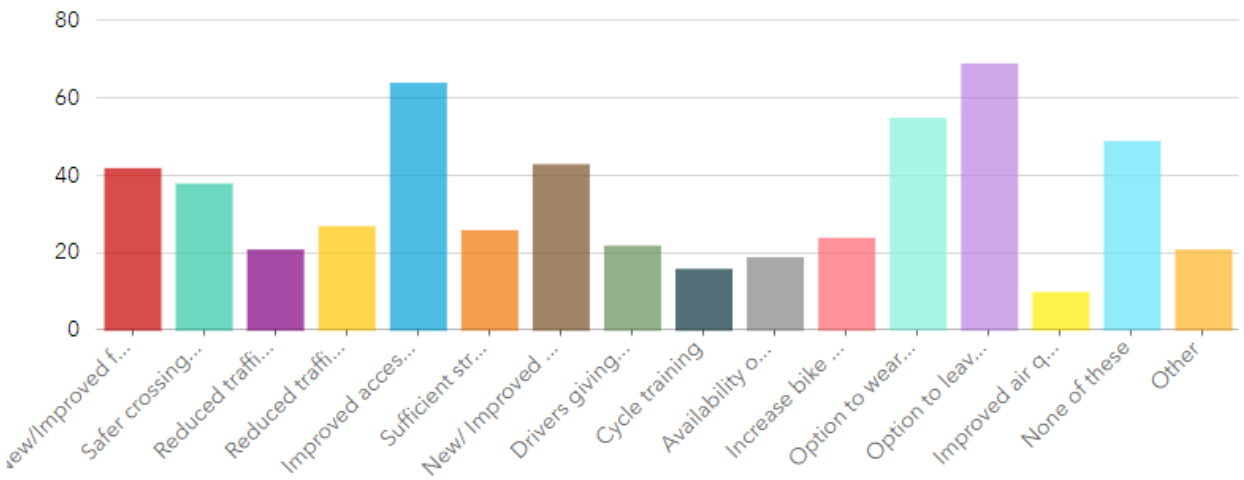
Column Bar



Answers	Count	Percentage
New/Improved footpath	34	9.34%
Safer crossing points	38	10.44%
Reduced traffic speed	21	5.77%
Reduced traffic volume	23	6.32%
Improved access through green areas	26	7.14%
Sufficient street lighting	19	5.22%
New/ Improved cycle paths	13	3.57%
Drivers giving enough space to cyclists	3	0.82%
Cycle training	5	1.37%
Availability of bicycles	5	1.37%
Increase bike racks at school	7	1.92%

● 7. What would encourage you to walk, cycle or scoot to school? *

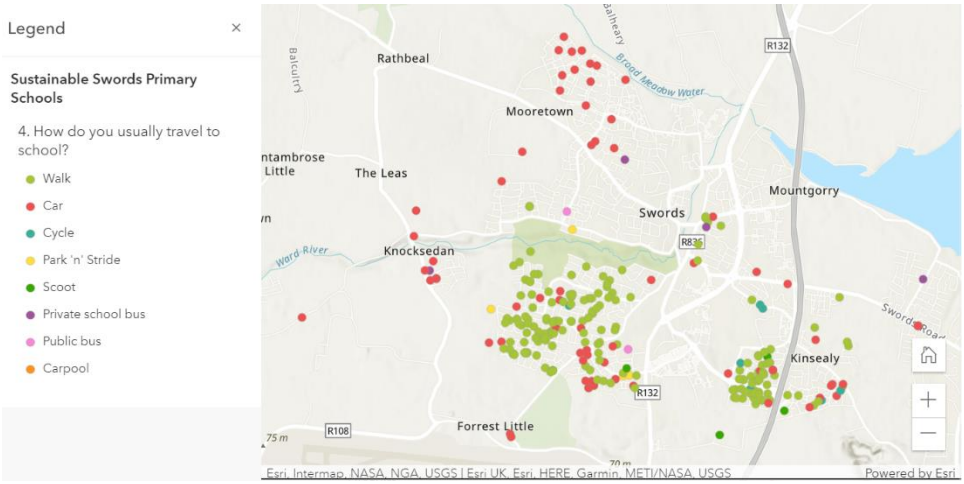
Column Bar



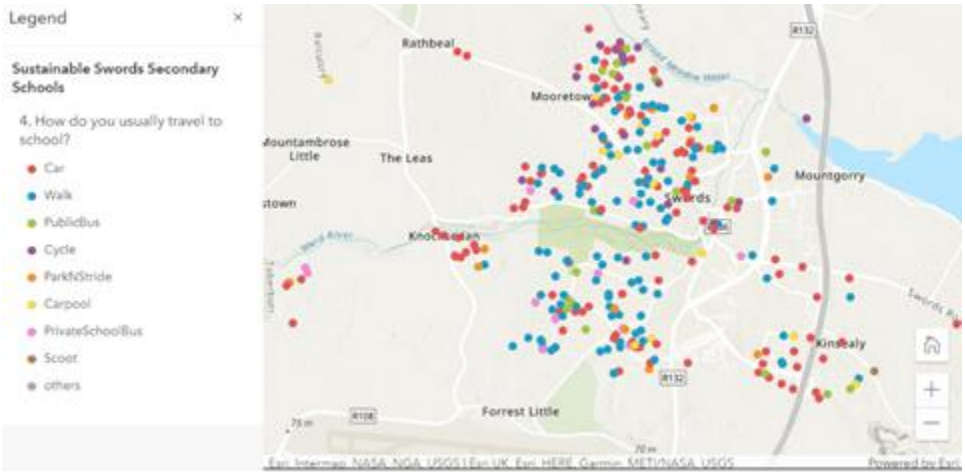
Answers	Count	Percentage
New/Improved footpath	42	11.54%
Safer crossing points	38	10.44%
Reduced traffic speed	21	5.77%
Reduced traffic volume	27	7.42%
Improved access through green areas	64	17.58%
Sufficient street lighting	26	7.14%
New/ Improved cycle paths	43	11.81%
Drivers giving enough space to cyclists	22	6.04%
Cycle training	16	4.4%
Availability of bicycles	19	5.22%
Increase bike racks at school	24	6.59%

2.2 Mapping Analysis

As part of the survey respondents were asked to locate on a map where they started their school journey. This along with their previous responses to the survey creates a better understanding of how the families travelled through the area and any issues they faced. These dots are colour coded to represent the different modes of transport. The data as a whole was processed through ArcGIS. This allowed the creation of maps showing various different levels of information. Catchment areas of both primary and secondary schools were created. It was observed that the area from which secondary school students travelled was considerably wider than that of just the Swords environs, with some travelling from further afield such as the towns of Oldtown and Portrane. This larger catchment area would influence travel choices.



Map of Primary School Students Departure Point and Mode of Travel.



Map of Secondary School Students Departure Point and Mode of Travel.

Investigating the presence or lack of students taking a certain mode of transport from certain areas can provide information as to how infrastructure is used. In general, it can be noted that a large portion of both primary and secondary school students walk to school as they do not live

far from the schools. The data set of the location of red dots representing car transport is of particular use as to understanding how to promote active travel. In some cases, the usage of car is not an active choice, but one made because they feel they have no other option. For example, the cluster of red dots by Knocksedan Estate was coupled with the other answers the respondents gave. They expressed that they would like to travel to school by walking or cycling through the River Valley Ward Park but were not able to due to permeability and safety issues. Having map location tied to responses from the survey, along with information provided by the schools greatly enhanced analysis of the factors hindering active travel. It illuminated issues which may otherwise not have been detected and strengthened other observations. For example, only a small amount of respondent's cycle to school, despite Swords having various cycle paths through estates. Respondents who lived along routes with cycle paths around Boroimhe stated that they did not feel safe cycling on these cycle paths due to the volume of traffic. The largest portion of students who cycled were secondary students from the Applewood estate. This estate is relatively new and has good provision of cycle paths.

The maps produced below are some of which were created. More maps are available on request, displaying different factors such as scales, information pertinent to only primary or secondary schools, individual schools or different travel modes.

2.3 Walkability and Cycleability Audit Analysis

Green-Schools also carried out was walkability and cycleability audits of the most popular routes to school at the nine participating schools. A walkability audit is a methodical examination of how pedestrian friendly a route may or may not be. The word 'walkability' means 'the ability to walk'. To conduct these audits an ArcGIS app was used. When photographs of an issue are taken, example 'uneven footpath', the issue location is pinned on GoogleMaps. A report from the audit can be created which includes the type of issue, a detailed description of the issue, photographic evidence of the issue, and the GoogleMap pin location. From a broad analysis of these reports, the survey feedback and conversations with the schools, the items below have been identified as the main infrastructural issues which need to be addressed in order to encourage active travel and increase safety on the routes.

Issue 1: Junctions & roundabouts

Crossing junctions and roundabout exits as a pedestrian and cyclist, in some areas of Swords, can be a challenge. There are often no official crossing points i.e. Pedestrian Crossings or Zebra crossings (just dropped kerbs) and junctions are often very wide with no island to break up the crossing. If junctions exist on a child's route to school, parents are less inclined to allow their children to travel to school independently in an active way.

Left: roundabout on Applewood closest to Swords ETNS, Right: junction near St. Cronan's JNS.

When designing these junctions, consideration must be given to cyclists and pedestrians too as to how they use the road.

Junction of Forest Road and L2300

Comments from travel surveys:

"The crossings at Airside, including the roundabout by B&Q/ Ryanair are difficult to get across even for an adult."

"There needs to be a lollipop lady at the junction of Forest Rd and Boroimhe as this is very dangerous area for crossing."

Schools affected: Holy Family SNS, Holywell ETNS, St. Cronan's Junior National School, Swords ETNS.

Recommendations:

- For future development of roundabouts in the area priority/ right-of-way should be given to pedestrians/ cyclists.
- On routes that children use on their journey to school where there are roundabouts and major junctions, motorists should be advised with signage and road markings that there will be children crossing.
- It needs to be obvious to pedestrians where they should position themselves when crossing the road i.e. a pedestrian crossing/ zebra crossing etc. and on smaller roads if dropped kerbs are used to indicate a crossing point, there should always be a corresponding dropped kerb on the other side of the road.
- If the junction is very wide an island should be included so that the distance to cross is broken up.
- Ramps might be needed approaching roundabouts and junctions to slow down traffic.

Issue 2: Permeability

Swords benefits from some lovely green belts and parks. However, these green spaces often serve to divide up an area. Segregated greenway infrastructure is vital for the continuing improvement and development of safe sustainable journeys to school. This was a point that featured heavily in survey responses from the school community with people commenting that if there was increased connectivity and permeability it would enable them to choose an active travel option over the car that would also get them to school quicker over a shorter distance.

Aerial View of Ward River Valley Park, which acts as a connection hub for all the housing estates surrounding it (Google Maps).

The main green space of the Ward River Valley Park and a green area referred to locally as 'The Jacko', while being an asset also serves to divide the eastern part of Swords. Many housing estates (e.g Knocksedan Demesne) back onto these parks with families having to travel to the other side of the park to school. Lack of pedestrian routes into the park from the town and various housing estates, mean that the park does not act to link and provide permeability to the wider area. Safety concerns such as secluded areas, lack of lighting and antisocial behaviour also deter people from using the park.

Areas of the park where it is dark and enclosed, such as the bridge that is near to St. Cronan's Avenue, would benefit from lighting to improve the feeling of safety.

Another permeability issue in the Swords area concerns two particular schools currently accessed off the Ashbourne Road (R125)- Swords Community College and Broadmeadow Community National School. The site where these schools are located is in the middle of farmland. Connectivity between the area of Swords Manor estate and these schools is currently via a long almost circular route along the main road. If there was a connection to walk or cycle to the school directly from this housing estate through one field the journey would be far shorter and would allow more active travel. Whilst it appears that plans to link the two areas are potentially being developed, it is of noted that if the project was prioritised it could potentially reduce traffic in the area considerably.

The schools of Swords Community College and Broadmeadow CNS are separated by the width of a small field to housing estates where pupils come from. improved permeability here would help increase numbers of walk/cycle.

Comments from travel surveys:

Concerning Ward River Valley Park:

"Walking through the Jacko Park is fine in the afternoon and very quick for me but I don't feel safe going through park in the morning. It would be great to make access for walking and cycling through this park at all times." (Loreto College)

"Some parents are travelling from the River Valley side of Swords and don't feel safe walking through the Jacko in the early mornings." (St Cronan's JNS).

"It would be great if there would be lighting provision on the footpath on this area where the journey to school starts as the area can be very dark at night and especially during winter months. Light up the area would help to make it feel safer to walk."

Concerning connectivity to schools:

"I would like to see a path opening up from Swords Manor to the school, it would take me 5 minutes if this would happen where as currently it's a 35 minute cycle and I feel it's dangerous in the winter months when dark and slippy'."

"We live in Parkview near Abbeyvale and a path leading down to the school from here would be fantastic. We are literally 5 minutes from the school but have to drive the whole way around as there is no path or entrance. We would gladly walk/cycle if we could.'"

Recommendations:

- Create a Greenway through the Ward River Valley Park.
- Increase lighting in the park.
- Enhance Garda patrol through the park.

- Linkage from Swords Manor to Swords Community College and Broadmeadow Community School across field.

Issue 3: Pedestrian Crossings

Having suitable pedestrian crossings where students and the community want to cross the road is key in making routes more accessible and some crossings would benefit from being more visible with additional signage.

Two Unmarked Crossings on the Rathingle Road (left), and River Valley Road (right). Both these crossings link from nearby schools to parks.

Another issue that occurred at some of the pedestrian crossings is the width of the road coupled with fast moving traffic. In particular, at Holywell ETNS, though there is a signalled pedestrian crossing, families do not feel safe crossing the very busy two laned R125. Part of the issue is that this road connects to the entrance and exit to the M1 motorway. Motorists are entering and exiting at high speed and are often not aware that there is a pedestrian crossing ahead and a school nearby, therefore more children on foot.

Pedestrian crossing R125 near the M1 slip road that a large number of students attending Holywell ETNS use.

Schools affected: Fingal Community College, Holywell ETNS, Loreto College, St Finian's, St. Cronan's JNS.

Recommendations:

- Pedestrian crossing need to be very visible to motorists. If a standardized design was used they would all be instantly recognizable.
- Speed should be reduced approaching these crossing which are located near schools.
- Regular Garda speed checks at these locations.

Issue 4: Public Transport

Public transport was raised by the school community as an issue of concern. In particular the provision of public buses as an option to travel to school would provide an alternative to car transport. Schools stated that travelling by bus was a popular option for secondary school students, especially those schools which were located near Main Street. It was noted that there was a lack of private school buses for schools. Considering that Swords schools tend have a very large student population, ranging from 300 up to 700 students' private buses would be a viable option also. As Swords continues to expand, public bus routes need to service these new communities on the outer edges of the town to allow students the option to travel in a sustainable manner on routes where the distant is too great, or the roads do not support walking or cycling.

Schools affected: All

Comments from travel surveys:

"It would be great to have more options of commuting to school - primary and secondary, like bus services or some other bus shuttles so kids wouldn't have to go be travelling by car with parents, instead they could go safely by bus." (Holywell ETNS)

"All schools would benefit from a public school bus service." (Loreto College)

Issue 5: Barriers to Cycling

It is an asset to Swords that so many of the newer developed estates have had cycle lanes built in. There has been considerable retrofitting of older roads to now include a cycle lane too. These improvements have helped to make Swords a more cycle friendly town. However, there are a few issues that if taken into account could help the further development of cycling facilities and improve safety for cyclists. An overall feeling of safety is key for encouraging and making primary and secondary students feel cycling is an option for them.

The most popular journeys that cyclists may take must be considered in their entirety as to how cyclable they are. Connectivity to the town centre is a key issue. Within the housing estates the dominance of roundabouts along the route can be a safety concern. The cycle lane is usually separate, alongside on the footpath and not on the road. Suddenly joining the road at junctions is not ideal as drivers are not as aware of a cyclist's presence. Another issue which can make the estates harder for cyclists is navigating across the roads which often bisect the bicycle lanes.

Cycling infrastructure.

Though cycling infrastructure exists on the towns' suburbs when it reaches the town it often disappears with many of the link roads becoming less convenient for cycling just as they are entering the town centre. The town centre itself is not very cycle friendly with no cycle lane through the town as well as and there is a high risk of cars backing out of the parking spaces that are present all along Main Street. The cyclability of the town centre is explored in more detail below in the dedicated section on the town centre. A point that could help improve this issue would be the development of cycle lanes through the River Valley Park. This would provide a safe cycling option into the town centre. Other points raised in the survey that families felt would help make the town centre more bike friendly are more bike hire schemes and cycle parking at strategic locations.

In addition, the roads leading to Swords and around the town are often very busy, with considerable volume of traffic on them. The speed and volume of traffic impacts upon the safety of cyclists and the ability of cyclists to navigate through the town especially when turning right. Very wide junctions often can act as a deterrent to cyclists as they can be difficult to traverse. Provision should be made for cyclists when designing these so as they feel safe to cross, particularly so if they are along routes that connect to schools so they are able to be an option for students to feel comfortable that they can use.

Schools affected: All

Recommendations:

- The development of a network of cycle lanes which link schools, estates, the Ward River Valley Park and the town centre.
- Continued engagement with the school population when designing new cycling infrastructure.
- Designing new infrastructure for novice cyclists, cargo bikes and cycling two a breast should be considered.

Comments from travel survey:

"Most of Swords -Nowhere to park and lock bike. Two very narrow bridges dangerous with aggressive drivers. Cycle paths suddenly disappear roads too narrow. Also cycle lanes beside walls broken glass and poor vision around corners." (Swords Community College)

"It is a huge problem here that the neither the walking paths nor the cycling paths are not safe enough. Next to busy roads there is no fence, etc, and paths are extremely narrow. The government should take more action to provide us possibility." (Holywell ETNS)

"I would like to see more bike racks and places to rent bikes from." (Holy Family SNS)

Issue 6: Insufficient /Lack of Footpaths

Often times the difference between allowing a child to walk/scoot to school or taking the car comes down to access to footpaths. Not only do the footpaths need to be present, they also need to be maintained. Issues that were present on the footpaths at a variety of schools included paths which were too narrow, large cracks often caused by tree roots (also present on Main Street), and uneven surfaces. Alternatively, there was the absences of any footpath present on Jugback Lane, which many students at St. Finian's NS would use regularly. Improving existing footpaths in conjunction with the addition of new footpaths where they are currently absent can play an important role in parents feeling it is safe to travel to school in an active way and can result in an overall uptake.

There are a variety issues on footpaths around Swords, such as the lack of footpaths on Jugback Lane (left), and poorly maintained footpaths in the Holywell area (right).

Schools affected: Holywell ETNS, St. Finian's CC, Fingal NS

Comments from travel survey:

"Providing quality cycle and footpaths from the like of our state in Knocksedan are a matter of urgency in order to significantly reduce car trips."

"It is a huge problem here that the neither the walking paths nor the cycling paths are not safe enough. Next to busy roads there is no fence, etc, and paths are extremely narrow. The government should take more action to provide us possibility."

Issue 7: Front of School

Road safety around the school gates and on the journey to school is a real barrier when it comes to promoting active travel. The front of school should be an area which is free from cars, free from congestion and child focused. The reality is that at most schools in Ireland it is the opposite with poorly parked cars, congestion, poor air quality and a generally unsafe space for children. In addition to safety concerns outside the school gate there is also a lack of respect for the rules of the road. This leads to unsafe behavior and as a result less parents are willing to allow their children to travel to school actively and independently. All of these aims could be met by

implementing a School Zone at the front of each individual school. A School Zone is an initiative designed to give priority to students at the school gate by freeing up footpaths and reducing vehicle drop off, pick-ups and idling.

Congested front of school at Holy Family SNS (left), aerial view of School Zone at Greenlanes NS, Seafield Avenue (right).

Recommendations:

- Clear road signage in areas where cars should not pull up, whether it be double yellow lines or 'Keep Clear' road markings. If necessary, cones or bollards could be placed outside to prevent cars from pulling up where they should not.
- Establish a clear system of drop off/ collection with specific signage. Children need to feel safe outside their school whether coming or going and shouldn't need to navigate between or around cars. Crossing points for pedestrians needs to be very clear i.e. pedestrian/ zebra crossing or Lollipop person.
- All schools should adopt a 'no idling zone' around their school. This can be achieved by simply communicating to families that if they are pulled up for more than 30 seconds, they should turn off their engine. Parents need to be educated and informed that the carbon dioxide released from an idling car is worse than if the car was driving by the school.
- Where schools are located on a cul-de-sac/ no through road, a clear system needs to be in place as regards motorists turning back to leave in the direction they came.
    - For example, Swords Community College and Broadmeadow JNS are located near the end of a very long avenue. There is a roundabout at the very end of the road for parents to drive up to and go around to leave the school. However, if a parent pulls into a drop off space further back down the avenue from this roundabout, they might be inclined to do a U- turn to leave. This causes safety issues and slows down traffic and can cause congestion.
- Parents need to be reminded about appropriate driver behaviour outside the school. Regular communications from the Principal to remind parents about appropriate driver

behaviour outside the school, as well as regularly reviewing the procedures around parking, drop off, entering and exiting, signage etc. A visit from a local Garda to monitor the situation and provide some traffic calming would also be beneficial.

Comment from Principal of Holywell ETNS:

"The road directly at the front of the school is much too busy with our traffic warden having numerous 'near misses' with vehicles driving on the pedestrian crossing."

Quote from travel survey:

"Calming ramps should be installed around school areas as many scramblers/quads users in the area." (Holy Family NS).

Issue 8: Development and Construction

With so much development going on in Swords students often have to navigate construction site entrances on their journey to school. Issues they face are increased volume of heavy machinery on the road, entrances and exits to construction sites crossing footpaths and cycle lanes, mud/ loose gravel making footpath surfaces slippery, construction/ building material obstacles, temporary road closures and route changes etc… These issues alter driver behaviour too as motorists are often disorientated so this increases the pedestrian's safety concerns.

Construction at Swords Community College and Broadmeadow CNS (left) often means large construction vehicles cutting through the route to school and obstructions which block pathways and cycle lanes. There is a similar issue at Swords ETNS(right).

Schools affected: Swords ETNS , Swords CC, Broadmeadow CNS

Recommendations:

- Reducing construction traffic during school opening and closing times.

- Liaising with the school community during construction works.
- Ensuring that pedestrian and cycling access is prioritized during construction work.

Issue 9: Speed Limits

Green-Schools is a strong advocate for the Love 30 campaign, which advocates for Local Authorities to introduce 30km/h zones in urban areas, residential estates, places of public assembly, and in relation to this project in the vicinity of schools and town centres. Not only can the speed limit reduce severity of injuries caused by collisions and improve safety in and around schools, but it can also greatly reduce air and noise pollution as well. Having the 30km/h speed limit would improve safety for pedestrians, and we believe all schools and the town centre would greatly benefit from implementation.

Schools affected: All

Testimonial from Holywell ETNS Principal re speed limit:

"Children cycling from the Drynam estate along the Feltrim road are faced with a very dangerous route as the road is narrow, winding, with a 60km speed limit."

Recommendation:

- Introduce low speed limits near all schools in Swords – 30km/h.

Issue 10: Town Centre

Main Street is the heart of Swords, and because of the numerous business, restaurants, and even historical sights it is the perfect place to gather for all ages. There are a number of infrastructural items that are encouraging to see. Currently there are several benches, some solar and others with lovely foliage placed around them, which is aesthetically pleasing. Having benches present along the street makes it more accessible for those with mobility issues. There are also numerous bus stops on both sides of the street with transport being fairly frequent. The modern and traditional architecture intertwines nicely, and is a true indication that Swords has sustainable development at the forefront to meet the changing needs of the community.

However, there are a number of obstacles that pedestrians would face while accessing Main Street. Pedestrians must be vigilant walking along Main Street because of the many entrances and exits to carparks. Vehicles frequently dart out and show little regard for pedestrians. Implementing infrastructure that would prioritize the pedestrian would be essential to address this safety concern. When walking down the street it is important to look at the footpath, because there are several cracks that create unevenness and could result in tripping or making it difficult to navigate for those with mobility issues. In addition, the area may benefit from additional

pedestrian crossing points. This is particularly an issue by Fingal Community College near the Fingal County Council office.

Whether travelling by foot, bicycle, or car all face the issue of air pollution which is a concern along Main Street. This is caused by vehicles idling, and general traffic congestion. By implementing infrastructure on Main Street that would encourage active travel whether it be relocating carparks to the end of Main Street or reducing the amount of parking spots on the main street, it could decrease the amount of air pollution everyone visiting the street is being exposed to and promote a healthy lifestyle. Main street already has diverse features that make it unique and where people want to be, by making these improvements that increase safety and encourage active travel modes the community as whole will benefit.

Main Street Swords

Schools affected: Fingal Community College

Comments from travel survey:

"I would like to see more bike racks and places to rent bikes from."

Recommendations:

- Reduce carparking on main street.
- Additional pedestrian crossings are needed.
- Connect cycle lanes from outside the town into the town centre.
- Increase cycle lanes.
- Increase cycle parking.
- Improve the pedestrian infrastructure.

3. Conclusion

Swords has a lot to offer such as green spaces, a vibrant main street, proximity to Dublin city centre and the coast and a rich cultural heritage. However, traffic is a serious issue in Swords that needs to be addressed. Development of the area needs to prioritise and put the pedestrian/ cyclist at the centre. This will serve to promote and encourage active travel modes which will in turn reduce congestion, improve air quality and safety and make the area more pleasant for everyone to use.

Through Green-School's methods of engagement with schools, including travel surveys, conversations with schools, mapping exercises and audits, it is apparent that consulting the public is vital. This has enabled a very valuable data set to be compiled which will go a long way in informing the Sustainable Swords Project and future development plans for the Swords area.