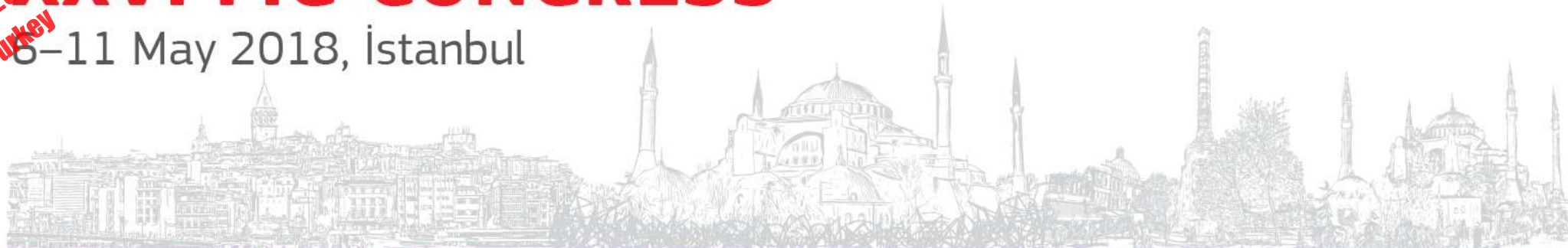


FIG
2018
ISTANBUL

Presented at the FIG Congress 2018
May 6-11, 2018 in Istanbul, Turkey

XXVI FIG CONGRESS

8-11 May 2018, İstanbul



EMBRACING OUR SMART WORLD WHERE THE CONTINENTS CONNECT:
ENHANCING THE GEOSPATIAL MATURITY OF SOCIETIES

Organized by



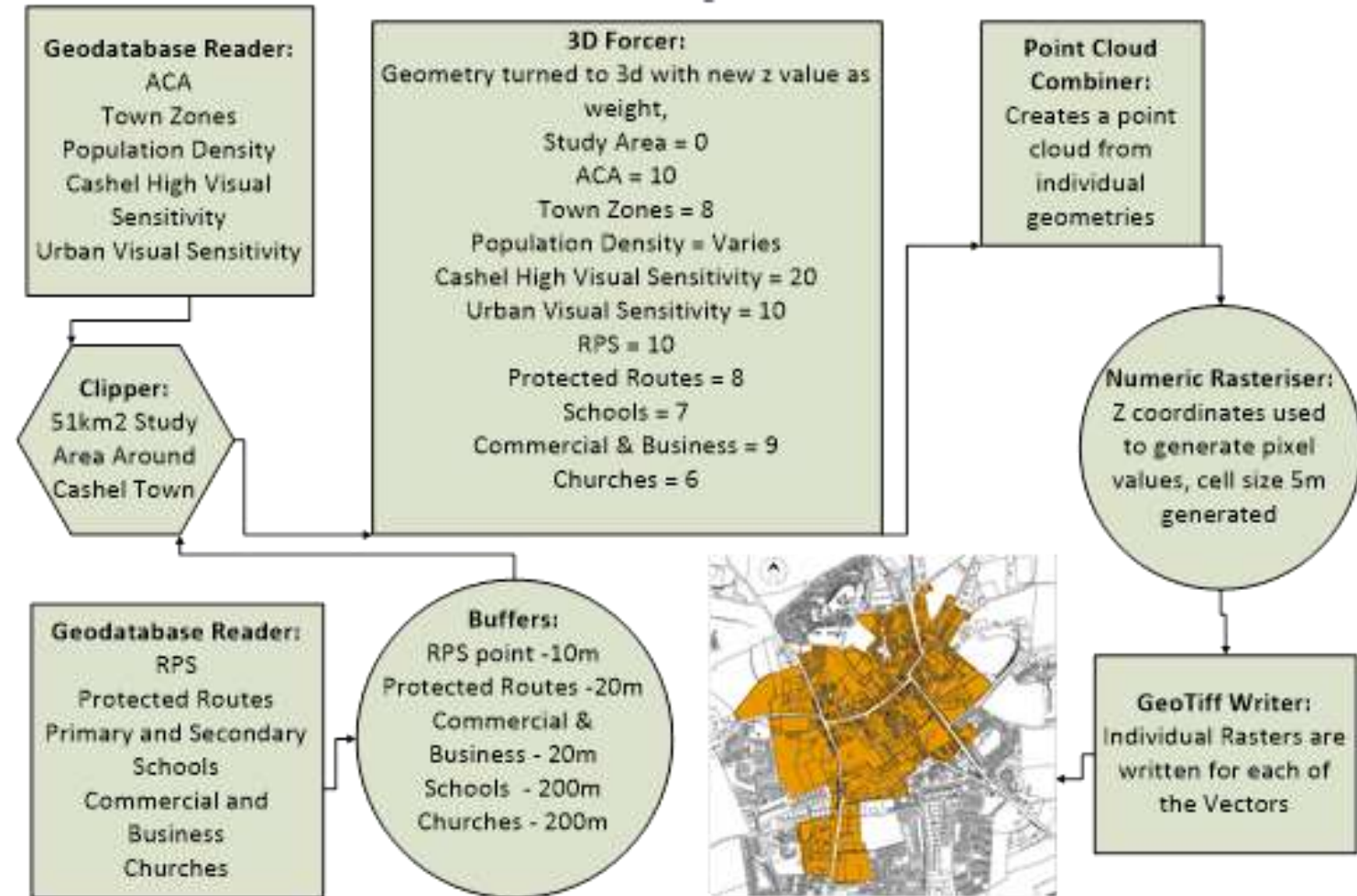
Main Supporters



Platinum Sponsors



A field GIS solution to derelict sites and dangerous structures management



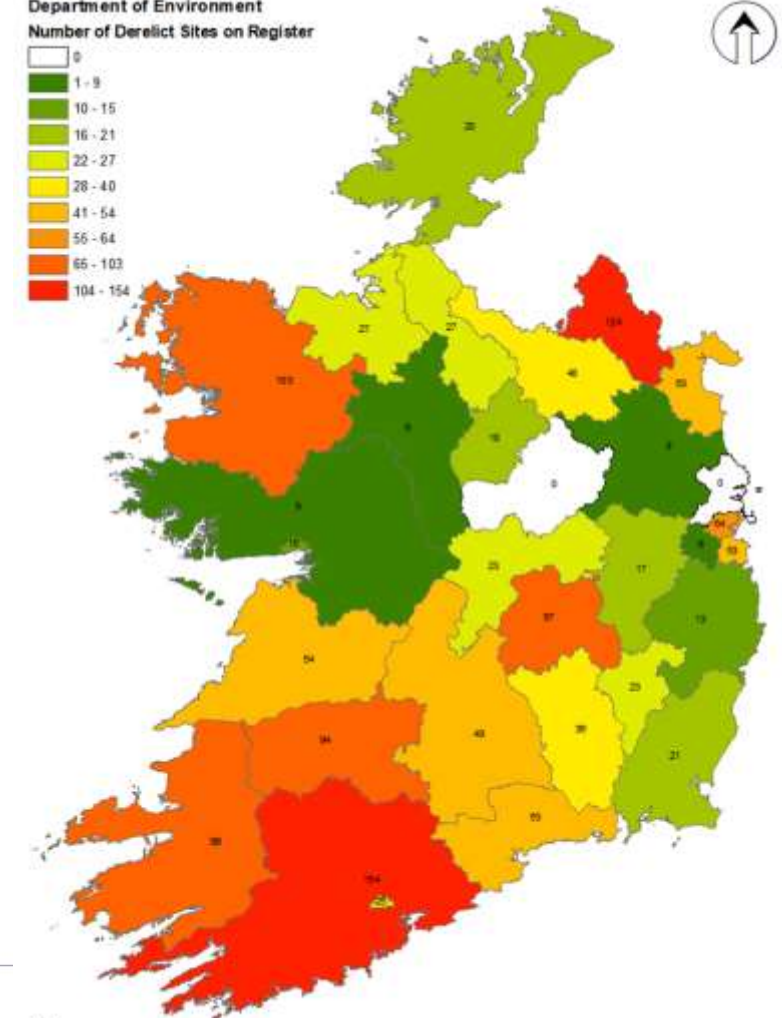
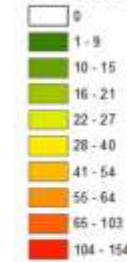
Laurence Lee
M.Sc. MSCSI, RICS
Tipperary County Council



What is Dereliction?

Derelict Sites on Local Authority Registers in Ireland 2015

Department of Environment
Number of Derelict Sites on Register



Note:
No data provided for Westmeath and Fingal County Council.
Statistics used with permission of the Department of Environment.
All rights reserved.

Potentially Dangerous

- Partially Demolished/Ruinous Buildings
- Missing Slates/Holes in the roof
- Loose Masonry or falling plaster
- Bow in the roof structure
- Structural Cracks
- Broken Windows

Unightly

- Unightly boundaries and damaged Hoarding
- Graffiti
- Rotten Timbers
- Defective or missing gutters and downpipes
- Peeling paint/ Dirty facade
- Overgrown foliage
- Plants growing in the masonry or roof

Other Indicators

- Accumulation of rubbish or litter
- Illegal dumping
- High Tourist Areas
- Unsecured site

Organized by



Main Supporters



Platinum Sponsors





Current Method

No standard
yardstick by which
sites are assessed

Depends on the
interpretation by
the inspector

Given the definition how do you rate these two buildings?



Define dereliction objectively



Standardised site scores against which sites can be prioritised

Site Number	Delapidation score	Impact on amenity	Standardised site score (final score)	Overall Rank	Percentage increase of delapidation adjusting for impact
10	12.05	16.00	14.06	11	16.67%
11	13.31	16.00	15.53	10	16.67%
12	16.26	23.00	20.16	4	23.96%
13	26.52	32.00	35.36	1	33.33%
14	12.05	32.00	16.07	8	33.33%
15	19.31	35.00	26.35	2	36.46%
16	15.21	30.00	19.96	5	31.25%
17	14.02	30.00	18.40	6	31.25%
18	16.10	10.00	17.78	7	10.42%
20	15.42	2.00	15.74	9	2.08%
21	2.58	49.00	3.90	16	51.04%
22	15.62	21.00	20.68	3	22.20%



Score 1. Building and site
dilapidation score

Score 3. $(\text{Score 1}) \cdot s(\text{Score 2}) = \text{Standardised Site Score}$

Score 2. Impact on
amenities score

Score 1

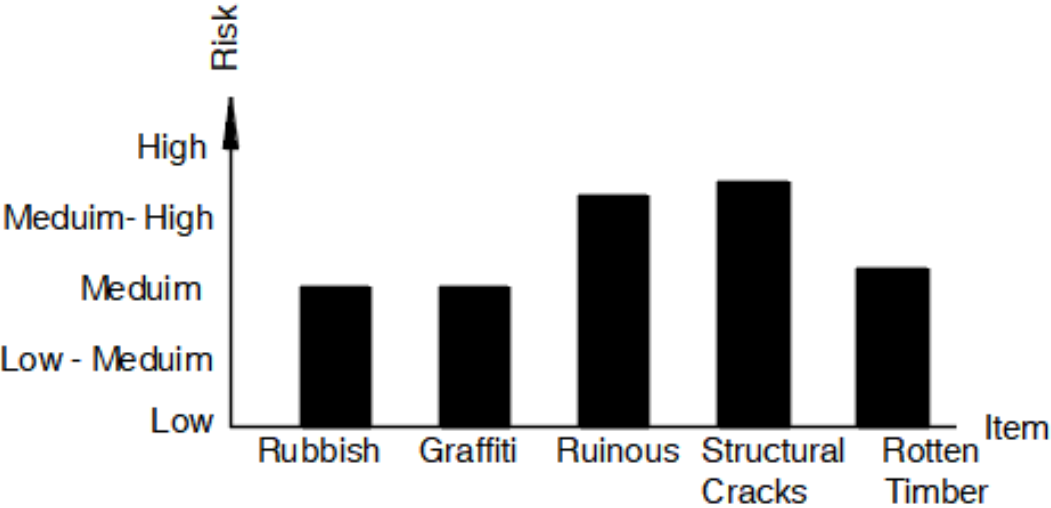


Roof

Chimney

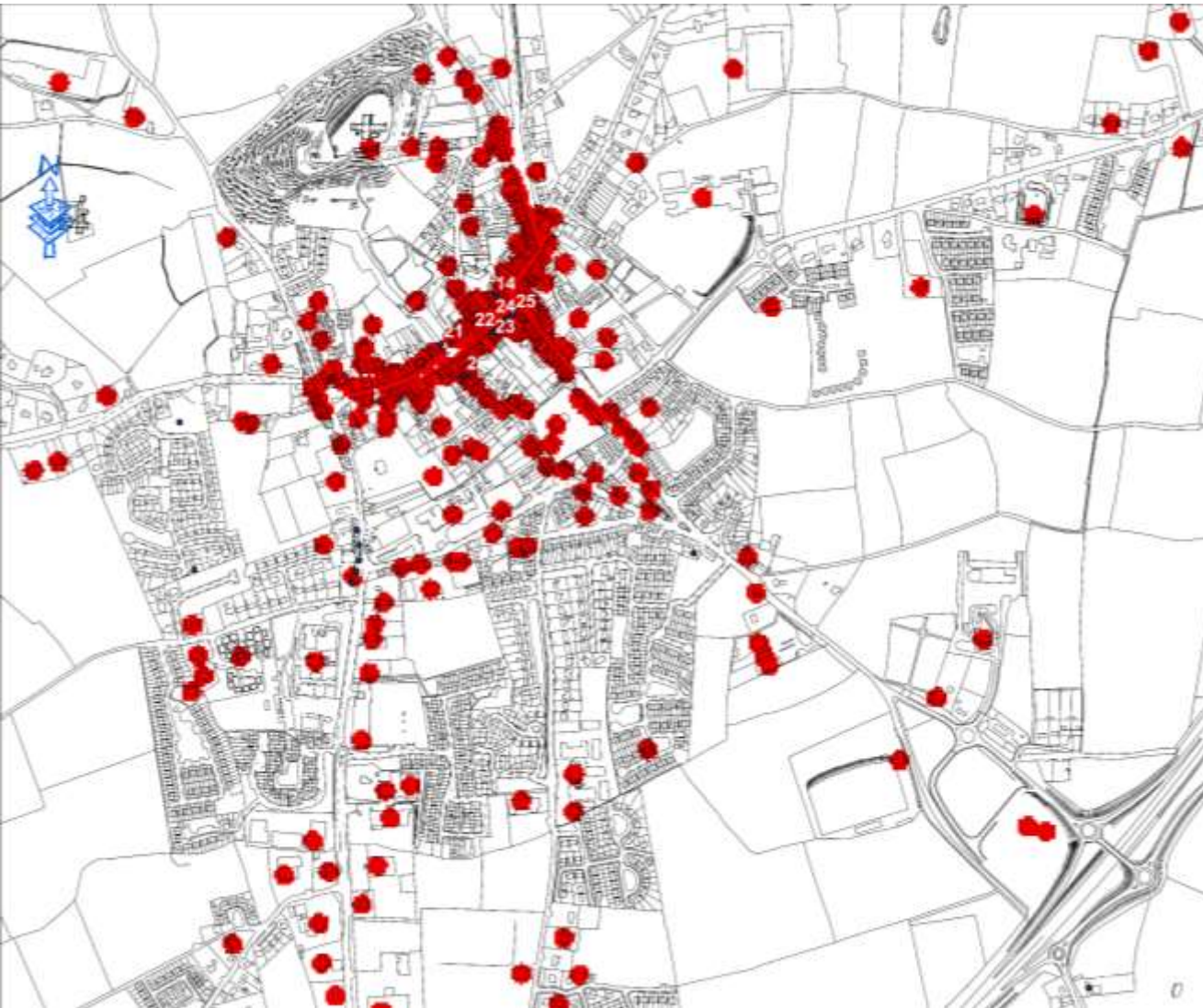
Rainwater goods

Windows



Score 2

Impact on amenities



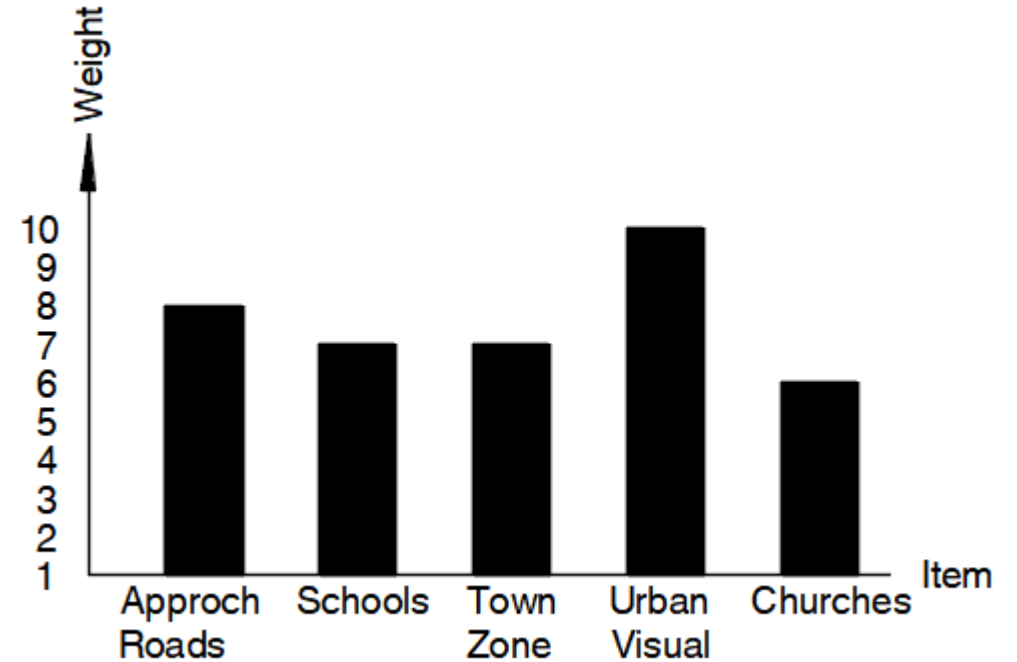
Population

Protected Structures

Architectural

Conservation Areas

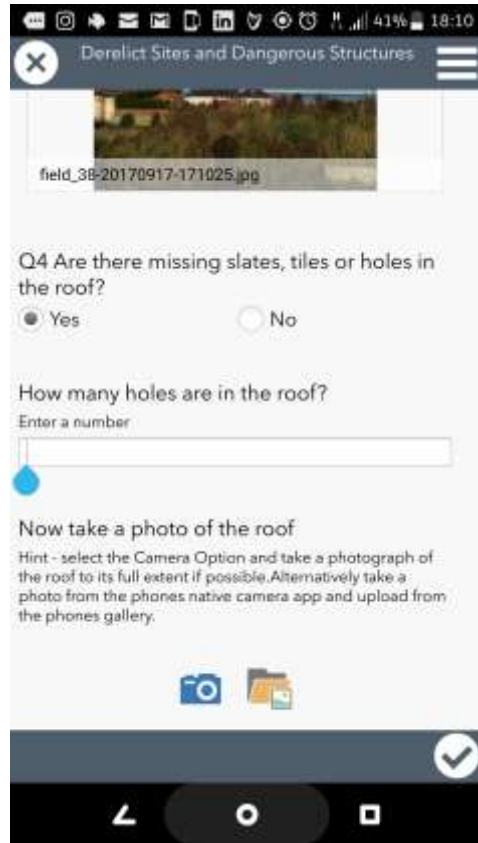
Commercial & Business





IMPLEMENTATION

Survey 123



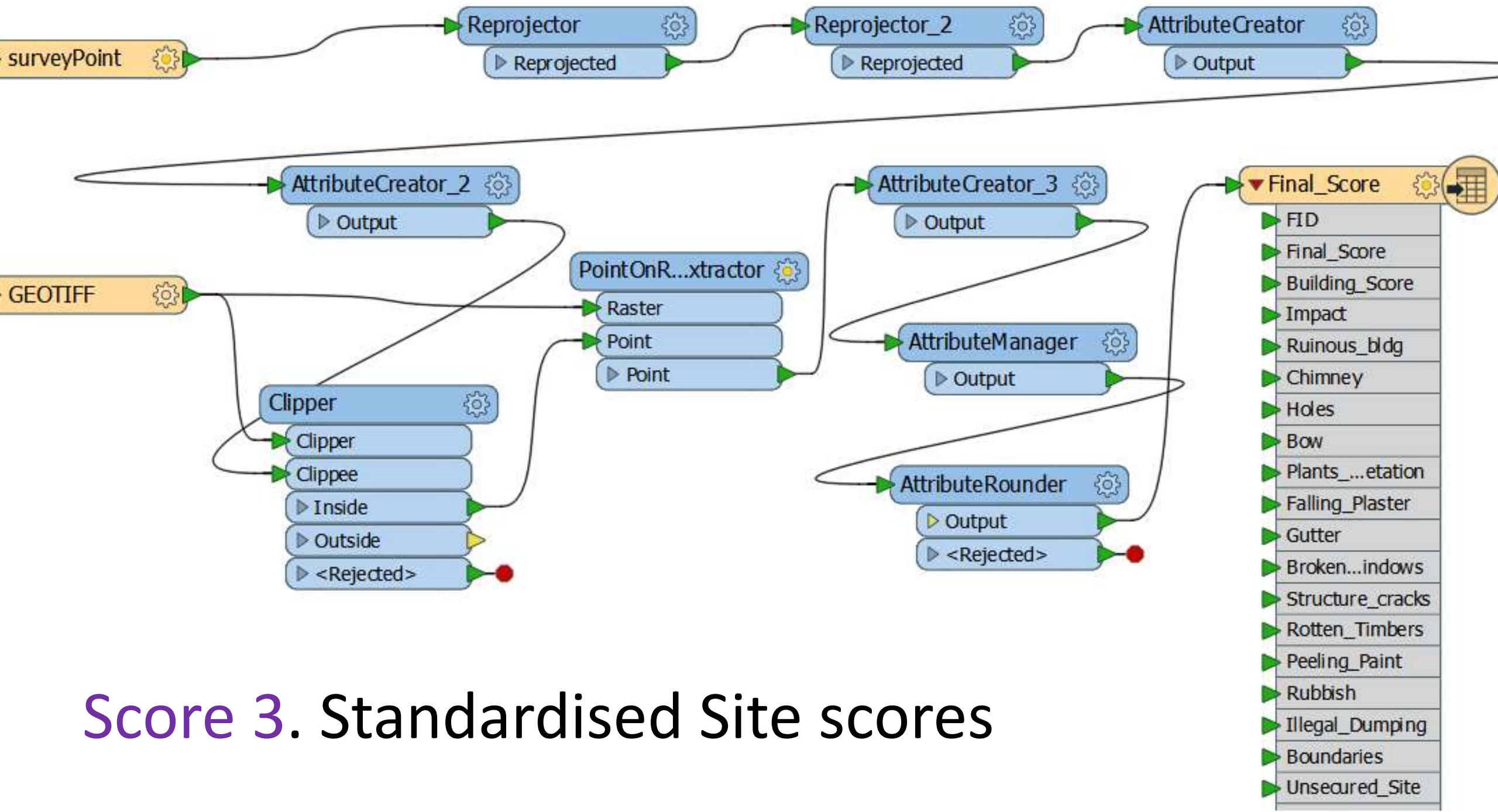
Questions



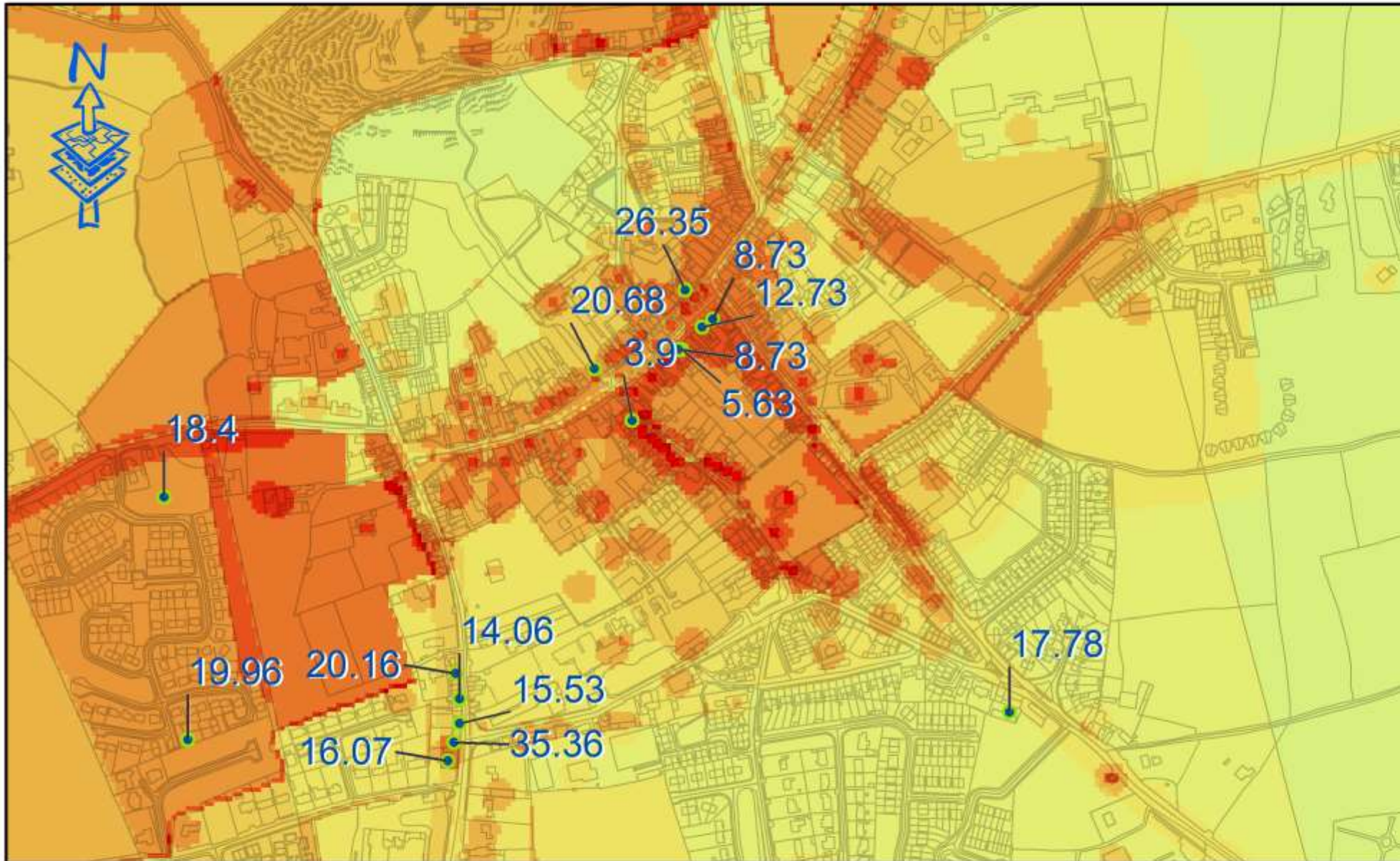
Geolocate



Evidence



Score 3. Standardised Site scores

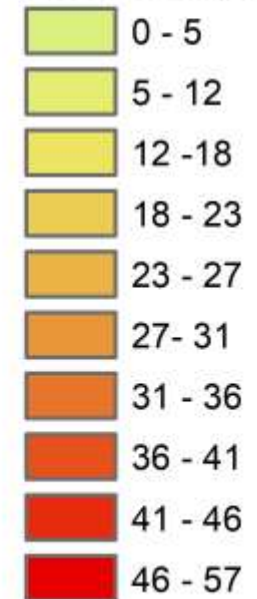


Derelict Sites Impact Map of Cashel

● Site Scores

Impact on Amenity

Level of Impact



OSi background mapping used under License No. 2017/10/CCMA/ Tipperary County Council. All rights reserved.

© Laurence Lee 2017



26.35

8.73

20.68

12.73

3.9

8.73

5.63

18.4

14.06

17.78

19.96

20.16

15.53

16.07

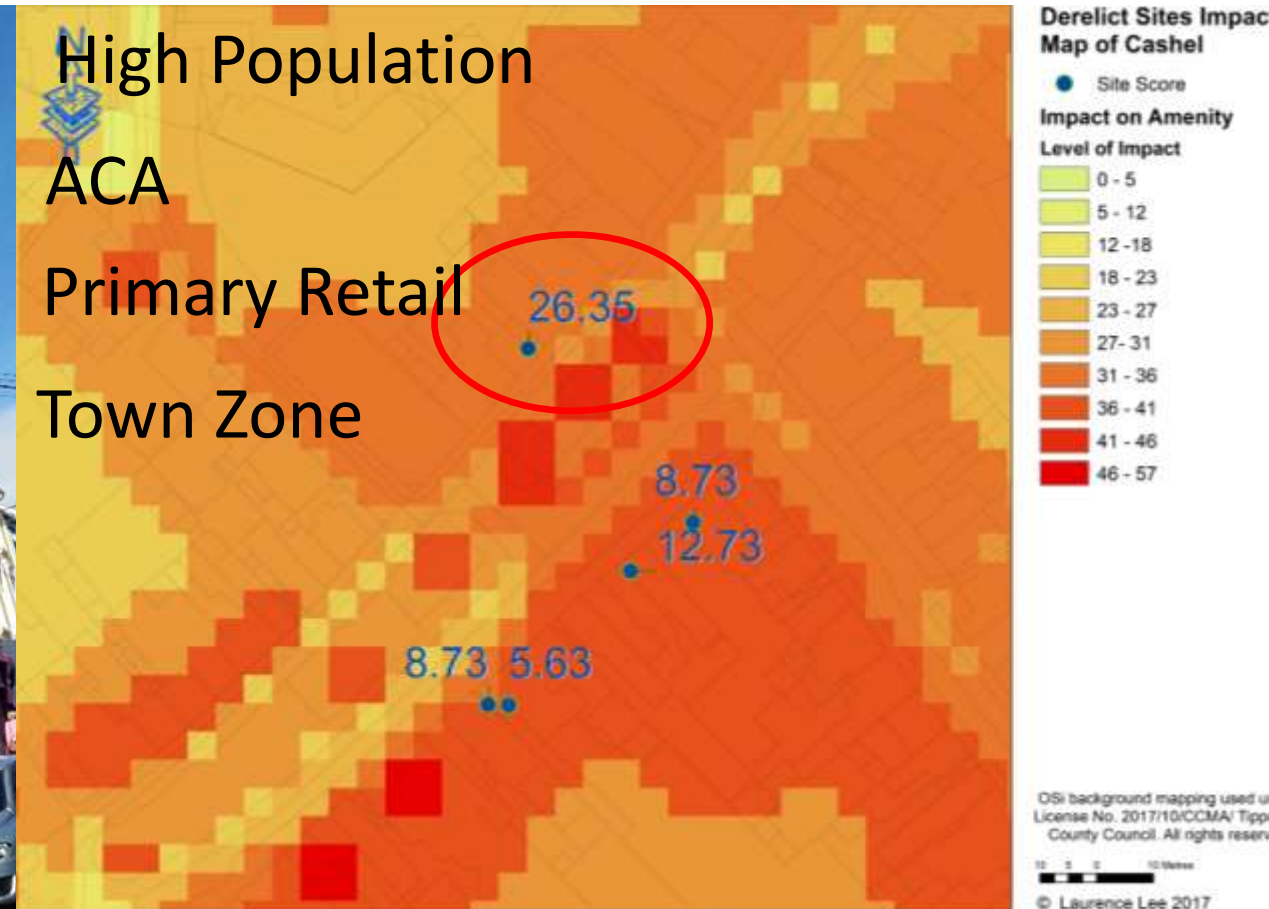
35.36

Results :

Building Score = 19.31

Impact on amenity = 35

Standardised site score = 26.35

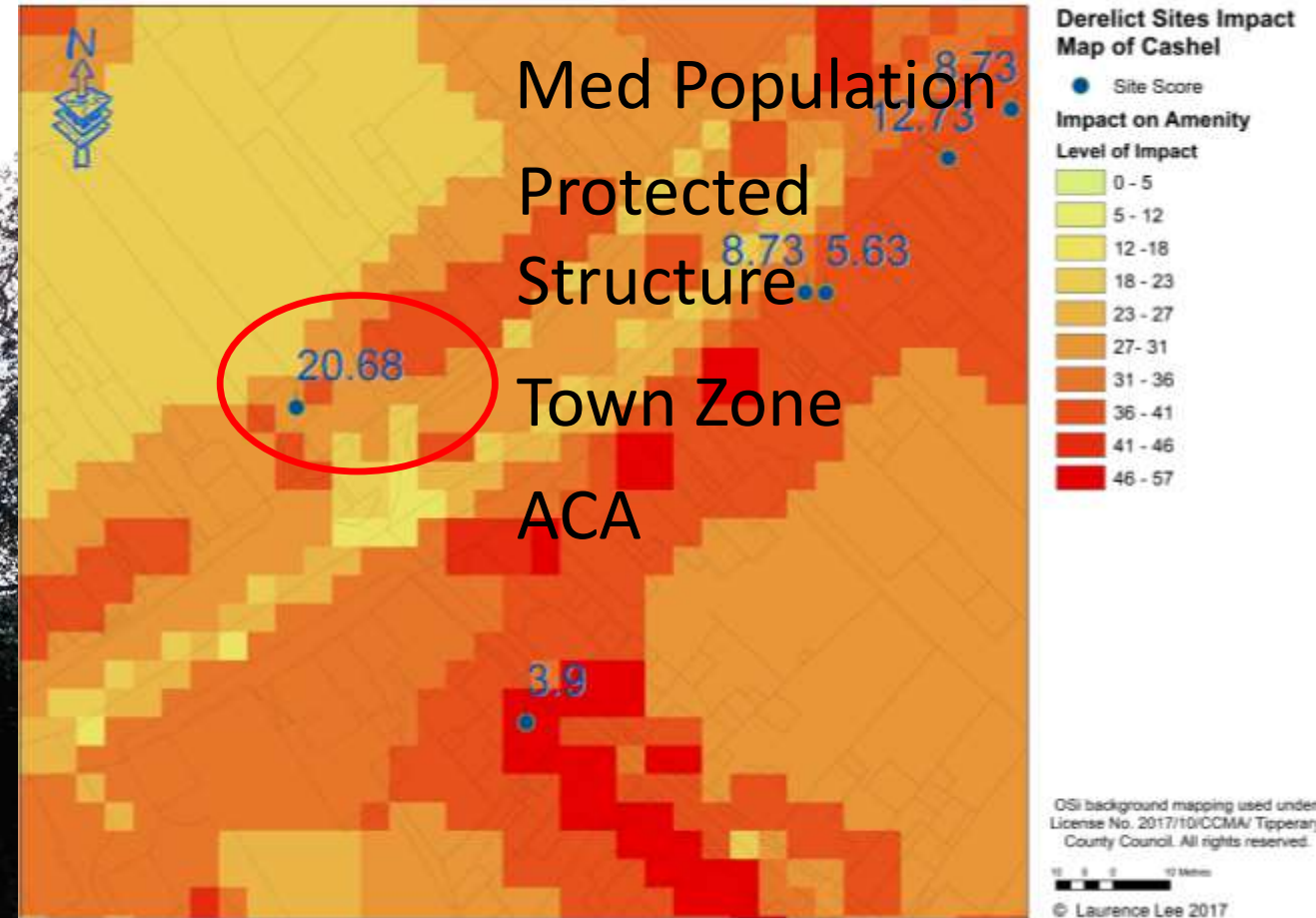
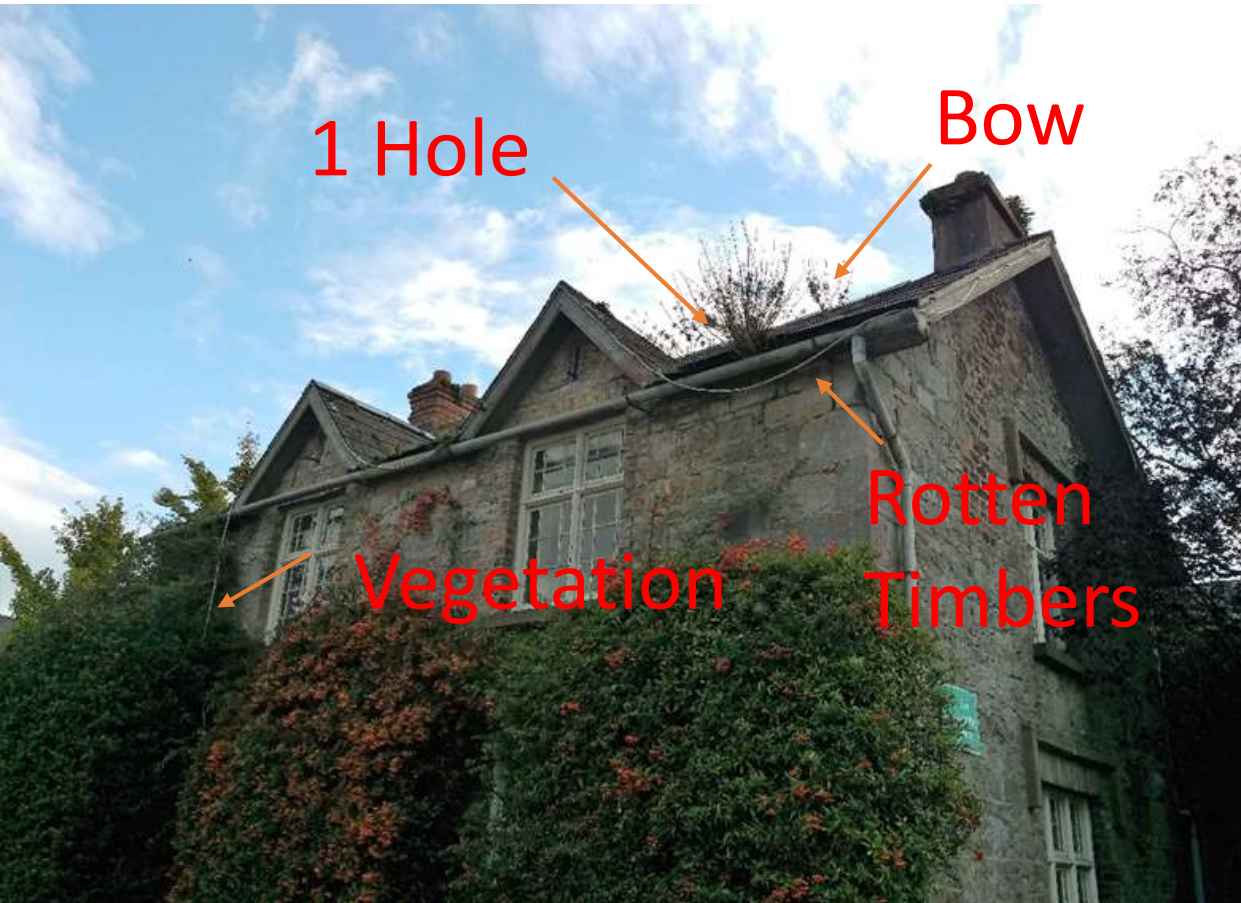


Results :

Building Score = 15.63

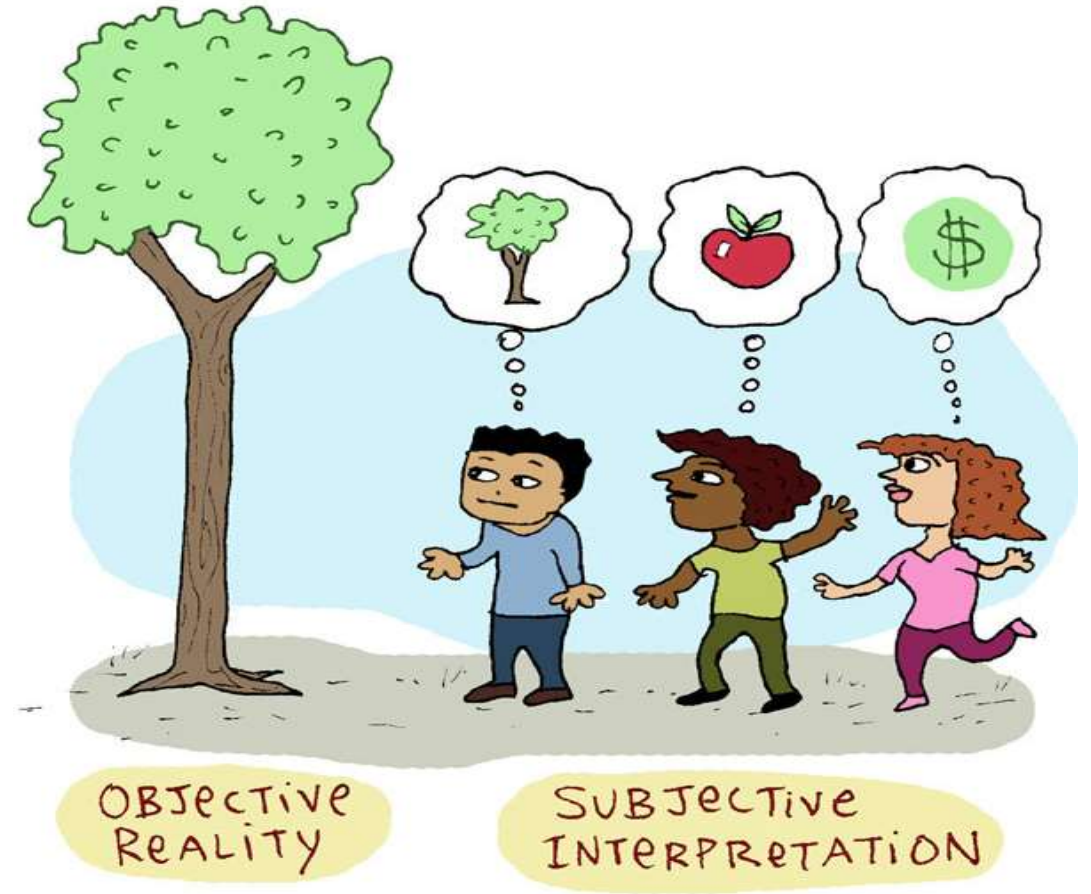
Impact on amenity = 31

Standardised site score = 20.68



Conclusion

- Remove some of the subjectivity - site investigation process
- Standard assessment of sites - independent of the opinions of the inspector
- National and International - prioritise resources - remediation on derelict Sites and dangerous structures





EMBRACING OUR SMART WORLD WHERE THE CONTINENTS CONNECT:
ENHANCING THE GEOSPATIAL MATURITY OF SOCIETIES
6-11 May 2018, İstanbul



A field GIS Solution to Derelict Sites and Dangerous Structures Management

Laurence Lee

laurence.lee@tipperarycoco.ie

Organized by



Main Supporters



Platinum Sponsors

