

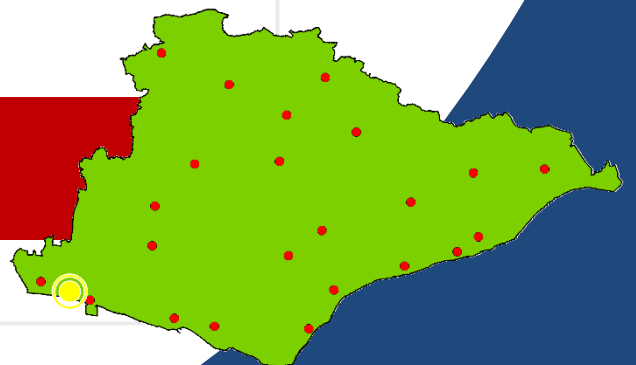


2020

# Preston Circus



## Station Risk Profile



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## Preston Circus Station Area – Headline Summary



- Preston Circus station area covers approximately **36 sq. km** (6<sup>th</sup> smallest area)
- Area is heavily urbanised.
- Preston Circus area has busy coastal/beach-side economy.
- Significant deprivation in some areas (**1%, 10% & 20%** nationally).
- Other areas in top **10%** least deprived nationally.
- Operational cover provided by two wholetime shift fire engines.



- **136,264** residents within Preston Circus station area.
- A net increase of **10,311** since 2011 Census.
- Very high population density (**2<sup>nd</sup>** highest) with biggest increase in density between Census 2011 and 2017 estimates out of all areas.
- Significantly higher proportions of 19-35 year olds than ESFRS average, with **1 in 5** of population 18-24yrs. More are females.
- Half as many 65+yrs than ESFRS (**11%** vs 21%).



- Almost **100%** of households are within attendance standards, although hugely variable by time of day/month of year etc.
- **5** households are outside, located near Standean.
- **19%** below average fire risk (socio-demographic).
- **62%** high or very high risk (socio-demographic).
- Top 3 household types have **40-90%** more ADFs than expected.
- Lower proportion of lone pensioners than ESFRS average.
- Greater proportion of rented accommodation than ESFRS average – **47%** are rented.
- Higher proportion of 'all full-time student' households than ESFRS average – **73%** of all households meeting this criteria across ESFRS.



### Station area

- Incidents have decreased by **29%** since 2009 although last 3 years they have been rising.
- There are **1,810** incidents per year within Preston Circus station area; busiest station area by significant margin (Eastbourne next with 1,142 incidents per year).
- **51%** during the day. Rising from 7am and decreasing around 8pm.
- Small spike between 3am-4am – may coincide with City night-life.
- **0.2%** of incidents outside attendance standards isochrones.
- Proportionally fewer Dwelling Fires & RTCs in area but greater proportion of False Alarms compared to ESFRS.

- 71 critical life-risk incidents per year. Sharp spike in 2017/18 due to large increase in life-risk special service calls (non-RTC).
- 53% critical incidents during day.
- Preston Circus area highest for numbers of injuries and rescues.
- Attendance times, on average, slightly quicker than other wholetime shift station areas, particularly 2<sup>nd</sup> pump attendances.
- 1.5 minute delay between 1<sup>st</sup> & 2<sup>nd</sup> appliance to a dwelling fire, 2.5 minutes for a RTC– slightly quicker than other shift areas.
- 69% of incidents are attended by a single appliance.
- 84% of 2<sup>nd</sup> pump attendances were by Preston Circus (58% 91P4, 26% 91P1), 5% Roedean, 9% Hove, 1% 89P1.
- 7 level 3+ incidents within last 9 years of review period.

### Station appliance(s)

#### 91P1

- Turn-out time is 01:18 (7am-midnight), 01:45 (midnight-7am). Rose significantly in 2017/18.
- 56% reduction in mobilisations over 9 years (8<sup>th</sup> greatest out of 33 pumping appliances).
- Mobilises 1,113 times per year – 81% in own area, 9% in Roedean, 6% in Hove, 3% OTB.
- Attends 5% more dwelling fires, 4% more false alarms but 3% fewer special service calls than ESFRS.
- Mobilises to 73 critical incidents per year – 72% in own area, 11% in Roedean, 8% in Hove, 5% Lewes area.
- Attendance standard met 89% of the time (88% critical).
- 100% availability in 2017/18.

#### 91P4

- Turn-out time is 01:25 (7am-midnight), 02:00 (midnight-7am). Rose significantly in 2017/18.
- 14% reduction in mobilisations over 9 years (9<sup>th</sup> least reduction out of 33 pumping appliances).
- Mobilises 1,738 times per year - 72% in own area, 15% in Roedean, 8% in Hove.
- Mobilises to 67 critical incidents per year – 55% in own area, 20% in Roedean, 15% in Hove, 6% Lewes, 2.4% OTB.
- Attendance standard met 86% of the time (85% critical).
- 99.8% availability in 2017/18.

### Standby moves

- **438%** increase in standby moves over 2 years by 91P4 – increasing from 76 in 2015/16 to **409 in 2017/18**.
- **125** cover moves per year by Preston Circus (9 year average) – **55%** in Roedean, **28%** in Hove.
- Majority undertaken by 91P4. 25% 91P1 standby moves in Lewes.

### Special appliance(s)

#### 91A1 (Aerial Ladder Platform)

- **24%** decrease in mobilisations over 9 years.
- Mobilises **344** times a year, and in attendance **92%** of the time.
- **45%** of attendances in own area, **27%** in Hove, **24%** in Roedean (**95%** of all mobilisations – **6%** did not arrive)
- **51** OTB mobilisations in 9 years; did not arrive **75%** of the time.



- **10,104** Home Safety Visits to unique properties undertaken (approx. **19.5%** of all households)
- Lowest percentage of households with HSV out of all station areas.



- **<1%** of commercial properties are outside attendance standards, although many will have extended travel times; particularly in north and eastward along coast.
- **140** Business Safety Audits per year (26% of all ESFRS), **27%** of which are to 'Other Sleeping Accommodation'. **7%** audits were Care Homes which is lower than ESFRS (21%). No hospital audits.
- **3** Hospitals, **33** Care Homes, **9** Hostels & **36** Hotels in area.



- **2** residential developments (**2,425** dwelling allocations); majority within isochrones although far north to Moulsecoomb and Sussex University will have extended travel times.
- In addition to above dwelling allocations, further student accommodation will provide an additional **900** rooms.
- **3** commercial developments. Total **96,600sqm** floorspace.
- Developments include floorspace for employment, retail, business (offices) and leisure.
- Majority within attendance standards isochrones, although traffic congestion will extend travel times.



- 400 KSI collisions per year. Proportion of serious/fatal collisions 2.1% lower than ESFRS. 80 serious collisions per year.
- 0.4% collisions resulted in fatal injuries (almost 3 times lower than ESFRS average).
- Majority of KSI collisions are low-impact (80% collisions are slight).
- 3<sup>rd</sup> highest total road length out of all station areas.



- No rivers in station area.
- 1.5km of coastline – given to shingle beach.
- Voted **one of the top 10** city beach destinations in the world.
- Beachfront includes businesses, bars, restaurants and independent traders. Very popular tourist destination.
- Vibrant night-life coupled with many licensed premises along the seafront increase risk of water-related injury/rescue.



- 691 listed buildings (1% Grade I).
- 2 listed buildings outside isochrone (both Grade II).
- Some Scheduled Monument sites are outside attendance standard isochrones.



- Flood-risk area along beachfront - ESFRS respond to 86 flooding incidents per year (4.7% of all incidents). Higher rate than ESFRS.
- Whilst no rivers in area, rising groundwater from 'hidden' underground aquifers can flood after prolonged rainfall in winter/spring (Wellesbourne).
- 5 SSSI sites – all Local Nature Reserves (LNR). Some have extended travel times – particularly Stanmer Park/Coldean LNR.



- 38 Level 1 or Level 2 SSRIs
- 77 high-rise properties within area (26% of all ESFRS high-rise).
- Access issues to parts of the City due to complexity of building layout and supporting network infrastructure (e.g. The Lanes)
- Significant cultural, heritage risk e.g. The Pavilion
- Vast collection of vaults, tunnels and other underground infrastructure – potentially much unknown.
- Brighton & Hove 6<sup>th</sup> most congested city in UK (and in top 20% worldwide). Average journey time 34% slower. During peak times in morning and evening, this increases to >60%, adding 18 minutes per 30 minute trip.
- No COMAH sites in station area.
- Amex Stadium which can hold circa 12,000 persons.
- University halls of residence dispersed across station area.



## Overview

Preston Circus station area is one of three station areas that cover the City of Brighton and Hove. The towns of Brighton and Hove formed a unitary authority in 1997 and in 2001 were granted city status by Queen Elizabeth II. As at the 2011 census, the city was England's most populous seaside resort. The economy of the city is service-based with a strong emphasis on creative, digital and electronic technologies. Tourism and entertainment are important sectors for the City, which has many hotels and amusements. Brighton's nickname of "London-by-the-Sea" is well-known, reflecting Brighton's popularity with Londoners as a day-trip resort, a commuter dormitory and a desirable destination for those wanting to move out of the metropolis. Brighton's location has made it a popular destination for tourists, renowned for its diverse communities, quirky shopping areas, large cultural, music and arts scene and its large LGBT population, leading to its recognition as the "unofficial gay capital of the UK".

Brighton attracted 7.5 million day visitors in 2015/16 and 4.9 million overnight visitors and is the most popular seaside destination in the UK for overseas tourists. Brighton has also been called the UK's "hippest city", and "the happiest place to live in the UK". It is ranked the 44th most populous district in England. Compared to the national average, Brighton has fewer children and old residents but a large proportion of adults aged 20–44. In 2016, Government figures revealed that Brighton and Hove had the worst rate for homelessness outside London and is worse than some boroughs in the capital. Data suggests that one in 69 people in Brighton and Hove are homeless. Although deprivation in Brighton is distributed across the whole of the city it is more concentrated in some areas than others. The highest concentration of deprivation is in the Whitehawk, Moulsecoomb, and Hollingbury areas of the city but is also found around the St. James's Street and Eastern Road areas. A 2015 government statistic showed that the area around Brighton's Palace Pier roundabout and to the east towards St James's Street in Kemptown is the seventh worst 'living environment' in England.

Preston Circus Station Area covers an area of approximately 36 square kilometres (2% of ESFRS area) and is the 6<sup>th</sup> smallest geographical station area in the ESFRS area, although the largest of the 3 City station areas. It is very urban and the population is dispersed throughout the station area, bordered by Sussex coastline to the south and the South Downs National Park to the north. Preston Circus fire station is situated in the central Brighton area, supporting Roedean in the east and Hove in the west and covers a wide range of premises including the Royal Pavilion, the Lanes as well as a highly densely populated area of large converted Victorian houses.

### Station Resources

Preston Circus Community Fire Station is a wholetime shift fire station which has two pumping appliances and an aerial ladder platform.

#### 1 x Extended Rescue Pump (FJE91P1)

Volvo Extended Rescue Pump carrying a variety of ladders including a 12 metre ladder, 1800 litres water and a pump capable of supplying 2250 litres/min. It is a multi-purpose appliance carrying a large amount of equipment including dedicated hydraulic rescue tools, water safety and rescue equipment, oxygen, etc.

#### 1 x Water Tender (FJE91P4)

Multi-purpose appliance that carries both firefighting and rescue equipment. It carries 1800 litres of water and a pump that can deliver 2250 litres of water per minute.

#### 1 x Aerial Ladder Platform (FJE91A1)

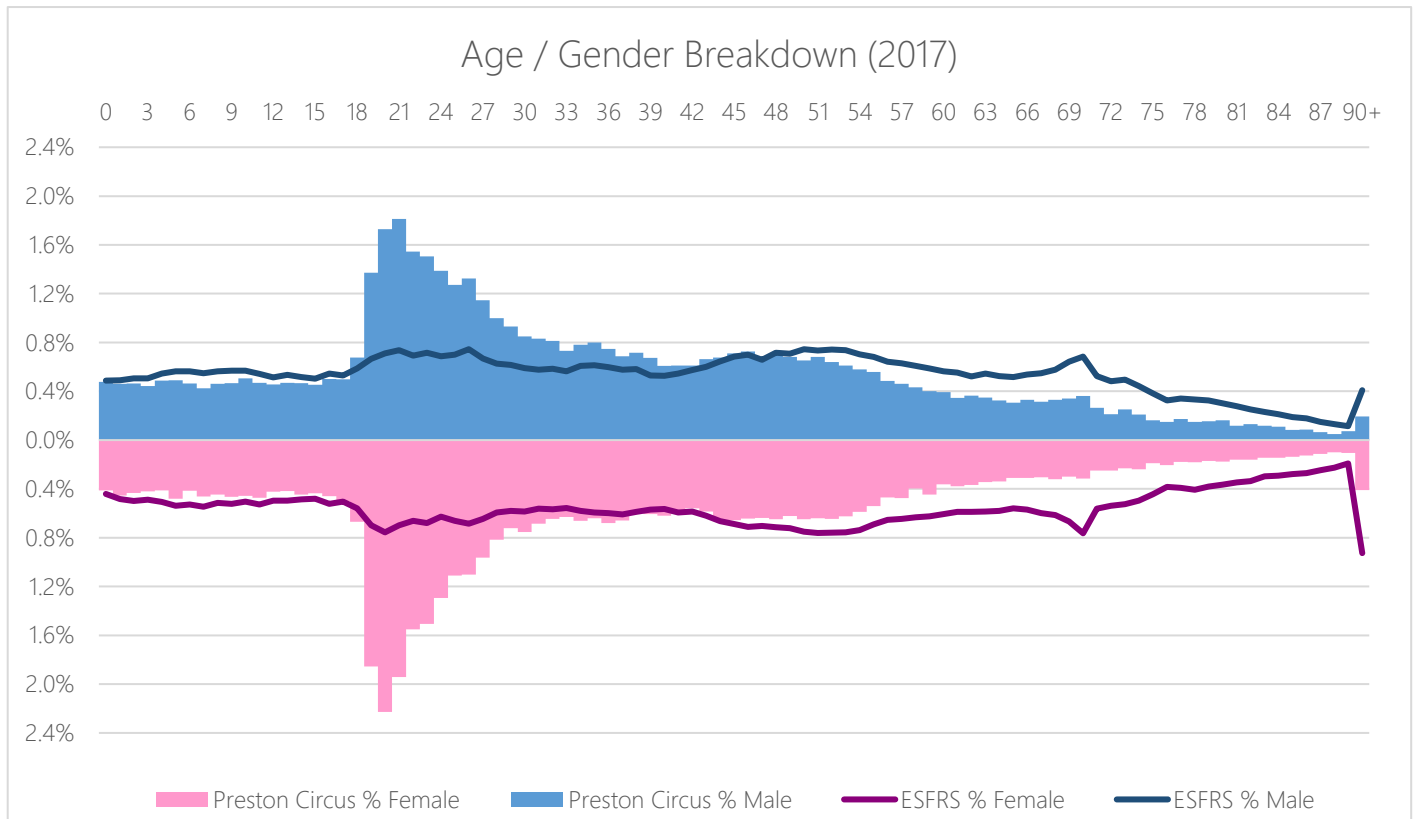
This is a multi-purpose firefighting and rescue vehicle that can deliver a safe working platform up to 32 metres and is capable of delivering 2900 litres of water per minute.



## Population Demographics

The population in Preston Circus is younger than the ESFRS average, with fewer males aged 49+ years and fewer females aged 45+ years, as depicted in the chart below. There is also a hugely disproportionate proportion of the population aged 19-35 compared to ESFRS as a whole, but fewer children/youths. There are more females aged 18-24 than males, with 2.2% of the population in Preston Circus being a 20 year old female.

It can be seen that 1 in 5 people are aged 18 to 24 years old (21.1%) within Preston Circus, compared to 10% for the service. This is also the case for 25 to 49 years, 38% compared to 31% for ESFRS. Compared with ESFRS, there are half as many 65+ year olds, comprising 11% of the population (21% ESFRS).



2017 population estimates - % Within Area									
	0 to 9	10 to 17	18 to 24	25 to 49	50 to 64	65 to 79	80 to 89	Over 90	Total
Preston Circus	12,325 (9%)	10,130 (7.4%)	28,713 (21.1%)	51,064 (37.5%)	19,820 (14.5%)	10,167 (7.5%)	3,220 (2.4%)	825 (0.6%)	136,264
ESFRS	87,510 (10.4%)	69,516 (8.3%)	79,643 (9.5%)	261,272 (31.1%)	163,673 (19.5%)	126,538 (15.1%)	41,043 (4.9%)	11,219 (1.3%)	840,414

In addition to population estimates by age-group, ESFRS hold specific records of GP-registered 65+ years. This data is provided annually to all Fire & Rescue Services in England by the NHS through a national Information Sharing Agreement, and enables FRs to prioritise resources to target those most at risk. This data is often referred to as the 'Exeter Data'.



The following table summarises the numbers of 65+yrs (and 80+yrs) in the Preston Circus station area and the proportion that fall inside the attendance standard isochrones. For the sake of privacy, these have not been included as a map.

Virtually 100% of 65+ year olds are within the attendance standard isochrones, day or night (5 sit outside). This ranks Preston Circus 3 out of the 24 stations (or 2 out of the 6 wholetime shift station areas).

#### Exeter Data: GP-registered 65+ year olds in Preston Circus Station Area

	Station Admin Area	No. of persons	% in Att. Std. Isochrone (Day)	% in Att. Std. Isochrone (Night)
65+ Yrs	Preston Circus	14,847	100.0	100.0
	ESFRS	179,534	96.5	97.2
80+Yrs	Preston Circus	4,088	100.0	100.0
	ESFRS	51,372	96.8	97.4

Preston Circus has a very high population density compared with the rest of the service, with 38.3 persons per hectare compared to an ESFRS average of 4.7. Preston Circus is ranked (*out of 24*) as the 2<sup>nd</sup> most densely populated station area in the service area. The area's population increased by 10,311 from 2011-2017, based on the 2011 census and 2017 estimates, which resulted in the population density increasing by 2.9 persons per hectare – the biggest change out of all station areas.

Population Density (number of persons per hectare)								
Area Size (Hectares)	All usual residents (2011)	Population Estimate (2017)	Density 2011	Density 2017	Change 2011-17	Rank in ESFRS 2017	ESFRS Average 2011	ESFRS Average 2017
3,561	125,953	136,264	35.4	38.3	2.9	2	4.5	4.7

The general health in Preston Circus can be seen as fair compared to the rest of ESFRS. 51% of the population in Preston Circus are identified as having 'very good health', compared to 46% for ESFRS and 34% as having 'good health' which is in line with ESFRS as a whole. There are fewer persons with bad/very bad health – 4.6% in Preston Circus compared with a 5.6% service average.

General Health - Persons (2011) - % Within Area						
	Very good health	Good health	Fair health	Bad health	Very bad health	Total
Preston Circus	64,071 (50.9%)	42,517 (33.8%)	13,456 (10.7%)	4,597 (3.6%)	1,312 (1%)	125,953
ESFRS	365,370 (45.7%)	279,665 (35%)	110,093 (13.8%)	34,749 (4.3%)	10,163 (1.3%)	800,040

The proportion of people in Preston Circus whose day-to-day activities are limited is less than that of ESFRS, 86% of the Preston Circus population are 'not limited', compared to 81% as a service average.

	Day-to-day activities limited - Persons (2011) - % Within Area			
	Limited a lot	Limited a little	Not limited	Total
Preston Circus	8,044 (6.4%)	10,079 (8%)	107,830 (85.6%)	125,953
ESFRS	68,688 (8.6%)	83,026 (10.4%)	648,326 (81%)	800,040

There are proportionally more students in Preston Circus (23%) compared to the service average (10%), but fewer retirees (7%) compared with ESFRS (15%) as you would expect. The proportion of full time employees within Preston Circus is consistent with the ESFRS of 34%, but a slightly lower proportion of part time employees compared with the service average. Self-employment, whether full-time or part-time is generally below the service average. Those that are economically inactive who are looking after home or family or are long-term risk or disabled represent a slightly smaller proportion of the population compared with ESFRS as a whole.

Economic Activity - All usual residents aged 16 to 74 (2011)			Preston Circus	ESFRS
Economically active	Part-time	Employee	12,140 (12.1%)	82,644 (14.1%)
		Self-employed without employees	3,523 (3.5%)	22,199 (3.8%)
		Self-employed with employees	360 (0.4%)	2,591 (0.4%)
	Full-time	Employee	34,051 (34%)	201,532 (34.4%)
		Self-employed without employees	6,244 (6.2%)	40,181 (6.9%)
		Self-employed with employees	1,721 (1.7%)	12,514 (2.1%)
		Un-employed	3,468 (3.5%)	21,321 (3.6%)
	Full-time student	8,581 (8.6%)	22,823 (3.9%)	
Economically inactive		Retired	7,367 (7.4%)	86,361 (14.8%)
		Student (including full-time students)	14,389 (14.4%)	35,446 (6.1%)
		Looking after home or family	2,941 (2.9%)	22,914 (3.9%)
		Long-term sick or disabled	3,775 (3.8%)	24,201 (4.1%)
		Other	1,537 (1.5%)	10,583 (1.8%)
<b>Total</b>			<b>100,097</b>	<b>585,310</b>



## Household Demographics

### Census 2011 Household Breakdown

There are proportionally much fewer detached houses/bungalows in Preston Circus (7%), compared to the service average (25%). This is also the case for semi-detached houses/bungalows (19% in Preston Circus vs 23% for ESFRS). There is a much larger proportion of purpose built flats (23% in Preston Circus vs 19% for ESFRS), and converted flats (20% in Preston Circus vs 11% in ESFRS).

Households (2011) by Type (% Within Area)									
	Unshared Dwelling							Shared Dwelling	Total
	Detached House / Bungalow	Semi-detached House / Bungalow	Terraced House / Bungalow	Flat - Purpose Built	Flat - Converted	Flat - commercial building	Caravan / other temporary structure		
Preston Circus	3,886 (7.3%)	10,047 (18.9%)	13,989 (26.3%)	12,419 (23.4%)	10,640 (20%)	1,150 (2.2%)	10 (0%)	959 (1.8%)	53,100
ESFRS	87,989 (24.9%)	81,338 (23%)	67,556 (19.1%)	66,813 (18.9%)	39,736 (11.2%)	5,167 (1.5%)	1,236 (0.3%)	3,610 (1%)	353,445

Preston Circus has proportionally fewer lone pensioners (10%, compared to 15% service wide), and slightly more lone parents with dependent children (7.1% in Preston Circus, vs 6.5% in ESFRS). Households designated as 'All Full-time students' represent 4.4% of households in Preston Circus station area (and 73% of total households matching this criteria across ESFRS), compared with 0.9% in ESFRS overall.

Household Composition - Households (2011) - % Within Area				
	Lone Pensioner (65+)	All full-time students	Lone parent with dependent children	All Households
Preston Circus	5,273 (9.9%)	2,358 (4.4%)	3,770 (7.1%)	53,100
ESFRS	52,103 (14.7%)	3,224 (0.9%)	22,980 (6.5%)	353,445

There is a lower proportion of households that are owned outright in Preston Circus (22%) than the service area average (33%). 47% of households are rented in Preston Circus station area, compared with 34% across the ESFRS area. There is a greater proportion of privately rented households in Preston Circus (30%) than in the rest of the service (20%). 15% of households are social rented.

Household Tenure - Households (2011)									
	Owned		Shared ownership	Social rented:		Private rented:		Living rent free	Total
	Outright	Mortgage or loan		Rented from council	Other	Private landlord or letting agency	Other		
Preston Circus	11,487 (21.6%)	15,749 (29.7%)	539 (1%)	4,810 (9.1%)	3,025 (5.7%)	15,980 (30.1%)	886 (1.7%)	624 (1.2%)	53,100
ESFRS	116,373 (32.9%)	108,974 (30.8%)	2,540 (0.7%)	22,903 (6.5%)	20,884 (5.9%)	71,980 (20.4%)	5,159 (1.5%)	4,632 (1.3%)	353,445

The table below shows the number of spare bedrooms in a household, this indicates overcrowding. 42% of households do not have a spare bedroom, which is higher than the ESFRS average of 31%. Preston Circus is an overcrowded area, with 7.1% of the households having an occupancy rating of -1 or less compared to the service average of 4%. There is a far smaller proportion of households with spare rooms in Preston Circus than the service average, 50% of households have an occupancy rating of +1 or more, compared to 65% for ESFRS.

	Occupancy Rating ( <i>Spare Bedrooms</i> ) - Households (2011)					Total
	Under-occupied		Standard	Overcrowded		
	+2 or more	+1	0	-1	-2 or less	
Preston Circus	10,981 (20.7%)	15,783 (29.7%)	22,522 (42.4%)	3,470 (6.5%)	344 (0.6%)	53,100
ESFRS	108,549 (30.7%)	121,288 (34.3%)	109,429 (31%)	12,863 (3.6%)	1,316 (0.4%)	353,445

### Mosaic Public Sector Household Breakdown

Mosaic Public Sector, published by Experian, is a socio-demographic classification system covering the whole of the United Kingdom. It provides an accurate and comprehensive view of citizens and their needs by describing them in terms of demographics, lifestyle, culture and behaviour. Over 850 million pieces of information across 450 different data points are condensed using the latest analytical techniques to identify 15 summary groups and 66 detailed types that are easy to interpret and understand.

There are 51,924 mosaic households within Preston Circus station admin area, dispersed across the station area. which are broken down by the 15 summary Mosaic Lifestyle groups.

Mosaic Lifestyle Group	Preston Circus	%	ESFRS	%
A - Country Living	5	27.4	30,907	8.5
B - Prestige Positions	2,389	1.8	27,774	7.6
C - City Prosperity	8,823	0.0	21,862	6.0
D - Domestic Success	4,206	1.0	27,215	7.5
E - Suburban Stability	1,383	1.4	24,684	6.8
F - Senior Security	1,913	3.4	39,762	10.9
G - Rural Reality	3	48.0	17,553	4.8
H - Aspiring Homemakers	1,896	1.7	24,898	6.8
I - Urban Cohesion	3,579	0.0	14,427	4.0
J - Rental Hubs	18,945	2.2	50,913	14.0
K - Modest Traditions	503	1.1	10,777	3.0
L - Transient Renters	426	2.1	13,853	3.8
M - Family Basics	3,239	1.4	20,841	5.7
N - Vintage Value	1,806	7.4	26,701	7.3
O - Municipal Challenge	2,808	1.0	11,485	3.2
<b>Total</b>	<b>51,924</b>	<b>100</b>	<b>363,652</b>	<b>100</b>

The predominant Mosaic groups describe 'Educated young people privately renting in urban neighbourhoods' and 'Thriving families who are busy bringing up children and following careers'. The top 3 Mosaic Types within Preston Circus Station area are:

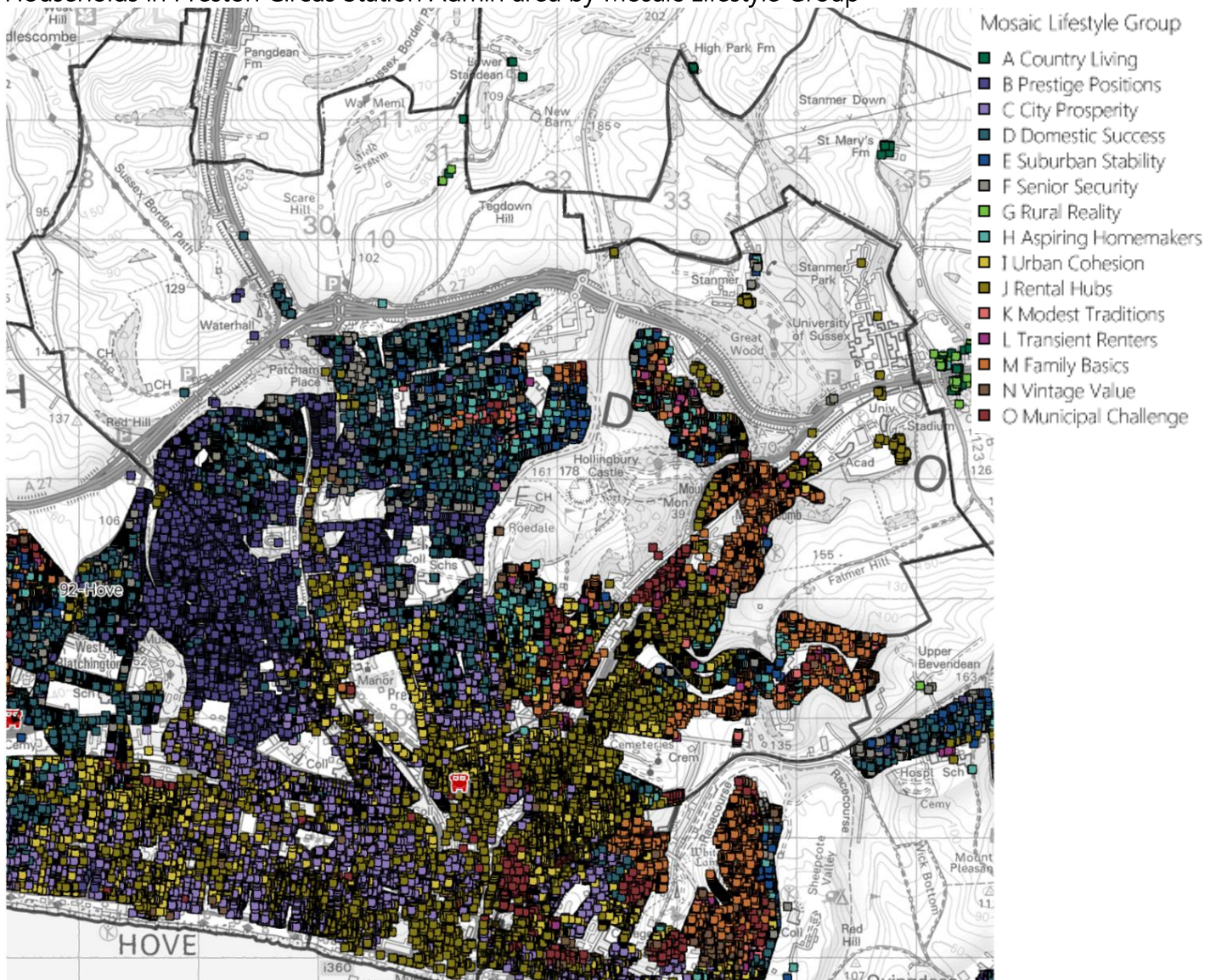
J41 - Central Pulse: Youngsters renting city centre flats in vibrant locations close to jobs and night life

J42 - Learners & Earners: Inhabitants of the university fringe where students and older residents mix in cosmopolitan locations

C12 - Metro High-Flyers: Ambitious people in their 20s and 30s renting expensive apartments in highly commutable areas of major cities

These 3 types of household have had a greater number dwelling fires over the past 9 years (14% of all dwelling fires across ESFRS) and, compared to the base population, also have a greater propensity to having a dwelling fire – ranging between a 40-90% more dwelling fires than one would expect. The map below shows the dispersal of households across the station area.

Households in Preston Circus Station Admin area by Mosaic Lifestyle Group

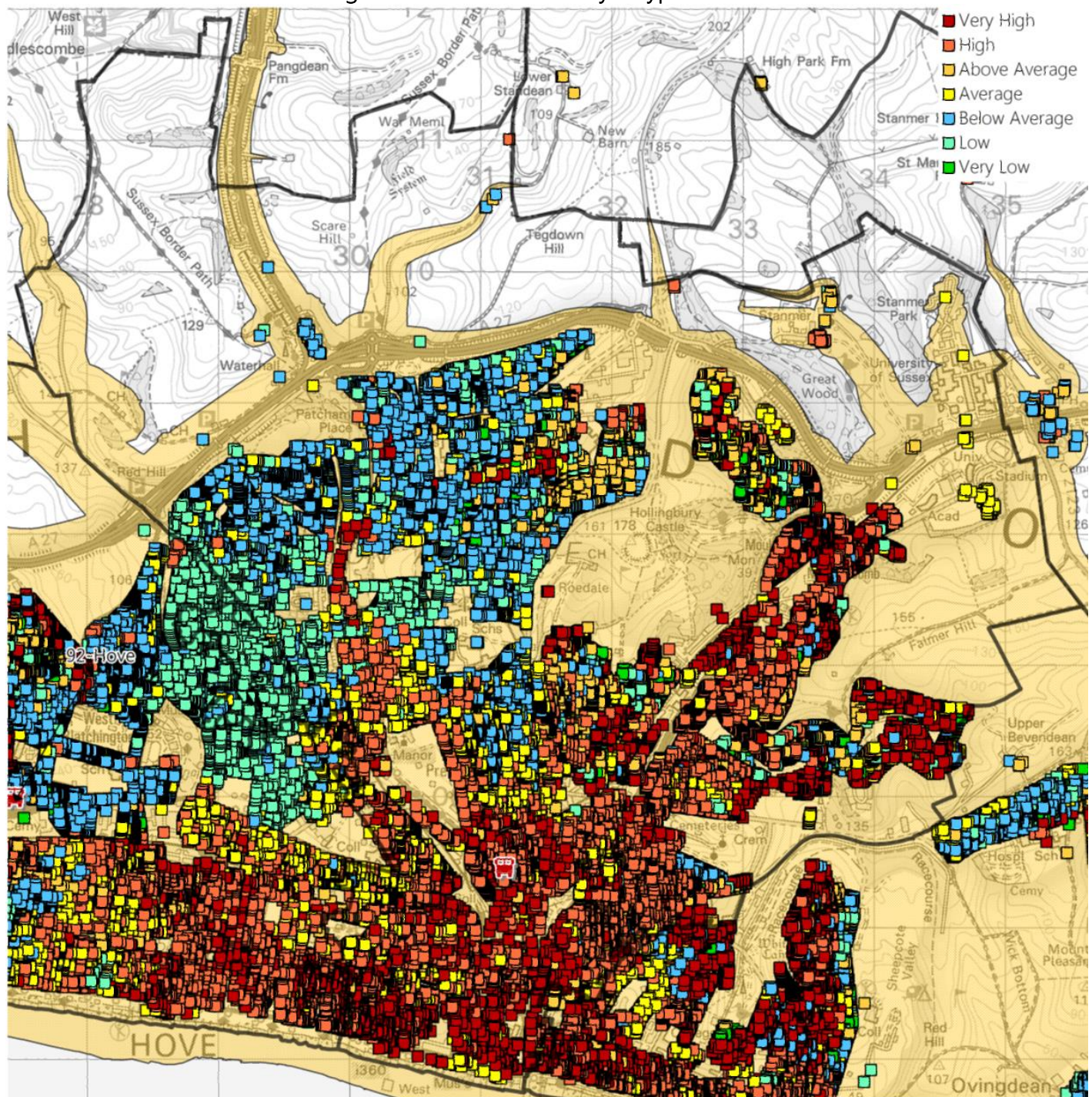


The map below shows the dispersion of mosaic households, classified by their initial fire risk rating, which is based on a combination of the number of fires and propensity to having a fire within each mosaic type. Those that have historically had a higher prevalence of and/or higher likelihood to having a fire are ranked higher. The risk rating is a relative risk and is a useful way to show socio-demographic risk, in the absence of additional risk information that ESFRS glean from other sources.

### Households in Preston Circus Station Admin area by Initial Fire Risk Rating

Station Area	Very High	High	Above Average	Average	Below Average	Low	Very Low	Total
Preston Circus	13,513	18,854	3,185	6,579	6,187	3,059	547	51,924
Preston Circus (%)	26.0%	36.3%	6.1%	12.7%	11.9%	5.9%	1.1%	100%
ESFRS (%)	18.4%	21.7%	11.5%	13.9%	17.2%	13.0%	4.3%	100%

### Household Fire Risk – Initial Rating based on Mosaic Lifestyle Type

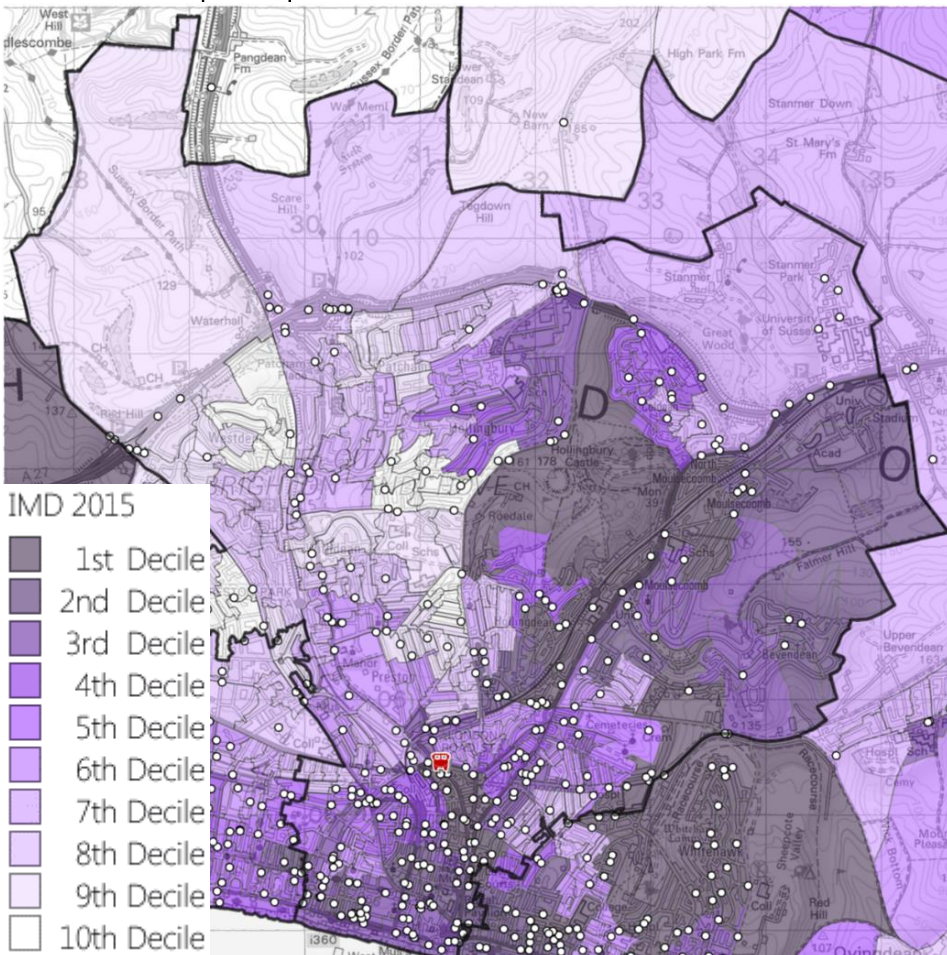


Station Admin Area	Very High	Within Att. Standard (Day)	%	Within Att. Standard (Night)	%	High	Within Att. Standard (Day)	%	Within Att. Standard (Night)	%
Preston Circus	13,513	13,513	100.0	13,513	100.0	18,854	18,851	100.0	18,851	100.0

Overall, virtually 100% of households within Preston Circus station area are within ESFRS attendance standards, for both day and night. The 5 households that sit outside are located in the far north of the station area near Standean. It can be seen that approximately 19% of households are deemed to represent a below average, low or very low fire risk. The Very High/High risk households represent 62% of households, all of which fall within the attendance standards isochrones.

The following map shows the Index of Multiple Deprivation (2015) deciles. IMD deciles measure the relative deprivation of an area compared with the whole of England and Wales and takes 7 domains of deprivation into consideration, namely: Income, Employment, Education, Health, Crime, Barriers to housing & services & Living environment. There is a positive correlation between deprivation and the numbers of incidents to which ESFRS respond. i.e. the more deprived an area, the more incidents to which we respond to.

### Index of Multiple Deprivation 2015 Deciles with 'Critical Incidents' (2013-18)



It can be seen that there are neighbourhoods within Preston Circus station area that are within the top 10% most deprived areas nationally as well as the 10% least deprived areas nationally. There is also an area in central Brighton that is within the top 1% most deprived areas nationally.

Highly deprived areas are located in the south/south-east of the station area, as well as towards the north-east, with the west/north-west of the station area being less deprived compared with other areas nationally.

### Holiday Parks

There are no major holiday parks located within Preston Circus station area

## Incidents

### Incidents occurring within Preston Circus Station Area

The analysis of historical incidents has been split into two sections in order to identify both the geographic location of the incident and each fire appliance's incident activity. This section deals with historical incidents that have occurred within the geographical station area of Preston Circus – irrespective of which appliance(s) were mobilised to the incident. This helps identify the types of incidents to which we have responded within Preston Circus's area.

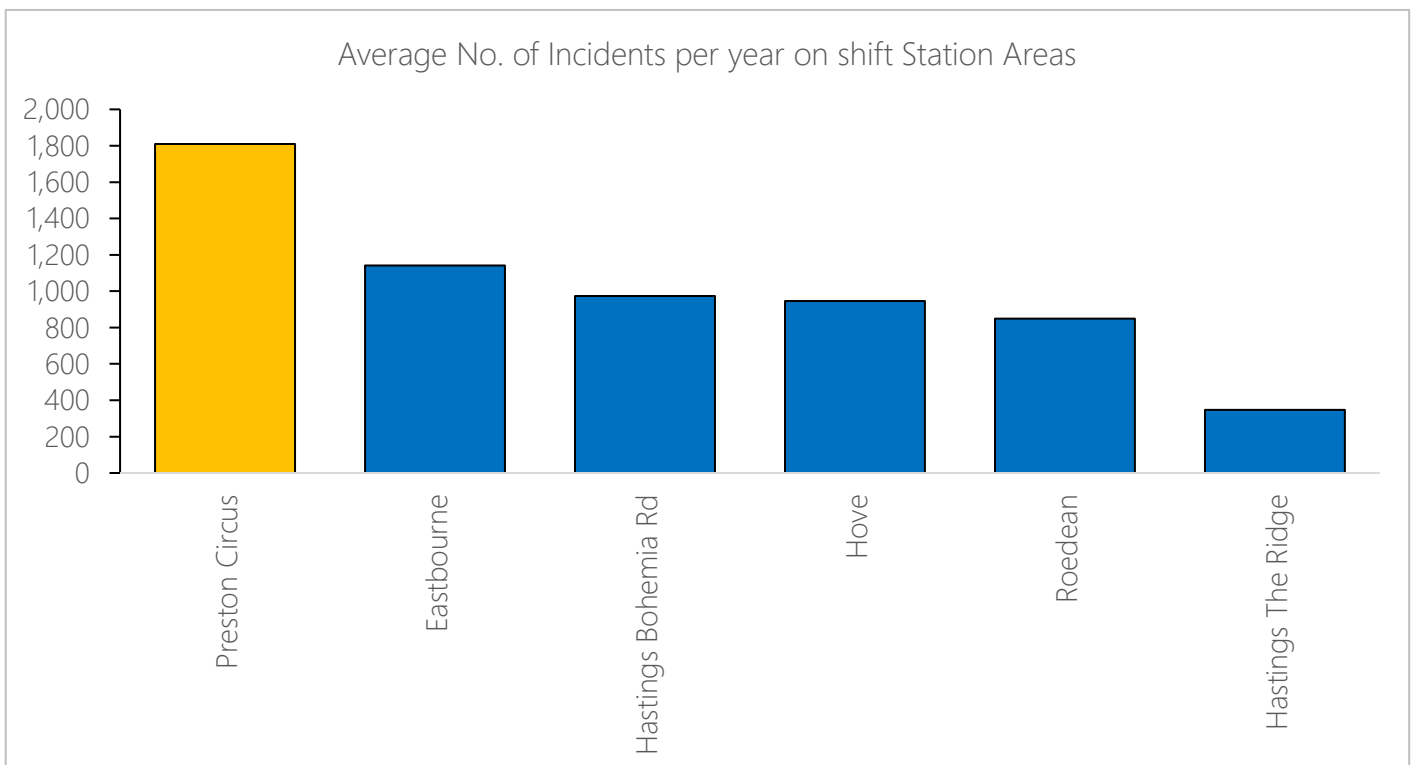
Over 9 years (Apr 2009 – Mar 2018), incidents within Preston Circus station area have decreased by 29%, albeit the last 3 years have seen a slight increase in the numbers of incidents, as shown below.

### No. of Incidents within Preston Circus Station Area per year

2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Total
2,576	2,368	2,094	1,937	1,899	1,820	1,765	1,735	1,829	18,023

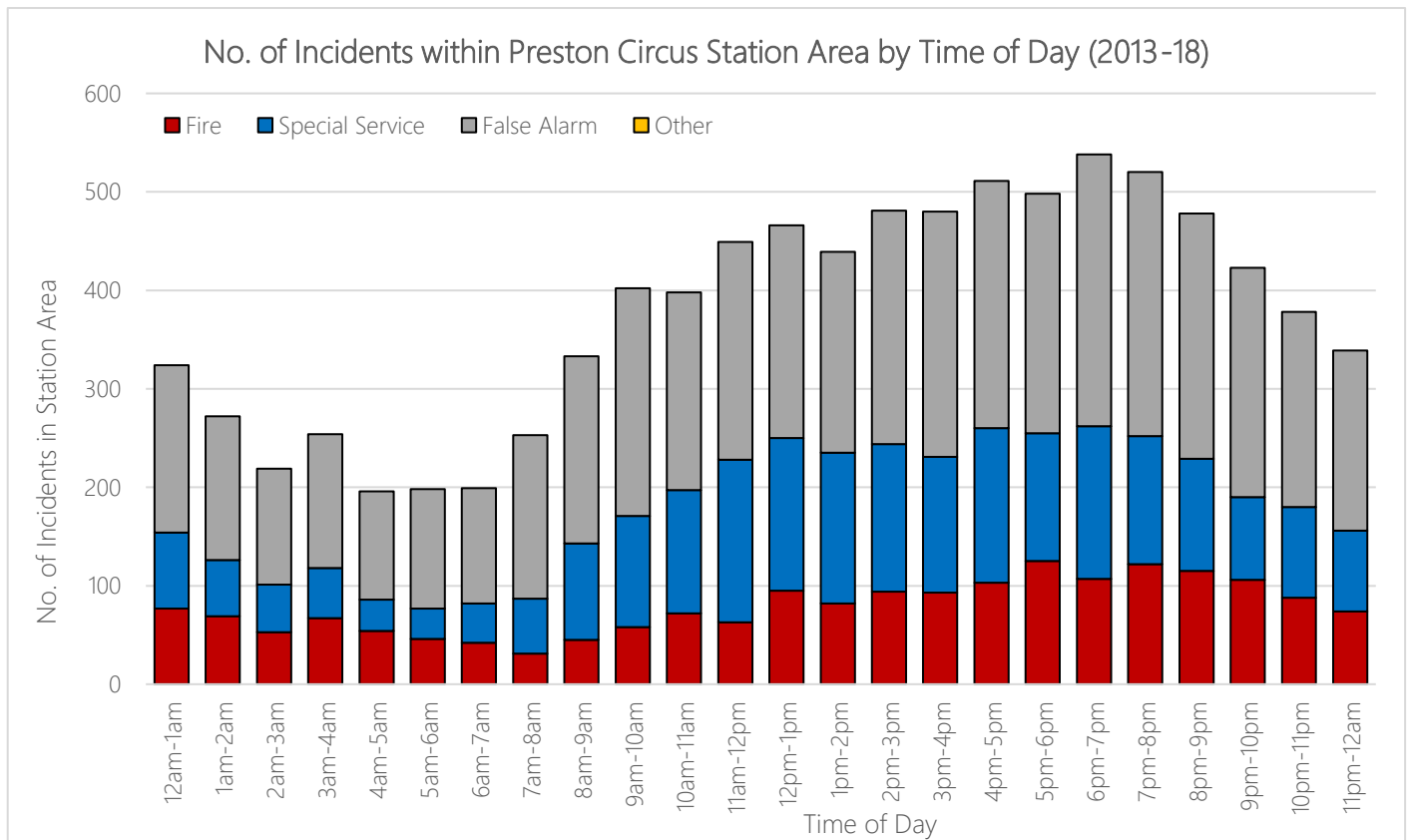
Between 2013-18, there were 9,048 incidents within the Preston Circus station area, which equates to an average of 1,810 incidents per year. No other station area has a similar number of calls, with the next busiest station area being Eastbourne, which has 1,142 incidents per year.

Preston Circus station area ranks 1 out of all 24 geographical station areas in terms of the numbers of incidents occurring within its area. Comparing with the other shift station areas across ESFRS, Preston Circus ranks 1<sup>st</sup> out of 6 by a significant margin, making it the busiest wholetime shift station area as well as the busiest station area across the whole of ESFRS.

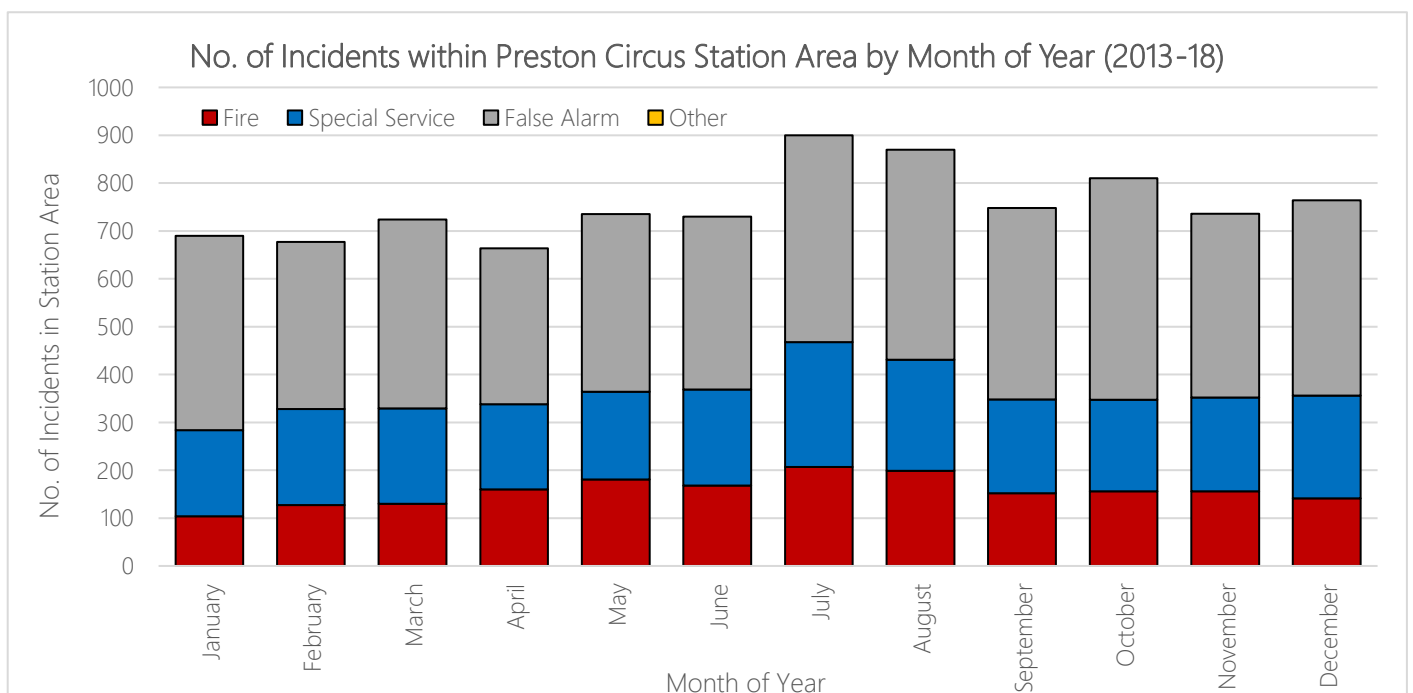




The following charts show the distribution of incidents by time of day and month of year. The shape of these distributions follows a typical distribution. Incidents begin to rise around 7am, peaking between 6-7pm and decrease around 8pm until reaching their lowest point between 4am-6am. There is a small increase between 3am-4am, which may coincide with City night-life. Fires peak between 5pm-6pm and 7pm-8pm, with a slight dip between 6pm-7pm. Special Service calls are at their greatest between 11am-12pm and false alarms peak at 6pm-7pm.



As you would expect, there are more incidents during the summer months compared to winter, with July representing the month with most incidents – and April with the least. Both fires and special services peak in July with the month of October having the greatest number of false alarms.



The following table illustrates the types of incidents that have occurred within Preston Circus station area over the past 9 years. Dwelling fires and RTC incidents combined make up 8.7% of incidents (158 per year) which is lower than the ESFRS average (11%). The proportion of fires and special service calls within Preston Circus station area are respectively 1.5% and 1.1% lower than the ESFRS average, and false alarm incidents are higher by 2.6%. Secondary fires represent the 3<sup>rd</sup> highest type of incident in Preston Circus area (after false alarm apparatus and false alarm good intent). Lift releases represent 5.2% of all calls in the area – higher than the ESFRS average of 3.7%. Over last 3 years, fires, special service calls and false alarms have all increased, with special service calls spiking in 2017/18 – the highest since 2010/11.

### No. of Incidents within Preston Circus Station Area by Incident Type

Incident Type	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Total	5yr Ave.	%	% ESFRS
Primary Fire - Dwelling	124	113	144	103	120	111	114	97	97	1,023	108	6.0	6.3
Primary Fire - Non Residential	66	48	44	48	47	32	44	43	40	412	41	2.3	2.1
Primary Fire - Other Residential	32	27	22	16	21	15	13	14	7	167	14	0.8	0.6
Primary Fire - Vehicle	83	67	55	46	39	42	49	43	38	462	42	2.3	2.7
Primary Fire - Outdoor	23	15	14	13	9	11	11	9	12	117	10	0.6	0.9
Chimney Fire	3	6	5	8	5	8	4	5	4	48	5	0.3	1.6
Secondary Fire	138	155	221	125	161	186	142	137	150	1,415	155	8.6	8.1
Fire - Classification Not Recorded	0	0	0	0	0	0	0	0	1	1	0	0.0	0.1
Special Service - Advice Only	4	3	1	3	8	6	6	1	5	37	5	0.3	0.3
Special Service - Animal assistance incidents	30	27	38	30	40	24	28	27	34	278	31	1.7	2.3
Special Service - Assist other agencies	20	11	18	11	12	26	22	35	51	206	29	1.6	1.7
Special Service - Effecting Entry/Exit	89	88	77	81	79	77	80	59	77	707	74	4.1	3.9
Special Service - Evacuation (no fire)	0	0	1	0	1	0	0	0	0	2	0	0.0	0.0
Special Service - Flooding	85	81	81	79	71	95	86	69	108	755	86	4.7	4.2
Special Service - Hazardous Materials	9	2	2	8	5	3	7	9	3	48	5	0.3	0.3
Special Service - Lift Release	173	146	90	121	78	90	104	102	95	999	94	5.2	3.7
Special Service - Making Safe (not RTC)	30	18	28	41	65	19	35	21	30	287	34	1.9	1.8
Special Service - Medical Incident	4	5	3	4	4	1	5	2	9	37	4	0.2	0.2
Special Service - No action (not false alarm)	14	19	29	14	13	9	18	12	12	140	13	0.7	0.7
Special Service - Other rescue/release of persons	21	19	23	13	17	11	15	15	16	150	15	0.8	1.0
Special Service - Other Transport	2	5	3	3	1	4	0	3	3	24	2	0.1	0.3
Special Service - Removal of objects from people	16	19	9	18	10	11	16	9	9	117	11	0.6	0.6
Special Service - Removal of people from objects	0	0	0	2	5	2	3	2	7	21	4	0.2	0.3
Special Service - Rescue or evacuation from water	0	0	0	0	0	0	0	1	0	1	0	0.0	0.1
Special Service - RTC	65	55	49	39	45	55	51	47	53	459	50	2.8	5.1
Special Service - Spills and Leaks (not RTC)	30	31	27	28	29	28	18	24	17	232	23	1.3	1.1
Special Service - Stand By	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
Special Service - Suicide	2	2	5	7	5	2	1	8	5	37	4	0.2	0.1
Special Service - Unknown	5	4	1	2	2	0	0	0	3	17	1	0.1	0.2
Special Service - Water provision	1	2	0	0	1	0	1	0	0	5	0	0.0	0.0
False Alarm - Apparatus	1,110	1,059	814	804	745	691	679	692	677	7,271	697	38.5	34.6
False Alarm - Good Intent	312	257	236	215	215	215	177	216	232	2,075	211	11.7	13.6
False Alarm - Malicious	84	82	53	55	46	45	34	33	33	465	38	2.1	1.3
False Alarm - Unknown	1	1	1	0	0	1	2	0	1	7	1	0.0	0.2
Other	0	1	0	0	0	0	0	0	0	1	0	0.0	0.0
<b>Grand Total</b>	<b>2,576</b>	<b>2,368</b>	<b>2,094</b>	<b>1,937</b>	<b>1,899</b>	<b>1,820</b>	<b>1,765</b>	<b>1,735</b>	<b>1,829</b>	<b>18,023</b>	<b>1,810</b>	<b>100</b>	<b>100</b>

In addition to the above table, which breaks down fires by property type, special services by special service type and false alarms by false alarm type, the following table further breaks down false alarms by property type. It can be seen that 41% of false alarms are to dwellings, which is lower than the average proportion across ESFRS (49%). There is a corresponding rise in the proportion of false alarms to non-residential properties.

#### No. of False Alarms by Property Type (Apr 2013 - Mar 2018)

Property Type	Preston Circus	ESFRS
Dwelling	1,916 (40.5%)	11,127 (49%)
Non-Residential	1,819 (38.4%)	6,612 (29.1%)
Other Residential	567 (12%)	2,181 (9.6%)
Outdoor	228 (4.8%)	1,762 (7.8%)
Outdoor Structure	54 (1.1%)	194 (0.9%)
Road Vehicle	93 (2%)	443 (2%)
Unknown	57 (1.2%)	377 (1.7%)
<b>Total</b>	<b>4,734</b>	<b>22,696</b>

The following table shows the number of critical incidents that occur within Preston Circus station area over the past 9 years. This equates to an average of 71 incidents per year which result in a rescue or some form of injury (special service rescues (excl. RTCs) with no injury are not included in the calculation). Given that approximately 1,810 incidents occur within Preston Circus area each year, this represents around 3.9% of incidents have some form of life risk, which is lower than the ESFRS average of 5.2%. The trend is an upward one, with 2017/18 spiking due to the sharp increase in life-risk in special service incidents (non-RTC related).

#### No. of Critical Incidents within Preston Circus Station Admin Area

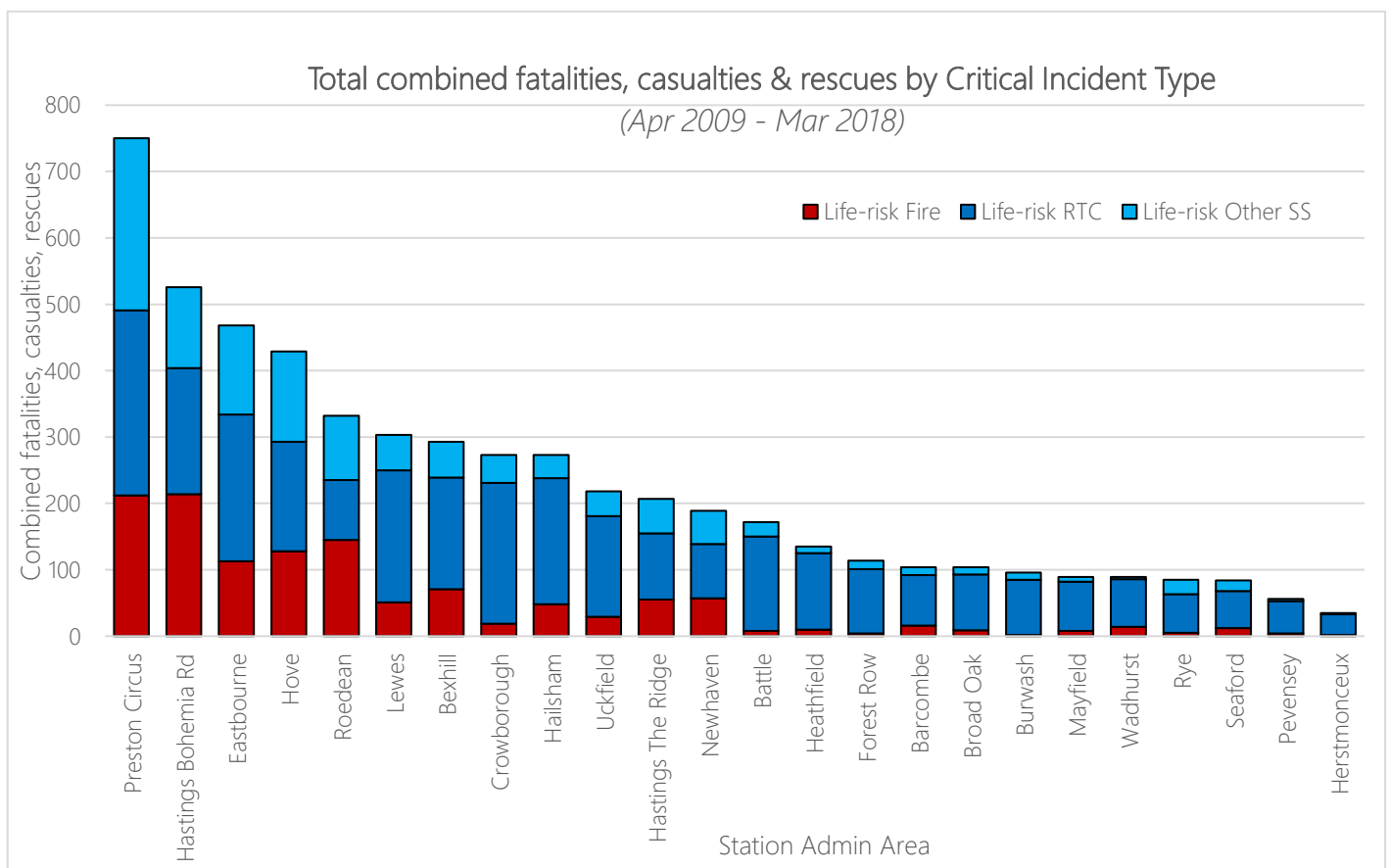
Critical Incidents	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Total
Life-risk Fire	31	20	25	19	22	7	19	16	13	172
Life-risk RTC	26	30	28	21	20	26	25	16	27	219
Life-risk Special Serv.	31	25	31	18	24	18	17	32	53	249
<b>Total</b>	<b>88</b>	<b>75</b>	<b>84</b>	<b>58</b>	<b>66</b>	<b>51</b>	<b>61</b>	<b>64</b>	<b>93</b>	<b>640</b>

The table below shows the actual numbers of fatalities, casualties and rescues recorded against each critical incident type over the past 9 years. It can be seen that 640 critical incidents have resulted in 750 injuries and/or rescues over the past 9 years (83.3 fatalities, casualties, rescues per year), thus each critical incident in Preston Circus area gives rise to 1.17 casualties. This is lower than the ESFRS average of 1.26 casualties to every critical incident.

**No. of fatalities, casualties and rescues within Preston Circus Station Area (Apr 09 – Mar 18)**

Casualty Severity	Fire	RTC	Other SS.	Total
Fatal Injury	3	6	16	25
Serious Injury	12	57	106	175
Slight Injury	72	157	86	315
First Aid/Prec. Check	63	33	51	147
Rescue (No Injury)	62	26	0	88
<b>Total Life-Risk</b>	<b>212</b>	<b>279</b>	<b>259</b>	<b>750</b>

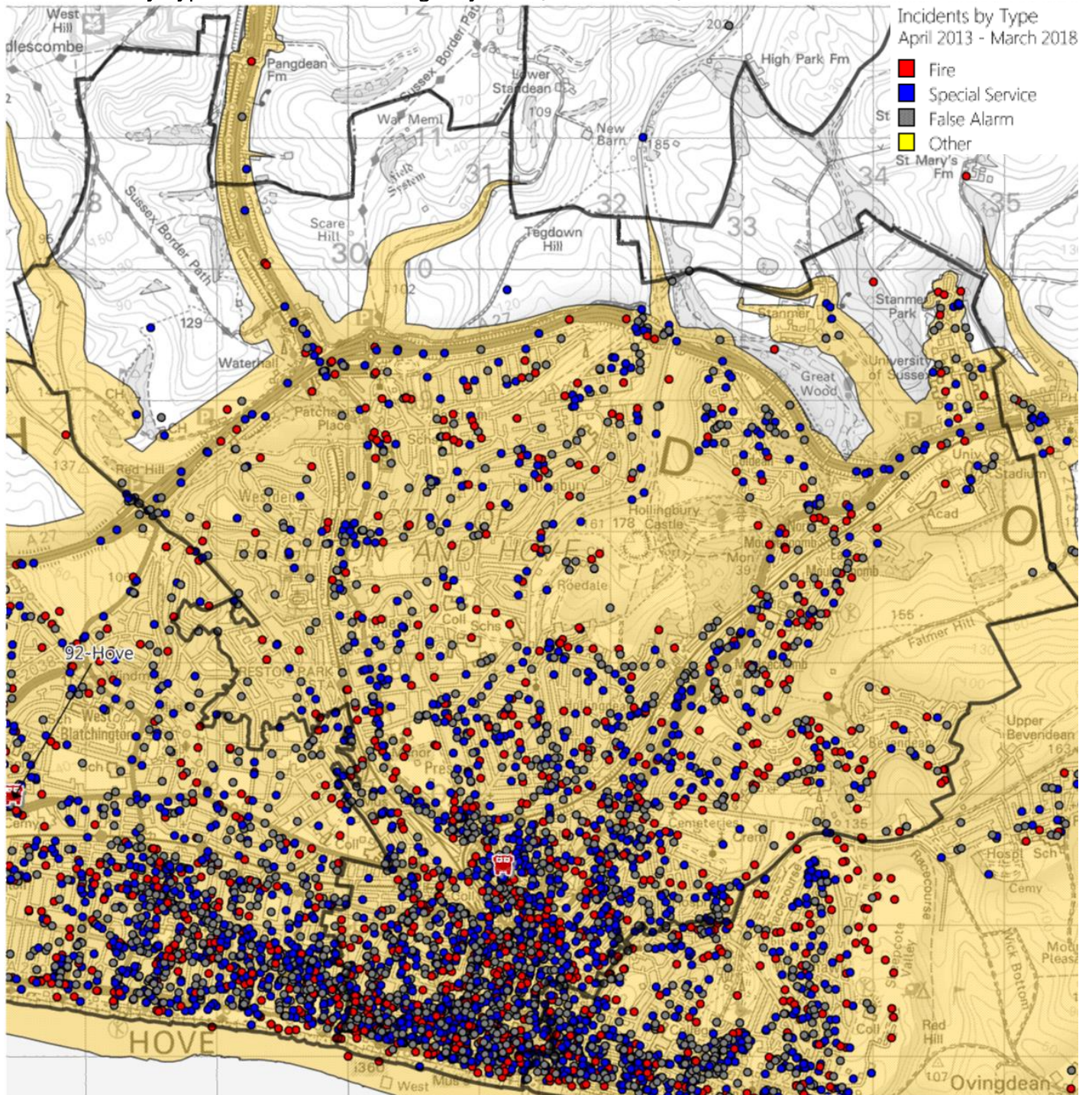
Preston Circus ranks 1 out of the 24 station areas (and 1 out of 6 shift areas) regarding combined numbers of fatalities, casualties and rescues as demonstrated on the following chart. However, Preston Circus ranks 2<sup>nd</sup> out of the 6 shift station areas for the number of fire injuries/rescues – with Hastings Bohemia Road ranking 1<sup>st</sup>.



51% of incidents within Preston Circus station area occurred during the daytime (between 08:30 and 18:30).

The map below shows all daytime incidents over the last 5 years, with daytime attendance standards coverage overlaid. 99.8% of daytime incidents fall within the attendance standards isochrone. The proportion of all incidents that fall outside of the isochrones is the 2<sup>nd</sup> lowest out of all station areas. The 10 incidents located outside of the isochrones are in the far north of the station area.

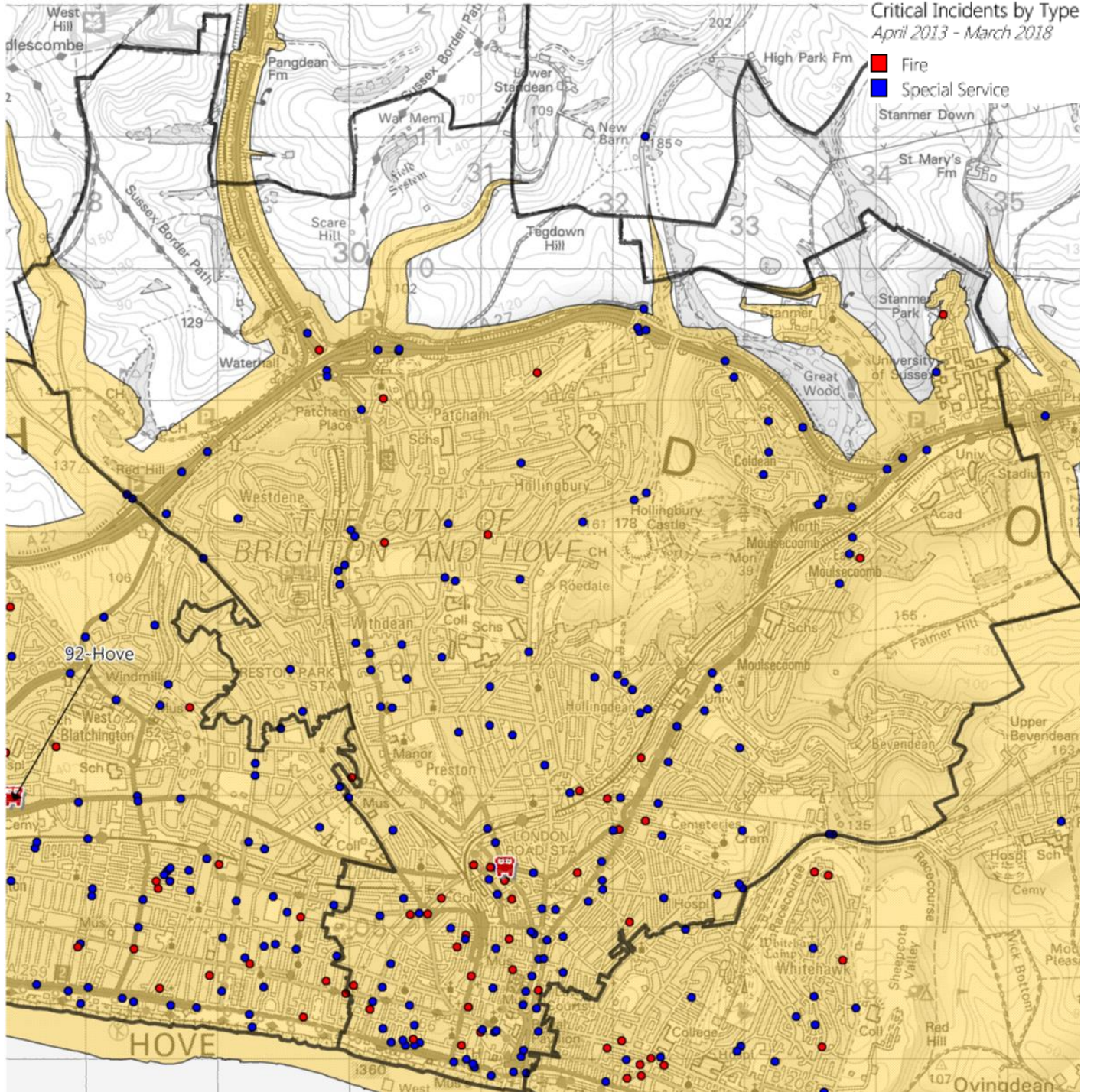
All Incidents by Type that occurred during 'daytime' (08:30 – 18:30) between 2013-18



The following map now only show critical incidents that occurred within Preston Circus station area during the day.

53% of these occurred during the daytime (between 08:30 and 18:30). 99.4% fall within the attendance standards isochrone.

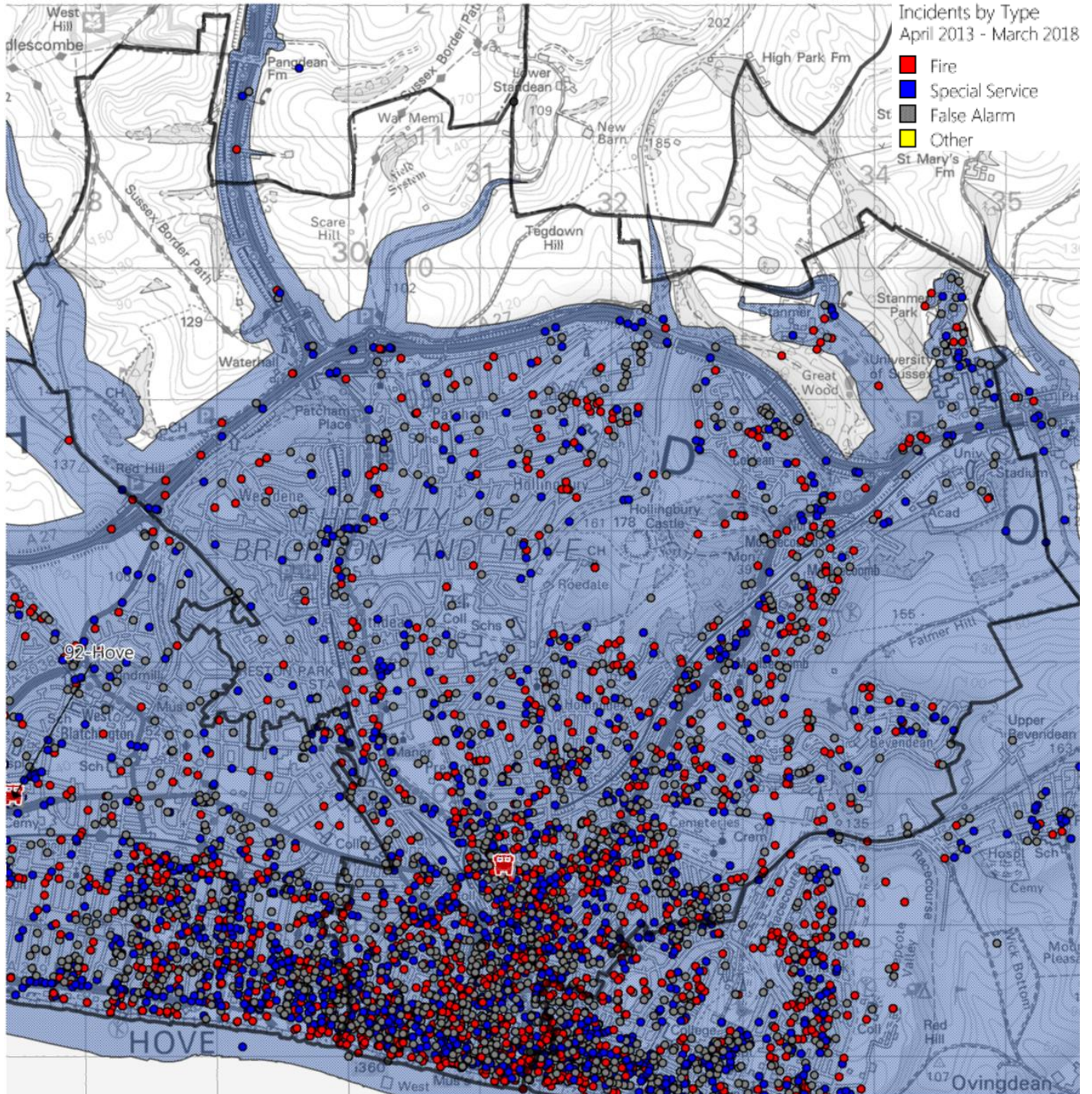
### Critical Incidents by Type that occurred during 'daytime' (08:30 – 18:30) between 2013-18



49% of incidents within Preston Circus station area occurred during the night time (between 18:30 and 08:30).

The map below shows all night time incidents over last 5 years, with night time attendance standards coverage overlaid. 99.9% of night time incidents fall within the attendance standards isochrone. The proportion of all incidents that fall outside of the isochrones is the 5<sup>th</sup> lowest out of all station areas.

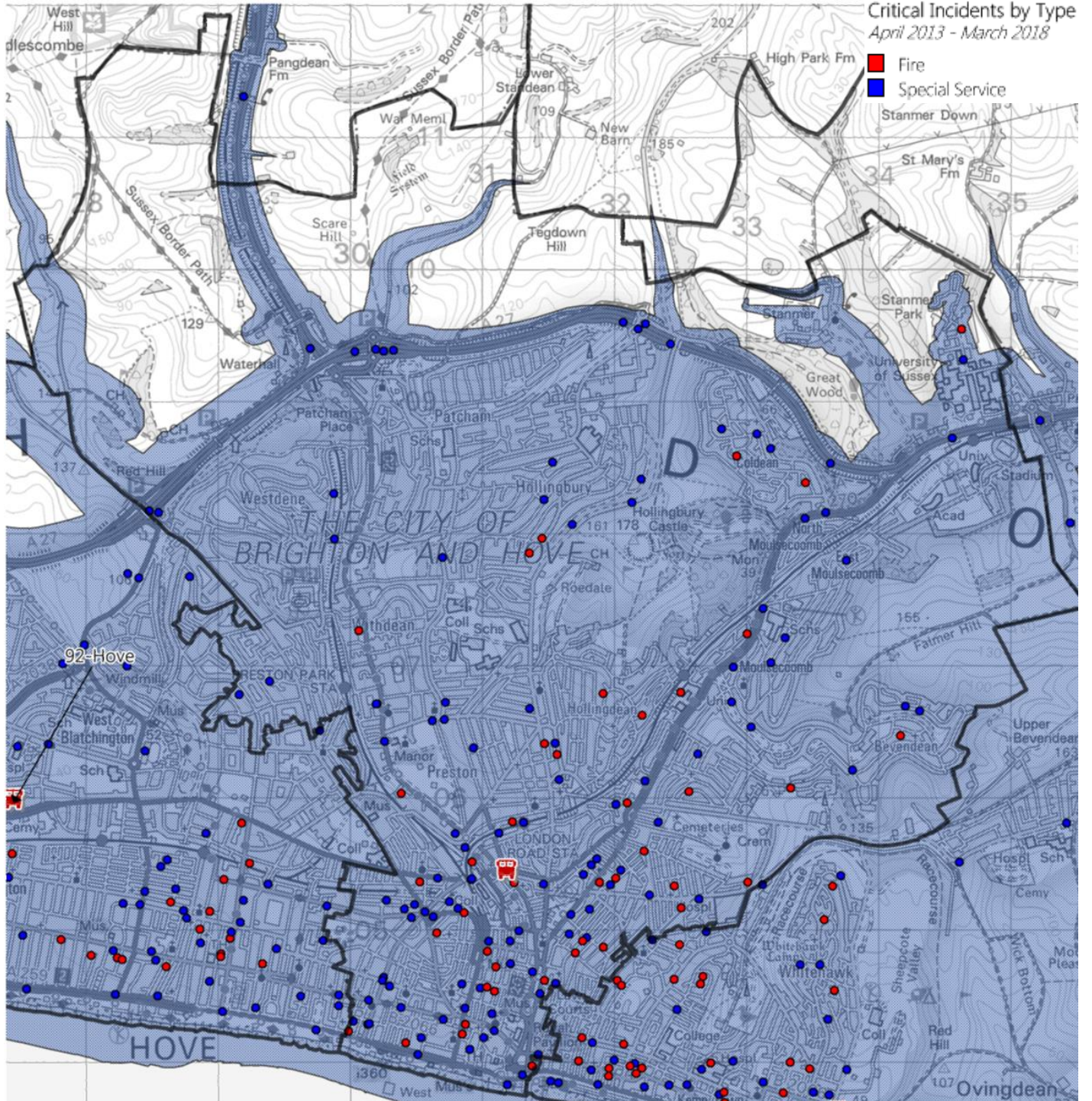
### All Incidents by Type that occurred during 'night time' (18:30 – 08:30) between 2013-18



The following map now only shows critical incidents that occurred within Preston Circus station area during the night.

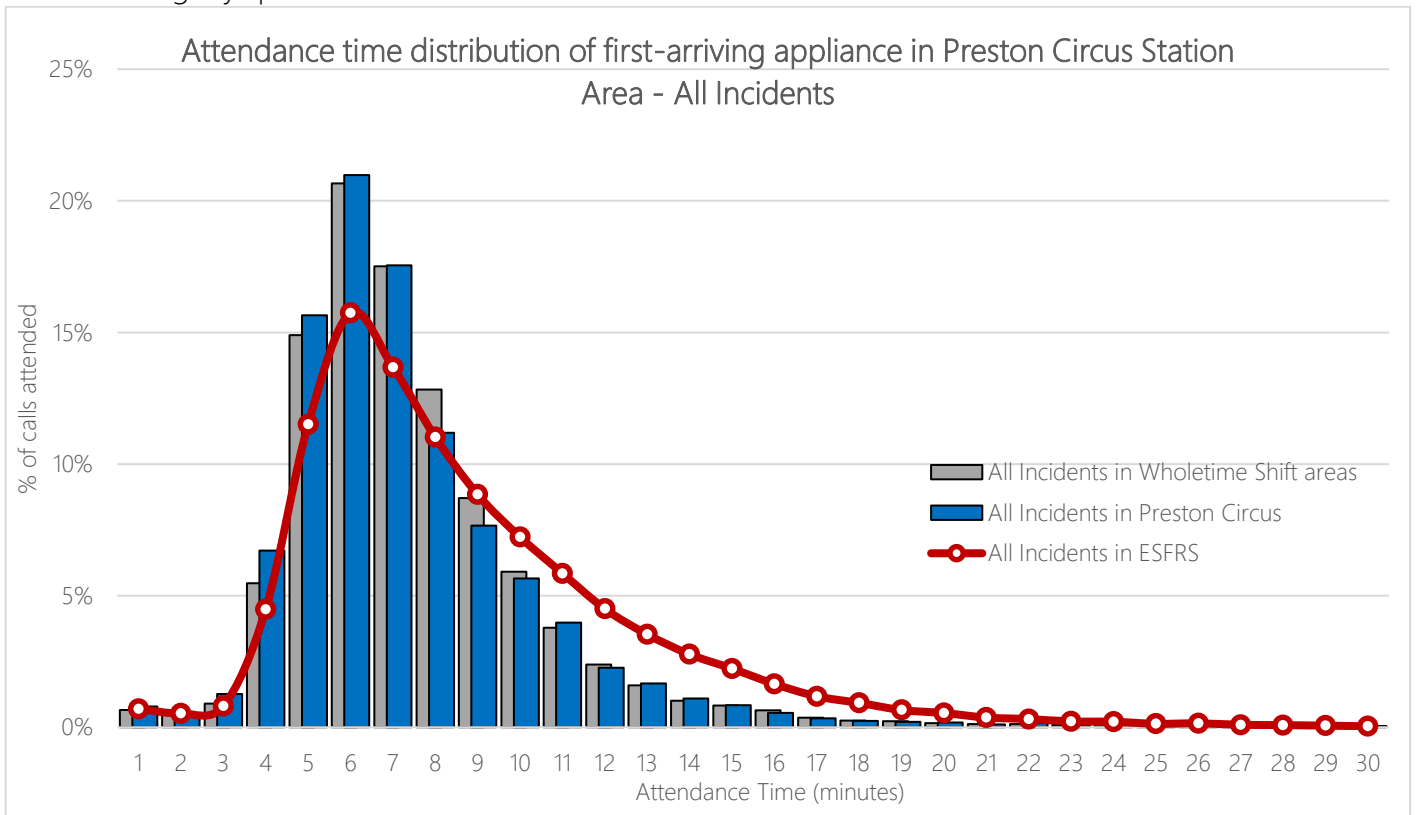
47% of these occurred during the night time (between 18:30 and 08:30). 100% fall within the attendance standards isochrone.

### Critical Incidents by Type that occurred during 'night time' (18:30 – 08:30) between 2013-18

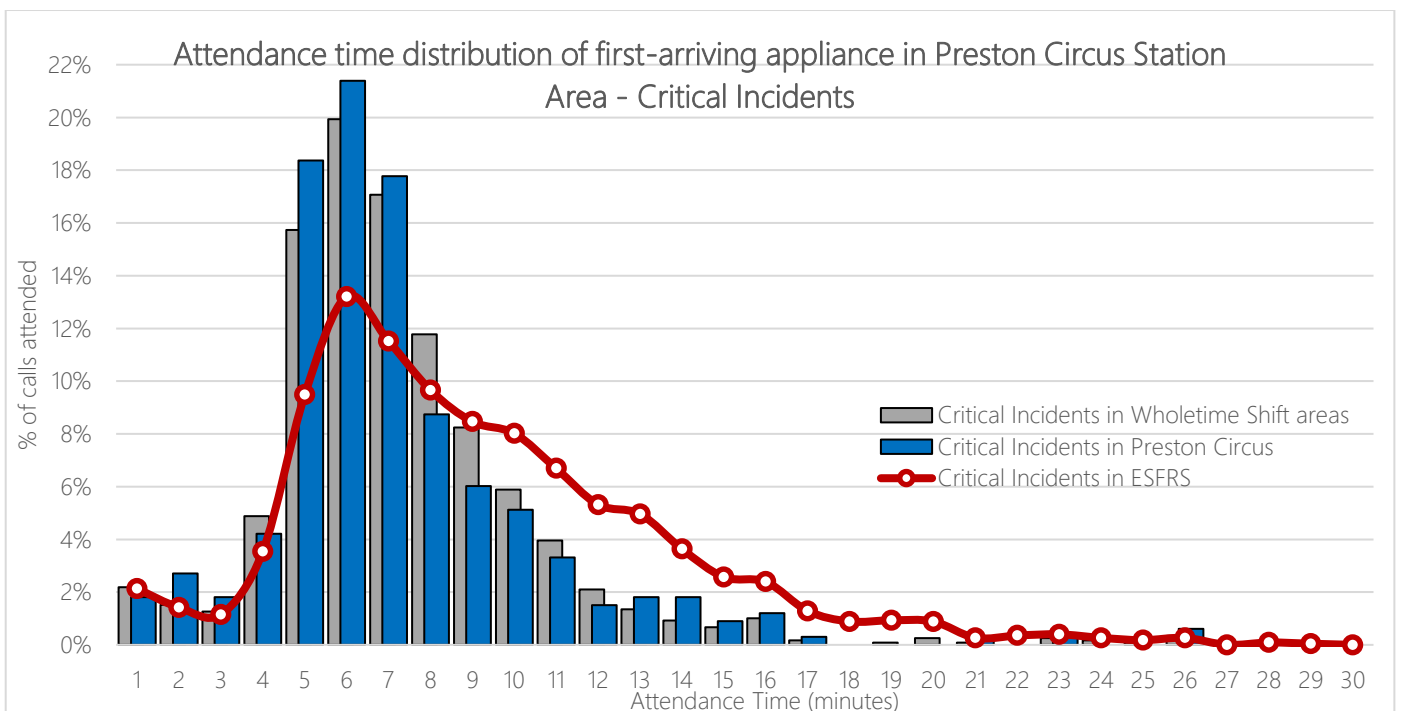




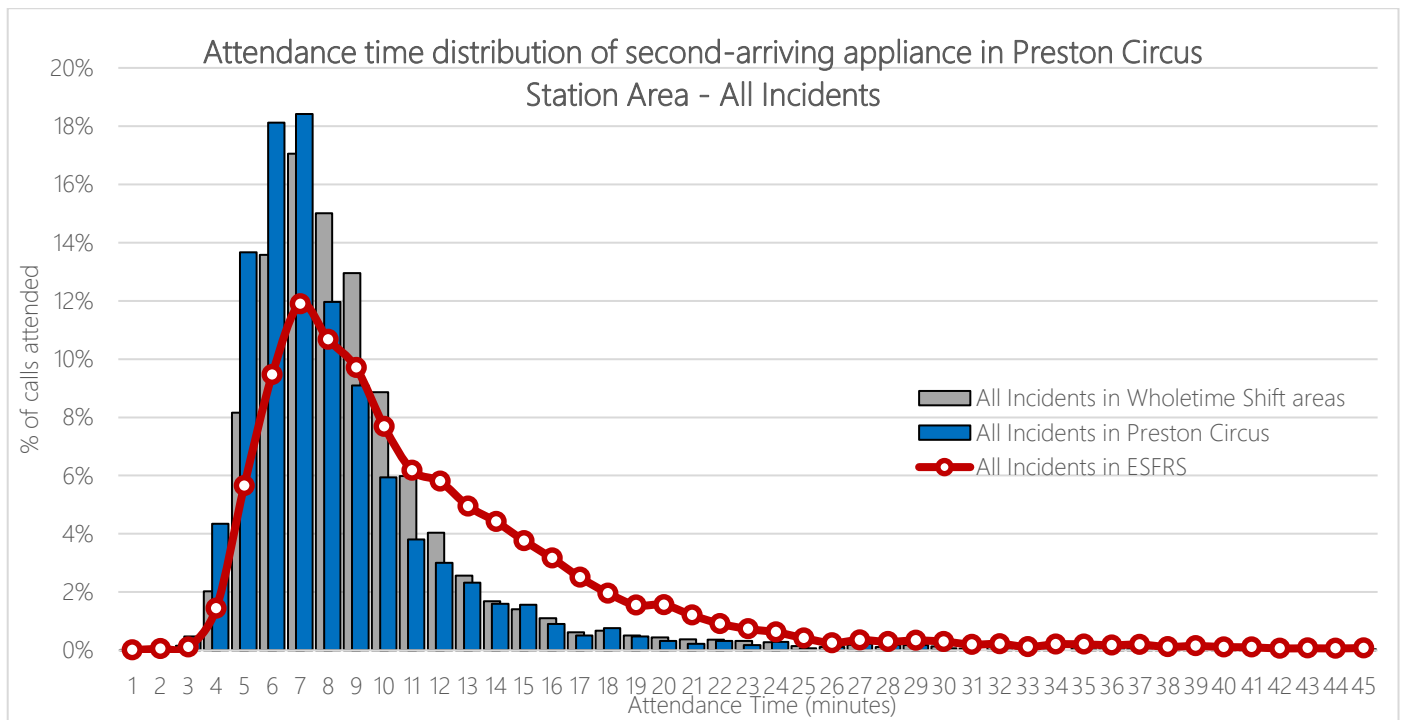
The chart below shows the distribution of response times by minute intervals. These distributions are based on 5 years of data (Apr 2013 – Mar 2018) and help understand the range of response times to all types of incidents that have occurred within Preston Circus Station area, compared with other areas. It can be seen that, compared to other shift station areas, there are a greater proportion of initial attendances between 3-6 minutes, but fewer attendances between 8-10 minutes indicating that, overall, attendances to Preston Circus are slightly quicker than other wholetime shift station areas.



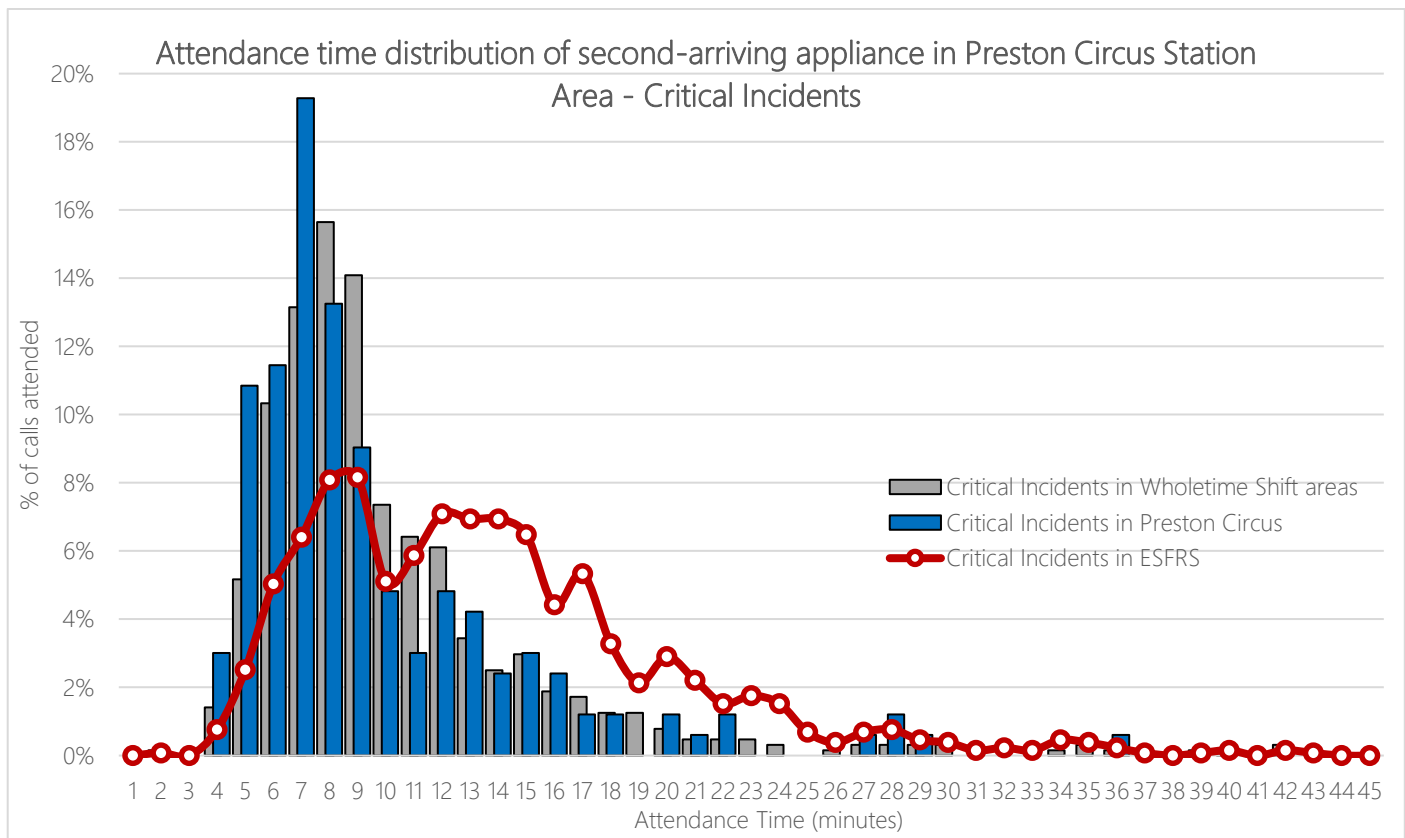
The following chart depicts similar information, but for critical incidents only. As there are fewer critical incidents within Preston Circus area, the distribution curve is less uniform. Again, critical incident attendance times are, generally, quicker than other wholetime shift station areas.



The chart below shows the distribution of response times to all incidents by minute intervals for the second appliance (where applicable) across a five year period (Apr 2013 – Mar 2018). It can be seen that, compared to the previous charts, the attendance times peak between 6-7 minutes for the arrival of the 2<sup>nd</sup> appliance compared to 6 minutes for the 1<sup>st</sup> appliance. 2<sup>nd</sup> pump attendances are quicker than other wholetime shift station areas. This is due to the fact that Preston Circus has a 2<sup>nd</sup> shift fire appliance.



The chart below shows the distribution of attendance times to critical incidents across Preston Circus station area for the 2<sup>nd</sup> appliance over a five year period (Apr 2013 – 2018). It can be seen that, overall, attendance times are quicker in Preston Circus, compared with all wholetime shift areas.



The table below shows the average delay between the arrival of the first and second appliances within Preston Circus station area for dwelling fires and RTCs – the two incident types represent where the majority of our life-risk incidents occur and where we typically send 2 pumping appliances as part of the initial PDA. It can be seen that, compared to other wholetime shift areas, the average lag time is lower for both dwelling fires and RTCs by approximately 0.75 minutes and 0.5 minutes respectively. This is most likely because Preston Circus has two wholetime shift fire appliances, whereas the other shift station areas (except Eastbourne) only have a single fire appliance.

Incident Type	Ave. Lag Time in Preston Circus	Ave. Lag Time across all Wholetime Shift areas	Ave. Lag Time across ESFRS area
Primary Fire - Dwelling	01:33	02:15	03:21
Special Service - RTC	02:36	03:04	04:17

Between April 2013 and March 2018, 69% of incidents within the Preston Circus station area were attended by a single fire appliance, which is a little lower with the ESFRS total of 72% of incidents.

The table below shows, when there was a 2<sup>nd</sup> pump attendance, which appliances attended. FJE91P4 was, as you would expect, the 2<sup>nd</sup> pump attendance on 58% of occasions. FJE91P1 was the 2<sup>nd</sup> pump attendance on 26% of occasions – therefore, 84% of the time, the 2<sup>nd</sup> pump attendance was by a Preston Circus appliance. Hove's 92P1 was the 2<sup>nd</sup> pump on 5% of occasions with 92P4 arriving as 2<sup>nd</sup> pump on 4% of occasions, before its removal in April 2016. Roedean was the 2<sup>nd</sup> pump on 5% of occasions also. Lewes was the 2<sup>nd</sup> pump attendance on 1% of occasions.

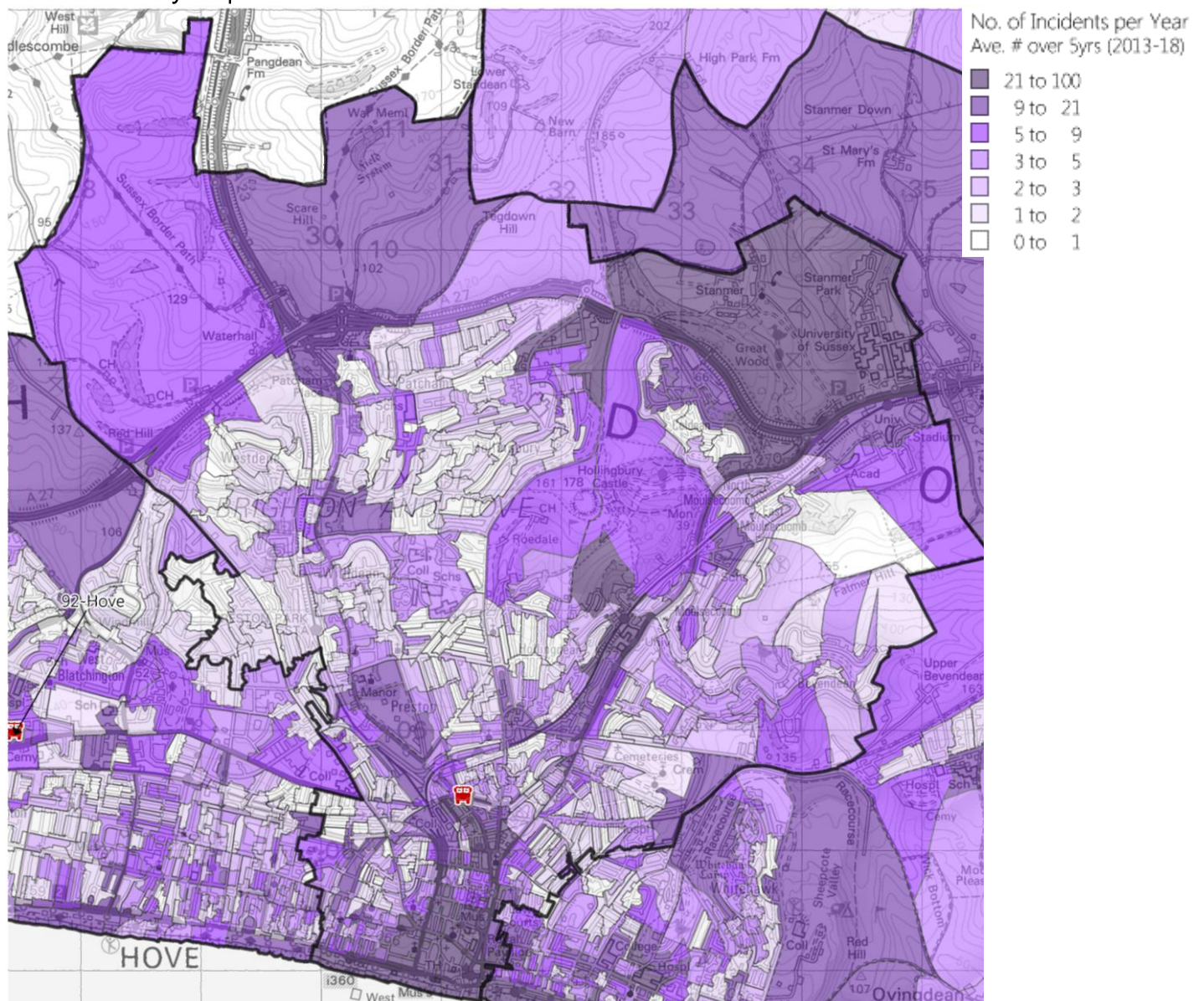
FJE91P4 (58%)	FJE91P1 (26%)	FJE90P1 (5%)	FJE92P1 (5%)	FJE92P4 (4%)	FJE89P1 (1%)
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The following map shows, by output area, the average number of incidents to which it is mobilised per year (based on a 5 year average). An Output Area (OA) is a geographic area, designed specifically for statistical purposes by the Office of National Statistics and used to aggregate Census information. An OA contains approximately 130 households, so output areas in rural communities can cover a large geographic area but an inner-city output area might only cover a street or a cluster of densely populated high-rise premises.

The map seeks to demonstrate the areas where there have been the most incidents within the Preston Circus station area over the past five years. The darker the shade, the more incidents have occurred in the area. The ranges have been calculated statistically using the 'natural breaks' algorithm.

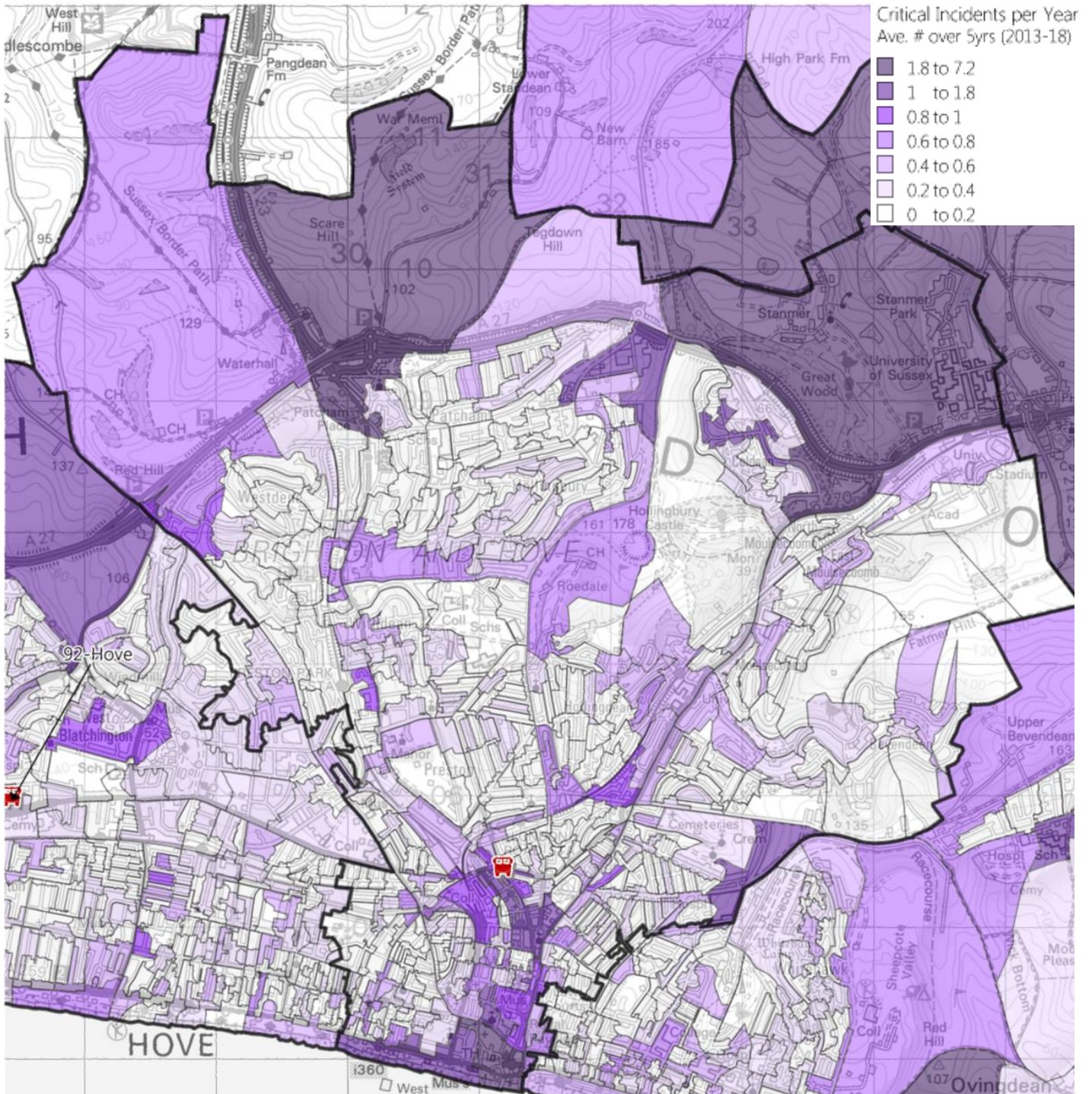
It can be seen that, within the station area, there are areas in which there are a relatively significant number of incidents per year as well as areas that have very little activity. It can be seen that the areas to the south of the fire station towards the coast represent areas which have a high incident density, including areas extending upward towards Moulsecoomb. The areas that contain university buildings in Moulsecoomb, as well as the University of Sussex in the top north-east of the station area are shaded dark due to the number of incidents (particularly false alarms) that are represented in these areas. The large output areas to the north of the station area are shaded primarily due to the RTC risk along the A27.

### Incident Density Map



The following map shows, by output area, the average number of critical incidents to which it is mobilised per year (based on a 5 year average). It can be seen again that, the areas to the south of the fire station, towards and along the coast represent the areas with a higher number of critical incidents per year. The larger output areas to the north of Preston Circus station area are also shaded darkly, due to the number of critical special service RTC incidents along the A27.

### Critical Incident Density Map



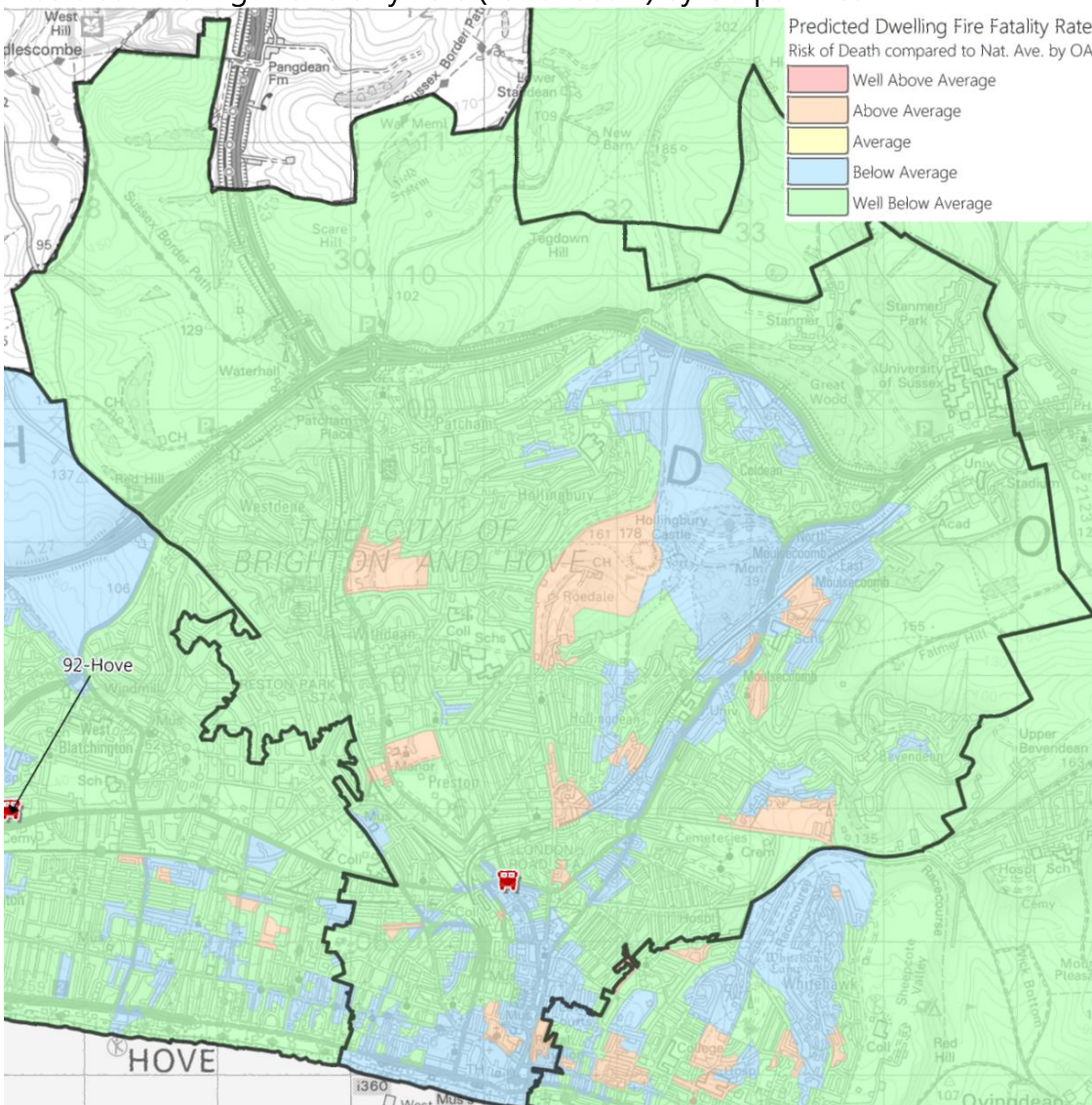
The following table illustrates the number of level 3 and 4 incidents that have occurred over the past 9 years within Preston Circus station area. A level 3 incident is where between 7-9 pumping appliances are in attendance at the incident, whereas a level 4 incident represents where 10 or more pumping appliances attended. These incidents denote where significant resource was required in order to deal with a particular incident. There have been 3 level 4 incidents and 4 level 3 incidents over the past 9 years.

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Grand Total
Level 3 (7-9 pumps)	1	0	1	0	0	0	0	0	2	4
Level 4 (10+ pumps)	1	0	0	1	1	0	0	0	0	3
<b>Preston Circus Total</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>7</b>
<b>ESFRS Total</b>	<b>17</b>	<b>11</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>9</b>	<b>7</b>	<b>7</b>	<b>12</b>	<b>93</b>

The following map shows the predicted dwelling fatality rate by output area, produced by the Fire Service Emergency Cover Toolkit (FSEC). FSEC calculates the predicted risk of sustaining fatal injuries in a dwelling fire taking into account fire factors in census demographics, historical incident activity and response times. The map shows where the risk is higher and/or lower than the national average.

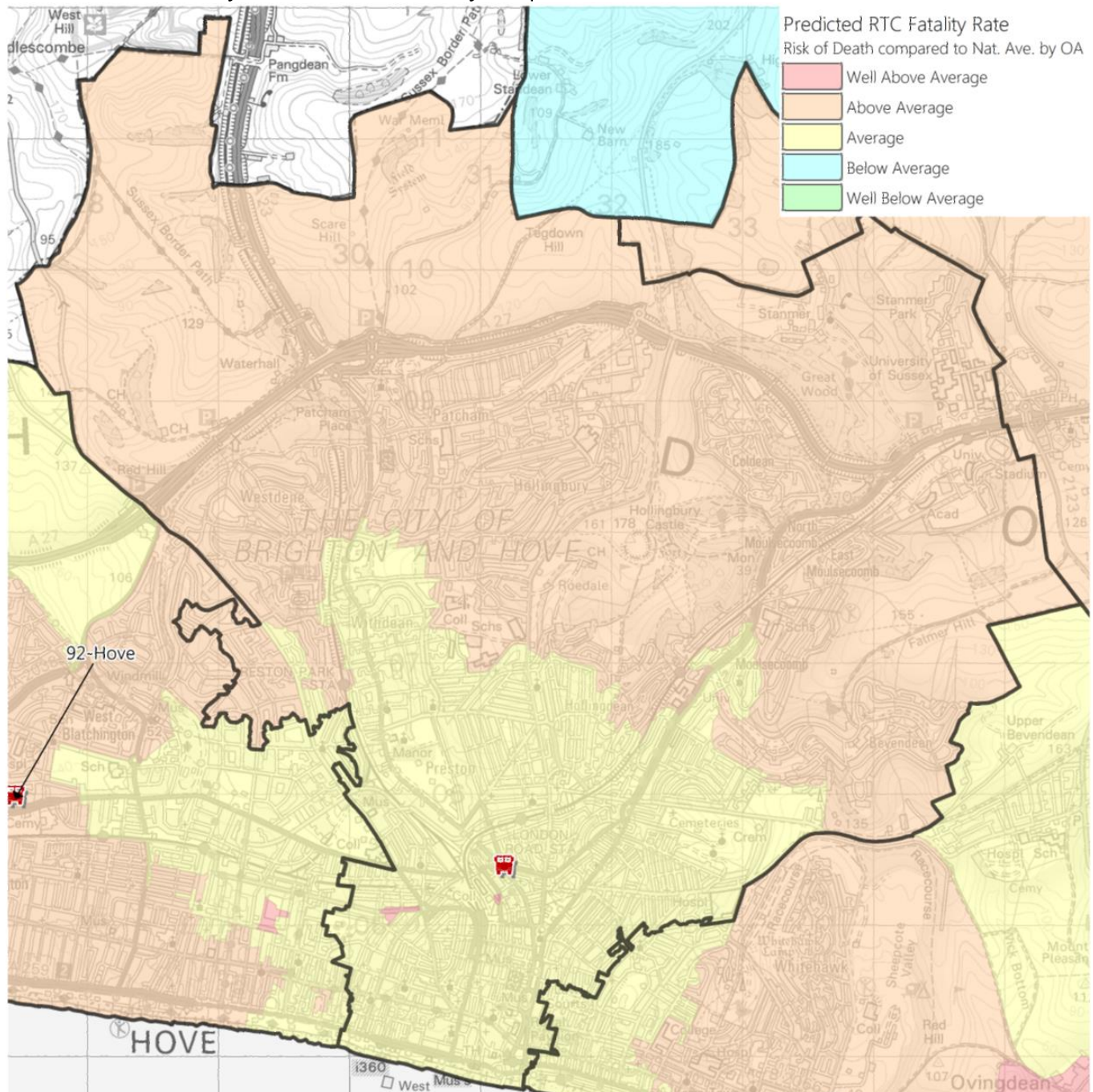
It can be seen that there are a number of areas within the Preston Circus station area that have an above average risk of sustaining fatal injuries in a fire compared with the national average. These areas typically have high proportions of rented accommodation, lone pensioners and those with a limiting long-term illness. The blue areas, although still below the national average, represent an elevated risk compared with the remaining station area – the main city centre to the south of the fire station and up through Moulsecoomb are noted as such. The remainder of the station area is deemed to be well below average.

**Predicted Dwelling Fire Fatality Rate (risk of death) by Output Area**



The following map shows the predicted RTC fatality rate by output area, produced by the Fire Service Emergency Cover Toolkit. Generally, the whole of the City of Brighton and Hove represents a mixture of average to above average risk. Within Preston Circus station area, the increased risk in RTC death is shown to be towards the north of the station area, particularly the areas through which the A27 traverses and other 'A' roads that are the main flow into and out of the City.

### Predicted RTC Fatality Rate (risk of death) by Output Area



### Congestion

According to the TomTom Traffic Index, Brighton & Hove rank 6<sup>th</sup> most congested city in the UK (62 out of 403 worldwide), based on 2018 data. As the 6<sup>th</sup> most congested city, Brighton & Hove has an average journey time 34% slower than if traffic was flowing freely. This increases to over 60% during peak times during the rush-hour and add an additional 18 minute per 30 minute trip in the morning and evening.

### Incidents to which Preston Circus appliance(s) were mobilised

Whilst the previous section dealt with incidents within Preston Circus station area irrespective of which appliances were mobilised, this section deals with incidents to which Preston Circus appliances have mobilised irrespective of the geographical location of the incident.

The table below shows the average turn-out times of each pumping appliance at Preston Circus. Average turn-out times have been calculated using a trim mean. Any turn-out time quicker than 30 seconds or longer than 12 minutes were not used in the calculation.

It can be seen that over the past five years, average turn-out times have been increasing and 2017/18 saw a marked increase in the average turn-out time for both appliances. The average turn-out time for 91P1 across the 9 years is 01:18 (7am-midnight) and 01:45 (midnight-7am) and the average turn-out time for 91P4 across the same period is 01:25 (7am-midnight) and 02:00 (midnight-7am). For both pumping appliances, there is a variance of approximately 30 seconds between the quickest and slowest years.

### Average turn-out times of Preston Circus appliance(s)

Callsign	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
FJE91P1 (7am-Midnight)	01:33	01:24	01:10	01:07	01:04	01:12	01:20	01:15	01:36
FJE91P1 (Midnight-7am)	02:01	01:50	01:39	01:37	01:33	01:41	01:41	01:39	02:02
FJE91P4 (7am-Midnight)	01:37	01:23	01:17	01:17	01:17	01:24	01:23	01:28	01:40
FJE91P4 (Midnight-7am)	02:13	01:56	01:53	01:52	01:50	01:58	01:52	02:06	02:18

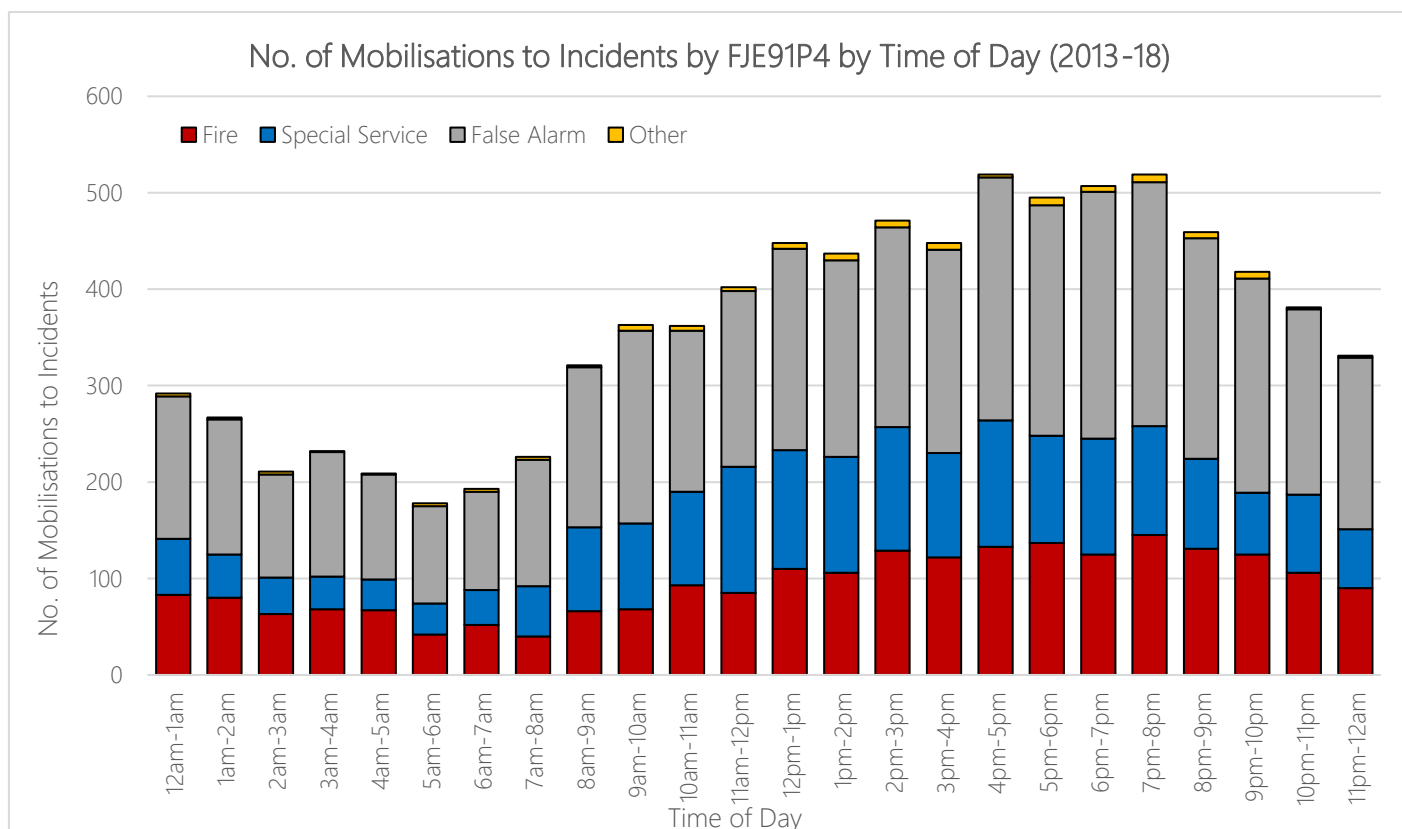
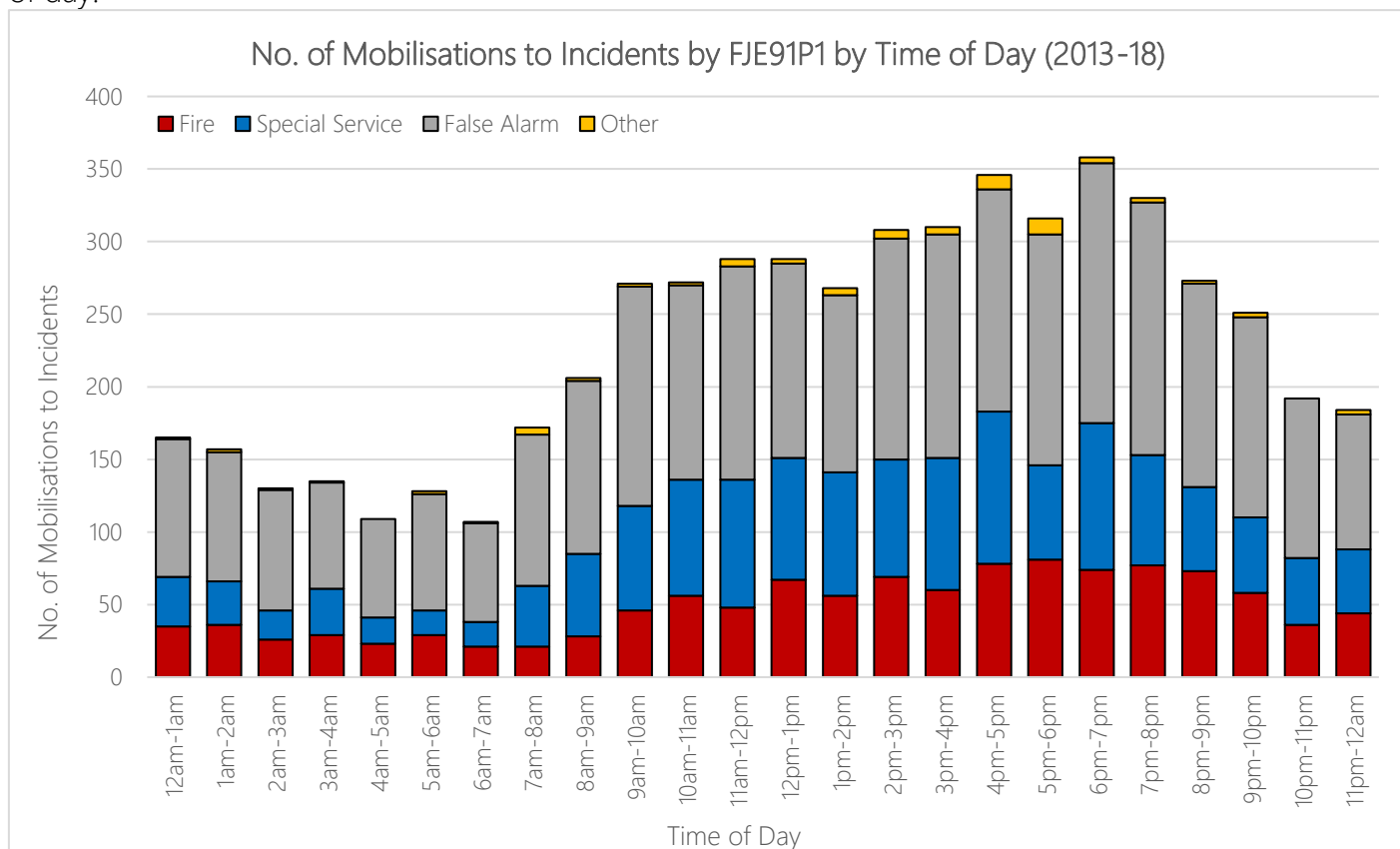
The following table shows the number of mobilisations each Preston Circus appliance has mobilised to an incident. Over the past 9 years the number of incidents attended by ESFRS have reduced by 24%. In the same period, the number of mobilisations of FJE91P1 have reduced by 56% (ranking 8<sup>th</sup> out of 33 pumping appliances with greatest reduction in mobilisations). FJE91P4 mobilisations have reduced by 14% within the same period (ranking 9<sup>th</sup> out of the 33 pumping appliances with least reduction in mobilisations).

### Mobilisations to Incidents per year by Appliance

Appliance	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	% increase / decrease
FJE91P1	1,997	1,864	1,555	1,478	1,444	1,370	1,052	817	881	-56
FJE91P4	2,254	2,177	2,025	1,788	1,767	1,593	1,510	1,890	1,929	-14
All ESFRS Incidents	12,759	11,675	10,376	9,516	9,772	9,090	9,215	9,405	9,737	-24



The following chart(s) show the incidents to which the Preston Circus appliance(s) have mobilised to by time of day.



The following tables illustrate the types of incidents to which each Preston Circus appliance has mobilised to over the past 5 years. FJE91P1 mobilised to a higher proportion of false alarms compared with the rest of ESFRS – approximately 4% more, but proportionally 3% fewer special service calls. FJE91P4 mobilised to 4% more fires than ESFRS but 5% fewer special service calls.

## Mobilisations to Incidents by Appliance (Apr 2013 - Mar 2018)

Incident Type	FJE91P1	%	FJE91P4	%	All ESFRS Incidents	%
Fire	1,171	21.0	2,266	26.1	10,263	21.7
Special Service	1,395	25.1	1,984	22.8	13,332	28.2
False Alarm	2,919	52.5	4,334	49.9	22,838	48.4
Other	79	1.4	105	1.2	786	1.7
<b>All Incident Types</b>	<b>5,564</b>	<b>-</b>	<b>8,689</b>	<b>-</b>	<b>47,219</b>	<b>-</b>

## Detailed Breakdown of Incident Types by Appliance (Apr 2013 - Mar 2018)

Incident Type	FJE91P1	%	FJE91P4	%	All ESFRS Incidents	%
Primary Fire - Dwelling	630	11.3	859	9.9	2,871	6.1
Primary Fire - Non Residential	218	3.9	295	3.4	984	2.1
Primary Fire - Other Residential	77	1.4	104	1.2	265	0.6
Primary Fire - Other transport vehicle	3	0.1	5	0.1	14	0.0
Primary Fire - Outdoor	16	0.3	58	0.7	396	0.8
Primary Fire - Road Vehicle	76	1.4	201	2.3	1,256	2.7
Chimney Fire	5	0.1	26	0.3	717	1.5
Secondary Fire - Dwelling	2	0.0	2	0.0	25	0.1
Secondary Fire - Non Residential	8	0.1	9	0.1	64	0.1
Secondary Fire - Other Residential	0	0.0	0	0.0	0	0.0
Secondary Fire - Other transport vehicle	0	0.0	0	0.0	2	0.0
Secondary Fire - Outdoor	134	2.4	704	8.1	3,561	7.5
Secondary Fire - Road Vehicle	2	0.0	3	0.0	58	0.1
Fire - Classification Not Recorded	0	0.0	0	0.0	50	0.1
Special Service - Advice Only	13	0.2	23	0.3	150	0.3
Special Service - Animal assistance incidents	26	0.5	136	1.6	1,050	2.2
Special Service - Assist other agencies	117	2.1	53	0.6	767	1.6
Special Service - Effecting Entry/Exit	60	1.1	315	3.6	1,817	3.8
Special Service - Evacuation (no fire)	2	0.0	2	0.0	13	0.0
Special Service - Flooding	72	1.3	388	4.5	1,956	4.1
Special Service - Hazardous Materials	16	0.3	27	0.3	133	0.3
Special Service - Lift Release	511	9.2	354	4.1	1,728	3.7
Special Service - Making Safe (not RTC)	46	0.8	144	1.7	834	1.8
Special Service - Medical Incident	15	0.3	9	0.1	101	0.2
Special Service - No action (not false alarm)	24	0.4	54	0.6	325	0.7
Special Service - Other rescue/release of persons	47	0.8	44	0.5	447	0.9
Special Service - Other Transport	6	0.1	7	0.1	136	0.3
Special Service - Removal of objects from people	36	0.6	27	0.3	261	0.6
Special Service - Removal of people from objects	15	0.3	10	0.1	146	0.3
Special Service - Rescue or evacuation from water	1	0.0	0	0.0	43	0.1
Special Service - RTC	297	5.3	224	2.6	2,374	5.0
Special Service - Spills and Leaks (not RTC)	28	0.5	107	1.2	495	1.0
Special Service - Stand By	0	0.0	0	0.0	6	0.0
Special Service - Suicide	15	0.3	8	0.1	71	0.2
Special Service - Unknown	48	0.9	49	0.6	471	1.0
Special Service - Water provision	0	0.0	3	0.0	8	0.0
False Alarm - Apparatus	2,128	38.2	2,947	33.9	15,820	33.5
False Alarm - Good Intent	663	11.9	1,222	14.1	6,255	13.2
False Alarm - Malicious	123	2.2	161	1.9	601	1.3
False Alarm - Unknown	5	0.1	4	0.0	162	0.3
Other	79	1.4	105	1.2	786	1.7
<b>Total</b>	<b>5,564</b>	<b>-</b>	<b>8,689</b>	<b>-</b>	<b>47,219</b>	<b>-</b>

It can also be seen from the previous table that 11.3% of 91P1's mobilisations were to dwelling fires – significantly higher than the ESFRS average of 6.1%. This is also true of 91P4 which mobilised to a dwelling fire 9.9% of the time. Lift releases accounted for 9.2% of incidents to which 91P1 mobilised, significantly higher than the service average of 3.7%.

The following table demonstrates the number of times each pumping appliance at Preston Circus has been mobilised to an incident between 2013 and 2018, broken down by the station area to which it was mobilised. This includes incidents where the Preston Circus appliance(s) may not have arrived at the incident due to being stood-down en-route.

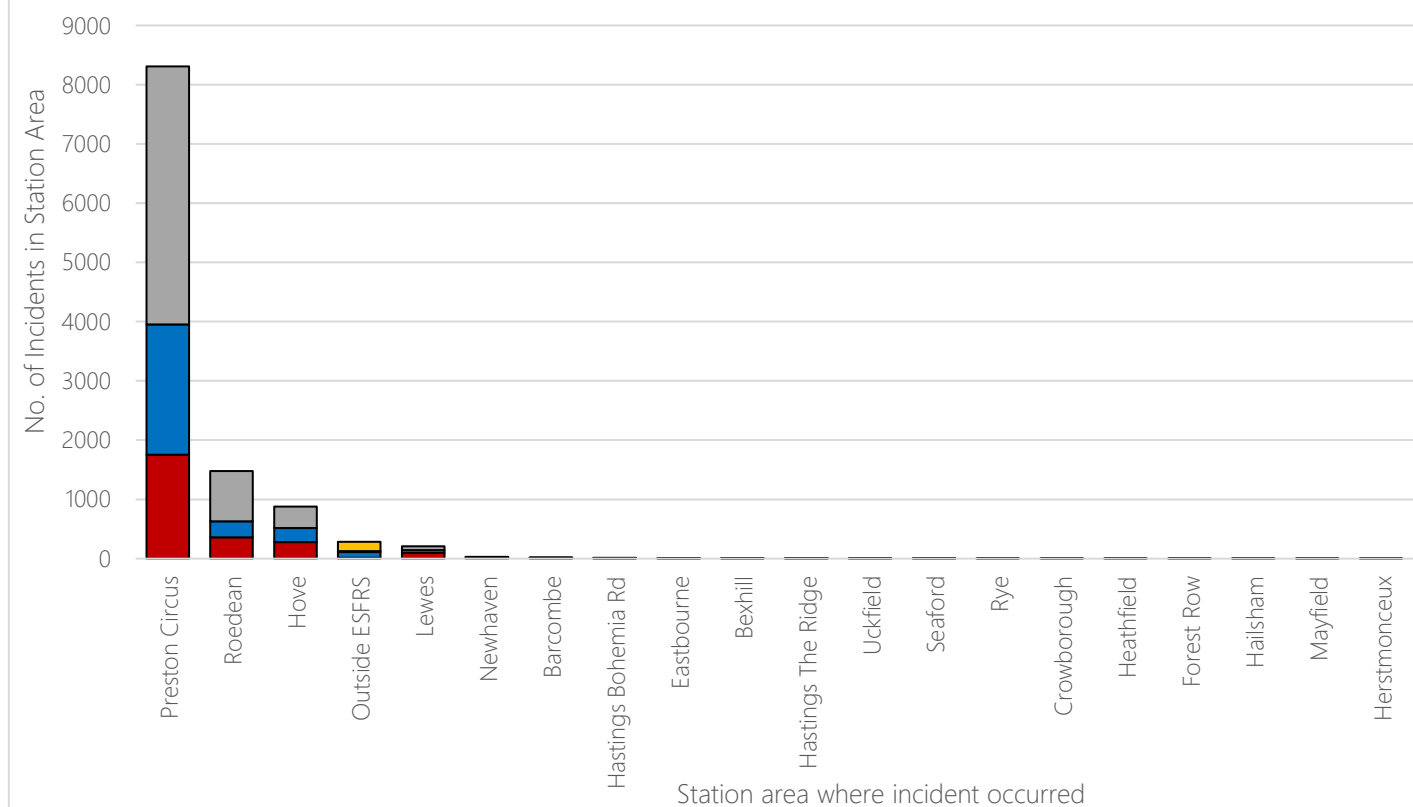
**No. of mobilisations to ALL incidents (Apr 2013- March 2018)**

Station Area	FJE91P1			FJE91P4		
	5 Year Total (2013-18)	Ave. Per Year	% by Station Area	5 Year Total (2013-18)	Ave. Per Year	% by Station Area
Barcombe	7	1	0.1	15	3	0.2
Bexhill	1	0	0.0	3	1	0.0
Crowborough	-	-	-	1	0	0.0
Eastbourne	3	1	0.1	7	1	0.1
Forest Row	-	-	-	1	0	0.0
Hailsham	1	0	0.0	-	-	-
Hastings Bohemia Rd	5	1	0.1	8	2	0.1
Hastings The Ridge	4	1	0.1	2	0	0.0
Heathfield	1	0	0.0	-	-	-
Herstmonceux	1	0	0.0	1	0	0.0
Hove	310	62	5.6	721	144	8.3
Lewes	76	15	1.4	169	34	1.9
Mayfield	-	-	-	1	0	0.0
Newhaven	13	3	0.2	26	5	0.3
<b>Preston Circus</b>	<b>4,482</b>	<b>896</b>	<b>80.6</b>	<b>6,288</b>	<b>1,258</b>	<b>72.4</b>
Roedean	501	100	9.0	1,261	252	14.5
Rye	-	-	-	1	0	0.0
Seaford	1	0	0.0	2	0	0.0
Uckfield	1	0	0.0	1	0	0.0
Outside ESFRS	157	31	2.8	181	36	2.1
<b>Grand Total</b>	<b>5,564</b>	<b>1,113</b>	<b>100.0</b>	<b>8,689</b>	<b>1,738</b>	<b>100.0</b>

It can be seen that the primary pumping appliance at Preston Circus (91P1) is mobilised to an incident, on average, 1,113 times per year and on 81% of occasions, this is to its own station area. 9% of occasions it is to Roedean and 6% it is into Hove. On 3% of occasions it is over border. 91P4 is mobilised to an incident, on average, 1,738 times per year and on 72% of occasions, this is to its own station area. 15% of occasions it is to Roedean and 8% it is into Hove.

Between April 2013 and March 2018 there have been 11,256 mobilisations to incidents by a Preston Circus appliance, as shown in the graph below.

Incidents to which Preston Circus pumping appliance(s) mobilised by Station area  
(2013-18)



N.B. The overborder figure will likely be higher as these figures are calculated from data held within ESFRS Incident Recording System only. For over-border incidents where both Preston Circus and an over-border FRS attend, the incident is recorded in the over-border FRS's Incident Recording System.

The following table demonstrates the number of times each pumping appliance at Preston Circus has been mobilised to a critical incident between 2013 and 2018, broken down by the station area to which it was mobilised. This includes incidents where the Preston Circus appliance(s) may not have arrived at the incident due to being stood-down en-route. 91P1 mobilises to a critical incident, on average, 73 times per year and on 72% of occasions, this is within the Preston Circus station area. 11% of occasions it is to Roedean, 8% Hove and 5% Lewes. 91P4 mobilises to a critical incident, on average, 67 times per year and on 55% of occasions, this is within its own area. 20% of occasions it is in Roedean, 15% in Hove and 6% in Lewes. 2.4% are to over-border incidents.

No. of mobilisations to **CRITICAL** incidents (Apr 2013 – Mar 2018)

No. of Mobilisations to Critical Incidents	Appliance Callsign	Barcombe	Hastings Bohemia Rd	Heathfield	Hove	Lewes	Newhaven	Preston Circus	Roedean	Outside ESFRS	Grand Total
5 Year Total (2013-18)	FJE91P1	4	1	1	28	19	1	262	40	7	363
Ave. Per Year	FJE91P1	1	0	0	6	4	0	52	8	1	73
% by Station Area	FJE91P1	1.1	0.3	0.3	7.7	5.2	0.3	72.2	11.0	1.9	100.0
5 Year Total (2013-18)	FJE91P4	4	-	-	49	21	3	183	67	8	335
Ave. Per Year	FJE91P4	1	-	-	10	4	1	37	13	2	67
% by Station Area	FJE91P4	1.2	-	-	14.6	6.3	0.9	54.6	20.0	2.4	100.0

The table(s) below show the performance over 5 years of each pumping appliance when it is the first arriving appliance at an incident. Attendance times are calculated from time of call to time of arrival of the first fire appliance. Given that our attendance standards for the first-arriving fire appliance are:

- On-station response: 10 minutes 70% of occasions
- On-call response: 15 minutes 70% of occasions
- 

It can be seen that over the last 5 years, FJE91P1 has met this standard, reaching 89% of all incidents within 10 minutes and 88% of critical incidents within 10 minutes. FJE91P4 met this standard on 86% occasions (85% critical).

**Incidents attended within X minutes by FJE91P1 where first-arriving appliance (Apr 2013 – Mar 2018)**

Performance of FJE91P1 as first arriving appliance	< 5 mins	< 8 mins	< 10 mins	< 13 mins	< 15 mins	< 20 mins	Total Incidents
All Incidents	1215 (29%)	3228 (78%)	3687 (89%)	3975 (96%)	4044 (98%)	4092 (99%)	4,126
Critical Incidents	73 (28%)	190 (74%)	226 (88%)	245 (95%)	252 (98%)	255 (99%)	257

**Incidents attended within X minutes by FJE91P4 where first-arriving appliance (Apr 2013 – Mar 2018)**

Performance of FJE91P4 as first arriving appliance	< 5 mins	< 8 mins	< 10 mins	< 13 mins	< 15 mins	< 20 mins	Total Incidents
All Incidents	1153 (22%)	3741 (72%)	4472 (86%)	4910 (94%)	5027 (97%)	5120 (98%)	5,202
Critical Incidents	29 (27%)	81 (76%)	91 (85%)	99 (93%)	102 (95%)	105 (98%)	107

The table below shows appliance availability between April 2009 and March 2018. The data is calculated on unavailability due to staffing and does not include when appliances are off-the-run due to mechanical issues.

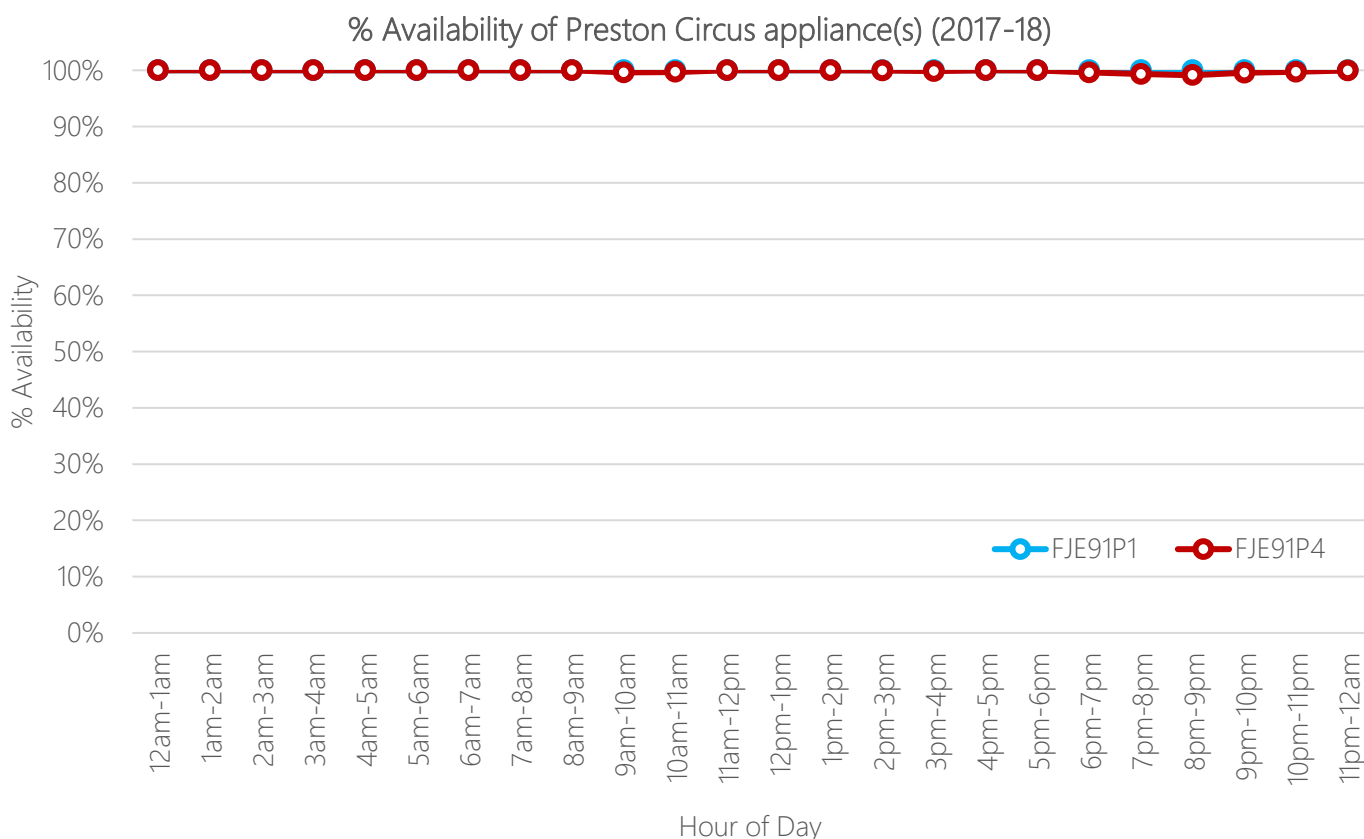
Whilst the primary pumping appliance has remained available nearly 100% of the time over 9 year period, it can be seen that the availability of FJE91P4 over the last 4 years has not reached 100%.

## Appliance Availability

Callsign	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
FJE91P1	100.0	100.0	100.0	100.0	100.0	98.6	100.0	100.0	100.0
FJE91P4	100.0	100.0	100.0	100.0	100.0	97.3	99.9	99.8	99.8

The chart below shows the percentage availability of the appliance(s) at Preston Circus for each hour of the day during the most recent year (2017/18).

It can be seen that availability of FJE91P4 dips to 99.1% between 8pm and 9pm , and also dipped between 9am-10am where it was available 99.6% of the time.



### OTB attendances into Preston Circus (where ESFRS did not attend)

West Sussex FRS attended 10 incidents in Preston Circus station area, where ESFRS did not attend, from 2009-2018. This information is stored in West Sussex's IRS system. This means that for all the incidents in Preston Circus from 2009-2018, Kent FRS solely attended 0.1%. Similarly, Kent FRS attended a single incident in Preston Circus's station area in 2017/18 where ESFRS did not attend.

FRS Attending	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Total
West Sussex into Preston Circus Area	1	0	1	1	1	1	3	0	2	10
Kent into Preston Circus Area	0	0	0	0	0	0	0	0	1	1
<b>Total OTB FRS into ESFRS</b>	<b>64</b>	<b>57</b>	<b>73</b>	<b>83</b>	<b>84</b>	<b>53</b>	<b>66</b>	<b>60</b>	<b>77</b>	<b>617</b>

## Standby cover moves

The following section provides details of standby moves between April 2009 and March 2018. Please note, the figures do not represent actual incidents where we have attended (e.g. standby no action). Rather, the figures below constitute the non-emergency cover moves that are made as part of SCC fire cover and policy decisions.

Preston Circus appliances made 1,123 standby moves between April 2009 and March 2018, accounting for 11% of all standby moves for ESFRS. It can be seen that FJE91P4 historically undertook, on average, 39 standby moves per year between April 2009 and March 2012. This then increased to 67 per year between April 2012 and March 2016. Since 2016/17, the number of standby moves by 91P4 has increased by 438% - increasing from 76 to 231 in one year, and then from 231 to 409 standbys in the following year (17% of all standby moves in ESFRS in 2017/18). The number of standbys by 91P1 over the last five years has remained constant.

Standbys (% Service Wide Within Year)										
Appliance	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Total
91P1	7 (0.9%)	7 (0.9%)	13 (1.5%)	7 (0.7%)	12 (1.2%)	14 (1.7%)	14 (1.3%)	11 (0.7%)	15 (0.7%)	100 (1%)
91P4	40 (5.2%)	35 (4.4%)	42 (4.8%)	71 (7.5%)	67 (6.6%)	52 (6.2%)	76 (7%)	231 (14.8%)	409 (17.8%)	1,023 (10%)
Preston Circus	47 (6.1%)	42 (5.3%)	55 (6.3%)	78 (8.2%)	79 (7.8%)	66 (7.9%)	90 (8.3%)	242 (15.6%)	424 (18.4%)	1,123 (11%)
ESFRS Total	773	795	877	947	1,010	835	1,086	1,556	2,301	10,180

55% of Preston Circus's standbys are in Roedean to the east which accounts for 48% of all standby moves to Roedean. Similarly, a further 28% of standby moves by Preston Circus were in Hove to the west, accounting for 69% of all standby moves to Hove by an ESFRS appliance – these typically made by 91P4 as opposed to 91P1. 25% of 91P1's standby moves were into Lewes

Standby Locations (% Within Area / Appliance)				
Standby Location	91P1	91P4	Preston Circus Total	Total Standbys at Location
Roedean	59 (59%)	556 (54.3%)	615 (54.8%)	1,272
Hove	8 (8%)	304 (29.7%)	312 (27.8%)	450
Lewes	25 (25%)	112 (10.9%)	137 (12.2%)	1,142
Newhaven	3 (3%)	28 (2.7%)	31 (2.8%)	507
Burgess Hill	3 (3%)	11 (1.1%)	14 (1.2%)	29
Shoreham	0 (0%)	3 (0.3%)	3 (0.3%)	69
Uckfield	1 (1%)	1 (0.1%)	2 (0.2%)	730
Worthing	0 (0%)	2 (0.2%)	2 (0.2%)	7
Haywards Heath	0 (0%)	1 (0.1%)	1 (0.1%)	34
Preston Circus	0 (0%)	1 (0.1%)	1 (0.1%)	371
Heathfield	0 (0%)	1 (0.1%)	1 (0.1%)	23
Eastbourne	0 (0%)	1 (0.1%)	1 (0.1%)	669
Crowborough	1 (1%)	0 (0%)	1 (0.1%)	598
Barcombe	0 (0%)	1 (0.1%)	1 (0.1%)	1
Hurstpierpoint	0 (0%)	1 (0.1%)	1 (0.1%)	1
<b>Total</b>	<b>100</b>	<b>1,023</b>	<b>1,123</b>	<b>-</b>

## Special Appliances

The following section provides details of mobilisations and attendances of special appliances based at Preston Circus fire station over the past 9 years.

The following table illustrates the total number of mobilisations for the aerial appliance at Preston Circus fire station, broken down by year.

#### No. of Mobilisations of Special Appliance(s) by Year

Callsign	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
FJE91A1	398	430	414	386	418	341	308	334	318

It can be seen that over the past five years, FJE91A1 mobilises to an incident, on average, 344 times per year, having decreased its mobilisations by 24% over the same period.

The following tables shows the total number of mobilisations of 91A1 and what station area they were mobilised to (April 2009 – March 2018).

Station Area	FJE91A1		
	Total Mobs (% Tot. Mobs)	Total Att. (% Tot. Att.)	% Did Not Arrive
Barcombe	2 (0.1%)	2 (0.1%)	0 (0.0%)
Battle	0 (0.0%)	0 (0.0%)	0 (0.0%)
Bexhill	1 (0.0%)	0 (0.0%)	1 (100.0%)
Broad Oak	0 (0.0%)	0 (0.0%)	0 (0.0%)
Burwash	0 (0.0%)	0 (0.0%)	0 (0.0%)
Crowborough	2 (0.1%)	2 (0.1%)	0 (0.0%)
Eastbourne	8 (0.2%)	2 (0.1%)	6 (75.0%)
Forest Row	0 (0.0%)	0 (0.0%)	0 (0.0%)
Hailsham	0 (0.0%)	0 (0.0%)	0 (0.0%)
Hastings Bohemia Rd	3 (0.1%)	1 (0.0%)	2 (66.7%)
Hastings The Ridge	1 (0.0%)	0 (0.0%)	1 (100.0%)
Heathfield	0 (0.0%)	0 (0.0%)	0 (0.0%)
Herstmonceux	0 (0.0%)	0 (0.0%)	0 (0.0%)
Hove	914 (27.3%)	843 (27.3%)	71 (7.8%)
Lewes	65 (1.9%)	60 (1.9%)	5 (7.7%)
Mayfield	0 (0.0%)	0 (0.0%)	0 (0.0%)
Newhaven	23 (0.7%)	21 (0.7%)	2 (8.7%)
Pevensey	1 (0.0%)	1 (0.0%)	0 (0.0%)
<b>Preston Circus</b>	<b>1,467 (43.8%)</b>	<b>1,398 (45.3%)</b>	<b>69 (4.7%)</b>
Roedean	796 (23.8%)	731 (23.7%)	65 (8.2%)
Rye	0 (0.0%)	0 (0.0%)	0 (0.0%)
Seaford	9 (0.3%)	5 (0.2%)	4 (44.4%)
Uckfield	4 (0.1%)	4 (0.1%)	0 (0.0%)
Wadhurst	0 (0.0%)	0 (0.0%)	0 (0.0%)
Outside ESFRS	51 (1.5%)	13 (0.4%)	38 (74.5%)
<b>All Mobilisations</b>	<b>3,347</b>	<b>3,083</b>	<b>264 (7.9%)</b>



Out of all incidents attended by FJE91A1, 45% were into its own station area, which represents the largest proportion of incidents. It attended Hove area on 27% of occasions and a further 24% in Roedean station area.

It can be seen that, out of all 3,347 mobilisations over the 9 year period, 95% were within the three City station areas and on 96% of occasions, it booked in attendance at the incident – only 6% of occasions it did not arrive.

91A1 was mobilised outside of ESFRS on 51 occasions over the past 9 years and on 75% of occasions, did not arrive at the incident.

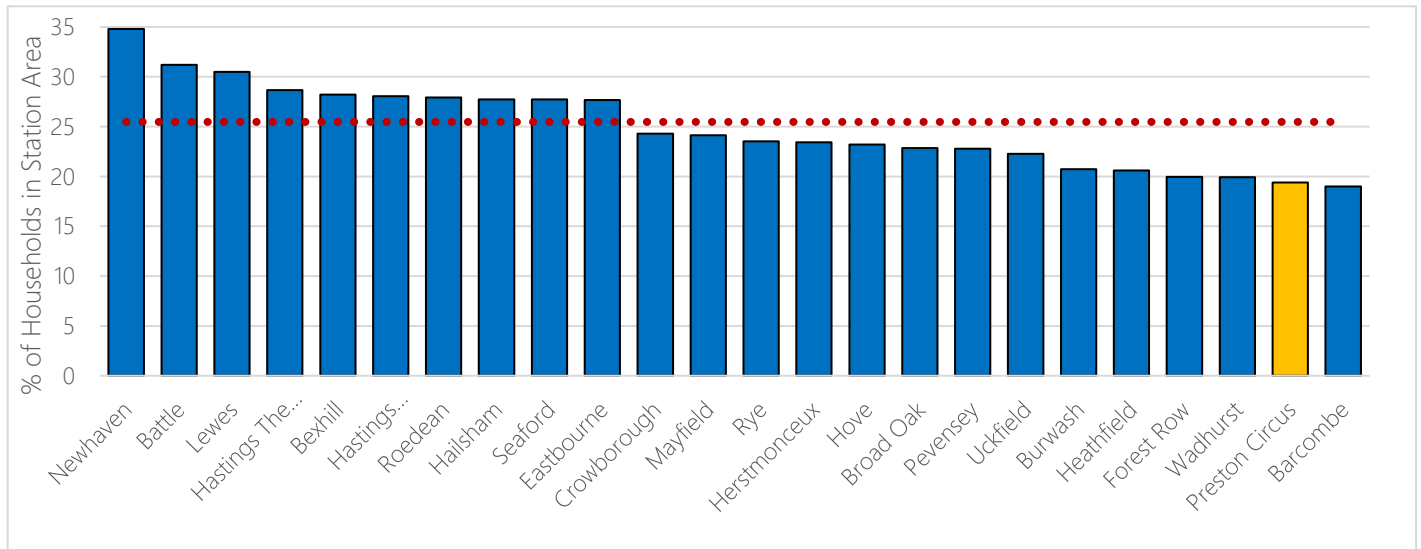
Overall, it can be seen that the aerial appliance was mobilised 3,347 times and on 92.1% of occasions, booked in attendance at the incident.



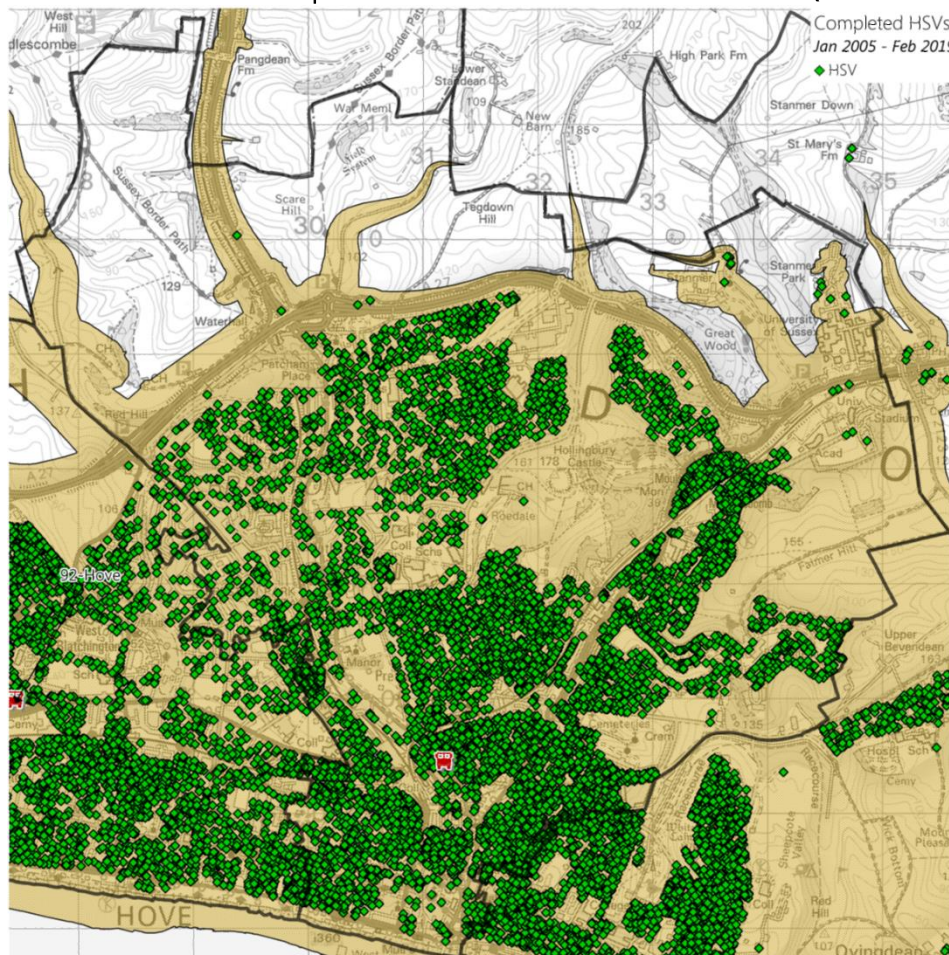
# Prevention – Home Fire Safety

Between January 2005 and February 2019, a total of 13,773 HSVs have been undertaken within Preston Circus Station Admin area. These figures includes re-visits to the same property over the years. This equates to 10,104 unique households which have had a Home Safety Visit.

Over the last five years (Apr 2013 – Mar 2018), an average of 1,124 HSVs were undertaken each year – making up approximately 11.1% of all HSVs undertaken across the ESFRS area. 1 HSV undertaken in Preston Circus station area sits outside the attendance standards isochrone. 19.5% of all households in Preston Circus station area have had a Home Safety Visit; below the ESFRS total of 25.5% and 2<sup>nd</sup> lowest percentage across all station areas.



Total No. of HSVs completed in Preston Circus Station Area (Jan 2005 – Feb 2019)

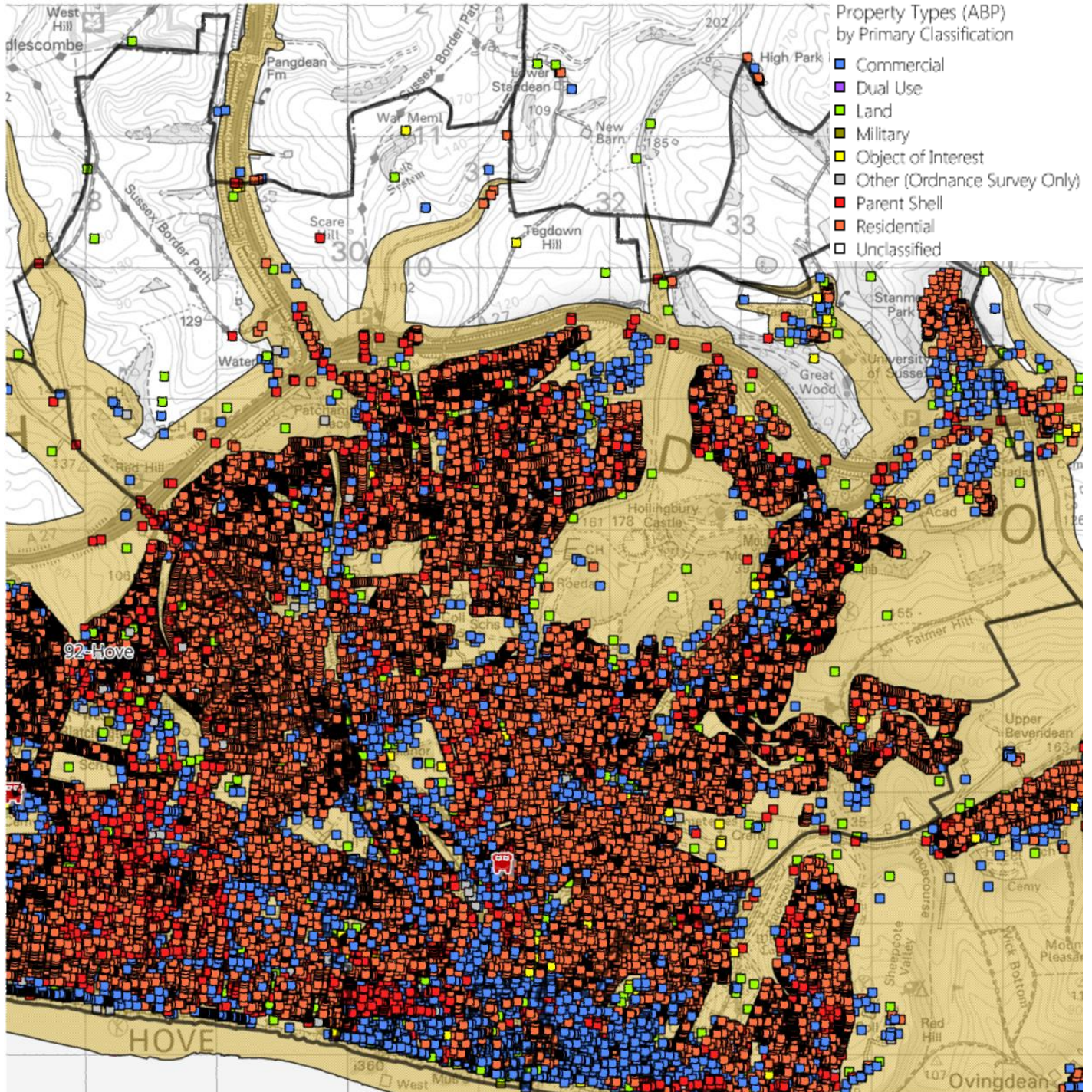




## Protection – Business Safety

The map below shows all addressable objects, as found in AddressBase Premium (ABP). AddressBase Premium is the most current, comprehensive and accurate geographic dataset available of addresses, properties and land areas where services are provided. Properties that have been demolished and those yet to be built have been excluded from this dataset. Using ABP, allows us to identify all commercial properties, based on the primary classification of the property.

All Property Types by Primary Classification (AddressBase Premium Epoch 62)



Station Admin Area	Total No. of Commercial Properties	Within Attendance Standard (Day)	%	Within Attendance Standard (Night)	%
Preston Circus	7,906	7,902	99.9	7,902	99.9

BLPU State: In use, Unoccupied, Unknown or Not Applicable, Logical Status: Approved, Primary Classification: Commercial, Distinct UPRN: Yes

Virtually all commercial properties were found to be inside the attendance standards isochrones. However, a number of these will have extended travel times to the north of the station area and travelling eastward along the coast. This is exacerbated by both travel congestion (described in previous section) and, in some areas, particularly narrow roads which makes for difficult access. The Lanes, in the City's historic quarter, are a case in point as these are crammed with shops, restaurants and cafés.

#### Property Types with higher societal life risk (FSEC A through G).

Hospital	Care Home	Hostel	Hotel
3	33	9	36

Based on ABP Epoch 62 Classification.

HMOs, Purpose-Built Flats and Houses Converted to flats are not shown here as not all are classified in this way in ABP

The following table illustrates the total number of Business Safety Audits that have been undertaken across Preston Circus Station area. An average of 140 Business Safety Audits are completed per year, which makes up approximately 26% of audits undertaken by ESFRS each year. The largest proportion of audits are to 'Other Sleeping Accommodation' – 27% of audits are to these property types. Only 7% of audits were to care homes, which is lower than the ESFRS proportion overall of 21%, and no hospital audits.

#### Business Safety Audits by Property Type (% within area)

All audits in CRM up to 04/2019 (Excludes 'In Progress')

Property Type	Preston Circus	ESFRS
A - Hospitals & Prisons	0 (0%)	180 (2.4%)
B - Care Home	109 (6.7%)	1,595 (21.4%)
D - Purpose Built Flats > 3 Stories	76 (4.7%)	398 (5.4%)
E - Hostel	40 (2.5%)	139 (1.9%)
F - Hotel	242 (14.9%)	1,379 (18.5%)
G - House Converted to Flats	36 (2.2%)	240 (3.2%)
H - Other Sleeping Accom.	443 (27.3%)	1,009 (13.6%)
J - Further Education	20 (1.2%)	31 (0.4%)
K - Public Building	6 (0.4%)	25 (0.3%)
L - Licensed Premises	334 (20.6%)	890 (12%)
M - School	20 (1.2%)	148 (2%)
N - Shop	172 (10.6%)	562 (7.6%)
P - Other Public Premises	49 (3%)	231 (3.1%)
R - Factory/Warehouse	8 (0.5%)	147 (2%)
S - Office	44 (2.7%)	216 (2.9%)
T - Other Workplace	10 (0.6%)	87 (1.2%)
W - Land & Sea	0 (0%)	16 (0.2%)
Z - Single Private Dwelling	14 (0.9%)	143 (1.9%)
<b>Total</b>	<b>1,623</b>	<b>7,436</b>

#### Business Safety Audits by Year

Station Area	2013/14	2014/15	2015/16	2016/17	2017/18	Total	Ave. per Yr	% ESFRS
Preston Circus	138	105	64	90	301	698	140	25.7



## Developments

### Residential

Details of residential development site allocations have been provided from the local planning office and are shown on the map below. It can be seen that there are three main development areas within Preston Circus Station area with a total of with a total of 2,425 dwellings across these areas.

The development area extending through Moulsecoomb up to the University of Sussex in the north of the station area is set to have 885 residential units built within the area. Furthermore, additional student accommodation is to be built which will provide an additional 900 rooms.

The development area in which the fire station resides has been allocated an additional 1,540 dwellings to be constructed; 1,140 of these will be residential units and a further 300 will be student housing.

The majority of the development areas fall within the attendance standards isochrones, albeit the developments towards Moulsecoomb and Sussex University at Falmer are likely to fall outside of attendance times, particularly with traffic congestion etc.

### Commercial

Details of commercial developments have been supplied from the local planning office which are shown on the map below. It can be seen that there are three commercial development areas within Preston Circus station area.

The development area extending through Moulsecoomb up the University of Sussex in the north of the station area has a total floorspace of 31,600sqm and this will be broken up into employment floorspace including an Innovation Centre (15,600sqm) and Business School and additional academic floorspace (16,000sqm). A Community Building is also to be constructed within this area, along with the residential units and student accommodation described above.

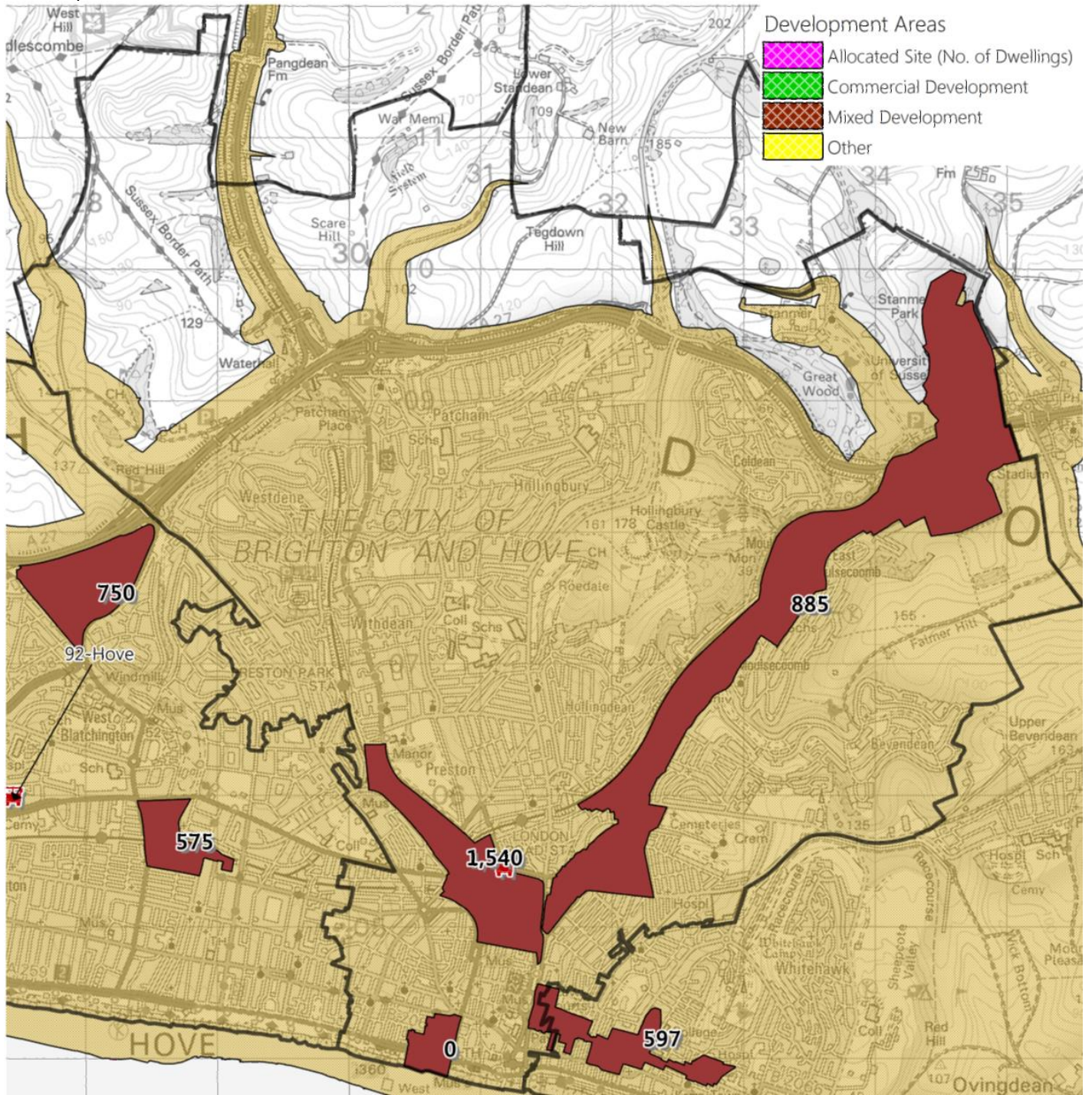
The development area in which the fire station resides has a total floorspace of 20,000sqm which has been allocated for B1 development (business – offices), along with the residential units and student housing described above.

The development area in the south of the station area has a total floorspace of 45,000sqm and will be broken up into retail floorspace (20,000sqm) and leisure floorspace (25,000sqm).

The majority of the development areas fall within the attendance standards isochrones, albeit the developments towards Moulsecoomb and Sussex University at Falmer are likely to fall outside of attendance times, particularly with traffic congestion etc.

As further residential and commercial developments are constructed, it brings additional people and vehicles into the City, thus exacerbating existing issues regarding congestion and other issues. As noted in the population demographics section of the report, over the last 6 years or so, there has been an estimated increase of >10,000 people living within the area.

Development areas – allocated sites





## Road Risk

All UK roads (excluding motorways) fall into the following four categories:

- **A roads** – major roads intended to provide large-scale transport links within or between areas.
- **B roads** – roads intended to connect different areas, and to feed traffic between A roads and smaller roads on the network.
- **Classified unnumbered** – smaller roads intended to connect together unclassified roads with A and B roads, and often linking a housing estate or a village to the rest of the network. Similar to ‘minor roads’ on an Ordnance Survey map and sometimes known unofficially as C roads.
- **Unclassified** – local roads intended for local traffic. The vast majority (60%) of roads in the UK fall within this category.

The following table shows the total length of Road within Preston Circus Station area, broken down by Road type. There is approximately 331km of Road within Preston Circus station area, which is the 3<sup>rd</sup> highest total road length out of all station areas.

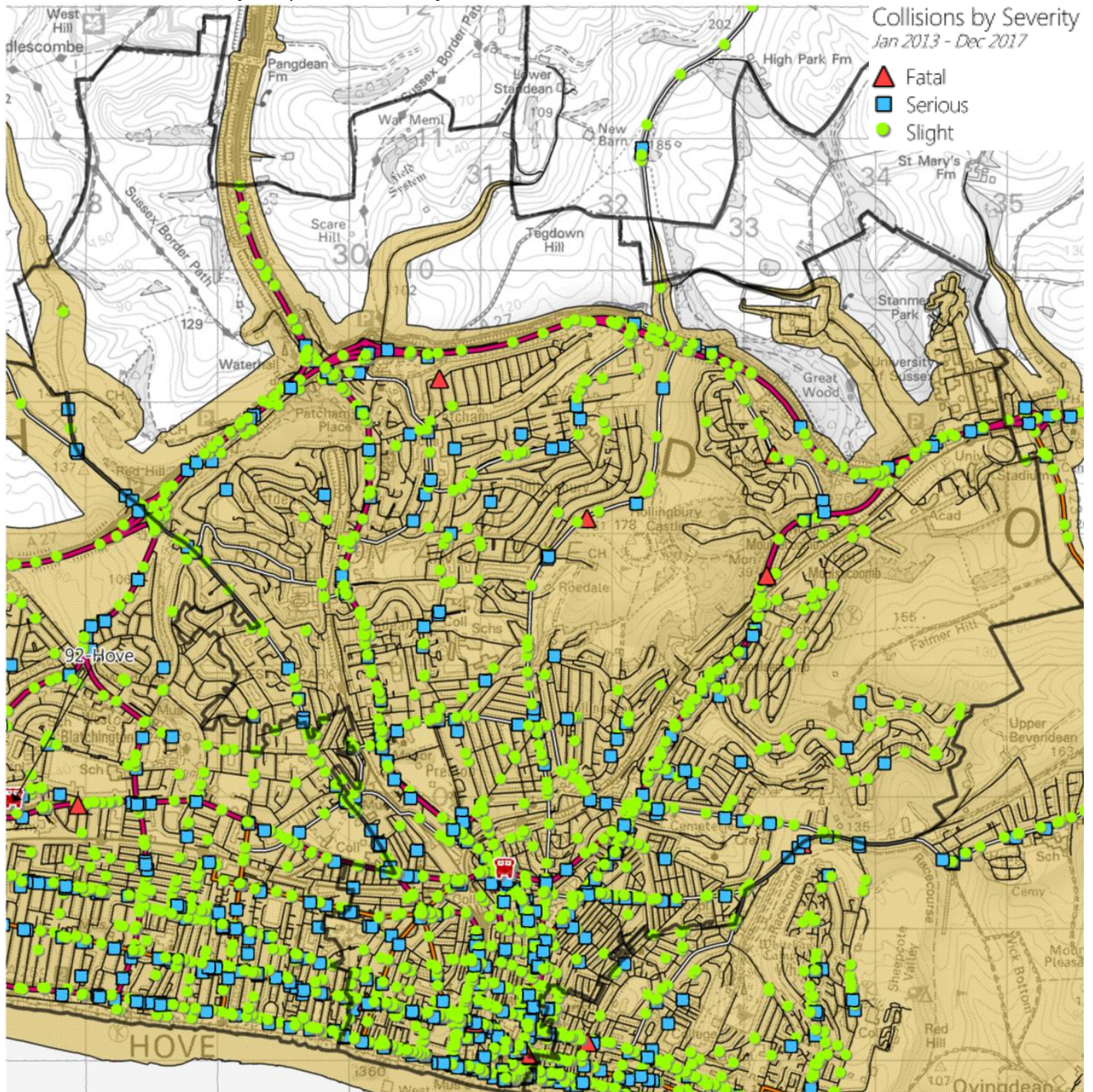
80% of roads within the station area are unclassified roads, which makes sense, as the area is heavily urbanised with many small residential roads. 11% of roads are A Roads – a combination of inner-city A Roads into and out of the City, plus the A27 / A23 main trunk roads running across the very top of the station area bypassing the City.

Road Type	Preston Circus	ESFRS
A Road	36km (11%)	521km (10%)
B Road	5km (1%)	302km (6%)
Classified Unnumbered	25km (7%)	759km (14%)
<b>Total Classified Roads</b>	<b>66km (20%)</b>	<b>3,779km (30%)</b>
Not Classified/Unclassified	266km (80%)	1,582km (70%)
<b>Total All Road Types</b>	<b>331km (100%)</b>	<b>5,361km (100%)</b>

ESFRS only attends around 25% of all road traffic collisions on ESFRS roads. Therefore, data from the Sussex Safer Road Partnership (SSRP) was sourced to understand the fuller picture of road (RTC) risk. The following table/map shows RTCs in Preston Circus station area over a five year period (January 2013 – December 2017), broken down by severity.

Collision Severity	Preston Circus	ESFRS
Fatal	7 (0.4%)	112 (1.1%)
Serious	392 (19.6%)	2,235 (21%)
Slight	1,600 (80%)	8,307 (78%)
<b>Total</b>	<b>1,999</b>	<b>10,654</b>
<b>Ave. per Year</b>	<b>400</b>	<b>2,131</b>

## KSI Collisions over five year period (January 2013 – December 2017)



There are, on average, 400 KSI collisions per year in Preston Circus station area. 20% of collisions result in serious or fatal injuries and this proportion is 2.1% lower than ESFRS overall.

Out of the 1,999 collisions, 7 resulted in a fatal collision, which equates to 0.4%. This proportion is almost 3 times lower than the ESFRS average of 1.1% fatal collisions. As 80% of KSI collisions are 'slight', it shows that the majority of KSI collisions are low-impact. However, there were 399 fatal or serious collisions over the 5 year period, equating to around 80 serious collisions per year in Preston Circus station area.



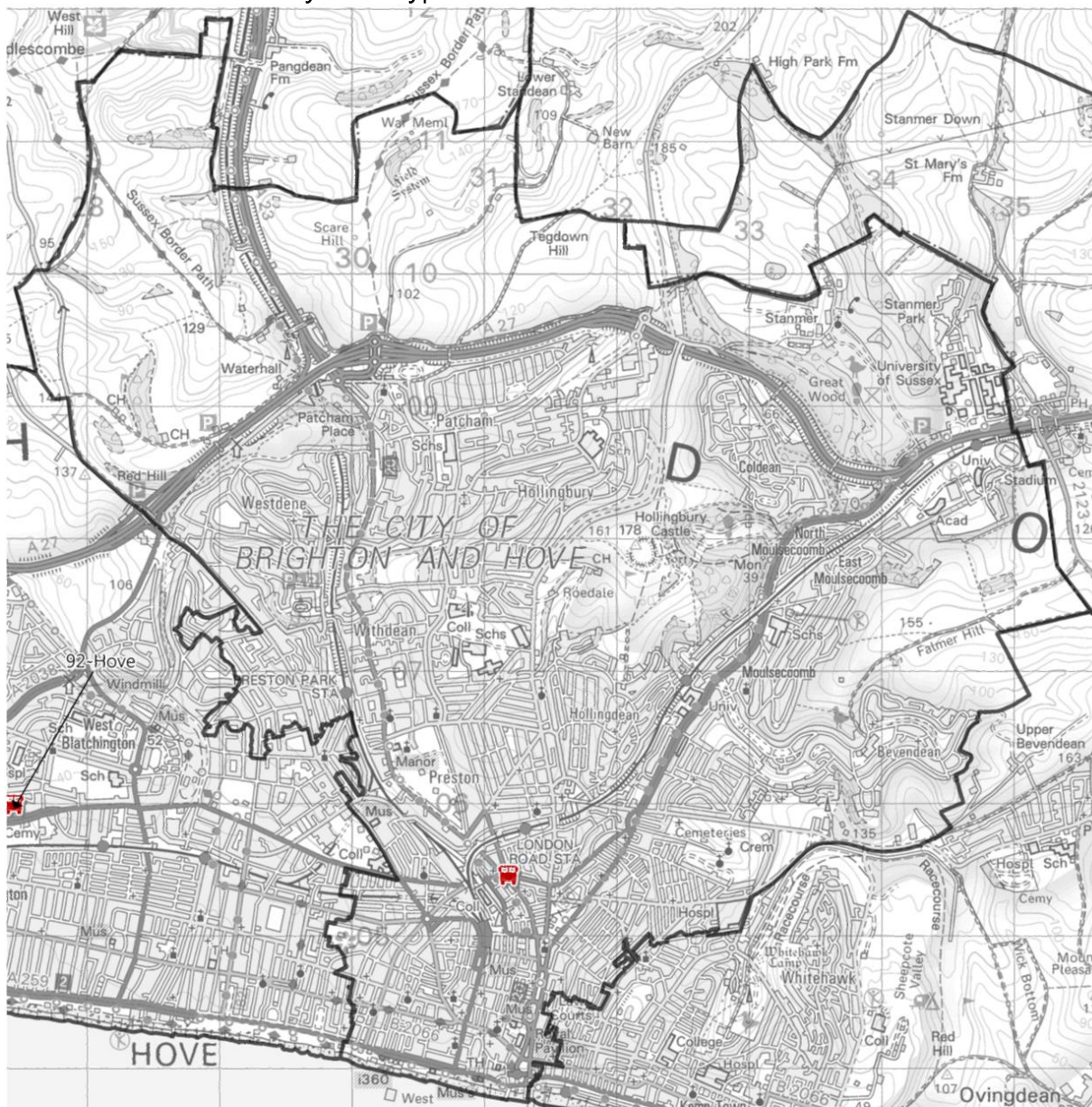


# Water Risk

The following map shows the Detailed River Network (DRN), which is a large-scale, accurate and fully attributed digital river centreline covering England and Wales. The DRN is captured from the water features theme of the OS MasterMap topographic layer and built into a network using automated rules. Other input datasets and extensive local Environment Agency (EA) staff knowledge has been used to augment the core geometry to incorporate critical spatial detail and attribution, such as flow direction and path, not available from the OS mapping and to verify the accuracy of the centreline itself.

Primary Rivers are usually larger rivers and streams; the secondary and tertiary rivers are 'ordinary watercourses'. The EA carries out maintenance, improvement or construction work on Main Rivers to manage flood risk. Lead local flood authorities, district councils and internal drainage boards carry out flood risk management work on ordinary watercourses.

## Detailed River Network by River Type



Detailed River Network

River Type	
	Primary River
	Secondary River
	Tertiary River
	Lake / Reservoir
	Culvert

Fluvial vs Tidal	
	Fluvial
	Intertidal
	Marine Extension
	Tidal Influence

It can be seen that, according to the Detailed River Network, there are no rivers in Preston Circus station area. That being said, flooding has occurred within the station area due to rising groundwater. In the winter and spring months, after periods of prolonged rainfall, water levels in underground streams travelling down from the South Downs rise and about once a decade they breach the surface and become visible in the streets and sometimes in people's homes.

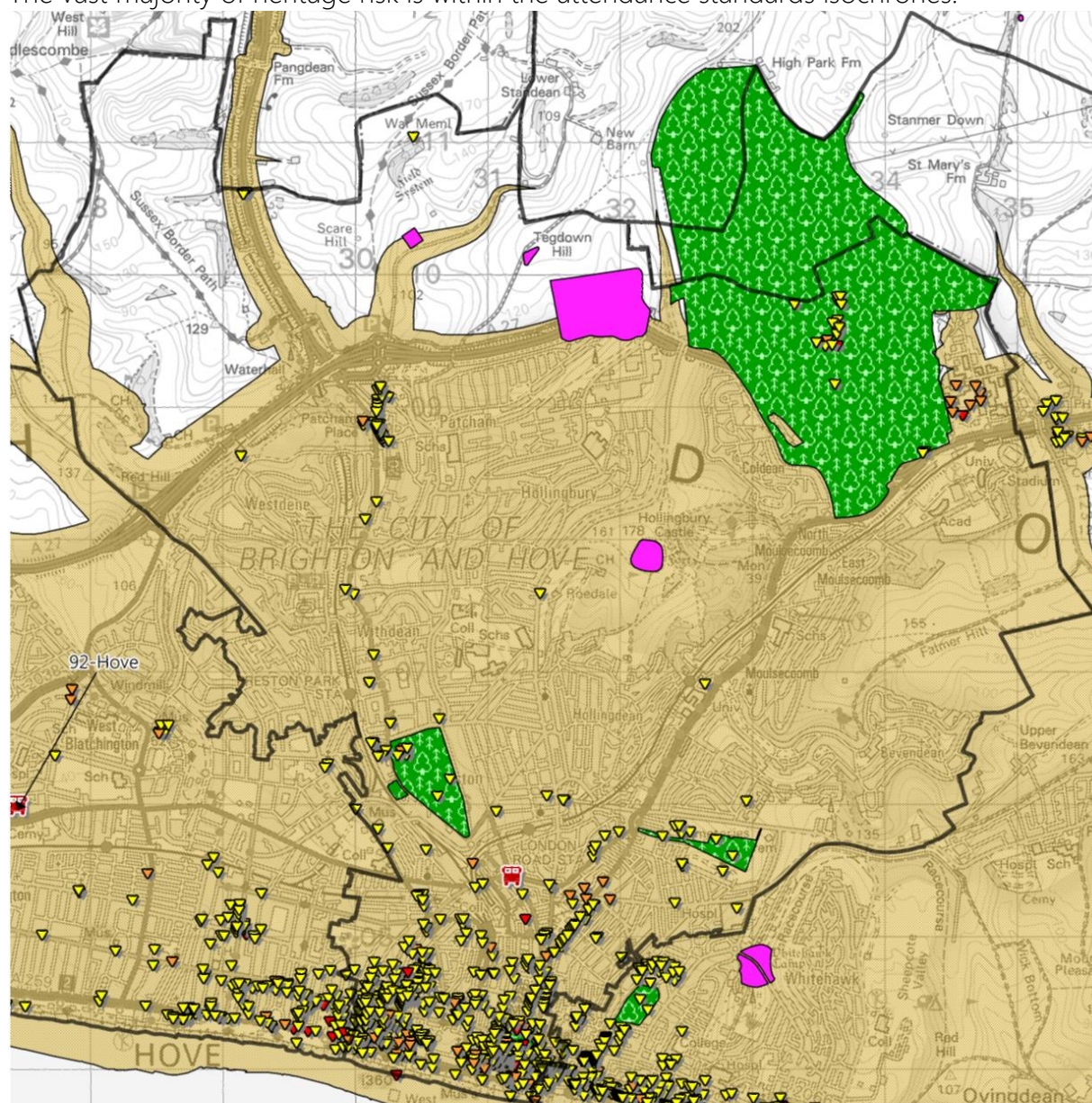
In Preston Circus station area, this is the Wellesbourne a 'hidden river' – which runs from the village along the route of the A23 down to Pool Valley, the site of the city's coach station on Brighton Seafront. Waterworks at Patcham built in 1889 relieved some of the flooding there but there were still inundations after exceptionally heavy rain. The most recent and worst example was in the autumn of 2000, when Lewes was also badly flooded. In Patcham the river rose to the surface and flooded many homes, causing considerable damage. Parts of Preston Village were also affected. Millions of gallons were pumped away but the flooding was particularly hard to deal with because water was rising from under the houses.

Preston Circus station area covers 1.5km coastline, from just west of the Palace Pier to just east of the Brunswick Lawns and is given to a large shingle beach. Along the beachfront there is the promenade, home to a variety of businesses, bars, restaurants and independent traders including the world's tallest moving observation tower – the British Airways i360.

Brighton Beach and Seafront is voted one of the top 10 city beach break destinations in the world and there are therefore many day visitors and tourists that come to Brighton beaches and, combined with a vibrant night life and an array of licenced premises along the seafront, there is an increased risk of a water-related injury/rescue.

## Heritage Risk

The following map shows the location of different types of heritage risk dispersed across the station area. The vast majority of heritage risk is within the attendance standards isochrones.



- ▼ Grade I Listed Building
- ▼ Grade II\* Listed Building
- ▼ Grade II Listed Building
- ▨ Battlefield
- ▨ Park & Garden
- ▨ Protected Wreck
- ▨ Scheduled Monument

Grade	# in Area	Within Attendance Standard (Day)	%	Within Attendance Standard (Night)	%
I	8	8	100.0	8	100.0
II*	45	45	100.0	45	100.0
II	638	636	99.7	636	99.7
<b>Total</b>	<b>691</b>	<b>689</b>	<b>99.7</b>	<b>689</b>	<b>99.7</b>

There are 2 listed buildings outside of the attendance standards isochrone, both of which are Grade II and these are located in the north of the station area (The Chattri & Frankland Monument).



# Environmental Risk

The following map shows a breakdown of various environmental risks across Preston Circus station area including flood-risk mapping provided by the Environment Agency where:

*Flood Zone 2 represents land that has been assessed as having between a 1%-0.1% annual probability of river flooding, or between 0.5%-0.1% annual probability of sea flooding in any year.*

*Flood Zone 3 represents land that has been assessed as having a >1% annual probability of river flooding, or a >0.5% annual probability of sea flooding in any year.*

There is flood risk along the 1.5km of coastline within the station area. There are, on average, 86 incidents per year in Preston Circus station area classified as "special service – flooding". This equates to 4.7% of all incidents in Preston Circus and is slightly higher than the ESFRS proportion of 4.2% per year.

There are 5 Sites of Special Scientific Interest (SSSIs) in Preston Circus station area, all of which are designated Local Nature Reserves (LNRs) the majority of which are within the attendance standards isochrones; some have extended travel times, particularly Stanmer Park/Coldean LNR.



### Site of Special Scientific Interest

- Local Nature Reserve
- SSSI Biological
- SSSI Geological
- SSSI Mixed

### National Forest Inventory

- Non woodland
- Woodland

### EA Flood Risk

- Flood zone 2
- Flood zone 3
- Area benefiting from flood defence

- Agriculture land
- Assumed woodland
- Bare area
- Broadleaved
- Conifer
- Coppice
- Coppice with standards
- Felled
- Grassland
- Ground prep

- Low density
- Mixed mainly broadleaved
- Mixed mainly conifer
- Open water
- Other vegetation
- Quarry
- Shrub
- Urban
- Young trees



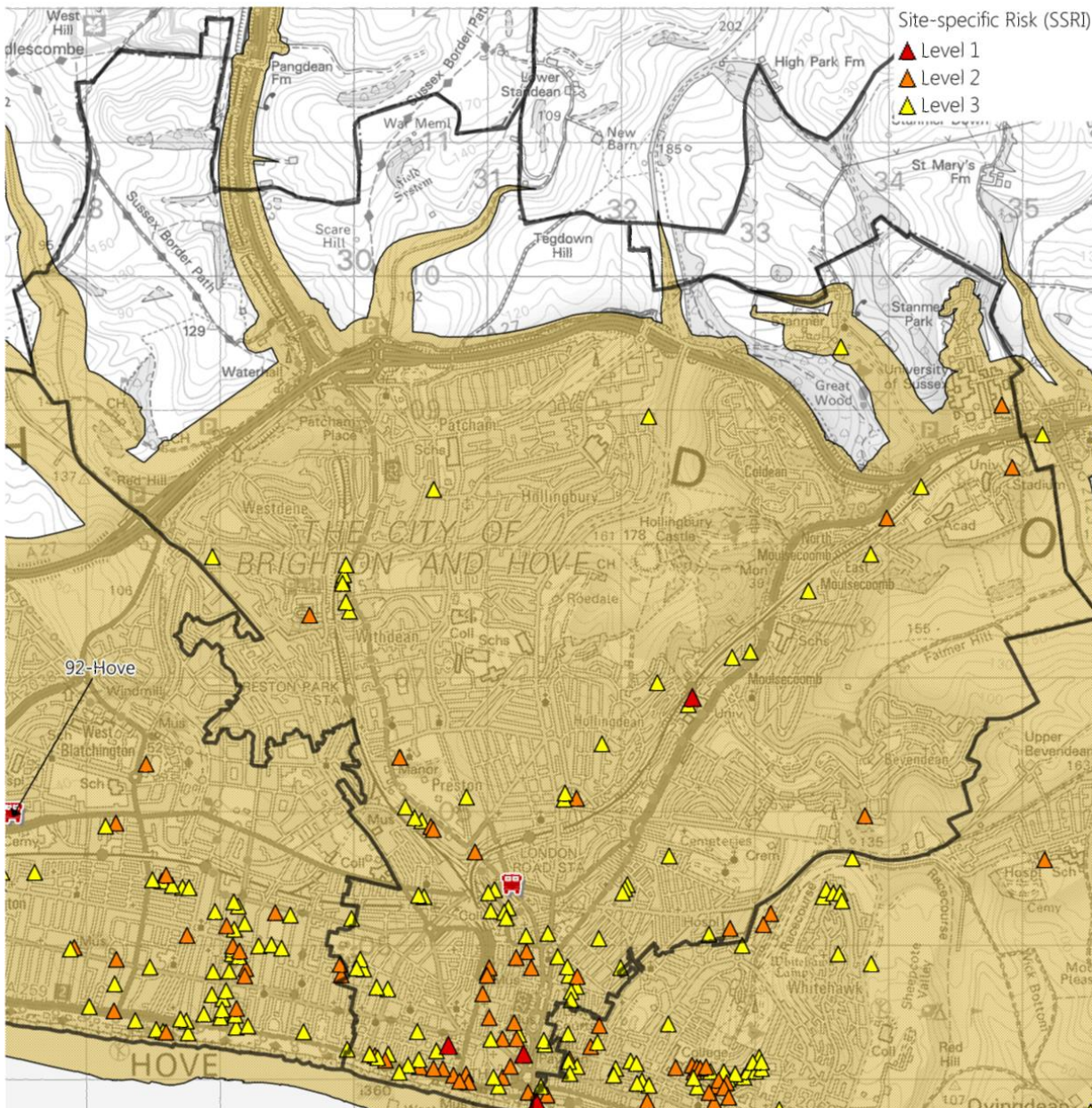
## Special Risk (Operational Risk)

### Site-Specific Risk Information (SSRI)

There are a total of 110 SSRIs (Levels 1-3) within the Preston Circus Station Admin area, three of which are Level 1 and 35 Level 2, as shown in the table below. The number of SSRIs within the station area equates to 14% of all SSRIs across the ESFRS area.

SSRI Risk	Preston Circus	ESFRS
Level 1	3 (2.7%)	25 (3.1%)
Level 2	35 (31.8%)	294 (36.3%)
Level 3	72 (65.5%)	461 (56.9%)
<b>Total</b>	<b>110</b>	<b>810</b>

The map below shows the location of these SSRIs. The majority are located to the south of the fire station, although there are a number that extend north-easterly towards Moulsecomb and Falmer. All 110 are within the attendance standard isochrone, although a number will have extended travel times, particularly those in the north of the area – some of which are level 2 SSRIs.



### High-Rise Risk

There are 77 high rise premises in Preston Circus station area (properties  $\geq 6$  floors), which equates to 26% of all high-rise across the ESFRS area.

### Special Risk

There are access issues within certain areas due to the complexity of the layout of both buildings and infrastructure. For example, the Lanes are a maze of interconnecting narrow lanes, alleyways and twittens which are a main tourist attraction and source of local business and therefore provide unique challenges to any FRS response to these types of areas and premises.

Furthermore, there is a vast collection of vaults, tunnels and other underground infrastructures across the City – some of which are known but others are undoubtedly unknown, which all present specific firefighter risks.

There are no COMAH sites within the station area.

The Amex Stadium which can hold circa 12,000 persons is situated on the outskirts of the City and therefore has extended travel times, further exacerbated by traffic congestion.

A number of university halls of residence are dispersed across station area.

### Over border risks

Preston Circus does not share its boundary with another FRS.



