



Gipton and Stanks Fire Station Business Case

At a Glance - the Key Points for this Proposal

Proposal:

The construction of a new fire station to replace Gipton and Stanks fire stations and removal of 24 fulltime posts from the establishment by way of planned retirements.

Key Points:

- Gipton is classed as a very high risk area and Stanks as medium risk area.
- Stanks fire station is poorly located at the outer edge of the local community and access/egress from the site is problematic.
- In the 5 year period between 2004/5 and 2009/10 operational demand in these areas reduced by 28% (there has been a reduction of 61% of serious fires) .²
- WYFRS has piloted a new type of vehicle (Fire Response Unit) to deal with smaller fires and incidents to free up fire appliances to respond to more serious emergencies.
- The pilot has been successful and it is believed that a District based Fire Response Unit will handle in the region of 3,000 calls per year.
- The new fire station would have lower running costs.
- The two Killingbeck fire appliances would be supplemented by a Resilience Pump for use during spate conditions.
- Targeted community safety and risk reduction work would continue.

1. Foreword

- 1.1 This proposal forms one of a number of similar initiatives developed by West Yorkshire Fire and Rescue Service (WYFRS) as part of its plans for the future provision of a highly effective and professional Fire and Rescue Service.
- 1.2 Each proposal is based on sound and comprehensive research, using real data from past performance and predictions of future demand and risk. Multiple sources of analysis have been used, allied to professional judgment and experience, to form the basis of robust business cases for change. The proposals are also reflective of the significant improvements in fire and community safety achieved over the past 10 years and represents a return on the investment made by the Authority on behalf of the public of West Yorkshire.
- 1.3 The proposals also incorporate a number of new and innovative approaches to addressing the challenge of maintaining high standards of performance for an emergency response service, within ever tightening financial constraints. The proposals have been developed as a package of inter related initiatives, representing major capital investment in local communities, whilst at the same time delivering annual recurring savings.

2. Introduction

- 2.1. Gipton fire station was constructed in 1937; it provides the initial emergency response cover for the residential and commercial areas of Gipton, Harehills, Burmantofts, Killingbeck, Halton Moor and Oakwood.
 - The fire station area covers approximately 8.45 square miles.
 - There is a population of 75,316.
 - There are approximately 2015 commercial properties within the area.
- 2.2. Stanks fire station was constructed 1973; it provides the initial emergency response cover for the mainly residential locations of Whinmoor, Swarcliffe, Whitkirk, Colton, Halton, Crossgates, Scarcroft, North Seacroft, Wellington Hill, Manston, Barwick-in-Elmet, Scholes and Thorner.
 - The station area covers approximately 14.39 square miles
 - There is a population of 42,452
 - There are approximately 663 commercial properties within the area.
- 2.3. Gipton has been classified as a very high risk area using the WYFRS Risk Matrix methodology. During 2009/10 there were 2196 operational incidents within this area including 86 dwelling fires and 33 Road Traffic Collisions. Stanks fire station area has been classified as medium risk and during the same period there were 688 operational incidents in the area including 34 dwelling fires and 12 Road Traffic Collisions. ¹
- 2.4. Three fire appliances currently provide the initial fire and rescue coverage for Gipton and Stanks and are constantly crewed by 60 whole-time firefighters. The operational demand in these areas has reduced by 28% between 2004/5 and 2009/10 (there has been a reduction of 61% of serious fires) yet the provision of operational resources has remained the same over this period of time. ²

3. Community Impact Assessment

- 3.1. The following statement is taken from the 2011-2015 Community Risk Management Strategy and emphasises our commitment to deliver an efficient economic and effective range of services, *“Every area within WYFRS will be considered in order to provide a better service at reduced cost”*.
- 3.2. To enable WYFRS to deliver against this commitment a wide range of analysis and modelling tools have been used to determine the current and predicted levels of service delivery, together with their associated costs. These tools have also been used to undertake four separate impact assessments in regard to WYFRS proposals which will seek to:
- Identify options which minimise reductions in service delivery standards and where there is scope for service delivery improvement.
 - Develop measures that will mitigate any negative impact upon service delivery and where possible maximise opportunities to achieve improvements.
- 3.3. WYFRS has developed a risk matrix which allocates a separate score/rating for hazards within communities. It is possible to use this risk rating in conjunction with the costs for providing services to each fire station to compare the cost of fire and rescue cover for each area. Gipton is one of the more cost effective stations in West Yorkshire but Stanks is almost 50% more expensive proportionate to the risk.⁶
- 3.4. For most parts of the day the operational demand on resources based at the new station will be comparable to those of equally resourced fire stations. Figure 1 compares the predicted average operational activity levels for the new station with those of two other fire stations provided with two appliances. It indicates that although operational activity levels are generally comparable they are slightly higher during the evening hours due to the occurrence of smaller nuisance fires.⁷

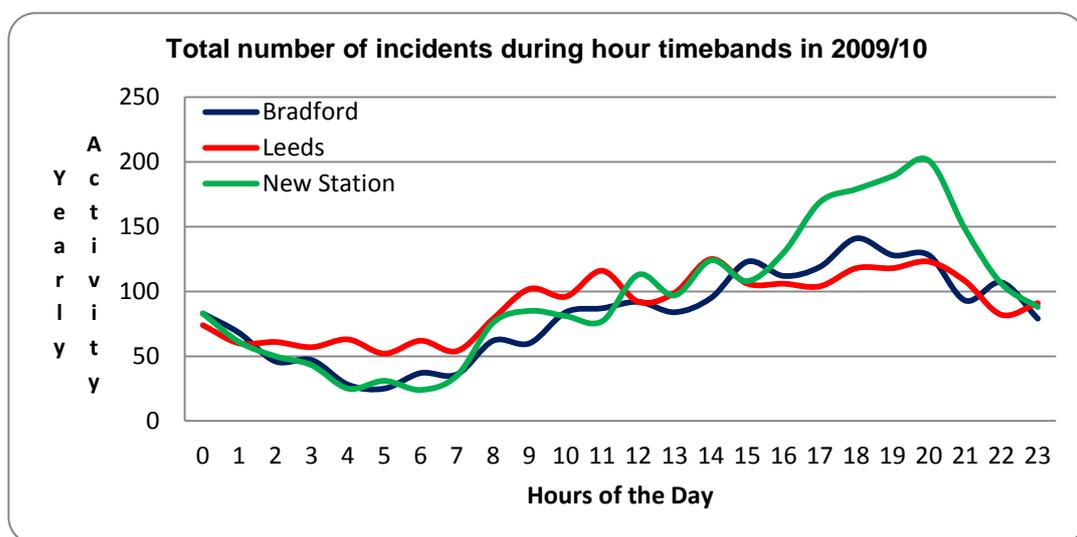


Figure 1 - Activity Timeline for New Station

- 3.5. A Fire Response Unit has been piloted in Leeds District; this unit will attend small fires, car fires and certain fire alarms. These types of incident occur frequently in the East Leeds area. Figure 2 shows the level of activity in the new fire station area with the incidents the Fire response Unit attends taken out of the activity levels. The benefit of the Fire Response Unit can clearly be seen. The activity levels for the new station have been reduced considerably compared to other stations; it also shows that the new station will be less operationally active during the evening than the other local stations.

3.6. The new station in East Leeds will have a comparable level of activity to other fire stations provided with two appliances. ⁷

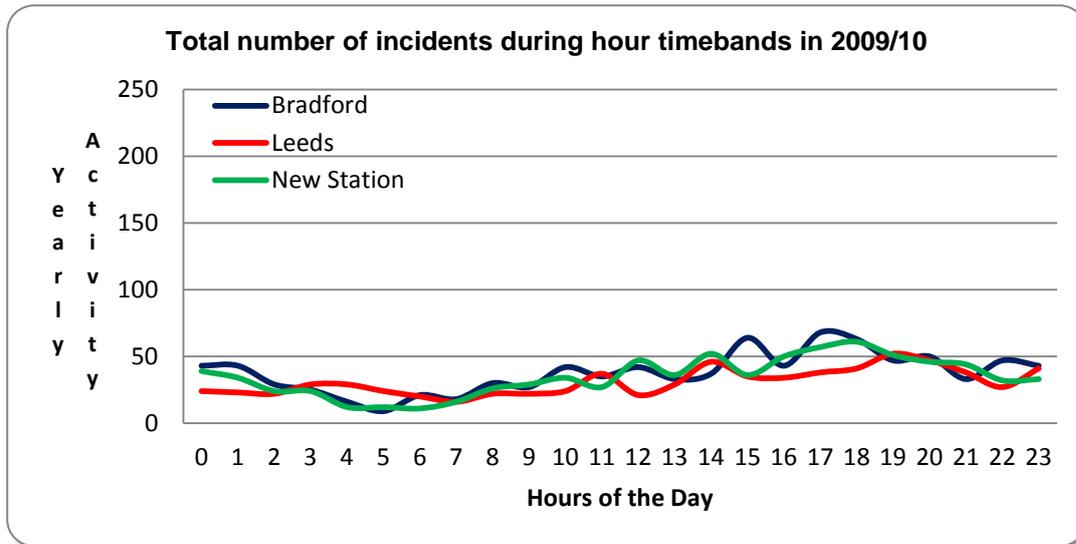


Figure 2 - Activity Timeline of Incidents Excluding Secondary Fires and Some False Alarms

Site Locations

- 3.7. An extensive review of emergency response cover has recently been completed and this has included the use of evaluation tools alongside local knowledge and professional judgment to identify optimum locations to build new WYFRS fire stations.
- 3.8. A site search mapping system has identified a number of appropriate areas across the County to build new fire stations and a number of sites have been identified within these areas which would provide the best solutions. A new fire station site must first be available for purchase and also provide access to road networks, it must not be located within flood plains and it must meet local planning permission requirements.
- 3.9. Analysis has been undertaken using the Fire Service Emergency Cover (FSEC – see also para 3.15) toolkit, together with the Phoenix/Active resource modelling toolkit.
- 3.10. The optimum area for a fire station between Gipton and Stanks has been identified as being situated on the A64 in the vicinity of Killingbeck police station. This proposed site is approximately 1.6 miles from Gipton Approach and 2.2 miles from Sherburn Road. The presence of a large site owned by West Yorkshire Police at this location may also present some potential to co-locate resources.

Determining where resources should be located

- 3.11. Independent research has assisted WYFRS to determine the potential impact that the implementation of each proposal would have on fire appliance attendance times to operational incidents. A simulation model has been used to identify the performance impact of moving resources to the new fire station. This modelling measures how the location of a new fire station would have performed if it had been in existence and responded to the actual incidents that did occur in this area between 2007/8 and 2009/10. ⁴
- 3.12. Models have been run for locating a two fire appliances at Gipton and closing Stanks, and then run again for locating a two fire appliances at Stanks and closing Gipton, both these options provide a significantly lower level of response performance than would be achieved by locating

the fire appliances at the Killingbeck site. The Killingbeck site provides a much better location for a single fire station. ⁴

3.13. The proposals has a small reduction in performance in fire appliance attendance times against the Risk based Planning Assumptions for all incidents across the whole of West Yorkshire of approximately 0.3% for first appliance and 0.1% for the second appliance. ⁴

3.14. Local Impact – Figure 3 identifies that:

- There is a reduction in response performance against the Risk Based Planning Assumptions in the Gipton station area. The main reason for this is simultaneous activity. This change will be greatly mitigated by the Fire Response Unit. The predicted response times still represent good performance and are appropriate for the. Further impact will be achieved by targeted risk reduction activities.

1st Appliance Attendance Times

Station Admin. Area	LIFE			PROPERTY			OTHER		
	Base	Model	Impact	Base	Model	Impact	Base	Model	Impact
Gipton	89.4%	66.7%	-22.7%	96.0%	91.7%	-4.2%	98.9%	97.7%	-1.2%
Leeds	88.1%	85.0%	-3.1%	96.0%	94.8%	-1.3%	98.9%	98.6%	-0.3%
Hunslet	94.1%	93.5%	-0.6%	97.6%	97.4%	-0.2%	99.0%	98.9%	-0.1%
Moortown	91.9%	88.7%	-3.2%	97.3%	97.0%	-0.3%	98.6%	98.5%	-0.1%
Stanks	96.4%	94.0%	-2.4%	99.1%	98.0%	-1.1%	99.2%	98.9%	-0.3%
Garforth	84.2%	84.4%	0.2%	92.4%	92.9%	0.4%	97.5%	97.7%	0.2%
Rothwell	92.4%	92.3%	-0.1%	96.7%	96.6%	-0.1%	98.5%	98.4%	0.0%

2nd Appliance Attendance Times

Station Admin. Area	LIFE			PROPERTY			OTHER		
	Base	Model	Impact	Base	Model	Impact	Base	Model	Impact
Gipton	92.6%	87.9%	-4.7%	95.6%	94.3%	-1.3%	99.4%	99.2%	-0.2%
Leeds	93.8%	91.0%	-2.8%	98.4%	98.0%	-0.4%	99.1%	99.1%	0.0%
Hunslet	95.1%	94.2%	-1.0%	96.3%	95.9%	-0.3%	98.9%	98.9%	-0.1%
Moortown	91.5%	90.5%	-1.0%	94.4%	94.0%	-0.3%	99.4%	99.4%	-0.1%
Stanks	93.8%	92.1%	-1.7%	99.7%	99.4%	-0.3%	99.6%	99.6%	-0.1%
Garforth	70.1%	79.4%	9.3%	87.7%	89.6%	2.0%	96.7%	97.0%	0.3%
Rothwell	87.3%	87.3%	-0.1%	91.8%	91.7%	-0.1%	97.7%	97.7%	0.0%

Figure 3 ⁴

Fire Service Emergency Cover (FSEC) toolkit

3.15 The FSEC software toolkit has been developed by Central Government (Department for Communities and Local Government) for use by Fire and Rescue Authorities in determining appropriate fire and emergency cover. It enables the relationship between dwelling fire casualties and the social demographics of small areas in the county (super output areas) and the location of response resources (fire stations) to be determined. Four demographic benchmarks are used to demonstrate this relationship and to represent predicted risk associated with a range of appliance response times.

3.16 Analysis of the FSEC outputs (which is a cost benefit analysis in regard to property and life risk) predicts that the relocating the fire station to Killingbeck will:

- Reduce the risk to the community.
- Result in significant efficiencies. ⁹

3.17 The FSEC modelling suggests that the impact of the Killingbeck proposal would be less than other relocation options considered.

Phoenix/Active toolkit

3.18 The Phoenix/Active software tool is another analysis tool used to identify the impact of any changes of the Risk Based Planning Assumptions referred to above. It predicts that locally there is likely to be a small adverse impact on the performance against Risk Based Planning Assumptions. Across the Brigade the impact is negligible. ¹⁰

Predicted Risk Level

3.19. A new fire station located, within the Killingbeck area would attract the same risk classification as the Gipton fire station area therefore the new fire station would be classified as very high risk. Targeted risk reduction activity will help to reduce the risk, with the aim of reducing it sufficiently enough to re-categorise the area as high risk in the future. ¹

3.20. Isochrones (travel distance) can be drawn around the proposed location of the new fire station (Section 8). These indicate the distance the appliance would be able to travel within the Risk Based Planning Assumption time of 7 minutes.

3.21. Section 8 also illustrates that for this area of West Yorkshire a single fire station in the new location provides fire appliance coverage which is more proportionate to risk than the current arrangements.

Risk Reduction

3.20 During 2010 a comprehensive and integrated framework for service delivery was developed, this is outlined in the Community Risk Management Strategy 2011-15. This was implemented in 2011 and is proving a very effective means for targeting resources and reducing risk and is an essential method for reducing any negative impact of change in fire cover. Fundamental to this approach is the introduction of District Risk Reduction Teams and Local Area Risk Reductions Teams.

3.21 The location of a fire station in the Killingbeck area will enable targeted community safety activities such as Home Fire Safety Checks to continue.

4 Firefighter Safety Impact Assessment

Risk and firefighters gathering risk information about premises.

4.1 One of WYFRS's risk indicators is dedicated solely to "Firefighter safety" and has taken cognisance of the following statement within the 2009 WYFRS Firefighter Safety Strategy; *"Effective gathering and analysis of information prior to operational incident attendance is of critical importance"*.

4.2 The firefighter safety indicator captures the following information to reflect this statement:

- The predominance of specified commercial properties within each fire station area.
- The availability of associated risk information held for commercial properties.
- The predominance of high-rise properties within each fire station area.

4.3 The swift arrival of supporting resources can have a beneficial impact upon the safe management of operational incidents and this is the rationale for this information being captured by the indicator.

4.4 Following the 2009/10 evaluation process the firefighter safety risk bandings for Gipton and Stanks have been determined as high and very low respectively. ¹

- 4.5 The targets for operational risk information for the 2012/13 IRMP Action Plan will be set in a proportionate manner, with areas of higher risk levels receiving a greater number of operational risk information inspections. More inspections will take place in areas such as Gipton to increase the availability of risk information available to firefighters via the Mobile Data Terminals (MDT's) and as more information is made available the corresponding risk level will be reduced.
- 4.6 The Premises Data-base currently indicates that there are a total of 1650 commercial properties within the Gipton and Stanks area that have not been made subject to an operational information inspection. A high priority has been placed on firefighters in Gipton visiting the premises where incidents could potentially occur. ¹¹
- 4.7 It is therefore anticipated that the availability of risk information via the Mobile Data Terminals (MDT's) for properties within all areas will be considerably improved by 2015, by which time the corresponding firefighter safety risk banding will have been reduced to Medium

The arrival times of the 2nd fire appliance

- 4.9. During 2009/10 there were a total of 333 operational incidents within the areas of Gipton and Stanks which required the attendance of more than one pumping appliance (one every 1.1 days). ¹²
- 4.10. Currently the North and East Leeds area has two fire appliances based at Gipton, Moortown and Leeds with one at Rothwell, Garforth, Stanks and Wetherby.
- 4.11. Increased second pump arrival times require the first attending crew to manage the initial stages of certain incidents in isolation; there is some potential for fires to become more developed in these initial stages.
- 4.12. The proposal improves the second appliance attendance times into Garforth station areas and there is little impact for the others local station areas.

5. Equality Impact Assessment

- 5.1 The new Public Sector Equality Duty places a requirement on the organisation to ensure where changes affect service delivery to the community or employees WYFRS assess those changes for any possible negative impact on equality. In this context equality refers to the protected characteristics in the Equality Act 2010, race, gender, disability, religion and belief, sexual orientation, age, gender-reassignment, maternity and pregnancy and marriage and civil partnerships.
- 5.2 This Equality Impact Assessment has been completed by using information drawn from the Office for National Statistics in regard to this area and has been used to determine whether the removal of a fire appliance from the area will lead to an adverse or disproportionate impact upon any sections of the population. ¹³
- 5.3 A 2008 report provided by the Communities and Local Government (CLG) department analysed the correlation between dwelling fires and socio demographics. This report has been used to provide an indication of whether any particular groups within the population are at heightened risk from fire. The report indicates that sick/disabled persons, lone pensioners and Black Caribbean/African groups were associated with a greater incidence of dwelling fires.
- 5.4 The Gipton and Harehills population was estimated as being 24,904 during 2001 with a fairly equal gender distribution. The predominant ethnic group within the population is White British with Asian/Asian British representing the next major group, followed by Pakistani, Black British/Caribbean and Asian/British Bangladeshi.

- 5.5 Approximately 49% of the resident Gipton and Harehills population are Christians, 23% are of Muslim faith and 25% declared no religious preference. In 2001 16% of the population was aged over 60 and 20% of the population had a limiting long-term illness.
- 5.6 The WYFRS Prevention strategy contained within the 2011-2015 Community Risk Management Strategy emphasises that risk reduction activities will be focussed toward areas of the county identified as being at higher risk from dwelling fires, deliberate fire setting and road traffic collisions and that an appropriate and proportionate allocation of resources will be made available for District Risk Reduction Teams (DRRT) to achieve this.
- 5.7 Although the Ward statistics indicate that the communities of Gipton and Harehills are very diverse the findings of the Equality Impact Assessment are that this proposal will not lead to any negative changes in the delivery of Prevention, Protection and Response services and consequently there will be no anticipated impact upon any under-represented groups. The Equality Impact Assessment also confirms that there is no negative impact on any employee group.

6. Organisational Impact Assessment

Efficiencies

- 6.1 This proposal will enable WYFRS to manage some of the financial deficit caused by reduced government funding.
- 6.2 The proposal has considered the less than optimal positioning of existing fire stations and appliances together with the reduced operational demand placed and associated costs. The most cost effective solution to these issues is to provide a new fire station and ensure that two fire appliances will be crewed by nine firefighters who will respond to emergencies in less than two minutes from being mobilised.
- 6.3 This can be achieved by reducing the staffing at Gipton and Stanks by 24 posts; this will be done by way of planned retirements. The staffing and duty system at the new fire station will remain the same.
- 6.4 The removal of posts that coincide with forecasted retirements will achieve significant revenue savings.
- 6.5 Although capital investment will be required to construct a new fire station, part of these costs will potentially be off-set by the sale of the two existing fire station sites.
- 6.6 There will be other associated savings delivered by this proposal, including:
- Reduction of Personal Protective Equipment.
 - Reduction in consumables and station maintenance costs.
 - The new station will be more environmentally friendly and have energy efficiency technology.
- 6.7 The analysis undertaken for Gipton and Stanks has identified that there is considerable overlap in the existing Risk Based Planning Assumption isochrones (footprints) for these areas. This overlap represents a duplication of resource coverage and therefore one of the objectives for providing a more efficient service within these areas is to reduce this overlap. ¹⁴

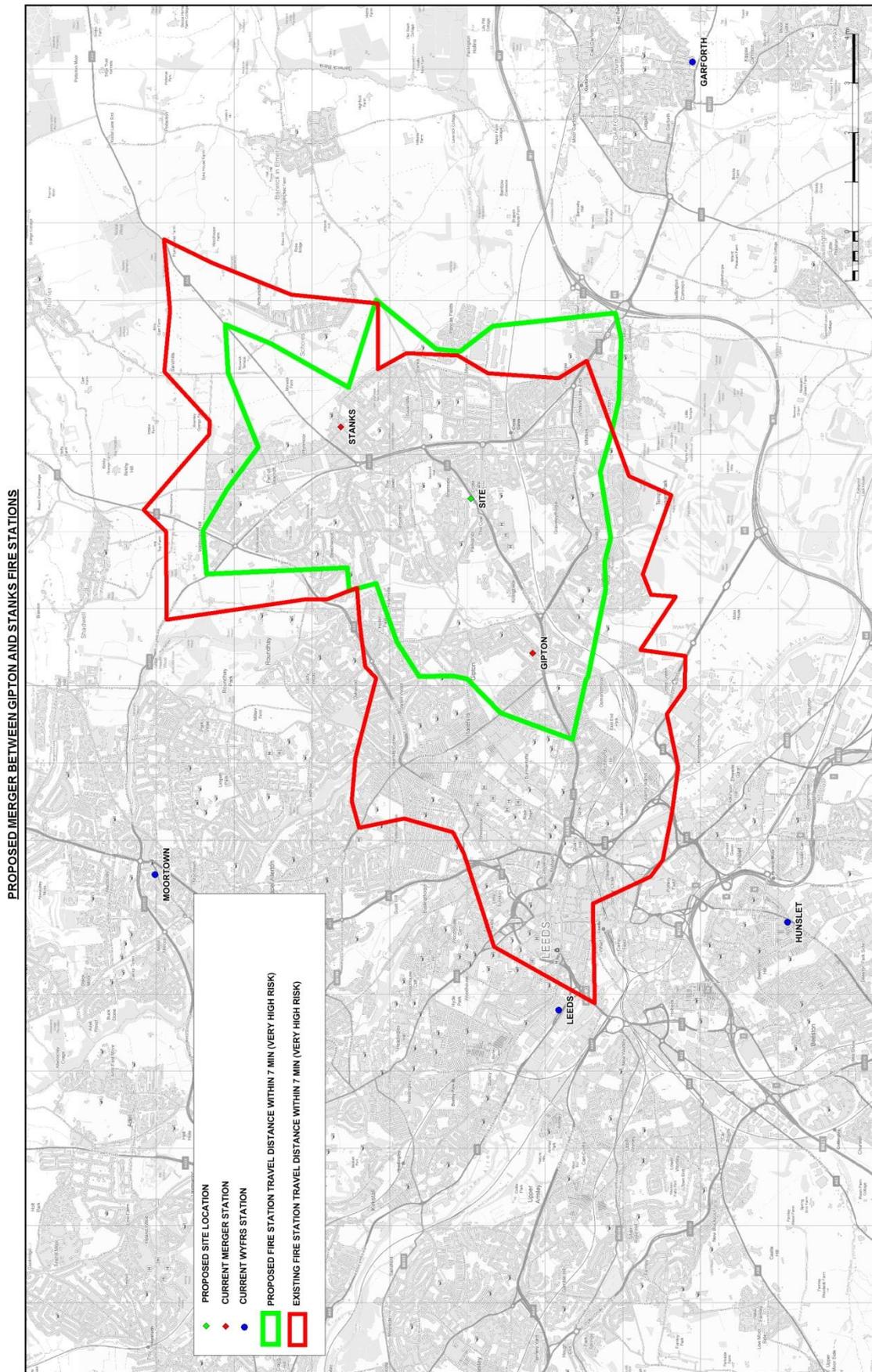
Impact across West Yorkshire and Resilience

- 6.8 The reduction in pumping appliances in this area does have a small impact upon attendance times against the Risk Based Planning Assumptions across West Yorkshire for all incidents; performance is reduced by 0.3% for first appliances and 0.1% for second appliances. ⁴
- 6.9 In order to maintain WYFRS's operational resilience, the fire appliance currently sited at Stanks will be relocated at the new fire station. This fire appliance will not be continually staff but will be activated during periods of anticipated or unanticipated high levels of operational activity and in response to significant events which could affect emergency response; such as wide area flooding, bonfire night, periods of bad weather or when attending very large incidents.
- 6.10 The use of Resilience Pumps supports WYFRS strategy of staffing the appropriate number of fire appliances for normal levels of activity and having the mechanisms to add further fire appliance when required. This strategy is important in maintaining an excellent fire and rescue service whilst meeting the efficiencies required by the reduction in public service budgets.

7. Conclusions

- 7.1 The existing fire stations at Gipton and Stanks are 3.7 miles apart and consolidating resources at a new fire station at a central location is an economic, effective and efficient way of providing fire and rescue services for these areas.
- 7.2 The provision of two front-line fire appliances constantly crewed by whole-time firefighters is still deemed appropriate for this area despite the success of previous year's risk reduction activities.
- 7.3 Targeted risk reduction initiatives co-ordinated by the Leeds Outer North East, Inner North East and Outer East Local Area Risk Reduction Teams will be undertaken.
- 7.4 It is expected that the targets established for gathering safety critical risk information, will mitigate the impact upon the safety of WYFRS firefighters resulting from the removal of a pumping appliance from this area.
- 7.5 The introduction of a Resilience Pump will maintain three appliances in the area and support WYFRSs resilience arrangements
- 7.6 The consolidation of Gipton and Stanks resources at one central location together with the addition of a Resilience Pump will deliver significant efficiency savings whilst maintaining a high level of service delivery and providing employees with vastly improved accommodation facilities.

8. Travel Distances



9. References

1. WYFRS (2010/11); *Risk Matrix - Base Year*
2. WYFRS (2004/05, 2009/10); *Incident Records*
3. WYFRS (2009/10); *Retained Availability Records*
4. ORH Limited (2011); *Resource Optimisation Study – Final Results Report*
5. WYFRS (2009/10); *Appliance Activity Records*
6. WYFRS (2009/10); *Cost per Point of Risk – Chart and Data*
7. WYFRS (2009/10); *Incident Records*
8. ORH Limited (2011); *Resource Optimisation Study – Progress Report 2 – Initial Modelling*
9. WYFRS (2011); *FSEC Summary Report*
10. WYFRS (2011); *Phoenix Active Summary Report*
11. WYFRS (2011); *Premises Record Database*
12. WYFRS (2009/10); *Incident Records – Multi-pump activity*
13. <http://www.ons.gov.uk/> (Accessed August 2011)
14. WYFRS (20011); *Current pump coverage*