

Public Safety Committee

Peggy Henson – 11th District - Chair
Kevin Stinnett – 6th District – Vice Chair
Chuck Ellinger – At Large
Shevawn Akers – 2nd District
Diane Lawless – 3rd District
Bill Farmer – 5th District
George Myers – 8th District
Jennifer Mossotti – 9th District
Harry Clarke – 10th District
Ed Lane – 12th District

Staff:
Jenifer Benningfield

AGENDA
PUBLIC SAFETY COMMITTEE
November 5, 2013
1:00pm

- | | | | |
|----|--------------------------------------|--------------------|----------|
| 1. | Approval of Summary | Peggy Henson | (1-6) |
| 2. | Division of Police Home Fleet Policy | Kevin Stinnett | (7-19) |
| 3. | Fire Stations and ISO Ratings | Public Safety Link | (20-86) |
| 4. | DEM Emergency Preparedness | Public Safety Link | (87-146) |
| 5. | Items in Committee | Peggy Henson | (147) |

Future Committee Meetings
TBD

“Public Safety Committee, to which shall be referred matters relating to the Department of Public Safety and its related Divisions” Council Rules and Procedures, Section 2.102 (1)

Draft



Special Public Safety Committee

October 15th, 2013

Summary and Motions

Chair Peggy Henson called the meeting to order at 11:00am. Council Members Kevin Stinnett, Chuck Ellinger, Diane Lawless, Bill Farmer, George Myers, Jennifer Mossotti, Harry Clarke, and Ed Lane. Shevawn Akers was absent. Chris Ford attended as a non-voting member.

1. Approval of Summary

Motion by Clarke to approve the summary. Seconded by Lawless. Motion passed without dissent.

2. Tenant Transition and Household Disposal

Henson said that she had asked Steve Feese to come to the committee with a plan.

Feese began his presentation. He said that he would be reviewing the current overflow/bulky item pickup, explaining the overflow/bulky item collection service process in other communities, providing the cost for operating a 24-hour response "on-call" of bulky system, propose changes to service for evictions, propose changes to service for emergency of bulky item disposal, discuss proposed revisions to Sec. 16-14 of the Code of Ordinances, and finally, answer any questions the committee members may have.

Feese said that there is currently one (1) overflow/bulky item truck for three (3) residential routes (no call-in). These trucks collect extra bags, furniture, mattresses (non-insect infested), small appliances/televisions, and other items outside of the Herbie.

Feese told committee members that citizens can call for special collection services or drivers inform dispatch for the following items:

- Tires (four (4) passenger vehicle size/off rim)
- Mattresses
- Appliances
- Small Animal Disposal

Feese told committee members that the standard response time is within 48 hours. He went on to say that these items cannot go in with the normal waste. They must be picked up separately.

Feese said that his drivers pickup approximately 3000 service points with no call-in and 135 service points with a call-in each week. The current call-ins represent 4.3% of the total overflow/bulky service points.

Feese placed a chart on the overhead that illustrated overflow and bulky item collections in other communities. Austin, Texas and Louisville, Kentucky pick up bulky items two (2) times per year. Cincinnati and Columbus Ohio, Owensboro, Kentucky, and Georgetown, Kentucky pick up on a call-in basis only. Madison, Wisconsin picks up bi-weekly. The response times vary from two (2) days to two (2) weeks. Additionally, some communities charge an additional fee for this service.

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Feese said that they would have to gear up for the worst case scenario. His list of assumptions for his 24-hour response calculation is as follows:

- Overflow/bulky items calculated as 5% of total residential refuse weight collected
- Estimated average weight of an overflow/bulky setout to be 50 pounds
- Based on call service capacity, per truck, at 100 stops per day
- Rear Loader trucks with two (2) employees
- Assumed an unequal distribution for call volumes from one collection day to another

Feese said that he thinks the weekends will generate the largest quantity of bulky items. Feese said that his calculations for 24-hour response were as follows:

ITEM	COST
1 Additional LexCall Supervisor	\$60,000
4 Additional LexCall Call Takers	\$216,000
1 DWM Dispatch CSR (Weekend 10hr/Day)	\$45,000
2 WM Supervisors – Additional	\$100,000
23 Rear Loader Trucks (Cost Amortized)	\$575,000
Yearly Truck Maintenance Cost (\$15K/Truck)	\$345,000
4 Additional Maintenance Mechanics	\$240,000
Additional Yearly Fuel Cost for 18 Trucks	\$604,800
Truck Bays	\$86,250
Additional Labor (21 Drivers + 21 PSW)	\$1,491,000
Recurring Annual Total Cost	\$3,763,050

Fees said that there are obstacles to implementation. He said that there are 23 truck driver vacancies. He said they struggle to fill those positions. They also do not have enough trucks to adequately cover existing routes. He went on to say that increasing the WM fleet size by a significant amount would place much higher maintenance demands on the Division of Fleet Services. Feese also suggested educating residents to the new call in procedure. He also said that there could be negative implications for current enforcement activity.

For evictions, Feese proposed that the Constable or Sheriff provide the Division of Waste Management (DWM) with the address of eviction. He also suggested that the DWM deliver a Loan-A-Box and place it at the curb in front of the property within three (3) hours of notification at the specified address. He went on to suggest that an ordinance be drafted to require mandatory fees to be charged to homeowners.

For emergency overflow/bulky item disposal, Feese suggested the DWM obtain the necessary street placement permits and provide an expedited Loan-a-Box placement for citizens with emergency overflow/bulky item disposal via service requests. Feese went on to suggest providing a possible citizen drop-off location for overflow/bulky item disposal.

Feese said that the ordinance, as currently drafted, is confusing and it is not reflective of the service that is currently provided or has been provided.

He suggested the following revision to Ordinance Sec. 16-14 subsection (c):

The following items from residential units will be collected free of charge by calling LexCall 311: tires off rims (up to 4), mattresses, used metal appliances prepared in accordance to subsection (b) and small animal carcasses. Calls will be serviced within 48 operational hours based on the time of the service entry.

Draft

Ford said that the policy decisions are on Council. He said that he wants to focus on Ordinance 16-14 which is special collections. Ford reminded Council Members that the policy has not been updated since 1999.

Ford said that his intent was never 24-hour response. He said that it would be impractical. Ford said that the Division of Code Enforcement does have an emergency 24-hour abatement process. Ford said that there are set-outs everyday in our community with once a week pickups. These set-outs could sit out for 5 or more days.

Ford wants our citizens to be able to call in for a special pickup with 24-hour notice with 48-72 hours to respond.

Ford asked Feese how he arrived at the number of 3000 service points. Feese said that 5% of the total residential pickup in terms of weight is bulky items. They translated that into an average weight of 50 lbs. They calculated that into approximately 3000 service points.

Ford said that Feese's number does not explain how long the bulky items will have been at the curb.

Ford said that the Constable said that their job is not to maintain storage. Ford asked how they will go from a five (5) to six (6) week wait on a roll cart request to now all of a sudden to get a roll cart on the street in three (3) hours. Feese said they will reserve boxes for this purpose. So there will be availability if they get a request to dispatch a box to a particular eviction location.

Lane asked Feese about his calculation for 24-hour response. Lane asked if this would be a cost above and beyond the current cost (\$3,763,050). Feese answered yes.

Lane said that it would be \$71,000 a week and it does not seem to be efficient to do this since they are already picking up within 72 hours anyway.

Feese said that with the new routing system is there is not a lot of undertime. Feese said that this challenge is to not have drivers out until 7:00pm.

Lane asked if there is a bulky item out on the curb now, do the drivers call in and give the address. Feese said that they do report it. Feese said that the third phase of the routing system is going to allow the driver to push a button and it will go directly to dispatch and they will generate a service request for a customized route to service it the same day. Feese said if the bulky truck goes by and sees it, the driver will pick it up unless it is a bed bug infested mattress, tire or dead animal.

Lane told Feese that it is a safety issue when someone gets evicted and the items are placed out near the street because people will rummage through it. Lane asked Feese to work with the Sheriff's Office to be alerted when an eviction is about to take place. Feese said they have done this before but he would like to have a response system in place.

Lawless thanked Feese and the Division of Code Enforcement for their work around the University of Kentucky. Lawless said that around the University of Kentucky's campus, people place unsanitary items at the curb. She said that often they are placed out and nobody calls. She asked Feese if they still issue citations.

Feese said yes, they process 20-25 citations a month through Environmental Policy. Lawless said she would like to look at the fee structure. She reminded homeowners that it is their responsibility to wait to put it out on the curb or call it in.

Draft

Ford said that no one said that 72 hours would be too long. Ford went on to say that six (6) days is too long. Ford said that 48-72 hours is better than six (6) days. Ford said that in the right-of-way the LFUCG needs to provide the service to remove the items.

Ford asked Feese how often they pick up downtown. Feese said in the business district they pick up eleven times each week. He asked Feese why we pick up more frequently downtown near the businesses. Feese said that there is not room for businesses to place their waste. Ford told Feese that right-of-ways cannot be storage for bulky waste for up to six (6) days each week.

Ford asked Mike Sanner from the Department of Law to approach the podium. Ford told the committee members that there is a conflict between operations and policy on this issue. We have made our operational practice that bulky items will only be picked up once a week. He said that it is being done piecemeal. He said that we will pick up certain items more than once a week.

Ford said that our ordinance allows constituents to call in for a special pickup. Ford wants to find a way operationally to meet our obligations in the ordinance.

Sanner said that there was confusion about whether or not the special pickup could be on a separate day from the regular collection. They have determined that yes, it can be.

Ford said that constituents are allowed one special pickup per week.

Section 16-14 (c) currently reads:

Items generated from residential units such as televisions, tires off rims (up to four (4)), furniture, small scrap metal pieces, etc., will be collected free of charge by calling the division of solid waste. Calls must be made at least twenty-four (24) hours in advance of the pickup. There is a maximum of one (1) special pickup per week.

Sanner said that the proposed revised language would read:

Items generated from residential units such as televisions, tires off rims (up to four (4)), furniture, small scrap metal pieces, etc., will be collected free of charge by calling the division of solid waste. Calls must be made at least twenty-four (24) hours in advance of the requested special pickup. There is a maximum of one (1) special pickup per week, in addition to the regular pickup.

Lawless asked if the language change would necessitate the increase in expenses of \$3,763,050. Feese said that the issue he sees is that when the ordinance was changed the last time, furniture and small scrap metal were left in the ordinance when they should not have been left in it. The DWM does not pick these items up during special collections. Feese said the language is not reflective of what the DWM has ever done.

Lawless said that she believes that people are not calling these pickups in; they are setting things on the curb waiting for the weekly collection day.

Ford said again, operationally, the LFUCG is not following the law.

Ford said that the figures provided by Feese are erroneous. He said it would require more funding, but not at that level. He said that a 24-hour response was never what he asked for.

Motion by Lane to discuss and consider the revised language of Section 16-14 provided by attorney Mike Sanner. Seconded by Myers.

Draft

Lane said that we should stick with the current ordinance.

Stinnett had concerns that we do not have the staff or trucks to implement the ordinance if they passed the revision.

Feese said that they would have to hire more people.

Sanner said that he was instructed to clarify the ordinance to illustrate that citizens are allowed their regular pickup and a special pickup if they call the LFUCG 24-hours in advance, allowing two (2) pickups a week.

Stinnett asked Feese how it is different from what they are currently doing.

Feese said that the only materials they respond to by calls from citizens or drivers are tires, dead animals, appliances, and mattresses. Feese said that if they add the proposed language, Feese said that there are often bags sitting out with many other types of items.

Feese said that when the ordinance was changed previously, the scrap metal and furniture were not removed from the language and should have been.

Stinnett said that they are already picking those items up on regular pickup days. Feese said on a given week, they only have 135 calls for tires, mattresses, appliances, and small animals.

Feese said that to move from essentially a no call situation to a call in situation, everything will go to LexCall, they will send it to DWM and they will have to dispatch that route to service the requests with a quick service time.

Feese said that this is not something they have ever done before and no other community of our size provides this service. Feese said that he does not want to come back to the Council and say that he does not have enough money to get this done.

Stinnett asked Feese if he had met with a representative from LexCall on the issue. Feese said that LexCall would have to bring people in on the weekend to process and dispatch the calls.

Stinnett said that he is not sure that Feese is talking about the same things. He said that there is no way that LexCall would need that many additional workers.

Henson said that she feels they are not being heard. She said that there is a problem in her district and she is not sure if this is the answer. She said that even with implementation of the revised ordinance she believes there will still be items left on the curb that have not been called in. She said that people do not call in because they do not know they should or can.

Richard Moloney said that last year they sent notices to certain residents in the 3rd District that they are not allowed to put the trash out for days. Moloney said that when you hit people in the pocket book they start to pay attention. He also mentioned that Georgetown, Kentucky is charging their citizens for the extra pickups.

Henson said that the fines need to be increased. She said that it is the same properties time and time again.

Ford said that we have an ordinance on the books that the LFUCG is not enforcing. Ford said that the ordinance is called the "Move-Out Ordinance" and people are moving out every day of the week in Lexington. Ford stressed that they need to keep the special collections in the ordinance.

Draft

Ford went on to say that no one is asking for 24-hour response. He said it is impractical. He asked committee members to support the motion.

Lane said that this issue needs better management. Lane suggested that if a resident places their items on the curb on a non-pickup day, there should potentially be a fee for that. He said that it would incentivize our citizens to place their items out on their normal trash pickup day.

Lane asked Feese to come back with a specific plan with how he would manage this.

Stinnett agreed with Lane. He said that it could be managed better. Stinnett said that he was not sure that it requires an ordinance change. Stinnett said that our DWM employees do a great job. Stinnett said that he would like to see better tracking to see if we need to amp up service.

Ford told committee members that it is not a material change to the ordinance, but merely a clarification. The reason the clarification is needed to send a clear message to management. Ford said that it is clear to him that management does not recognize the ordinance.

Ford is trying to clarify the laws on the books.

Clarke asked why there are three different categories. Feese said that the appliances, mattresses, dead animals, and tires are held for the special collection because they either cannot go into the landfill or they cannot go into the regular truck. The other items are picked up by the regular truck. Clarke referenced the draft ordinance distributed by Ford.

Clarke asked Feese if it is necessary to have three (3) different categories. Feese said no.

Clarke said that they are not talking about adding anything to the current ordinance. Feese answered that the scope of the special collections would be different. Feese said the question is if the special collections include only televisions, tires, furniture, and small scrap metal pieces or does it include everything else?

Clarke said that it thinks a lot of this is semantics. He said he agreed with Ford that the language needs clarification.

Motion passed without dissent.

3. Division of Police Home Fleet Policy – Postponed

4. E911 Structural Budget Imbalance – Postponed

5. Items Referred to Committee

Motion by Myers to adjourn. Seconded by Lane. Motion passed without dissent.

Submitted by Jenifer Benningfield, Council Administrative Specialist

Division of Police

Home Fleet

Home fleet Mileage/Fuel

(Since Home Fleet Policy Change)

- 8.27% Reduction in Mileage Driven
- 4.18% Reduction in Fuel Cost
- 3.44% Reduction in Fuel Consumption

Miles Traveled				
	FY 2012	FY 2013	Difference	%
September	547,344	464,372	82,972	15.16%
October	534,993	469,070	65,923	12.32%
November	521,075	449,938	71,137	13.65%
December	500,303	437,183	63,120	12.62%
January	536,254	490,208	46,046	8.59%
February	508,179	444,504	63,675	12.53%
March	563,498	485,470	78,028	13.85%
April	495,511	484,296	11,215	2.26%
May	535,386	524,791	10,595	1.98%
June	488,203	458,404	29,799	6.10%
July	490,702	472,403	18,299	3.73%
August	496,264	523,065	26,801	-5.40%
Average	518,143	475,309	42,834	8.27%
Total	6,217,712	5,703,704	514,008	8.27% ⁹

Fuel Cost				
	FY 2012	FY 2013	Difference	%
September	\$137,135	\$144,105	\$6,970	-5.08%
October	\$123,694	\$126,575	\$2,881	-2.33%
November	\$123,348	\$123,304	\$44	0.04%
December	\$120,468	\$118,441	\$2,027	1.68%
January	\$143,102	\$136,807	\$6,296	4.40%
February	\$145,345	\$133,389	\$11,956	8.23%
March	\$167,337	\$143,358	\$23,979	14.33%
April	\$149,721	\$130,210	\$19,511	13.03%
May	\$152,053	\$141,492	\$10,562	6.95%
June	\$132,914	\$128,234	\$4,680	3.52%
July	\$139,456	\$138,425	\$1,030	0.74%
August	\$154,402	\$154,106	\$296	0.19%
Average	140,748	134,870	5,878	4.18% ₁₀
Total	\$1,688,975	\$1,618,445	\$70,530	4.18%

Gallons Used				
	FY 2012	FY 2013	Difference	%
September	42,931	41,307	1,625	3.78%
October	40,142	39,220	922	2.30%
November	40,915	40,484	431	1.05%
December	40,762	40,403	359	0.88%
January	46,362	45,313	1,049	2.26%
February	44,713	40,131	4,583	10.25%
March	47,925	43,553	4,372	9.12%
April	42,587	41,513	1,074	2.52%
May	46,200	44,227	1,973	4.27%
June	43,437	40,573	2,864	6.59%
July	45,614	43,347	2,267	4.97%
August	45,010	48,435	3,426	-7.61%
Average	43,883	42,375	1,508	3.44% ₁
Total	526,597	508,505	18,092	3.44% ₁

Vehicle Maintenance

FY2012	FY2013	FY2014
Repair Total (Parts, Labor & Commercial) Home fleet only		
Average	\$92,071	\$107,626
	Average	Average
	\$93,921	\$107,626
Total	\$1,104,846	\$322,879
	Total	Total
	\$1,127,053	\$322,879

Total Operational Cost

■ FY12/13 = \$2,791,844.00

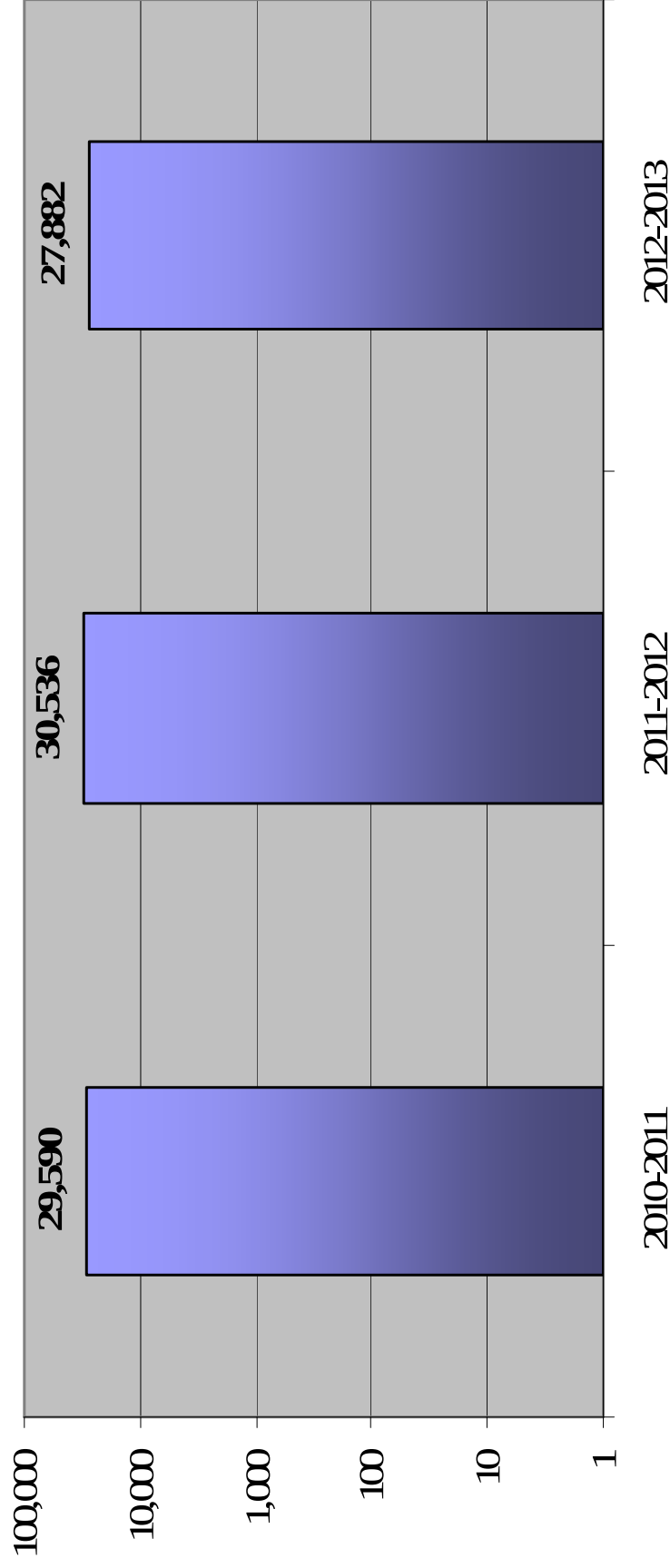
■ FY13/14 = \$2,763,440.00

Difference = \$28,404.00

Crime Statistics

Part 1 Crime

Reported Crime: Period Totals Jul 1 - Sep 30



Personnel

- 507 Officers currently assigned vehicles
- 169 Officers reside out of county
(146 participate in out-of-county take home usage)
- 338 Officers reside in Fayette County

Payment Information

- Out-of-County payment average monthly est.\$8,440.00 (\$101,000yr)
- Off-duty payment average monthly est. \$5,464 (\$65,000yr)

Cost Difference FY13

Fuel	\$70,530
Off-Duty Employment	\$65,000
<u>Maintenance</u>	<u>-\$42,126</u>
	\$93,404

Estimated Yearly Savings

FY12-FY13

- \$100,000 - \$300,00 est. Operational Cost Savings
 - \$220,000 est. savings FY12/13
- Insurance Claims Off-duty at-fault collisions

At-fault Off-duty Officer Involved Collisions				
Year	2010	2011	2012	2013
Off-duty	4	6	6	1
Cost	\$3,360	\$11,778	\$2,844	\$3,000

Information Tracking

- Information regarding LFUCG funds

Tracking:

- Chief's Office – Internal Affairs
- BOA – Division Fleet Mgr.
- Division of Fleet & Facilities

The background of the slide features a large, circular seal. The outer ring of the seal is blue with the text "FIRE DEPT" in yellow at the top and "UNIVERSITY OF WASHINGTON" in yellow at the bottom. Inside this ring is a yellow circle containing a blue shield. The shield has a yellow border and a blue interior with a yellow grid pattern. Above the shield is a yellow sunburst and below it is a yellow leaf. The year "1775" is written in yellow at the bottom of the shield.

**Public Safety Committee
November 5, 2013
Fire Station Locations
Insurance Service Office (ISO)
Summary**



Station Locations

Engine	Ladder	EC	Address	Council Dist	Additional Companies	Special Info
1	1	1	219 East Third Street	1	205, 200, EC13, MA1, MA2, CP1	105' Ladder, Boats
2	5	8	415 East New Circle Road	6 (1)	201	Haz-Mat, 105' Ladder
			370 Merino Street	3	RS 1	
4			246 Jefferson Street	1 (2)		
5	2		300 Woodland Avenue	3		95' Tower Ladder
6		7	501 South Limestone	3		Haz-Mat
7		4	3307 Tates Creek Road	4		
8		3	1725 North Broadway	1 (6)		Rescue Engine
9		2	2234 Richmond Road	5		Rescue Engine
10	3	6	1128 Finney Drive	1 (2)		Haz-Mat, 100' Ladder
11			1626 Harrodsburg Road	11	204, EC11	
12		10	399 Southland Drive	3 (10,11)		Rescue Engine
13			1432 Leestown Road	2	203	ALS, Rescue Engine
14		5	1530 Roanoke Road	11	BT1	
15		9	3308 Shillito Park Road	9		ALS
16			3700 Man O'War Blvd	8	202, MAB	ALS
17			4075 Royster Rd	12		ALS
18			1098 South Cleveland Road	12		ALS
19			3360 Huffman Mill Pike	12		ALS
20	4		3001 Arrowhead Drive	10	220, HM1, Decon Trailer	ALS, Haz-Mat, 105' Ladder
21	6		3191 Mapleleaf Drive	7	BT2	ALS, 105' Ladder
22	7		4393 Clearwater Way	12 (8)		95' Tower Ladder
23			5751 Briar Hill Rd, Building 19	12	E50	ALS, Haz-Mat, ARFF
Support						
			1375 Old Frankfort Pike	231-5615	Reserve Engines and Ladder	Training Center
			217 East Third Street	255-0845		Fire Prevention Bureau
			245 East Second Street	231-5672		Fire Investigation Office



Station Growth

- Since 1997, four fire stations have been opened:
 - Station 20 Arrowhead Drive (2001)
 - Station 21 Mapleleaf Drive (2001)
 - Station 22 Clearwater Way (2005)
 - Station 23 Briar Hill Road (2005)



Fayette County Growth vs. LFD Growth (1970s – 2010s)

From 1975 ISO evaluation:

- Estimated Fayette County population: 178,000
- 1973: 3,293 fire calls, 8,632 EMS calls (2,877 per unit)
- LFD staffing, July 1975: 388 sworn and 24 civilian
 - 14 Fire Stations
 - 17 Engine Companies
 - 7 Ladder Companies
 - 3 Emergency Care Units

Current data:

- 2011 estimated Fayette County Population: 301,569
- 2012: 8,455 fire calls, 34,388 EMS calls (3,820 per unit)
- LFD Staffing, October 23, 2013: 546 sworn, 17 civilian
 - 23 Fire Stations
 - 22 Engine Companies
 - 7 Ladder Companies
 - 10 Emergency Care Units
 - 1 Rescue Company
 - 1 Haz. Mat Team Leader



Fayette County Growth

vs. LFD Growth (1970s – 2010s)

- Population + 69.4% • Engine Co. + 29.4%
- LFD Sworn + 40.7% • Ladder Co. + 0.0%
- LFD Civilian - 41.1% • Emer. Care + 233.0%
- Fire inc. +156.8%
- EMS inc. +298.4%



Response Time Standards

- National Fire Protection Association Pamphlet 1710 defines response time standards
- Fire incidents: first company on scene in 4 minutes, balance of assignment on scene in 8 minutes for 90% of fire incidents
- EMS incidents: Basic Life Support unit on scene in 4 minutes. If Advanced Life Support available, on scene in 8 minutes for 90% of EMS incidents



Underwriters Laboratories Study - 2013

UL Firefighter Safety Research Institute
Firefighter Training Program
Effectiveness of Fire Service Vertical Ventilation
and Suppression Tactics in Single Family
Homes

<http://content.learnshare.com/courses/73/456883/story.html>

Experiments examined the influence of residential fire environment changes and subsequent impact on firefighter tactics relative to horizontal and vertical ventilation and suppression



Modern Residential Challenges

- UL study identifies several factors that change the modern dwelling fire environment as compared to 1970s homes:
 - Size: many large enough to be considered commercial occupancies
 - Open spaces and floor plans
 - Increased fuel loads
 - Increased void spaces
 - Lighter building materials utilized in construction



Impact of New Construction

- Faster fire propagation
- Shorter times to flashover
- Rapid changes in fire dynamics
- Shorter escape times for both occupants and firefighters
- Shorter times to collapse



UL Experiment Modern Fuel Loading

- Based on UL experiment comparing modern and legacy furnished rooms, flashover in modern room occurs in 3 minutes 40 seconds. Flashover occurs in legacy room in 29 minutes 30 seconds.



Modern Homes and Response Times

- As evidenced in the UL experiments, modern construction and content loads have reduced the time from ignition to flashover
- Extended response times currently experienced leads to increased potential for injury of occupants and firefighters as well as fire damage extending to adjoining structures
- Lack of fire stations in areas of growth (modern construction and contents) poses greater risk of fire loss in these areas



ISO

- Insurance Service Office, assigns a public protection classification rating based upon the ISO Fire Suppression Rating Schedule
- Class 1 is an exemplary program, Class 10 does not meet minimum criteria
- Classification based upon 4 topics:
 - Receiving and Handling Alarms (8 / 10 pts)
 - Fire Department (38.83 / 50 pts)
 - Water Supply (35.49 / 40 pts)
 - Divergence, a statistical factor based on difference of fire department and water supply scores(- 2.21 pts)



ISO

- Lexington is an unusual situation as we provide fire protection for not only the urban services area, but also rural areas of Fayette County.
- ISO assigns a split rating based upon fire resource proximity to built up areas or rural areas
 - A built up area requires an engine company within 1.5 miles and a ladder company within 2.5 miles
 - Rural areas require an engine company within 5 miles



ISO

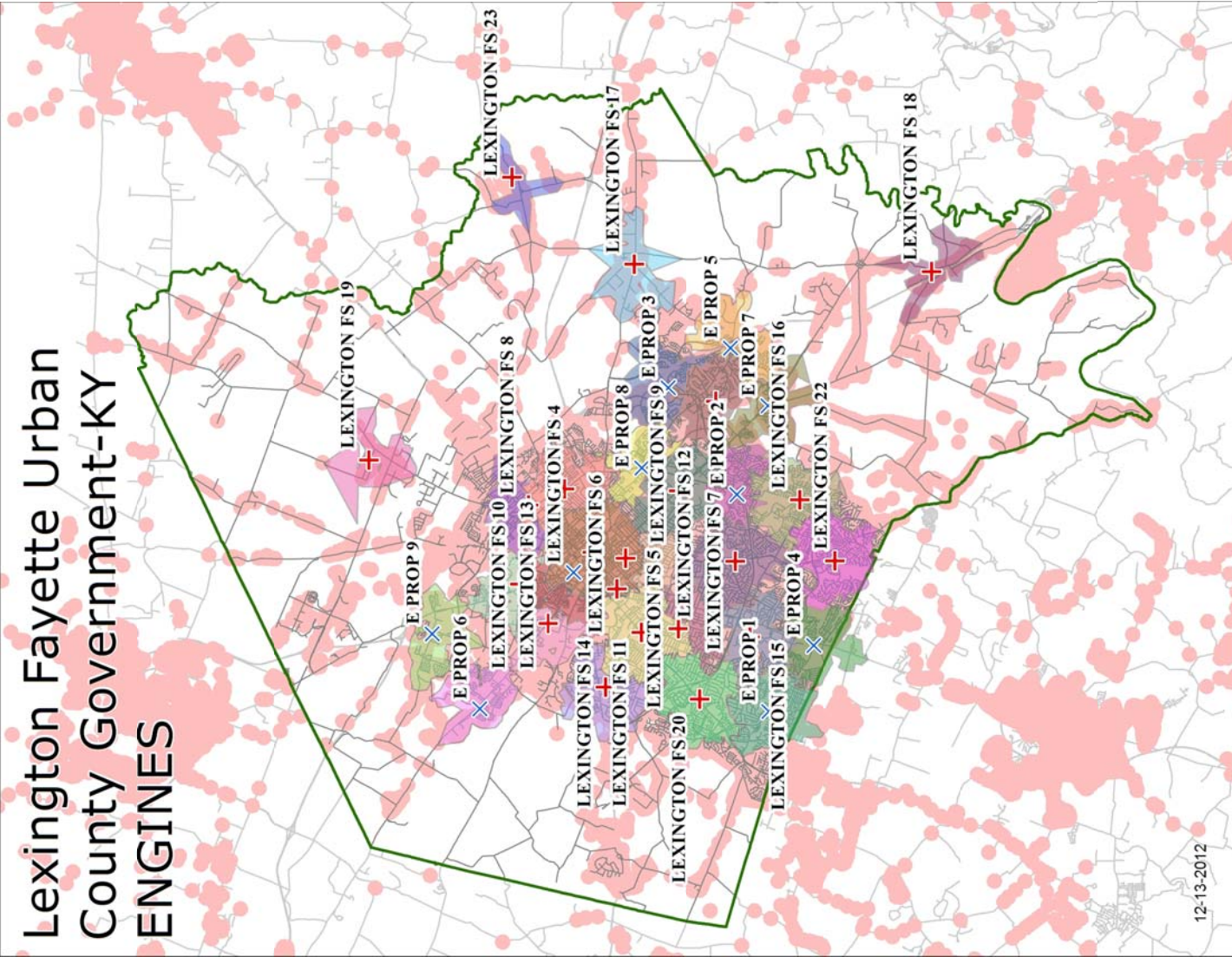
- Lexington earned a Class 2 / 9 rating in the ISO Field Study done in October, 2012.
- Properties within 5 miles of a fire station and 1,000 feet of a fire hydrant have a Class 2 rating.
- Properties within 5 miles of a fire station but are not within 1,000 feet of a fire hydrant have a Class 9 rating.
- LFD maintained the Class 2 rating by a margin of 0.11 points in the October 2012 survey.



ISO Recommendations

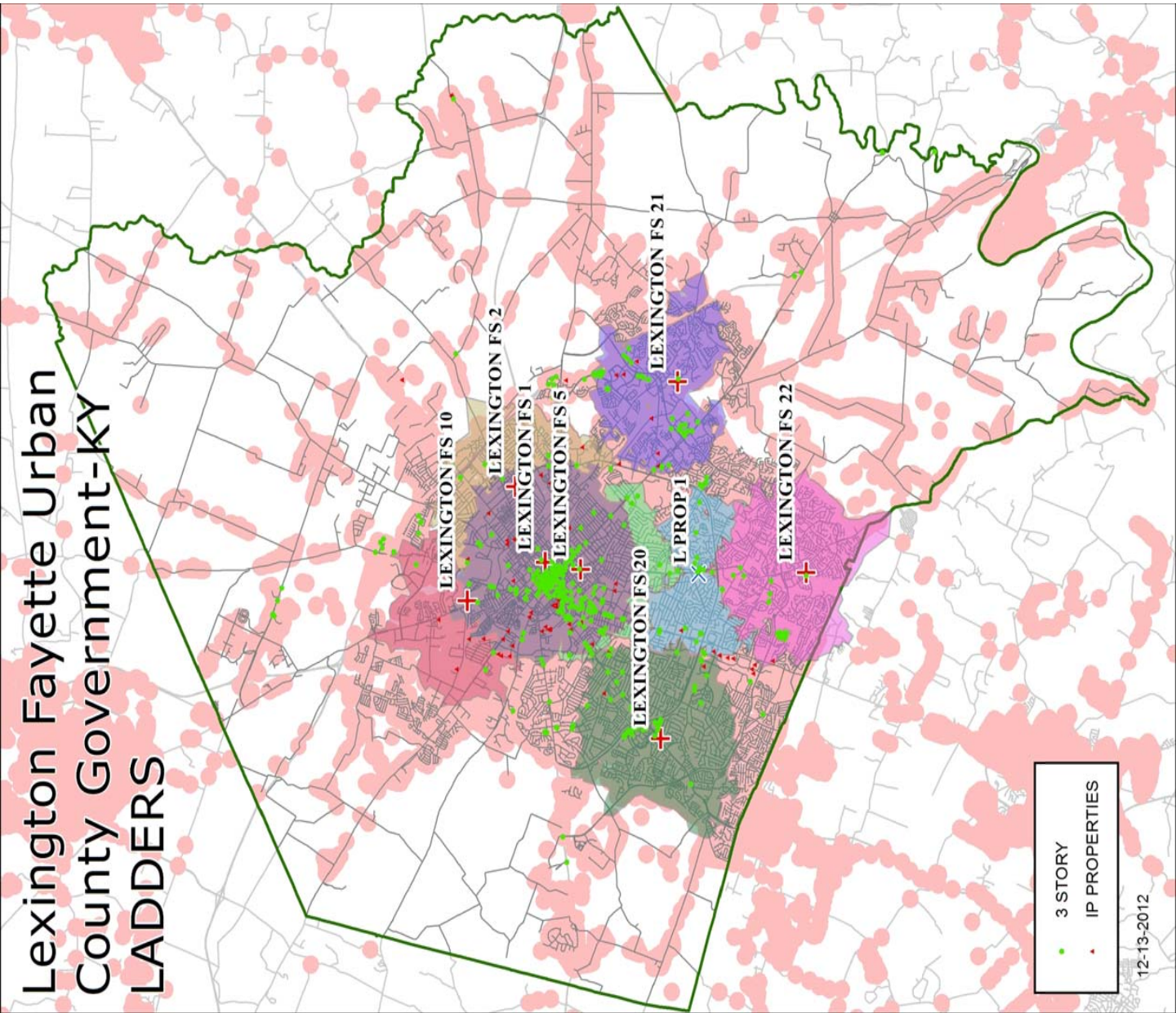
- ISO Engine and Ladder distribution recommendation is based upon achieving a Public Protection Class 1 rating
- Based on the 1.5 mile travel for an engine and 2.5 mile travel for a ladder along with factors such as needed fire flow and building heights.

Lexington Fayette Urban County Government-KY ENGINES



12-13-2012







Growth and Development

- Considering fire stations in the planning stages must be done in order to assure fire protection keeps pace with development.
- Proposed fire station locations:
 - Sta. 24 Masterson Station
 - Sta. 25 Polo Club
 - Sta. 26 Hays Blvd

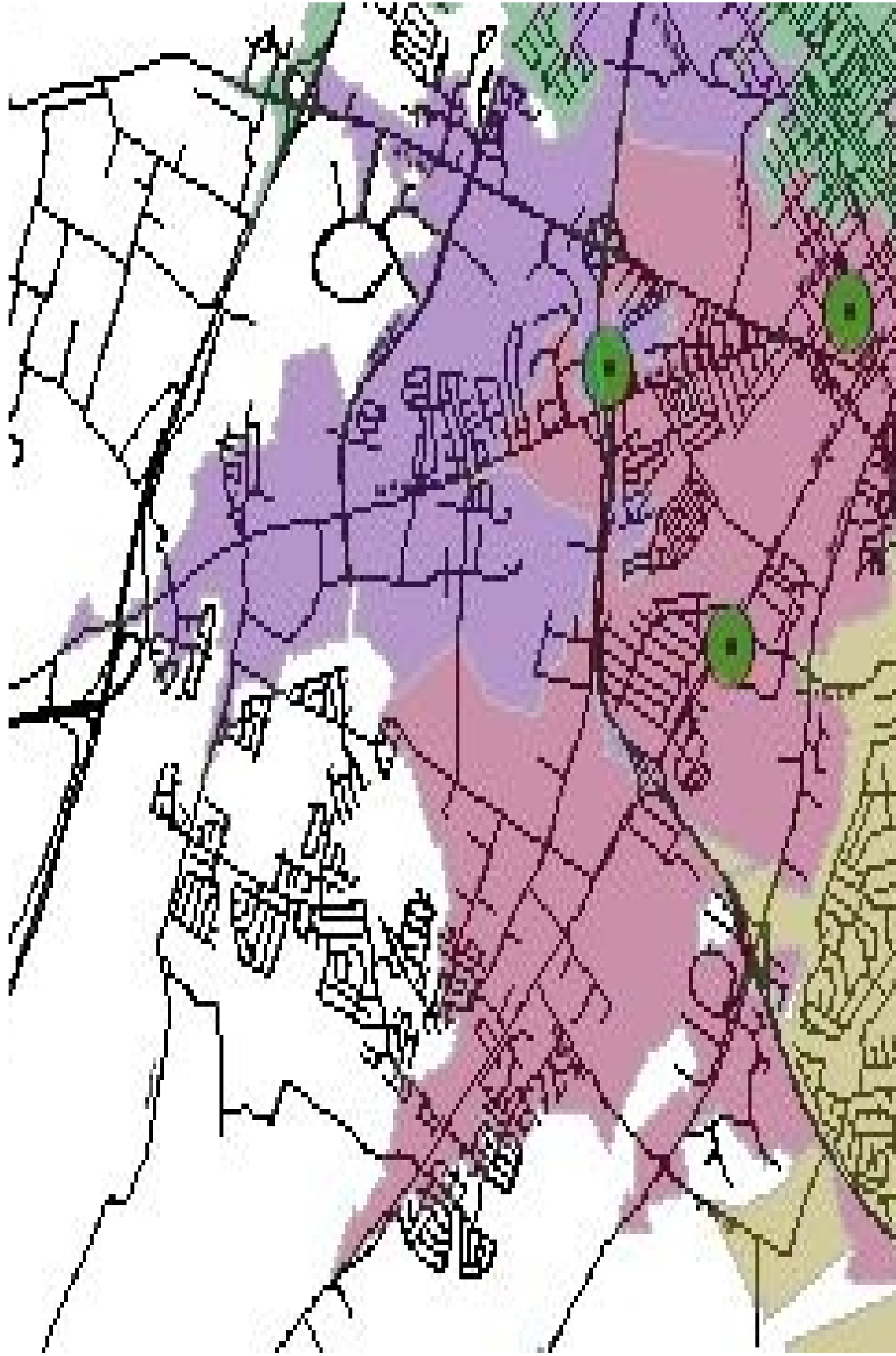


Station 24

- Highest priority due to growth in the Masterson Station area
- Over 13,000 people live in area north of New Circle Rd. along Leestown Rd.
- Closest fire stations are located in Meadowthorpe and on Finney Drive.
- Most of the Masterson Station area falls outside of a four minute response time.



4 Minute Response Time Masterson Station Area





Station 25

- Polo Club area experiencing rapid growth, both commercial and residential
- Closest fire stations are on Mapleleaf Drive, Royster Road, and E. New Circle Road
- Will benefit from relocation of Station #2 to Eastland Drive and Murray Drive
- Most of Polo Club area falls outside the four minute response time



4 Minute Response Time Polo Club Blvd. Area



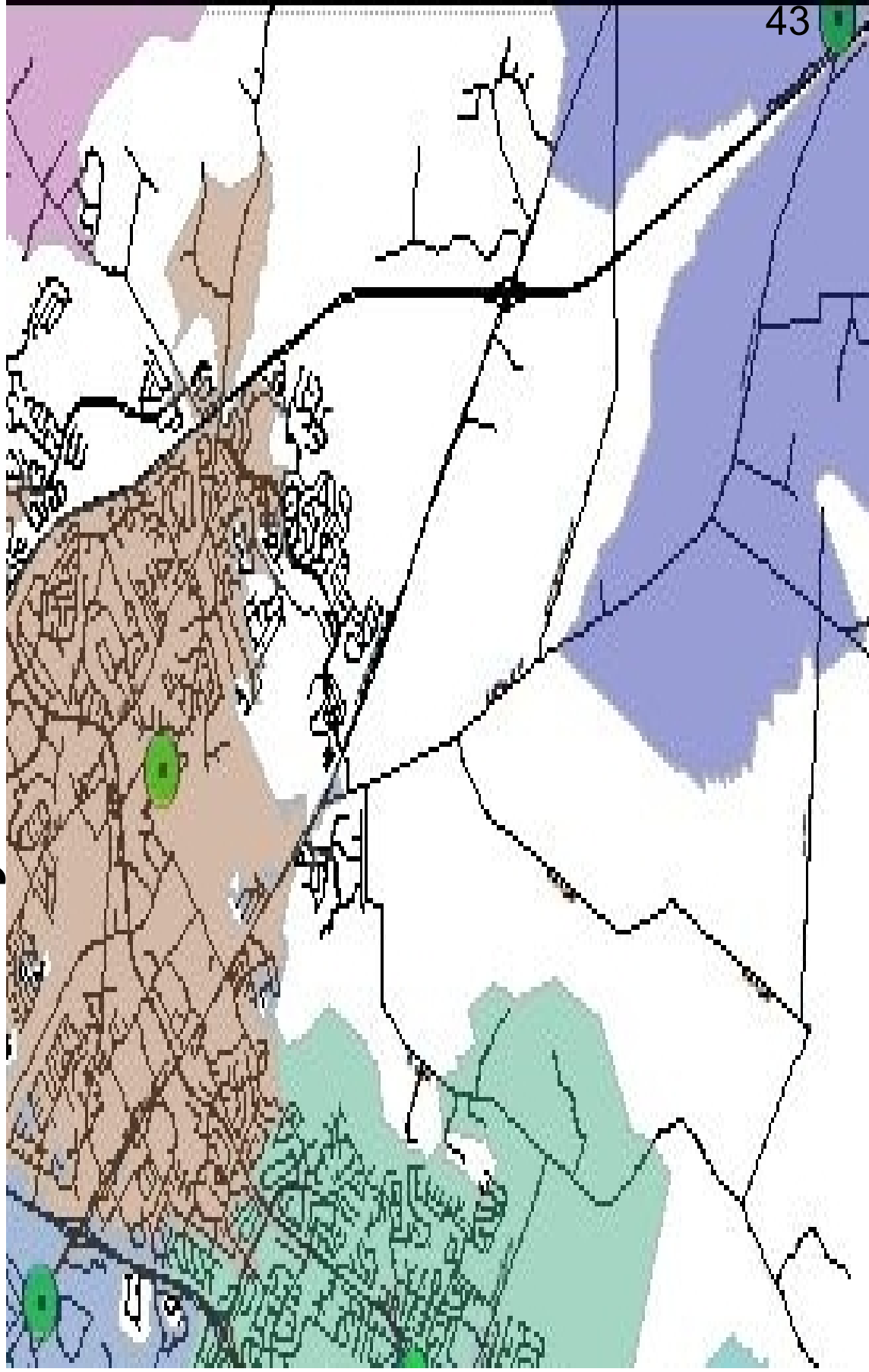


Station 26

- Hays Blvd and Athens Boonesboro Road area
- High concentration of residential property and Proximity to Light Industrial area off Blue Sky Pkwy
- Surrounding area potential for development
- Closest fire stations Mapleleaf Dr, Richmond Rd, and S. Cleveland Rd
- Much of Hays Blvd. area falls outside the 4 minute response time



4 Minute Response Time Hays Blvd. Area



Public Protection Classification Summary Report

Lexington Fayette Urban County Government Kentucky

Prepared by

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May 6, 2013

Background Information

Introduction

ISO collects and evaluates information from communities in the United States on their structure fire suppression capabilities. The data is analyzed using our Fire Suppression Rating Schedule (FSRS™) and then a Public Protection Classification (PPC™) number is assigned to the community. The surveys are conducted whenever it appears that there is a possibility of a classification change. As such, the PPC program provides important, up-to-date information about fire protection services throughout the country.

The Fire Suppression Rating Schedule (FSRS) recognizes fire protection features only as they relate to suppression of first alarm structure fires. In many communities, fire suppression may be only a small part of the fire department's overall responsibility. ISO recognizes the dynamic and comprehensive duties of a community's fire service, and understands the complex decisions a community must make in planning and delivering emergency services. However, in developing a community's Public Protection Classification, only features related to reducing property losses from structural fires are evaluated. Multiple alarms, simultaneous incidents and life safety are not considered in this evaluation. The PPC program evaluates the fire protection for small to average size buildings. Specific properties with a Needed Fire Flow in excess of 3,500 gpm are evaluated separately and assigned an individual classification.

A community's investment in fire mitigation is a proven and reliable predictor of future fire losses. Statistical data on insurance losses bears out the relationship between excellent fire protection – as measured by the PPC program – and low fire losses. So, insurance companies use PPC information for marketing, underwriting, and to help establish fair premiums for homeowners and commercial fire insurance. In general, the price of fire insurance in a community with a good PPC is substantially lower than in a community with a poor PPC, assuming all other factors are equal.

ISO is an independent company that serves insurance companies, communities, fire departments, insurance regulators, and others by providing information about risk. ISO's expert staff collects information about municipal fire suppression efforts in communities throughout the United States. In each of those communities, ISO analyzes the relevant data and assigns a Public Protection Classification – a number from 1 to 10. Class 1 represents an exemplary fire suppression program, and Class 10 indicates that the area's fire suppression program does not meet ISO's minimum criteria.

ISO's PPC program evaluates communities according to a uniform set of criteria, incorporating nationally recognized standards developed by the National Fire Protection Association and the American Water Works Association. A community's PPC depends on:

- **Needed Fire Flows**, which are representative building locations used to determine the theoretical amount of water necessary for fire suppression purposes.
- **Receiving and Handling Fire Alarms**, including telephone systems, telephone lines, staffing, and dispatching systems.
- **Fire Department**, including equipment, staffing, training, and geographic distribution of fire companies.
- **Water Supply**, including condition and maintenance of hydrants, alternative water supply operations, and a careful evaluation of the amount of available water compared with the amount needed to suppress fires up to 3,500 gpm.

Data Collection and Analysis

ISO has evaluated and classified over 48,000 fire protection areas across the United States using its Fire Suppression Rating Schedule (FSRS). A combination of meetings between trained ISO field representatives and the dispatch center coordinator, community fire official, and water superintendent is used in conjunction with a comprehensive questionnaire to collect the data necessary to determine the PPC number. In order for a community to obtain a classification better than a Class 9, three elements of fire suppression features are reviewed. These three elements are Receiving and Handling Fire Alarms, Fire Department and Water Supply.

A review of the **Receiving and Handling Fire Alarms** fire alarm and communication system accounts for 10% of the total classification. The review focuses on the community's facilities and support for handling and dispatching fire alarms. This section is weighted at **10 points**, as follows:

- Telephone Service 2 points
- Number of Needed Operators 3 points
- Dispatch Circuits 5 points

A review of the **Fire Department** accounts for 50% of the total classification. ISO focuses on a fire department's first alarm response and initial attack to minimize potential loss. In this section, ISO reviews such items as engine companies, ladder or service companies, distribution of fire stations and fire companies, equipment carried on apparatus, pumping capacity, reserve apparatus, department personnel, and training. The fire department section is weighted at **50 points**, as follows:

- Engine Companies 10 points
- Reserve Pumpers 1 point
- Pumper Capacity 5 points
- Ladder/Service Companies 5 points
- Reserve Ladder/Service Trucks 1 point
- Distribution of Companies 4 points
- Company Personnel 15 points
- Training 9 points

A review of the **Water Supply** system accounts for 40% of the total classification. ISO reviews the water supply a community uses to determine the adequacy for fire suppression purposes. Hydrant size, type, and installation is also considered, as well as the inspection frequency and condition of fire hydrants. The water supply system is weighted at **40 points**, as follows:

- Credit for Supply System 35 points
- Hydrant Size, Type & Installation 2 points
- Inspection/Condition of Hydrants 3 points

There is one additional factor considered in calculating the final score – **Divergence**.

Even the best fire department will be less than fully effective if it has an inadequate water supply. Similarly, even a superior water supply will be less than fully effective if the fire department lacks the equipment or personnel to use the water. The FSRS score is subject to modification by a divergence factor, which recognizes disparity between the effectiveness of the fire department and the water supply.

The Divergence factor mathematically reduces the score based upon the relative difference between the fire department and water supply scores. The factor is introduced in the final equation.

Public Protection Classification Number

The PPC number assigned to the community will depend on the community's score on a 100-point scale:

PPC	Points
1	90.00 or more
2	80.00 to 89.99
3	70.00 to 79.99
4	60.00 to 69.99
5	50.00 to 59.99
6	40.00 to 49.99
7	30.00 to 39.99
8	20.00 to 29.99
9	10.00 to 19.99
10	0.00 to 9.99

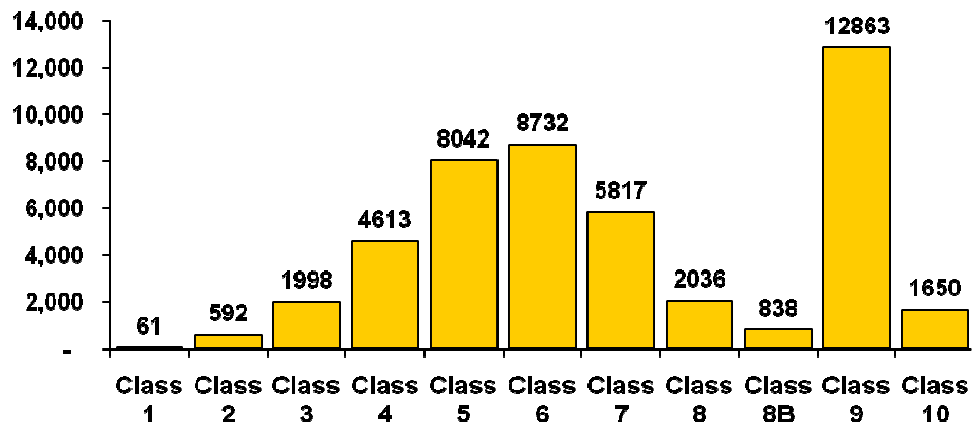
The classification numbers are interpreted as follows:

- Class 1 through (and including) Class 8 represents a fire suppression system that includes an FSRS creditable dispatch center, fire department, and water supply.
- Class 8B is a special classification that recognizes a superior level of fire protection in otherwise Class 9 areas. It is designed to represent a fire protection delivery system that is superior except for a lack of a water supply system capable of the minimum FSRS fire flow criteria of 250 gpm for 2 hours.
- Class 9 is a fire suppression system that includes a creditable dispatch center, fire department but no FSRS creditable water supply.
- Class 10 does not meet minimum FSRS criteria for recognition.

Distribution of Public Protection Classification Numbers

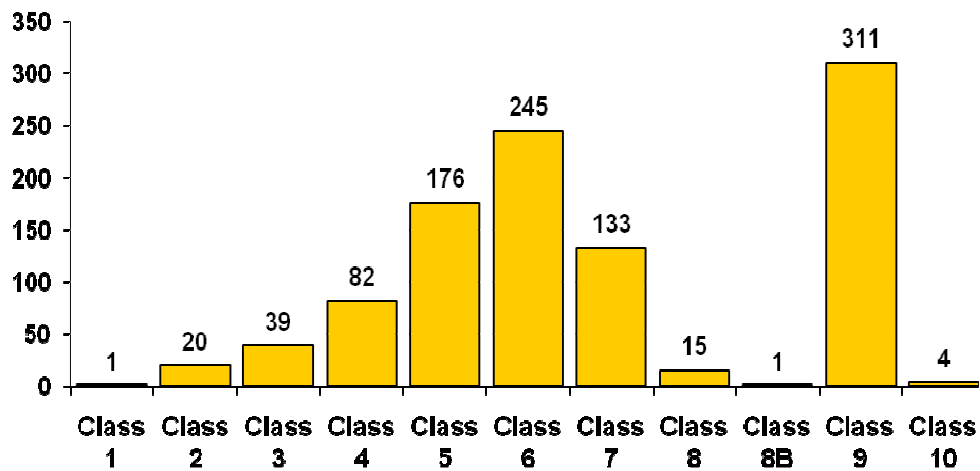
The 2011 published countrywide distribution of communities by the Public Protection Classification number is as follows:

Countrywide



The 2011 published statewide distribution of communities by the Public Protection Classification number is as follows:

Kentucky



Assistance

The PPC program offers help to communities, fire departments and other public officials as they plan for, budget, and justify improvements. ISO is also available to assist in the understanding of the details of this evaluation.

ISO Public Protection representatives can be reached by telephone at (800) 444-4554. The technical specialists at this telephone number have access to the details of this evaluation and can effectively speak with you about your PPC questions. What's more, we can be reached via the internet at www.isomitigation.com/talk/.

We also have a website dedicated to our Community Hazard Mitigation Classification programs at www.isomitigation.com. Here, fire chiefs, building code officials, community leaders and other interested citizens can access a wealth of data describing the criteria used in evaluating how cities and towns are protecting residents from fire and other natural hazards. This website will allow you to learn more about ISO's Public Protection Classification program. The website provides important background information, insights about the PPC grading processes and technical documents. ISO is also pleased to offer Fire Chiefs Online — a special secured website with information and features that can help improve your ISO Public Protection Classification, including a list of the Needed Fire Flows for all the commercial occupancies ISO has on file for your community. Visitors to the site can download information, see statistical results and also contact ISO for assistance.

In addition, on-line access to the Fire Suppression Rating Schedule and its commentaries is available to registered customers for a fee. However, fire chiefs and community chief administrative officials are given access privileges to this information without charge.

To become a registered fire chief or community chief administrative official, register at www.isomitigation.com.

Classification Details

Public Protection Classification

ISO concluded its review of the fire suppression features being provided for/by Lexington Fayette Urban County Government. The resulting community classification is **Class 2/9**.

If the classification is a single class, the classification applies to properties with a Needed Fire Flow of 3,500 gpm or less in the community. If the classification is a split class (e.g., 6/9), the following applies:

- The first class (e.g., "6" in a 6/9) applies to properties within 5 road miles of a recognized fire station and within 1,000 feet of a fire hydrant or alternate water supply.
- Class 8B or class 9 applies to properties beyond 1,000 feet of a fire hydrant but within 5 road miles of a recognized fire station.
- Alternative Water Supply: The first class (e.g., "6" in a 6/10) applies to properties within 5 road miles of a recognized fire station with no hydrant distance requirement.
- Class 10 applies to properties over 5 road miles of a recognized fire station.
- Specific properties with a Needed Fire Flow in excess of 3,500 gpm are evaluated separately and assigned an individual classification.

Summary Evaluation Analysis

The following points represent the analysis of the application of the criteria outlined in the FSRs of four topics– Receiving and Handling Fire Alarms, Fire Department, Water Supply, and the Divergence factor for Lexington Fayette Urban County Government:

FSRS Feature	Earned Credit	Credit Available
Receiving and Handling Fire Alarms		
414. Credit for Telephone Service	2.00	2
422. Credit for Operators	3.00	3
432. Credit for Dispatch Circuits	3.00	5
440. Credit for Receiving and Handling Fire Alarms	8.00	10
Fire Department		
513. Credit for Engine Companies	6.59	10
523. Credit for Reserve Pumpers	0.65	1
532. Credit for Pumper Capacity	5.00	5
549. Credit for Ladder Service	3.98	5
553. Credit for Reserve Ladder and Service Trucks	0.67	1
561. Credit for Distribution	2.26	4
571. Credit for Company Personnel	12.95	15
580. Credit for Training	6.73	9
590. Credit for Fire Department	38.83	50
Water Supply		
616. Credit for Supply System	31.09	35
621. Credit for Hydrants	2.00	2
631. Credit for Inspection and Condition	2.40	3
640. Credit for Water Supply	35.49	40
Divergence	-2.21	--
Total Credit	80.11	100

General Information

To determine the Total Credit, the points for Receiving and Handling Fire Alarms, Fire Department and Water Supply are added together and the Divergence factor is applied. To establish the points for each category, FSRS items labeled as "Credit for..." are totaled. These particular items are intermediate values. Usually these intermediate values are based upon a 100-point scale, but they can be different. The ratios between the actual points scored in each of these sub-items and the points available for full credit are then multiplied by the points available for the sub-item.

For instance, Item 414 "Credit for Telephone Service (CTS)" is valued at 2 points. To determine the credit earned, the totals for Item 411 "Review of Telephone Lines (TL)", Item 412 "Review of Telephone Directory (TD)", and Item 413 "Review of Recording Device (RD)" are summed. In Item 411, up to 60 points can accrue; Item 412 has a combined value of 20 points; and 20 points are available for Item 413. The sum of these three Items is divided by 100 and then multiplied by the 2 point weight in Item 414 to determine the final score for "Credit for Telephone Service (CTS)".

The formula for Item 414 "Credit for Telephone Service (CTS)" looks like this:

$$CTS = \frac{TS}{100} \times 2$$

Where TS = TL + TD + RD

Detailed Evaluation Analysis

On the following pages are the details of the evaluation of each category for Lexington Fayette Urban County Government. These details relate only to the fire insurance classification for this jurisdiction. They are not for property loss prevention or life safety purposes and no life safety or property loss recommendations are made.

At the end of the detailed analysis the relative class is indicated. The relative class represents the classification each category would have achieved if the individual score was translated into a 100-point scale instead of the points available for that category.

Receiving and Handling Fire Alarms

Ten percent of a community's overall score is based on how well the communications center receives and dispatches fire alarms. Our field representative evaluated:

- the telephone service, including the number of telephone lines coming into the center
- the listing of the emergency number and business number in the telephone directory
- the automatic recording of emergency calls
- the communications center, including the number of operators on-duty and awake at the center
- the dispatch circuits and how the center notifies firefighters about the location of the emergency

Item 414 - Credit for Telephone Service (2 points)

The first item reviewed is Item 414 "Credit for Telephone Service (CTS)". This item reviews the facilities provided for the public to report fires including the telephone line used to report an emergency, business and private alarm lines including progression of emergency calls to business lines. Also analyzed is the listing of fire and business numbers in the telephone directory and the automatic recording of emergency calls. ISO uses National Fire Protection Association (NFPA) 1221, *Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems* as the reference for this section.

To determine the score for Item 414, three sub-items (Item 411, Item 412, and Item 413) were evaluated. The details are as follows:

Item 411 - "Review of Telephone Lines (TL)"	Earned Credit	Credit Available
A. Number of needed fire lines* For maximum credit, there should be 4 incoming telephone lines reserved for receiving notification of fires. The Communication Center serving Lexington Fayette Urban County Government has 17 lines reserved. The telephone directory listed both a business and an emergency number.	25.00	25
B. Number of needed fire, business, and private alarm lines* For maximum credit, there should be 4 incoming lines reserved for notification of fires (and other emergency calls) plus 3 additional lines for conducting other fire department business and, if applicable, for private alarms. The Communication Center serving Lexington Fayette Urban County Government has 11 lines in addition to the 17 lines reserved for receiving notification of fires (and other emergency calls). The telephone directory listed both a business and an emergency number.	25.00	25
C. Progression of emergency calls to business lines For maximum credit, unanswered emergency calls should progress to the business number.	10.00	10
D. If detailed information of a fire is received and transmitted through more than one communication center, DEDUCT For no deduction of points, fire calls should be immediately transferred from the answering point to the dispatcher who will then obtain the needed information from the caller for dispatching.	0.00	-20
Review of Telephone Lines (TL) total:	60.00	60

***Note:** When only one telephone number is listed in the telephone directory the telephone lines provided cannot be reserved for emergency calls because the general public is not given a choice of telephone lines to use. Therefore, the operator/telecommunicator must accept both emergency and business calls over the same lines. The number of needed fire, business, and alarm lines will show a reduction in credit.

Item 412 - "Review of Telephone Directory (TD)"	Earned Credit	Credit Available
A. Emergency number on the inside front cover or the front page For credit, the fire emergency telephone number should be printed on the inside front cover or front page of the white pages in the telephone directory.	10	10
B. Emergency number and business number listed under "Fire Department" For credit, both the number to report a fire and the fire department business number should be listed under "FIRE DEPARTMENT" in the white pages (or government section) of the telephone directory. The fire number is listed and the business number is listed.	5	5
C. Emergency number and business number listed under the name of the city For credit, both the number to report a fire and the fire department business number should be listed under the community or fire district in the white pages (or government section) of the telephone directory. The fire number is listed and the business number is listed.	5	5
D. If the numbers for individual fire stations are listed, DEDUCT For no deduction of points, the individual fire stations should not be listed in the telephone directory.	0	-10
Review of Directory Listing (TD) total:	20	20

Item 413 - "Review of Recording Device (RD)"	Earned Credit	Credit Available
A. Review of the recording device (RD): For credit, a voice recorder should automatically record all emergency calls and the operator should be able to immediately play back any emergency call to review the conversation.	20	20
Review of Recording Device (RD) total:	20	20

The Items "TL", "TD", and "RD" are then added together and divided by the total possible points (100 points) to determine the factor that is applied to the 2 points available for Item 414 "Credit for Telephone Service (CTS)".

414 "Credit for Telephone Service (CTS)" = 2.00 points

Item 422 - Credit for Operators (3 points)

The second item reviewed is Item 422 "Credit for Operators (CTO)". This item reviews the number of operators on duty and awake at the center to handle fire calls and other emergencies. All emergency calls including those calls that do not require fire department action are reviewed to determine the proper staffing to answer emergency calls and dispatch the appropriate emergency response. NFPA 1221, *Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems*, recommends that ninety-five percent of emergency calls shall be answered within 15 seconds and ninety-nine percent of emergency calls shall be answered within 40 seconds. In addition, NFPA recommends that ninety percent of emergency alarm processing shall be completed within 60 seconds and ninety-nine percent of alarm processing shall be completed within 90 seconds of answering the call.

To receive full credit for operators on duty, ISO must review documentation to show that the communication center meets NFPA 1221 call answering and dispatch time performance measurement standards. This documentation may be in the form of performance statistics or other performance measurements compiled by the 9-1-1 software or other software programs that are currently in use such as Computer Aided Dispatch (CAD) or Management Information System (MIS). If the necessary data is not available, the number of needed operators will be determined by specification criteria using a "Call Volume Matrix Table" (see the following page).

CALL VOLUME MATRIX TABLE #1
For Public Safety Answering Points that
Perform Call Taking and Dispatching

Alarms per Year	Number of Needed Telecommunicators
Less than 731	1*
731 to 10,000	2
10,001 to 25,000	4**
25,001 to 50,000	5**
50,001 to 100,000	6**
100,001 to 150,000	7**
150,001 to 200,000	8**
200,001 to 250,000	9**
250,001 to 300,000	10**
Over 300,000***	11**

CALL VOLUME MATRIX TABLE #2
For Public Safety Answering Points that
Perform Call Taking Without Dispatching

Alarms per Year	Number of Needed Telecommunicators
Less than 10,001	1
10,001 to 50,000	2
50,001 to 100,000	4**
100,001 to 150,000	5**
150,001 to 200,000	6**
200,001 to 250,000	7**
250,001 to 300,000	8**
Over 300,000***	9**

* *Communication centers that provide emergency medical dispatching (EMD) protocols need two telecommunicators on duty at all times.*

** *Includes a supervisor in the communication center.*

*** *For every 10 additional calls (alarms) that are averaged per hour (87,600 calls per year), one additional telecommunicator is added.*

To determine the score for Item 422, two sub-Items (421.A and 421.B) are summed. The details are as follows:

Item 421 - "Review of Operators (PO)"	Earned Credit	Credit Available
A. Number of operators on-duty (OD): For maximum credit, there should be 3.4900000095 operators on duty at all times. There are an average of 3.49 operators on duty at the communication center.	80.00	80
B. Number of operators awake at all times (OA): For maximum credit, all operators should be awake at all times. There is an average of 3.49 operators awake at all times.	20.00	20
Review of Operators (PO) total:	100.00	100

After the items "OD" and "OA" are summed up to determine the points received for the "Review of Operators", the sum is divided by the total possible points (100 points) to determine the factor that is applied to the 3 points available for Item 422 "Credit for Operators (CTO)".

Item 422 "Credit for Operators (CTO)" = 3.00 points

Item 432 - Credit for Dispatch Circuits (5 points)

The third item reviewed is Item 432 "Credit for Dispatch Circuits (CDC)". This item reviews the dispatch circuit facilities used to transmit alarms to fire department members. A "Dispatch Circuit" is defined in NFPA 1221 as "A circuit over which an alarm is transmitted from the communications center to an emergency response facility (ERF) or emergency response units (ERUs) to notify ERUs to respond to an emergency". All fire departments (except single fire station departments with full-time firefighter personnel receiving alarms directly at the fire station) need adequate means of notifying all firefighter personnel of the location of reported structure fires. The dispatch circuit facilities should be in accordance with the general criteria of NFPA 1221. "Alarms" are defined in this Standard as "A signal or message from a person or device indicating the existence of an emergency or other situation that requires action by an emergency response agency".

There are two different levels of dispatch circuit facilities provided for in the Standard – a primary dispatch circuit and a secondary dispatch circuit. In jurisdictions that receive 730 alarms or more per year (average of two alarms per 24-hour period), two separate and dedicated dispatch circuits, a primary and a secondary, are needed. In jurisdictions receiving fewer than 730 alarms per year, a second dedicated dispatch circuit is not needed. Dispatch circuit facilities installed but not used or tested (in accordance with the NFPA Standard) receive no credit.

The score for Credit for Dispatch Circuits (CDC) is influenced by monitoring for integrity of the primary dispatch circuit. There are up to 1.5 points available for this Item. Monitoring for integrity involves installing automatic systems that will detect faults and failures and send visual and audible indications to appropriate communications center (or dispatch center) personnel. ISO uses NFPA 1221 to guide the evaluation of this item.

Additional points are available for dispatch recording facilities at the Communication Center. All alarms that are transmitted over the required dispatch circuits need to be automatically recorded (including the dates and times of transmission) to earn the maximum points in this item.

ISO's evaluation includes a review of the communication system's emergency power supplies. To receive maximum credit, two sources of power need to be provided for the operation of the communications network including dispatch circuits and its related support systems and equipment. A common arrangement is to have the primary power come from a utility distribution system and a secondary power source from an automatic starting emergency engine-generator and/or an Uninterruptible Power Supply (UPS) and Battery System – (SEPSS-Stored Emergency Power Supply Systems).

To determine the score for Item 432, four sub-items (Item 431.A, Item 431.B, Item 431.C and Item 431.D) needed to be evaluated.

The score that Lexington Fayette Urban County Government received for Item 432 was calculated as follows:

Item 432 - "Credit for Dispatch Circuits (CDC)"	Earned Credit	Credit Available
Item 431A - "Dispatch Circuits Provided" The points are determined by prorating the value of the type of dispatch circuit using the percentage of members dependent upon each circuit.	40.00	40
Item 431B - "Monitoring for Integrity of Circuit" For maximum credit, the dispatch circuit should have an automatic system that will detect faults and failures and send visual and audible indications to appropriate personnel. These systems are subject to field verification and demonstration.	0.00	30
Item 431C - "Dispatch Recording Facilities at Communication Center" For maximum credit, all alarms that are transmitted over the required dispatch circuits need to be automatically recorded.	10.00	10
Item 431D - "Emergency Power Supply" For maximum credit, emergency power supplies need to be provided and regularly tested (one hour weekly, under load, with test documentation).	10.00	20
Item 431E - "When no circuit is needed" If all responding firefighters are in the same building as the communication center and are alerted, no dispatch circuit is needed and the maximum points are credited. However, the community does not operate in this fashion.	0.00	100
Dispatch Circuits (DC) total:	60.00	100

After the Items in 431 are summed up to determine the points received for the "Credit for Dispatch Circuits (CDC)", the sum is divided by the total possible points (100 points) to determine the factor that is applied to the 5 points available for Item 432 "Credit for Dispatch Circuits (CDC)".

Item 432 "Credit for Dispatch Circuits (CDC)" = 3.00 points

The final step in determining the credit for “Receiving and Handling Fire Alarms” is to add Item 414, Item 422, and Item 432:

Item	Earned Credit	Credit Available
414. Credit for Telephone Service (CTS)	2.00	2
422. Credit for Operators (CTO)	3.00	3
432. Credit for Dispatch Circuits (CDC)	3.00	5
Item 440. Credit for Receiving and Handling Fire Alarms:	8.00	10

Fire Department

Fifty percent of a community's overall score is based upon the fire department's structure fire suppression system. ISO's field representative evaluated:

- Engine and ladder/service vehicles including reserve apparatus
- Equipment carried
- Distribution of fire companies
- Available and/or responding firefighters
- Automatic Aid with neighboring fire departments
- Training

Basic Fire Flow

The Basic Fire Flow for the community is determined by the review of the Needed Fire Flows for selected buildings in the community. The following building addresses were used to determine the Basic Fire Flow:

- 9000 gpm 534-540 Angliana Avenue, Lexington
- 9000 gpm 558-572 Angliana Avenue, Lexington
- 9000 gpm 551 West 4 Street, Lexington
- 9000 gpm 1230-1270 Liggett Street, Lexington
- 8500 gpm 537 Angliana Avenue, Lexington

The fifth largest Needed Fire Flow is determined to be the Basic Fire Flow. Since the FSRS develops a PPC for properties with a Needed Fire Flow of 3,500 gpm or less, the maximum that the Basic Fire Flow can be is 3,500 gpm. The Basic Fire Flow for Lexington Fayette Urban County Government has been determined to be 3500 gpm.

Item 513 - Credit for Engine Companies (10 points)

The first item reviewed is Item 513 "Credit for Engine Companies (CEC)". This item reviews the number of engine companies, their pump capacity, hose testing, pump testing and the equipment carried on the in-service pumpers. To be recognized, pumper apparatus must meet the general criteria of NFPA 1901, *Standard for Automotive Fire Apparatus* which include a minimum 250 gpm pump, an emergency warning system, a 300 gallon water tank, and hose.

The review of the number of needed pumpers considers the Basic Fire Flow; the response distance to built-upon areas; the method of operation; and the response outside the city. Multiple alarms, simultaneous incidents, and life safety are not considered.

Item 510.A. Number of Needed Engine Companies (NE):

BASIC FIRE FLOW, GPM	ENGINE COMPANIES
500 - 1,000	1
1,250 - 2,500	2
3,000 - 3,500	3

The FSRs indicates that a minimum of 30 engine companies are needed in the fire district to suppress fires in structures with a Needed Fire Flow of 3,500 gpm or less. This number is calculated as follows:

The greater of:

- 3 engine companies to support a Basic Fire Flow of 3500 gpm.
- 30 engine companies to provide fire suppression services to areas with a reasonable number of properties without a responding fire station within 1½ miles.
- 21 engine companies based upon the fire department's method of operation to provide a minimum two engine response to all first alarm structure fires.

There are 0 additional engine companies needed for response outside the city.

The FSRs recognizes that there are 22 engine companies in service.

For maximum credit, at least two engine companies should respond to all reported first alarms for fires in buildings (except when only one engine company is needed). The credit for engine companies has been reduced by 0.0 percent because the FSRs review deemed there is an adequate response to all reported fires in the district.

For each in-service engine, ISO reviews the pump capacity (as indicated by a pumper test), the hose (including hose testing) and the equipment carried.

For maximum credit, pumper service tests must be done annually and documented. ISO evaluates the pumper service tests using NFPA 1911, *Standard for the Inspection, Maintenance, Testing and Retirement of In-service Automotive Fire Apparatus*. This Standard indicates that the service tests should be conducted for:

- 20 minutes @ 100% capacity at 150 psi
- 10 minutes @ 70% capacity at 200 psi
- 10 minutes @ 50% capacity at 250 psi

Other factors such as the “overload test” are not evaluated in the FSRs and are not required for FSRs credit.

For maximum credit, hose tests must be performed annually and documented. ISO evaluates a hose testing program using NFPA 1962, *Standard for the Inspection, Care, and Use of Fire Hose, Couplings and Nozzles and the Service Testing of Fire Hose*.

The FSRs also reviews Automatic Aid. Automatic Aid is considered in the review as assistance dispatched automatically by contractual agreement between two communities or fire districts. That differs from mutual aid or assistance arranged case by case. ISO will recognize an Automatic Aid plan under the following conditions:

- It must be prearranged for first alarm response according to a definite plan. It is preferable to have a written agreement, but ISO may recognize demonstrated performance.
- The aid must be dispatched to reported structure fires on the initial alarm.
- The aid must be provided 24 hours a day, 365 days a year.
- The aid must offset a need in the community ISO is surveying. For example, if a community needs a ladder company and the fire department does not have one, but a neighboring community's ladder company responds by Automatic Aid agreement, credit may be available.
- The aiding ladder company must cover at least 50% of the needed ladder company Standard Response District by hydrant count in the community being graded.

FSRS Item 512.D "Automatic Aid Engine Companies" responding on first alarm and meeting the needs of the city for basic fire flow and/or distribution of companies are factored based upon the value of the Automatic Aid plan (up to 0.90 can be used as the factor). The Automatic Aid factor is determined by a review of the Automatic Aid provider's communication facilities, how they receive alarms from the graded area, inter-department training between fire departments, and the fire ground communications capability between departments.

For each engine company, the credited Pump Capacity (PC), the Hose Carried (HC), the Equipment Carried (EC) and a factor for an overweight apparatus all contribute to the calculation for the percent of credit the FSRs provides to that engine company.

After the Items in 512 are summed to determine the points received for the “In Service Total (EC)”, the sum is divided by the total possible points and then multiplied by the Needed Engine Companies (NE). Next, this is multiplied by the appropriate factor representing the percent of built-upon area of the city with first alarm response of one or two engine companies. Finally, this product is multiplied by the 10 points available for Item 513 “Credit for Engine Companies (CEC)” to determine the final score for this item.

Item 513 “Credit for Engine Companies (CEC)” = 6.59 points

Item 523 - Credit for Reserve Pumpers (1 point)

The second pumper item reviewed is Item 523 “Credit for Reserve Pumpers (CRP)”. This item reviews the number and adequacy of the pumpers and their equipment with one (or more in larger communities) pumper out of service. The number of needed reserve pumpers is 1 for each 8 needed engine companies determined in Item 513, or any fraction thereof. The number of reserve pumpers credited in this item will not exceed the number of needed reserve pumpers. If only one reserve pumper is needed, and more than one reserve pumper is provided in the city, only the best equipped reserve pumper will be credited. Reserve pumpers are reviewed for pump capacity, hose carried, and equipment in the same manner as described in Item 512 except that Automatic Aid reserve pumpers are not considered.

The value of the Reserve Pumper Credit (RPC) is determined by multiplying the credited Pump Capacity (PC) times the credit for the Hose Carried (HC) times the credit for the Equipment Carried (EC) times the factor for an overweight apparatus.

After the items in 521 are factored to determine the points received for each reserve pumper, the reserve pumper with the largest points is selected for the Reserve Pumper Credit (RPC). The value for RPC is added to the value in Item 512 determined above. Next, the best equipped in-service pumper is subtracted from the in-service and reserve total. The difference is then divided by the total the possible points times the Needed Engine Companies (NE). Finally, this quotient is multiplied by the 1 point available for Item 523 “Credit for Reserve Pumpers (CRP)”.

Item 523 “Credit for Reserve Pumpers (CRP)” = 0.65 points

Item 532 – Credit for Pumper Capacity (5 points)

The next item reviewed is Item 532 “Credit for Pumper Capacity (CPC)”. The total pump capacity available should be sufficient for the Basic Fire Flow of 3500 gpm in Lexington Fayette Urban County Government. The maximum needed pump capacity credited is the Basic Fire Flow of the community. The pump capacity is obtained by test at the rated pump pressure. Credit is limited to 80 percent of rated capacity if no test data is available within two years of the survey date. Less than 80 percent may be credited if other mechanical features of the apparatus indicate a generally poor mechanical condition.

The existing pump capacity (EP) represents the capacity of in-service pumpers, pumper-ladder, and pumper-service trucks that were credited in Item 513.

The reserve pump capacity (RP) is that capacity of reserve pumpers, reserve pumper-ladder, and pumper-service trucks that were credited in Item 523. One-half the capacity of permanently-mounted pumps capable of delivering at least 50 gpm at 150 psi on other apparatus, reserve pumpers and reserve pumper-ladder and reserve pumper-service trucks not credited in Items 513 or 523 is credited in this item. This capacity is expressed as “OP”.

Automatic Aid pumper capacity is that capacity of pumpers credited as Automatic Aid in Item 513. The capacity credited does not exceed the percent determined by the value of the Automatic Aid plan determined in Item 512.D multiplies by the creditable pump capacity for each Automatic Aid pumper. This capacity is expressed as AAP.

The sum of the capacities determined for EP, RP, OP, and AAP is 41250 gpm. The FSRS limits the total capacity to the Basic Fire Flow of 3500 gpm. Next, this capacity is divided by the Basic Fire Flow. Finally, this factor is multiplied by the 5 points available for Item 532 “Credit for Pumper Capacity (CPC)”.

Item 532 “Credit for Pumper Capacity (CPC)” = 5.00 points

Item 549 – Credit for Ladder Service (5 points)

The next item reviewed is Item 549 “Credit for Ladder Service (CLS)”. This item reviews the number of response areas within the city with 5 buildings that are 3 or more stories or 35 feet or more in height, or with 5 buildings that have a Needed Fire Flow greater than 3,500 gpm, or any combination of these criteria. The height of all buildings in the city, including those protected by automatic sprinklers, is considered when determining the number of needed ladder companies. When no individual response area alone needs a ladder company, at least one ladder company is needed if buildings in the city meet the above criteria. The number and type of apparatus is dependent upon the height of buildings, Needed Fire Flow and response distance.

Response areas not needing a ladder company should have a service company. A service company is an apparatus with some or all of the equipment identified in Table 544.A (see the following pages).

The number of ladder or service companies, the height of the aerial ladder, aerial ladder testing and the equipment carried on the in-service ladder trucks and service trucks is compared with the number of needed ladder trucks and service trucks and an FSRS equipment list (Table 544 A, B, and C). Ladder trucks must meet the general criteria of NFPA 1901, *Standard for Automotive Fire Apparatus* to be recognized.

The number of needed ladder-service trucks is dependent upon the number of buildings 3 stories or 35 feet or more in height, buildings with a Needed Fire Flow greater than 3,500 gpm, the response distance to built-upon areas, the method of operation and the response outside the city.

The FSRS indicates that a minimum of 8 ladder companies are needed. This is calculated as follows:

8 ladder companies due to the number of buildings with a Needed Fire Flow over 3,500 gpm or 3 stories or more in height, the response distance to built-upon areas or the method of operation.

There are 0 additional ladder companies needed because 10% or less of the responses outside of the district result in a reduction of the ladder companies left in the district to 50% or less of the normal strength level.

The FSRS recognizes that there are 7 ladder companies in service.

For maximum credit, a ladder or service company should respond on first alarms to all reported fires in buildings. It was determined the ladder or service company response is to 100% of first alarm fires in buildings.

The FSRS indicates that a minimum of 1 service company is needed. This need is calculated as follows:

1 service company due to the number of buildings with a Needed Fire Flow over 3,500 gpm or 3 stories or more in height, the response distance to built-upon areas or the method of operation.

The FSRS recognizes that there are 0 service companies in service.

Ladders, tools and equipment normally carried on ladder trucks are needed not only for ladder operations but also for forcible entry, ventilation, salvage, overhaul, lighting and utility control.

If a ladder company is needed, the available equipment items in Table 544.A are summed to determine the points received for a Service Company, and available equipment items in Table 544.B are summed to determine the additional equipment points available for a Ladder Company. Table 544.A and 544.B points are added together to determine the total possible points available out of a possible 784 points.

Tests and sample forms for recording tests for aerial ladder and elevating platforms are described in NFPA 1911, *Standard for the Inspection, Maintenance, Testing and Retirement of In-service Automotive Fire Apparatus*.

If a service company is needed, the available equipment items are summed in Table 544.A. If additional ground ladders are needed for the service company, the assigned points for each available ground ladder up to 4 (from Table 544.B) are added to the points determined in Table 544.A.

All ladder company equipment, available service company equipment, available engine-ladder company equipment and available engine-service company equipment are summed. This sum is then divided by the sum of 784 points multiplied by the Needed Ladder (NL) plus 334 points multiplied by the Needed Service (NS) companies plus any points assigned for any additional ladders from Table 544.B.

Next, this factor is multiplied by the appropriate factor (A) representing the percent of built-upon area of the city with first alarm response of a ladder, service, engine-ladder or engine-service company to fires in buildings. Finally, this product is multiplied by the 5 points available for Item 549 "Credit for Ladder Service (CLS)".

Item 549 "Credit for Ladder Service (CLS)" = 3.98 points

Item 553 – Credit for Reserve Ladder and Service Trucks (1 point)

The next item reviewed is Item 553 “Credit for Reserve Ladder and Service Trucks (CRLS)”. This item considers the adequacy of ladder and service apparatus when one (or more in larger communities) of these apparatus are out of service. The number of needed reserve ladder and service trucks is 1 for each 8 needed ladder and service companies that were determined to be needed in Item 540, or any fraction thereof. When 8 or less ladder and service companies are needed, and 1 or more ladder companies are needed, the reserve truck should be a ladder truck. When the number of needed reserve ladder and service trucks exceeds the number of needed reserve ladder trucks, the difference is considered as needed reserve service trucks.

The number of in-service ladder and service trucks considered out of service is determined by the number of needed reserve ladder and service trucks. The in-service ladder and service trucks credited in Item 549 having the largest number of points is what is considered as out of service. The equipment on credited reserve ladder and service trucks shall be reviewed by application of Tables 544.A, 544.B and 544.C.

The number of reserve ladder trucks credited in this item shall not exceed the number of needed reserve ladder and service trucks. If only one reserve ladder is needed, and if more than one reserve ladder or service truck is provided in the city, only the best equipped reserve ladder or service truck will be credited.

All ladder company equipment, available service company equipment, available engine-ladder company equipment and available engine-service company equipment are summed.

After the points for all reserve ladder and service equipment is determined, the reserve ladder service truck with the largest points is selected. This value is added to the value of all in-service ladder and service company equipment determined in Item 549. Next, the best equipped in-service ladder or service truck is subtracted from the in-service and reserve total. The difference is then divided by the total possible points for a ladder truck times the Needed Ladder (NL) plus the total possible points times the Needed Service (NS) plus any assigned points for any additional ladders needed from Table 544.B. Finally, this quotient is multiplied by the 1 point available for Item 553 “Credit for Reserve Ladder and Service Trucks (CRLS)”.

Item 553 “Credit for Reserve Ladder and Service Trucks (CRLS)” = 0.67 points

Item 561 – Credit for Distribution (4 points)

Next, Item 561 “Credit for Distribution (CD)” is reviewed. This Item examines the number and adequacy of existing engine and ladder-service companies to cover built-upon areas of the city. The built-upon area of the city should have a fully equipped first-due engine company within 1½ miles and a fully equipped ladder-service company within 2½ miles.

To determine the Credit for Distribution, first the Existing Engine Company (EC) points and the Existing Engine Companies (EE) determined in Item 513 are considered along with Ladder Company Equipment (LCE) points, Service Company Equipment (SCE) points, Engine-Ladder Company Equipment (ELCE) points, and Engine-Service Company Equipment (ESCE) points determined in Item 549.

Secondly, a determination is made of the percentage of built upon area within 1½ miles of a first-due engine company and within 2½ miles of a first-due ladder-service company.

Item 561 “Credit for Distribution (CD)” = 2.26 points

Item 571 – Credit for Company Personnel (15 points)

Item 571 “Credit for Company Personnel (CCP)” reviews the average number of existing firefighters and company officers available to respond to reported first alarm structure fires in the city.

The on-duty strength is determined by the yearly average of total firefighters and company officers on-duty considering vacations, sick leave, holidays, “Kelley” days and other absences. When a fire department operates under a minimum staffing policy, this may be used in lieu of determining the yearly average of on-duty company personnel.

Firefighters on apparatus not credited under Items 513 and 549 that regularly respond to reported first alarms to aid engine, ladder and service companies are included in this item as increasing the total company strength.

Firefighters staffing ambulances or other units serving the general public are credited if they participate in fire-fighting operations, the number depending upon the extent to which they are available and are used for response to first alarms of fire.

Call and volunteer members (VM) are credited on the basis of the average number staffing apparatus on first alarms. Off-shift career firefighters and company officers responding on first alarms are considered on the same basis as call and volunteer personnel. For personnel not normally at the fire station, the number of responding firefighters and company officers is divided by 3 to reflect the time needed to assemble at the fire scene and the reduced ability to act as a team due to the various arrival times at the fire location when compared to the personnel on-duty at the fire station during the receipt of an alarm. The number of Public Safety Officers who are positioned in emergency vehicles within the jurisdiction boundaries may be credited based on availability to respond to first alarm structure fires. In recognition of this increased response capability the number of responding Public Safety Officers is divided by 2.

Call and volunteer firefighters and company officers assigned for on-duty shifts at fire stations on a pre-arranged schedule are considered as on duty for the proportional time that they are at the fire station.

The average number of firefighters and company officers responding with those companies credited as Automatic Aid under Items 513 and 549 are considered for either on-duty or volunteer company personnel as is appropriate. The actual number is calculated as the average number of company personnel responding multiplied by the value of AA Plan determined in Item 512.D.

The maximum creditable response of on-duty and call/volunteer firefighters is 12, including company officers, for each existing engine and ladder company and 6 for each existing service company.

Chief Officers are not creditable except when more than one chief officer responds to alarms; then extra chief officers may be credited as firefighters if they perform company duties.

The FSRs recognizes 150.20 on-duty personnel and an average of 0.00 volunteers/off-shift personnel responding on first alarm structure fires.

Item 571 “Credit for Company Personnel (CCP)” = 12.95 points

Item 581 – Credit for Training (9 points)

The final item reviewed in the Fire Department section is Item 580 “Credit for Training (CT)”. This item evaluates training facilities and aids and the use made of them by the fire suppression force; company training at fire stations; classes for officers; driver and operator training; new driver and operator training; hazardous materials training; recruit training; the pre-fire planning inspection program; and the training and inspection records.

A maximum of 35% of the training evaluation is attributed to facilities, aids and use, and 65% is attributed to specialized training including the pre-fire planning inspection program.

Item 580.A.1 “Facilities and Aids ”	Earned Credit	Credit Available
Drill Tower For maximum credit, a 4 story drill tower should be used. 0 points were credited as there is no drill tower available and used by the fire department.	0.00	8
Fire Building (including smoke room) For maximum credit, there should be a fire resistive smoke room that is separated from the drill tower so that training may be conducted in the tower and in the smoke room. A fire building is not available or used for training.	8.00	8
Combustible Liquids Pit For maximum credit, a 1,500 square foot combustible liquid pit or equivalent video instructing effective fire suppression of Class B fires should be used. Credit for a 4 square foot combustible liquids pit was provided representing the actual size of the pit or that there is a video instructing effective fire suppression of Class B fires available for use to train the fire department personnel.	0.01	5
Library and Training Manuals For maximum credit, a complete library of training manuals should be available in the department for the membership. The library and manuals may include: NFPA “Fire Protection Handbook”, “The Fire Chief’s Handbook” published by Fire Engineering, “Managing Fire and Rescue Services” published by ICMA, Training manuals published by IFSTA or equivalent, and the following NFPA Standards, 472, 1001, 1002, 1021, 1201, 1401, 1403, 1410, 1451, and 1620. Credit was given for complete training materials.	2.00	2
Multi-Media Training Aids including Pump and Hydrant Cutaways A slide/overhead projector and compatible multi-media aids are available. A movie/VCR type projector and compatible multi-media aids are available. A pump cutaway is available in the department for the membership. A hydrant cutaway is available in the department for the membership.	2.00	2

Item 580.A.1 “Facilities and Aids ” (continued)	Earned Credit	Credit Available
Training Area For maximum credit, a fire department training area of at least 2.0 acres in size should be available for single and multi-company drills. A training area of 4.1999998093 acres is provided. also	10.00	10
Review of Facilities and Aids (FA) total:	22.01	35
Item 580.A.2 “Use ”		
a. Half-day (3 hours) drills, 8 per year (0.05 each) For maximum credit, all members should participate in 8 half-day, single company drills. There were an average of 8.00 single company half-day drills.	0.40	0.40
b. Half-day (3 hours) multiple-company drills, 4 per year (0.10 each): For maximum credit, all members should participate in 4 half-day multiple company drills. There were an average of 4.00 multiple company drills.	0.40	0.40
c. Night drills (3 hours), 2 per year (0.10 each): For maximum credit, all members should participate in two 3-hour night drills per year. There were an average of 2.00 night drills.	0.20	0.20
Factor for “Use” subtotal -	1.00	
Average percentage participating in drills -	100%	
Factor for Use (FU):	1.00	1.0
Review of Facilities and Aids (FA) total:	22.01	35
“Facilities, Aids and Use” subtotal:	22.01	
Deduction for incomplete or missing records -	-0.00	

Note 1: A single company drill may receive credit under a and c; a multiple-company drill may receive credit under a, b, and c.

Note 2: If the Drill Tower, Fire Building, Combustible Liquids Pit or Training Area do not achieve at least 10 points, credit will be given for the use of buildings, streets and open areas (other than formal training grounds), but not both.

After the items under Item "Facilities and Aids" are summed and the factor for "Use" is established, the credit for "Facilities, Aids and Use" is determined by multiplying the total possible points (35 points) by the factor for "Use" (up to 1.0) and subtracting any deductions for record keeping.

Facilities, Aids and Use subtotal = 22.01 points

Specialized Training	Earned Credit	Credit Available
B. Company Training For maximum credit, each firefighter should receive 20 hours per month in structure fire related subjects as outlined in NFPA 1001. There was an average of 12.63 hours per month of company training received by company members and participation was 100% of those eligible to participate. 0.00 points will be deducted for missing or incomplete records.	15.79	25
C. Classes for Officers For maximum credit, each officer should receive 2 days of leadership, management, supervisory, and incident management system training per year as outlined in NFPA 1021. There was an average of 2.00 days devoted to officer classes and participation is 100% of those eligible to participate. 0.00 points will be deducted for missing or incomplete records.	15.00	15
D. Driver and Operator Training For maximum credit, each driver and operator should receive 4 half-day sessions of driver/operator training per year in accordance with NFPA 1002 and NFPA 1451. There were 4.00 half-day sessions received per year by drivers and operators and participation was 100% of those eligible to participate. 0.00 points will be deducted for missing or incomplete records.	2.00	2
E. New Driver and Operator Training For maximum credit, each new driver and operator should receive 40 hours of driver/operator training per year in accordance with NFPA 1002 and NFPA 1451. There were 40.00 hours received per year by new drivers and operators and participation was 100% of those eligible to participate. 0.00 points will be deducted for missing or incomplete records.	2.00	2
F. Training on Hazardous Materials For maximum credit, each firefighter should receive ½ day of training for incidents involving hazardous materials in accordance with NFPA 472. There was 1.00 day of training received per year and participation was 100% of those eligible to participate. 0.00 points will be deducted for missing or incomplete records.	1.00	1

Specialized Training (continued)	Earned Credit	Credit Available
G. Recruit Training For maximum credit, each firefighter should receive 240 hours of structure fire related training in accordance with NFPA 1001 within the first year of employment or tenure. There were 575.00 hours received per year and participation was 100% of those eligible to participate. 0.00 points will be deducted for missing or incomplete records.	5.00	5
H. Pre-Fire Planning Inspections For maximum credit, pre-fire planning inspections of each commercial, industrial, institutional, and other similar type building (all buildings except 1-4 family dwellings) should be made twice per year by company members. Records of inspections should include up-to date notes and sketches. There are 100.00% of the buildings inspected at a yearly frequency of 1.00. Participation is 100.00%. 0.00 points will be deducted for missing or incomplete records.	12.00	15

To determine the Credit for Training, the points credited in Item 580.A through 580.H are summed.

For maximum credit, records should be kept of all training. NFPA 1401 outlines the appropriate manner in which to accomplish this. A deduction of up to 20 points (20% for each Item) is made for a lack of records. A deduction of 10% is made for incomplete records and 20% for no records for each sub-item.

A total of **0.00** points is deducted to reflect a deficiency of record keeping for Lexington Fayette Urban County Government.

Finally, this sum is divided by 100 and then multiplied by the 9 points available for Item 580 "Credit for Training (CT)".

Item 580 "Credit for Training (CT)" = 6.73 points

The final step in determining the Credit for Fire Department is to add the following eight components:

Item	Earned Credit	Credit Available
513. Credit for Engine Companies (CEC)	6.59	10
523. Credit for Reserve Pumpers (CRP)	0.65	1
532. Credit for Pumper Capacity (CPC)	5.00	5
549. Credit for Ladder Service (CLS)	3.98	5
553. Credit for Reserve Ladder and Service Trucks (CRLS)	0.67	1
561. Credit for Distribution (CD)	2.26	4
571. Credit for Company Personnel (CCP)	12.95	15
581. Credit for Training (CT)	6.73	9
Item 590. Credit for Fire Department:	38.83	50

Water Supply

Forty percent of a community's overall score is based on the adequacy of the water supply system. The ISO field representative evaluated:

- the capability of the water distribution system to meet the Needed Fire Flows at selected locations up to 3,500 gpm.
- size, type and installation of fire hydrants.
- inspection and condition of fire hydrants.

Item 616 – Credit for Supply System (35 points)

The first item reviewed was Item 616 “Credit for Supply System (CSS)”. This item reviews the rate of flow that can be credited at each of the Needed Fire Flow test locations considering the supply works capacity, the main capacity and the hydrant distribution. The lowest flow rate of these items is credited for each representative location. A water system capable of delivering 250 gpm or more for a period of two hours plus consumption at the maximum daily rate at the fire location is considered minimum in the ISO review.

To determine the score for Item 616 “Credit for Supply System (CSS)”, three sub-items are evaluated (Item 612 “Supply Works Capacity”, Item 613 “Main Capacity” and Item 614 “Hydrant Distribution”).

Where there are 2 or more systems or services distributing water at the same location, credit is given on the basis of the joint protection provided by all systems and services available.

The supply works capacity is calculated for each representative Needed Fire Flow test location, considering a variety of water supply sources. These include public water supplies, emergency supplies (usually accessed from neighboring water systems), suction supplies (usually evidenced by dry hydrant installations near a river, lake or other body of water), and supplies developed by a fire department using large diameter hose or vehicles to shuttle water from a source of supply to a fire site. The result is expressed in gallons per minute (gpm).

The normal ability of the distribution system to deliver Needed Fire Flows at the selected building locations is reviewed. The results of a flow test at a representative test location will indicate the ability of the water mains (or fire department in the case of fire department supplies) to carry water to that location.

The hydrant distribution is reviewed within 1,000 feet of representative test locations measured as hose can be laid by apparatus. Credit is allowed up to 1,000 gpm for each hydrant within 300 feet of the location, 670 gpm for hydrants within 301 to 600 feet of the location and 250 gpm for hydrants within 601 to 1,000 feet of the location. Credit may be reduced when hydrants do not have a pumper outlet and/or two or more hose outlets. If a hose diameter greater than 2½ inch is carried by all in-service pumpers, the hydrant distribution credit may be greater due to the reduced friction loss in the larger diameter hose.

For maximum credit, the Needed Fire Flows should be available at each location in the district. Needed Fire Flows of 2,500 gpm or less should be available for 2 hours; and Needed Fire Flows of 3,000 and 3,500 gpm should be obtainable for 3 hours.

Item 616 “Credit for Supply System (CSS)” = 31.09

Item 621 – Credit for Hydrants (2 points)

The second item reviewed is Item 621 “Credit for Hydrants (CH)”. This item reviews the number of fire hydrants of each type compared with the total number of hydrants.

For maximum credit, all hydrants should have a pumper outlet, 6 inch or larger branch connection, uniform size operating nut and should operate in a uniform direction in accordance with AWWA C-502 *Standard for Dry-Barrel Fire Hydrants* or AWWA C-503 *Standard for Wet-Barrel Fire Hydrants*.

For maximum credit, all suction supply points should be equipped with a dry hydrant with a 6 inch or larger pipe and fittings, a minimum number of 90 degree elbows (preferably no more than two), and suction screen placement so that the dry hydrant will deliver the design capacity (usually 1,000 gpm) as specified in NFPA 1142, *Standard on Water Supplies for Suburban and Rural Fire Fighting*.

There are a total of 8783 hydrants in the city.

620. Hydrants, - Size, Type and Installation	Earned Credit	Credit Available
A. With a 6 -inch or larger branch and a pumper outlet with or without 2½ -inch outlets There are 8733 hydrants that have a 6 -inch or larger branch and a pumper outlet.	99.43	100
B. With a 6 -inch or larger branch and no pumper outlet but two or more 2½ -inch outlets, or with a small foot valve, or with a small barrel There are 0 hydrants that have a 6 -inch or larger branch but no pumper outlet, or have a small foot valve or with a small barrel.	0.00	75
C. With only a 2½ -inch outlet There are 0 hydrants with only a 2½ -inch outlet.	0.00	25
D. With less than a 6 -inch branch There are 50 hydrants with less than a 6 -inch branch connection.	0.14	25
E. Flush Type There are 0 hydrants that are of the flush type.	0.00	25
F. Cistern or suction point There are 0 locations that are considered a cistern and/or a suction point.	0.00	25
Total	99.57	100

Note 1: 2 points are deducted for each 10 percent of the hydrants that are not operating in a uniform direction of the majority, or with an operating nut different from the majority.

Of the 8783 hydrants that were reviewed, 0% did not operate in the direction of the majority and 0% had a different size operating nut.

Note 2: 10 points are deducted if more than one type hose thread is used for pumper or hose outlets. Of the 8783 hydrants that were reviewed, none had a different hose thread than the majority. There were no points deducted for this item.

To determine the "Credit for Hydrants (CH)", the points credited in Item 620.A through 620.F are summed, including any deductions. The sum is divided by 100 and then multiplied by the 2 points available for Item 621 "Credit for Hydrants (CH)".

Item 621 "Credit for Hydrants (CH)" = 2.00

Item 630 – Credit for Inspection and Condition (3 points)

The third item reviewed is Item 630 “Credit for Inspection and Condition (CIC)”. This item reviews the fire hydrant inspection frequency, the completeness of the inspections and the condition of hydrants. Inspection and condition of hydrants should be in accordance with AWWA M-17, *Installation, Field Testing and Maintenance of Fire Hydrants*.

A. Inspection (HI):

The frequency of inspection is the average time interval between the 3 most recent inspections.

Frequency of Inspections	Points
½ year	100
1 year	80
2 years	65
3 years	55
4 years	45
5 years or more	40

Note: The points for inspection frequency are reduced by 10 points if the inspections are incomplete or do not include a flushing program. An additional reduction of 10 points are made if hydrants are not subjected to full system pressure during inspections. If the inspection of cisterns or suction points does not include actual drafting with a pumper, or back-flushing for dry hydrants, 40 points are deducted.

B. Condition (HF):

A factor (HF) is determined from the following list of conditions according to the actual condition of hydrants examined compared with the total number examined during the survey:

Condition	Factor
Standard (no leaks, opens easily, conspicuous, well located for use by pumper)	1.0
Usable (with some defects and/or impediments to use)	0.5
Not Usable	0.0

For maximum credit, all hydrants should be inspected twice a year. The inspection should include operation of the fire hydrant, a test for leaks (using domestic pressure), and a flushing of the hydrant. Records should be kept of inspections.

Water System: Kentucky American Water Company

Item 630.A “Inspection (HI):”		Time Interval
Most recent inspection was Aug 01, 2012		
1 st prior inspection was Aug 01, 2011		1 year
2 nd prior inspection was Aug 01, 2010		1 year
Review of Inspection (HI):	Earned Credit	Credit Available
	80	100

For maximum credit, all hydrants should be conspicuous, well located for use by a pumper and in good condition. There were 92 hydrants examined in this FSRs item.

Item 630.B “Condition (HF):”		Maximum Factor
Standard: There were 92 hydrants considered in standard condition.		1.0
Usable: There were 0 hydrants considered in usable condition.		0.5
Not Usable: There were 0 hydrants considered not usable.		0.0
Review of Condition (HF):	Condition Factor (HF)	Maximum Factor
	1.00	1.0

To determine the “Credit for Inspection and Condition (CIC)”, the points credited in Item 630.A are multiplied by the Condition Factor from Item 630.B. The product is divided by 100 and then multiplied by the 3 points available for Item 631 “Credit for Inspection and Condition (CIC)”.

Item 631 “Credit for Inspection and Condition (CIC)” = 2.40

The final step in determining the credit for Water Supply is to add Item 616, Item 621, and Item 631:

Item	Earned Credit	Credit Available
616. Credit for Supply System (CSS)	31.09	35
621. Credit for Hydrants (CH)	2.00	2
631. Credit for Inspection and Condition (CIC)	2.40	3
Item 640. Credit for Water Supply:	35.49	40

Divergence = -2.21

The Divergence factor mathematically reduces the score based upon the relative difference between the fire department and water supply scores. The factor is introduced in the final equation.

Summary of Public Protection Classification Review

Completed by ISO

for

Lexington Fayette Urban County Government

FSRS Item	Earned Credit	Credit Available
Receiving and Handling Fire Alarms		
414. Credit for Telephone Service	2.00	2
422. Credit for Operators	3.00	3
432. Credit for Dispatch Circuits	3.00	5
440. Credit for Receiving and Handling Fire Alarms	8.00	10
Fire Department		
513. Credit for Engine Companies	6.59	10
523. Credit for Reserve Pumpers	0.65	1
532. Credit for Pumper Capacity	5.00	5
549. Credit for Ladder Service	3.98	5
553. Credit for Reserve Ladder and Service Trucks	0.67	1
561. Credit for Distribution	2.26	4
571. Credit for Company Personnel	12.95	15
580. Credit for Training	6.73	9
590. Credit for Fire Department	38.83	50
Water Supply		
616. Credit for Supply System	31.09	35
621. Credit for Hydrants	2.00	2
631. Credit for Inspection and Condition	2.40	3
640. Credit for Water Supply	35.49	40
Divergence	-2.21	--
Total Credit	80.11	100

Community Classification = 2/9

If the individual scores Lexington Fayette Urban County Government achieved for Receiving and Handling Fire Alarms; Fire Department; and Water Supply were translated into a 100 point scale instead of the (10, 50 and 40) points actually used, the relative Fire Suppression Rating Schedule classification for each of these sections would be:

Receiving and Handling Fire Alarms: a (relative) **Class 2**

Fire Department: a (relative) **Class 3**

Water Supply: a (relative) **Class 2**

ISO Evaluation Summary
ISO Field Study
October, 2012

1. Dispatch circuits are not monitored for failure to meet the ISO standard. Remote generators must be monitored and “individual ID of each component present with integrity or failure condition.” Batt. Chief See indicated that this is a costly endeavor.
2. ISO standard requires weekly one hour full load tests; apparently we do not meet this standard.
3. Engine Companies LFD consistently scored 588 / 654 available points. We lost points because we test pumps and hose every other year rather than every year. (Administrative decision, will be changed to annually)
4. Reserve Pumpers lost points for pump and hose testing, as well as one reserve being short some equipment that is normally moved from the front line apparatus to the reserve when placed in service. ISO looks to a reserve pumper to be available to staff and put in service in the event of a major catastrophe. We do not keep our reserves equipped for that mission; rather they are equipped to be used in place of a front line apparatus and equipment moved from the front line apparatus to the reserve.
5. Ladder Companies lost points because we have a need for 8 ladder companies but only have 7. Many of our ladder companies had a second 35' ladder replaced with a 24' ladder (an administrative decision) but ISO requires two 35' ladders. Also, we carry 5 SCBA instead of the required 6 on many ladder companies (rarely have 4 members riding a ladder company, so the necessity of 6 SCBA has been seen as invalid) Our reserve ladder lost points due to lack of equipment (see comments about equipment and reserve mission in the reserve engine company section) as well as an undersized generator.
6. Personnel lost points because the ISO standard calls for six members to be assigned to each company per day. 22 Engine and 7 Ladder companies would call for 174 members assigned to each shift. Six assigned permits adequate numbers on duty to cover vacations, sick days, etc. Our daily average at the time of the field study was just over 150 per day.
7. Obviously, training points were lost due to the lack of a tower. Our natural gas prop did not provide enough square feet (1,500 square foot flammable liquids pit) to meet the standard, however, we can purchase a video that provides instruction for effective fire suppression techniques for class B fires and we would get full credit for the pit. Go Figure.

8. Maximum credit for training hours requires 20 per month of fire suppression and haz mat training (excluded EMS training). LFD averages 12.63 hours per month of training (all types combined).

9. Pre planning got 12 out of 15 points. It appears that we lost some points because we update/review pre-plans annually, where ISO standard is twice a year.

10. Water supply evaluation found that we have areas with water supply that does not meet the Needed Fire Flow. For instance, the Growers Tobacco Warehouse on Angliana Ave requires a needed fire flow of 9,000 gpm. Hydrants in that area provide 3,400 gpm. We also lost credit for only having the hydrants tested once per year where ISO requires testing twice per year.

11. The issue of company distribution was not an easily answered question. This information is broken into engine and ladder distribution. The concept used to determine a built up area seems to be quite vague to both the ISO reps and as described in their literature. I asked for further details and maps were provided to explain the rating. As you look at the maps, the pink areas represent areas that are 1,000 feet from an existing fire hydrant.

This definition of “built up area” is provided in the ISO Survey of the Fire Department Features for Fire Suppression:

The number of fire hydrants within 1.5 road miles of existing engine companies and 2.5 road miles of existing ladder/service companies are counted and compared to developed areas within the fire district but beyond 1.5 road miles of existing engine companies and 2.5 miles road miles of existing ladder/service companies. Where indications are that there are areas that have 50% or more of the number of fire hydrants contained within a comparable area with an engine company or ladder/service company, additional company locations may be needed.

In the Ladder Company map, the need for an 8th Ladder Company is identified to be in the area marked L PROP that is just inside New Circle Rd at Tates Creek Rd. I find that interesting when you look at the area of Cardinal Valley around to Georgetown Rd. being further out and not surrounded by other ladder companies. On this map, three story buildings and buildings with a needed fire flow of over 3,500 gpm are identified. My estimation is the concentration of these types of buildings lead to the need for a ladder in the Tates Creek area to be greater than the Cardinal Valley to Georgetown Rd areas.

In the Engine Company map, the need for 9 additional Engine Companies is identified. These locations are identified by the label E PROP 1 through E PROP 9. The designation of 1 through 9 does not reflect a priority of need, just a designation. Again, I find some of these locations interesting as they are

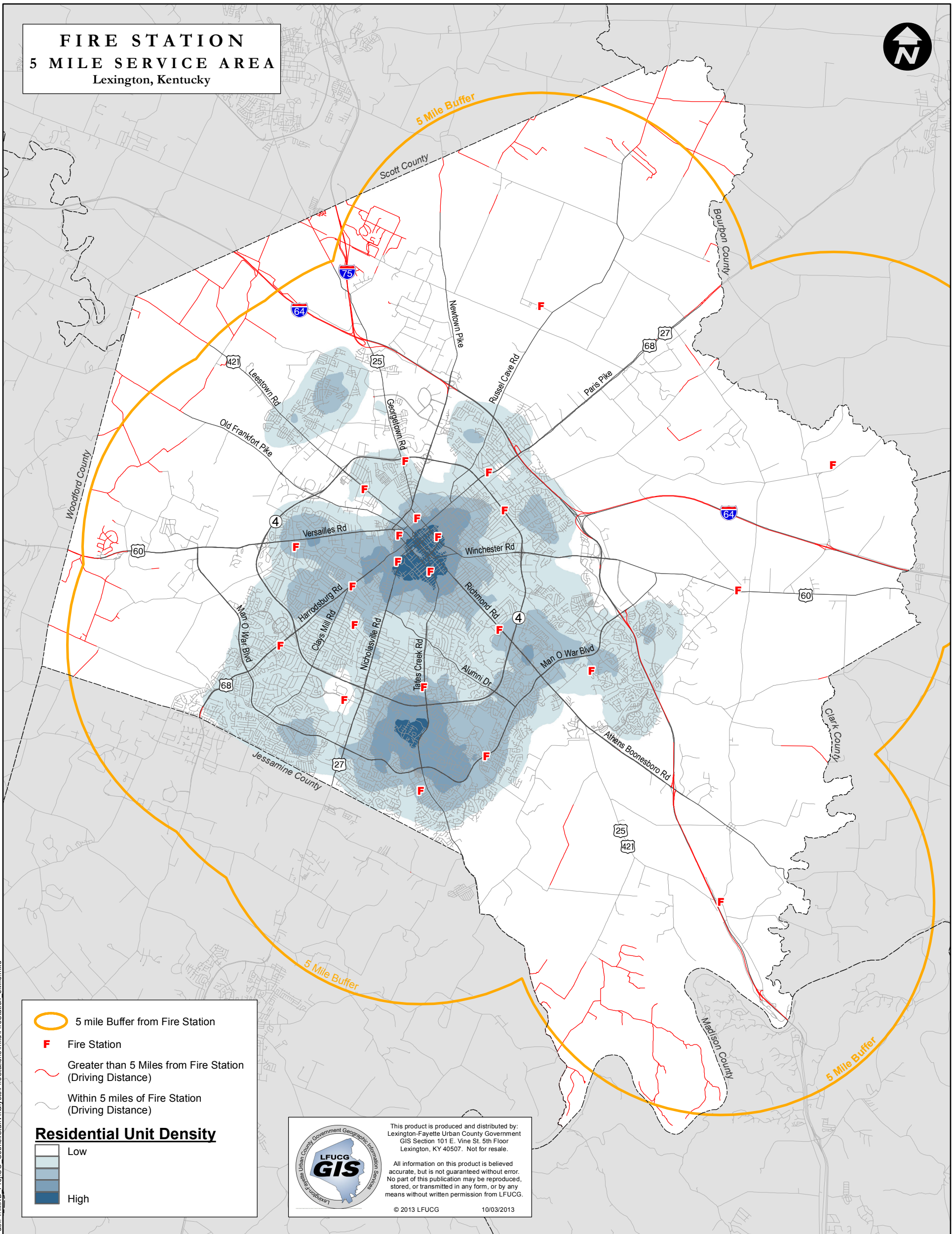
surrounded by existing engine companies but some areas that we have been proposing for new station locations are supported by this finding. These locations are:

1. Between Clay's Mill and Harrodsburg Rd at Man O' War
2. New Circle and Alumni
3. Liberty and Man O' War (Sta. 25)
4. Nicholasville and Southpoint
5. Todds and Hays (Sta. 26)
6. Leestown and Bracktown (Sta. 24)
7. Old Richmond and Athens-Boonesboro (Sta. 26)
8. New Circle and Liberty (Relocation of Sta. 2)
9. Spurr and Greendale (Sta. 24)

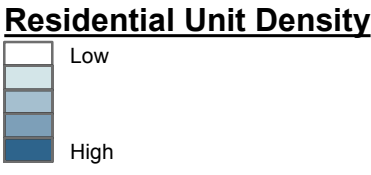
Engine	Ladder	EC	Address	Council Dist
1	1	1	219 East Third Street	1
2	5	8	415 East New Circle Road	6 (1)
			370 Merino Street	3
4			246 Jefferson Street	1 (2)
5	2		300 Woodland Avenue	3
6		7	501 South Limestone	3
7		4	3307 Tates Creek Road	4
8		3	1725 North Broadway	1 (6)
9		2	2234 Richmond Road	5
10	3	6	1128 Finney Drive	1 (2)
11			1626 Harrodsburg Road	11
12		10	399 Southland Drive	3 (10,11)
13			1432 Leestown Road	2
14		5	1530 Roanoke Road	11
15		9	3308 Shillito Park Road	9
16			3700 Man O'War Blvd	8
17			4075 Royster Rd	12
18			1098 South Cleveland Road	12
19			3360 Huffman Mill Pike	12
20	4		3001 Arrowhead Drive	10
21	6		3191 Mapleleaf Drive	7
22	7		4393 Clearwater Way	12 (8)
23			5751 Briar Hill Rd, Building 19	12
Support				
			1375 Old Frankfort Pike	231-5615
			217 East Third Street	255-0845
			245 East Second Street	231-5672

Additional Companies	Special Info
205, 200, EC13, MA1, MA2,CP1	105' Ladder, Boats
201	Haz-Mat, 105' Ladder
RS1	
	95' Tower Ladder
	Haz-Mat
	Rescue Engine
	Rescue Engine
	Haz-Mat, 100' Ladder
204, EC11	
	Rescue Engine
203	ALS, Rescue Engine
BT1	
	ALS
202, MAB	ALS
	ALS
	ALS
	ALS
220, HM1, Decon Trailer	ALS, Haz-Mat, 105' Ladder
BT2	ALS, 105' Ladder
	95' Tower Ladder
E50	ALS, Haz-Mat, ARFF
rt	
Reserve Engines and Ladder	Training Center
	Fire Prevention Bureau
	Fire Investigation Office

**FIRE STATION
5 MILE SERVICE AREA**
Lexington, Kentucky



- 5 mile Buffer from Fire Station
- Fire Station
- Greater than 5 Miles from Fire Station (Driving Distance)
- Within 5 miles of Fire Station (Driving Distance)



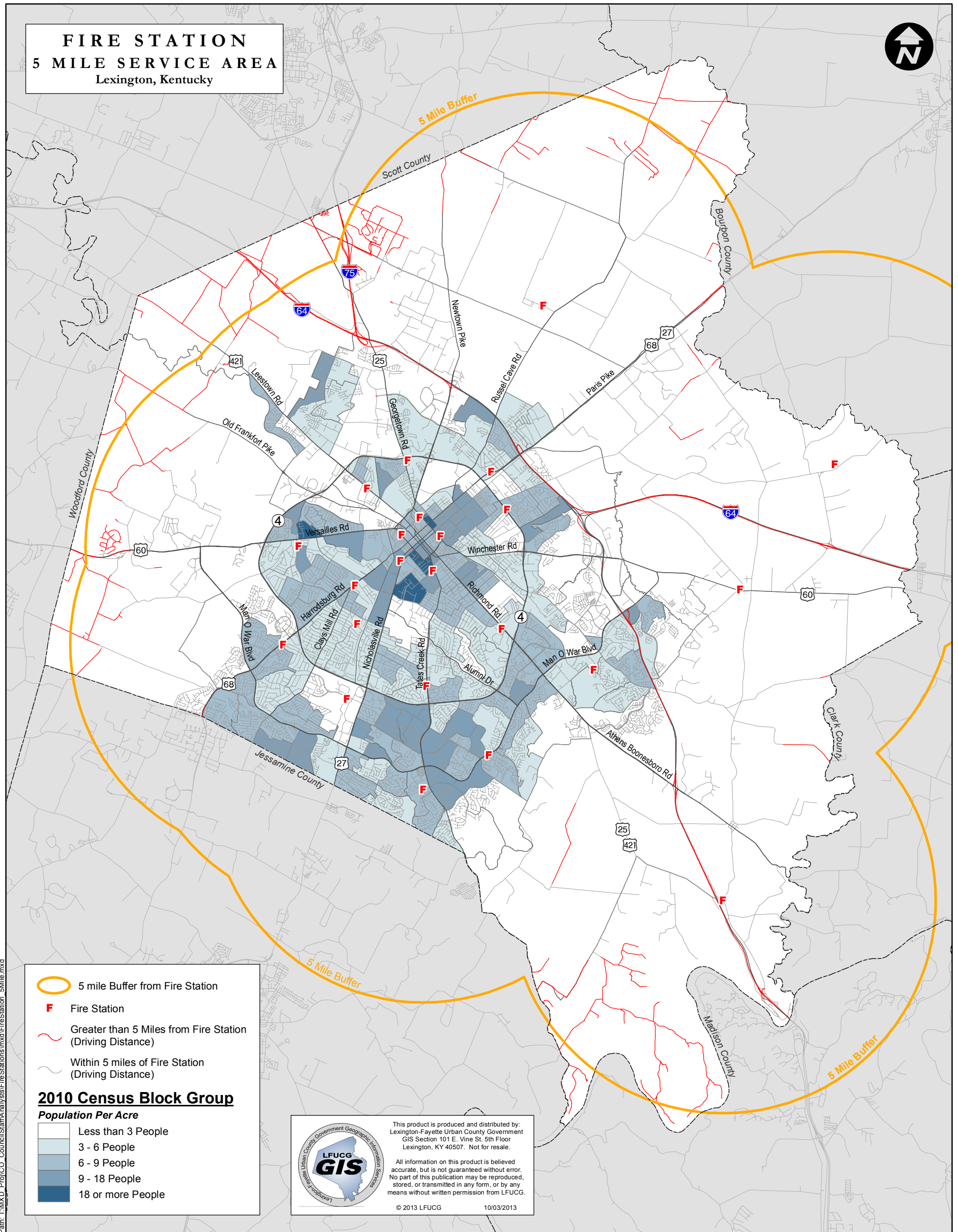


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FIRE STATION
5 MILE SERVICE AREA
Lexington, Kentucky



 5 mile Buffer from Fire Station

 Fire Station

 Greater than 5 Miles from Fire Station
(Driving Distance)

 Within 5 miles of Fire Station
(Driving Distance)

2010 Census Block Group
Population Per Acre

	Less than 3 People
	3 - 6 People
	6 - 9 People
	9 - 18 People
	18 or more People



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Emergency Preparedness

Division of
Emergency Management

Patricia L. Dugger, RS, MPA
Director
Division of Emergency Management



LEXINGTON FAYETTE
EMERGENCY MANAGEMENT

Emergency Management



Emergency Management Cycle

Emergency Management

- **Planning**
 - **Emergency Operation Plans (EOP)**
 - **ESF Plans - Approved 2012**
 - **Continuity Plans/ LFUCG**
 - **Recovery Plans**
 - **Donations Management Plan**
 - **Debris Management Plan**
 - **Point Of Dispensing Plan**
 - **Implementing procedures**
 - **Individual Agency Plans**



Support Plans

- Resource Management
 - Search & Rescue (SAR)
- School/Daycare
 - Special Needs
- Strategic National Stockpile (SNS)
- Health Department
- CHEMPACK
- ISP's

Emergency Management

- **Hazard & Risk Assessment**
 - Natural or Man Made
 - Predictable or Random
 - Accidental or Intentional
 - Criminal Act/Terrorism
 - Domestic or International



Risk Evaluation

- **Threat**
 - Likelihood of attack or occurrence
- **Vulnerability**
 - How likely will a system or assets become affected



Risk Evaluation

- **Identify Critical Systems**
 - **Networks**
 - **Transportation**
 - **Utilities**
 - **Health & Medical**
 - **Other Human Support**
- **Concentrate on Single Points of Failure**



Fayette County Risks

- **Weather**
 - Severe Thunderstorms
 - Hail/Tornadoes
 - Flooding
 - Blizzards/Ice Storms
 - Extreme Heat/Drought



Fayette County Risks

- **Other Natural Hazards**
 - Earthquakes
 - Dam Failures
 - Sinkhole/Karst Features
 - Mining Failures



Fayette County Risks

- **Hazardous Materials**
 - Transported by truck
 - Transported by rail
 - Transported by pipeline
 - Used in manufacturing



Fayette County Risks

- **BGAD Chemical Stockpile**
 - **Weaponized nerve and blister agents**
- **BGAD Conventional Stockpile**



Fayette County Risks

Domestic/International Terrorism Threats

- Public Events
- Transportation Corridors/Assets
- Fuel Storage/Hazmat Storage



Risk Evaluation

- **Consequence**
- **Negative effects on public health, safety, the economy, public confidence and function of gov't if systems are damaged, destroyed or disrupted.**



Emergency Management

- **Preparedness**
 - **General Public**
 - Individuals, Families, Neighborhoods
 - Businesses, Institutions
 - Special Needs Populations
 - **Response Agencies**
 - Training & Exercising
 - **Outreach and Notification Programs**
 - **Education and Awareness**

Fayette County Preparedness

- **Planning and Training**
 - **Monthly Coordinator Training**
 - **EM staff has extensive FEMA training**
 - **Continuous monitoring of weather, threats, local & regional events**
 - **Coordination with KYEM, other state/regional/national EMAs**



RESPONSE

- **Emergency Operations Center
 - Activated fully or partially
 - Develops & maintain situational awareness
 - Allocate resources and personnel
 - Conducts Damage assessment
 - Coordinates overall actions**



Emergency Operations Center

Command Staff

- EM Director, Assistant
- EOC Manager, Assistant
- Staff Coordinator
- Safety Officer
- Planning Chief
- PIO



Fayette County Preparedness

- Division of Emergency Management
Emergency Operations Center



KRS 39B.060 EOP

- Plan shall be developed pursuant to KRS 39A to 39F
 - Shall include provisions or procedures to assess, mitigate, prepare for, respond to and recover from all disaster or emergency incidents
 - Shall be submitted to the mayor following each regular election for approval through issuance of an executive order

Emergency Operations



ESF- 1, Transportation

Provides for coordination, control and allocation of transportation assets in support of the movement of emergency resources the evacuation of people; including movement of people and the routing of people and emergency resources.



Emergency Operations

ESF 1 - Transportation

- Lextran is the lead agency
- Coordinates with other transportation agencies & businesses
 - Fayette County Public Schools
 - Blue Grass Airport, Red Cross Wheels
 - Fedex, UPS,
 - LFUCG Fleet
 - Trucking Companies



Emergency Operations

ESF- 2, Communications/Alerting

Provides emergency warning, information and guidance to the public. Facilitates the requirements and resources needed to provide for backup capability for all means of communication.



Emergency Operations

ESF 2 - Communications

- Emergency Management is lead agency
 - Support from E-911, Police, Fire
 - Lexcall 311, United Way 211
 - Amateur Radio Emergency Services
 - Bluegrass Area Radio Society
 - Sprint/AT&T/Windstream/Verizon



Emergency Operations

ESF- 3, Public Works & Engineering



Provides for debris clearance, roads, highways and bridge repairs, engineering, construction, repair and restoration of essential public works systems and services, and the safety inspection of damaged public buildings.



Emergency Operations

ESF 3 – Public Works

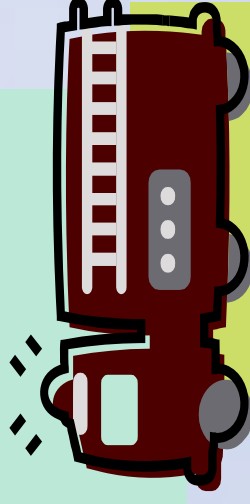
- LFUCG Public Works is lead agency
 - Coordinates other Lexington agencies
 - Parks, Water Quality, Waste Mgmt
 - Coordinates private sector construction & engineering firms
 - Coordinates with state & federal transportation offices



Emergency Operations

ESF 4 – Fire Services

Provides for mobilization and deployment of coordinated fire fighting resources to combat wildland, rural and urban fires, as well as supporting hazardous materials incidents; provides incident management assistance for on-scene incident command and control operations.



Emergency Operations

ESF 4 - Fire

- Division of Fire/EMS is lead agency
 - Supporting agencies
 - Blue Grass Airport
 - Lexington Police
 - DEM Community Emergency Response Team
 - Fayette County Coroner
 - Red Cross



Emergency Operations

ESF 5 – Emergency Management

Provides for the overall management and coordination of the jurisdiction's emergency operations and the EOC. Collects, analyzes and disseminates critical information on emergency operations for decision making purposes.



Emergency Operations

ESF 5 – Emergency Management

- DEM is lead agency
 - Supporting agencies
 - Local Disaster Emergency Service Org.
 - Hazard Mitigation Steering Comm.
 - Fayette Emergency Planning Comm.
 - Police, Fire, E911, LFUCG Divisions
 - Fayette Health Dept., Healthcare Facilities
 - Utilities, County Extension



Emergency Operations

ESF 5 – Emergency Management

Priorities

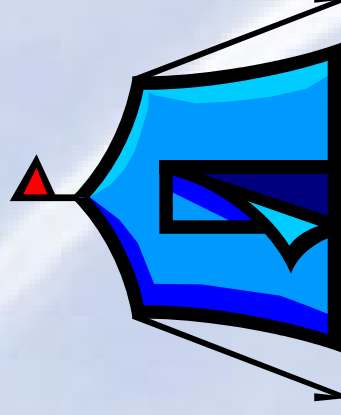
- Ensure maximum use of local resources to save lives, protect the environment and minimize property damage
- Implement standard reporting system
- Provide training & exercise program
- Provide action planning & resource tracking



Emergency Operations

ESF 6 – , Mass Care, Emergency Assistance, Housing and Human Services

Manages and coordinates sheltering, feeding, and first aid for disaster victims. Provides for temporary housing, food, clothing, and special human needs in situations that do not warrant mass-care systems.



Emergency Operations

ESF 6 – Human Services

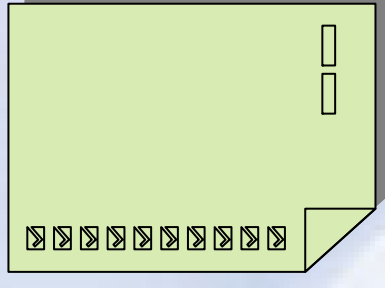
- Dept. of Social Services is lead agency
 - Supporting agencies
 - Red Cross
 - God's Pantry
 - Lexington Police/Fayette Sheriff
 - Fayette County Public Schools
 - Salvation Army, Faith based orgs.
 - Lexington Humane Society



Emergency Operations

ESF 7 – Resource Support

- DEM is primary agency
 - Supporting agencies
 - All transportation agencies (ESF 1)
 - Volunteer Organizations (VOAD)
 - LFUCG Computer Services
 - LFUCG Facilities & Fleet Services
 - Faith based organizations
 - Communications (ESF 2)
 - Law Enforcement (ESF 13)



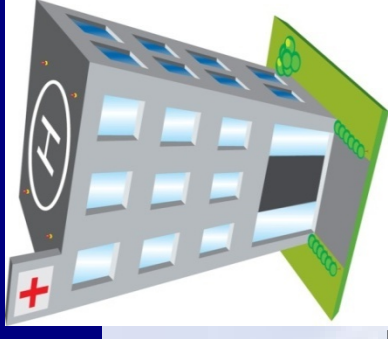
Emergency Operations

ESF 7 – Resource Support

Coordinates the acquisition of resources through mutual aid agreements and procurement procedures for all functional areas/groups, as needed; provides for coordination, warehousing, movement, and documentation of personnel, equipment, supplies, facilities, and services used during disaster response and relief operations.



Emergency Operations



ESF 8 – Health and Medical

- Fayette County Health Dept is lead agency
 - Supporting agencies
 - Lexington Fire & ES
 - University of Kentucky Medical Centers
 - St. Joseph Hospital system
 - Veterans Administration Hospitals
 - Salvation Army, Faith based orgs.
 - Mental Health Agencies



Emergency Operations

ESF 8 – Health and Medical

- Supporting agencies
 - Cardinal Hill Rehabilitation Center
 - Ridge Behavioral Health System
 - Ambulance Services
 - Assisted Living Centers
 - Long Term Care Centers
 - Kentucky Blood Center



Emergency Operations

ESF 8 – Health and Medical Services

Coordinates care and treatment for the ill and injured. Mobilizes trained health and medical personnel and other emergency medical supplies, materials and facilities. Provides public health and environmental sanitation services, disease and vector control, and the collection, identification, and protection of human remains.

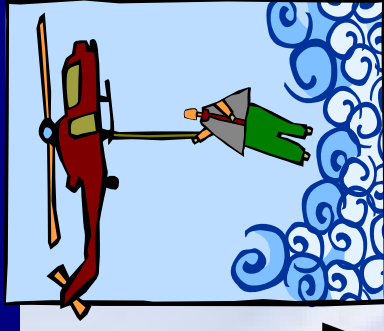


Emergency Operations

ESF 9 – Search and Rescue

- Division of Fire/EMS is lead agency

- Supporting agencies
 - Lexington DEM and Police
 - LFUCG Environmental Quality/Public Works
Traffic Engineering
 - Red Cross
 - Fayette County Coroner
 - State/Federal Agencies



Emergency Operations

ESF 9 – Search and Rescue

Provides resources for ground, water, and airborne activities to locate, identifies, and removes from a stricken area, persons lost or trapped in buildings and other structures. Provides for specialized emergency response and rescue operations.



Emergency Operations



ESF 10 – Hazardous Materials

- Division of Fire/EMS is lead agency
 - Supporting agencies
 - Bluegrass Emergency Response Team
 - Lexington Police
 - Fayette Local Emergency Planning Comm.
 - DEM/LFUCG Environmental Quality,
Public Works
 - Kentucky Utilities



Emergency Operations

ESF 10 – Hazardous Materials

Provides response, inspection, containment and cleanup of hazardous materials accidents or releases.



Emergency Operations

ESF 10 – Hazardous Materials

Priorities

- Provide decontamination response in case of chemical/biological event
- Monitor/assist with response to event involving radiological/nuclear materials/weapons



Emergency Operations



ESF 11 – Agriculture

- Univ. of Ky Cooperative Ext. is lead agency
 - Supporting agencies
 - Fayette Animal Care and Control
 - Bluegrass Stockyards
 - Fayette Cooperative Extension 4-H Club
 - Keeneland
 - Kentucky Farm Bureau
 - Fayette Health Department



Emergency Operations

ESF 11 – Agriculture

Priorities

- Pet & livestock welfare
- Damage assessment & surveillance
- Quarantine protocols
- Resource prioritizing/rationing
- Bio-Security & decontamination
- Animal search & rescue



Emergency Operations



ESF 12 – Utilities

- KU, KAWC, Columbia Gas, Windstream are primary coordinating agencies
 - Supporting agencies
 - Blue Grass Energy
 - Clark Energy
 - Columbia Gas Transmission
 - Time Warner Cable

Emergency Operations

ESF 12 – Utilities

Priorities

- Coordinate with private sector to ensure emergency repair and restoration of critical utilities
- Coordinate rationing/distribution of emergency power/fuel as needed
- Support response efforts



Emergency Operations



ESF 13 – Law Enforcement

- Lexington Police is lead agency
 - Supporting agencies
 - E-911, Corrections, Fayette Sheriff
 - DEM, Facilities & Fleet Management
 - UK & Transylvania, VA Police
 - Kentucky State Police
 - Federal Law Enforcement (FBI, ATF, etc.)



Emergency Operations

ESF 13 – Law Enforcement

Priorities

- Maintains law and order
- Protects life and property
- Establishes required traffic control
- Assists with evacuations
- Coordinate crowd control
- Security activities



Emergency Operations

ESF 14 – Long Term Recovery



- Emergency Management is lead agency
 - Supporting agencies
 - All ESF groups
 - All LFUCG Departments
 - Commerce Lexington
 - Local utilities
 - State agencies – Econ. Development
 - FEMA



Emergency Operations

ESF 14 – Long Term Recovery

Priorities

- Transition from short-term response to long-term recovery activities
- Address economic stabilization
- Identify issues/measures to eliminate or reduce risk from future emergencies



Emergency Operations

ESF 15 – Public Information

- DEM is the lead agency
 - Supporting agencies
 - LFUCG
 - Government Communications
 - Police, Fire&ES
 - Environmental Quality
 - Fayette County Health Department
 - Local Media



Emergency Operations

ESF 15 – Public Information

Coordinates the Joint Information System, manages the Joint Information Center and coordinates with all Public Information Officers



KRS 39A

- “Disaster & Emergency Response” the performance of **all emergency functions**.... direction & control, incident management, communications, fire protection, police services, medical and health services, search, rescue & recovery, alert & warning, resource management, public works, hazardous materials management, excavation, emergency welfare, damage assessment, hazard analysis, etc.....

Response

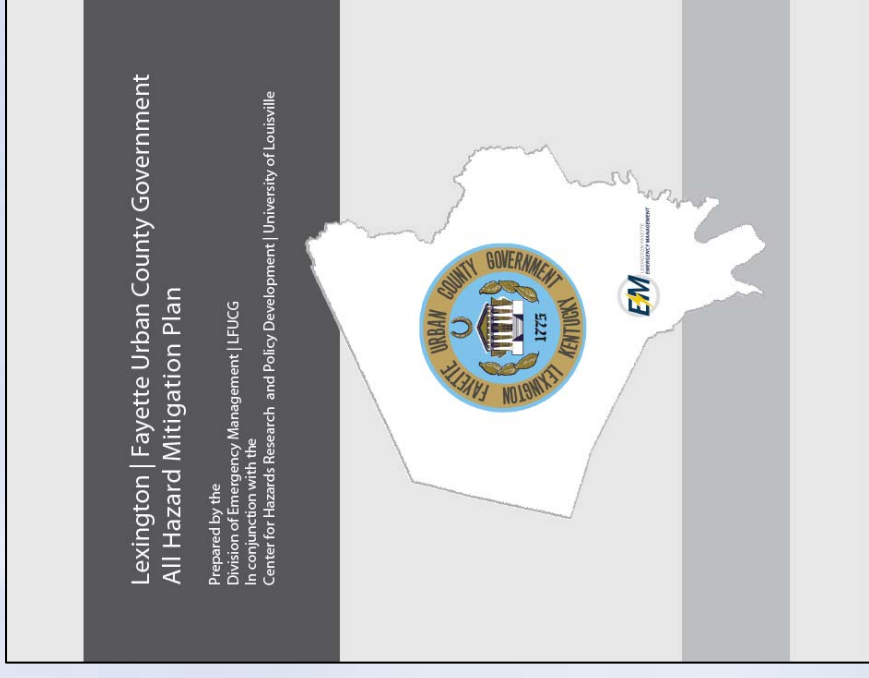
- Alert & Notification Systems
 - 27 Outdoor Warning Sirens
 - Emergency Notification System
 - AM 1620 Radio
 - Alertus Beacons
 - Twitter
 - Facebook
 - Websites

RECOVERY

- Short Term
- 0-60 days
 - Immediate needs
 - Power
 - Water
 - Food,
 - short term shelter,
 - short term continuity of lives
- Long Term
- > 60 Days
- Rebuild
 - Lives
 - Community
 - Economy
 - Social Systems

What is Mitigation Planning?

- The effort to reduce loss of life and property by lessening the impact of disasters.
- **Mitigation Plans** form the foundation for a community's long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction, and repeated damage.



Benefits of Mitigation Planning

- Identifying cost effective actions for risk reduction.
- Focusing resources on the greatest risks and vulnerabilities.
- Increasing education and awareness of hazards and risk.
- Communicating priorities to state and federal officials
- Aligning risk reduction with other community objectives.
- Building partnerships by involving people, organizations, and businesses.

Mitigation Planning

- **Storm water and flood management plan**
- **Greenways master plan**
- **All-hazards mitigation and prevention plan**

Flood Mitigation

- Building buyouts & demolition
- Regional storm water management
- Home flood proofing program
- Flood map updating
- Flood insurance & the community rating system



Emergency Preparedness

Division of
Emergency Management

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Director
Division of Emergency Management



Public Safety Committee Referrals

ITEM	REFERRED BY	DATE	STATUS
Compiling a List of Safe Places People can go in Times of Weather or Emergency Needs	Farmer	3/17/12	
Abandoned Housing	Myers	4/10/12	
Tenant Transition and Household Disposal	Ford	2/12/13	08/13/2013, 10/15/2013
Division of Police Home Fleet Policy	Stinnett	4/16/13	05/07/2013, 11/05/2013
Project Life Saver Presentation	Henson	7/2/13	09/10/2013
Smart 911 Presentation	Henson	7/2/13	09/10/2013
E911 Structural Budget Imbalance	Henson	8/27/13	09/10/2013
DEM Emergency Preparedness	Public Safety Link	8/22/13	11/05/2013
Fire Station Locations and ISO Ratings	Public Safety Link	8/22/13	11/05/2013