

Whitestown Fire Department

5-Year Growth Plan



Whitestown Fire Department 5-Year Growth Plan

Summary

Staffing and Capital Items

- Increase fulltime firefighter staffing from 9 firefighters to 21 firefighters
- Increase daily staffing from 5 FTE's to 9 FTE's
- Purchase and place in service 1 aerial truck
- Acquire property and build Station 72 in southwestern area of town
- Replace Tanker
- Replace Grass Rig
- Implement annual replacement of one staff vehicle

Budget Impact

- Potential 54% increase in operating budget
- \$1.5M to \$2.5M capital expenditures over 10 to 20 years

Rationale

- Projected run increase 600 to 1,600 responses
- Insurance Service Organization (ISO) public protection classification
- National Fire Protection Association NFPA 1710
- OSHA Respiratory Protection Standard 1910.134(g) (4) (two-in two-out rule)
- Growth Forecast
- Location of high and medium hazard occupancies
- Location of responses

Expanded Services

- Emergency Medical (Advanced Life Support ALS)
- Fire Prevention and Plan Review
- Fire Investigation
- Public Education
- Fire Corp and Volunteer Program
- Explorer Program

Introduction

The following pages contain the Whitestown Fire Department's (WFD) strategic five year plan. The plan was drafted after an assessment of the department's current state, a comparative evaluation using as benchmarks the National Fire Protection Association (NFPA) 1710; Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments and the Insurance Service Office (ISO) Fire Suppression Rating Schedule for Determining Public Protection Classifications. An internal Strength, Weakness, Opportunity and Threat (SWOT) analysis was completed (Attachment A).

Our overarching goal is to improve firefighter safety and the level of public safety protection we provide as cost effectively as possible. This plan is drafted in an effort to leverage and build upon strengths and opportunities in order to shore up weaknesses and reduce threats. We hope to move closer to NFPA compliance while reducing the department's ISO classification from a 7/9 to a 5/8.

Current State - Town of Whitestown

The Town of Whitestown which was one square mile in 2000 has grown to eleven square miles in 2012. The Town's street miles have increased 1,467%, from 3 miles to 44 miles. The Town has two large industrial properties on the east and west sides of Interstate 65 known as Anson and Perry Industrial Park. Larger commercial tenants include Amazon.Com, Express Scripts, Subaru, LaCrosse Footwear, and Pitney Bowes.

The Town's population has increased dramatically in the last decade. The 2000 census counted 471 residents, the 2010 census was 2,867 residents, the estimated 2012 population is 3,410, and the estimated 2017 population is 8,727. The population increase from 2000 to current results in a 724% increase. The Town's day time population grows another 2,000 to 4,000 employees.

In 2010 and 2011, a new apartment complex was built consisting of 12 three-story buildings. A new travel center opened at the I-65 and SR 267 interchange. Ground has been broken for a 4-story hotel with 92 rooms. Construction has begun for a new apartment complex to add 7 three-story buildings. The Town has several large residential developments: Walker Farms which has over 500 homes and another 600 platted lots; Eagles Nest with over 350 homes and another 350 platted lots; Clark Meadows 200 platted lots; and Maple Grove 90 platted lots.

The Town's growth is reflected in its net assessed valuation (NAV). The 2007 NAV was \$55.3 million; the 2013 NAV is projected at \$293.7 million, a 531% increase. The growth in the 2013 NAV compared to the 2012 NAV is 15.3%. Based upon these population and property growth projections it is likely that the WFD will respond to nearly 1,600 incidents in 2017.

Current State – Whitestown Fire Department

The WFD provides fire suppression; public education; non-transport, basic life support, emergency medical (EMS) services; and limited, fire code / building planning. These services are provided primarily to the residents, workers and visitors to the Town of Whitestown and Worth Township and in a mutual aid capacity to Perry Township, Lebanon and Zionsville. EMS transport and advanced life support (ALS) or paramedic services are provided by Boone County EMS and Zionsville Fire Department. Specialty rescue such as confined space and hazardous materials response are provided by mutual aid partners. WFD provides service utilizing two engines and nine fulltime firefighters. A significant amount of staffing hours are provided by part time firefighters (21,840 hours in 2012). The department also houses an engine, tanker, grass rig and ambulance that are not staffed.

Firefighters respond 24 hours a day seven days a week, on a single engine from Station 71, (2975 S. 575 East) and from a single engine 8:00 AM to 8:00 PM, seven days a week from the Witham facility at Anson. WFD is on pace to respond to just under 600 emergency runs in 2012. These runs are near evenly divided between the areas served by Station 71 and Station 72 (auxiliary). Approximately 70% of responses are for emergency medical services.

The department's administration consists of one fulltime Fire Chief, a part time Deputy Chief and three part time Division Chiefs. Departments include Administration, Operations, Support Services, and EMS/Special Rescue. Part time chiefs receive a salary and provide a minimum of 16 working hours a week. They also rotate as the On Call Duty Officer.

Analysis

Our data shows 60 % of our emergency incidents occur outside of the recommended National Fire Protection (NFPA) standard for response time; these are responses outside of a two-mile radius around Station 71. (Attachment B.) Various studies have shown that a residence fire can double in size every one to two minutes. An overwhelming majority of the Town's commercial and multi-residential properties are outside of Station 71's district. This discrepancy will grow as the majority of development is expected to occur within this underserved area. Interstate 65 and its associated risks are also outside of the recommended response time area.

WFD cannot meet the standard for delivery of the required number of personnel to the scene of a working incident as per NFPA 1710. The standard requires that a minimum of 13 firefighters arrive within eight minutes from time of dispatch. Current station location and number of on-duty firefighters each factors in our inability to meet this standard (Attachment C.)

Station location and lack of an aerial truck are the reason for failure to meet a third national standard. This is for the recommended number and type of apparatus for all occupancy types. The standard requires a minimum of two engines and an aerial within a specified period of time. An aerial truck would also carry the equipment necessary for vehicle extrication (Attachment D.)

The lack of an aerial truck, a second station and sufficient staffing are weaknesses that result in our current Insurance Service Organization (ISO) public protection classification. WFD is classified as a 7/9 compared to the Lebanon and Zionsville ratings of 5.

NFPA and ISO are used here as a standard of measurement and to identify gaps in our current provision of services. The recommendations for improvement in this report are not made to ensure 100% compliance with NFPA or to assure the lowest possible ISO score. Rather they are common sense steps necessary to improve the service provision to our constituency and to increase safety for our firefighters. A five-year plan to build a properly located, second station, (Attachment E), increase staffing and purchase an aerial truck will sufficiently close existing gaps.

Future State – Whitestown Fire Department

The vision for WFD in 2017 is one in which we improve our capability to provide fire suppression; public education; emergency medical (EMS) services; and fire code / building planning. Fire suppression activity will be enhanced through additional staffing, suitably located and responding with the appropriate apparatus. Public Education will be better as we add public CPR and first aid training and continue to build upon our community outreach programs. EMS will grow with the addition of a paramedic program and ambulance service for special events. Fire code and building planning will improve with the implementation of an annual inspection program and regular pre-planning.

In 2017 we envision that the department will have doubled its fulltime firefighters to 21 personnel and that part time hours will increase from 21,840 hours worked annually to 27,600 hours worked annually. This increase will provide 24/7 staffing for 2 engines and an aerial truck responding from two fire stations.

The chart below shows the annual recommended number of fulltime firefighters and staffing increases for years 2012 through 2017. This reflects 6 firefighters on duty each day in years 2013 and 2014, 7 in 2015, 8 in 2016, and 9 firefighters on duty each day in year 2017. The chart also shows the replacement or acquisition of department vehicles. This includes an aerial purchase in 2013, the replacement of the tanker in 2014, the grass rig in 2015 and a staff vehicle each year 2014 through 2017. Property acquisition for Station 72 is shown in year 2013 and the construction of the station in 2014.

	Year	2012	2013	2014	2015	2016	2017
		Current	1	2	3	4	5
Fulltime Firefighters		9	12	15	15	18	21
Part Time Hours		21,840	23,280	15,960	24,720	26,160	27,600
Administrators Fulltime		1	1	1	2	2	2
Administrators Part Time		4	4	4	2	2	2
Engines		3	3	3	3	3	3
Trucks		0	*1	1	1	1	1
Grass Rig		1	1	1	*1	1	1
Tanker		1	1	*1	1	1	1
Ambulance		1	1	1	1	1	1
Staff Vehicles		6	6	*6	*6	*6	*6
Fire Station(s)		1	1	2	2	2	2
Property for Station		0	1	0	0	0	1
* Indicates new purchase or replacement							

Also included is a spreadsheet that shows the impact on the Fire Department's operating budget years 2012 through 2017. These figures do not include all funding for capital purchases.

Budget Impact		2012	2013	2014	2015	2016	2017
	Group 1	1,142,200	1,382,904	1,505,185	1,631,364	1,790,719	1,918,291
	Group 2	87,312	87,000	89,610	92,298	95,067	97,919
	Group 3	298,740	217,220	223,737	230,449	237,362	244,483
	Group 4	96,362	156,300	160,989	165,819	170,793	239,111
	Total	1,624,614	1,843,424	1,979,521	2,119,929	2,293,942	2,499,803

Capital Summary Timeline

2013 Aerial Purchase, Land Acquisition Station 72
 2014 Construction Station 72, Purchase of Tanker and (1) Staff Vehicle
 2015 Purchase of Grass Rig and (1) Staff Vehicle
 2016 Purchase of (1) Staff Vehicle
 2017 Purchase of (1) Staff Vehicle

Attachment A

(SWOT) Analysis

Strengths

- Personnel
- Capital Assets
- NAV Growth
- Political Support
- Hospital Affiliations
- Diversity

Weaknesses

- Aerial Truck
- Facilities
- Staffing
- ISO Public Protection Classification
- Lack of Economic / Capital Plan
- Boone County Communication
- Prevention Program
- EMS Transport
- SCBA
- Experience

Opportunities

- Paramedic / EMS Growth
- ISO Review
- Developer / Community Partnerships
- Fire Prevention / Public Education Expansion
- Volunteerism / Explorers
- Leadership Organization

Threats

- NFPA Shortfalls
- Department Debt
- TIF's / Abatements
- Lack of Automatic Response Partners
- Zionsville Encroachment
- Witham Relationship
- Succession Planning

Attachment A continued

The primary strength of WFD is its young, diverse, motivated and enthusiastic workforce. This is demonstrated by the additional responsibilities assumed by our membership, participation in the promotional process, employee retention, attraction of firefighters from neighboring departments, number of applicants and volunteering of off duty hours. Current capital assets are in good condition (Attachment F). Station 71 is located satisfactorily for provision of service to the Town's north side. The three fire engines and the ambulance are new enough and with low enough operational hours that they will not need replacement in the next five years. Staff vehicles have been upgraded in 2012. A replacement schedule of one vehicle per year will begin in 2014. Other vehicles to be replaced in the five year planning period are the tanker and grass rig, scheduled for replacement in 2014 and 2015.

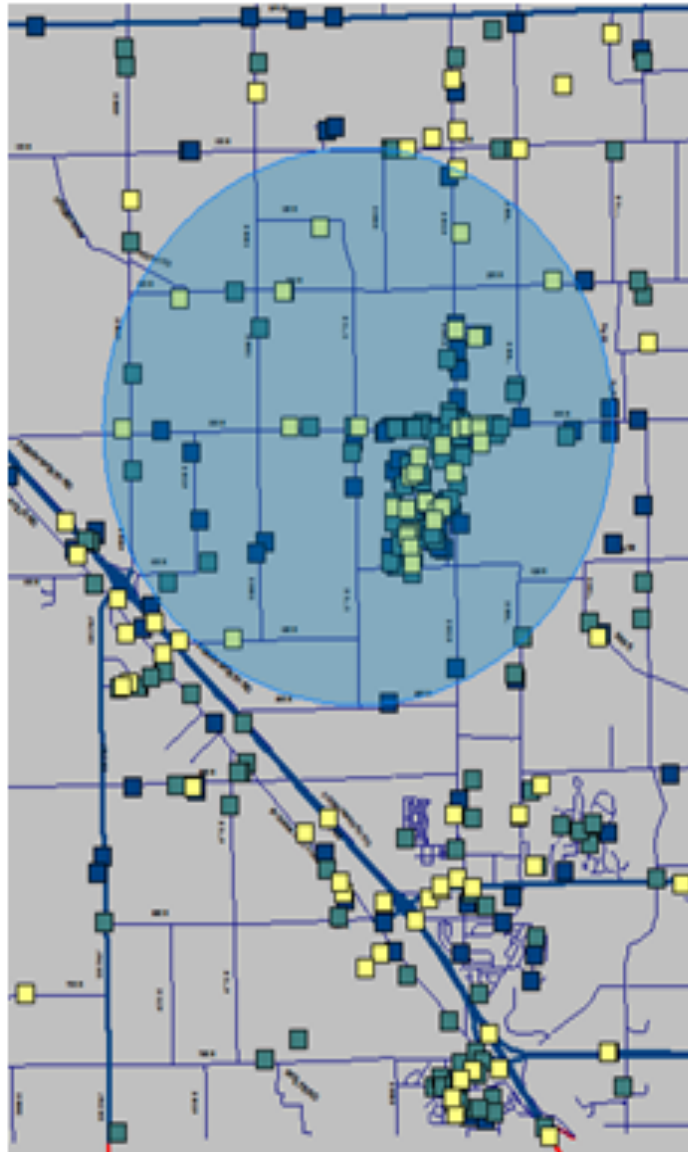
The lack of an aerial truck, a second station and sufficient staffing are weaknesses that result in our current Insurance Service Organization (ISO) public protection classification. WFD is classified a 7 / 9 as compared to the Lebanon and Zionsville rating of 5. ISO requires an aerial truck whenever a jurisdiction has more than five, 3-story buildings that are more than 35 feet tall. ISO also requires multiple engines and personnel at **high and medium hazard occupancies**. These are defined as schools, hospitals, nursing homes, high-rise buildings, apartments, and offices, mercantile and industrial buildings. The National Fire Protection Association (NFPA 1710) standard requires that 13 firefighters be on scene of a fire within the first eight minutes from time of the 911 call. With current staffing levels and station location, the department does not meet NFPA 1720, 4.3.2, "Staffing and Response Time" requirements in our first response area during evening hours and when both engine companies are not in service. We are also unable to dedicate the required personnel according to OSHA Respiratory Protection Standard 1910.134(g) (4) which addresses the two-in two-out rule. Given that this 5-Year Capital plan is the first step towards the generation of a more comprehensive economic and capital development plan; in the absence of compliance, the lack of such plan is an additional vulnerability for our department. Interstate 65 and its associated risk are an additional motivation for a station location in the more southern part of Whitestown and the need for an aerial truck. The aerial truck is necessary as it can be equipped to carry the specialized rescue equipment needed for highway responses.

There is an opportunity for the department to reduce its ISO classification. The last ISO assessment took place in 2002. Departments are eligible for reassessment every two years. WFD has requested an ISO reassessment during the first quarter of 2013. It is expected that staffing, equipment and hydrant improvements achieved since 2002 will result in an improved rating. Improved staffing, purchase of an aerial truck and a new station would allow for a second reassessment in 2015 or 2016, again lowering the department's rating. This would lower insurance premiums for town residents and the owners of all commercial properties. Opportunities also exist to expand and develop more robust EMS, Fire Prevention and Education and volunteer programs. These in turn should continue to foster our community outreach and partnerships. Although EMS programs will be expanded, the provision of emergent ambulance transport is not contemplated during the next five years (Attachment G.)

The greatest threat to our fire department is a negative outcome related to non-compliance with NFPA standards. These negative outcomes are amplified when a community does not conform to accepted national standards and/or lacks a plan to reach conformance. This does not set an expectation for immediate or short term solutions, only that gaps be identified and plans put in place to move towards compliance. Immediate fixes are difficult given the department's debt structure, (a \$1.5M, 20-year note for acquisition of Station 71, apparatus and equipment, plus assumption of Worth Township's emergency loans.) This requires annual payments of \$122,000. Property tax caps, abatements, tax increment financing districts and a desire to maintain the property tax rate create additional limitations on available revenue. These limitations are offset in part by the Town's Net Assessed Valuation (NAV) growth projected to be more than 15 percent in 2013.

Representation of Response Locations 2010 to 2012

4-minute Response
Profile



Percentage of Incidents within 4 minute response of Station 71:	40%
Percentage of Incidents greater than 4 minutes:	60%

Attachment C

Response Time Averages for Incidents in Station 72's District:

Engine 71 Responding to District 72: 9.2 Minute Avg. (High - 17 minutes / Low - 4 minutes)

Engine 72 in Service in District 72: 3.5 Minute Avg. (High - 7 minutes / Low - 1 minute)

2011 Statistical Incident Data

Total Incidents: 586

Fire Incidents: 201

EMS Incidents: 385

Station 71 District Incidents: 264

Station 72 District Incidents: 255

Aerial Needs Assessment

Justification

An aerial device is recommended when the number of buildings within the jurisdiction is beyond the reach of existing fire department ground ladders.

Section 540 of the Insurance Services Office (ISO) Fire Suppression Rating Schedule states, "[R]esponse areas with 5 buildings that are 3 stories or 35 feet or more in height, or [have] 5 buildings that have a Needed Fire Flow greater than 3,500 gpm, or any combination of these criteria, should have a ladder company."

- The Town of Whitestown currently has over 32 buildings that will meet or exceed the three-story, thirty-five foot reach requirement including the townhomes and apartments in Anson as well as the apartments at Westhaven.

The Fire Suppression Rating Schedule (FSRS) of the ISO states that all sections of the community that are hydrated should be within 2.5 road miles of a fully functioning aerial company. Also, the ISO will not give credit for mutual aid aerials more than 5 road miles outside the requesting agencies service district. We would not receive ISO credit for an aerial through automatic aid with any of our neighboring departments due to distance.

Additionally, the National Fire Protection Association's Fire Protection Handbook recommends the following response patterns:

- **High-hazard occupancies** (schools, hospitals, nursing homes, high-rise buildings): at least four pumpers, two ladder trucks, and other specialized apparatus as may be identified or available for the hazard.
- **Medium-hazard occupancies** (apartments, offices, mercantile and industrial occupancies not normally requiring extensive rescue or firefighting capabilities): at least three pumpers, one ladder truck, and other specialized apparatus as may be identified or available.
- **Low-hazard occupancies** (one-, two-, or three-family dwellings and scattered businesses and industrial occupancies): at least two pumpers, one ladder truck, and other specialized apparatus as may be identified or available.

Of primary concern, several structures within our service area exceed the capabilities of our current ground ladder complement. Not only do we lack an efficient means for accessing trapped occupants but we also, in many cases, will simply lack the ability to provide immediate ventilation for the protection of our firefighters and victims, this also limits our ability to slow the fires progression.

Recommendation

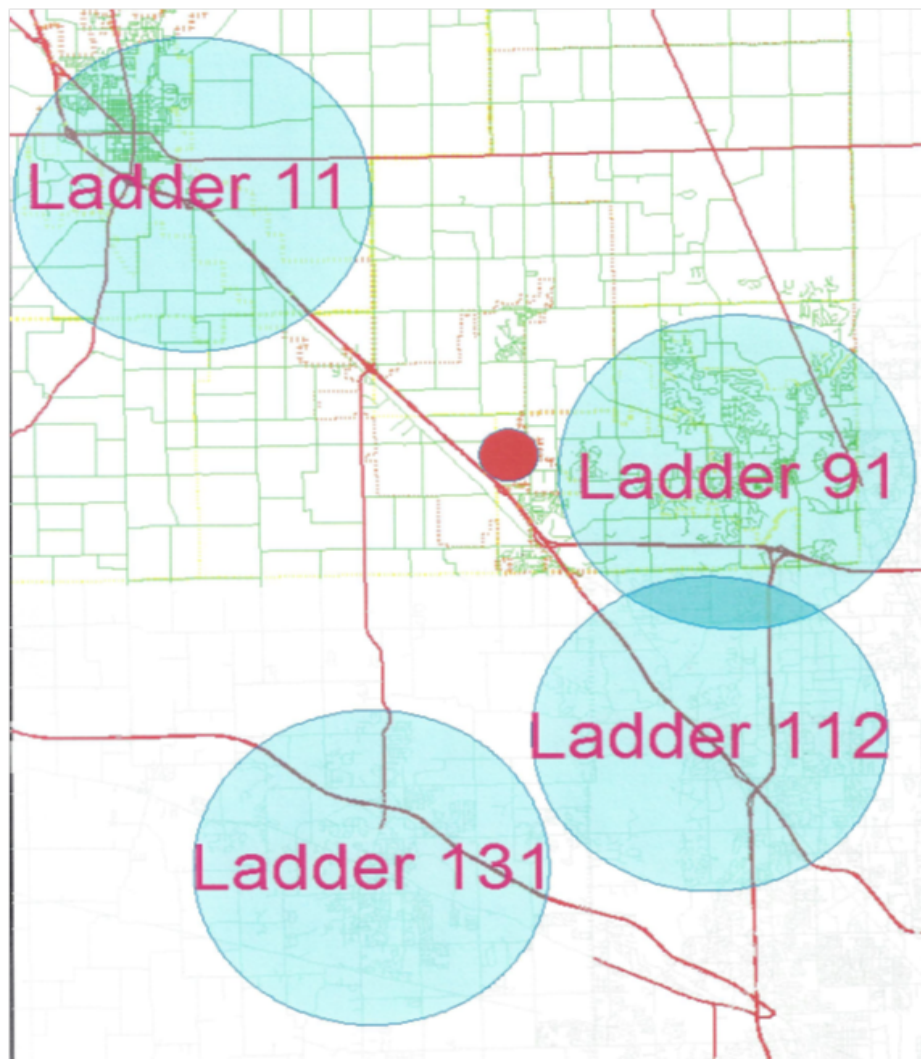
Based on our objective analysis as well as standards set forth by ISO and NFPA we recommend the immediate purchase of an apparatus with an aerial device for the Whitestown Fire Department service area. The purchase of an aerial will provide for improvements in the following areas:

- **Firefighter Safety-** We believe the purchase of an aerial will significantly increase our firefighters overall safety and efficiency both on the fire ground and at the scenes of tactical events.

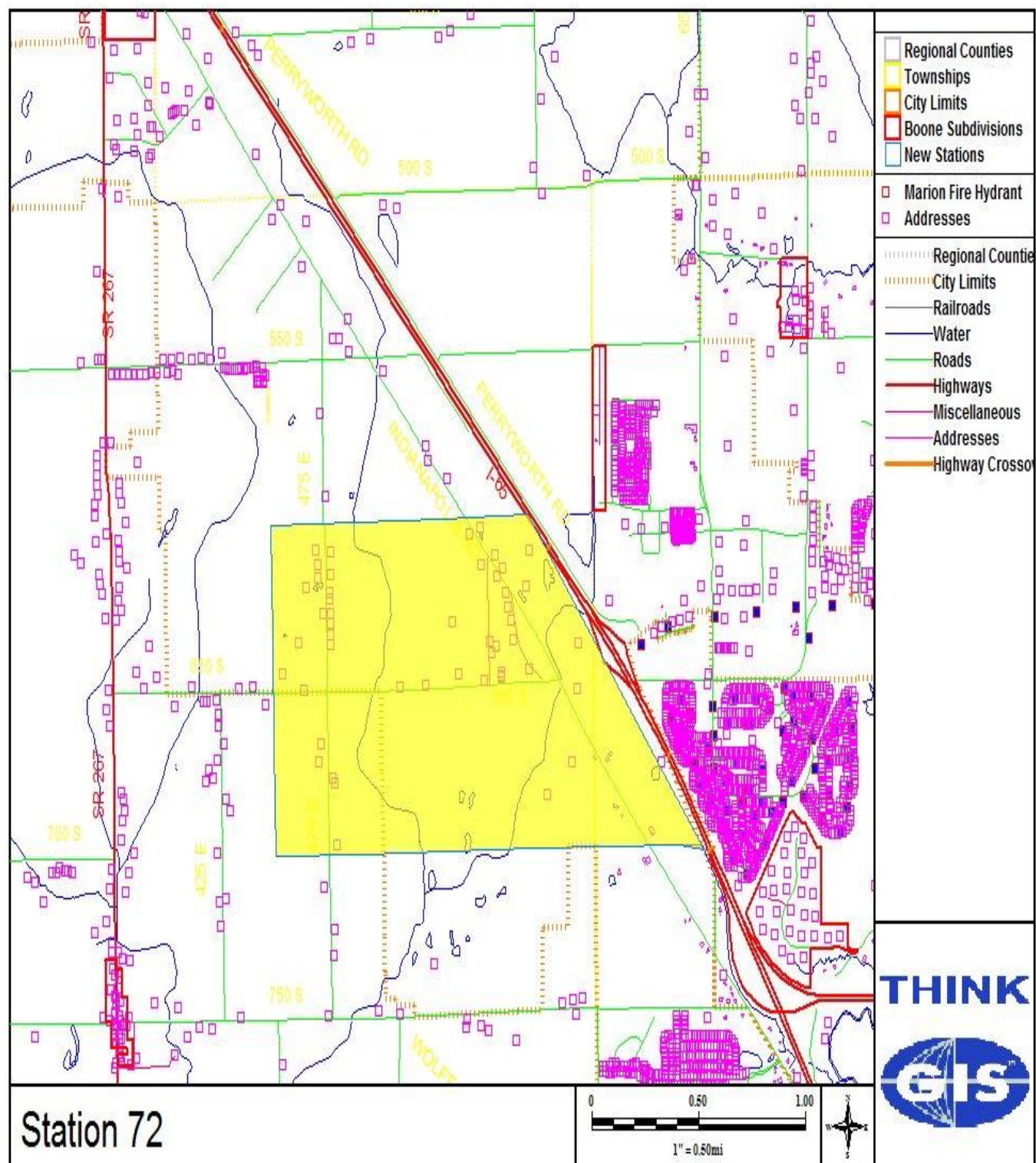
Attachment D Continued

- **Delivery of Service-** Our overriding incident objectives are to protect lives and save property. Simply put, the more efficient we become at responding to and mitigating incidents the more effective our efforts will be in reaching these objectives.
- **Provide a Much Needed Town and County Resource-** Boone County currently has only two aerial devices, Lebanon and Zionsville. Neither is in any position to respond into the areas in question within the prescribed time frame of five minutes established by ISO.

Current Aerial Ladder Locations



Recommended Location Area for Station 72



Whitestown Fire Department Vehicle Inventory

<u>Unit</u>	<u>Year</u>	<u>Acquired</u>	<u>Make</u>	<u>Model</u>
E71	2005	2005	Pierce	Contender
E72	2010	2010	Pierce	Freightliner
E73	1989	2009	Pierce	Arrow
GR71	1984	Unknown	GMC	Sierra 3500
AM71	2004	2004	Ford	Horton/E450
C7701	2008	2012	Ford	Expedition
C7702	2008	2012	Ford	Explorer
C7703	2006	2009	Ford	Crown Vic
C7704	2004	2012	Ford	Crown Vic
C7705	2004	2004	Ford	Expedition
Pool				
71	2005	2012	Ford	Crown Vic
TN71	1995	LFD	GMC	McGinnley
TAC71	1988	2009	Ford	Salsbury

Attachment G

Evaluation of Transport Billing for the Whitestown Fire Department EMS

Summary: Based on run data, and comparisons from neighboring departments, the following demonstrates the anticipated gain/loss of EMS transport for the WFD. There are many non-monetary benefits associated with fire-based EMS, not the least of which is the ability to focus on the customer and not bottom line profitability. Staffing the transport unit with WFD firefighters allows flexibility in keeping employees trained equally and to the level that we expect, as well providing consistency with our medical direction and quality control. Providing EMS transport service can offset the cost of hiring new firefighter/EMTs by utilizing the same personnel to cover both EMS and fire calls. Cross-staffing multiple pieces also benefits employees by eliminating stagnation and demanding a higher level of training and involvement. Overall, the quality of patient care can improve dramatically when transport service is consolidated within the fire department.

Projected data for 2012 indicates that costs would exceed generated revenues for 24/7 ALS transport by approximately **\$172,349**. To reach a fiscal break-even point will require a 300% increase in EMS transports. Based on the current estimate of .06 transports per capita; Whitestown's population would need to grow to 13,500 residents to realize a net profit.

Methodology: Neighboring communities were used for sample data. Based on the Zionsville FD rate, the lowest of any department in the area, a fee of \$350 was applied to BLS and \$600 to ALS. This is lower than other agencies in Marion or Hamilton County, only slightly above Medicare rates. Expendable supply costs and EMS collection service fees were based on Jackson Twp., Hamilton Co. as they have a very similar demographic, population and run load. Projected run data and budget figures from Whitestown Fire Department were used for applicable data estimates. Finally, expected collection rates, ALS/BLS proportions and transport estimations were gathered from Jackson Twp., Zionsville and Fishers Fire Departments.

Run Data: Based on 2012 run statistics, the Whitestown Fire Department responds to an average of 322 EMS runs annually. For these calculations we approximate 80% of the EMS calls are transports and those are split 70/30 between ALS and BLS. That gives us a current run load of 258 transports, 180 ALS calls and 78 BLS calls. Of the total projected run load for 2012, 62% are EMS (the percentage used to account for personnel and operations costs.). Finally, with a current population of 4500, there are approximately 0.06 transports per capita.

2012 Costs:

*Transport costs (fuel, maintenance, etc.) can be offset by loaded mile billing

Personnel costs (62% of actual)	\$236,721	(total cost \$487,059)
Service costs (fuel & maintenance)	\$20,000	
Expendable supplies	\$10,000	
EMS Billing service (7% of collection)	\$7,103	
Total Costs	\$273,824	

2012 Revenue:

ALS Billing (@75% collection, \$600 ea.)	\$81,000
BLS Billing (@75% collection, \$350 ea.)	\$20,475
Total Revenue	\$101,475

Break-even forecast @ 62% calculations – requires a 300% transport/population increase.

Population 13,500 = 810 transports (567/243)

ALS Bill = \$255,150 BLS Bill = \$63,788

Net Gain - \$2,780