



ROBERT N. SHELTON
CHIEF ADMINISTRATIVE OFFICER

June 4, 2015

CHIEF ADMINISTRATIVE OFFICER REPORT 2015-04

TO: Committee of the Whole
SUBJECT: CYFS – Fire Department Master Plan Update
ORIGIN: CAO

RECOMMENDATIONS

THAT CAO Report 2015-04 dated June 4, 2015 regarding CYFS – Fire Department Master Plan be received and that in keeping with the Joint Council Committee approval recommendation of April 7, 2015 the Fire Department Master Plan Update be approved.

COMMENTS

Attached as Schedule A is a report from Chief Laing in response to requests for further information on the Fire Department Master Plan Update (FDMPU) raised at the Council Workshop held earlier this year.

By way of background and as Council may recall, the FDMPU has been approved by the Joint Council Committee (JCC) and the Council of the Town of Aurora. A separate item, Corporate Services Report – Financial Services #2015-10 has been included on this Committee of the Whole agenda as a response to questions that arose at the JCC meeting on April 7, 2015.

Council on April 20, 2015 approved the following recommendation (excerpt):

“...and that the budget for the role of Assistant Deputy Chief be approved and that the hiring of an Assistant Deputy Chief be deferred pending approval of the Master Fire Plan and an opportunity for the Joint Council Committee to review the scope of the role of the Assistant Deputy Chief position as well as the role of the Chief Training Officer;”

The Fire Chief presented the requested information to JCC on June 2, 2015 and JCC subsequently adopted the recommendation that the hiring of an Assistant Deputy Chief proceed as recommended by the Fire Chief and as supported through the FDMPU. The JCC minutes are also included on this Committee of the Whole agenda.

Staff are recommending the approval of the FDMPU which will guide both municipal Councils, JCC and Central York Fire Services in the provision of fire prevention and protection services for

the foreseeable future. Upon adoption, the Fire Chief will immediately initiate the process to hire an Assistant Deputy Chief.

BUSINESS PLAN AND STRATEGIC PLAN LINKAGES

This initiative supports the Community Vision: being Well Equipped and Managed – efficient management of municipal services to meet existing and future operational demands. It also supports this term of Council's Strategic Priorities – Efficiency / Financial Management – Ensuring effective and efficient services.

CONSULTATION

The FDMPU public information session was held on January 8, 2015. A Council Workshop was held on February 17, 2015 and consultation has taken place with and approval given by the Town of Aurora Council and the Joint Council Committee.

HUMAN RESOURCE CONSIDERATIONS

Not applicable to this report.

BUDGET IMPACT

Operating and Capital Budgets

Further information is contained in Corporate Services Report – 2015-10 (also on the Committee of the Whole agenda of June 15, 2015).

CONTACT

For more information or clarification on the contents of this report, contact Bob Shelton, CAO bshelton@newmarket.ca or Ian Laing, Fire Chief ilaing@cyfs.ca.



for Bob Shelton
Chief Administrative Officer



CENTRAL YORK FIRE SERVICES

2015-05-26

Fire Services Information Report

To: CAO Bob Shelton
Origin: Fire Chief
Subject: Master Fire Plan Information

COMMENTS

This report was generated to address questions which arose at the Master Fire Plan Workshop held in Newmarket on February 17, 2015. Dillon Consulting representatives Steve Thurlow (Fire Services Consultant) and Suzanne Charbonneau (P.Eng) presented information from the 2014 Fire Department Master Plan Update (FDMPU) in an effort to provide members of Newmarket Council with information to assist with decision making related to current and future CYFS deployment.

BACKGROUND

With the creation of CYFS in 2002, the primary response area changed from two separate communities to one larger combined response area for the fire service.

Central York Fire Services currently has four fire stations located in the primary coverage area with two stations in each community. Traditionally fire stations are centrally located in their response area, which permits fire crews to deploy in a number of different directions. The benefit of optimal station locations is the maximizing of each station's coverage area and is an effective method to strive towards meeting the service levels outlined in the Master Fire Plan.

The 2008 Master Fire Plan identified industry standard practice response times and recommends CYFS strive to achieve the levels of service contained in the document. The report indicated CYFS, at that time, was not meeting the Council approved level of service and conveyed ***"In order to make significant improvements to the response times, a fifth fire station, located in the vicinity of Yonge Street and St. John's Sideroad may be needed."*** (C.17 Building and Facilities - Page C 13)

The 2014 FDMPU outlined the current service level of community coverage as well as options, which would assist the CYFS goal of achieving the established level of service. The report also identified changes in the minimum response standards (time and resources) written in NFPA 1710 (National Fire Protection Association). This national standard specifies requirements for “effective and efficient organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by career fire departments to protect citizens and the occupational safety and health of fire department employees”.

RESPONSE SERVICE LEVELS

The current service level standard used by CYFS for the first arriving fire truck was established in 2008 by the JCC, taking into account other response standards that were in place at the time. (Ontario Office of the Fire Marshal and NFPA 1710). The 2014 FDMPU recommends moving to the NFPA 1710 response model. The alternative service level listed in the chart below shows an additional increase of ten seconds to the response criteria had the ability to improve the arrival percentage by 10%.

Response Service Level	Transaction Time	Turnout Time	Travel Time	Total Response Time	Goal	Achievement
Current CYFS Standard	-- seconds	-- seconds	-- seconds	360 seconds (6 minutes)	90%	63.7%
NFPA 1710	60 seconds	80 seconds	240 seconds	380 seconds (6 min. 20 sec)	90%	70.3%
Alternative Service Level	60 seconds	90 seconds	240 seconds	390 seconds (6 min. 30 sec)	90%	74%

STAFFING LEVELS

CYFS has minimum staffing language embedded in the Collective Agreement and the department is obligated to maintain five apparatus (each with four fire suppression staff, including the Officer) and a Platoon Chief for a total of 21 suppression staff on duty. Currently, CYFS has a total of 124 suppression staff, with each platoon complement set at 31 firefighters including a Platoon Chief. When there are insufficient numbers of firefighters on duty the added flexibility of the staffing model allows CYFS to move from six apparatus to five apparatus and avoid additional staffing costs.

DEPARTMENT COMPARISON

It is extremely difficult to conduct a direct comparison of fire services provided by other municipalities, as a number of factors can influence the ability to provide all the services mandated, within set time parameters. These factors can have a direct impact on the required staffing and number of stations in any jurisdiction. Some of the factors that influence station location and staff deployment may include the age and type of building stock in a community, natural barriers to emergency access, population density and the total service area protected. "Attachment A" contains basic community and fire service information from CYFS and nine other Ontario Fire Departments. While the document outlines the geographic area of the community, population, number of fire stations, response time target, numbers of support staff and suppression staff, it is very difficult to draw direct comparisons based solely on this very general data. One notable point is the majority of these communities strive to achieve the response time benchmarks as defined by the Ontario Office of the Fire Marshal or the NFPA 1710 standard which is proposed in the 2014 FDMPU.

CALL VOLUME

Call volume data was provided in the FDMPU for the previous five-year period; however, there was a request to provide emergency call volume data covering a longer period of time. "Attachment B" includes emergency call volume data covering the eleven-year period from 2004 to 2014.

In 2008 there was a highpoint in emergency calls to 4945. York Region EMS subsequently made revisions to the tiered dispatch protocols, which has resulted in a reduced call volume for medical incidents. CYFS have shown that we are a value added service for this type of response. We are well trained, properly equipped and appropriately located to make a difference in the outcome of a serious medical emergency.

LEVEL OF RISK

The CYFS mandate for fire protection services is delivered to the residents of Aurora and Newmarket in line with the guidelines from the Ontario Fire Marshal's Office. Over the past two years the staff of CYFS have undertaken the Stay Fire Smart program. This has resulted in over 17,000 homes receiving public education material related to working smoke alarms and fire escape planning. This program assists CYFS in getting the message out to residents regarding their responsibilities for fire safety and how to protect their families. Our goal is to have suppression crews visit 8,000 homes each year and continue to spread the fire safety message. Smoke alarms are mandatory in

the province and now carbon monoxide alarms are as well and this public safety information is included in the material distributed. Fire Safety begins at home with a well-educated public and CYFS continues to work towards that goal by distributing fire safety education materials to residents annually.

During the Council workshop a question was raised concerning the risk level in north Newmarket compared to the central part of the communities relating to the comparative number of homes in each area. A request was presented to Newmarket GIS and they have provided data relating to the number of homes located in the “red zones” which represents greater than 5 minutes travel time on the “Existing Initial Response” map. (Attachment “C”)

In Aurora, the “red zone” represents approximately 2784 existing residences from east of Bathurst Street from the municipal boundary to Henderson Road. This area contains St. Andrews College Boarding School, Devins Drive Public School and Our Lady of Grace Catholic Elementary School.

In Newmarket, the “red zone” in the north west quadrant has approximately 792 residences with an additional 257 being built in the next year. In the “red zone” area north of Davis Drive, between Yonge and Leslie Streets there are approximately 2212 residences and the area includes Denne Public School.

From a numbers perspective, the existing difference between Aurora and Newmarket is approximately 220 residences plus any new builds.

The information from GIS did not include the “red zone” area in the centre of the two communities, which will be the primary response area for the proposed fifth fire station. The area currently being developed along St. John’s Sideroad to Leslie and the 2C lands in Aurora have not been factored into this GIS report, nor have Glenway and the Toth farmlands in Newmarket. The maps provided by Dillon Consulting (Attachments “C” & “D”) clearly show a new fire station will have direct and positive impact to both Newmarket and Aurora residents and reduce initial response times in the central area of the communities.

The rationale to have a fifth fire station placed in the central area of the two communities was identified in the 2008 Master Fire Plan. Placement of the new station adjacent to a north/south corridor roadway enhances coverage north into Newmarket as well as the south into Aurora. The response time for the first arriving fire apparatus will be reduced in the central area by having a new fire station optimally located.

An additional benefit of a centrally located fifth fire station is the bolstering of the department’s depth of response. This current level of service also relates to having multiple (3) fire apparatus (12 firefighters) arrive at an emergency scene to enhance response capability within a ten minute timeframe. Attachments “E” & “F” show data that

supports the depth of service concern as the centrally located fire station would be closer to all four corners of the response area. This station would get the required resources to an emergency scene quicker than the current four-station model. This data was generated with Google maps and does not represent the capability of fire apparatus to exceed the speed limit and legally proceed through red lights once the way is clear. The amount of time listed in the chart does not accurately reflect the response time a fire apparatus would take to arrive on scene, but rather how the distance from an incident may effect travel time. ***(This chart is for demonstration purposes only and not an accurate reflection of CYFS response times)***

To show the ability to respond and form part of the initial response team, the data included in Attachment “F” indicates that a fire crew responding from a suitably located fifth fire station should be the second or third apparatus to arrive at an emergency incident anywhere in the primary response area. To meet the current CYFS standard this is the minimum number of fire apparatus that are required to meet the service level and deliver 12 firefighters to the incident within ten minutes. The fifth fire station will assist CYFS to strive to meet the service level guidelines approved by Council. By maintaining the current four-station deployment model, there are significant challenges to meeting this requirement, which may have an effect on the results at an incident and the health and safety of those involved.

The north central area of Newmarket presents some timely response concerns and initial plans for enhanced coverage in that area were included in discussions with Hemson Consulting. The recent Development Charge study supports funding for a sixth fire station to be located in north Newmarket. Upon receiving direction from the JCC, the CYFS could move to address response issues in the north area of Newmarket by planning to build a sixth station sooner than originally planned.

CONTACT

Fire Chief Ian Laing

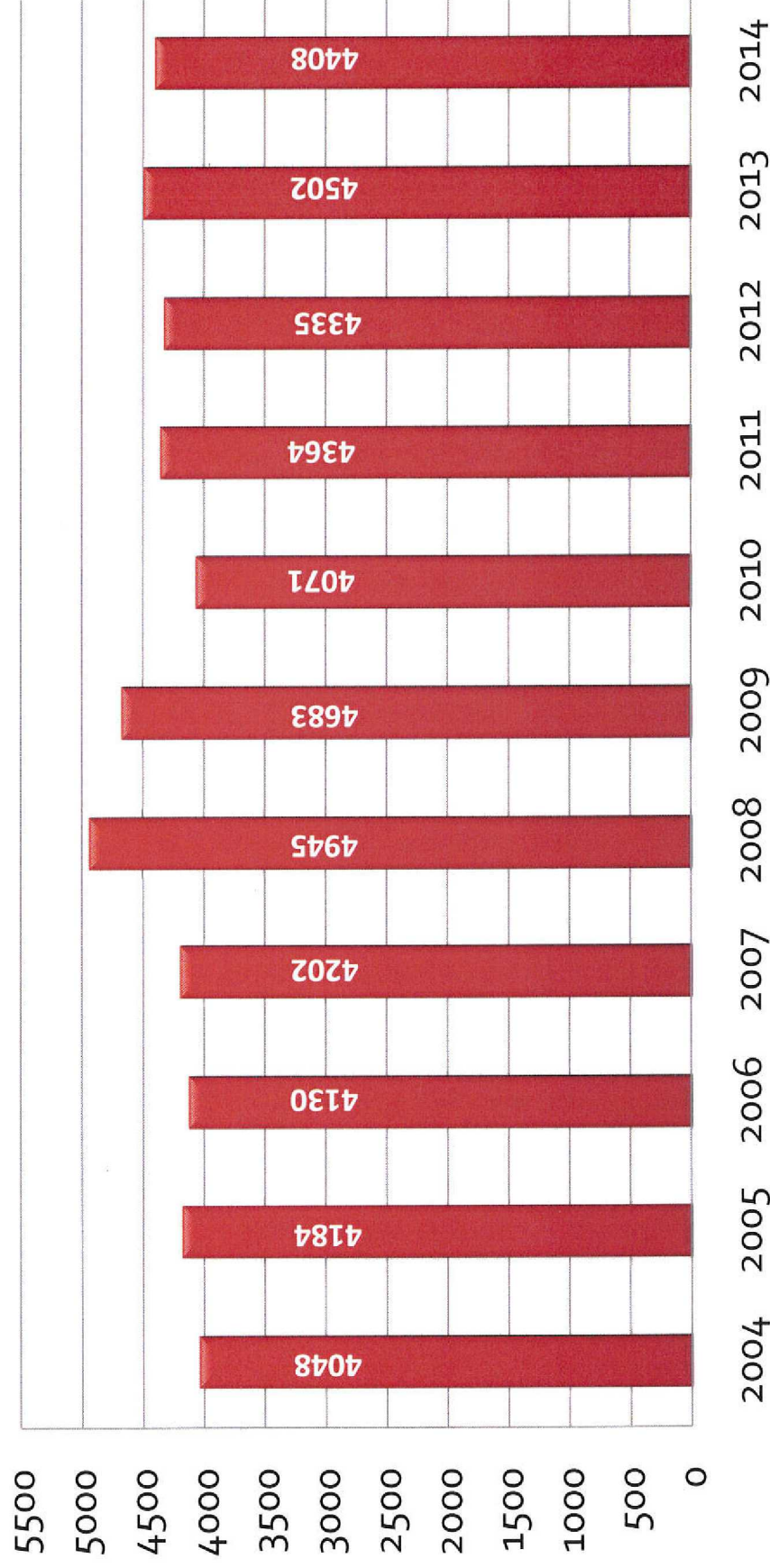
Ian Laing, Fire Chief
Central York Fire Services

Fire Services Comparators Information

“ATTACHMENT A”

Municipality	Population	Area (km2)	Fire Stations	Response Target (1 st truck)	Admin Staff (excl. chiefs) (per 10,000)	Prevention Staff (per 10,000)	Training Staff (per 10,000)	Suppression Staff (per 10,000)	Total Staff (per 10,000)
Barrie	141,000	101	5	6 min travel time	4 (.28)	8 (.57)	5 (.36)	144 (10.21)	161 (11.42)
Cambridge	134,000	110	5	6 min	3 (.22)	6 (.44)	1 (.08)	112 (8.34)	137 (10.22)
Guelph	122,000	87	6	6 min 30 sec	3 (.25)	6 (.49)	2 (.16)	148 (12.13)	171 (14.02)
Kitchener	233,700	138	7	8 min (fires) 7 min (EMS)	8 (.34)	16 (.68)	3 (.13)	182 (7.78)	228 (9.76)
Oshawa	152,000	150	5	6 min 20 sec	5 (.33)	10 (.66)	3 (.20)	161 (10.59)	200 (13.16)
Oakville	190,000	138	8	6 min 20 sec	6 (.32)	11 (.58)	5 (.26)	204 (10.74)	226 (11.89)
Markham	339,000	212	9	6 min 20 sec	3 .09	14 (.41)	5 (.15)	240 (7.08)	278 (8.20)
Richmond Hill	190,917	101	6	6 min 30 sec	3 (.16)	9 (.47)	3 (.16)	140 (7.33)	172 (9.01)
Vaughan	316,765	274	10	7 min	4 (.12)	15 (.47)	4 (.13)	287 (9.06)	331 (10.45)
CYFS	145,000	88	4	6 min	4 (.28)	6 (.41)	2 (.14)	124 (8.6)	139 (9.59)

Emergency Response Data 2004-2014



Proudly Protecting Aurora and Newmarket

ATTACHMENT "C"

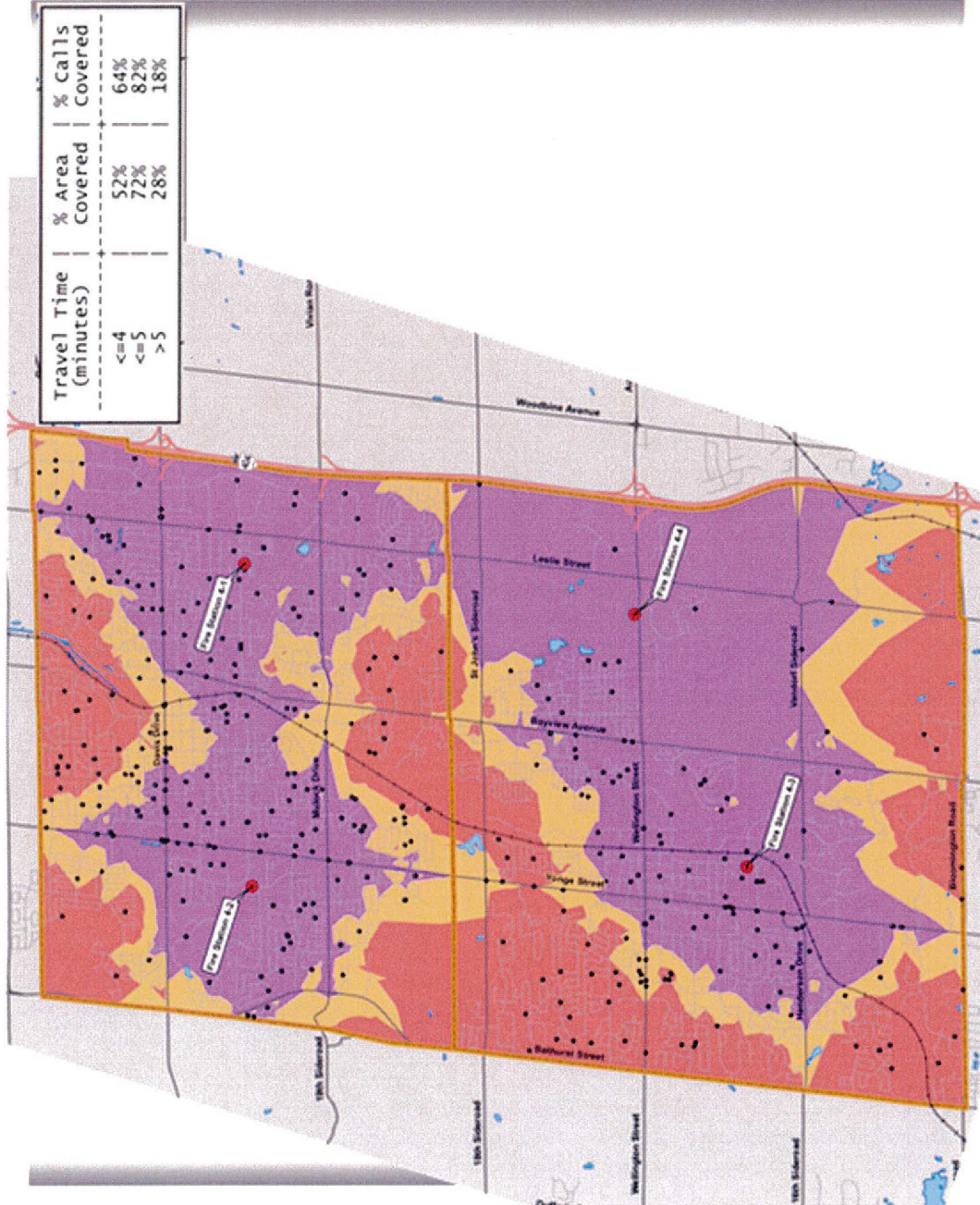
16

Existing Initial Response

TRAVEL TIMES

- < = 4 Minutes @ Network Speed
- < = 5 Minutes @ Network Speed
- > 5 Minutes @ Network Speed

"NFPA 1710: Initial arriving company, minimum of 4 firefighters responding within 4 minutes travel time to 90% of incidents"



ATTACHMENT "D"

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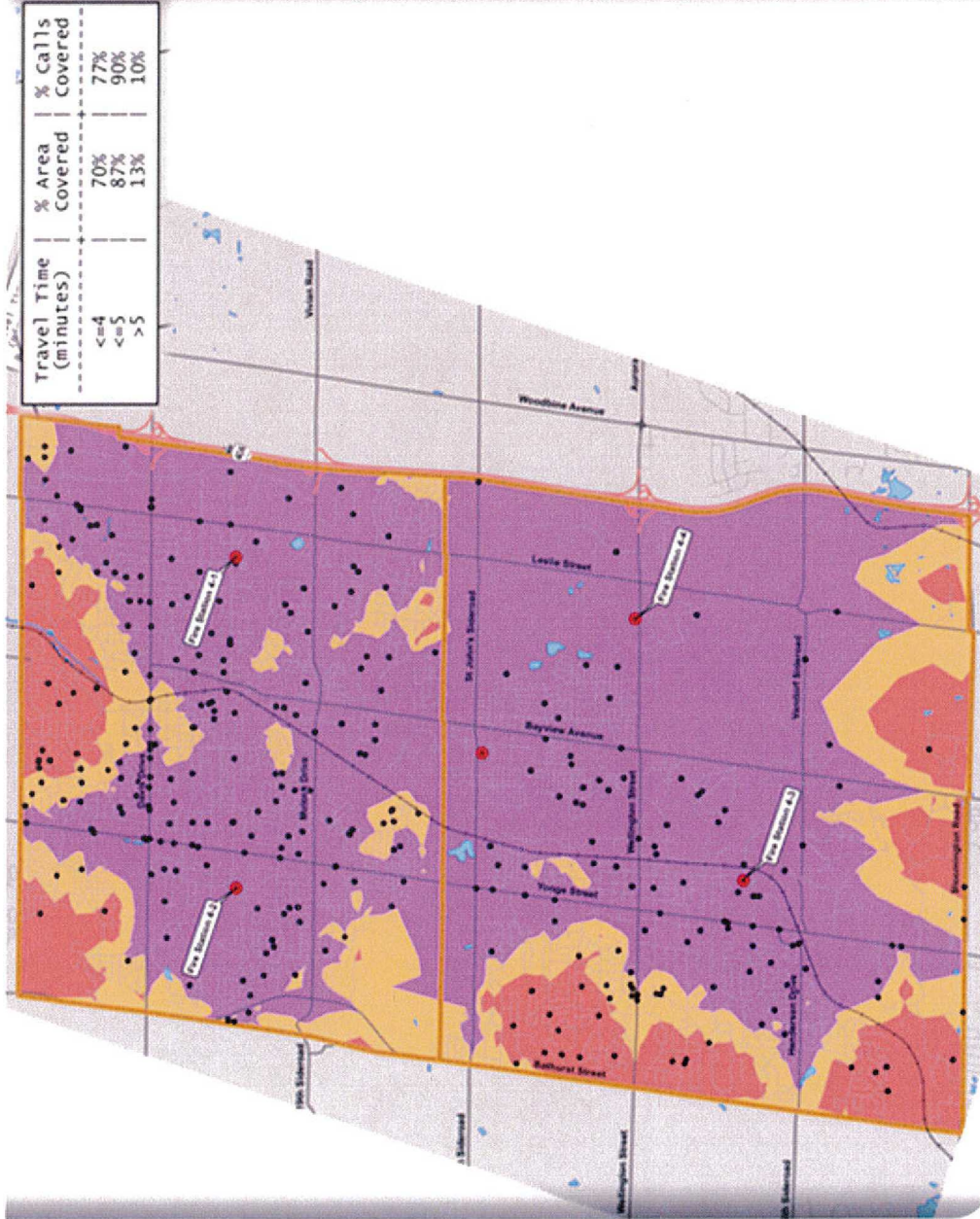
Existing Initial Response – 5 Stations

- Historical Fire Calls (2009-2012)
- Fire Station
- Highway

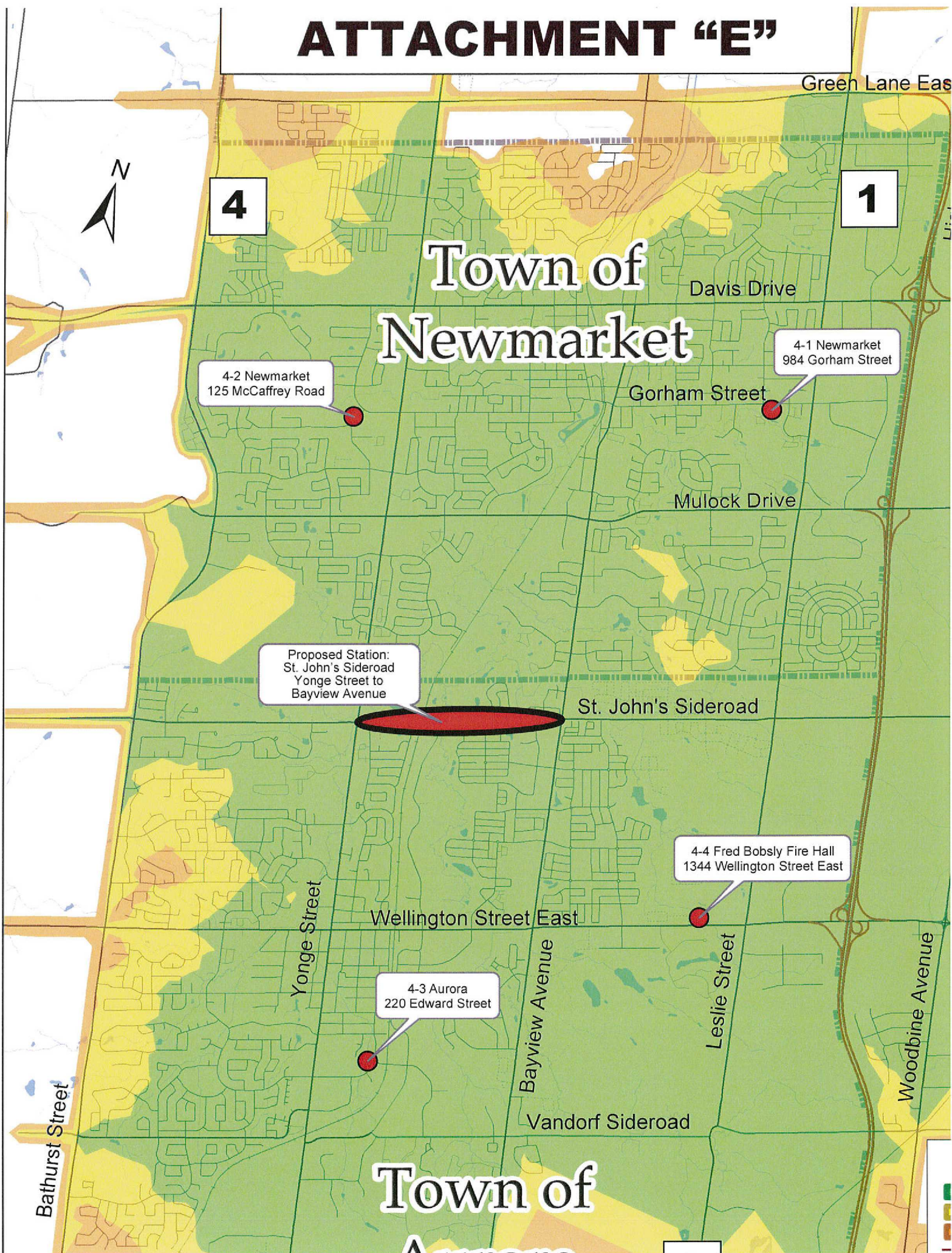
TRAVEL TIMES

- < = 4 Minutes @ Network Speed
- < = 5 Minutes @ Network Speed
- > 5 Minutes @ Network Speed

"NFPA 1710: Initial arriving company, minimum of 4 firefighters responding within 4 minutes travel time to 90% of incidents"



ATTACHMENT "E"



Estimated Driving Time

ATTACHMENT “F”

MAP	FROM	TO	DISTANCE	TIME
1	Station 4-1	Leslie Street & Ringwell Drive	3.1 km	5 minutes
	Station 4-2	Leslie Street & Ringwell Drive	7.2 km	13 minutes
	Station 4-3	Leslie Street & Ringwell Drive	12.8 km	19 minutes
	Station 4-4	Leslie Street & Ringwell Drive	8.3 km	12 minutes
	Station 4-5 - 15900 Bayview Avenue	Leslie Street & Ringwell Drive	8.3 km	11 minutes
2	Station 4-1	Leslie Street & Bloomington Sideroad	9.9 km	12 minutes
	Station 4-2	Leslie Street & Bloomington Sideroad	13.9 km	18 minutes
	Station 4-3	Leslie Street & Bloomington Sideroad	6.3 km	7 minutes
	Station 4-4	Leslie Street & Bloomington Sideroad	4.7 km	6 minutes
	Station 4-5 - 15900 Bayview Avenue	Leslie Street & Bloomington Sideroad	7.9 km	9 minutes
3	Station 4-1	Bathurst Street & Bloomington Sideroad	16.2 km	20 minutes
	Station 4-2	Bathurst Street & Bloomington Sideroad	11.9 km	15 minutes
	Station 4-3	Bathurst Street & Bloomington Sideroad	5.5 km	8 minutes
	Station 4-4	Bathurst Street & Bloomington Sideroad	10 km	13 minutes
	Station 4-5 - 15900 Bayview Avenue	Bathurst Street & Bloomington Sideroad	10 km	13 minutes
4	Station 4-1	Bathurst Street & Woodsprings Avenue	7.5 km	13 minutes
	Station 4-2	Bathurst Street & Woodsprings Avenue	3.5 km	6 minutes
	Station 4-3	Bathurst Street & Woodsprings Avenue	11.2 km	16 minutes
	Station 4-4	Bathurst Street & Woodsprings Avenue	13 km	16 minutes
	Station 4-5 - 15900 Bayview Avenue	Bathurst Street & Woodsprings Avenue	9.7 km	11 minutes

This document accompanies the map identified as ATTACHMENT “E” This is NOT an accurate reflection of emergency response driving time