

FIRE COMPANY

SUBCOMMITTEE

REPORT

The Upper Deerfield Township Sub-Committee, along with the fire chiefs from the three fire companies, has for the past four years engaged in discussions and evaluations of the need for and costs of supporting the three local volunteer fire companies. The discussions and evaluations were prompted by rising costs associated with replacing aging equipment as well as facility obsolescence as will be necessary to accommodate modernized equipment. The analysis upon which the sub-committee's recommendation took into account the need for equipment upgrades, the adequacy of station buildings to accommodate equipment upgrades, the number of qualified firefighters in each of the three companies, cost of equipment and facility maintenance including costs of equipment certifications, and response times from station consolidation.

As of January 1, 2023, Upper Deerfield is being served by three volunteer companies: Station 31, Station 32 and Station 33. There are five "Pumpers" and two suppression vehicles equip the three stations. Those Pumpers range in age from the oldest at 34 years to the newest at 12 years. It is anticipated that within the next year one new pumper will be encumbered for purchase and a second pumper will need to be replaced in the next five to ten years. The estimated cost of replacing a Pumper today is approximately \$1,000,000.00 to \$1,200,000.00.

Station 31 is the newest of station buildings having been built in or about 1987. Station 33 was built around 1976, Station 32 is the oldest of all the station buildings having been built in or about 1929 and was upgraded in 1955. The Station 32 building is at its maximum in accommodating the existing firefighting equipment and is the least suitable to accommodate new/replacement equipment.

The objectives of the Township sub-committee and three Company Fire Chiefs in conducting their analysis was:

- to evaluate the proper amount of equipment to serve the Township.

- to reduce the amount of duplicated and/or redundant equipment in the Township.

- better utilize the spending of funds due to the increasing cost of new vehicles & equipment.

- reduce the costs of maintenance on vehicles and certification of equipment.

- reduce the cost of insurance.

- recognize that the number of active volunteers is diminishing.

- Maintain and equip a volunteer fire fighting force without any compromise is safety to the public or the volunteers.

As a result of the analysis and discussions, it is the sub-committee recommendation to consolidate the three township volunteer companies into two companies with Station 32 being eliminated as a contracted volunteer company.

It should be emphasized that the objective of the consolidation is not to limit the number of volunteers, but rather have the Members of Station 32 devote their service to either Stations 31 or 33. The sub-committee is mindful of the valuable services rendered by all of the firefighting volunteers and grateful to all of those brave persons. The decision to recommend the elimination of Station 32 is not reflective of any negative evaluation of that Company's performance. The sub-committee encourages all members of Company 32 to devote their services to Companies 31 and 33 and is of the firm belief that those Company 32 members truly interested in serving the public interest will do so. Companies 31 and 33 will welcome those additional members.

The recommendation of the sub-committee is to establish two Fire zones, one servicing the northern portion of the township and the other servicing the southern portion. The Proposed Fire Zones are shown on Exhibit "A" attached.

The recommended plan will replace and reallocate equipment as set forth in Exhibit "B ".

The Station 32 building could be converted to a Fire/First Responder training center, a centralized fundraising center and such other activities and uses as may be determined by the companies.

The Township currently provides the three companies with \$97,000.00, in operational financial support, \$20,000.00 for emergency expenditures and

\$45,500.00 for utility expenses. The amount allocated to Station 32 for gas, electric, gasoline and insurance—expenses will be re-allocated to Stations 31 and 33 for equipment upgrades and maintenance expenses. Due to the state removing \$500,000 in state aid to the Township 10 years ago, the Township has had to gradually raise local taxes, reduce expenditures in line items and prioritize its capital expenditures based on immediate needs. It is not realistic to expect that the Township can maintain operational expenditure at \$97,000 for three fire companies, with the cost of inflation. Providing for two companies during these inflationary times and with the reduction in volunteers makes the most economic sense.

The recommended plan results in a minimum savings of \$50,000 to \$75,000 annually for capital expenses, depending on the cost of a new fire truck, \$20,000 for utility and insurance expenses if the Seabrook Fire Hall is no longer utilized and \$12,000 for the removal of four vehicles from the fleet resulting in an annual savings of \$82,000 to \$107,000.

FINANCIAL ANALYSIS

	Annual	Annual	Annual						
	Maint &	Insurance	Expense	2022	2022	2022	2022	Annual	Annual
	Certification		Vehicle	Expenses	Expenses	Expenses	Expenses	Savings	Savings
			Purchase	Electric	Gas	Gasoline	Insurance		
Removal Tanker 1989, 32-11	\$4,000	\$500							
Removal Ladder 1989, 32-16	\$4,000	\$500							
Removal Support 1998, 32-51	\$1,000	\$500							
Removal Utility 1996, 32-22	\$1,000	\$500							
	\$10,000	\$2,000						\$12,000.00	\$12,000.00
Removal Engine 1993, 31-04	\$4,000	\$500							
Based on \$1,000,000 Truck									
New Truck two every 20 years			\$100,000						
New Truck three every 20 years			\$150,000					\$50,000.00	
Based on \$1,500,000 Truck									
New Truck two every 20 years			\$150,000						
New Truck three every 20 years			\$225,000						\$75,000.00
								\$62,000.00	\$87,000.00
Seabrook Building Expenses				\$8,391.32	\$5,237.21	\$3,890.26	\$2,500.00	\$20,018.79	\$20,018.79
								\$82,018.79	\$107,018.79

The average estimated budgeted cost for each fire vehicle to cover maintenance and certification of ladders, hoses, and mechanics is around \$4,000 per vehicle and around \$1,000 per utility vehicle. Removal of excess vehicles will allow for these operating funds to be used for the purchase of new fire equipment.

CAPITAL BUDGET

				Annual		Current	Current	Annual	
	Life			Capital Dollars		Capital	Capital	Capital	
Capital	Cycle	Current Cost		For Budget		Budget	Grant	Deficit/Over	
Ambulance	4 years	\$400,000	3 vehicles	\$100,000		\$150,000	\$0	\$50,000	
Roads	20 years	\$500,000/mile	34 Miles		\$850,000				(\$441,300)
	25 years	\$500,000/mile	34 miles	\$680,000		\$250,000	\$158,700	(\$271,300)	
	30 years	\$500,000/mile	34 miles		\$567,000				(\$158,300)
Fire Truck	20 years	\$1,000,000 Engine	1 Eng , 1 Ldr	\$125,000		\$50,000	\$0	(\$75,000)	
	20 years	\$1,500,000 Ladder	2 Eng, 1 Ldr		\$175,000				(\$125,000)
Municipal/SC Bldgs	10 years	\$150,000		\$15,000		\$85,000	\$0	\$70,000	
Recreation	10 years	\$105,000	2 mowers	\$10,500		\$20,000	\$0	\$9,500	
	10 years	\$100,000	Equip/Rep	\$10,000		\$0	\$0	(\$10,000)	
Convenience Ctr	10 years	\$50,000		\$5,000		\$10,000	\$0	\$5,000	
Public Works	10 years	\$1,010,000	All	\$101,000		\$0	\$0	(\$101,000)	
Water Distribution	10 years	\$2,000,000		<u>\$200,000</u>		<u>\$0</u>	<u>\$0</u>	<u>(\$200,000)</u>	
				\$1,246,500		\$565,000	\$158,700	(\$522,800)	
MB/SC	Roof, Hvac, Floors								
PW	Lg Dump, 2 Sm Dumps, 3 PU's, Roll Off, Chipper, 2 Backhoes, Skidsteer, Sidearm & Leaf Machine								
Rec	Lg Mower, Sm Mower								
Rec	Walk Paths, Fence, Playground								

In reaching its recommendation, the sub-committee consulted the National Fire Protection Agency, "US Fire Department Profile 2020", published in September 2022 and the accompanying supporting tables. See Exhibit "C".

That publication reflects that 69% of the Fire Departments in the United States servicing a population of 5,000 – 9,999 have only one fire station. Only 21% of those departments have two stations, and a mere 6% have 3-4 stations. See table 19. Fire Stations by community size.

That publication also indicates that the average number of Pumpers per 1,000 population servicing a population of 5,000 – 9,999 is .31/1000. See Table 15. Average Apparatus Rates per 1,000 population by Community Size. At Upper Deerfield's approximate population of 7500, the average number of Pumpers nationwide would be 2.25. The sub-committee recommendation is to provide 5 Pumpers. That number of Pumpers is more than two times the national average.

The NFPA publication also indicates that the average number of Suppression Vehicles per 1,000 population is .29/1000. The total NFPA average of Pumpers and Suppression vehicles for a Township of the size of Upper Deerfield is 4.43 vehicles. The Subcommittee recommendation to provide 6 total Pumpers and Suppression Vehicles will substantially exceed the national average.

As such, the comparison to the national averages confirms the sub-committee conclusions that its recommendation to consolidate the three companies into two with the noted reduction in equipment is appropriate.

Manpower and emergency responses have also been reviewed and evaluated. In the event of a fire, the three existing companies are alerted to respond. The number of calls to which the three companies responded during the period of January 1, 2023 through May 6, 2023 were reviewed. See Exhibit "D" Call Response. In particular the call response review indicated that there were a total of 34 calls in Company 32's district for that period. The analysis shows that Stations 31 and 33 have and can respond to calls in the Company 32 District in acceptable times.

The sub-committee in consultation with the three fire chiefs estimates that Companies 31 and 33 will absorb an additional 50 to 65 calls per year. The two chiefs have confirmed to the sub-committee that Companies 31 and 33 can absorb those additional calls without risk to the Township and its residents.

The sub-committee also reviewed with company chiefs the ability of Companies 31 and 33 to respond to accidents requiring the use of extrication tools. Both companies 31 and 33 have qualified individuals to handle any required accident extrications previously handled by Company 32.

Accordingly, the sub-committee concludes that the recommendations contained in this Report will allow the Township to more responsibly allocate its financial resources, minimize the tax burden on Township property owners and allow for a better equipped volunteer fire fighting force without any compromise in the safety to the public or to the volunteer firefighters.

The sub-committee therefore recommends that Township Committee adopt an ordinance designating Companies 31 and 33 as the contracted volunteer companies pursuant to N.J.S.A. 40A:14- 68, effective January 1, 2024.

Respectfully Submitted

John Daddario

Thomas Speranza

EXHIBIT "A"

PROPOSED FIRE ZONES

The new dividing line, separating the Fire Companies by the North and South zones would be as follows: Starting on Finley Rd. at the Upper Deerfield - Hopewell Twp. line continuing East on Finley Rd. to Richards Rd. then proceed East on Richards Rd. to the Upper Deerfield - Deerfield Twp. line.

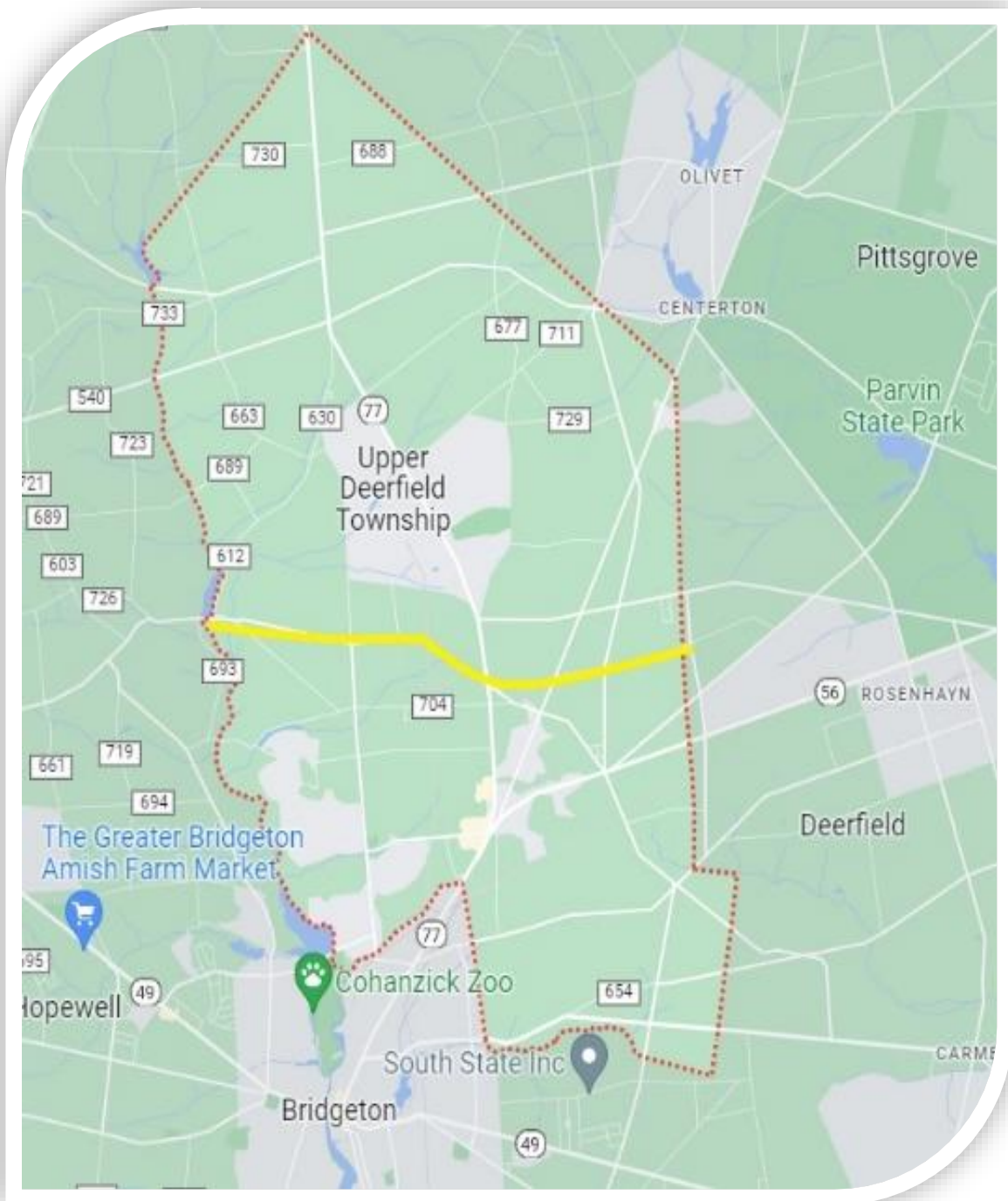


EXHIBIT “B”

VEHICLE MOVEMENT

Current	Fire	Pumper	Tanker	Rescue	Ladder	Utility
	#1	31-04/1994				31-51/2006
		31-11/2008				
	#2		32-11/1889	32-22/1990	32-16/1989	32-51/1998
		32-02/2001		32-21/2009		Boat
	#3	33-01/2003				33-06/1992
		33-02/2011				
Proposed	Fire	Pumper	Tanker	Rescue	Ladder	Utility
	North	31-11/2008				31-51/2006
		32-02/2001				Boat
		31-04/1994				
	South	33-01/2003		32-21/2009		33-06/1992
		33-02/2011	Replace New	Trade/Sell		
Township	Sell/Trade		32-11/1989	32-22/1990		32-51/1998
Seabrook	Sell				32-16/1989	

Under the proposed vehicle movement, Rescue tools would be at each fire department. The Township’s Fire Pumper/Tanker/Rescue/Ladder Vehicle Fleet would go from 9 to 6.

The trucks to be sold, traded or returned are an average of thirty years old and the ones that will remain will be an average of nineteen years old.

Upper Deerfield Township Emergency Vehicle Stats

Station 31								
Unit	Year	Mileage/Hrs as of 05/23	Make	Model	VIN	Engine	Trans	Pump
Engine 31-04	1993	22,344..Hrs 1420	Spartan	EE1	4S7AT9M06PC011036	Cummins 350	Alliso HT740	Hale (EEI) 1500GPM
Tender 31-11	2007	13,520..Hrs 596	Freightliner	Wolverine	1FVHC5DE78HZ72273	Caterpillar C13 Acert	Allison 4000EVS	Hale (Qmax) 1500GPM
Support 31-51	2006		GMC	2500HD	1GTHK23D76F240126	V8 Duramax	Allison Trans 6 Speed	
Station 32								
Unit	Year		Make	Model	VIN	Engine	Trans	Pump
Engine 3202	2001	33,739..Hrs 2,784	Spartan/Marion	Custom	4S7HT24932C040426	Cummins ISL350	Allison MD3066P	Hale Qmax 1500GPM
Tender 3211	1989	21,816..Hrs	Freightliner	FL90/Four Guys	1FVX1SYB4LH4411618	Caterpillar 3406B	Fuller RTF61409A 9 Speed	1000GPM Sunshine
Ladder 3216	1989	19,465..Hrs 2,163.1	Pierce	Dash Telesqurt 50'	1P9CT01H1JA040422	Caterpillar 3408	Allison MT643	Watrous 1000GPM
Rescue 3221	2009	16,478..Hrs 1752	Freightliner	M2	1FVACYBS39HAM7733	Cummins ISCETA07	Allison 3000EVS Gen 4	N/A
Rescue 3222	1996		Ford	F350	1FDKF38F4TEA31272	Powerstroke 7.3L	Ford Auto 6 Speed	
Support 3251	1998		Ford	Expedition	1FMRV18W5WLC01521	Triton 4.6L	Ford Auto 5 Speed	
Station 33								
Unit	Year		Make	Model	VIN	Engine	Trans	Pump
Engine 3301	2003	27,887..Hrs 3,177	E-One	Custom	4EN6AA8631006580	Cummins ISL350	Allison 3000EV	Hale -1500GPM
Engine 3302	2011	9,780..Hrs 1462	International	KME	1HTWEAZRXBJ3870S1	nternational Maxforce 9	Allison 3000EVSP	Darley-1000GPM
Brush 3306	1992	16,246	Ford	F-350	2FTJW36M8NCB11412	7.3	Ford Auto 6 Speed	Darley-300GPM
Squad 34								
Unit	Year		Make	Model	VIN	Engine	Trans	Ambulance make
BLS 34-28	2016	58,000	FORD	F-450 4X4	1FDUF4HT9HDA02237	6.7 FORD DIESEL	FORD 6 SPEED	PL CUSTOM
BLS 34-27	2009		FORD	F-450 4X4	1FDAF47RX9EA05040	6.4 FORD DIESEL	FORD 6 SPEED	PL CUSTOM
BLS 34-29	2019		FORD	F-550 4X4		6.7 FORD DIESEL	Ford 6 SPEED	PL CUSTOM
BLS 34-26	2012		FORD	F-450 4X4	1FDUF4HTXCEC71771	6.7 FORD DIESEL	FORD 6 SPEED	PL CUSTOM
SP 34-51	2016		FORD	Expedition	1FMJU1GT9HEA26959	5.0 Gas	Ford 6 SPEED	Ford

EXHIBIT “C”

NFPA STATISTICS

Table 19. Fire Stations by Community Size, 2018–2020

Population Protected	Percentage of US Fire Departments with					Total
	1-5 Stations	6-9 Stations	10-19 Stations	20-29 Stations	30 or More Stations	
1,000,000 or more	0%	0%	6%	6%	89%	100%
500,000 to 999,999	0%	2%	2%	27%	68%	100%
250,000 to 499,999	0%	4%	56%	30%	10%	100%
100,000 to 249,999	15%	44%	35%	4%	2%	100%

Population Protected	Percentage of US Fire Departments with					Total
	No Stations	1 Station	2 Stations	3-4 Stations	5 or More Stations	
50,000 to 99,999	0%	2%	4%	18%	76%	100%
25,000 to 49,999	0%	14%	25%	26%	34%	100%
10,000 to 24,999	0%	45%	30%	14%	11%	100%
5,000 to 9,999	0%	69%	21%	6%	4%	100%
2,500 to 4,999	0%	77%	17%	4%	2%	100%
Under 2,500	0%	86%	11%	2%	1%	100%

Sums may not equal totals due to rounding errors.

Source: NFPA Fire Service Survey, 2018–2020.

Table 15. Average Apparatus and Station Rates per 1,000 Population by Community Size, 2018–2020

Population Protected	Pumpers per 1,000 Population	Other Suppression Vehicles* per 1,000 Population	Aerial Apparatus per 1,000 Population	Stations per 1,000 Population
1,000,000 or more	0.03	0.01	0.01	0.03
500,000 to 999,999	0.05	0.02	0.01	0.05
250,000 to 499,999	0.05	0.02	0.01	0.06
100,000 to 249,999	0.06	0.03	0.01	0.07
50,000 to 99,999	0.08	0.04	0.02	0.08
25,000 to 49,999	0.10	0.07	0.02	0.09
10,000 to 24,999	0.18	0.13	0.03	0.13
5,000 to 9,999	0.31	0.29	0.04	0.19
2,500 to 4,999	0.52	0.61	0.03	0.34
Under 2,500	1.13	1.81	0.04	0.99
National average	0.20	0.21	0.02	0.16

*Other suppression vehicles include apparatus with pumps less than 1,000 gpm, hose wagons, brush fire vehicles, tankers, etc.

These results reflect average apparatus and station rates per 1,000 people by population protected reported to the NFPA. They do not reflect recommended rates or a defined fire protection standard.

Source: NFPA Fire Service Survey, 2018–2020.

EXHIBIT “D”

CALL RESPONSE

Since all three departments are called out in certain instances and two departments are called in other instances, the three fire chiefs agreed there would be approximately an additional 50 to 65 calls a year that would be added between the two departments.

2023 Call Breakdown.

Station 31. 66

Station 32. 76

Station 33. 77

As of May 9, 2023, Seabrook has responded to 76 calls of which 34 of those calls were in their district. Of the 34 calls in Seabrook’s district,

- 2 - were recalled
- 3 – Only Seabrook was dispatched
- 7 – Another department arrived first
- 10 – Another department arrived within 30 seconds
- 3 – Another department arrived within 1 minute
- 2 - Another department arrived within 2 minutes
- 4 - Another department arrived within 3 minutes
- 3 - Another department arrived within 4 minutes

As of May 9, 2023, there were thirty-four accident calls in Upper Deerfield. Nineteen occurred in Company 33’s area, ten in Company 32’s area and four in Company 31’s area. Of the thirty-four accidents two required the use of extrication tools.

2022 Call Breakdown

Station 31. 179

Station 32. 229

Station 33. 200

Upper Deerfield had one hundred accident calls in Upper Deerfield. Fifty-four occurred in Company 33’s area, thirty-seven in Company 32’s area and nine in Company 31’s area. Five required the use of extrication tools.

34 Calls in Seabrook's District

From Jan. 1, 2023 to May 9, 2023

Run Number	Date	Call Type	Location	32 ONLOC	31 ONLOC	33 ONLOC
23001090	1/17/2023	53 VEHICLE FIRE	1343 STATE HWY 77	FAIL RESP	18:42:13	N/A
23001786	1/15/2023	20 MVC	WOODRUFF RD & RICHARDS RD	16:49:57	16:53:49	N/A
23002261	1/19/2023	50 COMSTRUC	UPPER DEERFIELD TWP CONVENIENC	14:40:06	14:43:09	14:49:16
23002341	1/20/2023	20 MVC	FINLEY RD & OLD DEERFIELD PIKE	8:24:07	8:27:18	N/A
23005843	2/16/2023	20 MVC	DEERFIELD RD & NORTHVILLE RD	16:15:07	16:15:20	N/A
23005857	2/16/2023	68I GAS LEAK-INT	1002 STATE HWY 77	18:06:26	18:08:53	N/A
23007028	2/26/2023	62 STANDBY	COHANSEY SOCCER CLUB	21:08:58	N/A	N/A
23007418	3/2/2023	53 VEHICLE FIRE	OLD DEERFIELD PIKE	07:57:04	7:57:17	N/A
23007649	3/3/2023	20 MVC	60 LOVE LN	21:25:15	N/A	N/A
23007666	3/4/2023	55 WIRES	447 CENTERTON RD	4:26:37	N/A	N/A
23008515	3/10/2023	51 DWELLING	22 MACARTHUR DR	19:35:42	19:36:04	19:37:48
23008603	3/11/2023	51 DWELLING	4 LESCHKE ST	16:44:34	N/A	16:44:00
23008814	3/13/2023	99 COMM ALARM	KMT BRRR / 1042 PARSONAGE RD	11:52:48	11:57:08	N/A
23009622	3/20/2023	72 TRASH	42 MACARTHUR DR	10:34:44	N/A	10:33:19
23009706	3/20/2023	59 ALARM	25 EISENHOWER DR	22:58:22	N/A	23:00:13
23009930	3/22/2023	99 COMM ALARM	KMT BRRR / 1042 PARSONAGE RD	13:19:26	13:19:56	N/A
23010020	3/23/2023	99 COMM ALARM	AMERICOLD / 1042 PARSONAGE RD	7:58:23	7:58:32	N/A
23010154	3/24/2023	20 MVC	HOOVER RD & STATE HWY 77	01:45:53	N/A	01:49:51
23010429	3/26/2023	20 MVC	LOVE LN & STATE HWY 77	21:04:21	N/A	21:05:04
23011116	4/1/2023	20 MVC	BIG OAK RD & WOODRUFF RD	8:27:00	8:27:02	N/A
23011163	4/1/2023	20 MVC	186 OLD BURLINGTON RD	19:25:15	N/A	19:20:16
23011244	4/2/2023	20 MVC	CENTERTON RD & E FINLEY RD	16:09:23	N/A	16:07:01
23011297	4/3/2023	20 MVC	CENTERTON RD & FINLEY RD	N/A	N/A	N/A
23011483	4/4/2023	99 COMM ALARM	CUMBERLAND REGIONAL HIGH SCHOOL	14:04:24	14:04:33	N/A
23011907	4/7/2023	68E GAS LEAK-EXT	9 NORTHVILLE RD	14:00:27	14:00:58	N/A
23012387	4/12/2023	71 INVEST	220 FINLEY RD	1:00:26	N/A	01:00:37
23012719	4/14/2023	20 MVC	FINLEY RD & FOSTER RD	FAIL RESP	17:14:10	N/A
23013115	4/18/2023	20 MVC	26 NORTHVILLE RD	RECALL	N/A	RECALL
23013389	4/20/2023	20 MVC	HW77 and Silver Lake Rd	8:06	8:09	N/A
23013716	4/22/2023	20 MVC	BIG OAK RD & WOODRUFF RD	15:18	15:20	N/A
23013925	4/24/2023	59 ALARM	49 Eisenhower Dr	13:03	13:04	N/A
23014715	5/1/2023	99 COMM ALARM	99 Deerfield Dr	10:49	10:48	N/A
23015033	5/4/2023	99 COMM ALARM	1343 HW 77	0:50	N/A	0:50
23015320	5/6/2023	52 WDS/BRSH	77 Husted Station Rd	11:45	N/A	11:45

EXHIBIT “E”

Stipends Paid from 2017 to 2022

	31			32			33			Total 3 Companies			34		
	Total	6 Mos	Stipend	Total	6 Mos	Stipend	Total	6 Mos	Stipend	Total	6 Mos	Stipend	Total	6 Mos	Stipend
	Qualify	or More	Paid	Qualify	or More	Paid	Qualify	or More	Paid	Qualify	or More	Paid	Qualify	or More	Paid
2022	10	9	\$4,272.70	16	6	\$3,818.55	22	13	\$6,773.00	48	28	\$14,864.25	19	15	\$7,136.25
2021	11	9	\$4,590.85	14	5	\$3,272.90	25	20	\$8,636.60	50	34	\$16,500.35	25	19	\$9,045.60
2020	13	13	\$5,636.45	15	11	\$5,863.70	21	18	\$8,818.15	49	42	\$20,318.30	33	29	\$13,636.35
2019	12	7	\$3,500.10	16	8	\$3,863.70	20	12	\$6,409.30	48	27	\$13,773.10	30	8	\$6,045.85
2018	12	8	\$4,136.45	19	15	\$5,954.70	25	18	\$9,045.45	56	41	\$19,136.60	32	19	\$8,591.25
2017	11	6	\$3,317.85	21	10	\$5,001.10	22	12	\$5,953.95	54	28	\$14,272.90	25	8	\$5,092.05

The Total Qualify column shows the number of individuals who qualified at least one month during the 11 months of monitoring for attendance at calls, training and drills. The next column shows the number of individuals who qualified by attaining the goals for at least 6 out of the eleven months. The last column shows the amount of stipend paid to each company based on the number of individuals who qualified throughout the year. The COVID years had relaxed achievement of goals.