# CITY OF GAINESVILLE FIRE RESCUE ASSESSMENT PROGRAM

**MAY 24, 2010** 

**Presented by:** 

**Government Services Group, Inc.** 

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# 2008 Study vs. Current Methodology

#### • 2008

- Based on historical demand (calls for service)
- Used traditional property categories
- Single residential charge regardless of size
- Non-residential charge based on square footage

#### • 2010

- Based on NFPA guidelines
- Uses hazard classes
- Charge based on fire protection units for residential and non-residential properties

# Fire Assessment Data Components

- Fire Budget
- Service Delivery
  - Response Protocols
  - Effective Fire Flow Calculations
- Call/Incident Data
  - Total Incident Hours Used to Determine Demand Apportionment
  - Availability Component
- Ad Valorem Tax Roll
  - Property Hazard Classifications

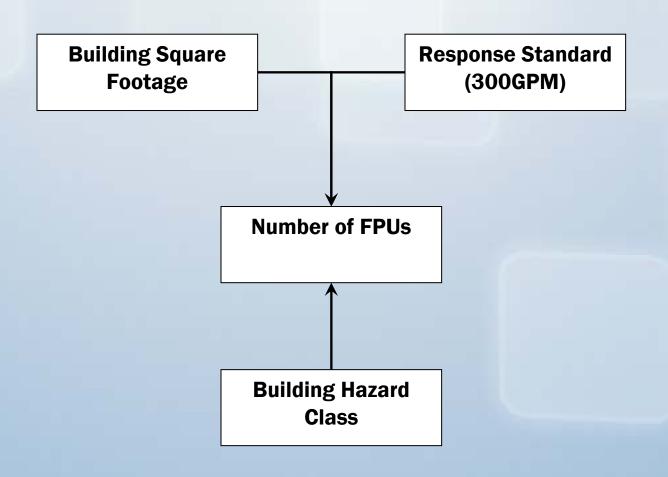
## **Budget Summary**

	FY 10-11 Proforma Budget	FY 10-11 Assessable Budget	Five-Year Average Fire Assessable Budget
Total Personnel Services	\$12,324,400	\$8,097,170	\$8,260,741
Total Operating Expenditures	\$2,106,480	\$1,307,506	\$1,333,919
Total Other Expenses	\$971,766	\$228,451	\$233,066
Total Capital Outlay	\$413,265	\$295,892	\$269,871
Total Indirect Costs	\$952,707	\$635,138	\$635,138
Total Expenditures	\$16,768,618	<b>\$10,564,157</b>	\$10,732,735
Total Revenues		\$739,582	\$754,522
Total Net Expenditures		\$9,824,576	\$9,978,214
Total Additional Costs		\$786,921	\$718,316
Total Assessable Costs		\$10,611,497	\$10,696,530

#### **Fire Protection Units**

- Uses NFPA standards for determining minimum water supplies for structural fire fighting purposes.
- Assigns hazard class to each building use.
- Uses actual square footage of buildings.
- Uses formula to calculate fire flow requirements for each building based on Fire Department's initial alarm standards, hazard class and building square footage.
- Result is presented as fire protection units.

#### **Fire Protection Units**

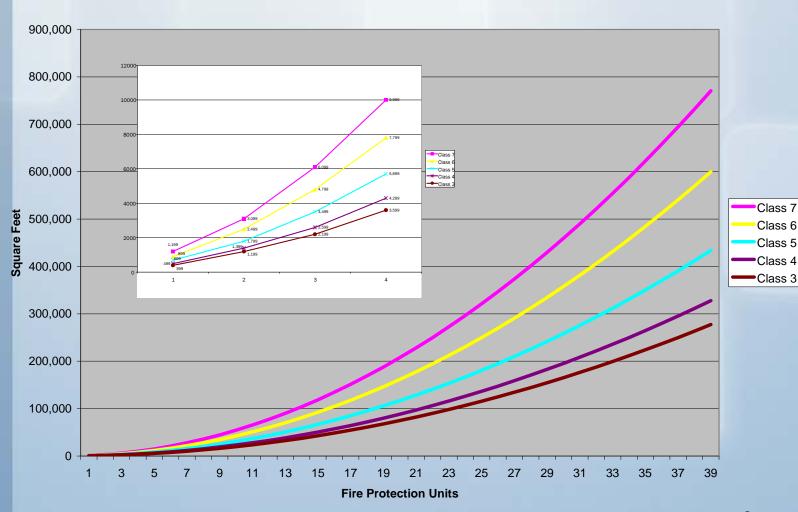


#### **Hazard Class Examples**

- Class 7 Residential, hotel, nursing home, school, office
- Class 6 Bakery, barber shop, churches and similar religious structures, gas station, government building
- Class 5 Restaurant, laundry, nursery
- Class 4 Warehouse, department store, exhibition hall, paper mill
- Class 3 Sawmill, flour mill, plastic processing

#### **Geometric Progression of Tier Size**

**Geometric Progression of Tier Size** 



#### **Total Fire Protection Units**

Hazard Class	Fire Protection Units
Hazard Class 3 & 4	9,210.42
Hazard Class 5	994.72
Hazard Class 6	2,140.45
Hazard Class 7	61,670.25
Total	74,015.83

#### **Factored Fire Protection Units**

- Develops relationship between the hazard classes to account for the historical demand for fire services
  - Adds probability for fire protection units within hazard classes to require fire services
- Two Factors:
  - Demand Component Factor
  - Availability Component Factor
- Determine proportion of person-hours attributable to the Demand and Availability Components

# **Demand-Availability Person-Hour Allocation**

- Scheduled Hours
  - 212,136.3 fire hours (24 out of 36 combat personnel) / 315,360.0 total hours (fire hours ÷ (fire + EMS hours))
- Hours spent on responses to fire calls
   (Demand) = 68,241.9/212,136.3 or 32.17%
- Hours available to respond to fire calls (Availability) = 143,894.5 or 67.83%

#### **Factored Fire Protection Units**

Hazard Class	Fire Protection Units	Combined Factor	Factored Fire Protection Units
Hazard Class 3 & 4	9,210.42	0.8792	8,097.80
Hazard Class 5	994.72	1.4375	1,429.91
Hazard Class 6	2,140.45	1.6011	3,427.07
Hazard Class 7	61,670.25	0.9901	61,059.71
Totals/Average	74,015.83		74,014.49

#### **Credits**

- Eligibility for properly designed and functioning sprinkler systems
- Applied to fire protection units calculated for buildings
- Application by property owner
- Verified by Fire Department
- Credit is 10% unit reduction

# **Factored Fire Protection Units with Credits**

Hazard Class	Fire Protection Units	Factored Fire Protection Units	Net Factored Fire Protection Units After Credits
Hazard Class 3 & 4	9,210.42	8,097.80	7,509.83
Hazard Class 5	994.72	1,429.91	1,318.54
Hazard Class 6	2,140.45	3,427.07	3,143.00
Hazard Class 7	61,670.25	61,059.71	57,348.54
Totals/Average	74,015.83	74,014.49	69,319.91

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## **Sample Tier Matrix**

Square Foot Tier	Min Sq Ft	Max Sq Ft	Equivalent Fire Protection Units	Factored Fire Protection Units
CLS 7 TIER 1	100	1,199	1.0	0.9901
CLS 7 TIER 2	1,200	1,999	1.5	1.4852
CLS 7 TIER 3	2,000	3,099	2.0	1.9802
CLS 7 TIER 4	3,100	4,499	2.5	2.4753
CLS 7 TIER 5	4,500	6,099	3.0	2.9703
CLS 7 TIER 6	6,100	7,999	3.5	3.4654
CLS 7 TIER 7	8,000	9,999	4.0	3.9604
CLS 7 TIER 8	10,000	12,399	4.5	4.4555

#### **Calculation of Rates**

Assessable Budget

- Total Factored and Adjusted Fire Protection
   Units
- = Rate Per Fire Protection Unit

 This rate is then applied to the Factored Fire Protection Units for each Hazard Class

#### **Fire Assessment Rate Scenarios**

Funding Level	Fire Protection Unit Rate	Gross Revenue Generation
100% Funding Level (Maximum)	\$155.00	\$10,696,530.00
67% Funding Level	\$104.00	\$7,166,675.00
33% Funding Level	\$51.00	\$3,529,855.00

# Exemptions at 100% Funding Level

Hazard Class	Estimated Government Buy-Down
Hazard Class 3 & 4	\$129,124.95
Hazard Class 5	\$15,291.82
Hazard Class 6	\$195,644.92
Hazard Class 7	\$698,843.59
Total	\$1,038,905.28

#### **Statistics**

- Percentage of buildings with less than
  - 1.5 factored fire protection units 58%
  - 2 factored fire protection units 80%
  - 5 factored fire protection units 95%
- Percent of buildings by Hazard Classification
  - 7HZ 92.7 of buildings
  - 6HZ 1.3% of buildings
  - 5HZ .6% of buildings
  - 4HZ 5.3% of buildings
  - 3HZ .1% of buildings

### **Hazard Class 7 Examples**

Residential, hotel, nursing home, school, office

- 1,000 sqft building
  - Factored Fire Protection Unit Assignment .9901
  - Max Asmt=\$153.47; 67% Asmt=\$102.97; 33% Asmt=\$50.50
- 3,000 sqft building
  - Factored Fire Protection Unit Assignment 1.9802
  - Max Asmt=\$306.93; 67% Asmt=\$205.94; 33% Asmt=\$100.99
- 6,000 sqft building
  - Factored Fire Protection Unit Assignment 2.9703
  - Max Asmt=\$460.40; 67% Asmt=\$308.91; 33% Asmt=\$151.49

#### **Hazard Class 7 Examples**

Residential, hotel, nursing home, school, office

- 10,000 sqft building
  - Factored Fire Protection Unit Assignment 4.4555
  - Max Asmt=\$690.59; 67% Asmt=\$463.37; 33% Asmt=\$227.23
- 25,000 sqft building
  - Factored Fire Protection Unit Assignment 6.9307
  - Max Asmt=\$1,074.26; 67% Asmt=\$720.79; 33%
     Asmt=\$353.47
- 100,000 sqft building
  - Factored Fire Protection Unit Assignment 13.8614
  - Max Asmt=\$2,148.52; 67% Asmt=\$1,441.59; 33%Asmt=\$706.93

### **Hazard Class 6 Examples**

Bakery, barber shop, churches and similar religious structures, gas station, government building

#### 4,000 sqft building

- Factored Fire Protection Unit Assignment 4.8033
- Max Asmt=\$744.51; 67% Asmt=\$499.54; 33% Asmt=\$244.97

#### • 10,000 sqft building

- Factored Fire Protection Unit Assignment 8.0055
- Max Asmt=\$1,240.85; 67% Asmt=\$832.57; 33%
   Asmt=\$408.28

#### 20,000 sqft building

- Factored Fire Protection Unit Assignment 11.2077
- Max Asmt=\$1,737.19; 67% Asmt=\$1,165.60; 33%
   Asmt=\$571.59

### **Hazard Class 5 Examples**

#### Restaurant, laundry

- 4,000 sqft building
  - Factored Fire Protection Unit Assignment 5.0313
  - Max Asmt=\$779.84; 67% Asmt=\$523.25; 33% Asmt=\$256.59
- 10,000 sqft building
  - Factored Fire Protection Unit Assignment 8.6250
  - Max Asmt=\$1,336.88; 67% Asmt=\$897.00; 33% Asmt=\$439.88
- 20,000 sqft building
  - Factored Fire Protection Unit Assignment 11.5000
  - Max Asmt=\$1,782.50; 67% Asmt=\$1,196.00; 33%
     Asmt=\$586.50

#### Hazard Class 3 & 4 Examples

Class 4 - Warehouse, department store, exhibition hall, paper mill

- 4,000 sqft building
  - Factored Fire Protection Unit Assignment 3.5168
  - Max Asmt=\$545.10; 67% Asmt=\$365.75; 33%
     Asmt=\$179.36
- 10,000 sqft building
  - Factored Fire Protection Unit Assignment 5.7148
  - Max Asmt=\$885.79.; 67% Asmt=\$594.34; 33% Asmt=\$291.45

Class 3 - Sawmill, flour mill, plastic processing

- 10,000 sqft building
  - Factored Fire Protection Unit Assignment 6.5940
  - Max Asmt=\$1,022.07; 67% Asmt=\$685.78; 33% Asmt=\$336.29

#### **Future Considerations:**

- Proceed with implementation
- Level of funding
- Exemptions
  - Government Properties
- Hardship Program

### Implementation Schedule

GSG provides Final Assessment Report to City	May 27, 2010
City adopts Initial Assessment Resolution	June 3, 2010
GSG transmits Published Notice Reminder Letter to City	June 4, 2010
GSG prints and stuffs Notices	June 4 - 14, 2010
Public Education	June 4 – June 30, 2010
City publishes Public Hearing to Adopt Final Assessment Resolution	By June 24, 2010
GSG mails Notices to Affected Property Owners	By June 24, 2010
Public Hearing to adopt Final Assessment Resolution	July 15, 2010
GSG certifies Assessment Roll to County Tax Collector	By September 15, 2010