

Table of Contents

I. Acknowledgments	1
II. Executive Summary	2
III. Introduction	14
IV. Overview	20
District Divisions	22
Fire Stations	22
Staffing Configuration	22
Fire Station 1	24
Fire Station 2	24
Emergency Call Responses	25
Volunteer Firefighters (Line Personnel)	25
Management Staff	26
Automatic Aid Agreements	26
Population and Household Growth	27
Age Distribution	28
Household Incomes	28
Transportation and Commuting	29
Existing Traffic Volume	29
Existing Daily Traffic Volume That Impacts the Need for Services	29
Economic Development	30
Community (District) Risk Assessment	31
Areas of Significant Risk	32
Risk Assessment Concepts	33
Level of Effort	35
Community Fire Experience	36
Pre-Fire Planning	38
Classification of Occupancies and Construction Types	41
Developmental Trends	42
Funding	43
Deployment	44
Standard Time-Temperature Curve	45
Utstein Criteria	46
NFPA 1710/1720	48
Components of Response Time	49
Existing Standards of Response Coverage	50
Demand and Capacity Issues	51
Longer Travel Distances Increase Response Time	51
Time of Day/Day of Week Affect Response Times	52
Response Time Goals	53
Measuring Response Time Performance	53
EMS Capabilities	54

2011 Critical Performance Analysis.....	56
Fire Suppression Capabilities.....	57
Transition Fires.....	58
Pre-Fire Management.....	59
Hazardous Materials Capability.....	59
Response Capability.....	60
Hazardous Materials Release Prevention (Enforcement & Education).....	61
Training.....	62
Current Training Program Delivery.....	62
Training Center Challenges.....	64
Community Fire Defense Programs.....	65
Disaster Preparedness.....	67
Administration.....	69
Staffing.....	69
The Louisville Volunteer/Reserve Program.....	70
Fire Stations.....	77
V. Programs & Practices.....	90
Goal Statement.....	91
General Administration and Management.....	92
Life Safety & Fire Prevention Division.....	92
Fire Investigation.....	94
Wildland Suppression Approach and Analysis.....	94
Fire Suppression.....	97
Emergency Medical Services.....	99
Mission Statement Alignment.....	100
Role and Authority.....	100
Legal Services.....	101
Fiscal Management.....	101
Safety and Health.....	102
Command Operations.....	102
Training.....	102
EMS Quality Assurance.....	103
Medical Control.....	103
Support Services.....	103
Cost Recovery for EMS.....	103
Medical Accountability.....	104
Continuity of Care.....	105
Teamwork.....	105
Coordination.....	105
Program Evaluation.....	105
Cost-Containment Opportunities.....	106
Public Education and EMS.....	106
Training and Education.....	106
Training Staff.....	108
Public Education, Awareness and Outreach.....	109

Hazardous Materials.....	110
Heavy or Specialized Rescue.....	110
Disaster Management	111
Physical Resources	111
Fire Stations	112
Fleet Maintenance and Replacement.....	113
Immediate Need	114
Personnel and Staffing Issues.....	114
Volunteer Programs.....	114
Internal Support.....	115
Management Information Systems.....	116
External Relationships.....	116
Evaluation and Performance Measurement	117
VI. Policy Direction & Recommendations	120
Trends and Patterns	121
General Issues	121
Deployment Plan Findings and Recommendations.....	124
VII. Performance Goals and Standards of Cover	152
Goal One – Minimize Death and Injuries Due to Fire.....	153
Goal Two – Minimize Direct and Indirect Losses Due to Fire.....	154
Goal Three – Minimize Death and Suffering for People Experiencing Sudden Illness, Accident or Injury.....	155
Goal Four – Minimize Death, Injuries and Property Loss Due to Natural and Technological Disasters	155
Goal Five – Provide Cost-Effective Fire Protection and Emergency Services	156
Goal Six – Maximize Citizen Satisfaction.....	156
Goal Seven – Be a Model Customer Service Provider.....	157
VIII. Summary and Costs of Recommendations	160
IX. Appendices.....	164

List of Tables

Table 1 - Population Growth.....	27
Table 2 - Household Growth	27
Table 3 - Age Distribution.....	28
Table 4 - Household Incomes	28
Table 5 - Public Protection Classes.....	40
Table 6 - Louisville Fire Protection District ISO Rating Comparison	41
Table 7 - Annual Funding From Property Taxes	43
Table 8 - Survival Rates for Cardiac Arrest by Intervention Time.....	48
Table 9 - Training Requirements.....	63
Table 10 - LFD Initial Attack Organization (5-Acre Wildland Fire)	96
Table 11 - Current Apparatus List	113
Table 12 - Fleet Replacement Schedule	144
Table 12 - Fleet Replacement Schedule (Continued)	145
Table 13 - Implementation Schedule.....	162
Table 14 - Critical Tasks for Initial Response	182

List of Figures

Figure 1 - LFD Organizational Chart	23
Figure 2 - Planned Areas of Development	31
Figure 3 - Areas with Significant Risks	34
Figure 4 - Probability vs. Consequences.....	35
Figure 5 - Fire Protection District per Capita Comparisons (2010 Data)	36
Figure 6 - Call Volume per Calendar Year	37
Figure 7 - Call Distribution Throughout the Week (2010 Data).....	37
Figure 8 - Call Distribution Throughout the Day (2010 Data)	38
Figure 9 - Types of Calls (2010 Data)	39
Figure 10 - Time vs. Products of Combustion	46
Figure 11 - Utstein Criteria Model	47
Figure 12 - Firefighters per Call Compared to Firefighters on the Department.....	51
Figure 13 - Average Response Times.....	52
Figure 14 - Hazardous Condition Responses.....	60
Figure 15 - Years of Experience.....	71
Figure 16 - Average Number of Volunteer Firefighters per Call	72
Figure 17 - Percentage of Calls per Day of the Week	73
Figure 18 - Call Distribution by Hour (2010 Data)	73
Figure 20 - Aerial Response Areas St 1 and St 2.....	80
Figure 21 - Geographic Call Distribution	81
Figure 22 - Call Distribution by District (2011 Data)	82
Figure 23 - Response Times by District (2011 Data).....	83
Figure 24 – So. 88 th St. & Campus Dr.	84
Figure 25 – So. 88 th St. & Dillon Rd.....	85
Figure 26 – So. 96 th St. & Dillon Rd.....	86
Figure 27 – So. 104 th St.	87